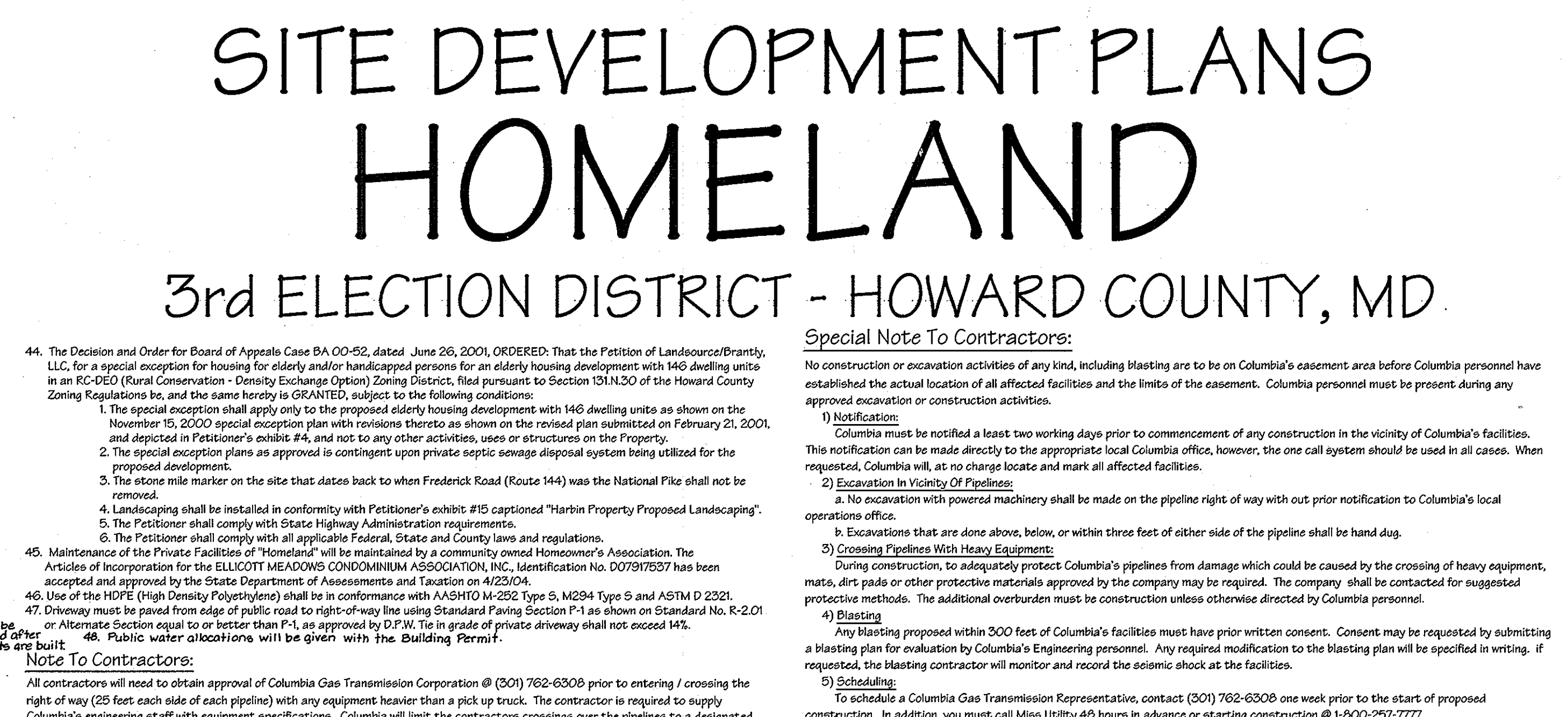
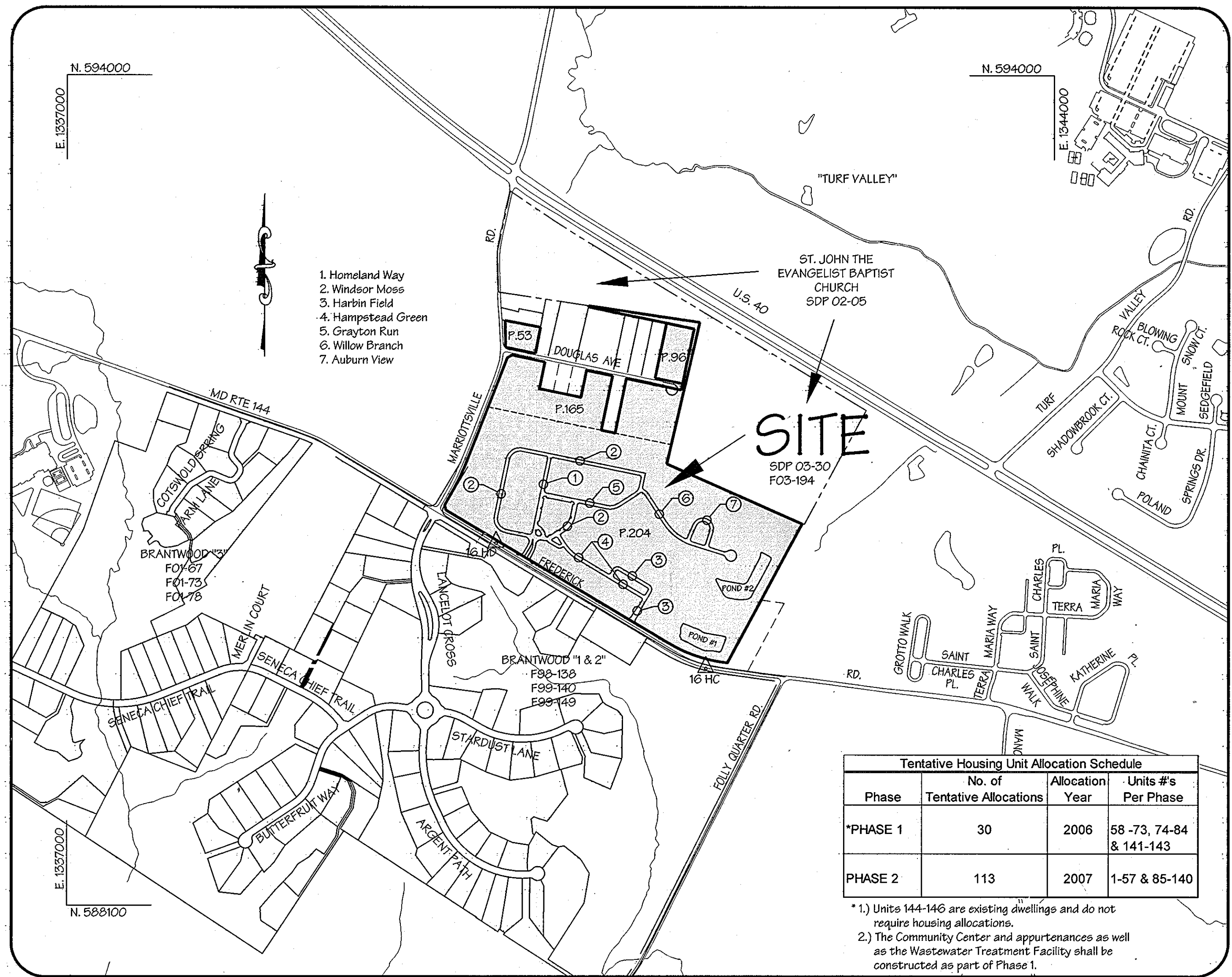


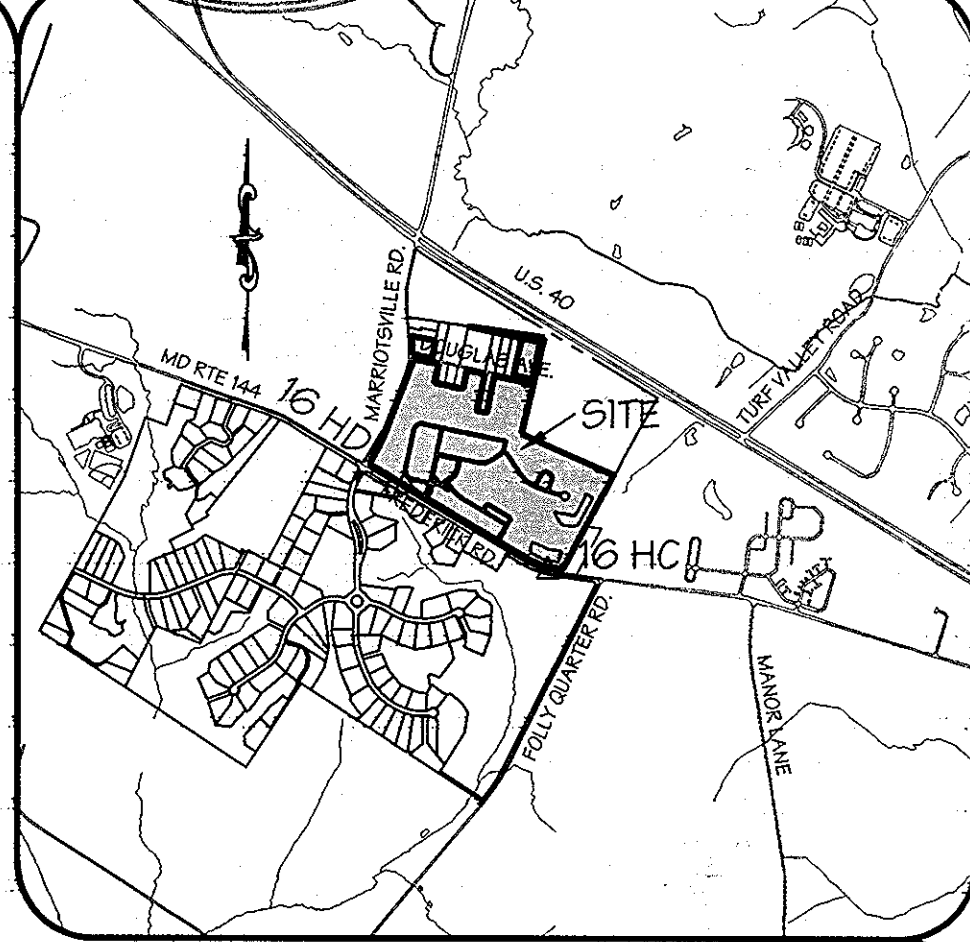
GENERAL NOTES

- 1. The purpose of this Site Development Plan is to complete the required site work for the proposed 146 "active adult age restricted senior housing project... (1) The minimum lot size shall be 3 acres in the RC and RR districts. (2) The maximum density shall be 2 per gross acre.



INDEX OF SHEETS

Table with 2 columns: No. and Description. Lists sheets from 1 (Cover Sheet) to 52B (Revised Clubhouse Plan and Details).



HOWARD COUNTY GEODETIC CONTROL: 16HC N. 589780.908 E.1341530.147 Elevation: 449.451 Station is a standard stamped disc set on top of concrete monument.

ADDRESS CHART table with columns: UNIT NO., STREET ADDRESS, UNIT NO., STREET ADDRESS. Lists units 1 through 146.

STANDARD 'SDP' LEGEND and Special Note to Contractors. Includes symbols for contours, fences, water, and stream buffers.

APPROVED: DEPARTMENT OF PLANNING AND ZONING. Signature of Chief, Development Engineering Division dated 5/10/04.

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL. Signature of Jim Magalas dated 5/10/04.

ENGINEER'S CERTIFICATE and DEVELOPER'S CERTIFICATE. Certificates of the Engineer (D. B. Burton) and Developer (L. Meadows) dated 4/22/04.

NOTICE TO CONTRACTORS. Text regarding utility line crossings and construction requirements.

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY. Signature of County Health Officer dated 4/22/04.

LDE, INC. project information including address (9250 Rumsay Road), contact info, and drawing details (Scale: As Shown, 1 of 52).

REVISIONS table with columns: No., Date, By, Description. Lists revisions 1 through 4.

Vertical text on the far left edge of the page.

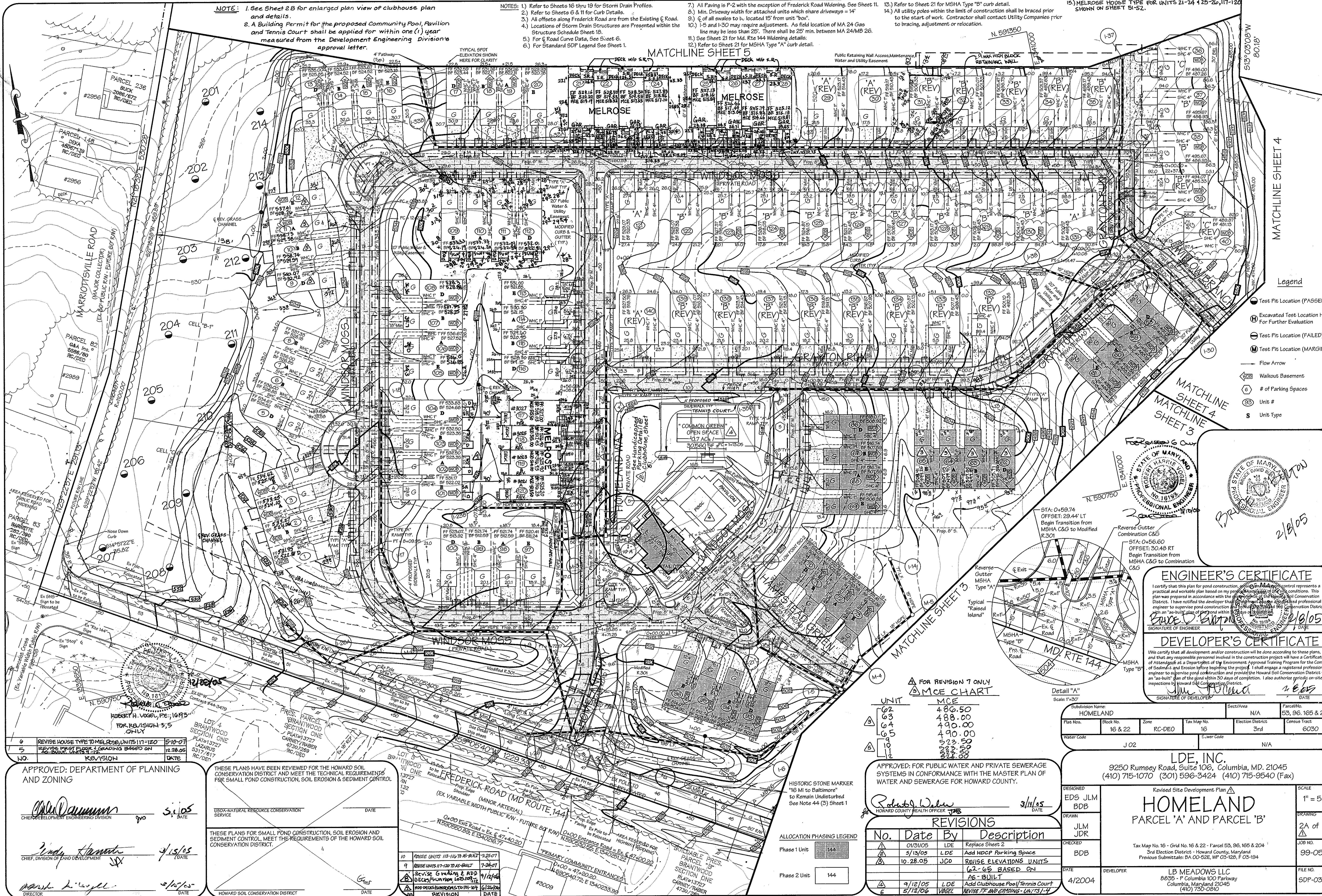
**NOTE:** 1. See Sheet 2B for enlarged plan view of clubhouse plan and details.  
 2. A Building Permit for the proposed Community Pool, Pavilion and Tennis Court shall be applied for within one (1) year measured from the Development Engineering Division's approval letter.

**NOTES:** 1) Refer to Sheets 16 thru 19 for Storm Drain Profiles.  
 2) Refer to Sheets 6 & 11 for Curb Details.  
 3) All offsets along Frederick Road are from the Existing C Road.  
 4) Locations of Storm Drain Structures are Presented within the Structure Schedule Sheet 18.  
 5) For C Road Curve Data, See Sheet 6.  
 6) For Standard SDP Legend See Sheet 1.  
 7) All Paving is P-2 with the exception of Frederick Road Widening. See Sheet 11.  
 8) Min. Driveway width for attached units which share driveways = 14'  
 9) C of all swales to be located 15' from unit "box".  
 10) I-5 and I-30 may require adjustment. As field location of MA 24 Gas line may be less than 25'. There shall be 25' min. between MA 24MB 26.  
 11) See Sheet 21 for Md. Rte 144 Widening details.  
 12) Refer to Sheet 21 for MSHA Type "A" curb detail.

13) Refer to Sheet 21 for MSHA Type "B" curb detail.  
 14) All utility poles within the limit of construction shall be braced prior to the start of work. Contractor shall contract Utility Companies prior to bracing, adjustment or relocation.

15) MELROSE HOUSE TYPE FOR UNITS 21-24 4-25-26, 117-120 SHOWN ON SHEET 51-52.

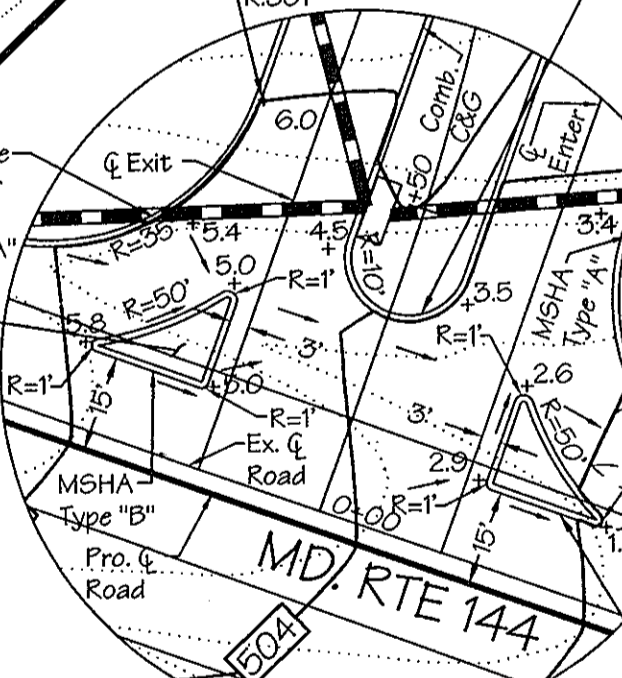
**MATCHLINE SHEET 5**



MATCHLINE SHEET 4

- Legend**
- Test Pit Location (PASSED)
  - ⊕ Excavated Test Location Hold For Further Evaluation
  - ⊖ Test Pit Location (FAILED)
  - ⊙ Test Pit Location (MARGINAL)
  - Flow Arrow
  - ⬢ Walkout Basement
  - ⊕ # of Parking Spaces
  - ⊙ Unit #
  - S Unit Type

**Professional Engineer Seal**  
 STATE OF MARYLAND  
 PROFESSIONAL ENGINEER  
 No. 18193  
 Robert H. Vogel, PE  
 2/8/05



**ENGINEER'S CERTIFICATE**  
 I certify that this plan for pond construction...  
 Robert H. Vogel, PE  
 2/8/05

**DEVELOPER'S CERTIFICATE**  
 We certify that all development and/or construction will be done according to these plans...  
 Signature of Developer: [Signature]  
 DATE: 2/8/05

**FOR REVISION 7 ONLY**

UNIT	MCE
62	486.50
63	488.00
64	490.00
65	490.00
10	523.50
11	523.50
12	523.50

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY.  
 Robert H. Vogel, PE  
 3/1/05

**REVISIONS**

No.	Date	By	Description
1	01/31/05	LDE	Replace Sheet 2
2	01/13/05	LDE	Add HDPC Parking Space
3	10.28.05	JCO	REVISE ELEVATIONS UNITS (2-65 BASED ON AS-BUILT)
4	9/12/05	LDE	Add Clubhouse Pool/Tennis Court
5	5/12/06	VJGEL	REVISE FF AND GRADING - UNITS 1-4

Subdivision Name:	HOMELAND	Parcel No.:	53, 96, 165 & 204
Plot No.:	16 & 22	Zone:	RC-DEO
Tax Map No.:	16	Election District:	3rd
Water Code:	J 02	Census Tract:	6030

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

**HOMELAND**  
 PARCEL 'A' AND PARCEL 'B'

DESIGNED: EDJ, JLM, BDB  
 DRAWN: JLM, JDR  
 CHECKED: BDB  
 DATE: 4/2004

SCALE: 1" = 50'  
 DRAWING: 2A of 52  
 JOB NO.: 99-051.4  
 DEVELOPER: LB MEADOWS LLC  
 8825 F Columbia 100 Parkway  
 Columbia, Maryland 21045  
 (410) 730-0810  
 FILE NO.: SDP-03-30

**APPROVED: DEPARTMENT OF PLANNING AND ZONING**

Robert H. Vogel, PE  
 3/1/05

Chief, Development Engineering Division

Robert H. Vogel, PE  
 3/1/05

Chief, Division of Land Development

Robert H. Vogel, PE  
 3/1/05

Director

**HOWARD SOIL CONSERVATION DISTRICT**

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL.

DATE: 3/1/05

**HOWARD SOIL CONSERVATION DISTRICT**

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

DATE: 3/1/05

**ALLOCATION PHASING LEGEND**

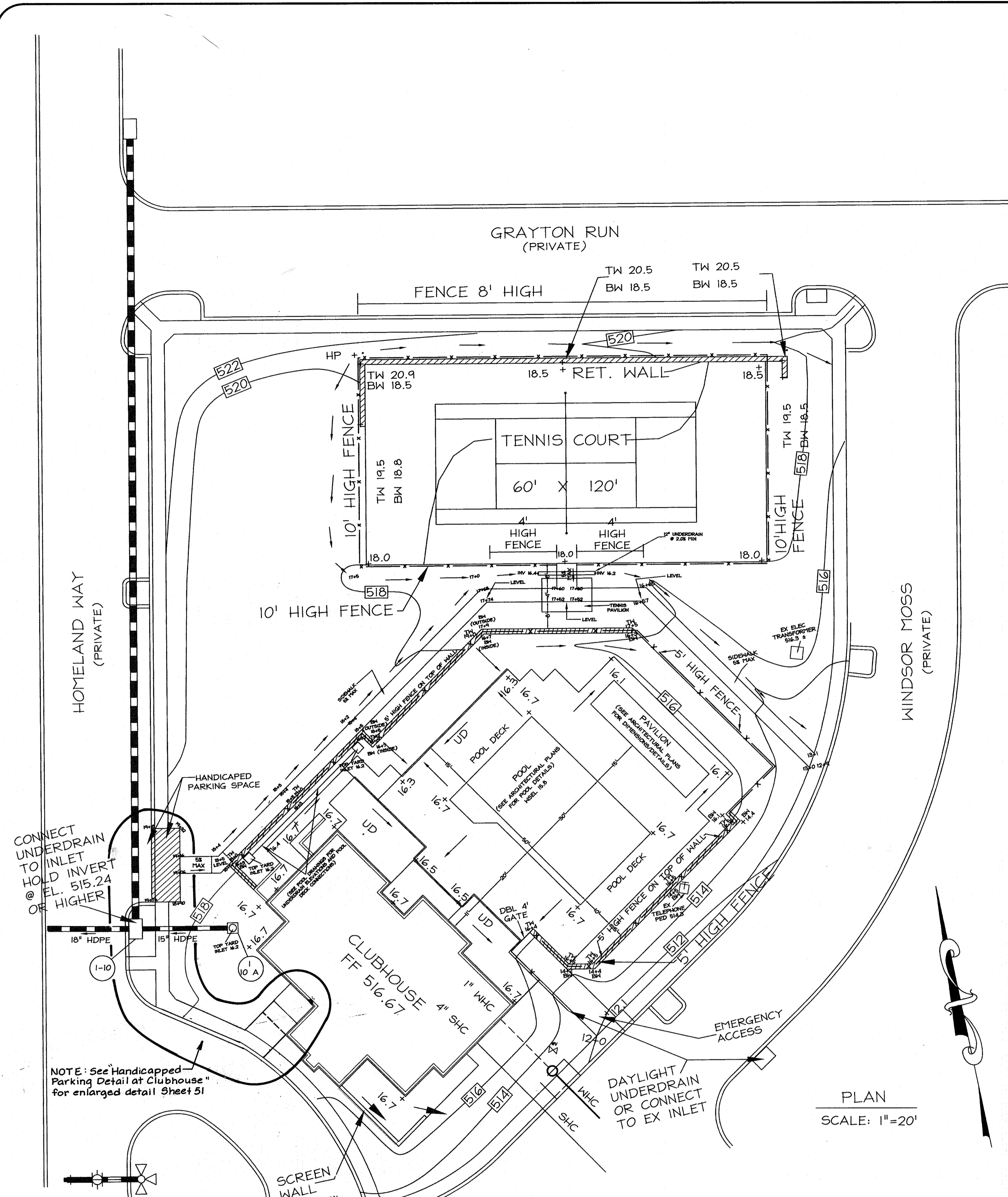
Phase 1 Unit: 144

Phase 2 Unit: 144

**REVISIONS**

9	REVISE UNITS 118-119 TO AS-BUILT	7-25-07
10	REVISE UNITS 117-120 TO AS-BUILT	7-24-07
11	REVISE GRADING & ADD DECK TO SWIMMING POOL	9/1/06
12	ADD DECK ROOMS TO 101-104	6/26/06

FILED: C:\COURT\100-0506 SDP\03-30\SDP-03-30.dwg, SDP-03-30, 2/28/05 10:28 AM

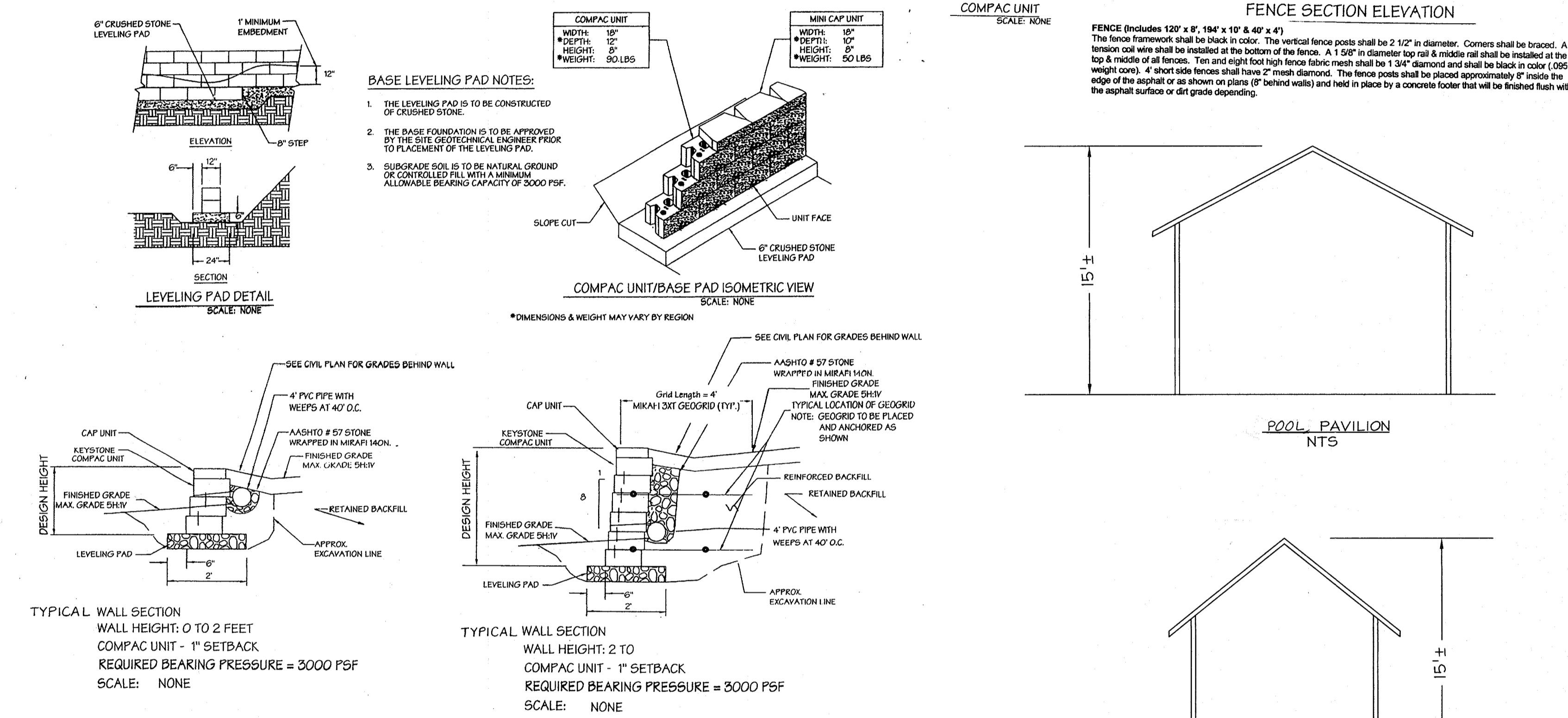
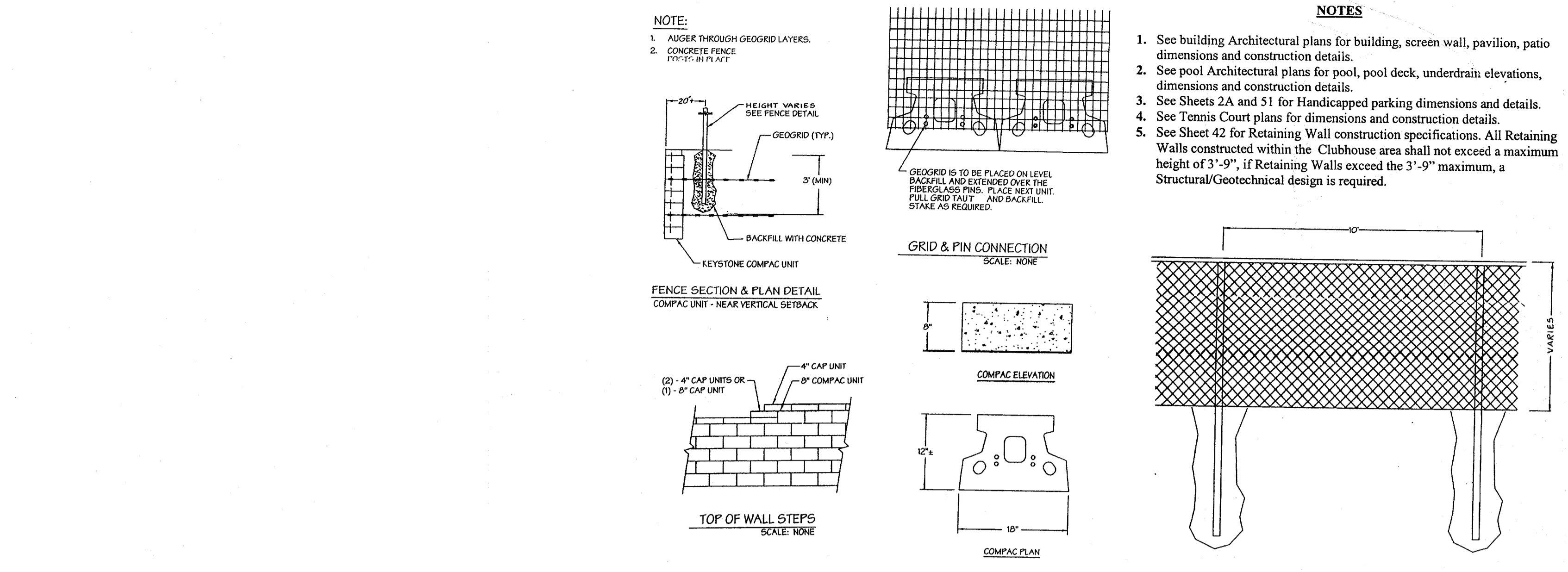
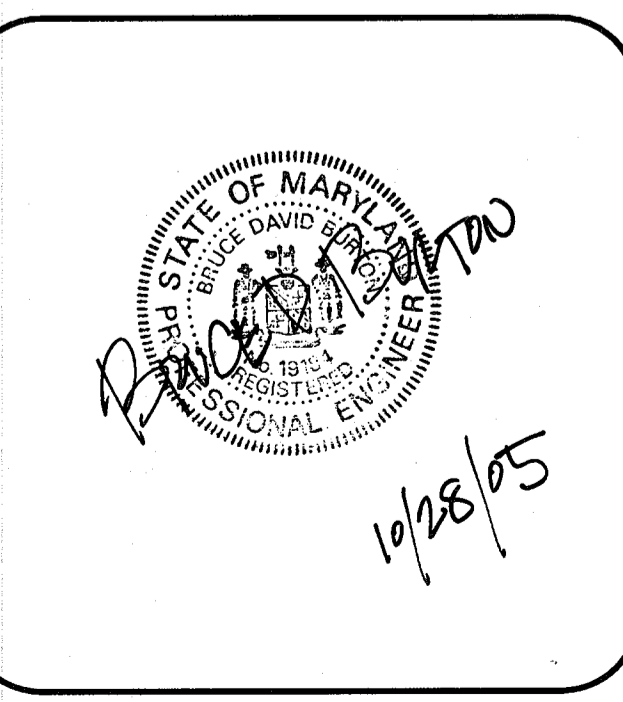


NOTE: A Building Permit for the proposed Community Pool, Pavilion and Tennis Court shall be applied for within one (1) year measured from the Development Engineering Division's approval letter.  
 2. The swimming pool, pool underdrains and pool treatment system shall not be connected to the sanitary sewer system.

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 [Signature] 4/10/05  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 [Signature] 2/14/06  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 [Signature] 2/10/06  
 DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL.  
 [Signature] DATE  
 HOWARD SOIL CONSERVATION DISTRICT  
 THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
 [Signature] DATE  
 HOWARD SOIL CONSERVATION DISTRICT

**ENGINEER'S CERTIFICATE**  
 I certify that this plan for pond construction, erosion control, and sediment control represents a practical and suitable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she is responsible for obtaining a professional engineer to supervise pond construction and for providing the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.  
 [Signature] DATE 10/8/05  
 SIGNATURE OF ENGINEER  
**DEVELOPER'S CERTIFICATE**  
 I do 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 shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.  
 [Signature] DATE 10/08/05  
 SIGNATURE OF DEVELOPER

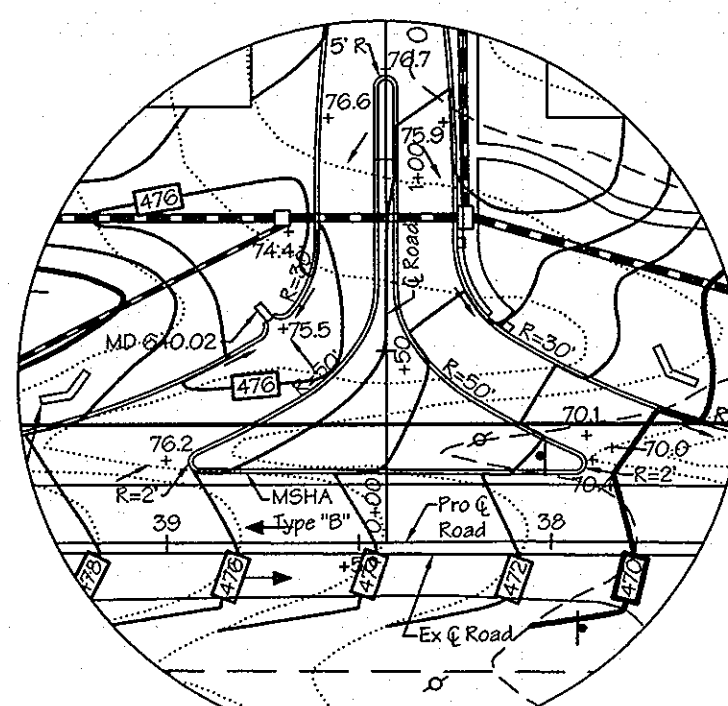


**SUMMARY TABLE**

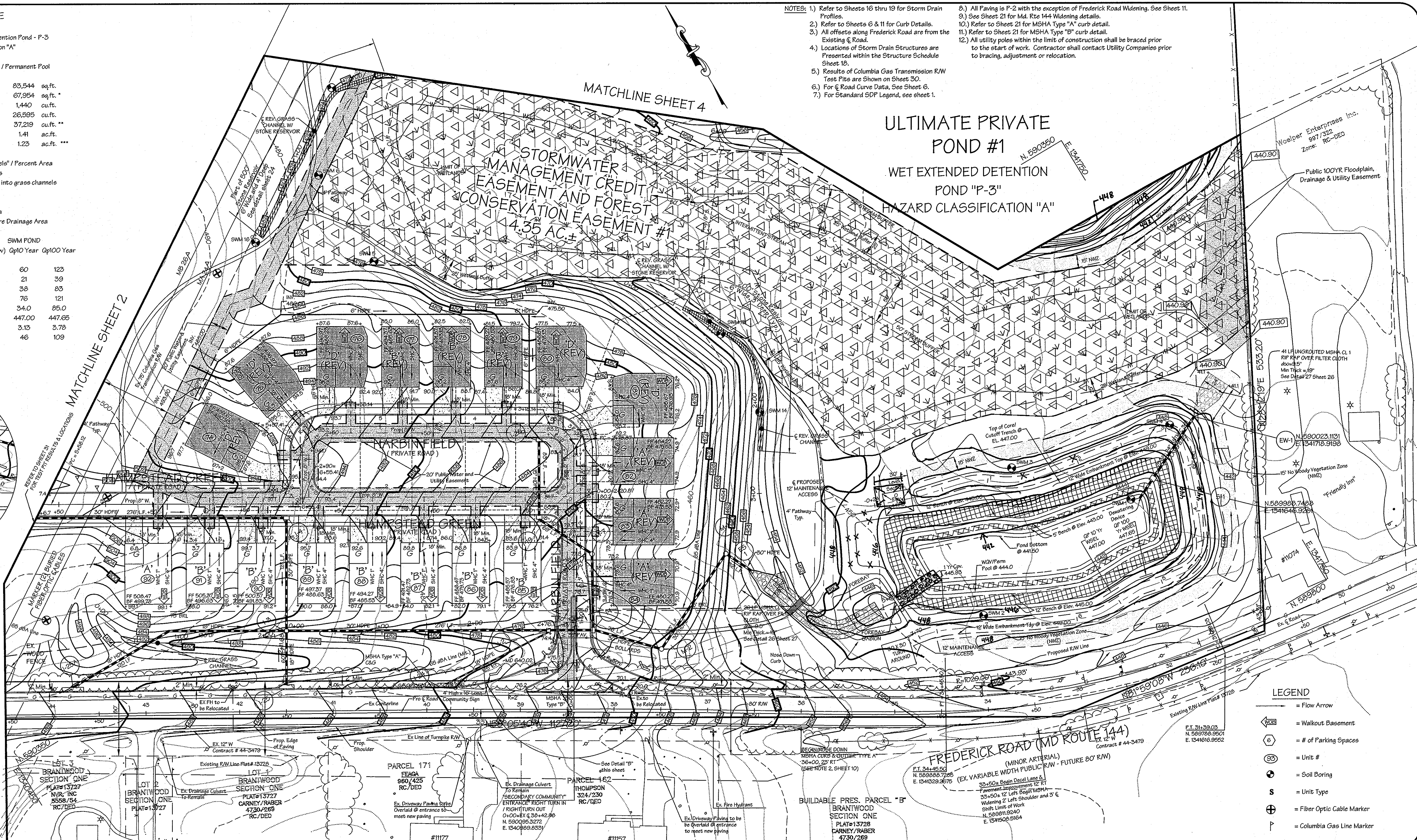
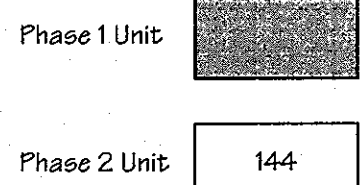
PRIVATE (MD 378) POND #1 - Wet Extended Detention Pond - P-3  
 Private Maintenance Hazard Classification "A"  
 Drainage Area = 20.87 Acres  
 Water Quality Management = Extended Detention / Permanent Pool  
 Water Quantity Management = Detention  
 Groundwater Recharge Volume (Rev) Required = 83,544 sq.ft.  
 Groundwater Recharge Volume (Rev) Provided = 67,954 sq.ft.  
 1,440 cu.ft.  
 Water Quality Volume (WQV) Required = 26,595 cu.ft.  
 Water Quality Volume (WQV) Provided = 37,219 cu.ft.  
 Channel Protection Volume (Cpv) Required = 1.41 ac.ft.  
 Channel Protection Volume (Cpv) Provided = 1.23 ac.ft.

\* Automatically provided per use of "Grass Channels" / Percent Area Computations and Percent Volume Computations  
 - 67,954 sq.ft. of impervious area drains directly into grass channels  
 - Within Rev reservoir 1,440+/- cu.ft. Rev Volume  
 \*\* Within Pond Wet Pool  
 \*\*\* Cpv required is for 29 acre+/- Study Point Area  
 Cpv provided is within Pond #2 for the 20.87 acre Drainage Area

	SWM POND		
	1 Year (Cpv)	Op10 Year	Op100 Year
Total Existing Flow (cfs)	6	60	123
Unmanaged Flow (cfs)	4	21	39
Acceptable Release* (cfs)	1.0	3.8	8.3
Computed Inflow (cfs)	25	76	121
Facility Discharge (cfs)	0.8	34.0	85.0
Elevation at Discharge (ACFT)	445.93	447.00	447.65
Storage at Elevation (cu.ft.)	2.09	3.13	3.78
Total Developed Flow (cfs)	4	46	109



**ALLOCATION PHASING LEGEND**



- NOTES:**
- 1) Refer to Sheets 16 thru 19 for Storm Drain Profiles.
  - 2) Refer to Sheets 6 & 11 for Curb Details.
  - 3) All offsets along Frederick Road are from the Existing @ Road.
  - 4) Locations of Storm Drain Structures are Presented within the Structure Schedule Sheet 18.
  - 5) Results of Columbia Gas Transmission R/W Test Pits are Shown on Sheet 30.
  - 6) For @ Road Curve Data, See Sheet 6.
  - 7) For Standard SDP Legend, see sheet 1.
  - 8) All Paving is P-2 with the exception of Frederick Road Widening. See Sheet 11.
  - 9) See Sheet 21 for Md. Rte 144 Widening details.
  - 10) Refer to Sheet 21 for MSHA Type "A" curb detail.
  - 11) Refer to Sheet 21 for MSHA Type "B" curb detail.
  - 12) 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.

**LEGEND**

- = Flow Arrow
- = Walkout Basement
- = # of Parking Spaces
- = Unit #
- = Soil Boring
- = Unit Type
- = Fiber Optic Cable Marker
- = Columbia Gas Line Marker

Subdivision Name: HOMELAND		Sect/Area: N/A	Parcel No.: 53, 96, 165 & 204
Plot No.: 16 & 22	Zone: RC-DEO	Map No.: 16	Election District: 3rd
Water Code: J 02	Sanitary Code: N/A		Census Tract: 6030

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 [Signature] 3/1/05  
 [Signature] 3/15/05  
 [Signature] 3/15/05

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL  
 [Signature] DATE  
 [Signature] DATE  
 [Signature] DATE

**ENGINEER'S CERTIFICATE**  
 I certify that this plan for pond construction, erosion control, sediment control represents a practical and workable plan based on my personal observations. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and construction of the Howard Soil Conservation District within an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.  
 [Signature] DATE  
 [Signature] DATE

**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/We engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.  
 [Signature] DATE  
 [Signature] DATE

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY  
 [Signature] DATE  
 [Signature] DATE

REVISIONS			
No.	Date	By	Description
1	01/31/05	LDE	Replace Sheet 3
2	6-11-2012	KCT	AS-BUILT

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

DESIGNED: EDG JLM, BDB  
 DRAWN: JLM, JDR  
 CHECKED: BDB  
 DATE: 4/2004

Revised Site Development Plan  
**HOMELAND**  
 PARCEL 'A' AND PARCEL 'B'

Tax Map No. 16 - Grid No. 16 & 22 - Parcel 53, 96, 165 & 204  
 3rd Election Districts - Howard County, Maryland  
 Previous Submittals: BA 00-52E, WF 03-12E, F 03-194

LB MEADOWS LLC  
 8835 - P Columbia 100 Parkway  
 Columbia, Maryland 21045  
 (410) 730-0910

SCALE: 1" = 50'  
 DRAWING: 3A of 52  
 JOB NO.: 99-051.4  
 FILE NO.: SDP-03-30

STORMWATER MANAGEMENT CREDIT EASEMENT AND FOREST CONSERVATION EASEMENT #3 0.66 AC.±

STORMWATER MANAGEMENT CREDIT EASEMENT AND FOREST CONSERVATION EASEMENT #2 2.82 AC.±

ALLOCATION PHASING LEGEND

Phase 1 Unit	[Symbol]
Phase 2 Unit	144

LEGEND

- [Symbol] = Flow Arrow
- [Symbol] = Walkout Basement
- [Symbol] = # of Parking Spaces
- [Symbol] = Unit #
- [Symbol] = Soil Boring
- [Symbol] = Unit Type
- [Symbol] = Test Pit Location (PASSED)
- [Symbol] = Excavated Test Location Hold For Further Evaluation
- [Symbol] = Test Pit Location (FAILED)
- [Symbol] = Test Pit Location (MARGINAL)
- [Symbol] = Fiber Optic Cable Marker
- [Symbol] = Columbia Gas Line Marker

SUMMARY TABLE

**PRIVATE**  
Public (MD 378) POND # 2 - Wet Extended Detention Pond - P-3  
Public Maintenance Hazard Classification "A"

Drainage Area = 18.97 Acres  
Water Quality Management = Extended Detention / Permanent Pool  
Water Quantity Management = Detention  
Groundwater Recharge Volume (Rev) Required = 101,896 eq.ft.  
Groundwater Recharge Volume (Cpv) Provided = 44,867 eq.ft. \*  
4,800 cu.ft. \*  
Water Quality Volume (WQv) Required = 32,856 cu.ft.  
Water Quality Volume (WQv) Provided = 61,361 cu.ft. \*\*  
Channel Protection Volume (Cpv) Required = 1.57 ac.ft.  
Channel Protection Volume (Cpv) Provided = 1.40 ac.ft. \*\*\*

- \* Automatically provided per use of "Grass Channels" / Percent Area Computations and Percent Volume Computations - 67,954 sq.ft. of impervious area drains directly into grass channels - Within Rev reservoir 4,800+ cu.ft. Rev Volume
- \*\* Water Quality Volume provided in "Wet" / Permanent Pool of Pond #2
- \*\*\* Cpv required is for 29 acres+ Study Point Area  
Cpv provided is within Pond #2 for the 18.97 acre Drainage Area

	SWM POND		
	1 Year (Cpv)	Qp10 Year	Qp100 Year
Total Existing Flow	(cfs) 5	28	53
Unmanaged Flow	(cfs) 5	22	38
Acceptable Release*	(cfs) 1.0	7	16
Computed Inflow	(cfs) 25	72.0	112
Facility Discharge	(cfs) 1.0	16.0	44.0
Elevation at Discharge	444.61	445.71	446.58
Storage at Elevation	(ACFT) 2.81	4.15	5.33
Total Developed Flow	(cfs) 5	22	53

- NOTES: 1) Refer to Sheets 16 thru 19 for Storm Drain Profiles.  
2) Refer to Sheet 6 for Curb Details.  
3) Locations of Storm Drain Structures are Presented within the Structure Schedule Sheet 18.  
4) Results of Columbia Gas Transmission RW Test Pits are Shown on Sheet 31.  
5) For G Road Curve Data, See Sheet 6.  
6) For Standard SDP Legend, see sheet 1.  
7) M-10 may require adjustment. As field location of MA 24 Gas line may be less than 25'. There shall be 25' min. between MA 24/MB 26.

ULTIMATE PRIVATE POND #2  
WET EXTENDED DETENTION POND "P-3"  
HAZARD CLASSIFICATIONS "A"

Subdivision Name: HOMELAND	Block No: 16 & 22	Zone: RC-DEO	Tax Map No: 16	Election District: 3rd	Census Tract: 6030
Water Code: J 02	Sewer Code: N/A	Parcel No: 53, 96, 165 & 204			

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 3/1/05  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 3/15/05  
CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 3/15/05  
DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL

*[Signature]* 2/8/05  
USDA-NATURAL RESOURCE CONSERVATION SERVICE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

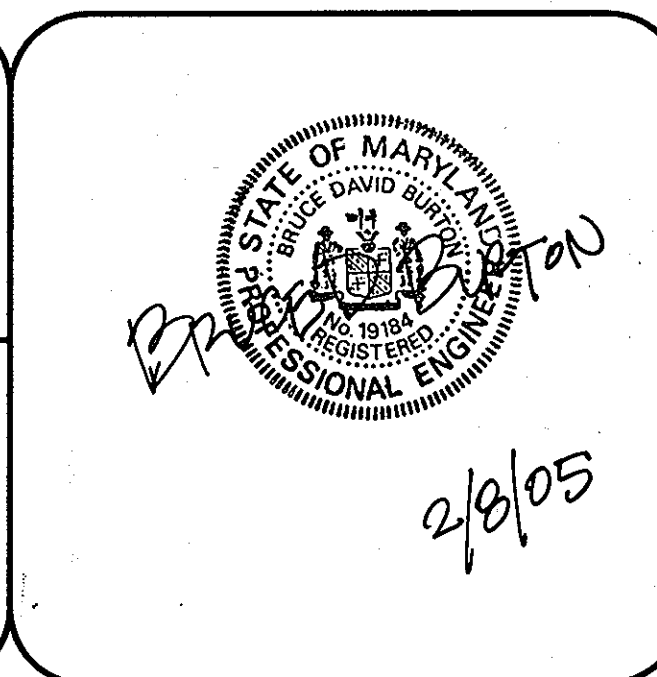
*[Signature]* 2/23/05  
HOWARD SOIL CONSERVATION DISTRICT

ENGINEER'S CERTIFICATE

*[Signature]* 2/8/05  
SIGNATURE OF ENGINEER

DEVELOPER'S CERTIFICATE

*[Signature]* 2/8/05  
SIGNATURE OF DEVELOPER



APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

*[Signature]* 3/14/05  
COUNTY HEALTH OFFICER  
HOWARD COUNTY HEALTH DEPARTMENT

REVISIONS			
No.	Date	By	Description
1	01/31/05	LDE	Replace Sheet 4
2	6-11-2012	KEP	AS-BUILT

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

DESIGNED: EDG JLM  
DRAWN: JLM JDR  
CHECKED: BDB  
DATE: 4/20/04

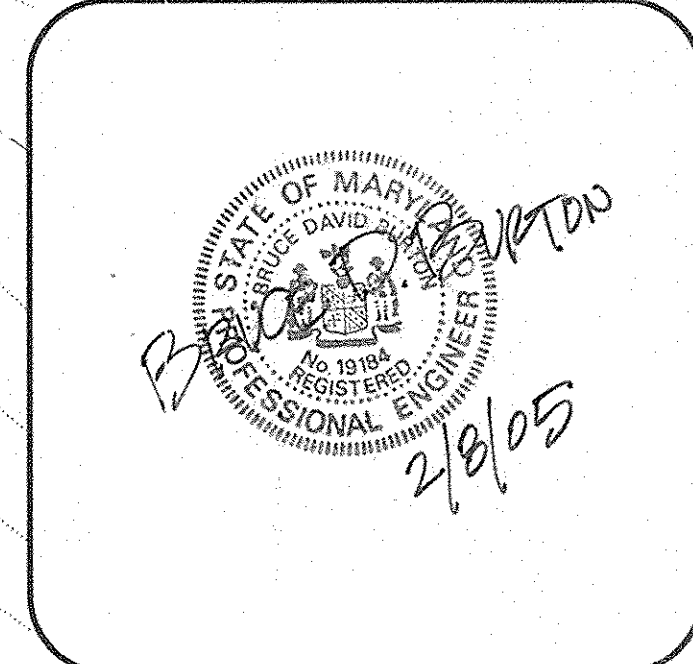
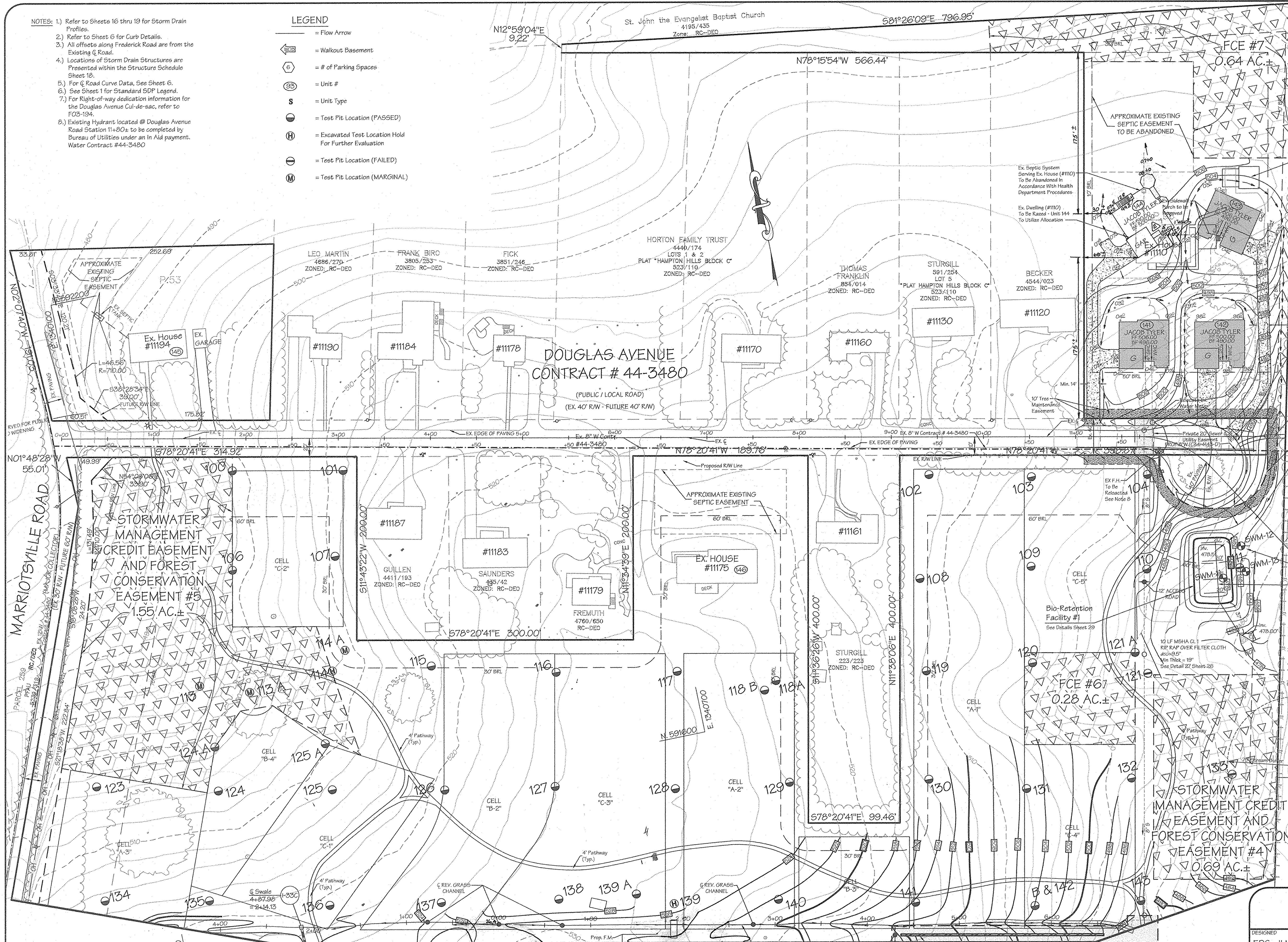
DEVELOPER: LB MEADOWS LLC  
8835 - P Columbia 100 Parkway  
Columbia, Maryland 21045  
(410) 730-0810

SCALE: 1" = 50'  
DRAWING: 4A of 52  
JOB NO.: 99-051.4  
FILE NO.: SDP-03-30

- NOTES: 1.) Refer to Sheets 16 thru 19 for Storm Drain Profiles.  
 2.) Refer to Sheet 6 for Curb Details.  
 3.) All offsets along Frederick Road are from the Existing G Road.  
 4.) Locations of Storm Drain Structures are Presented within the Structure Schedule Sheet 18.  
 5.) For C Road Curve Data, See Sheet 6.  
 6.) See Sheet 1 for Standard SDP Legend.  
 7.) For Right-of-way dedication information for the Douglas Avenue Cul-de-sac, refer to F03-194.  
 8.) Existing Hydrant located @ Douglas Avenue Road Station 11+80.1 to be completed by Bureau of Utilities under an In Aid payment. Water Contract #44-3480

**LEGEND**

- = Flow Arrow
- ⊠ = Walkout Basement
- ⬡ = # of Parking Spaces
- ⊙ = Unit #
- S = Unit Type
- ⊙ = Test Pit Location (PASSED)
- H = Excavated Test Location Hold For Further Evaluation
- ⊖ = Test Pit Location (FAILED)
- ⊕ = Test Pit Location (MARGINAL)



APPROVED: DEPARTMENT OF PLANNING AND ZONING

*David W. Dunning* 3/1/05  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
*David W. Dunning* 3/15/05  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
*David W. Dunning* 3/15/05  
 DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL.

USDA-NATURAL RESOURCE CONSERVATION SERVICE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT

**ENGINEER'S CERTIFICATE**  
 I certify that this plan for pond construction, stormwater management, and sediment control represents a practical and workable plan based on my professional judgment. This plan was prepared in accordance with the requirements of the Soil Conservation District. I have notified the developer that the construction of the pond must be supervised by a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

*Paul D. Butera* 3/8/05  
 SIGNATURE OF ENGINEER

**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 shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

*John J. Dunning* 3/15/05  
 SIGNATURE OF DEVELOPER

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

DESIGNED: EDS JLM, BDB  
 DRAWN: JLM, JDR  
 CHECKED: BDB  
 DATE: 4/2/04

Revised Site Development Plan

**HOMELAND**  
 PARCEL 'A' AND PARCEL 'B'

Tax Map No. 16 - Grid No. 16 & 22 - Parcel 53, 96, 165 & 204  
 3rd Election District - Howard County, Maryland  
 Previous Submittals: BA 00-52E, WP 05-12B, F03-194

SCALE: 1" = 50'  
 DRAWING: 5A of 52  
 JOB NO.: 99-0514  
 FILE NO.: SDP-03-30

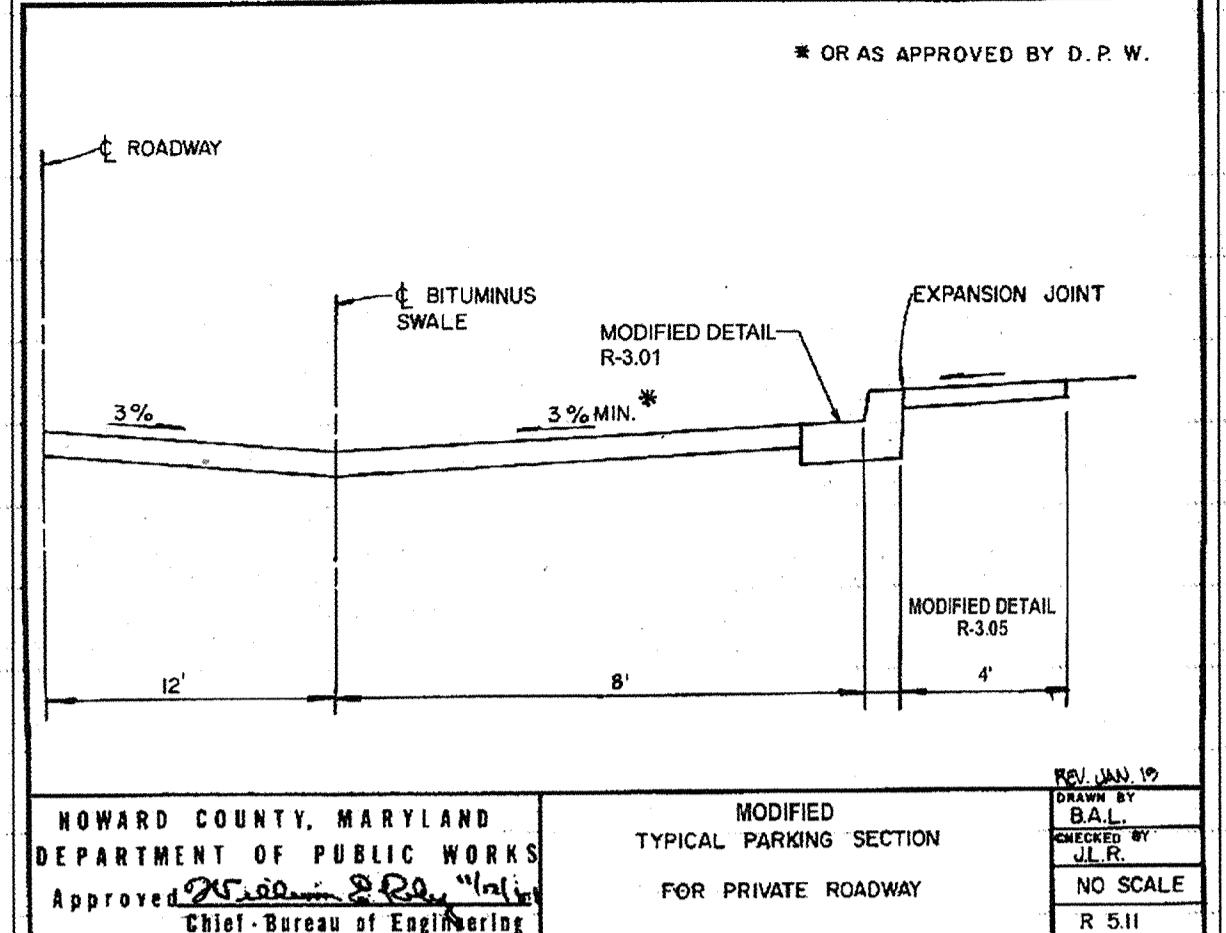
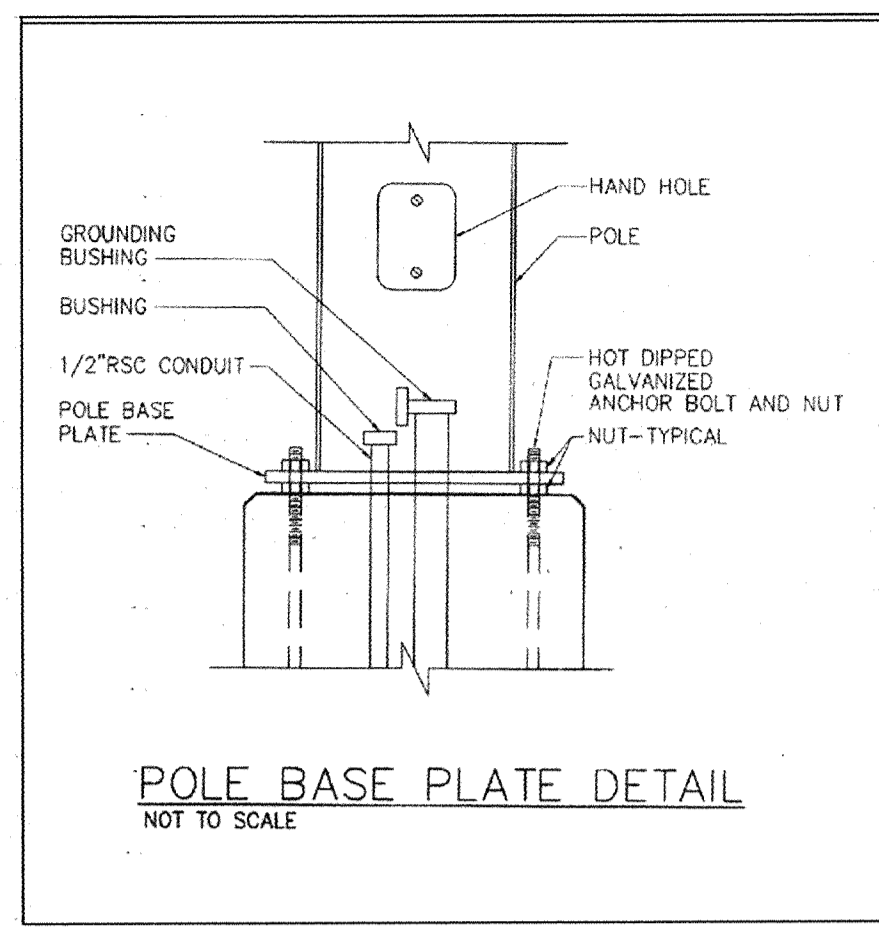
No.	Date	By	Description
1	01/31/05	LDE	Replace Sheet 5 and Add B' Water
2	4/15/05	LDE	Revise House, Lot 144
3	05/23/06	NY	REVISE LOTS 21-28 TO MELROSE

MATCHLINE SHEET 2

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY.

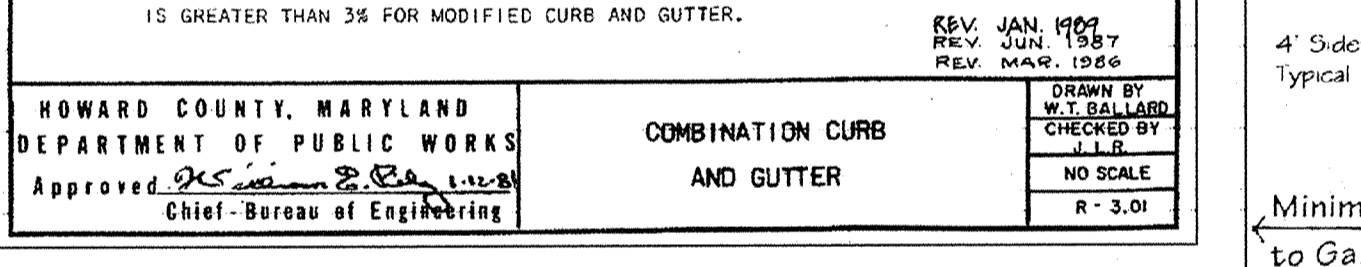
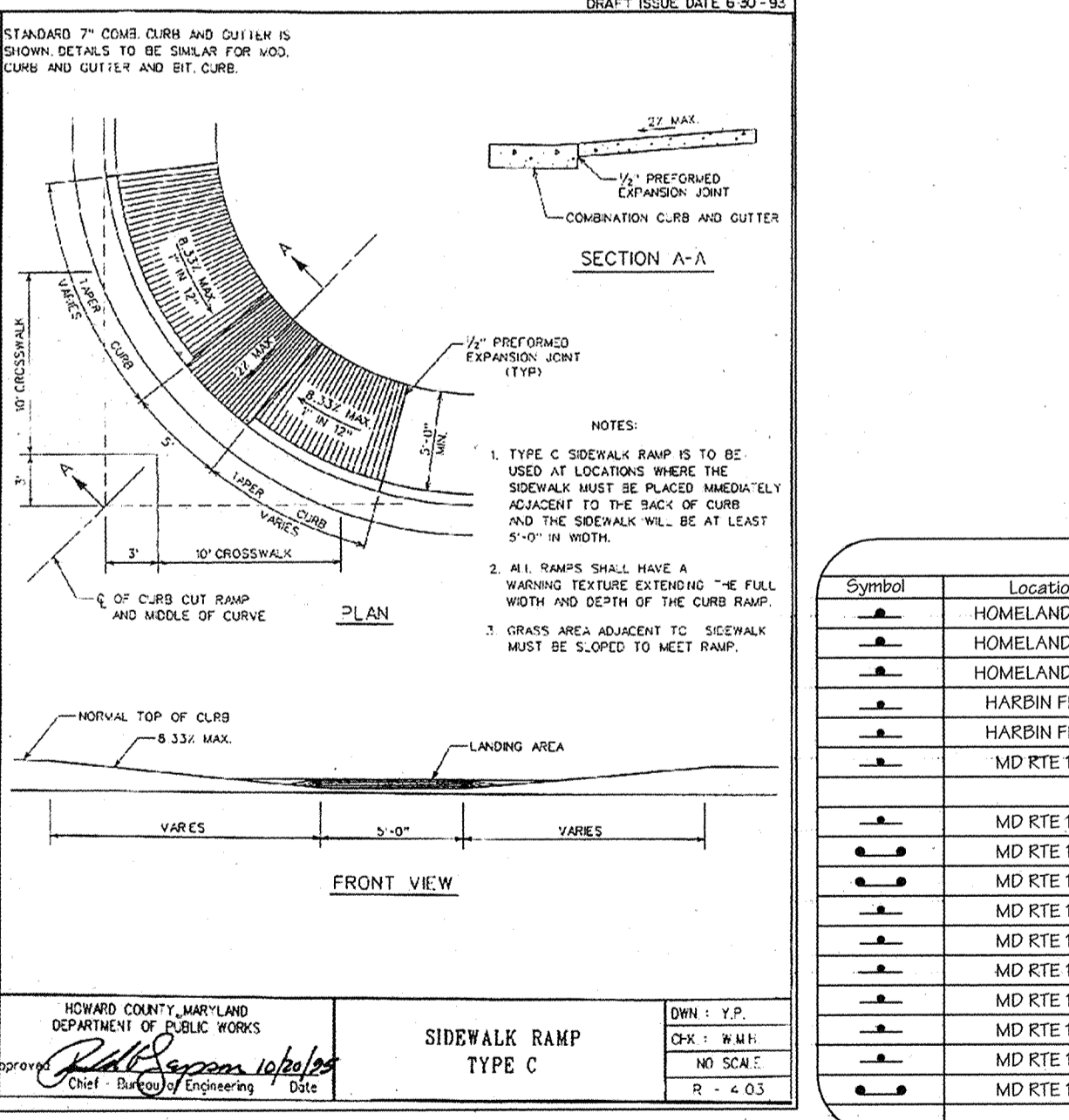
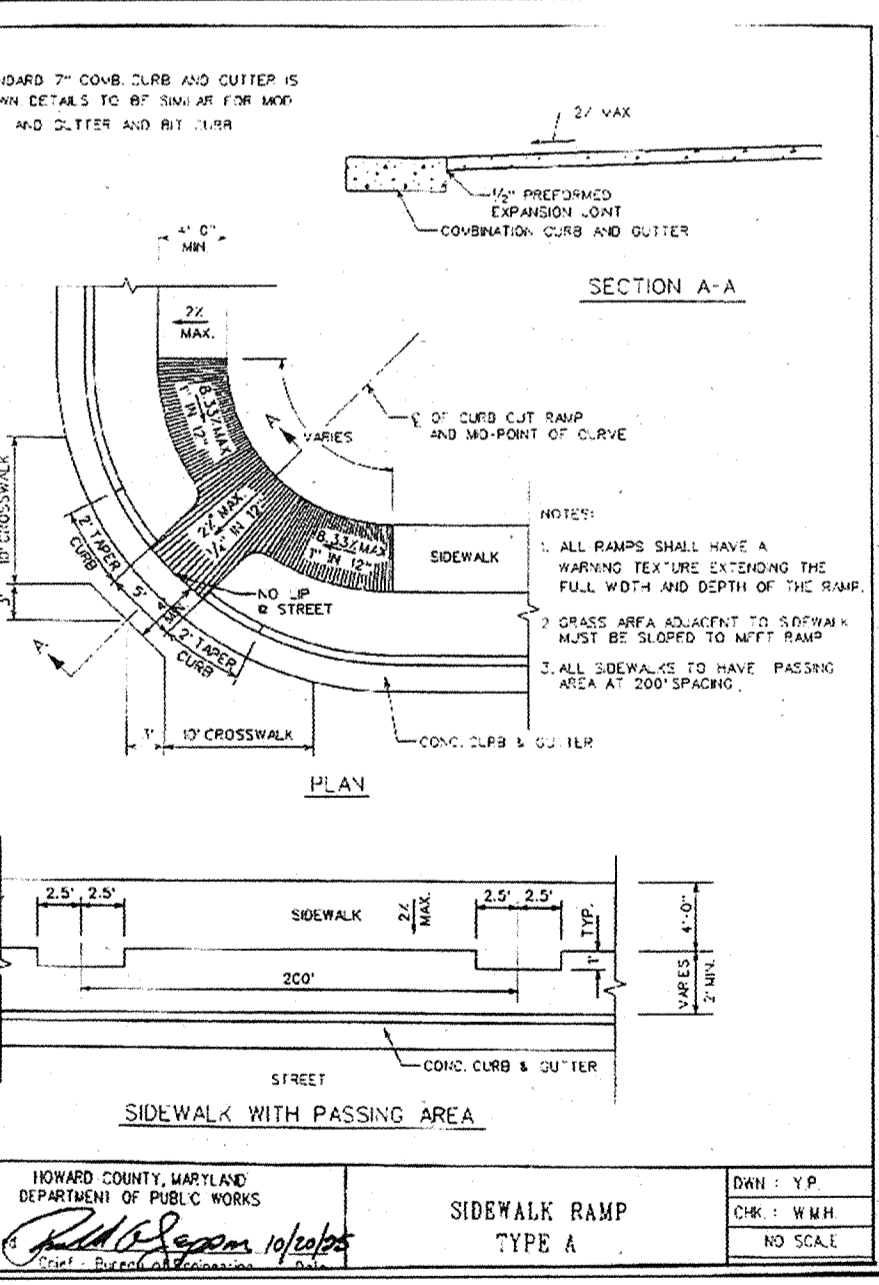
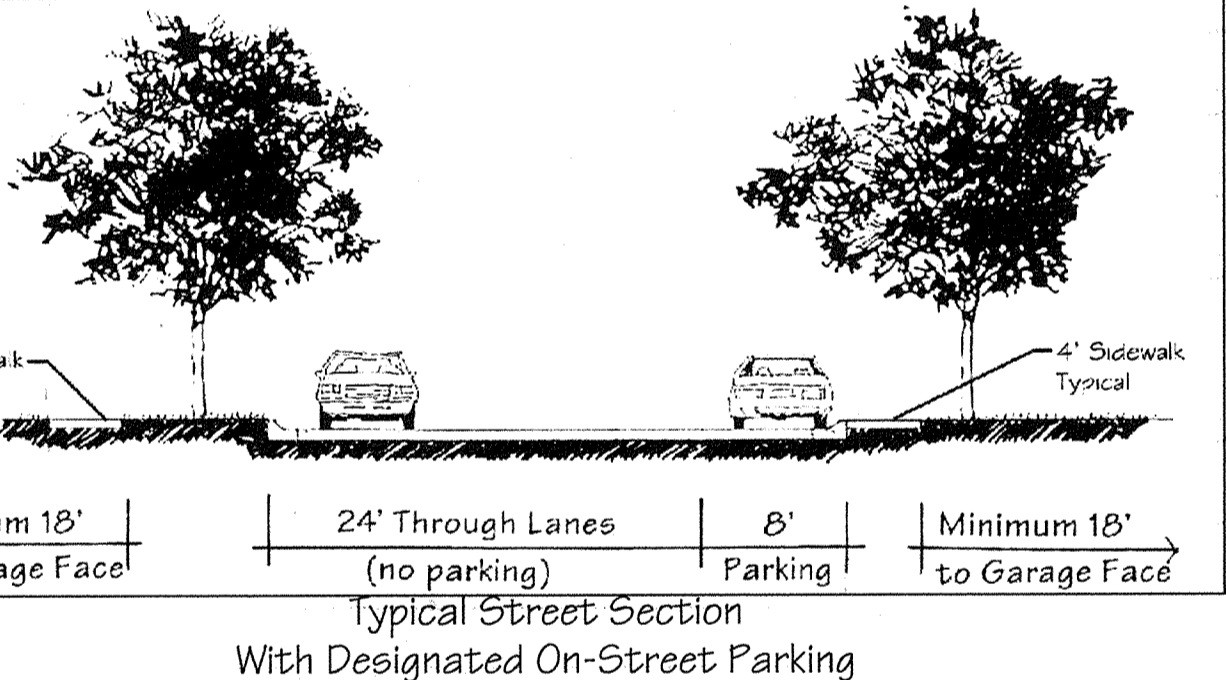
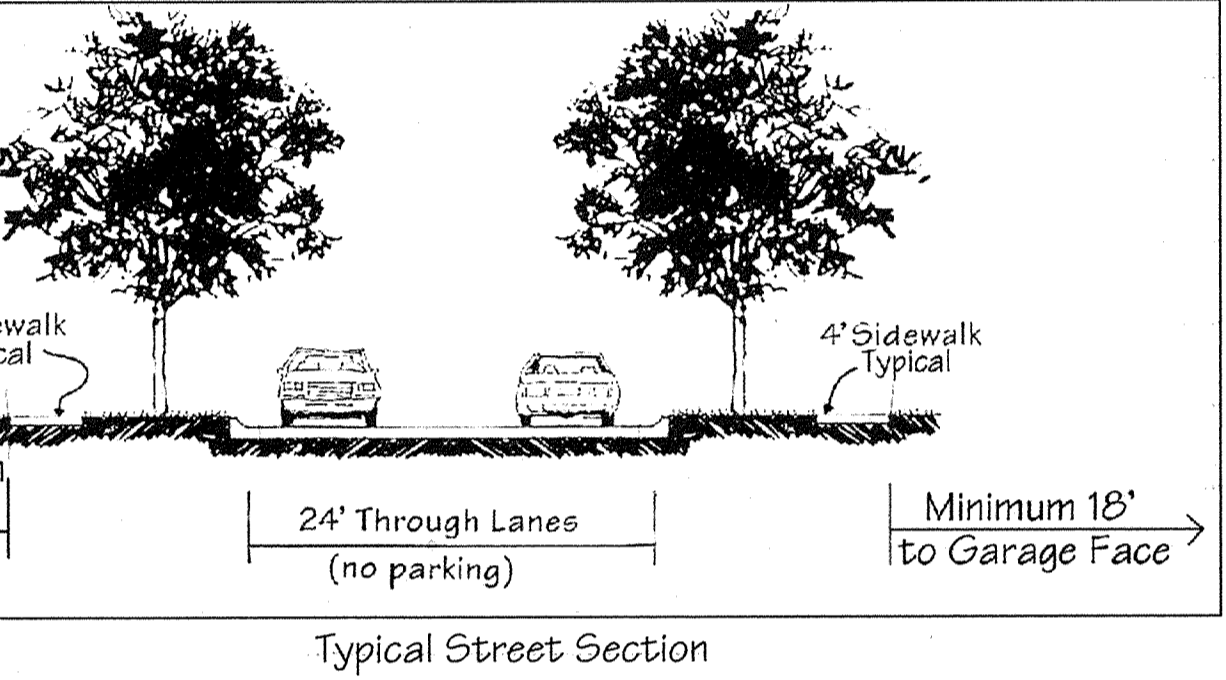
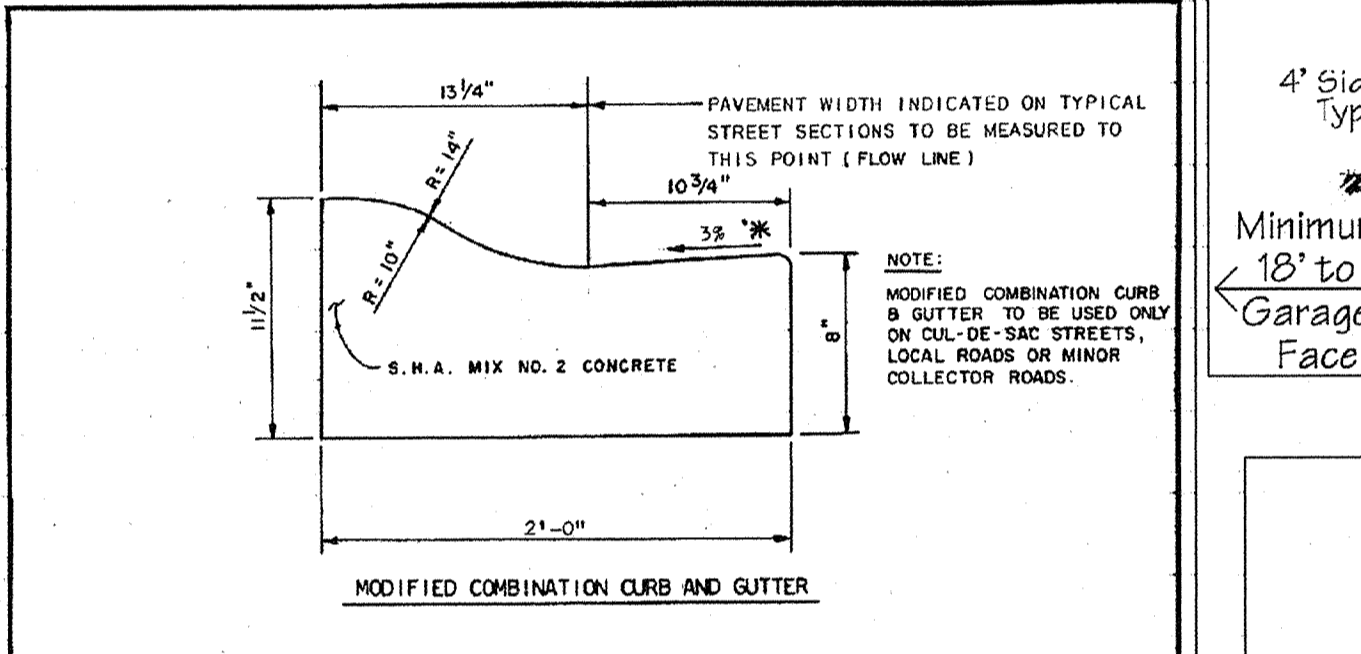
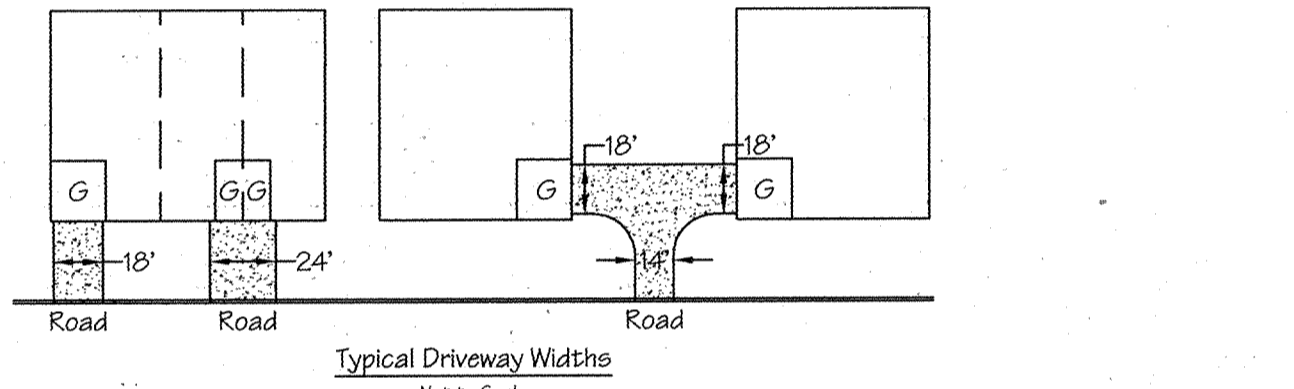
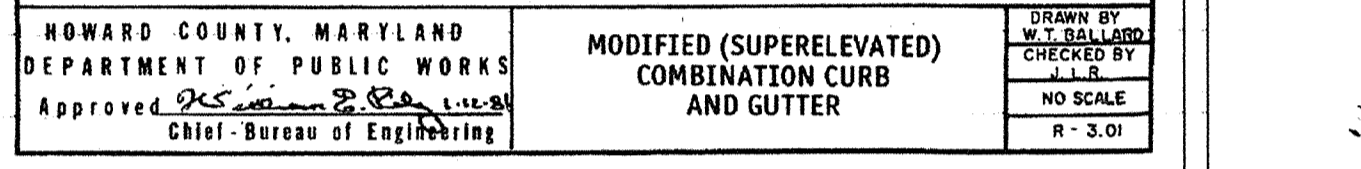
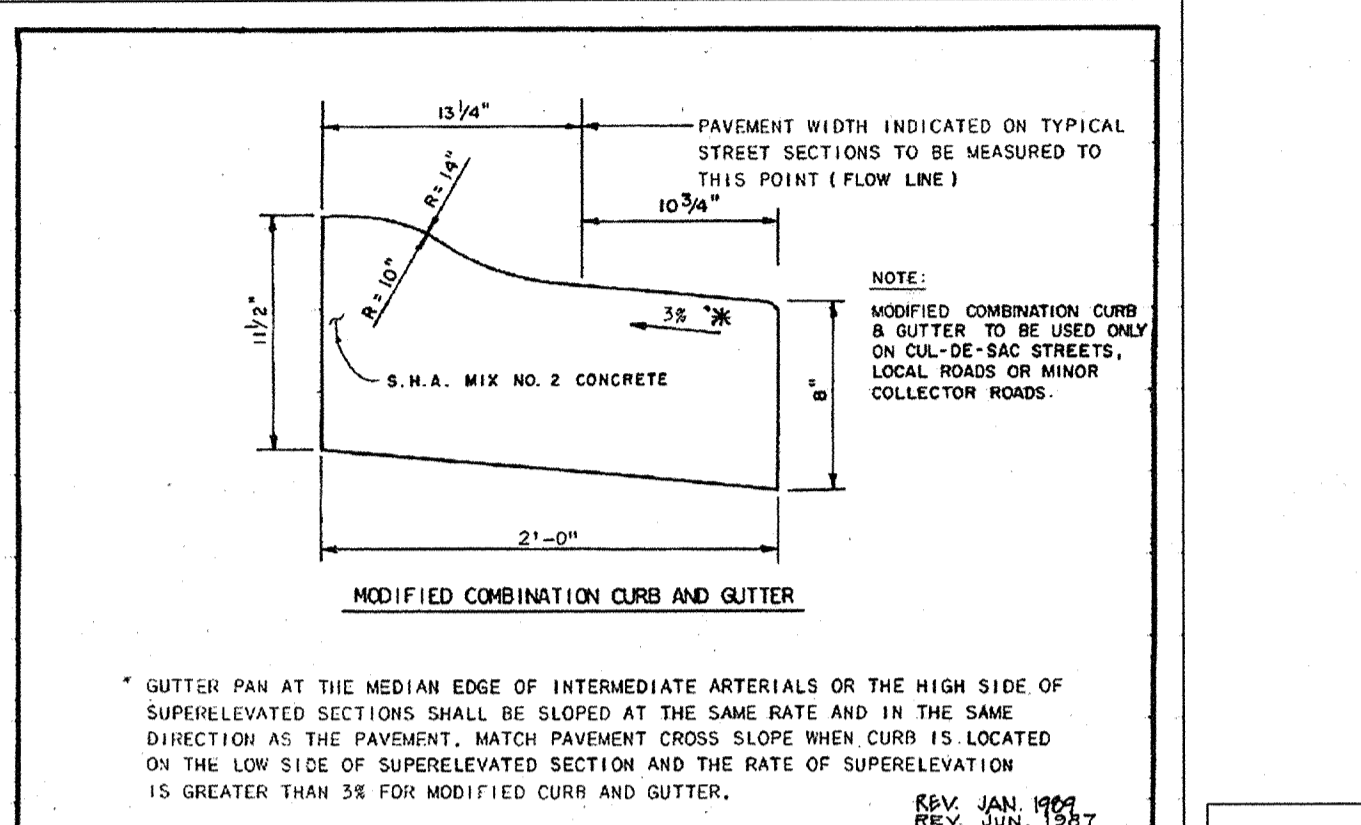
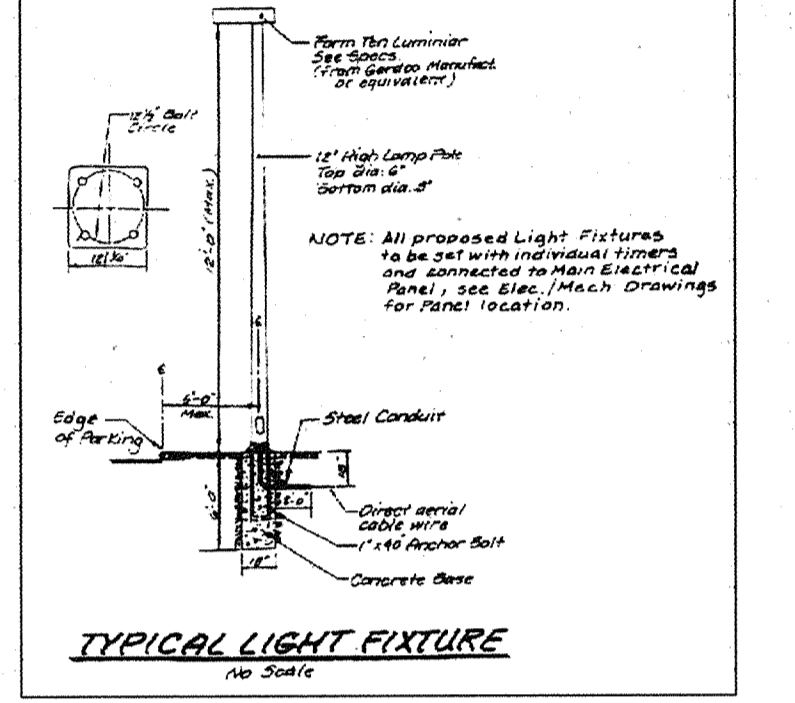
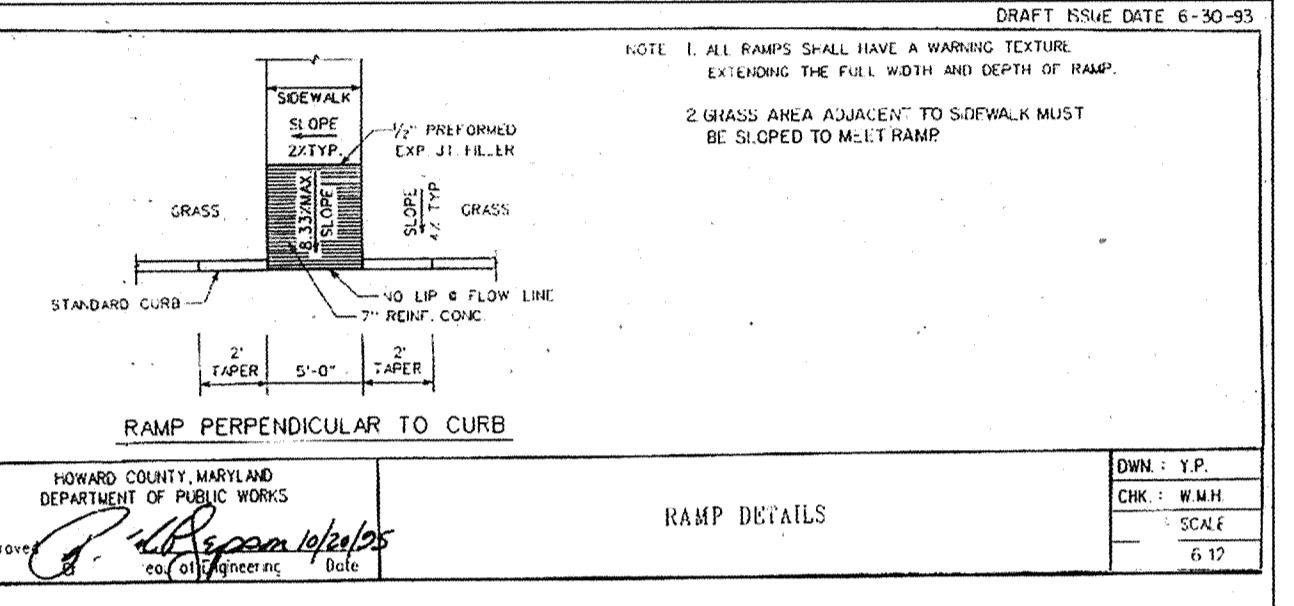
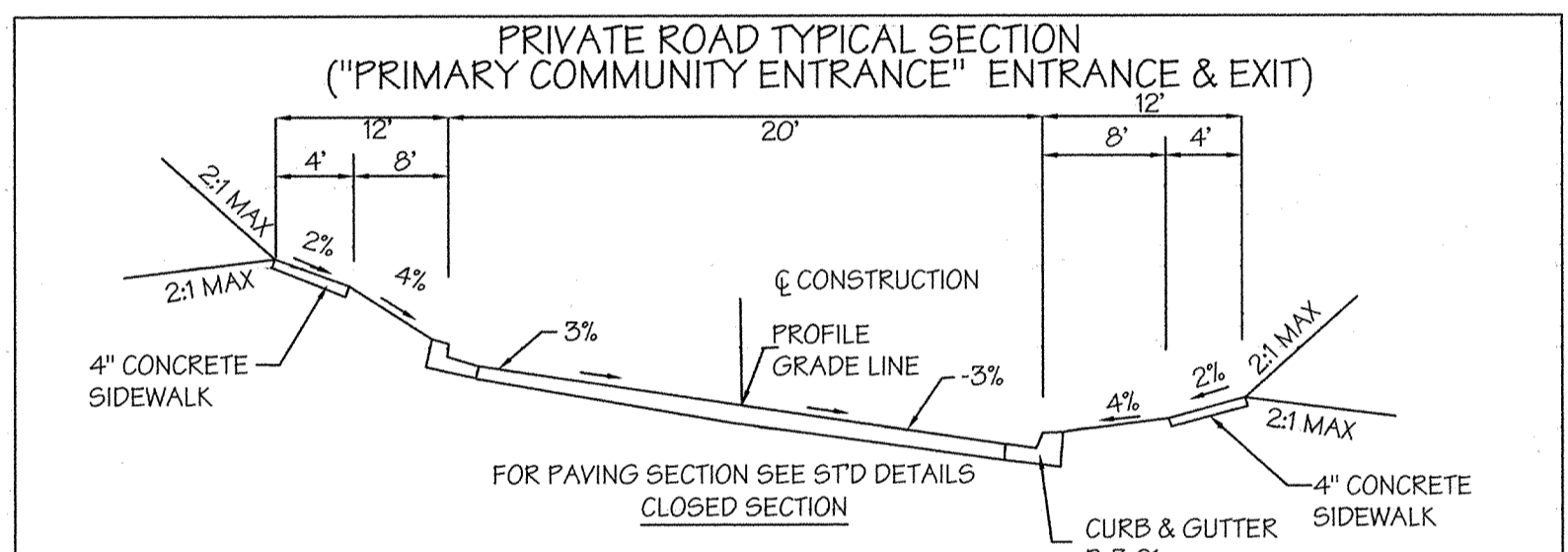
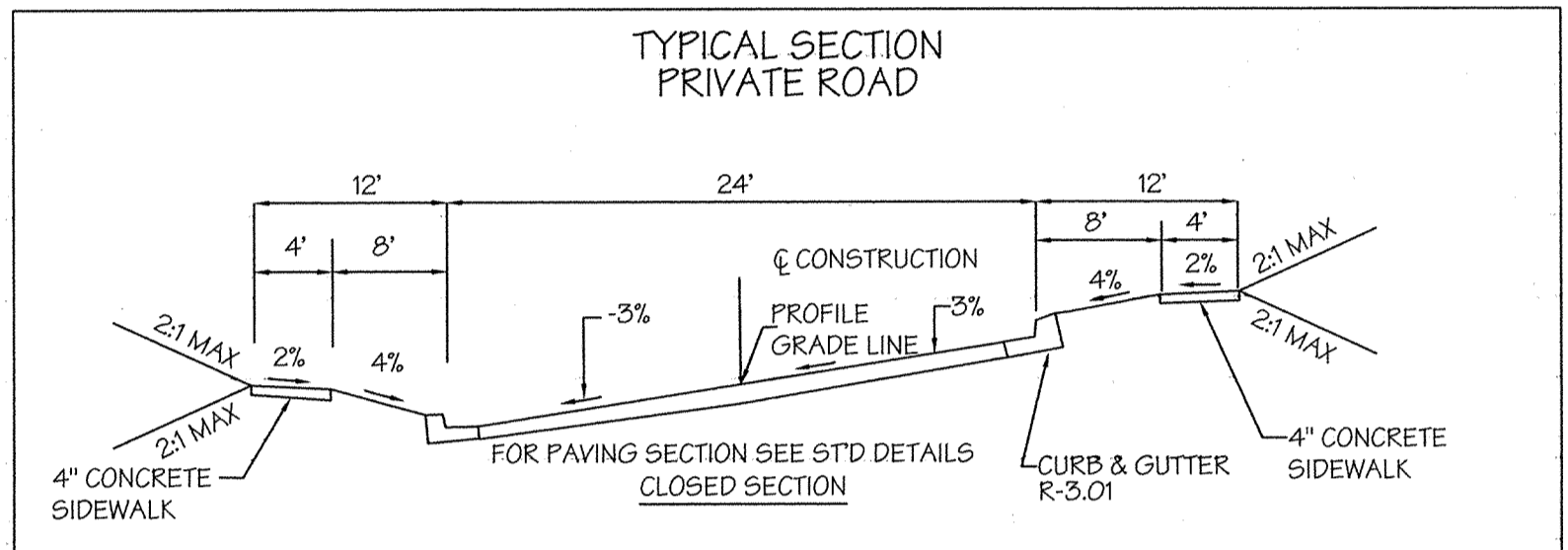
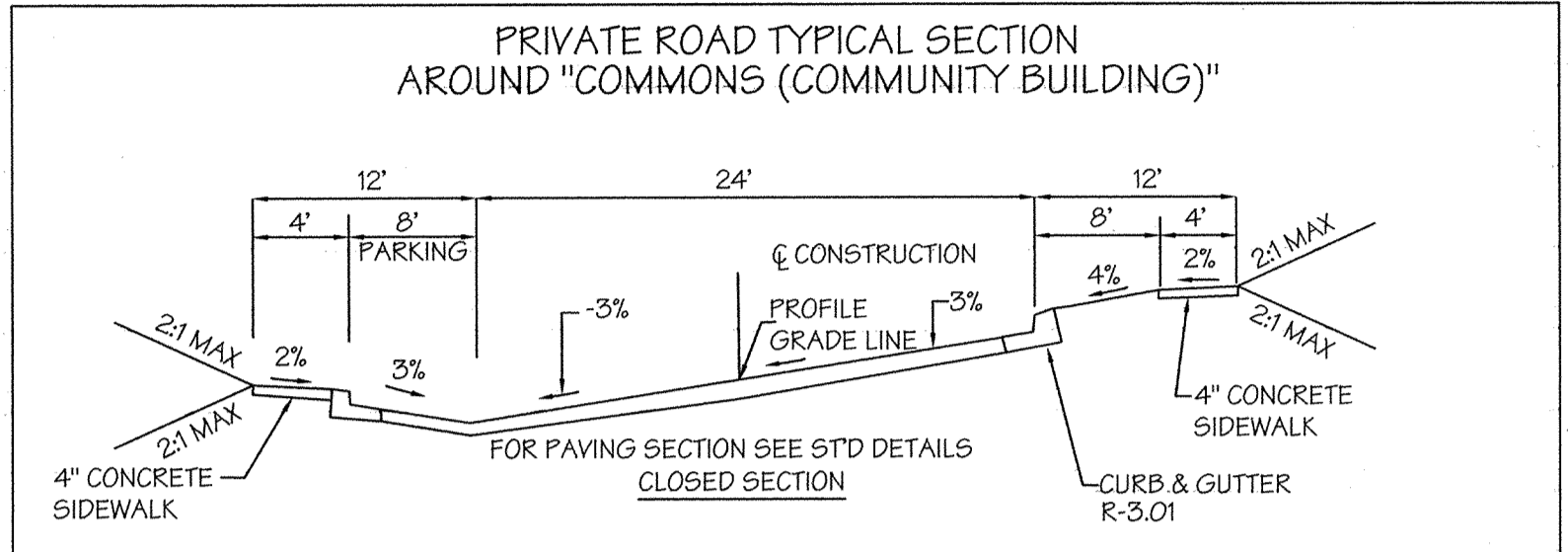
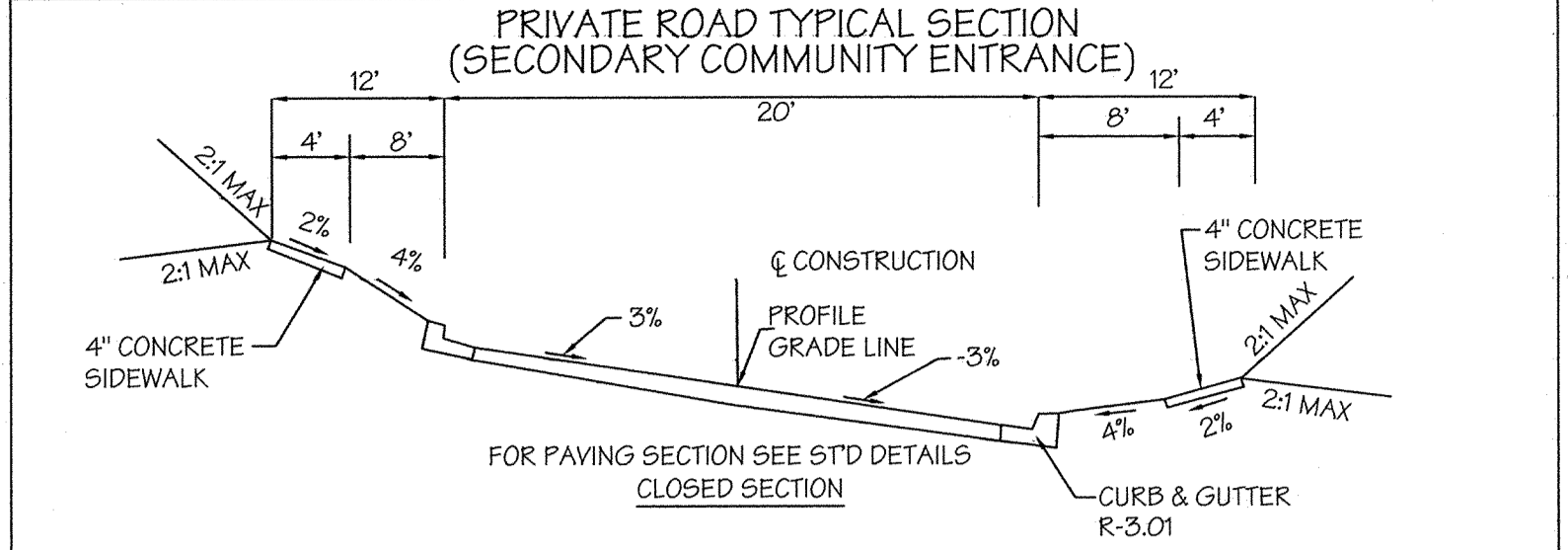
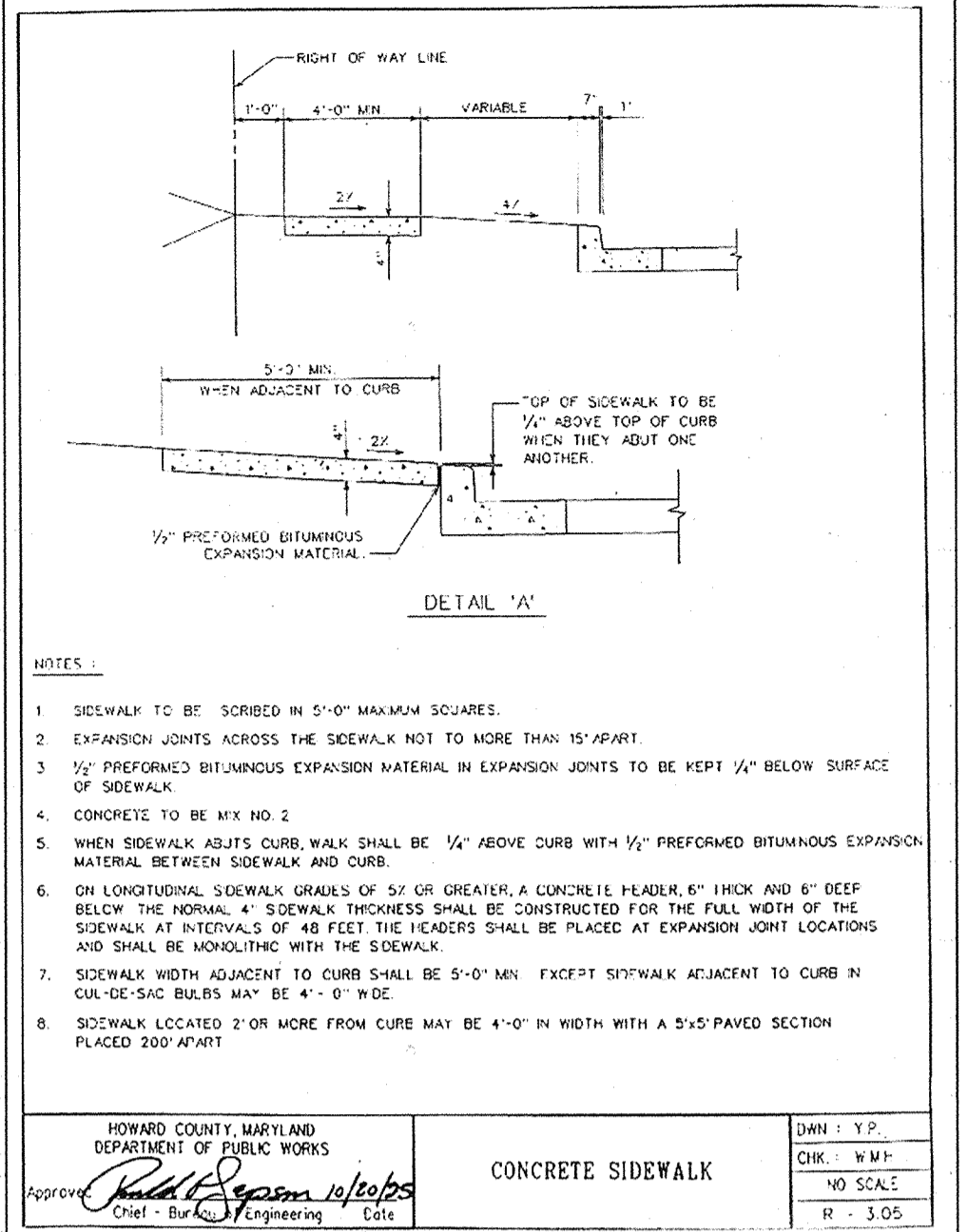
*Robert W. Dunning* 3/14/05  
 HOWARD COUNTY HEALTH OFFICER

Subdivision Name: HOMELAND	Sect./Area: N/A	Parcel No.: 53, 96, 165 & 204
Flat No.: 16 & 22	Zone: RC-DEO	Tax Map No.: 16
Water Code: J 02	Election District: 3rd	Census Tract: 6030
Sewer Code: N/A		



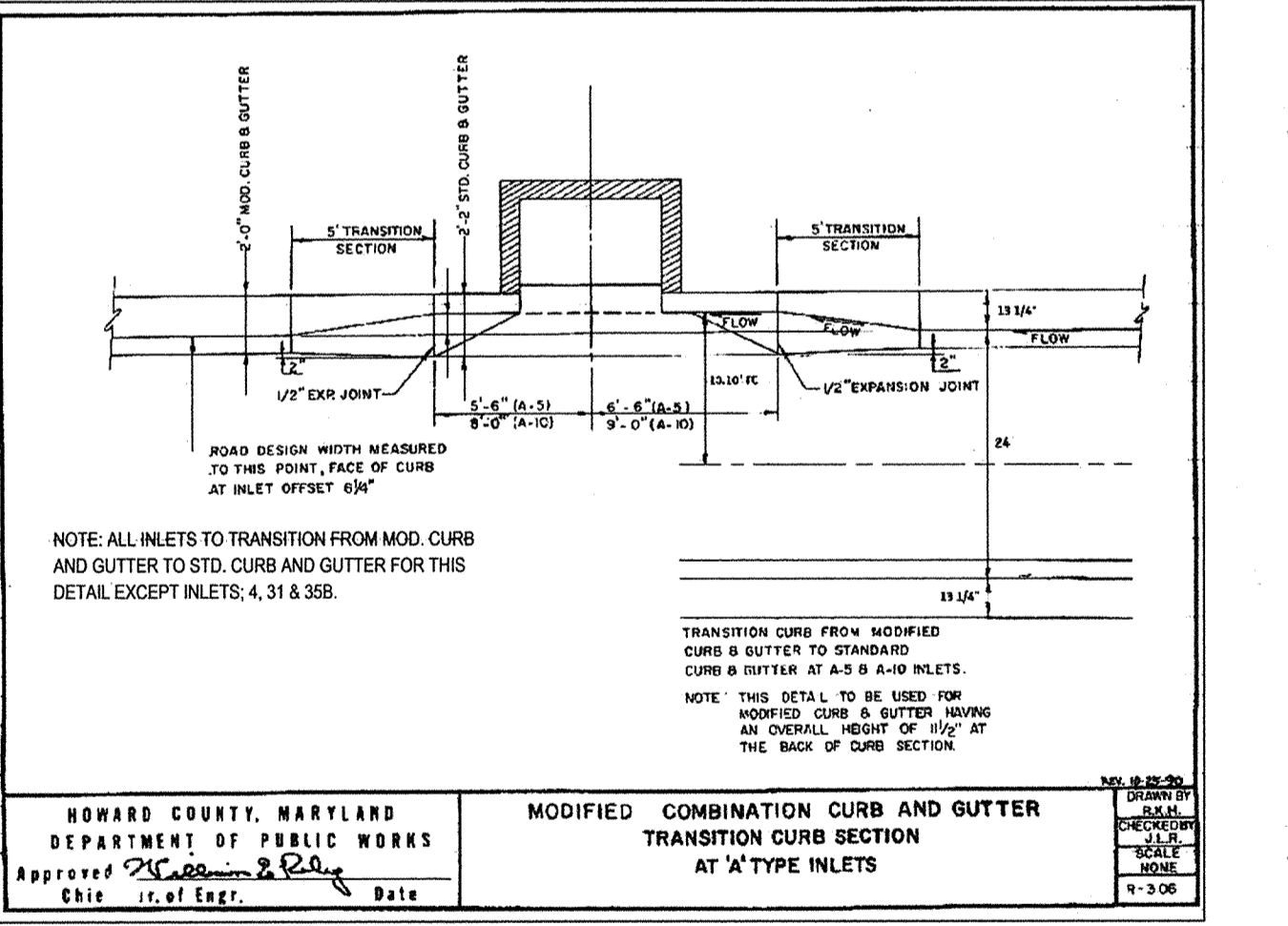
SECTION NUMBER	ROAD AND STREET CLASSIFICATION	PAVEMENT MATERIALS
P-2	RESIDENTIAL (LOCAL, CUL-DE-SAC STS, ALLEYS AND PRIVATE ROADS SERVING INDIVIDUAL TRAVELERS), APARTMENTS AND COMMERCIAL-INDUSTRIAL ZONES WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY	1 1/2" BIT. CONC. SURFACE 1 1/2" BIT. CONC. BASE 6" GRADED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

**PAVING SECTION P-2**



Street Name	PC Station	PT Station	Length	Radius	Delta	Chord Bearing and Distance
Grayton Run	0+91.89	1+51.47	59.58'	75.00'	48°30'49"	S34°24'44"W - 58.02'
Grayton Run	2+94.48	3+87.66	93.17'	120.00'	44°29'11"	S79°24'44"W - 90.85'
Harbin Field	2+78.87	3+18.14	39.27'	25.00'	90°00'00"	N14°05'40"W - 36.36'
Harbin Field	5+58.14	5+97.41	39.27'	25.00'	90°00'00"	S79°54'20"W - 36.36'
Hampstead Green	5+58.12	6+95.64	137.52'	300.00'	28°15'49"	N45°57'43"W - 136.52'
Willow Branch	0+08.13	0+71.60	63.46'	300.00'	34°33'36"E - 62.26'	
Willow Branch	3+00.51	5+50.51	250.00'	360.00'	39°47'19"	S52°43'31"E - 245.01'
Homeland Way	0+37.78	1+72.17	134.39'	400.00'	19°15'00"	N21°16'50"E - 133.76'
Homeland Way Ent.	0+81.81	2+05.33	123.52'	162.74'	43°29'15"	N09°09'42"E - 120.53'
Homeland Way Exit	1+12.05	1+92.17	80.12'	143.86'	31°54'30"	N14°57'05"E - 79.08'
Auburn View	1+20.16	3+12.59	192.43'	63.50'	173°37'50"	S68°26'06"E - 126.80'
Windsor Moss	1+13.05	2+32.20	119.15'	150.00'	45°30'49"	S34°24'44"W - 116.00'
Windsor Moss	3+26.84	3+96.72	69.88'	90.00'	45°30'49"	S79°24'44"W - 68.14'
Windsor Moss	6+68.58	8+09.95	141.37'	90.00'	90°00'00"	N33°20'41"W - 127.28'
Windsor Moss	12+22.12	13+63.49	141.37'	90.00'	90°00'00"	N56°39'19"E - 127.28'
Windsor Moss	22+82.83	23+22.10	39.27'	25.00'	90°00'00"	S33°20'41"E - 36.36'
Windsor Moss	23+95.12	24+11.79	16.67'	25.00'	38°12'00"	S30°45'20"W - 16.36'
Windsor Moss Eyebrow 1	0+12	1+37.66	125.66'	40.00'	180°00'00"	S 11°39'19"W - 80.00'
Windsor Moss Eyebrow 2	0+03.83	1+61.73	157.90'	40.00'	226°10'39"	N/A

Symbol	Location	Station	Offset	STREET NAME SIGN	Type
—	HOMELAND WAY	0+33	48' LT	RH-1 "STOP" SIGN 30" x 30" OCTAGON	
—	HOMELAND WAY	0+33	48' LT	RH-1 "STOP" SIGN 30" x 30" OCTAGON	
—	HOMELAND WAY	0+30	60' RT	R4-7 "KEEP RIGHT" SIGN 24" x 30"	
—	HARBIN FIELD	1+19	N/A	R4-7 "KEEP RIGHT" SIGN 24" x 30"	
—	HARBIN FIELD	0+30	N/A	DM-1 (D) "OBJECT MARKER SIGN"	
—	MD RTE 144	54+03	36' RT	RELOCATE EX "SMB" SIGN "OLD FREDERICK ROAD" & "MARRIOTTVILLE ROAD"	
—	MD RTE 144	52+02	32' RT	R3-7(R) "RIGHT LANE MUST TURN RIGHT" SIGN 30" x 30"	
—	MD RTE 144	51+75	45' LT	ADVANCE STREET NAME SIGN D-3(2) WHITE LETTERS w/ GREEN BACKGROUND	
—	MD RTE 144	49+78	30' RT	EX "SMB" SIGN "LANELOT CROSS" & "MARRIOTTVILLE ROAD" TO BE RELOCATED	
—	MD RTE 144	49+00	29' RT	R3-7(R) "RIGHT LANE MUST TURN RIGHT" SIGN 30" x 30"	
—	MD RTE 144	44+00	29' RT	R3-7(R) "RIGHT LANE MUST TURN RIGHT" SIGN 30" x 30"	
—	MD RTE 144	41+03	23' LT	R3-2 NO LEFT TURN SYMBOL SIGN	
—	MD RTE 144	37+93	23' LT	EX "40 MPH SPEED LIMIT" SIGN TO BE RELOCATED	
—	MD RTE 144	34+05	25' RT	EX "NO PARKING" SIGN TO BE RELOCATED	
—	MD RTE 144	32+50	19' RT	ADVANCE STREET NAME SIGN D-3(2) WHITE LETTERS w/ GREEN BACKGROUND "HARBIN FIELD"	



APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Chief, Development Engineering Division*  
5/7/04 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL  
USDA-NATURAL RESOURCE CONSERVATION SERVICE  
DATE

ENGINEER'S CERTIFICATE  
I certify that this plan for...  
DATE: 4/22/04

DEVELOPER'S CERTIFICATE  
We certify that all developments and/or construction will be done according to these plans...  
DATE: 4/22/04

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY  
*Penny E. Boenstien, MD, PhD*  
DATE: 6/18/04

REVISIONS  
No. Date By Description

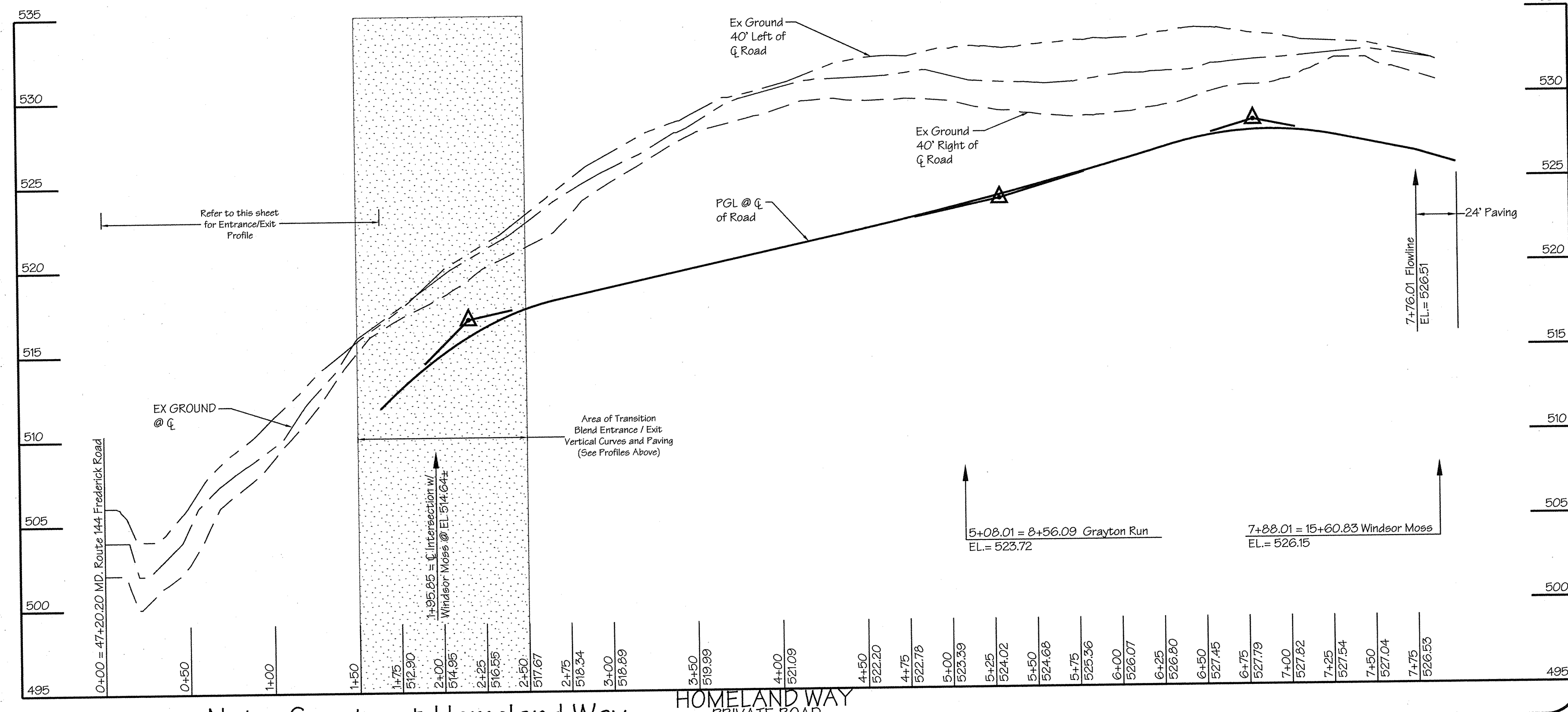
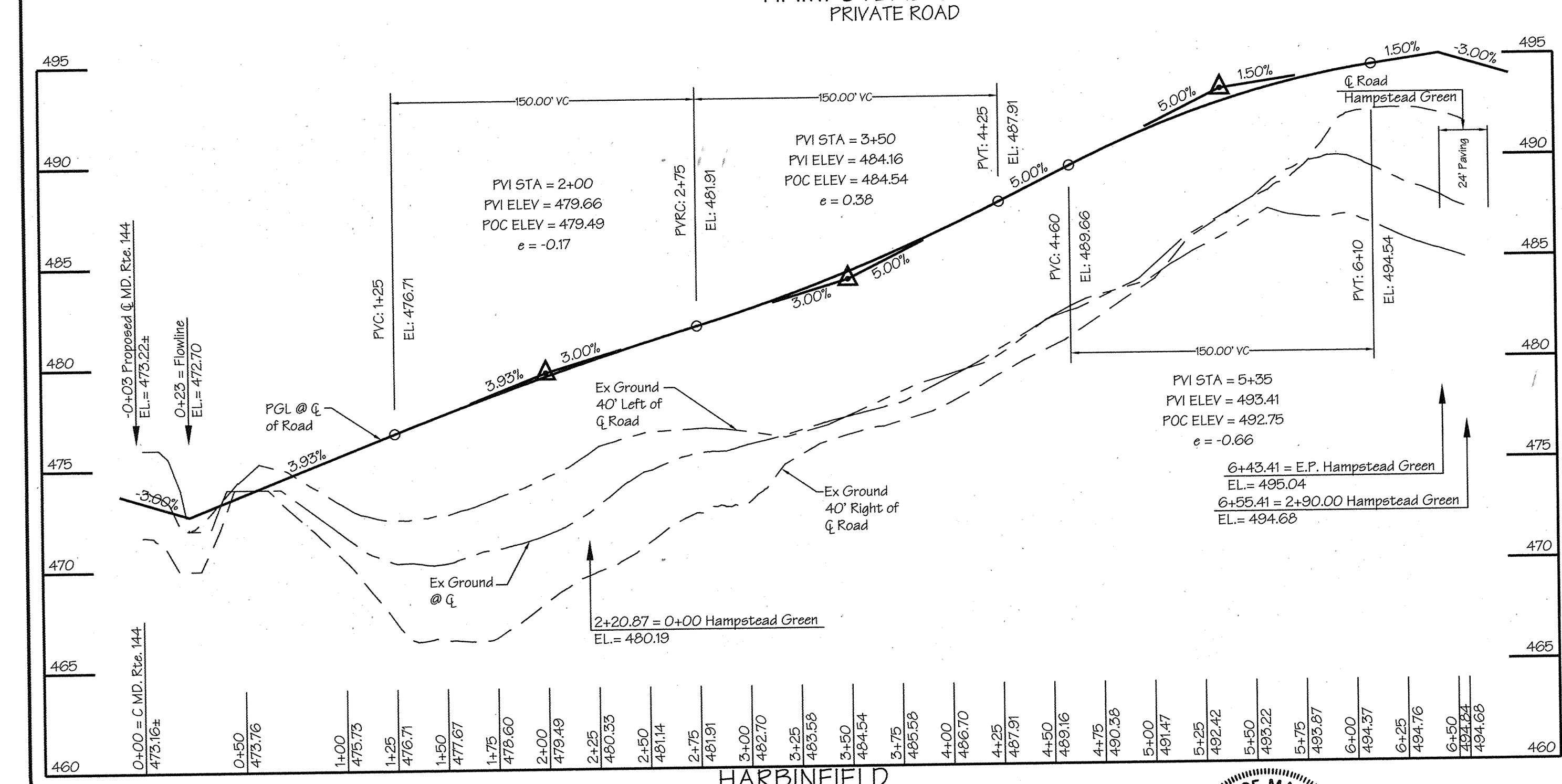
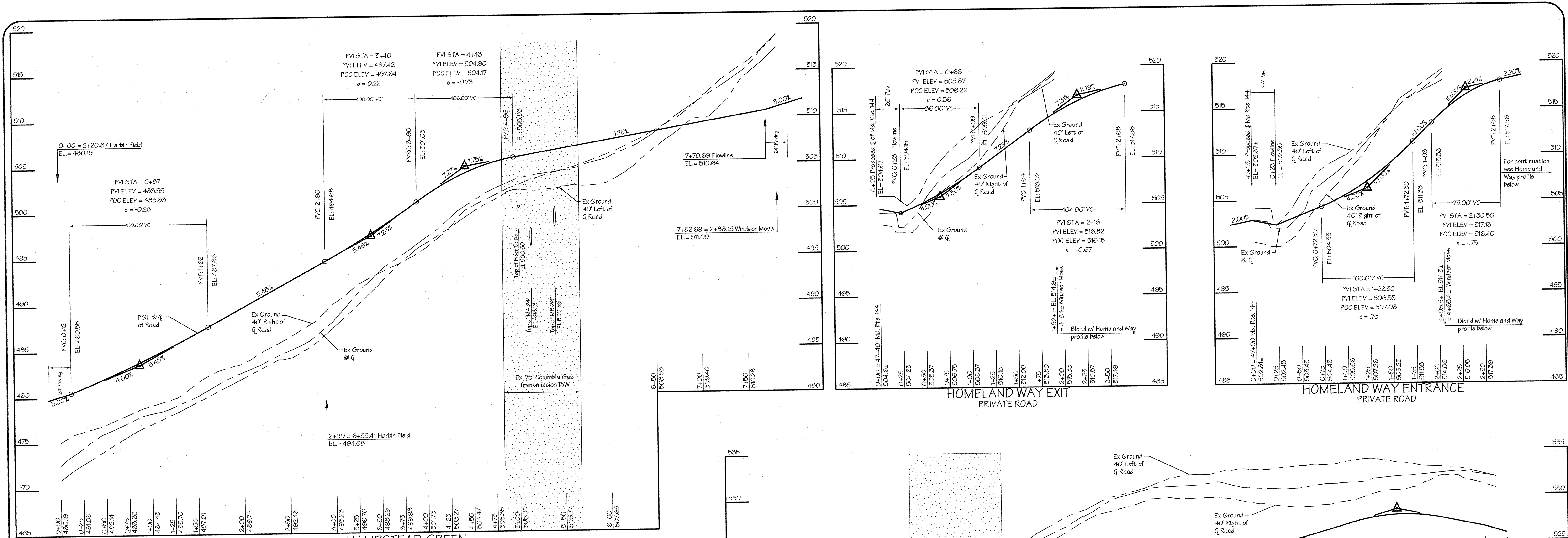
LDE, INC.  
9250 Rumsey Road, Suite 106, Columbia, MD. 21045  
(410) 715-1070. (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED: EDS JLM BDB  
DRAWN: JLM JDR  
CHECKED: BDB  
DATE: 4/2004

Miscellaneous Details  
**HOMELAND**  
PARCEL 'A' AND PARCEL 'B'

Parcel No. 53, 96, 165 & 204  
Block No. 16 & 22  
Zone RC-DEO  
Tax Map No. 16  
Election District 3rd  
Census Tract 6030

Job No. 99-051.4  
File No. SDP-03-30



Note: Construct Homeland Way  
Harbin Field And Hampstead  
Green With Howard County  
Paving Section P-2  
See Detail Sheet 6

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 5/1/04  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 7/1/04  
CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 11/28/04  
DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL.

DATE: \_\_\_\_\_

USDA/NATURAL RESOURCE CONSERVATION SERVICE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

DATE: \_\_\_\_\_

HOWARD SOIL CONSERVATION DISTRICT

ENGINEER'S CERTIFICATE

I certify that this plan and all construction details represent a practical and workable plan for the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the District and engaged a registered professional engineer to supervise pond construction and profile the Howard Soil Conservation District with an "as-built" plan within 90 days of completion. I also authorize periodic pre-site inspections by Howard Soil Conservation District.

*[Signature]* 4/22/04  
SIGNATURE OF ENGINEER

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 as a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and profile the Howard Soil Conservation District with an "as-built" plan within 90 days of completion. I also authorize periodic pre-site inspections by Howard Soil Conservation District.

*[Signature]* 4/22/04  
SIGNATURE OF DEVELOPER

STATE OF MARYLAND  
REGISTERED PROFESSIONAL ENGINEER  
DAVID B. JONES  
4/22/04

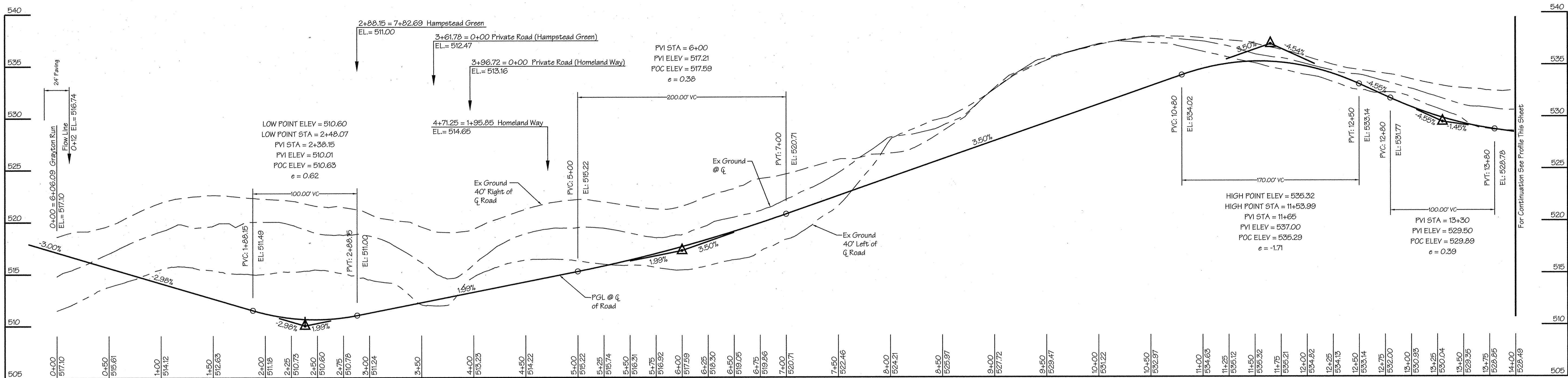
APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

*[Signature]* 6/13/04  
COUNTY HEALTH OFFICER  
HOWARD COUNTY HEALTH DEPARTMENT

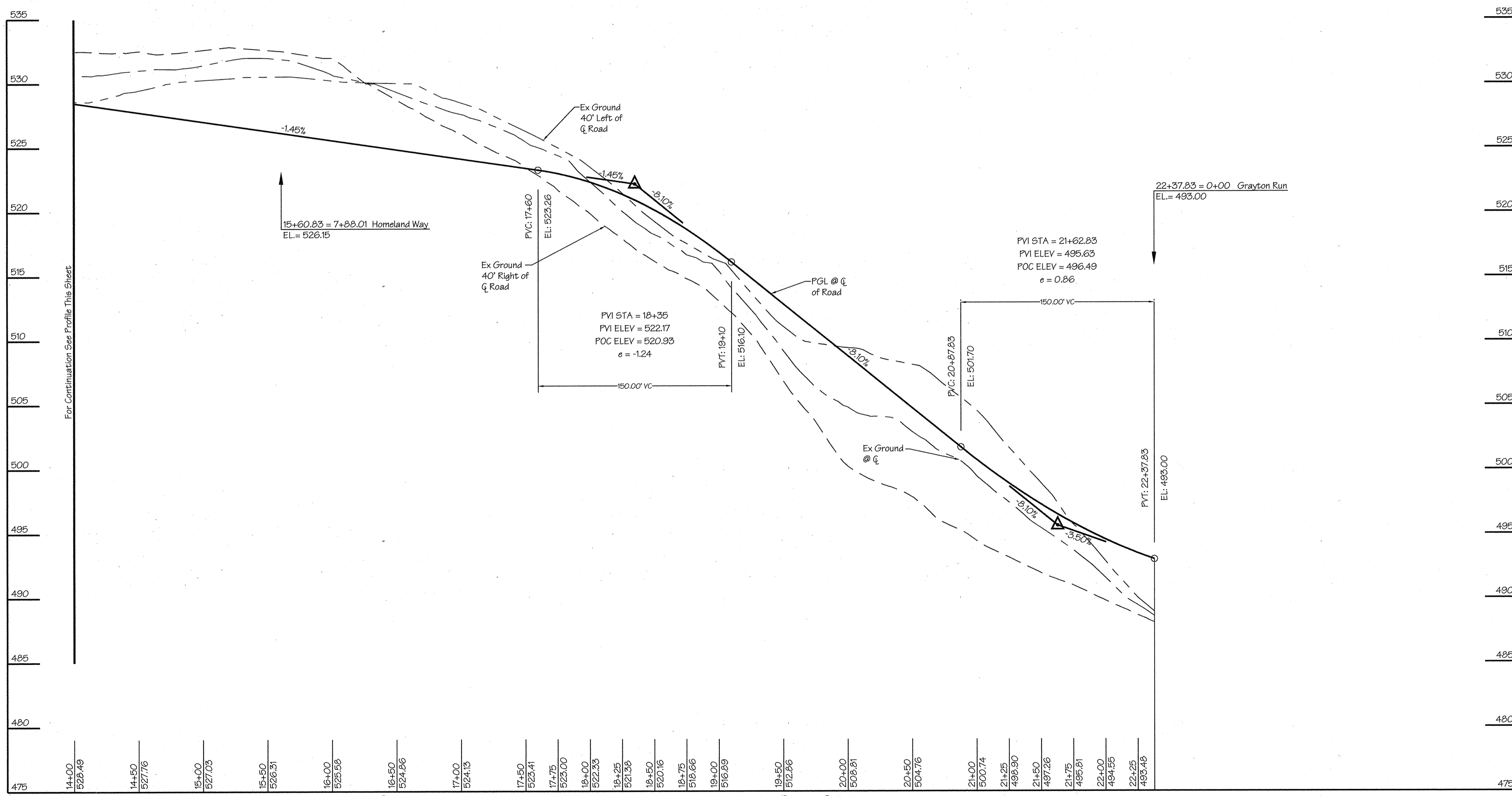
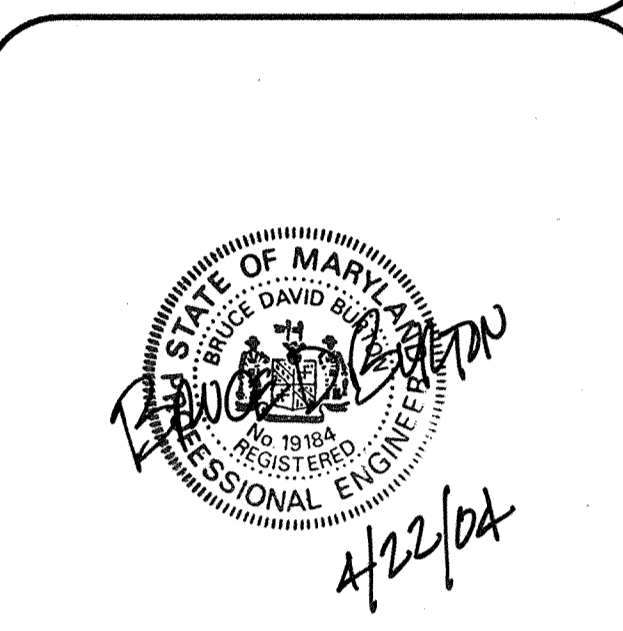
REVISIONS			
No.	Date	By	Description

Subdivision Name: <b>HOMELAND</b>		Sect/Block/Acre: <b>N/A</b>	Parcel No.: <b>53, 96, 165 &amp; 204</b>
Plot Nos.: <b>16 &amp; 22</b>	Zone: <b>RC-DEO</b>	Tax Map No.: <b>16</b>	Election District: <b>3rd</b>
Water Code: <b>J 02</b>	Soil Code: <b>N/A</b>	Consent Tract: <b>6030</b>	
<b>LDE, INC.</b>			
9250 Rumsey Road, Suite 106, Columbia, MD. 21045 (410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)			
DESIGNED: <b>EDS JLM BDB</b>	SCALE: 1"=5' Vert. 1"=50' Horiz.		
DRAWN: <b>JLM JDR</b>	DRAWING: <b>7 of 52</b>		
CHECKED: <b>BDB</b>	JOB NO.: <b>99-051.4</b>		
DATE: <b>4/2004</b>	FILE NO.: <b>GDP-03-30</b>		
DEVELOPER: <b>LB MEADOWS LLC</b> 8835 + P Columbia 100 Parkway Columbia, Maryland 21045 (410) 730-0810			






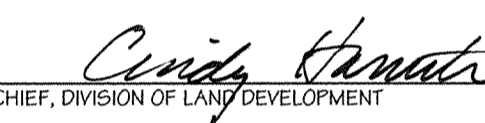
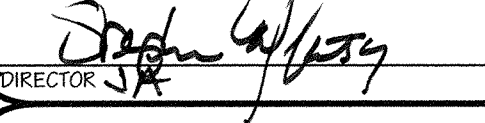
WINDSOR MOSS PRIVATE ROAD



WINDSOR MOSS PRIVATE ROAD

Note: Construct Windsor Moss Howard County Paving Section P-2 See Detail Sheet 6

APPROVED: DEPARTMENT OF PLANNING AND ZONING

 5/7/04  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 7/2/04  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 7/28/04  
 DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL

USDA-NATURAL RESOURCE CONSERVATION SERVICE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT

HOWARD SOIL CONSERVATION DISTRICT

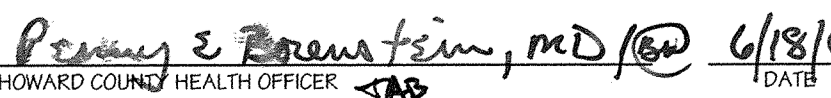
**ENGINEER'S CERTIFICATE**  
 I certify that this plan for pond construction and sediment control represents a practical and workable plan for the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that this is a registered professional engineer to supervise pond construction and that the Howard Soil Conservation District will conduct periodic on-site inspections by Howard Soil Conservation District.

**DEVELOPER'S CERTIFICATE**  
 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 shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

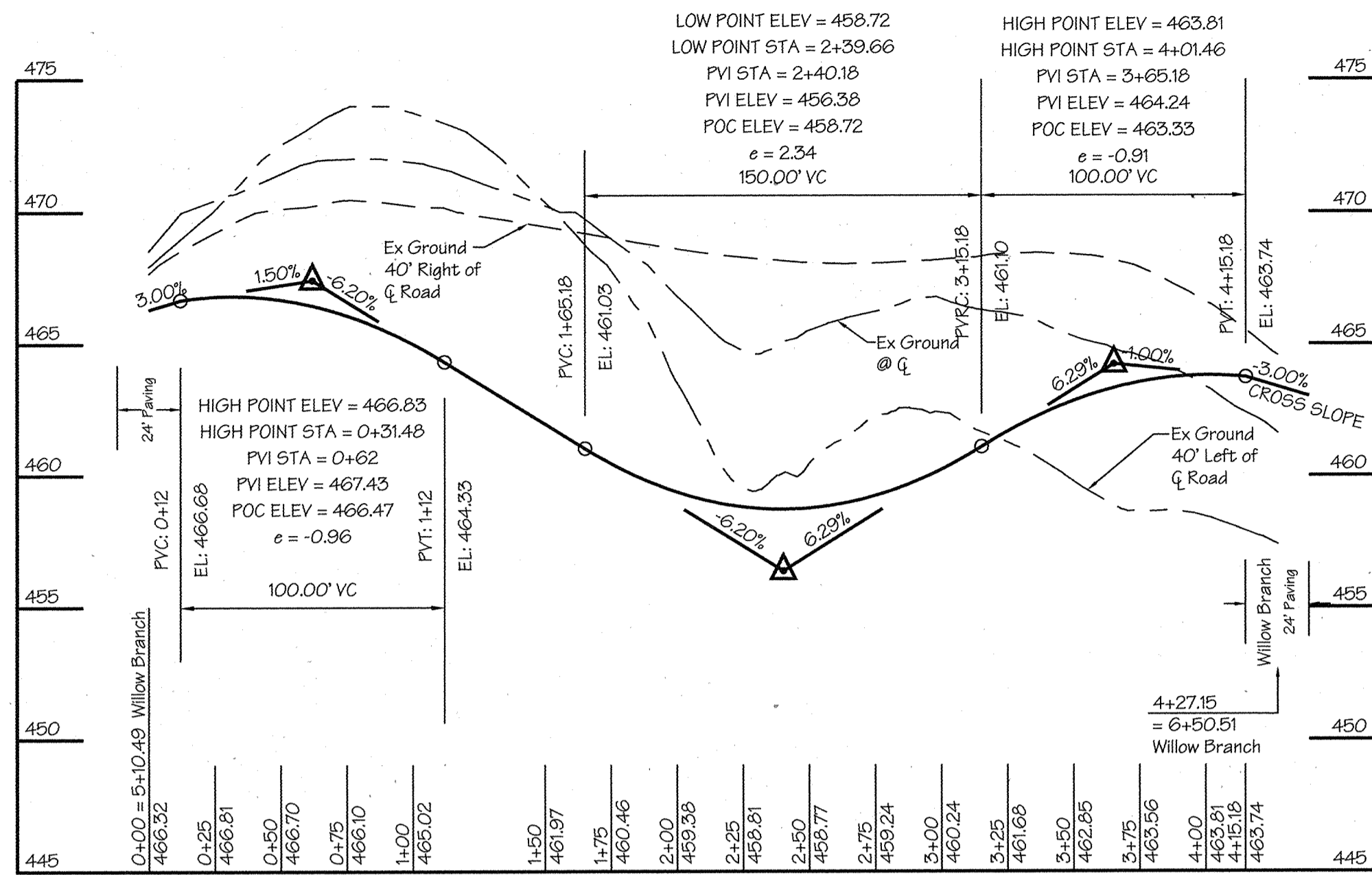
**LDE, INC.**  
 9250 Rumsley Road, Suite 106, Columbia, MD. 21045  
 (410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED EDS JLM BDB	<b>HOMELAND</b> PARCEL 'A' AND PARCEL 'B'  Tax Map No. 16 - Grid No. 16 & 22 - Parcel 53, 96, 165 & 204 3rd Election District - Howard County, Maryland Previous Submittals: BA 00-52E, WP 03-12B, F03-194	SCALE 1"=5' Vert. 1"=50' Horiz.
DRAWN JLM JDR		DRAWING B of 52
CHECKED BDB		JOB NO. 99-051.4
DATE 4/20/04		DEVELOPER LB MEADOWS LLC 8835 - P Columbia 100 Parkway Columbia, Maryland 21045 (410) 730-0910

REVISIONS			
No.	Date	By	Description

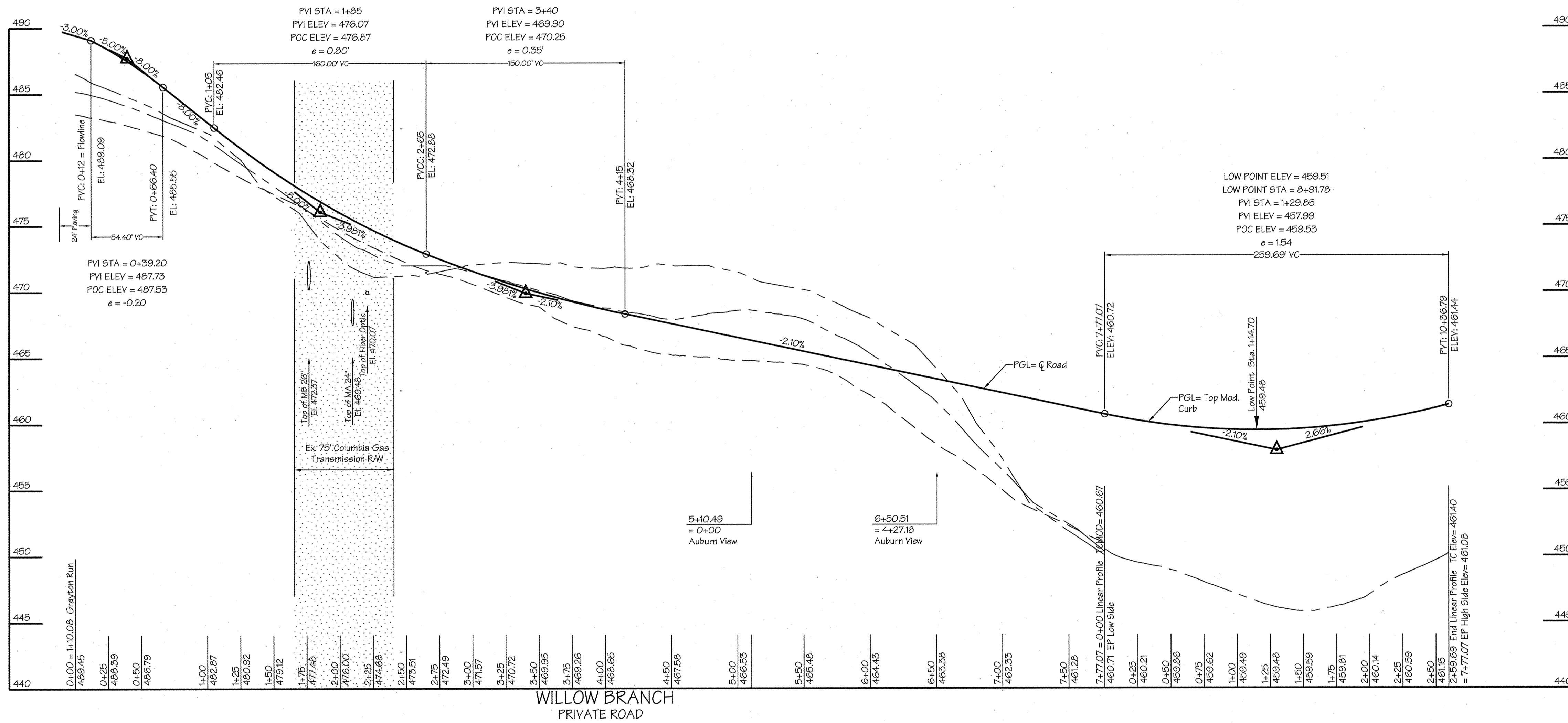
APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY.  
 4/18/04  
 HOWARD COUNTY HEALTH OFFICER

Subdivision Name HOMELAND	Sect/Area N/A	Parcel No. 53, 96, 165 & 204
PLOT No. 16 & 22	Zone RC-DEO	Tax Map No. 16
Water Code J 02	Election District 3rd	Census Tract 6030
Sewer Code N/A		

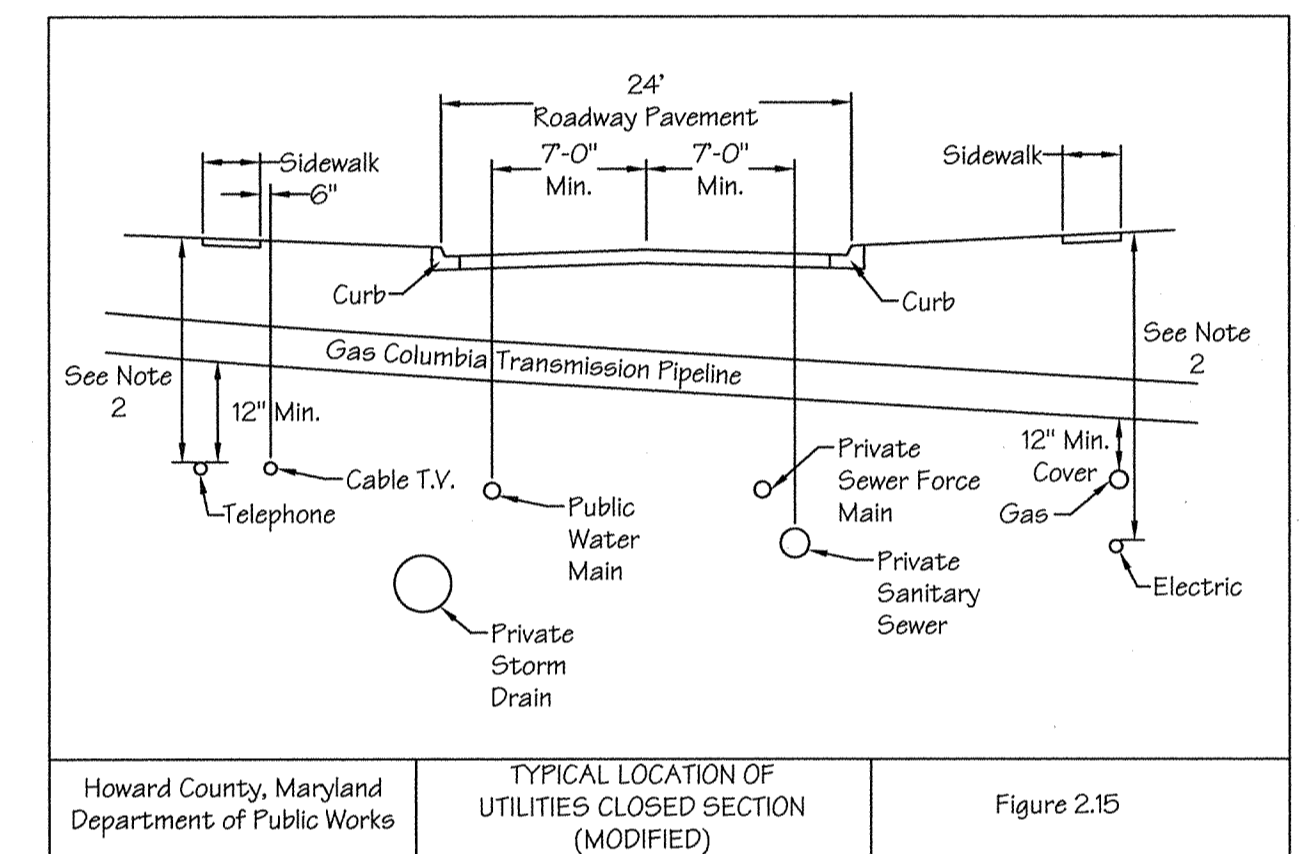


AUBURN VIEW PRIVATE ROAD

Note: Construct Auburn View and Willow Branch with Howard County Paving Section P-2, See Detail Sheet G.



WILLOW BRANCH PRIVATE ROAD



TYPICAL UTILITY LOCATIONS AT COLUMBIA GAS TRANSMISSION MAIN CROSSING

NOTES:

- 1) Gas, electric and telephone lines may be placed in the same trench at the option of the Baltimore Gas & Electric Co. and Bell Atlantic.
- 2) Electric: 0-600 v 24" cover; over 600 v 36" cover. Telephone: Main Service 24" cover; Residential Connection 11" cover; Cable: 11" cover.
- 3) See standard Fig. 2.16 for normal location of public utilities open section.
- 4) Provide 42" steel casing for future water and sewer mains. All utilities shall maintain a minimum of 12" vertical clearance below the Columbia Transmission Pipelines.
- 5) All work performed within the Columbia Gas Pipeline R/W shall be in accordance with the special note to contractors on sheet No. 1.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Chad Primm*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
5/1/04  
*Cindy Howard*  
CHIEF, DIVISION OF LAND DEVELOPMENT  
7/21/07  
*Stephen J. ...*  
DIRECTOR  
7/28/04

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL

USDA-NATURAL RESOURCE CONSERVATION SERVICE  
DATE  
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
DATE

ENGINEER'S CERTIFICATE

I certify that this plan for the construction of the sediment control represents a practical and workable plan for the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the Howard Soil Conservation District of the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

DATE 4/22/04  
SIGNATURE OF ENGINEER  
DATE 4/22/04  
DEVELOPER'S CERTIFICATE  
I 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 shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

STATE OF MARYLAND  
REGISTERED PROFESSIONAL ENGINEER  
DATE 4/22/04

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

*Priscilla E. Rosenheim, P.E.*  
COUNTY HEALTH OFFICER  
HOWARD COUNTY HEALTH DEPARTMENT  
DATE 6/18/07

REVISIONS			
No.	Date	By	Description

Subdivision Name: HOMELAND		Sect/Area: N/A	Parcel No.: 53, 96, 165 & 204
Plot Nos.: 16 & 22	Zone: RC-DEO	Tax Map No.: 16	Election District: 3rd
Water Code: J 02	Sewer Code: N/A	Census Tract: 6030	

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

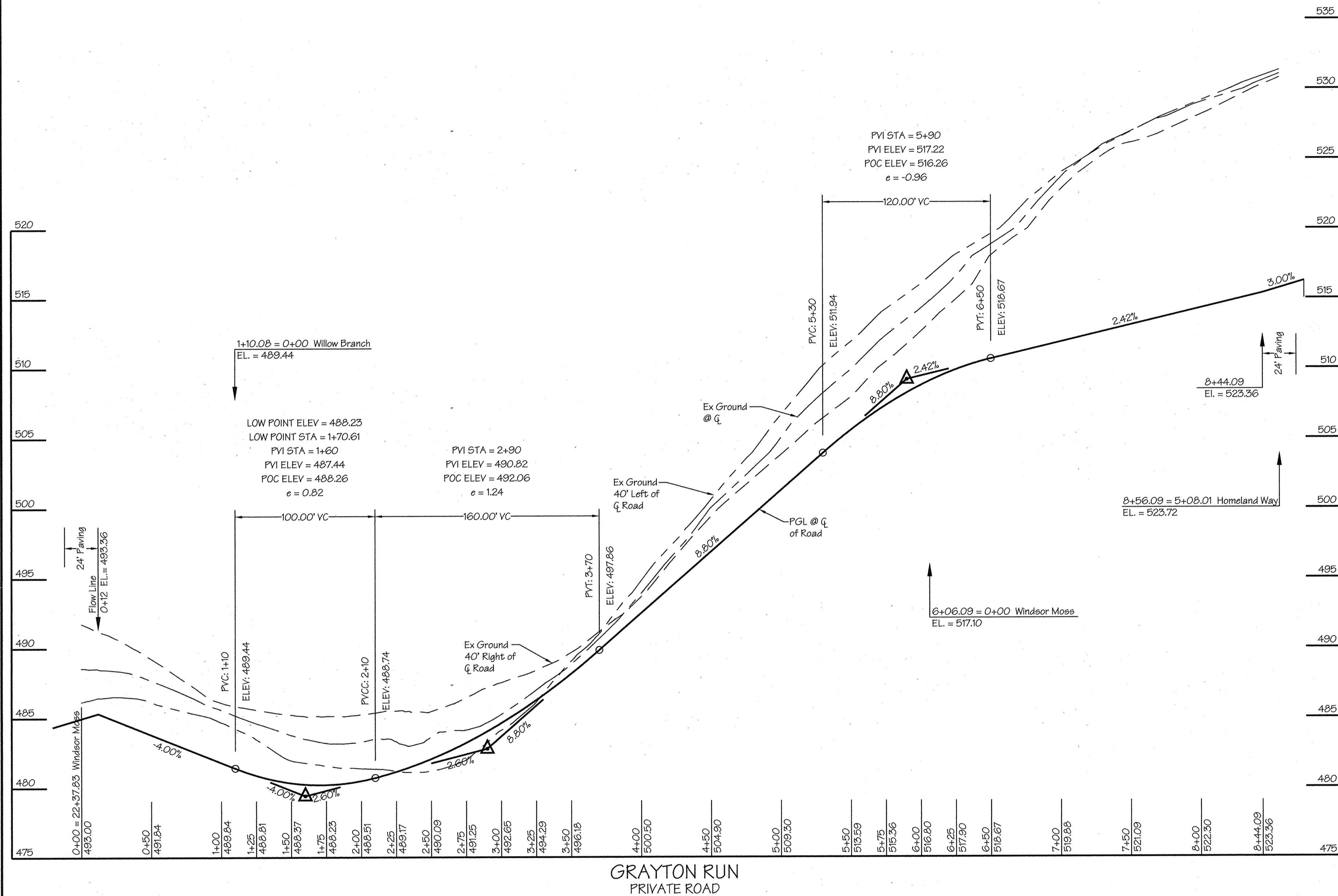
DESIGNED: EDS JLM, BDB  
DRAWN: JLM, JDR  
CHECKED: BDB  
DATE: 4/2004

ROADWAY VERTICAL ALIGNMENT  
**HOMELAND**  
PARCEL 'A' AND PARCEL 'B'

Tax Map No. 16 - Grid No. 16 & 22 - Parcel 53, 96, 165 & 204  
3rd Election District - Howard County, Maryland  
Previous Submittals: BA 00-52E, WP 03-12B, F 03-194

DEVELOPER: LB MEADOWS LLC  
8835 - P Columbia 100 Parkway  
Columbia, Maryland 21045  
(410) 730-3010

SCALE: 1"=5' Vert., 1"=50' Horiz.  
DRAWING: 9 of 52  
JOB NO.: 99-051.4  
FILE NO.: SDP-03-30



Note: Construct Grayton View  
With Howard County  
Paving Section P-2  
See Detail Sheet 6

File and Project: R204489N\JMS\FREET PROFILES.dwg, (0) Road Pro, 1/28/2004 9:45:36 PM

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 5/1/04  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 7/21/04  
CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 7/28/04  
DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL

USDA-NATURAL RESOURCE CONSERVATION SERVICE

DATE: \_\_\_\_\_

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT

DATE: \_\_\_\_\_

**ENGINEER'S CERTIFICATE**

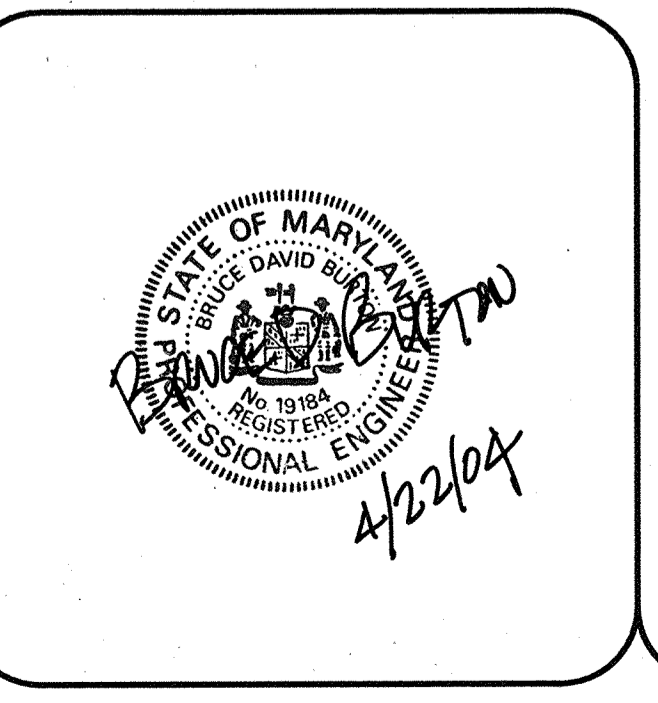
I certify that this plan for pond construction and sediment control represents a practical and workable plan based on the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the appropriate authorities and engaged a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

*[Signature]* 4/22/04  
SIGNATURE OF ENGINEER

**DEVELOPER'S CERTIFICATE**

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 Erosion and Sedimentation before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

*[Signature]* 4/22/04  
SIGNATURE OF DEVELOPER



APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

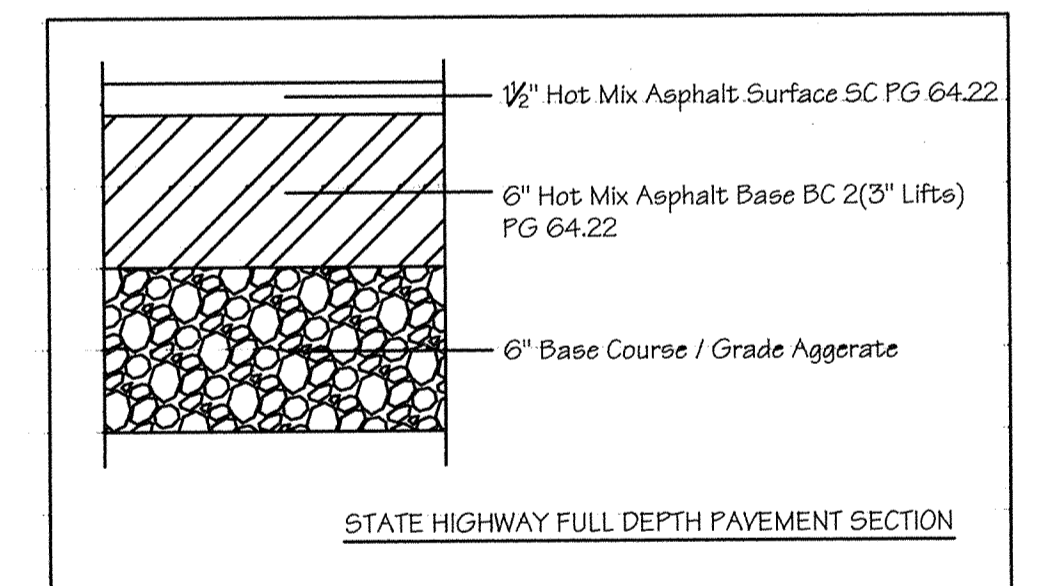
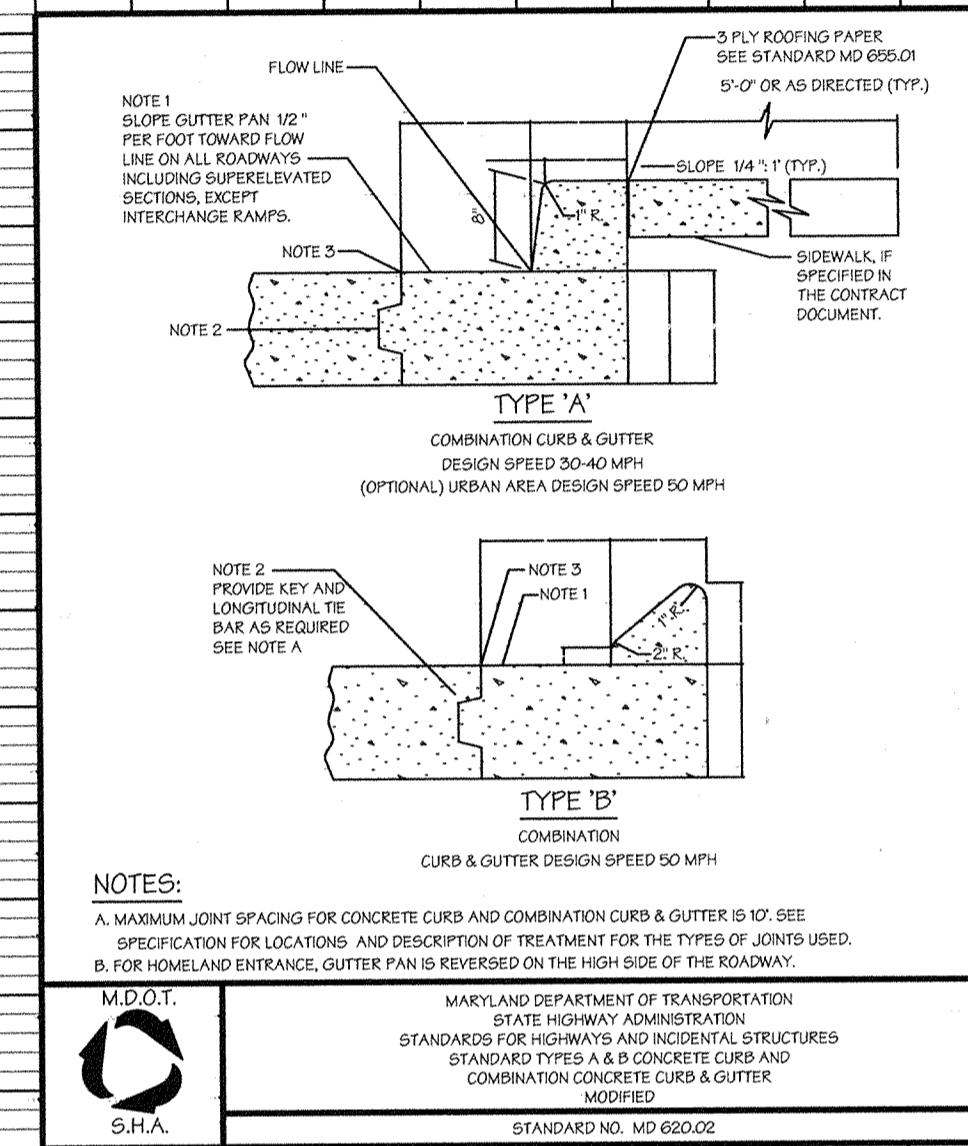
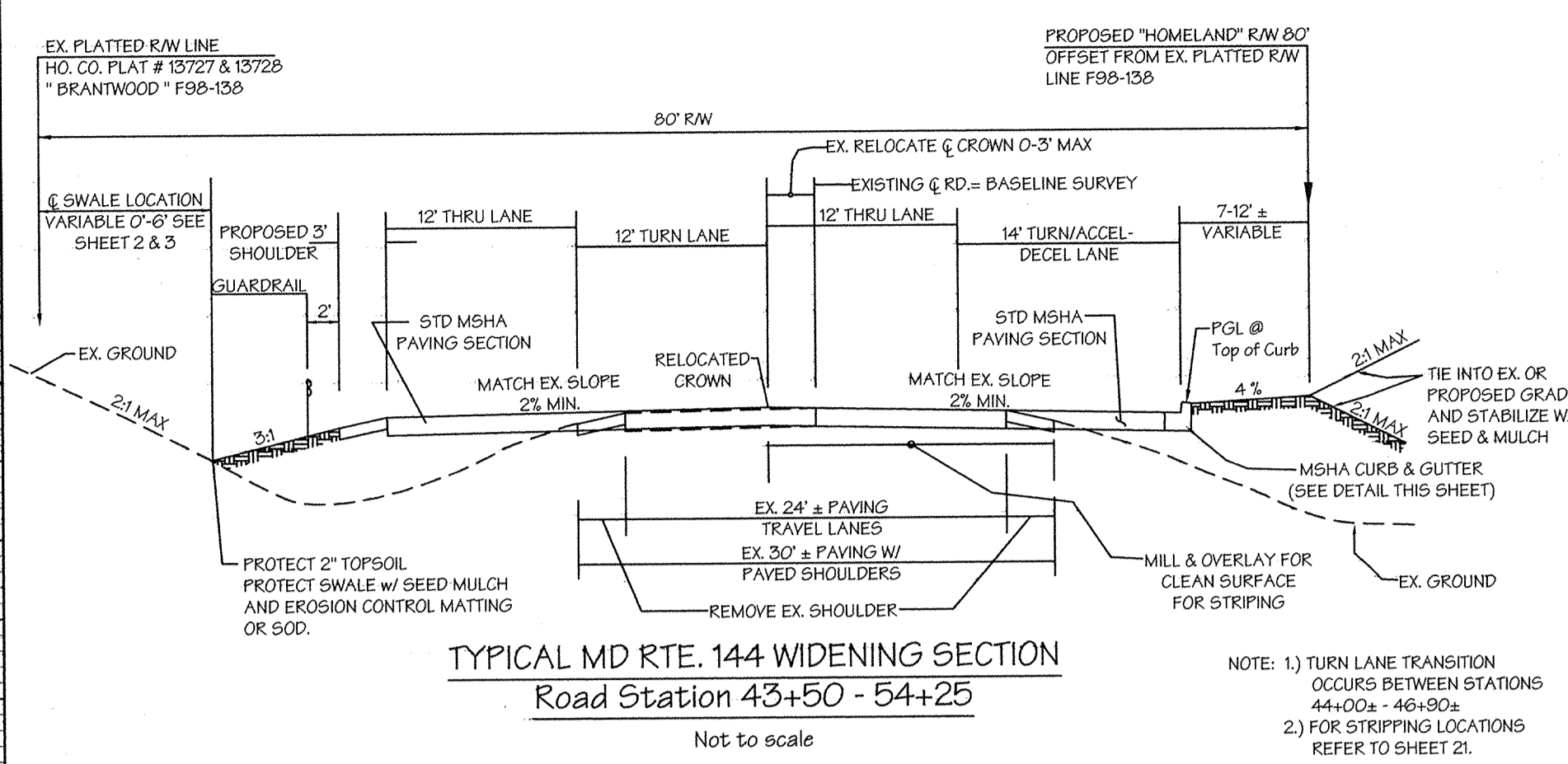
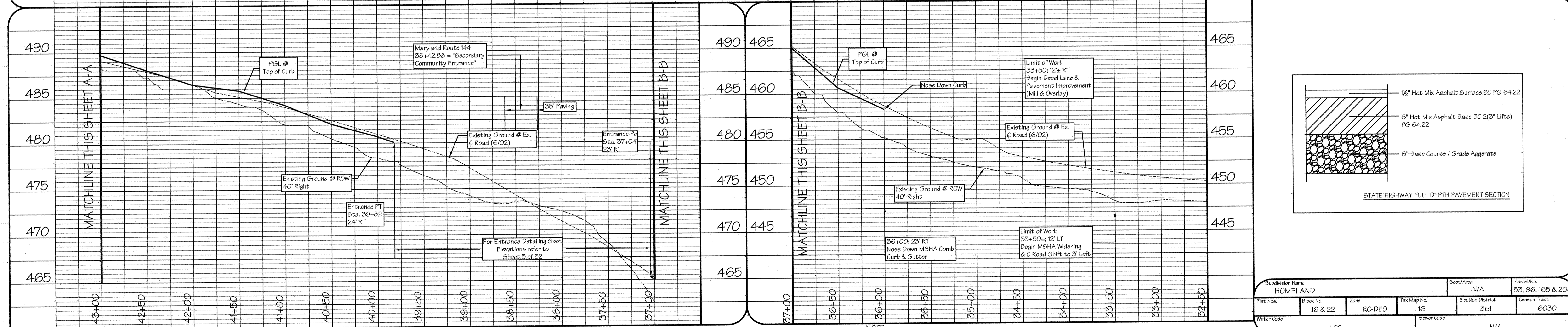
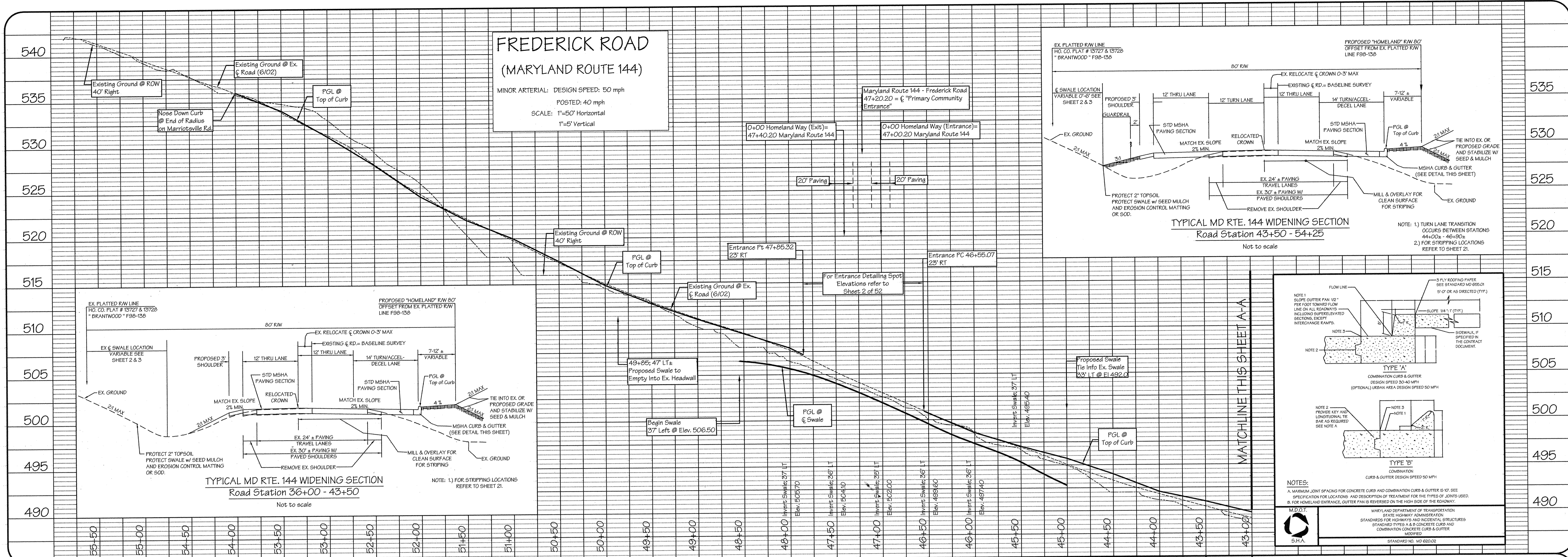
*[Signature]* 6/18/04  
COUNTY HEALTH OFFICER  
HOWARD COUNTY HEALTH DEPARTMENT

REVISIONS			
No.	Date	By	Description

Subdivision Name: HOMELAND		Sect/Area: N/A		Parcel No.: 53, 96, 165 & 204	
Plot Nos.: 16 & 22	Zone: RC-DEO	Tax Map No.: 16	Election District: 3rd	Census Tract: 6030	
Water Code: J 02			Sewer Code: N/A		

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

DESIGNED: EDG JLM	Roadway Vertical Alignment	SCALE: 1"=5' Vert. 1"=50' Horiz.
BDB		
DRAWN: JLM	<b>HOMELAND</b> PARCEL 'A' AND PARCEL 'B'	DRAWINGS: 10 of 52
JDR		
CHECKED: BDB	Tax Map No. 16 - Grid No. 16 & 22 - Parcel 53, 96, 165 & 204	JOB NO.: 99-051.4
DATE: 4/2004	3rd Election District - Howard County, Maryland Previous Submittals: BA 00-52E, WP 03-12B, F 03-194	FILE NO.: SDP-03-30
DEVELOPER: LB MEADOWS LLC	8835 - P Columbia 100 Parkway Columbia, Maryland 21045 (410) 730-0810	



- NOTE:
- All offsets are from existing  $\bar{C}$  Road herein referred to as "Baseline Survey".
  - Contractor shall compute existing  $\bar{C}$  elevation along "Baseline Survey" @ 50' stations. To elevation = ((Elev + 0.20') in MSHA curb & gutter locations; 36+00 thru 42+25; 23' Rt. 2% Cross slope min.
  - Contractor shall compute existing centerline elevation along "Baseline Survey" @ 50' stations. To elevation = ((Elev - 0.15') in MSHA curb & gutter locations; 51+75 thru 54+00; 26' Rt. 2% Cross slope min.
  - Centerline shift occurs from proposed  $\bar{C}$  back to existing  $\bar{C}$  of "Baseline Survey" from approx. stations 49+25 to 51+75.
  - Contractor shall compute existing centerline elevation @ 50' Stations. Ep elev = ((Elev - 0.24'); 36+00 thru 43+50; 12' Lt. 2% Cross slope min.
  - Swale on southern edge of MD 144 is typically triangular w/ 3:1 side slopes. 50' station elev. and offsets are detailed above. Offsets are from "Baseline Survey".

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

*Barbara S. Brown* (Signature)  
COUNTY HEALTH OFFICER  
HOWARD COUNTY HEALTH DEPARTMENT

REVISIONS		
No.	Date	By Description

Subdivision Name:	HOMELAND	Block/No:	16 & 22	Zone:	RC-DEO	Tax Map No.:	16	Election District:	3rd	Parcel No.:	53, 96, 165 & 204
Water Code:	J 02	Sewer Code:	N/A	Census Tract:	6030						

DESIGNED: EDS JLM, BDB SDH  
DRAWN: JLM, JDR  
CHECKED: BDB  
DATE: 4/2004

DEVELOPER: LB MEADOWS LLC  
8825 - F Columbia 100 Parkway  
Columbia, Maryland 21045  
(410) 730-0810

FILE NO.: SDP-03-30

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Cheryl Williams* (Signature)  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 5/1/04

*Cindy Harms* (Signature)  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 7/6/04

*Stephen Caffery* (Signature)  
DIRECTOR  
DATE: 7/28/04

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL

DATE: 5/22/04

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT

DATE: 5/22/04

ENGINEER'S CERTIFICATE

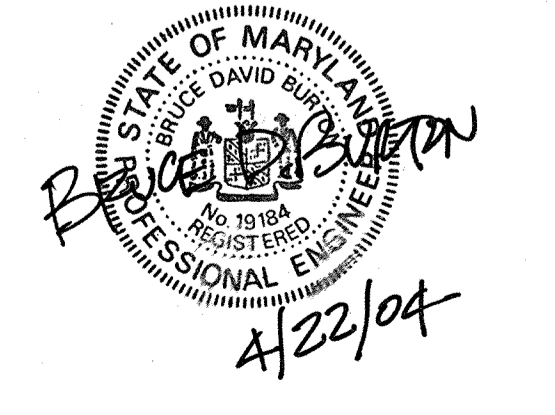
I certify that this plan for pond construction, soil erosion and sediment control represents a practical and workable plan for the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the appropriate agencies and a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond construction.

*Eric D. Bullock* (Signature)  
REGISTERED PROFESSIONAL ENGINEER  
DATE: 4/22/04

DEVELOPER'S CERTIFICATE

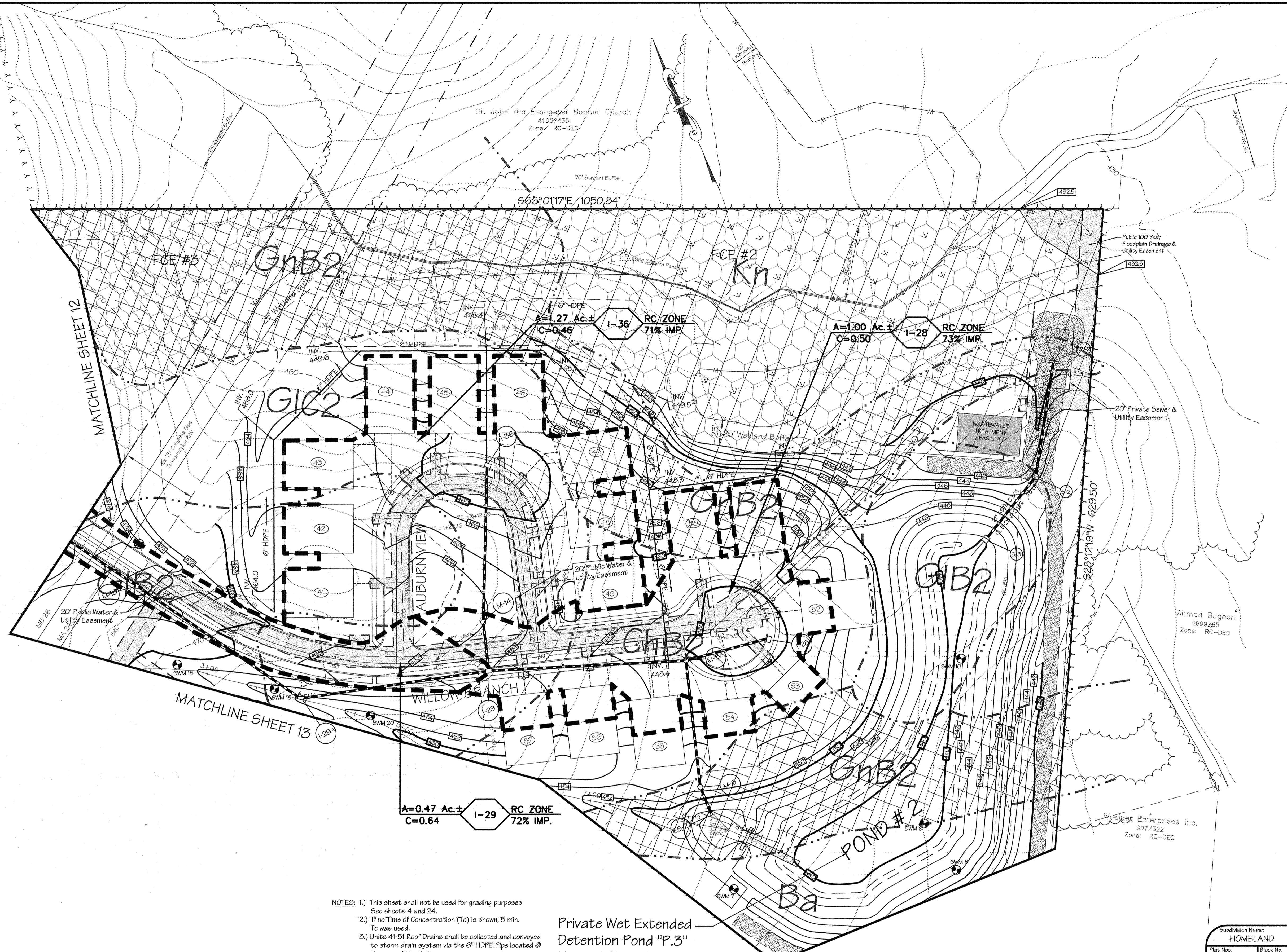
We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond construction. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

*Eric D. Bullock* (Signature)  
DATE: 4/22/04









NOTES: 1) This sheet shall not be used for grading purposes. See sheets 4 and 24.  
 2) If no Time of Concentration (Tc) is shown, 5 min. Tc was used.  
 3) Units 41-51 Roof Drains shall be collected and conveyed to storm drain system via the 6" HDPE Pipe located @ the rear of the Units.

Private Wet Extended Detention Pond "P.3"  
 Hazard Classification "A"  
 See Sheet 4

**LEGEND**

ACREAGE C FACTOR	INLET SUBAREA	ZONING % IMPEROUS	
---	---	---	DRAINAGE DIVIDE
---	---	---	SOILS DIVIDE
---	---	---	SOIL "B"
---	---	---	SOIL "C"
---	---	---	SOIL "D"
---	---	---	SOIL BORING
---	---	---	COLUMBIA GAS WITNESS POST
---	---	---	FIBER OPTIC MARKER

Subdivision Name: <b>HOMELAND</b>		Block/Area	Parcel No.
Flat No.:		16 & 22	53, 96, 165 & 204
Zone:	RC-DEO	Tax Map No.:	16
Election District:	3rd	Census Tract:	6030
Water Code:	J 02	Sewer Code:	N/A

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

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 5/1/04  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 7/2/04  
 CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 7/28/04  
 DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL

USDA-NATURAL RESOURCE CONSERVATION SERVICE

DATE: \_\_\_\_\_

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT

DATE: \_\_\_\_\_

**ENGINEER'S CERTIFICATE**

I certify that this plan for pond construction and sediment control represents a practical and workable plan for the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer of the requirements of the Howard Soil Conservation District with this plan of the pond within 30 days of completion.

*[Signature]* 4/22/04  
 ENGINEER

**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 shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

*[Signature]* 4/22/04  
 DEVELOPER

**STATE OF MARYLAND**  
 SURVEYOR

*[Signature]* 4/22/04  
 REGISTERED PROFESSIONAL ENGINEER

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

*[Signature]* 6/18/04  
 COUNTY HEALTH OFFICER  
 HOWARD COUNTY HEALTH DEPARTMENT

**REVISIONS**

No.	Date	By	Description

DATE: 4/2004

DESIGNED: EDS JLM, BDB  
 DRAWN: JLM, JDR  
 CHECKED: BDB  
 DATE: 4/2004

Drainage Area Map

**HOMELAND**  
 PARCEL 'A' AND PARCEL 'B'

SCALE: 1" = 50'

DRAWING: 14 of 52

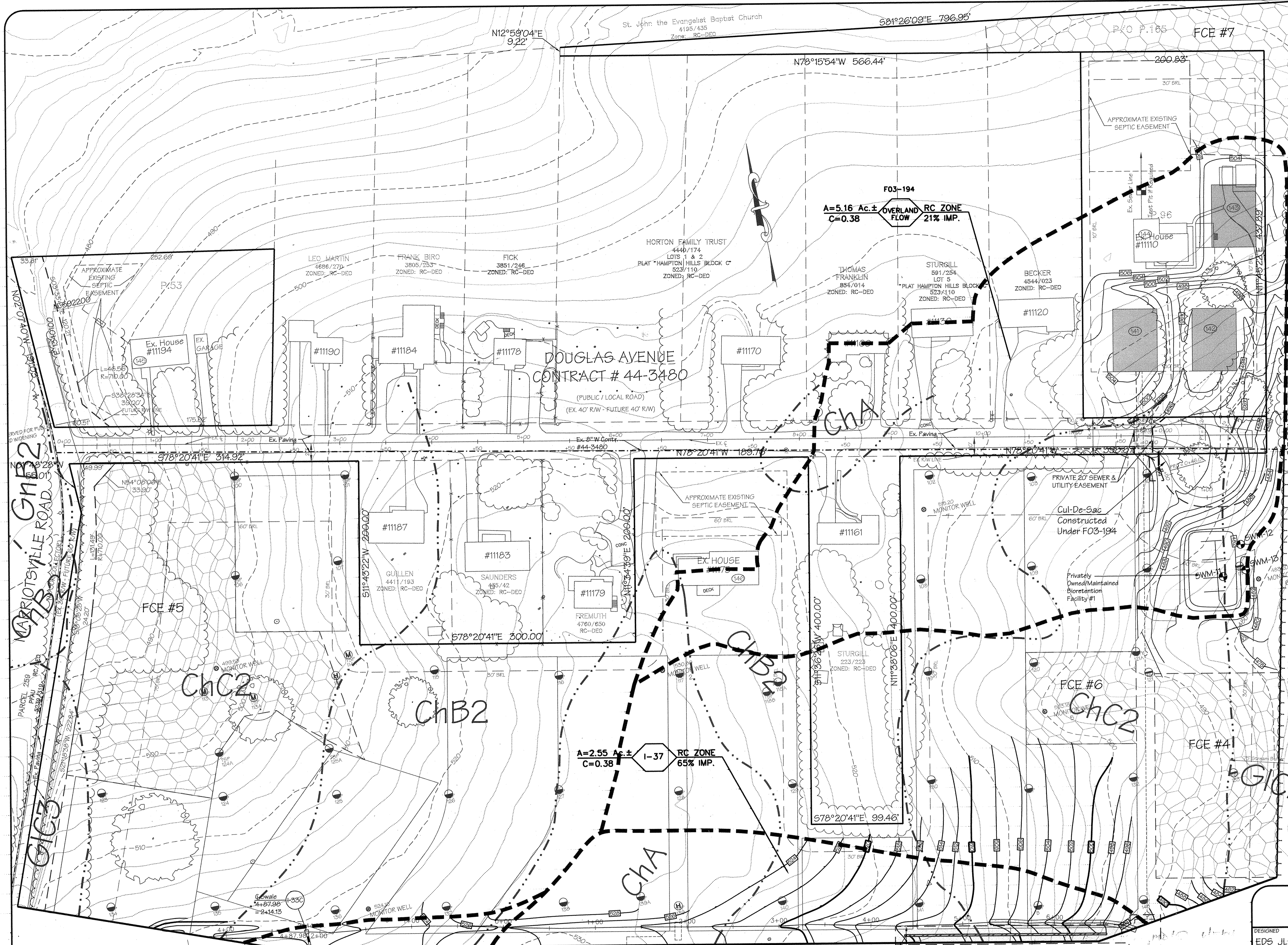
JOB NO.: 99-051.4

FILE NO.: SDP-03-30

Map No. 16 - Grid No. 16 & 22 - Parcel 53, 96, 165 & 204  
 3rd Election District - Howard County, Maryland  
 Previous Submittals: BA 00-52E, WF 03-12B, F 03-194

DEVELOPER: **LB MEADOWS LLC**  
 8835 - F Columbia 100 Parkway  
 Columbia, Maryland 21045  
 (410) 730-0810

Filand Projects: C:\P\H\B\B\J\DR\AN\AGE AREA MAP.dwg, DWG, 4/22/2004 1:46:00 AM



**LEGEND**

ACREAGE C <sup>2</sup> FACTOR	INLET/SUBAREA	ZONING	% IMPERVIOUS
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---
---	---	---	---



APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Chad Williams* 5/16/04  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
*Cindy Kamstra* 7/2/04  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
*John Lefferts* 7/28/04  
 DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL.

USDA-NATURAL RESOURCE CONSERVATION SERVICE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

**ENGINEER'S CERTIFICATE**

I certify that this plan for... represents a practical and workable plan... prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the... of my registration as a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize pond-site inspections by Howard Soil Conservation District.

*David Williams* 4/22/04  
 SIGNATURE OF ENGINEER

**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 as a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I will engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize pond-site inspections by Howard Soil Conservation District.

*David Williams* 4/22/04  
 SIGNATURE OF DEVELOPER

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

DESIGNED EDS JLM BDB	<p><b>HOMELAND</b>          PARCEL 'A' AND PARCEL 'B'</p> <p>Tax Map No. 16 - Grid No. 16 &amp; 22 - Parcel 53, 96, 165 &amp; 204          3rd Election District - Howard County, Maryland          Previous Submittals: BA 00-52E, WF 03-02B, F03-194</p>	SCALE 1" = 50'
DRAWN JLM JDR		DRAWING 15 of 52
CHECKED BDB		JOB NO. 99-0514
DATE 4/2004		DEVELOPER LB MEADOWS LLC 8835 - P. Columbia 100 Parkway Columbia, Maryland 21045 (410) 730-0810

**REVISIONS**

No.	Date	By	Description

NOTES: 1) This sheet shall not be used for grading purposes. See sheets 5 and 25.  
 2) If no Time of Concentration (Tc) is shown, 5 min. Tc was used.  
 3) For Right-of-way dedication information for the Douglas Avenue Cul-de-sac, refer to F03-194.

**LEGEND**

- = Test Pit Location (PASSED)
- ⊕ = Excavated Test Location Hold For Further Evaluation
- ⊖ = Test Pit Location (FAILED)
- ⊙ = Test Pit Location (MARGINAL)

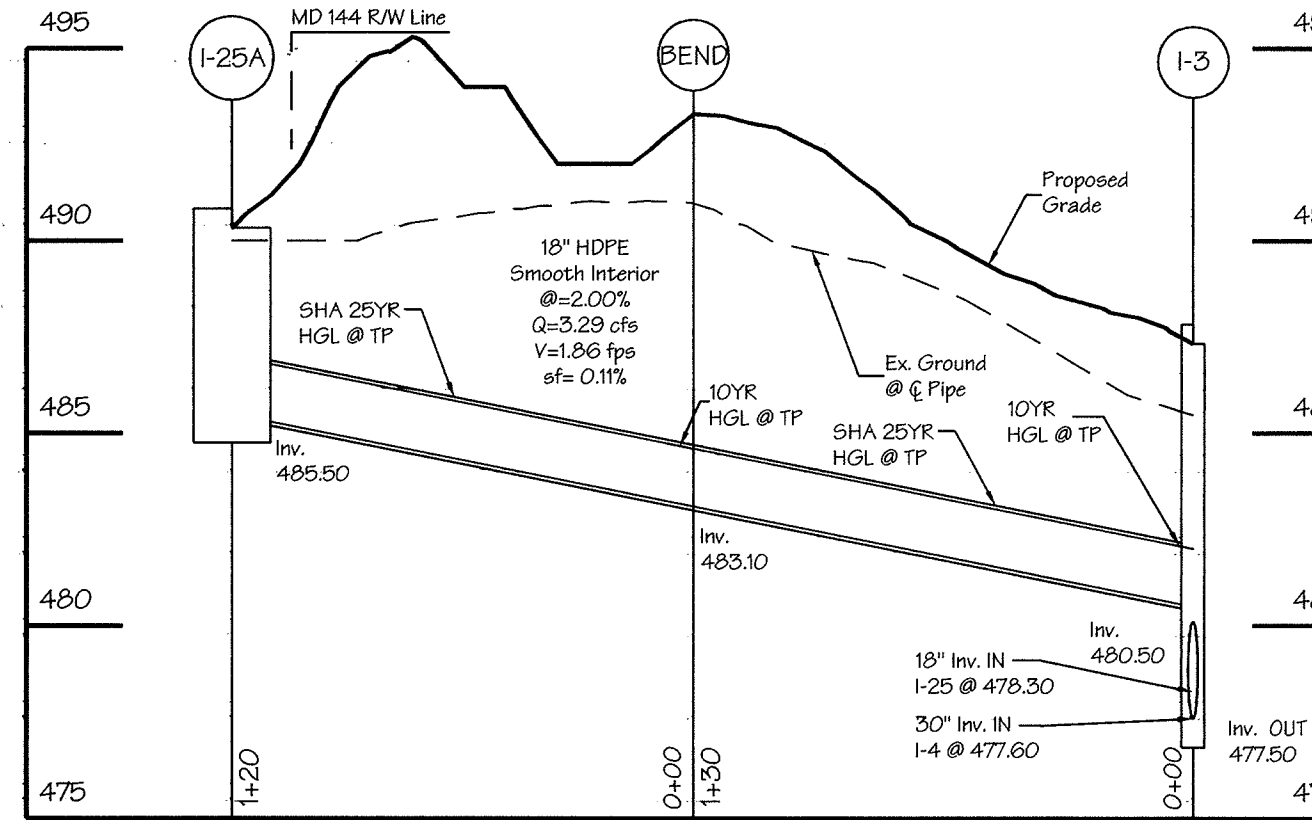
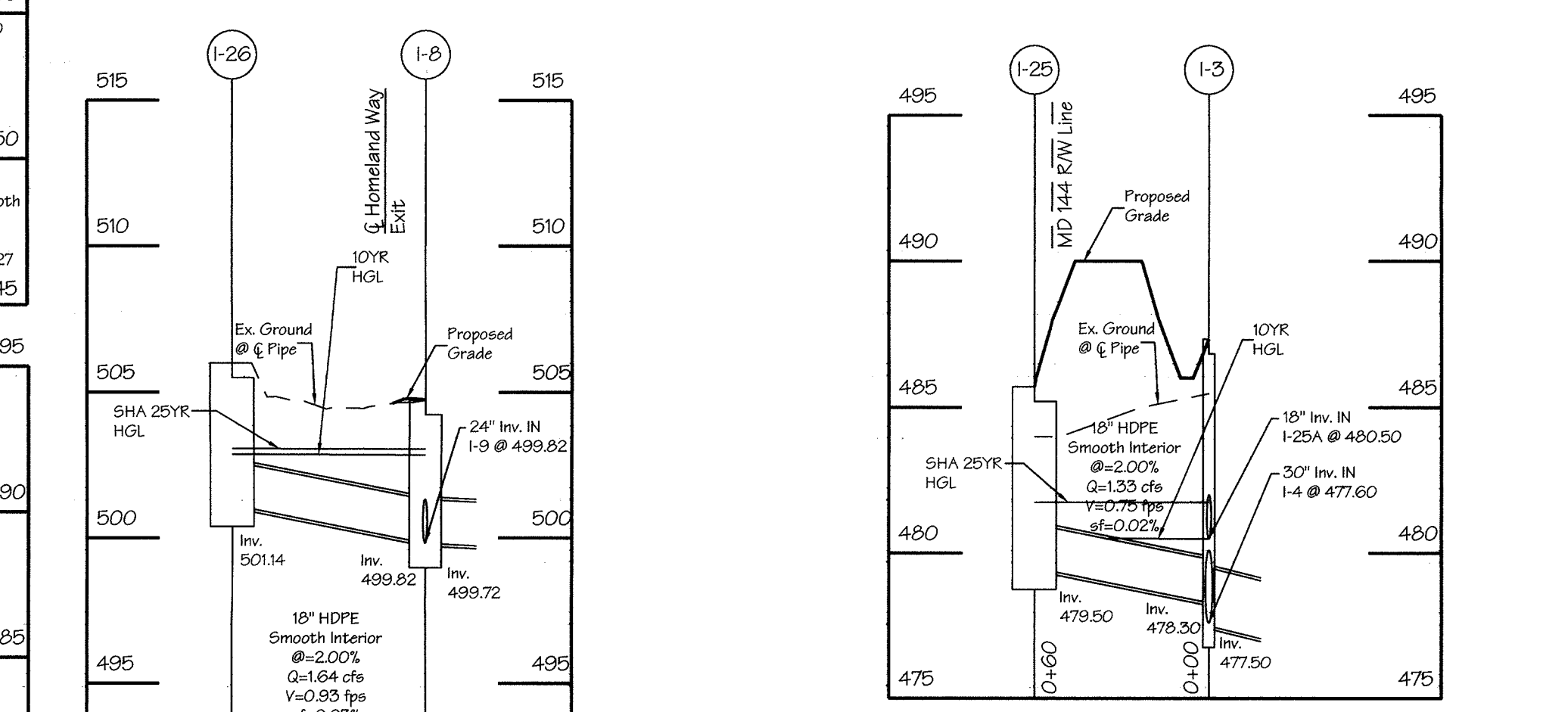
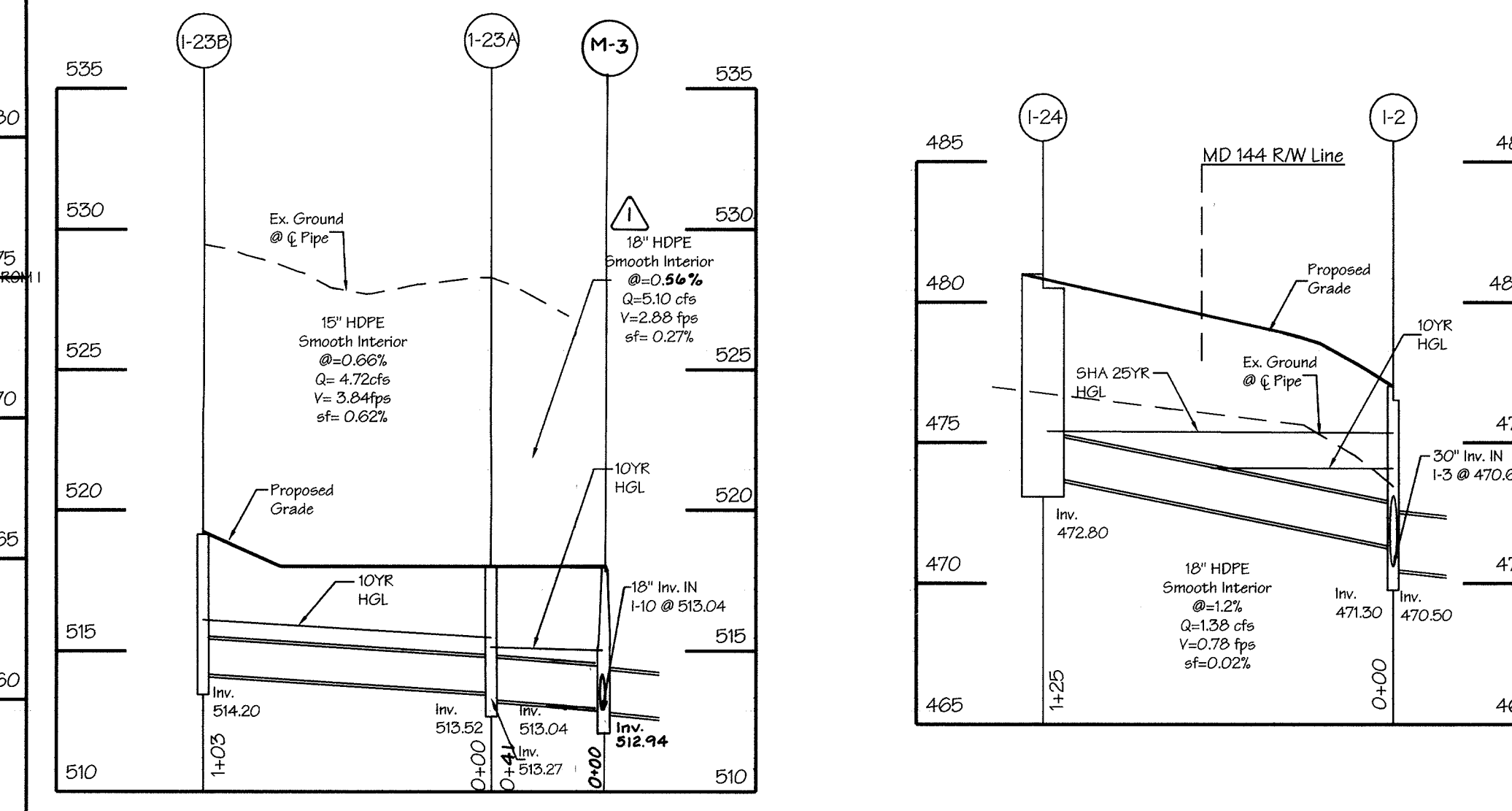
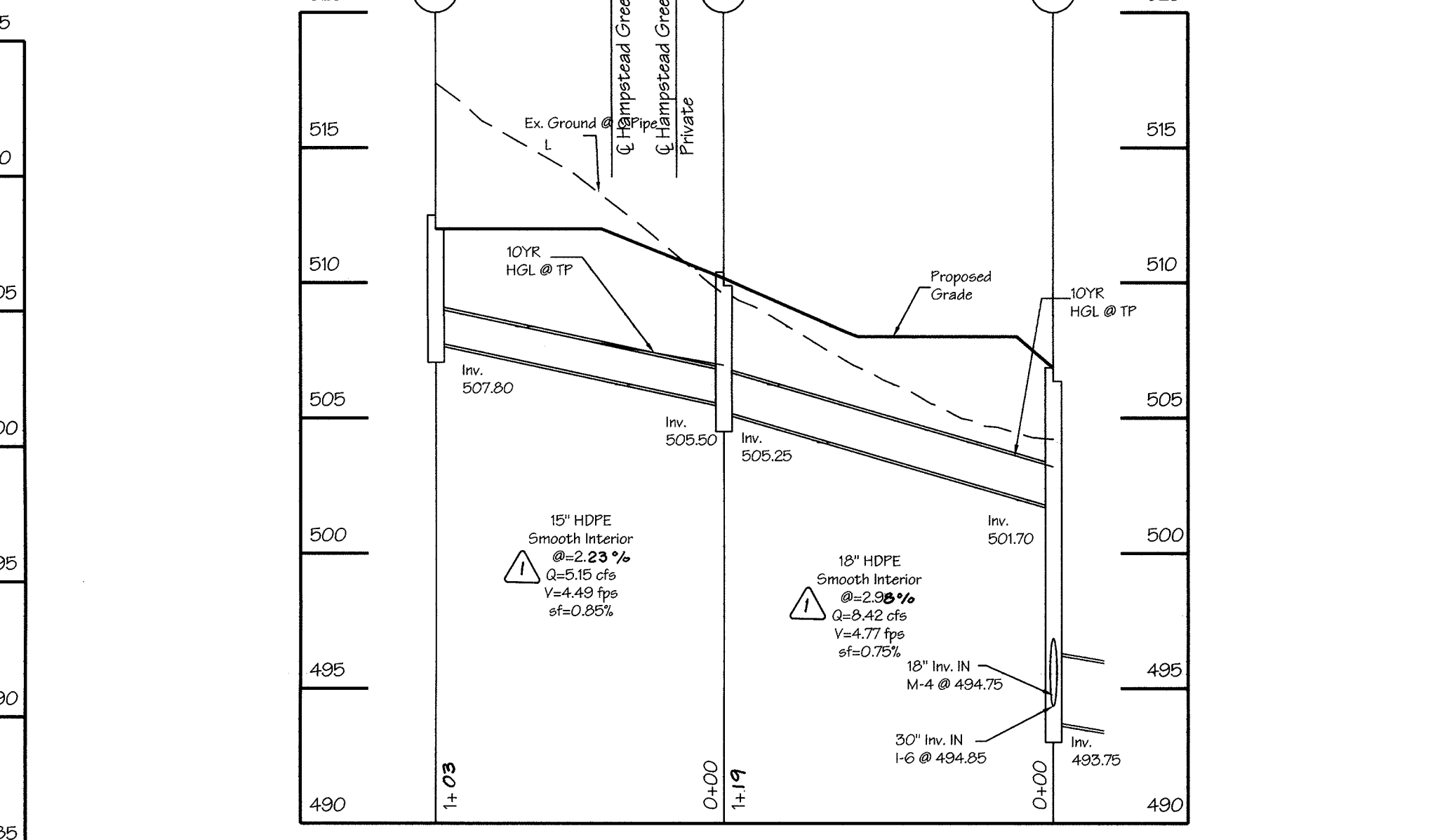
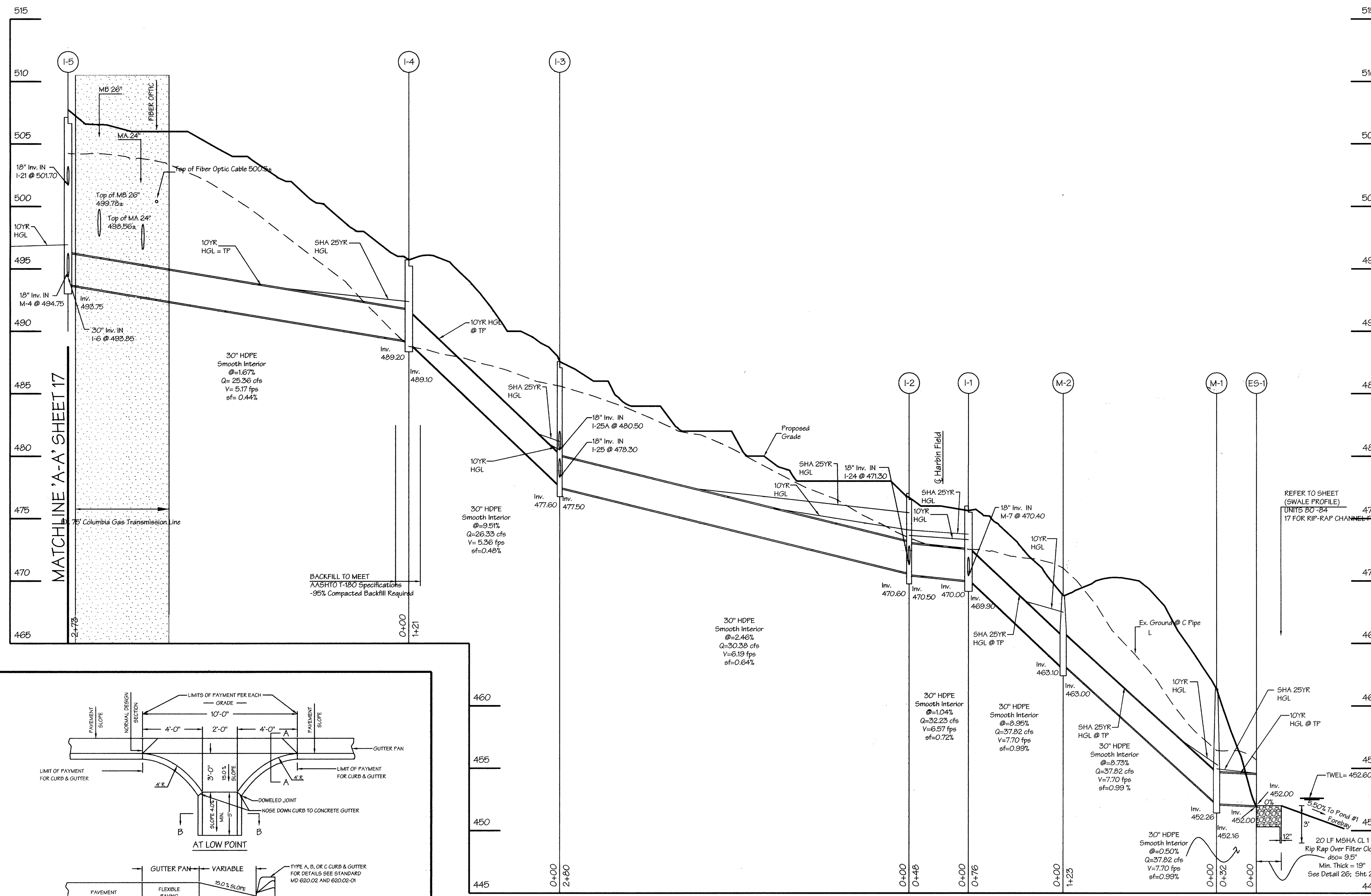
APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY.

*Penny E. Coates* 6/18/04  
 HOWARD COUNTY HEALTH OFFICER

Subdivision Name: HOMELAND	Sect./Area N/A	Parcel No. 53, 96, 165 & 204
Plat No. 16 & 22	Zone RC-DEO	Election District 3rd
Tax Map No. 16	Water Code J 02	Census Tract 6030

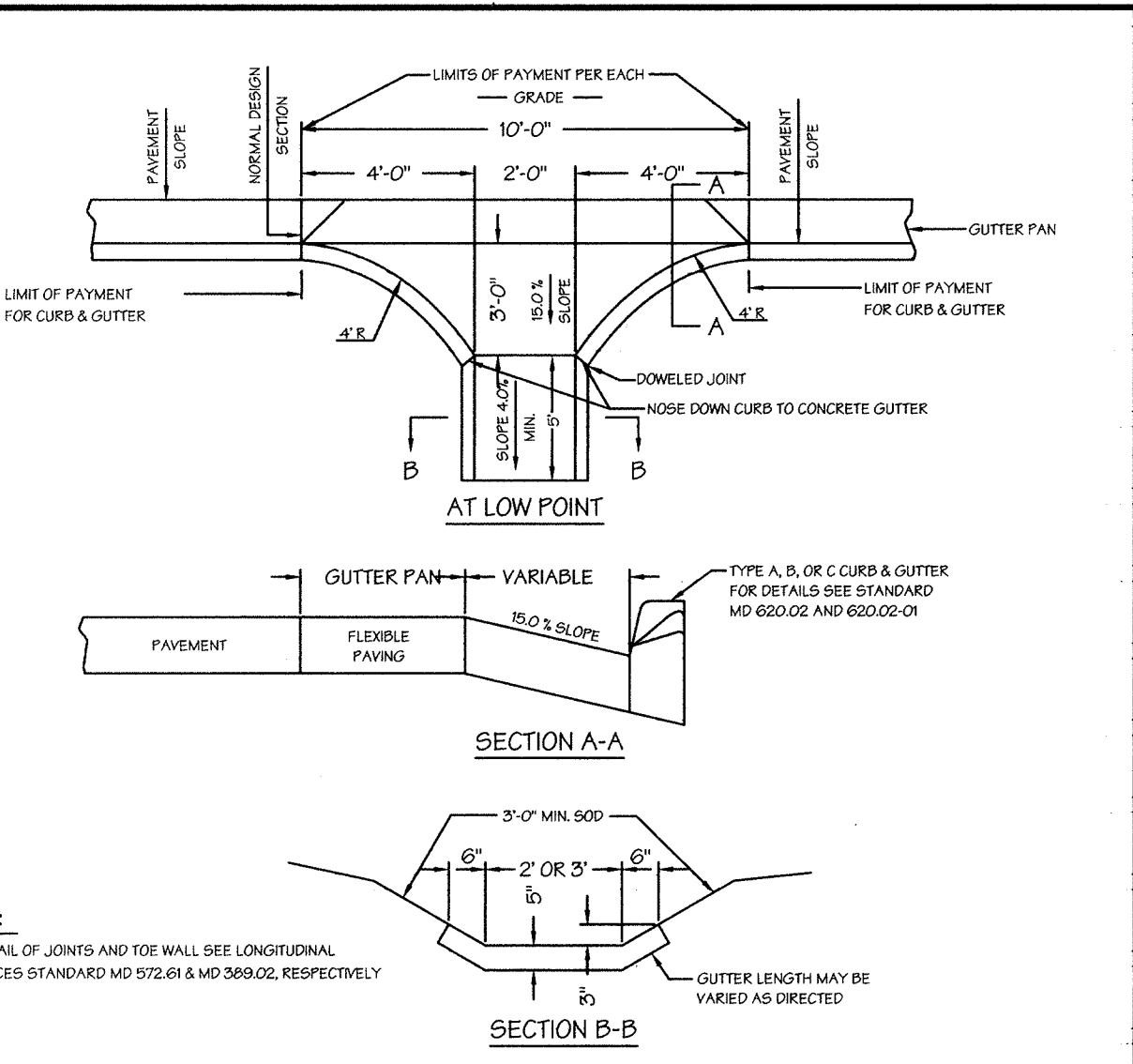
Filed Project #24146816 Drainage Area Map Job Date: 4/22/04 10:54:47 AM





MATCHLINE 'A-A' SHEET 17

REFER TO SHEET  
UNITS 20-24  
17 FOR RIP-RAP CHANNEL



M.D.O.T.  
S.H.A.  
MARYLAND DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES  
STANDARD CURB OPENING DETAILS  
FOR COMBINATION CURB & GUTTER  
STANDARD NO. MD 640.02 MODIFIED

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*[Signature]* 5/16/04  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
*[Signature]* 7/21/04  
CHIEF, DIVISION OF LAND DEVELOPMENT  
*[Signature]* 1/28/04  
DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL  
*[Signature]* 5/9/04  
USDA NATURAL RESOURCE CONSERVATION SERVICE  
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
*[Signature]* 5/4/04  
HOWARD SOIL CONSERVATION DISTRICT

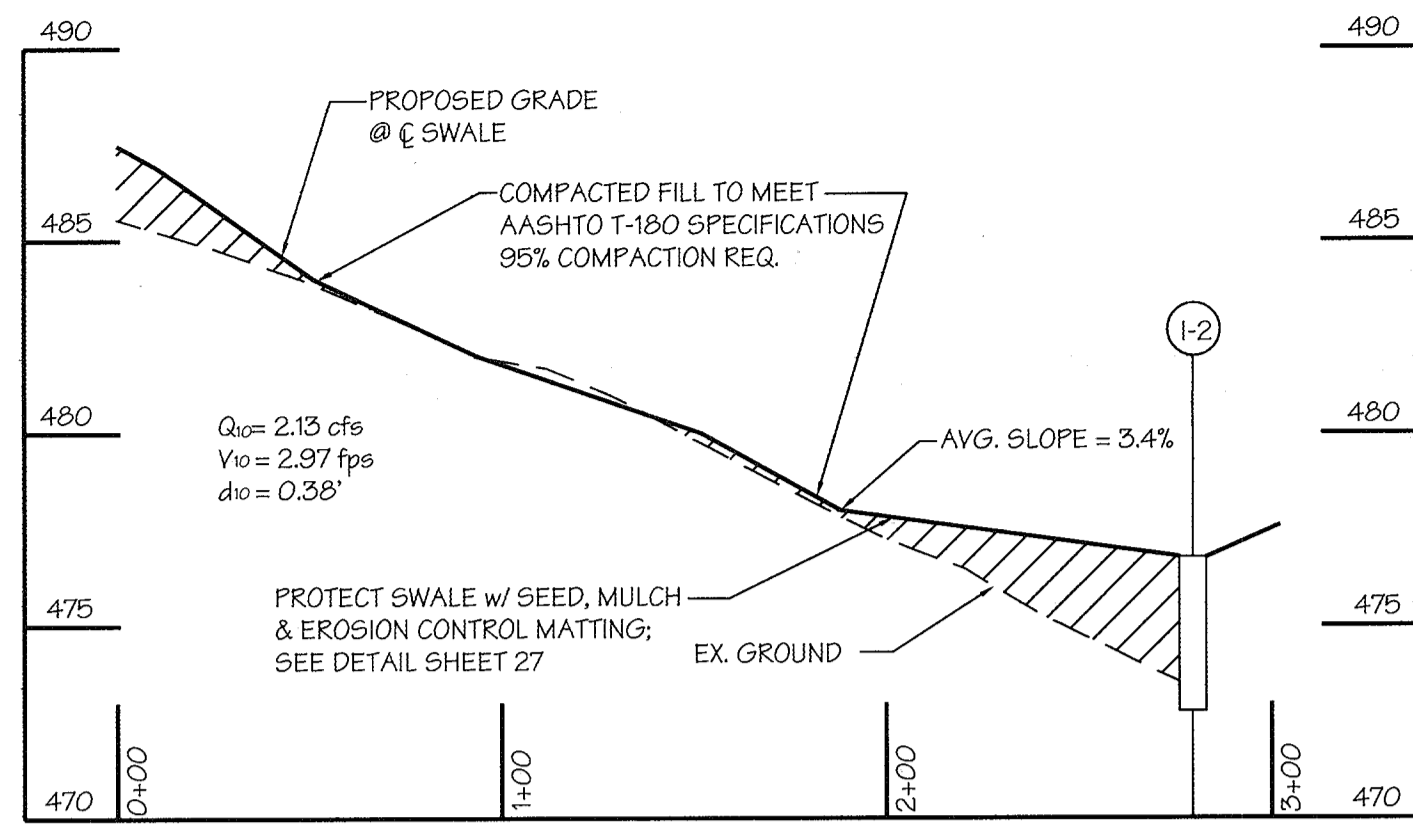
ENGINEER'S CERTIFICATE  
I certify that this plan for...  
*[Signature]* 4/22/04  
SIGNATURE OF ENGINEER  
DEVELOPER'S CERTIFICATE  
We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance...  
*[Signature]* 4/22/04  
SIGNATURE OF DEVELOPER

STATE OF MARYLAND  
REGISTERED PROFESSIONAL ENGINEER  
*[Signature]* 4/22/04

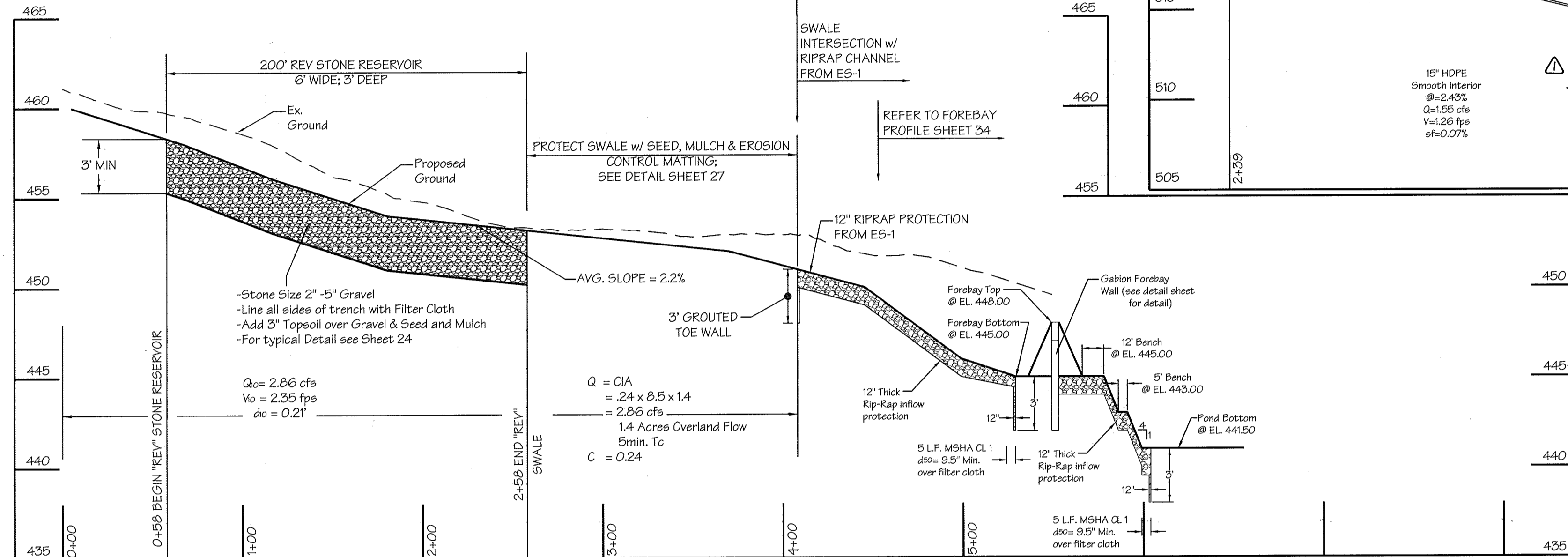
APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY  
*[Signature]* 6/18/04  
COUNTY HEALTH OFFICER, J.H.D.  
HOWARD COUNTY HEALTH DEPARTMENT  
REVISIONS  
No. Date By Description  
1 11-1-04 LDE Revise Profile I-5 to I-22, M-3 to I-23 B

Subdivision Name: HOMELAND		Sect/Area: N/A		Parcel No.: 53, 96, 165 & 204	
Flat Nos.	Block No.	Zone	Tax Map No.	Election District	Census Tract
	16 & 22	RC-DEO	16	3rd	6030
Water Code	J 02		Sewer Code: N/A		

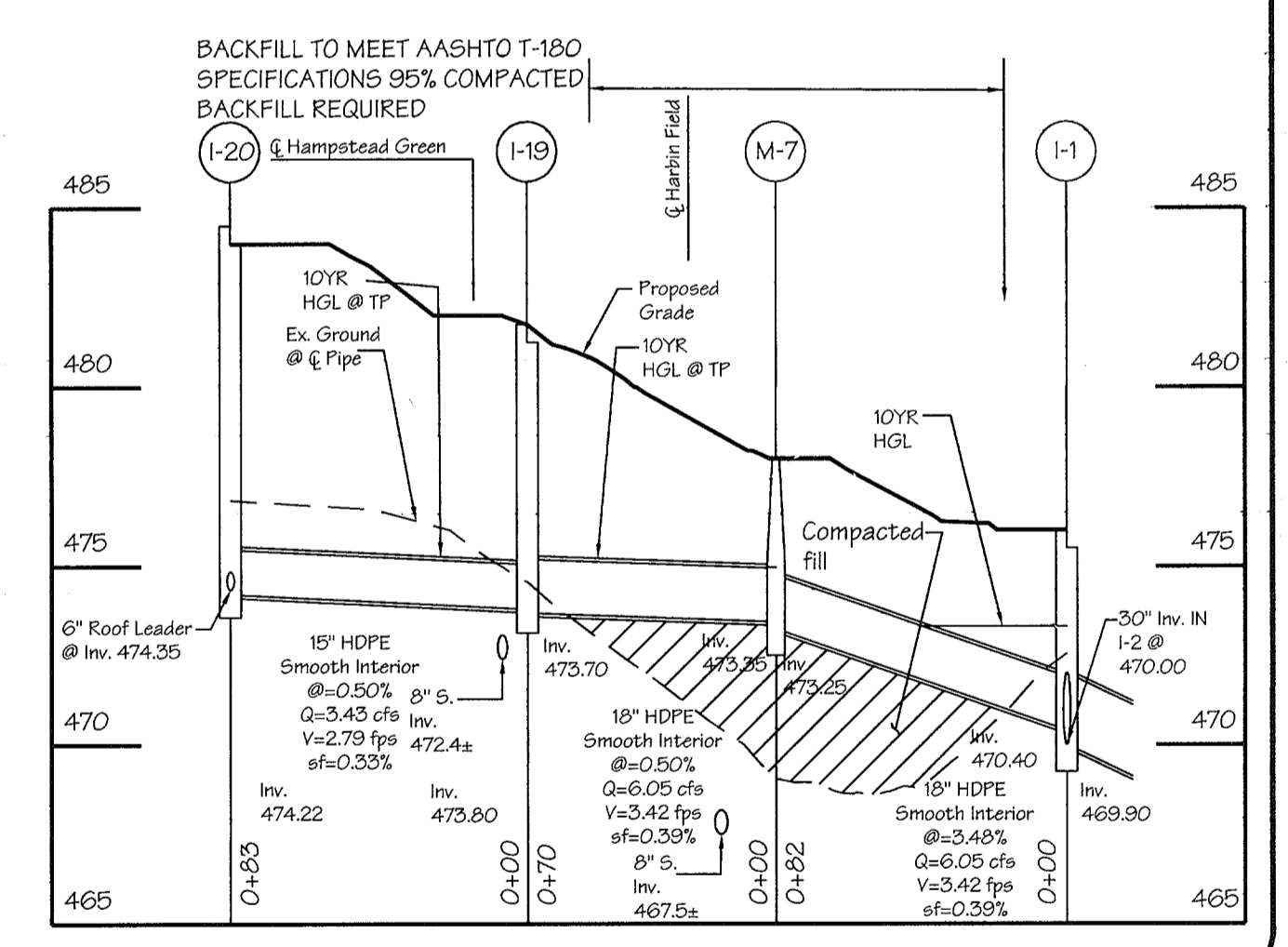
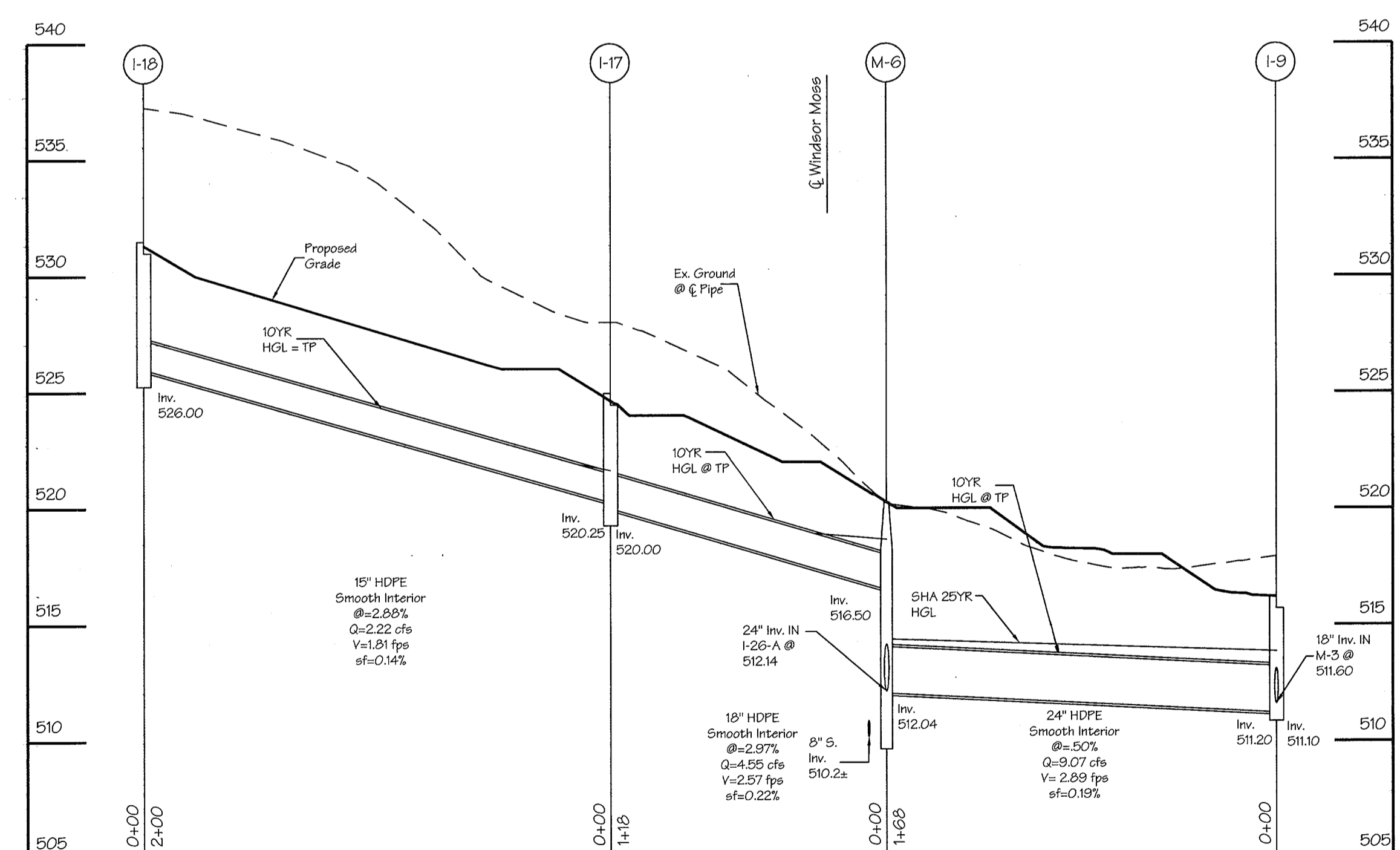
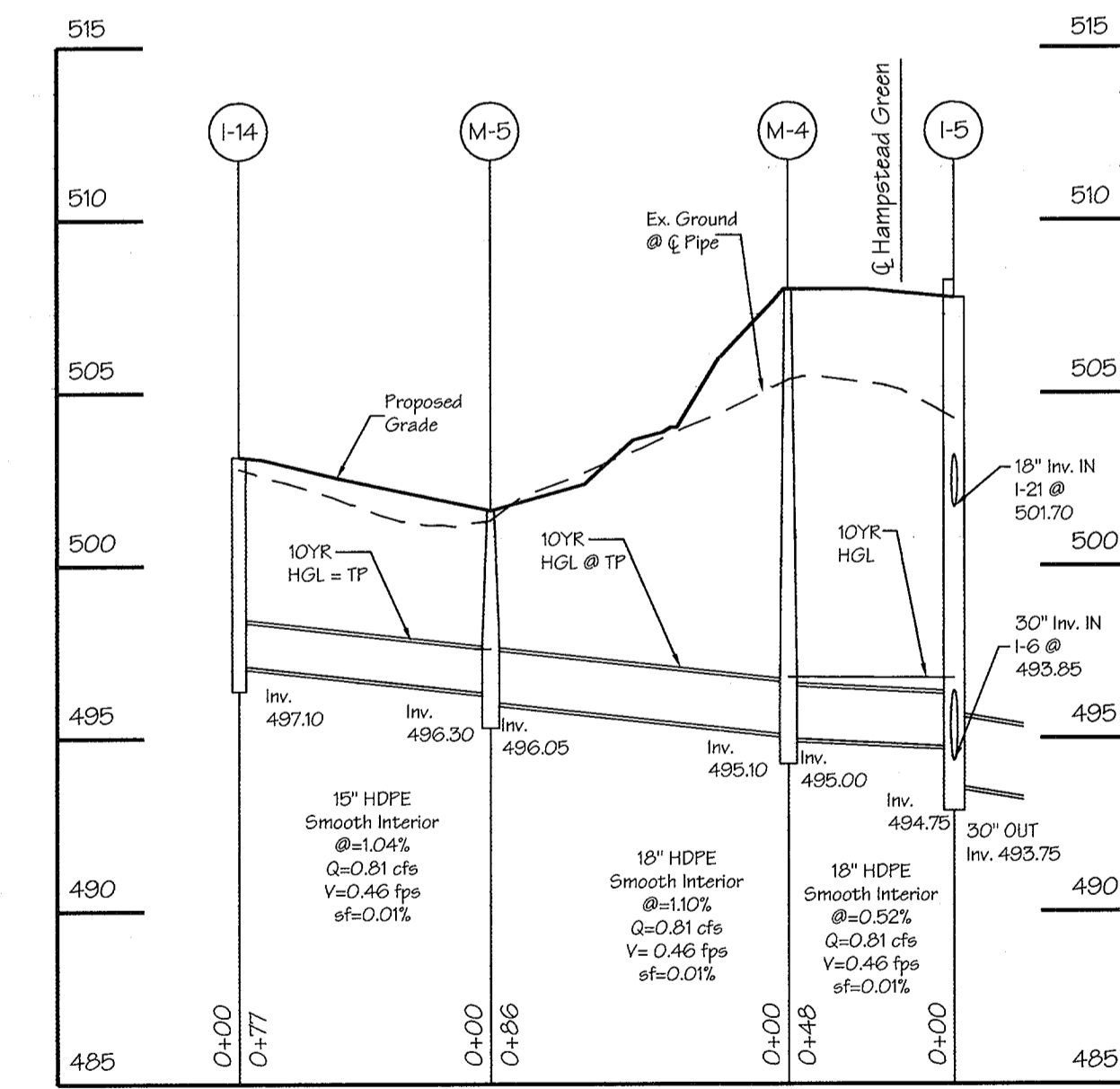
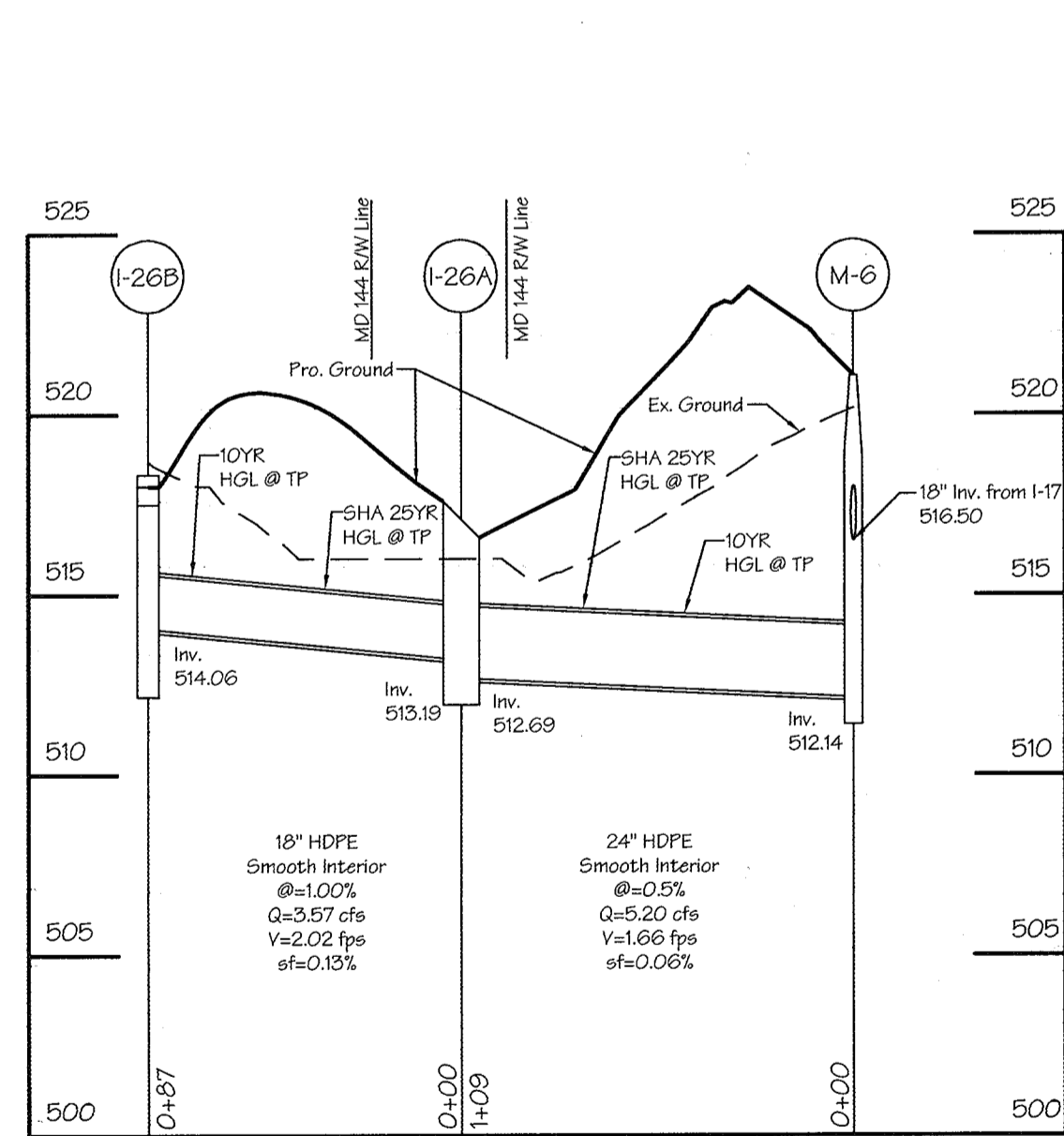
LDE, INC.  
9250 Rumsey Road, Suite 106, Columbia, MD. 21045  
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)  
DESIGNED: EDS JLM BDB  
DRAWN: JLM JDR  
CHECKED: BDB  
DATE: 4/2004  
SCALE: 1" = 50' H, 1" = 5' V.  
DRAWING: 16 of 52  
JOB NO.: 99-0514  
FILE NO.: SDP-03-30  
Tax Map No. 16 - Grid No. 16 & 22 - Parcel 53, 96, 165 & 204  
3rd Election District - Howard County, Maryland  
Previous Submittals: BA 00-52E, WF 03-12B, F 03-194  
DEVELOPER: LB MEADOWS LLC  
8835 - P Columbia 100 Parkway  
Columbia, Maryland 21045  
(410) 752-0210



Swale @ Rear of Units 85-89



Groundwater Recharge Grass Swale @ Rear of Units 80-84



APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Oliver Damann* 5/7/04  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*Cindy Hamita* 7/1/04  
CHIEF, DIVISION OF LAND DEVELOPMENT

*John Lafferty* 7/28/04  
DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL.

*Jim Myers* 5/6/04  
DISTRICT RESOURCE / SUPERVISOR

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*Yusuf Ali* 5/4/04  
HOWARD SOIL CONSERVATION DISTRICT

ENGINEER'S CERTIFICATE

I certify that the plan for [project name] represents a practical and workable plan for the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the [project name] of the requirements of the Howard Soil Conservation District and the "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

*PRINCE D. EVERTON* 4/22/04  
SIGNATURE OF ENGINEER

DEVELOPER'S CERTIFICATE

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 as a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

*[Signature]* 4/22/04  
SIGNATURE OF DEVELOPER

STATE OF MARYLAND  
PROFESSIONAL ENGINEER  
DAVID BILLY  
4/22/04

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

*Prinice D. Everton* 6/18/04  
COUNTY HEALTH OFFICER / HOWARD COUNTY HEALTH DEPARTMENT

REVISIONS

No.	Date	By	Description
1	10/27/05	LDE	Add Profile I-10A to I-10

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

DESIGNED: EDS JLM BDB  
DRAWN: JLM JDR  
CHECKED: BDB  
DATE: 4/2004

REVISIONS

No.	Date	By	Description
1	10/27/05	LDE	Add Profile I-10A to I-10

Subdivision Name: HOMELAND  
Block No. 16 & 22  
Zone RC-DEO  
Tax Map No. 16  
Election District 3rd  
Census Tract 6030

Parcel No. 53, 96, 165 & 204  
Parcel 53, 96, 165 & 204  
Census Tract 6030

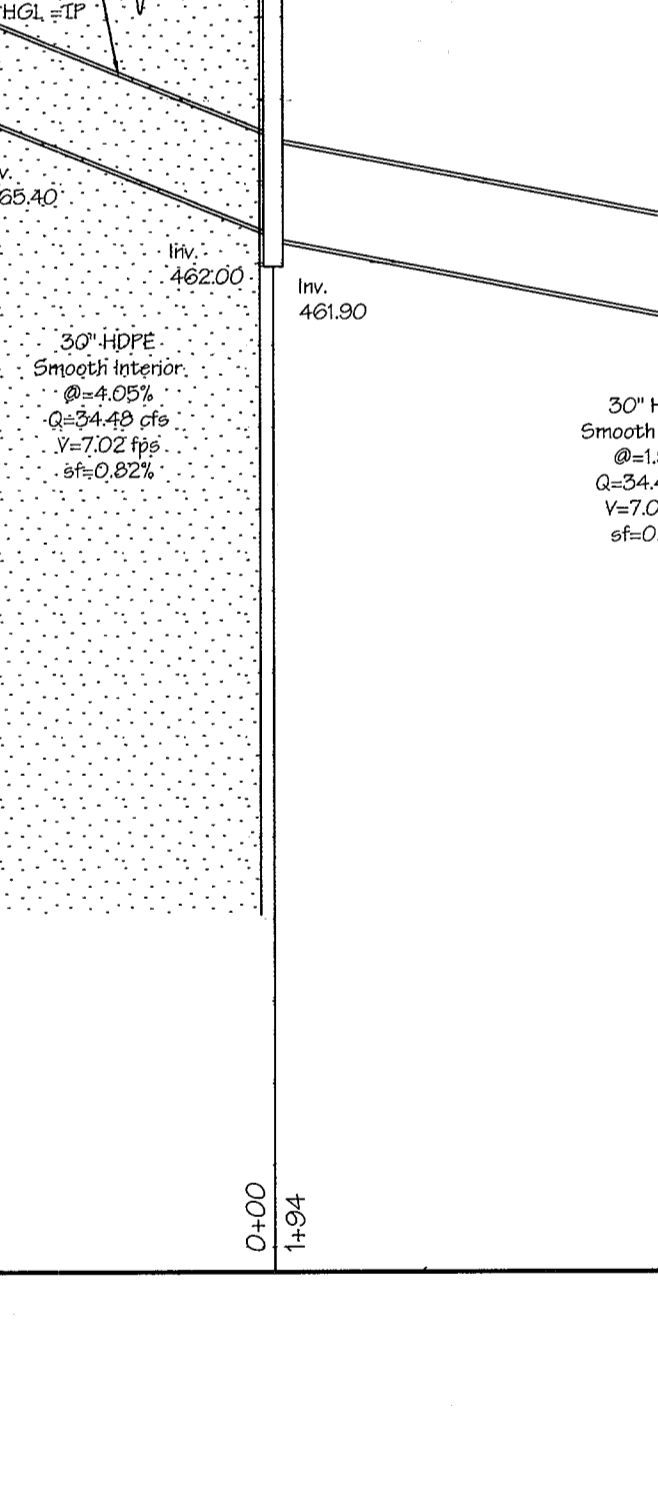
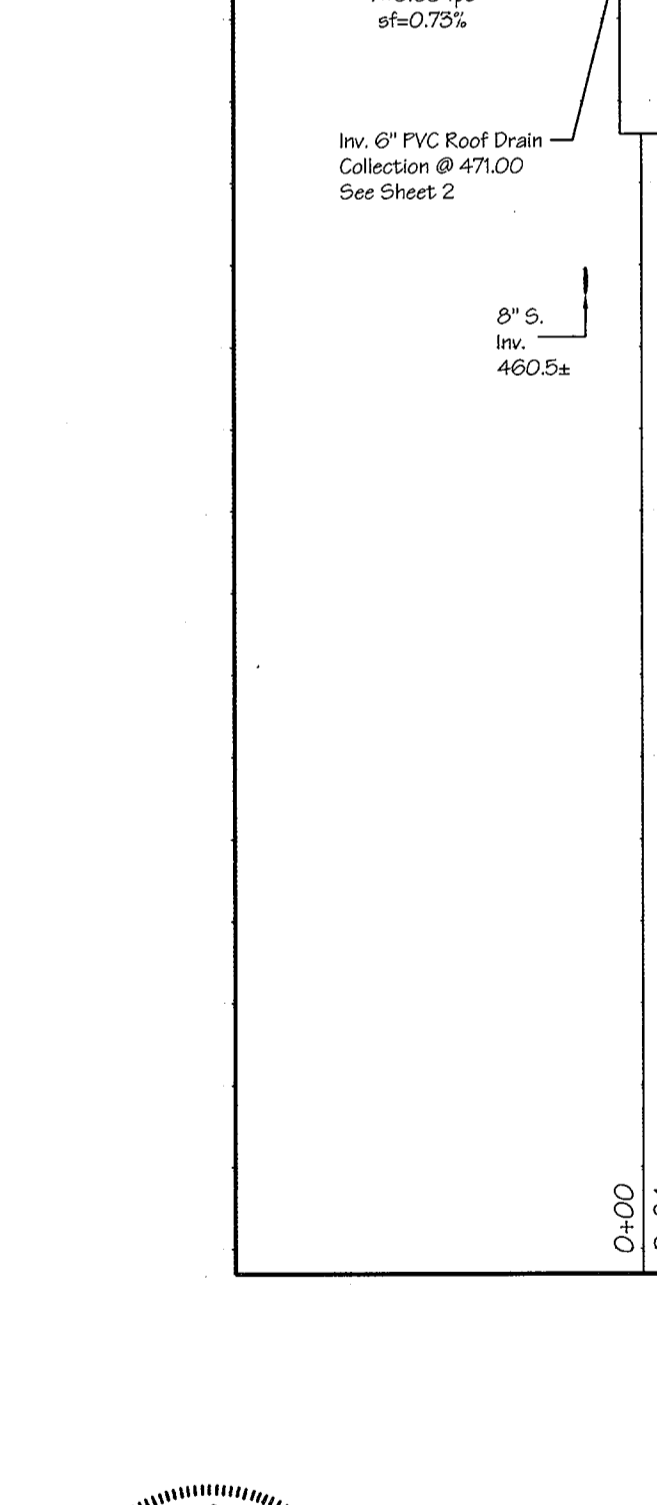
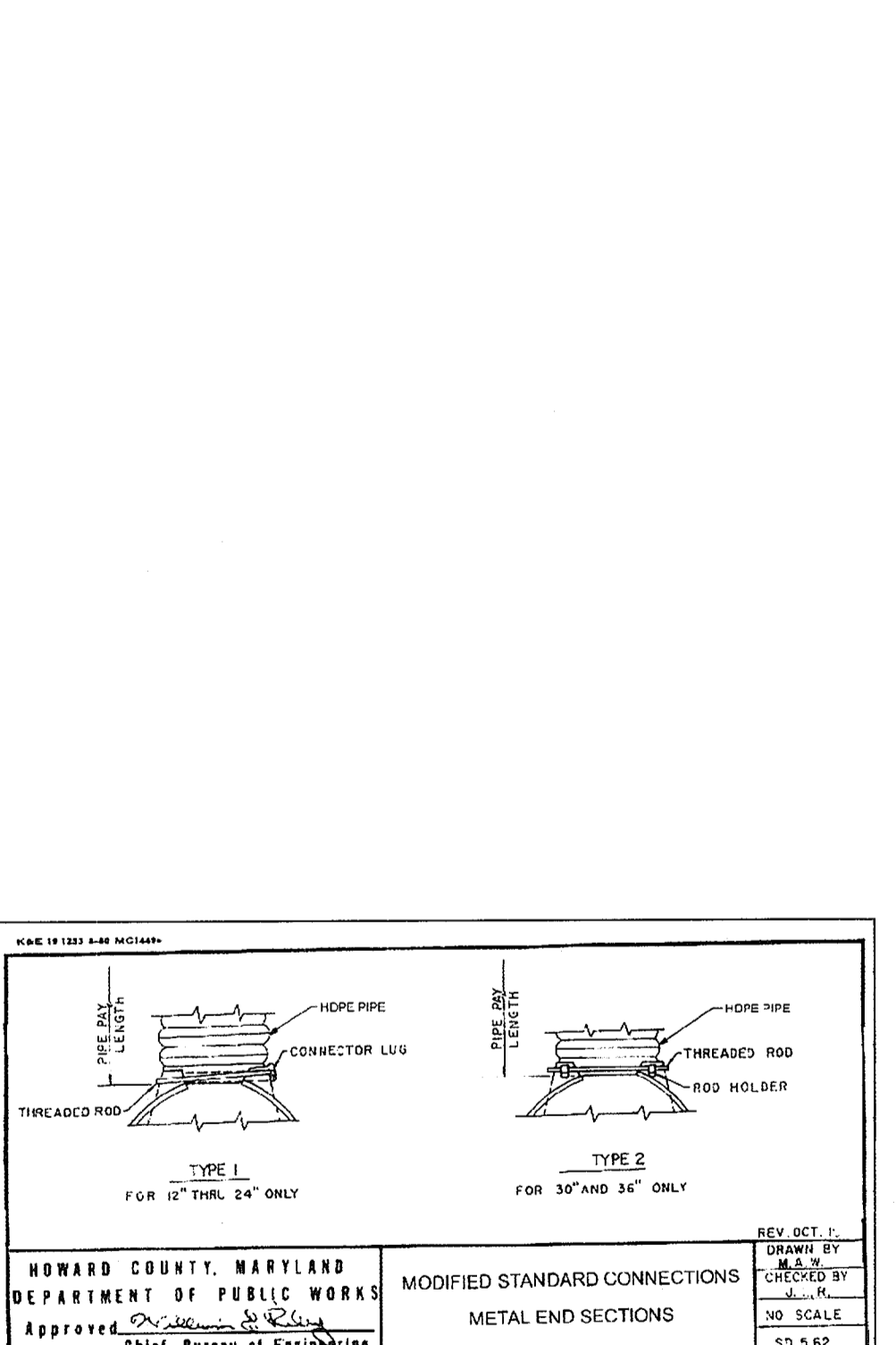
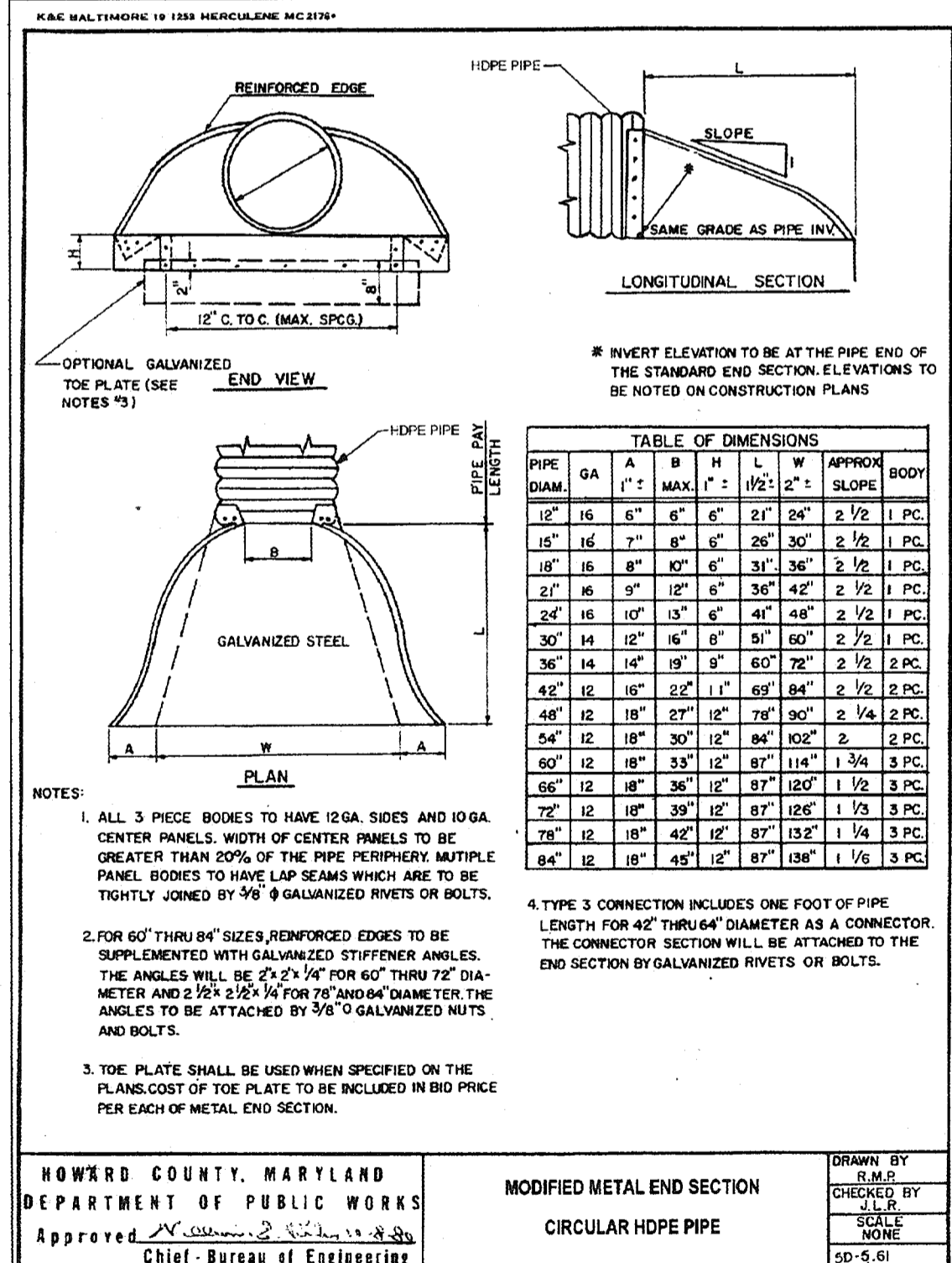
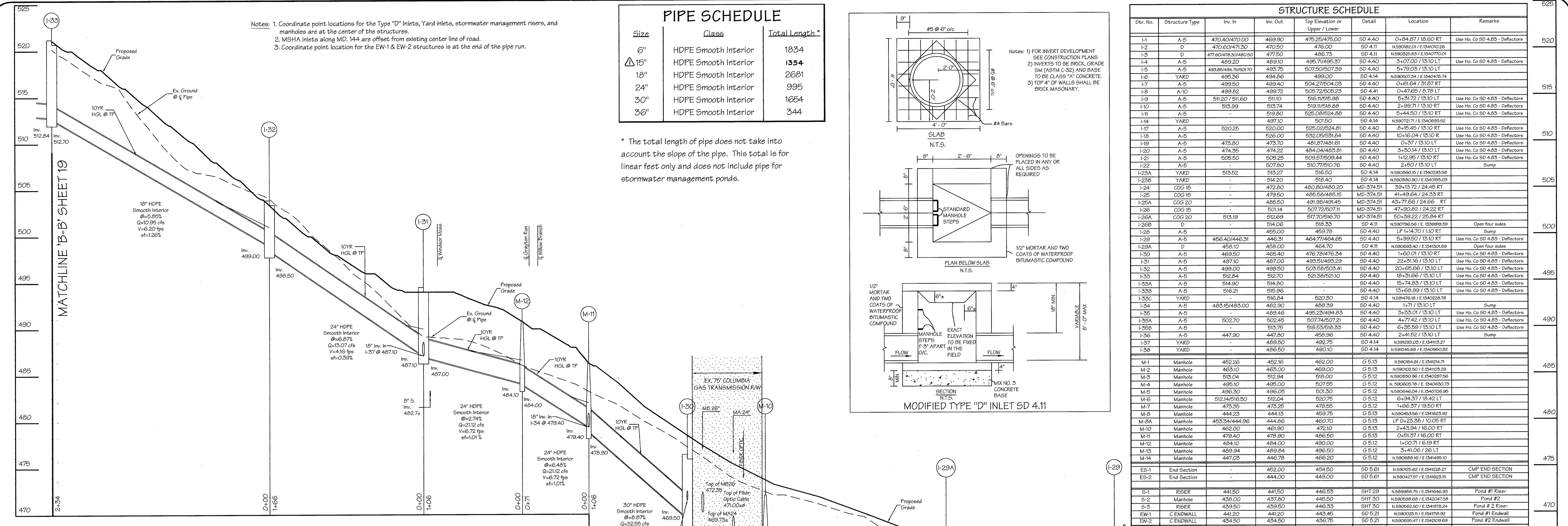
SCALE: 1" = 50' H. 1" = 5' V.

17 of 52 DRAWINGS

JOB NO. 99-0514

FILE NO. SDP-03-30

LB MEADOWS LLC  
8825 - P Columbia 100 Parkway  
Columbia, Maryland 21045  
(410) 733-0810



APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 5/7/04  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 7/21/04  
 CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 7/28/04  
 DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL.

*[Signature]* 5/4/04  
 SUPERVISOR, NATURAL RESOURCE CONSERVATION

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*[Signature]* 5/4/04  
 HOWARD SOIL CONSERVATION DISTRICT

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction and sediment control represents a practical and workable plan based on a site inspection of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer of the requirements of the Howard Soil Conservation District to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

*[Signature]* 4/22/04  
 SIGNATURE OF ENGINEER

DEVELOPER'S CERTIFICATE

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 will engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

*[Signature]* 4/22/04  
 SIGNATURE OF DEVELOPER

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

*[Signature]* 6/18/04  
 COUNTY HEALTH OFFICER

REVISIONS

No.	Date	By	Description
1	10/05	LDE	Add 1-10A to Structure Schedule and Pipe Schedule

DESIGNED: JLM, BDB  
 DRAWN: JLM, JDR  
 CHECKED: BDB  
 DATE: 4/2004

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

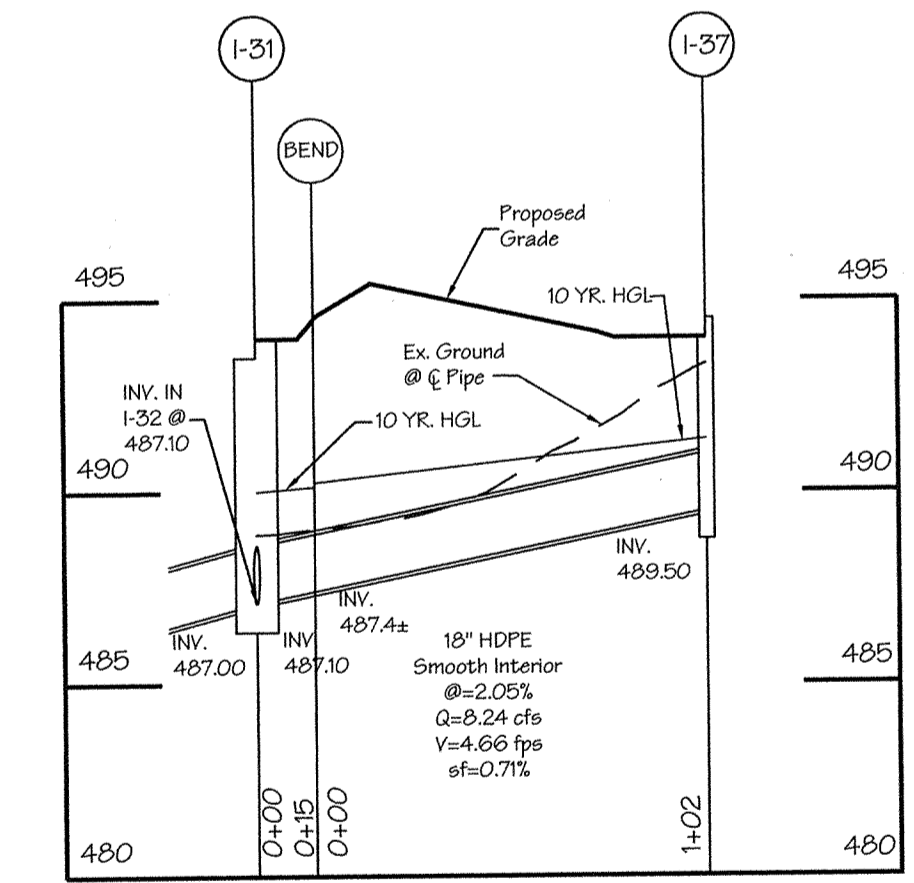
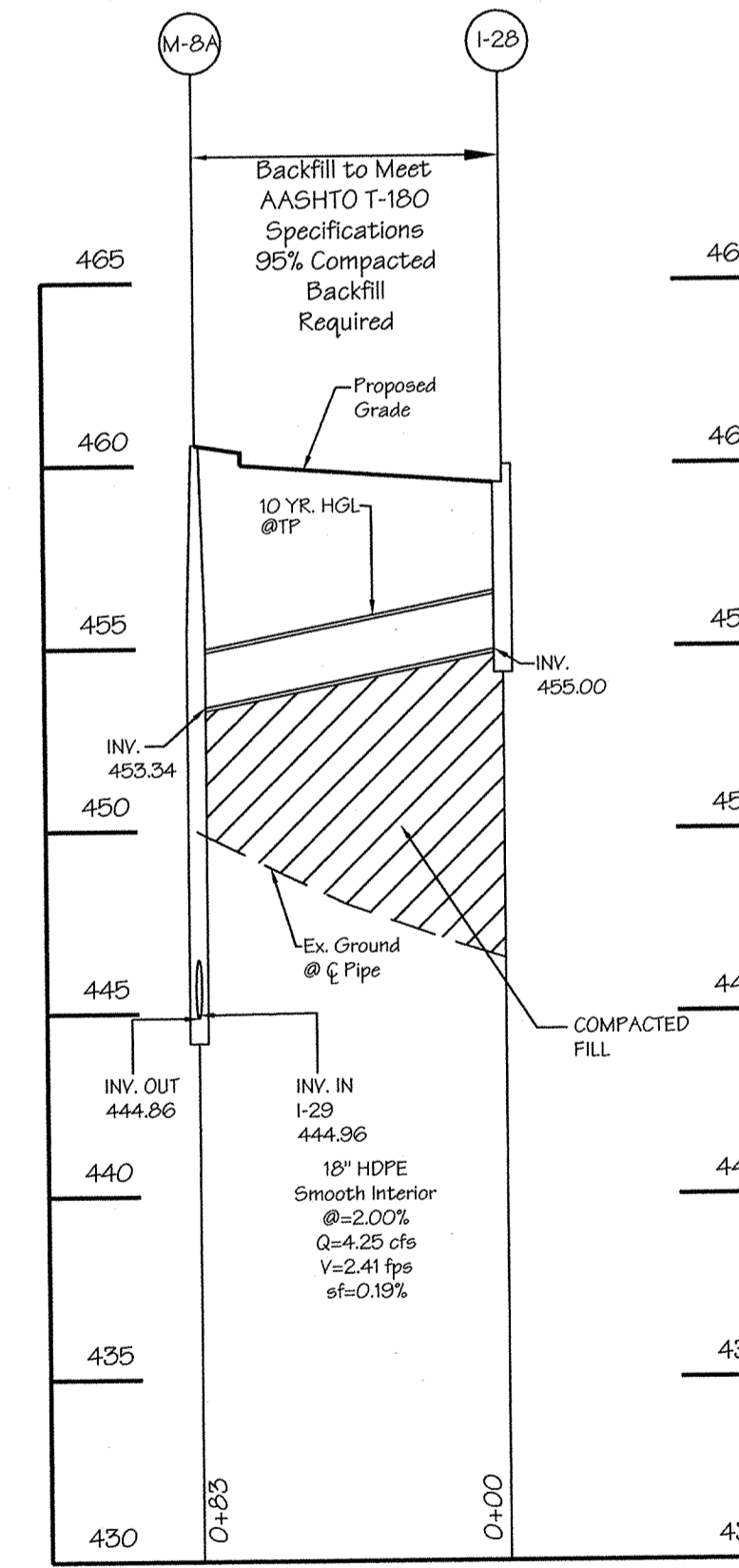
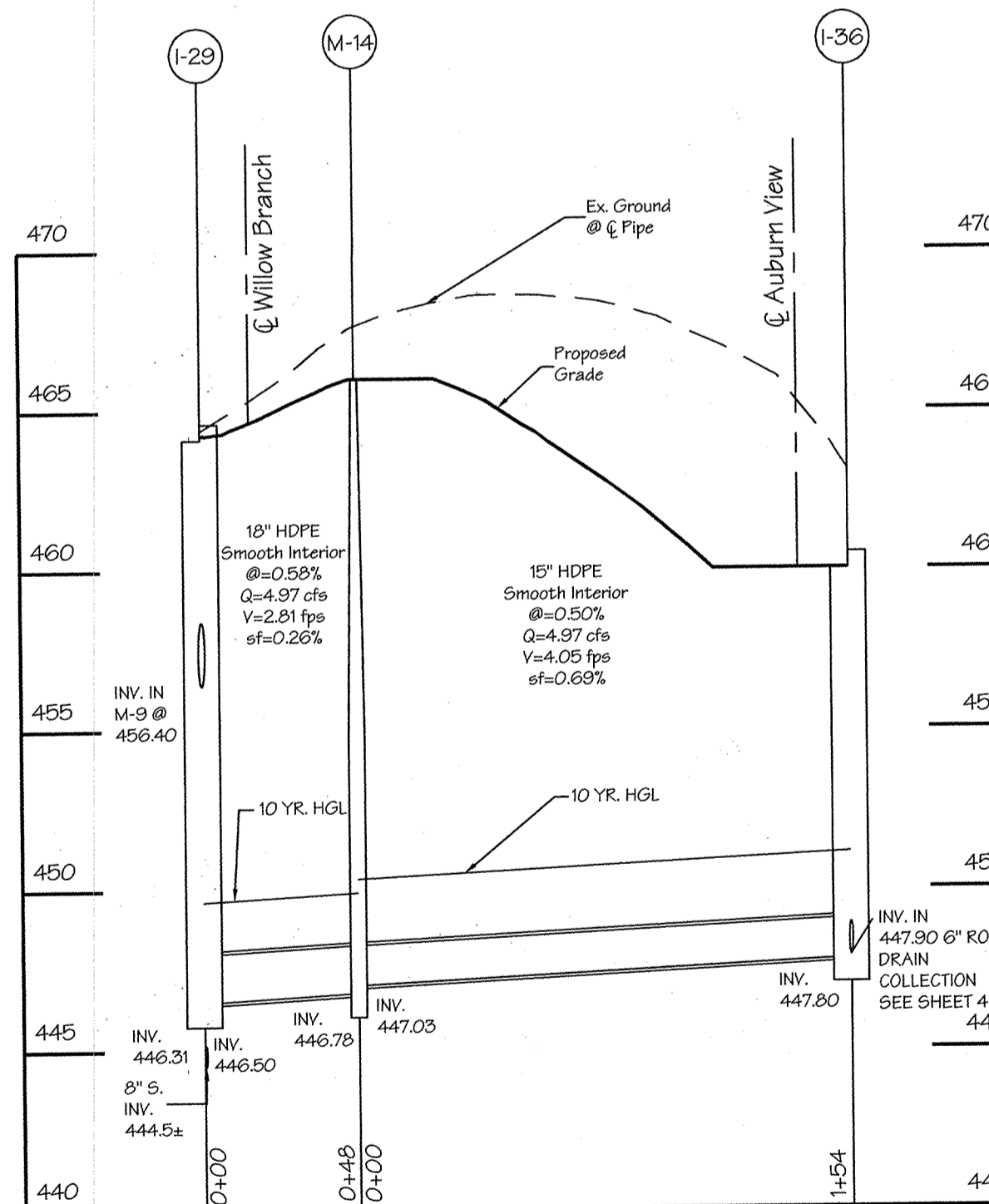
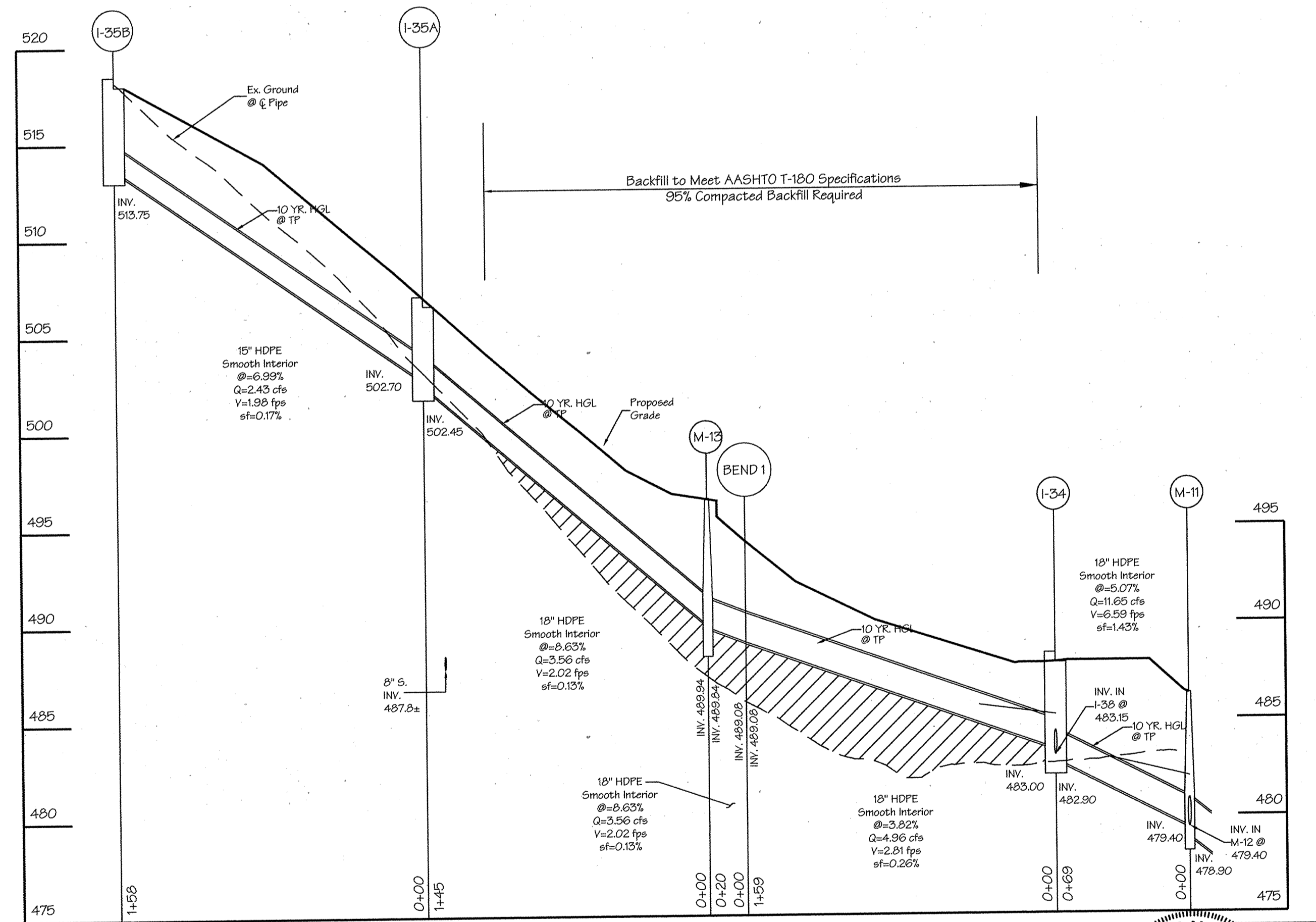
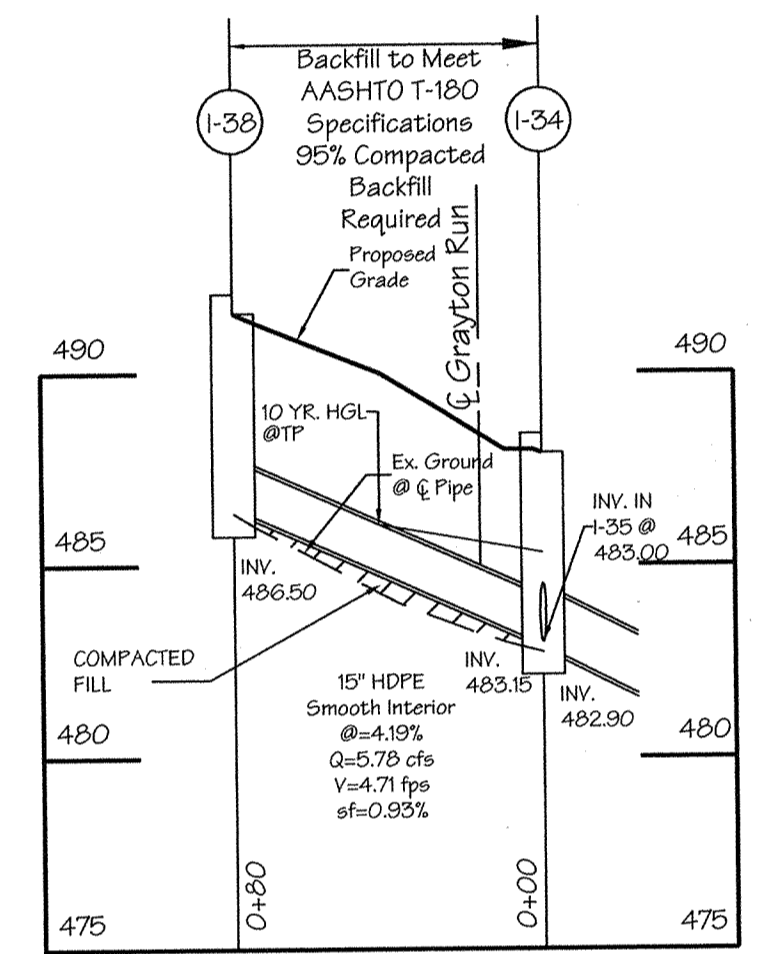
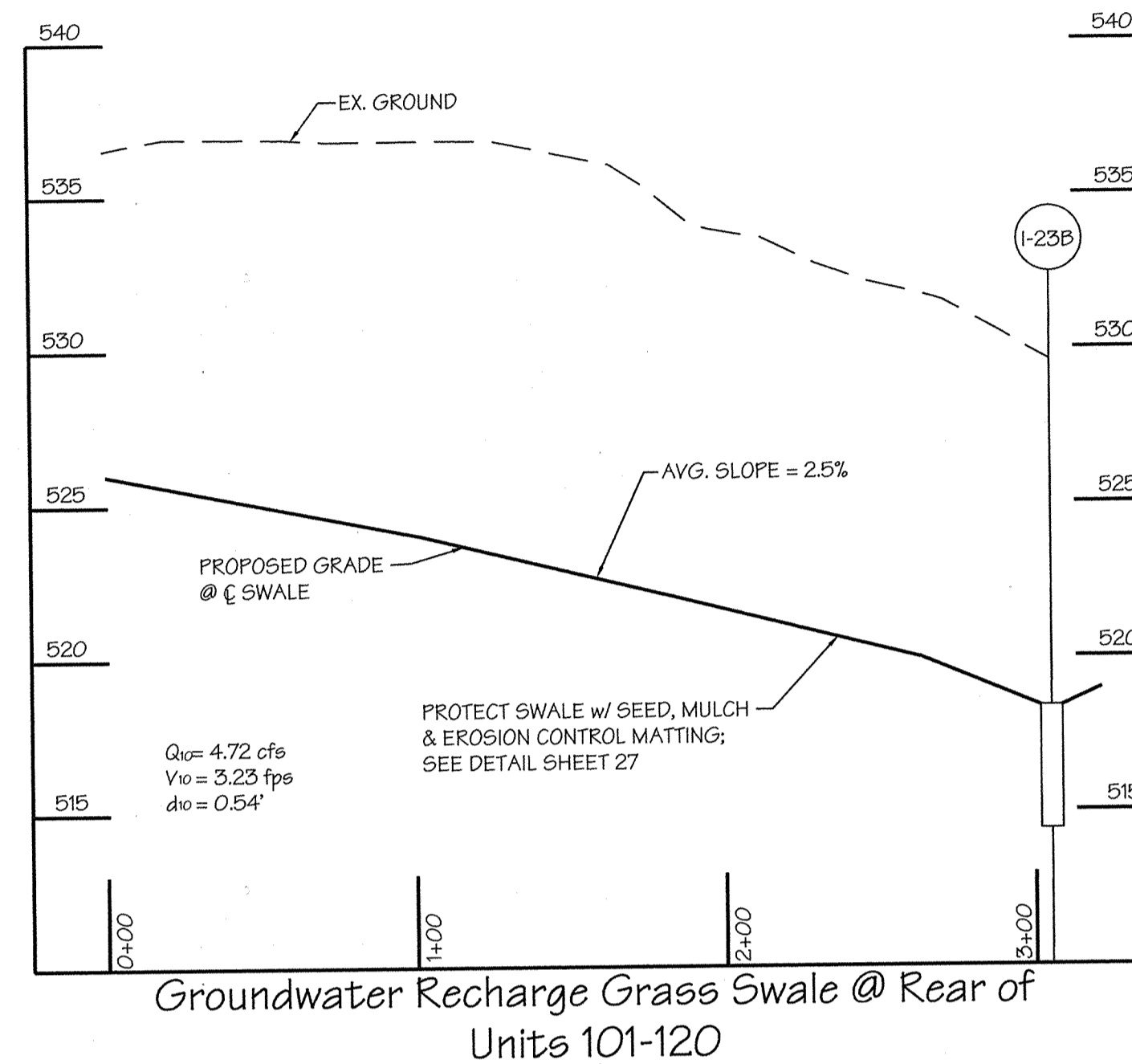
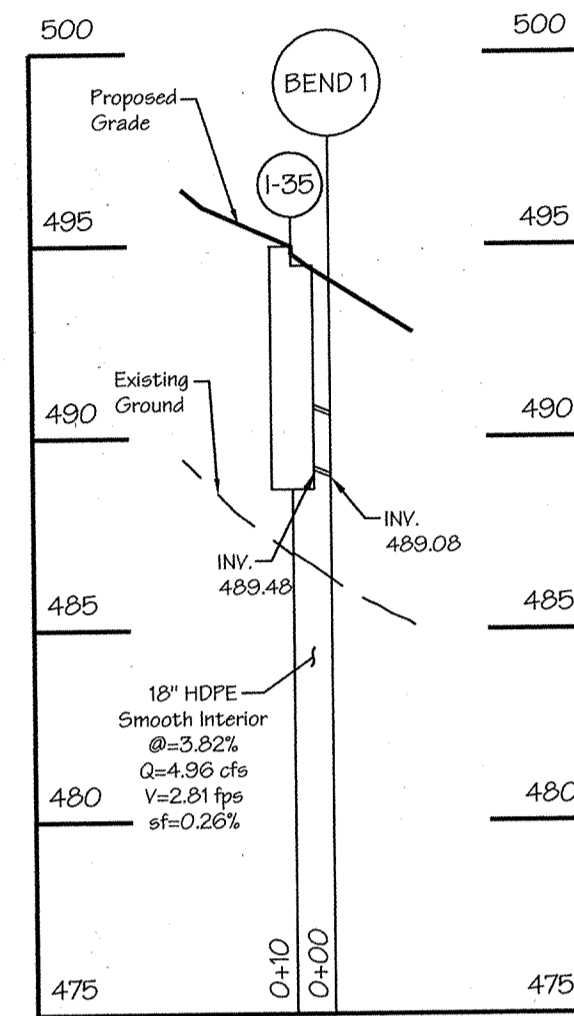
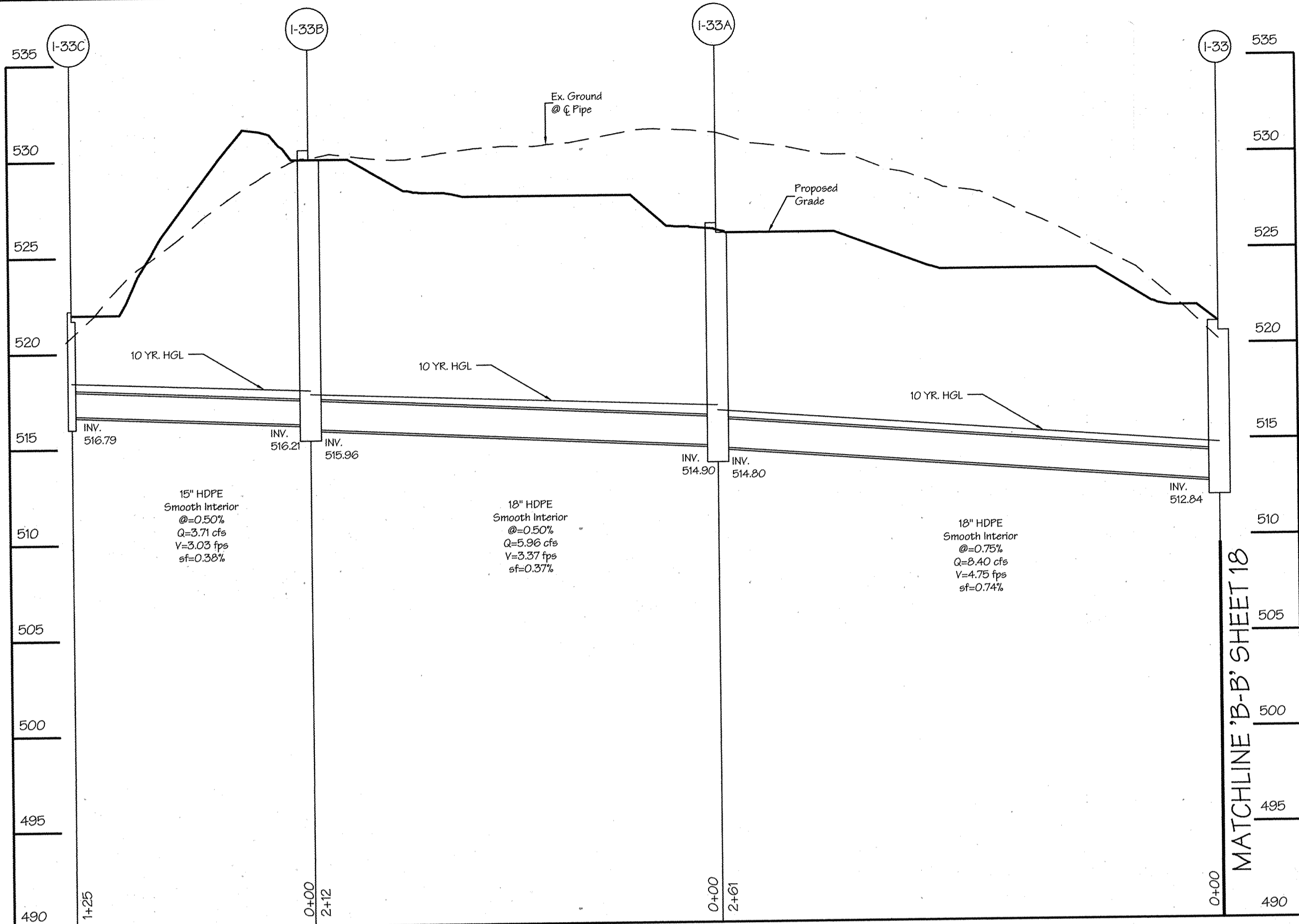
DESIGNED: JLM, BDB  
 DRAWN: JLM, JDR  
 CHECKED: BDB  
 DATE: 4/2004

REVISOR: BDB

PROJECT: HOMELAND PARCEL 'A' AND PARCEL 'B'

Tax Map No. 16 - Grid No. 16 & 22 - Parcel 53, 96, 165 & 204  
 3rd Election District - Howard County, Maryland  
 Previous Submittals: BA 00-52E, WF 00-12E, F 03-194

FILE NO.: SDP-03-30



APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Chief, Development Engineering Division*  
5/2/04 DATE

*Chief, Division of Land Development*  
7/1/04 DATE

*Director*  
7/28/04 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL

*Jim Mays*  
5/4/04 DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*Mark Aley*  
5/4/04 DATE

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction and sediment control represents a practical and workable plan for the site conditions. This plan was prepared in accordance with the standards of the Howard Soil Conservation District. I have notified the district of this project. I am a registered professional engineer in the State of Maryland.

*Prince D. Gupta*  
4/22/04 DATE

DEVELOPER'S CERTIFICATE

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 shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

*Mark Aley*  
4/22/04 DATE

STATE OF MARYLAND  
DAVID B. BROWN  
REGISTERED PROFESSIONAL ENGINEER  
4/22/04

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

*Penny E. Baerlein*  
6/18/04 DATE

REVISIONS			
No.	Date	By	Description

Subdivision Name: **HOMELAND** Sect/Area: **N/A** Parcel No.: **53, 96, 165 & 204**

Block Nos.	Zone	Tax Map No.	Election District	Census Tract
16 & 22	RC-DEO	16	3rd	6030

Water Code: **J 02** Sewer Code: **N/A**

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

DESIGNED: **EDS JLM**  
BDB

DRAWN: **JLM**  
JDR

CHECKED: **BDB**

DATE: **4/2004** DEVELOPER: **LB MEADOWS LLC**

STORM DRAIN PROFILES  
**HOMELAND**  
PARCEL 'A' AND PARCEL 'B'

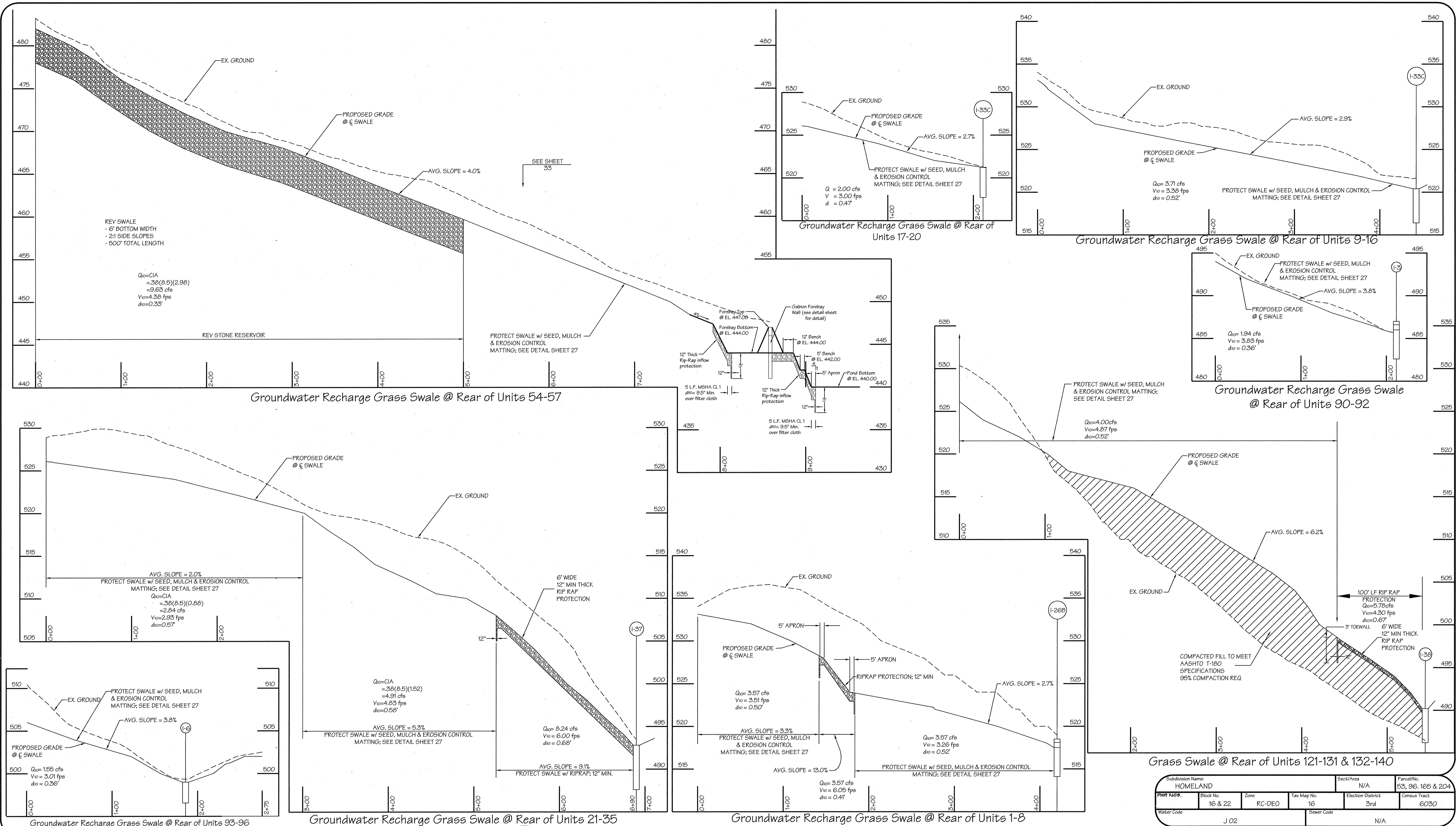
Tax Map No. 16 - Grid No. 16 & 22 - Parcel 53, 96, 165 & 204  
3rd Election District - Howard County, Maryland  
Previous Submittals: BA 00-52E, WP 03-12B, F 03-194

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

DRAWING: 19 of 52

JOB NO.: 99-0514

FILE NO.: SDP-03-30



APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Chad Dammann* 5/1/04  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

*Wendy Hamstra* 7/6/04  
 CHIEF, DIVISION OF LAND DEVELOPMENT

*Stephen Lafferty* 7/28/04  
 DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL

*Jim May* 5/14/04  
 DISTRICT SUPERVISOR

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*John A. H.* 5/14/04  
 DISTRICT SUPERVISOR

**ENGINEER'S CERTIFICATE**

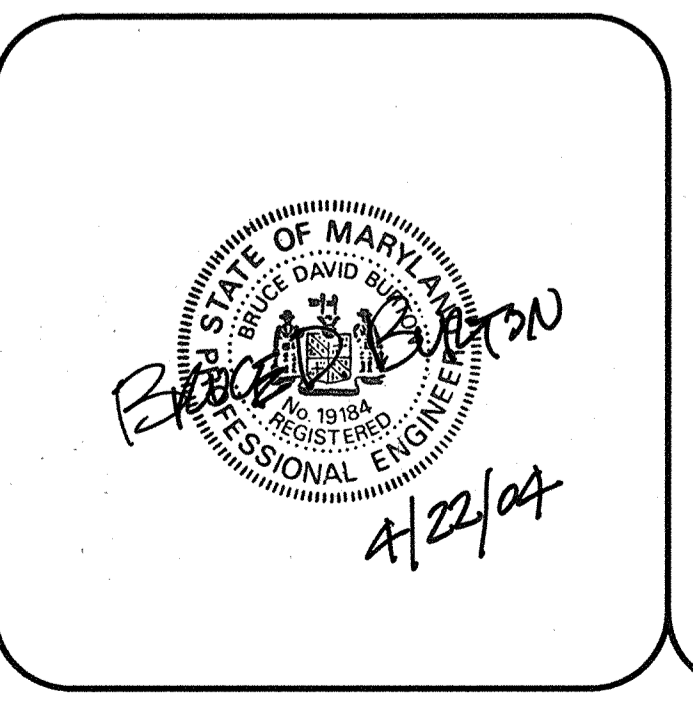
I certify that this plan represents a practical and workable design for sediment control representative of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the District and engaged a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic site inspections by the District.

*PRICE D. GIBBS* 4/22/04  
 REGISTERED PROFESSIONAL ENGINEER

**DEVELOPER'S CERTIFICATE**

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 as a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic site inspections by the District.

*John A. H.* 4/22/04  
 DEVELOPER



APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

*Priscilla E. Boreman, P.E.* 6/18/04  
 COUNTY HEALTH OFFICER  
 HOWARD COUNTY HEALTH DEPARTMENT

**REVISIONS**

No.	Date	By	Description

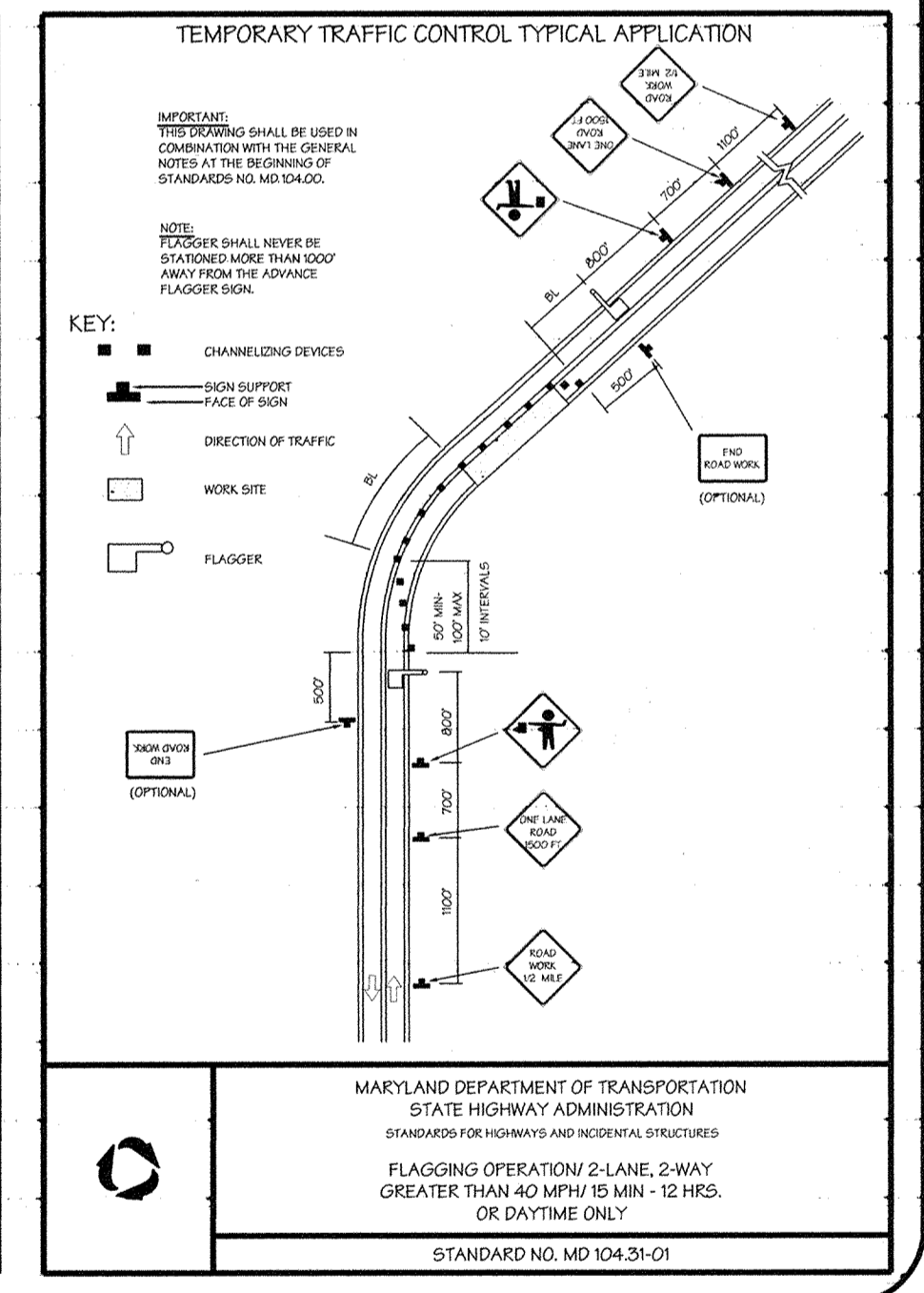
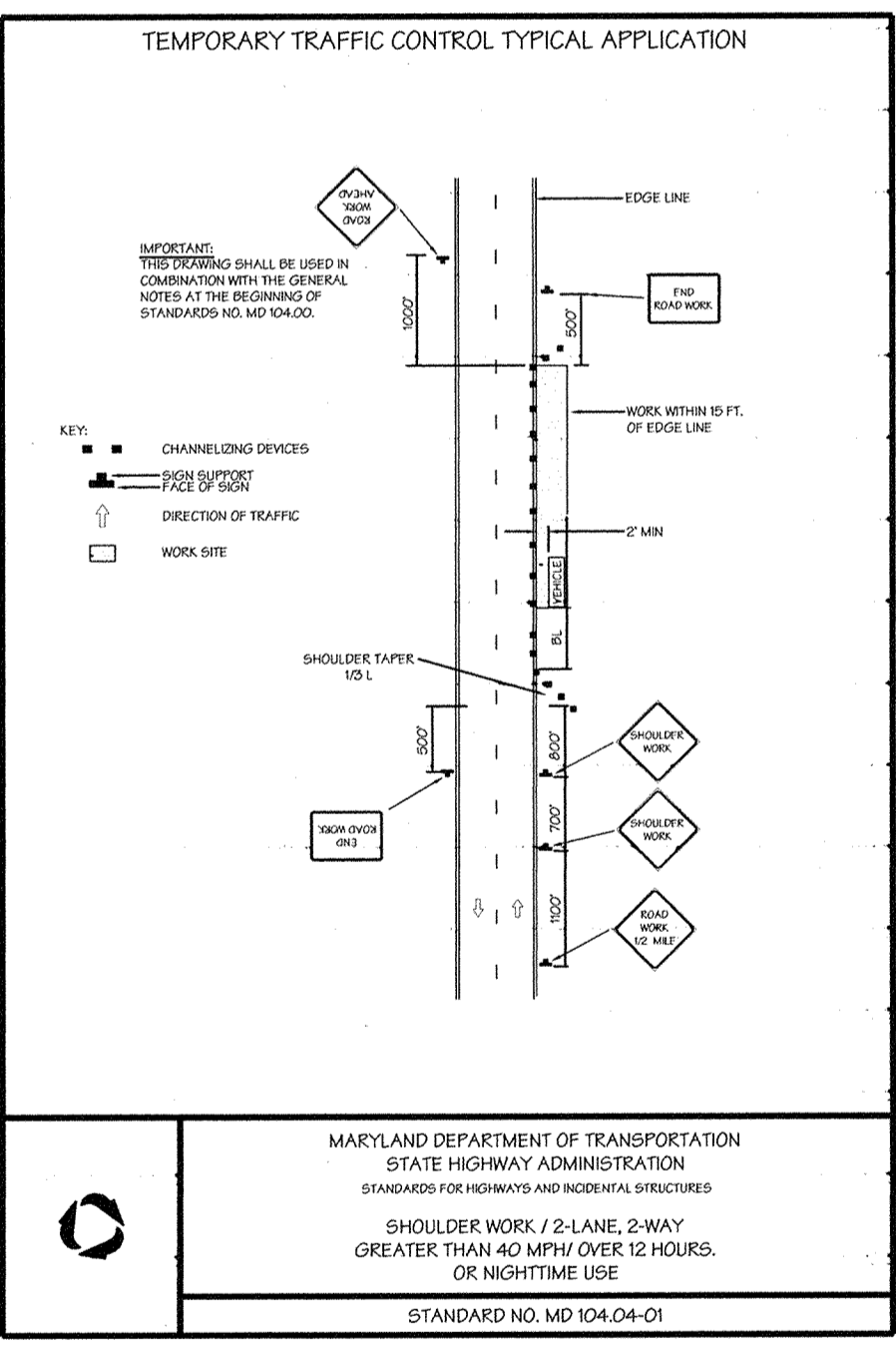
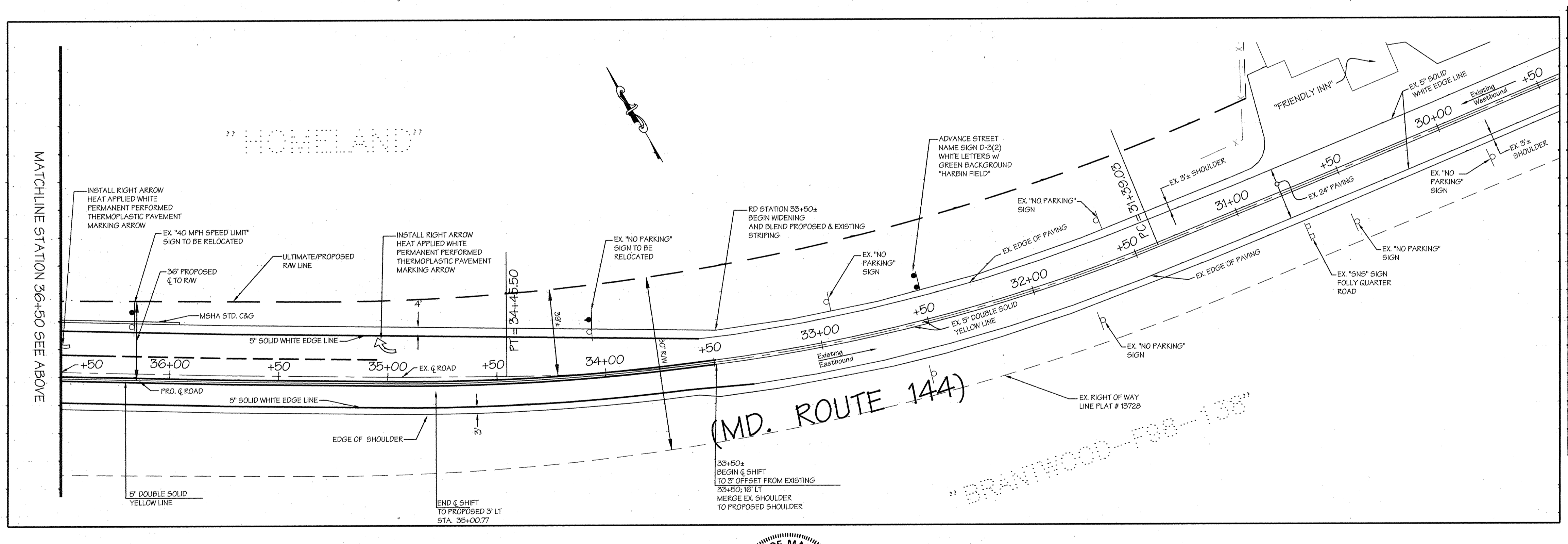
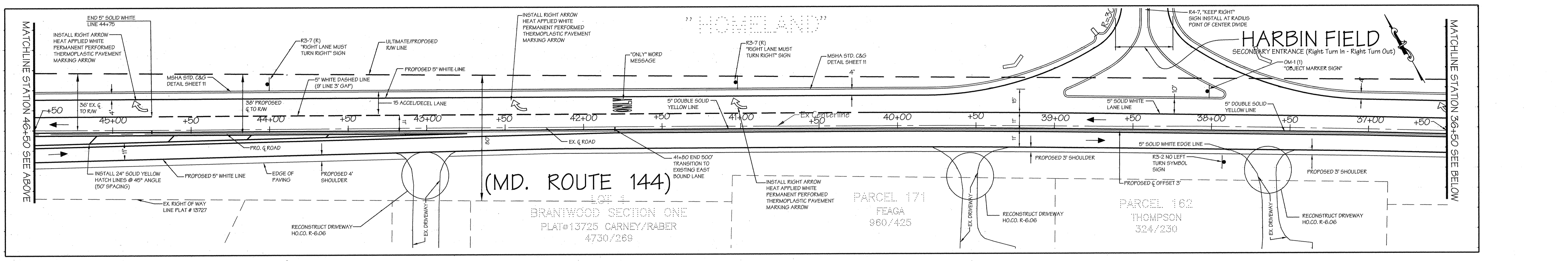
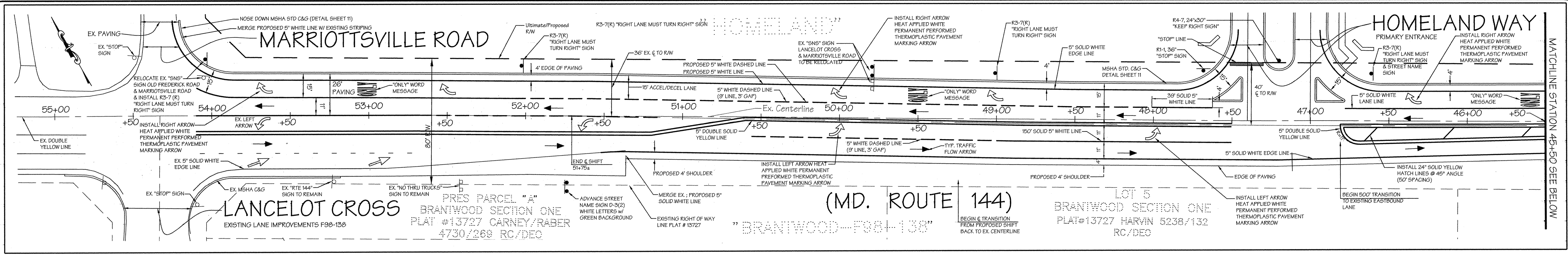
Subdivision Name: HOMELAND		Sect/Area: N/A	Parcel No.: 53, 96, 165 & 204
Block No.: 16 & 22	Zone: RC-DEO	Tax Map No.: 16	Election District: 3rd
Water Code: J 02		Sewer Code: N/A	
Consent Tract: 6030			

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

DESIGNED: EDS JLM, BDB  
 DRAWN: JLM, JDR  
 CHECKED: BDB  
 DATE: 4/2004

DEVELOPER: LB MEADOWS LLC  
 8835 - P Columbia 100 Parkway  
 Columbia, Maryland 21045  
 (410) 730-0810

SCALE: 1"=5' Vert., 1"=50' Hor.  
 DRAWING: 20 of 52  
 JOB NO.: 99-0514  
 FILE NO.: SDP-03-30



APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Chad Williams*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

5/7/04  
DATE

*Cindy Hanath*  
CHIEF, DIVISION OF LAND DEVELOPMENT

7/21/04  
DATE

*Stephen Lafferty*  
DIRECTOR

7/28/04  
DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL

USDA-NATURAL RESOURCE CONSERVATION SERVICE

DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT

DATE

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, soil erosion and sediment control represents a practical and workable plan for the construction of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the district and engaged a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

*Bruce D. Burton*  
SIGNATURE OF ENGINEER

4/22/04  
DATE

DEVELOPER'S CERTIFICATE

I do 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 shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

*John DeWitt*  
SIGNATURE OF DEVELOPER

4/22/04  
DATE

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

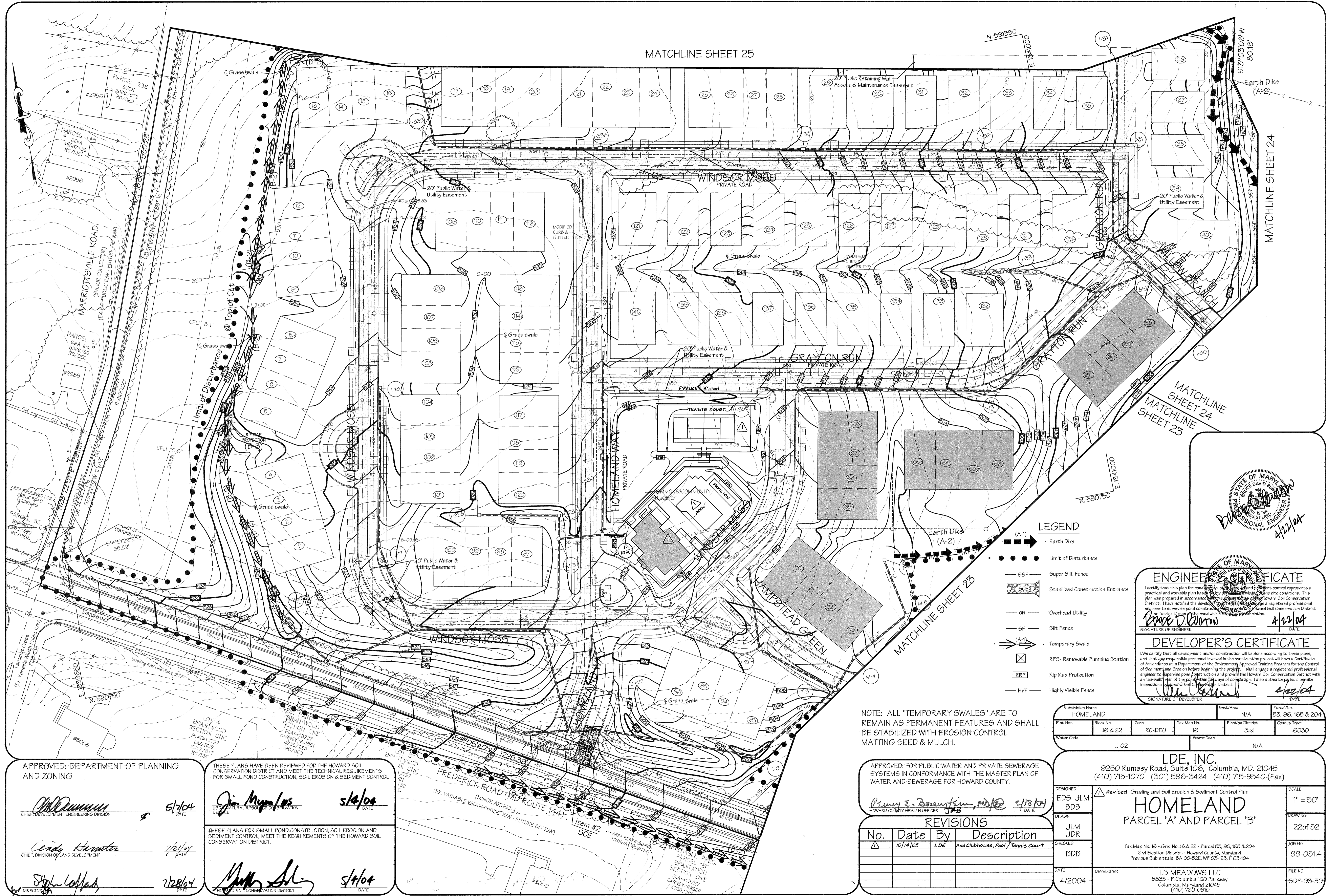
*Penny E. Rosenfield, MD/RE*  
COUNTY HEALTH OFFICER  
HOWARD COUNTY HEALTH DEPARTMENT

6/18/04  
DATE

REVISIONS

No.	Date	By	Description

Subdivision Name:	HOMELAND		Sect/Area:	N/A	Parcel No.:	53, 96, 165 & 204	
Plot No.:	16 & 22	Zone:	RC-DEO	Tax Map No.:	16	Census Tract:	6030
Water Code:	J 02	Sewer Code:	N/A	DESIGNED:	MD ROUTE 144 WIDENING, STRIPING PLAN AND TRAFFIC CONTROL PLAN		
DATE:	4/20/04	DEVELOPER:	LB MEADOWS LLC	SCALE:	1" = 30'		
			8835 - P Columbia 100 Parkway	DRAWN:	JLM JDR		
			Columbia, Maryland 21045	CHECKED:	BDB		
			(410) 730-0210	DATE:	4/20/04		
				JOB NO.:	99-051.4		
				FILE NO.:	SDP-03-30		



MATCHLINE SHEET 25

MATCHLINE SHEET 24

MATCHLINE SHEET 23

**LEGEND**

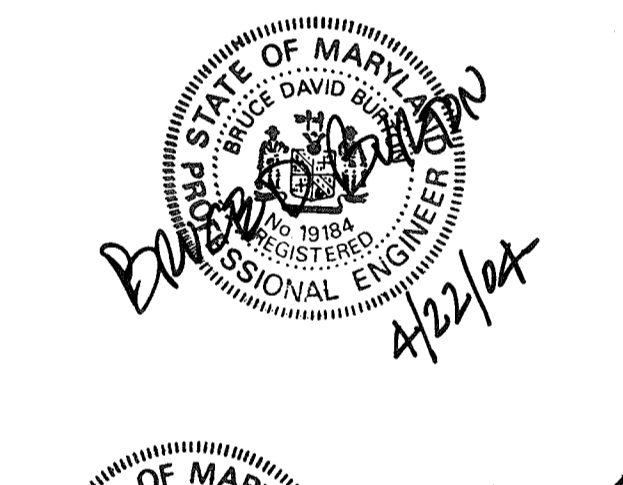
- (A-1) Earth Dike
- Limit of Disturbance
- SSF Super Silt Fence
- SCE Stabilized Construction Entrance
- OH Overhead Utility
- SF Silt Fence
- (A-2) Temporary Swale
- RPS Removable Pumping Station
- RRP Rip Rap Protection
- HVF Highly Visible Fence

NOTE: ALL "TEMPORARY SWALES" ARE TO REMAIN AS PERMANENT FEATURES AND SHALL BE STABILIZED WITH EROSION CONTROL MATTING SEED & MULCH.

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY.

**REVISIONS**

No.	Date	By	Description
1	10/14/05	LDE	Add Clubhouse, Pool, Tennis Court



**ENGINEER'S CERTIFICATE**  
 I certify that this plan for pond construction and erosion control represents a practical and workable plan based on the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer of the requirements of the Howard Soil Conservation District to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic inspections by the Howard Soil Conservation District.

*David M. Brown*  
 SIGNATURE OF ENGINEER  
 DATE: 4/22/04

**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 shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic inspections by the Howard Soil Conservation District.

*David M. Brown*  
 SIGNATURE OF DEVELOPER  
 DATE: 4/22/04

Subdivision Name:	HOMELAND	Section/Area:	N/A	Parcel No.:	53, 96, 165 & 204
Flat No.:	16 & 22	Zone:	RC-DEO	Tax Map No.:	16
Water Code:	J 02	Electon District:	3rd	Census Tract:	6030
Drwer Code:	N/A				

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

DESIGNED: EDS JLM, BDB  
 DRAWN: JLM, JDR  
 CHECKED: BDB  
 DATE: 4/2004

SCALE: 1" = 50'  
 DRAWING: 22 of 52  
 JOB NO.: 99-051.4  
 FILE NO.: SDP-03-30

DEVELOPER: LB MEADOWS LLC  
 8835 - P Columbia 100 Parkway  
 Columbia, Maryland 21045  
 (410) 750-0810

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Chris Hamilton*  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 7/2/04

*John Laffan*  
 DIRECTOR  
 DATE: 7/28/04

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL.

*Jim Mungos*  
 DISTRICT ENGINEER  
 DATE: 5/4/04

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*John Mungos*  
 DISTRICT ENGINEER  
 DATE: 5/4/04

File and Project: 823148181\HW\SHEET PLAN.dwg, SIZE: 4232204, 1/6/05, 10:05 AM

SUMMARY TABLE

TEMPORARY BASIN #1  
 Hazard Classification "A"  
 Drainage Area = 20.87 Acres  
 Top of Facility = 449.00  
 Invert of Facility = 441.50  
 Sediment Storage Volume Required = 75,132 cu.ft.  
 Wet Storage Volume Required = 37,566 cu.ft.  
 Wet Storage Volume Provided = 39,249 cu.ft.  
 Wet Storage Elevation = 444.10  
 Dry Storage Volume Required = 37,566 cu.ft.  
 Dry Storage Volume Provided = 39,842 cu.ft.  
 Dry Storage Elevation = 445.60  
 Sediment Storage Volume Provided = 79,091 cu.ft.  
 Cleanout Elevation = 443.10  
 Cleanout Elevation = 2.5 ft. from Riser  
 Crest @ El. 445.60

TSSW BASIN  
 1 Year 10 Year

Existing Flow	6	60
Acceptable Release	(cfs) 4	-
Computed Inflow	(cfs) 42	103
Facility Discharge	(cfs) 4	68
Elevation at Discharge	446.15	447.31
Storage at Elevation	(ACFT) 2.29	3.45
Temporary Flow	(cfs) 6	90

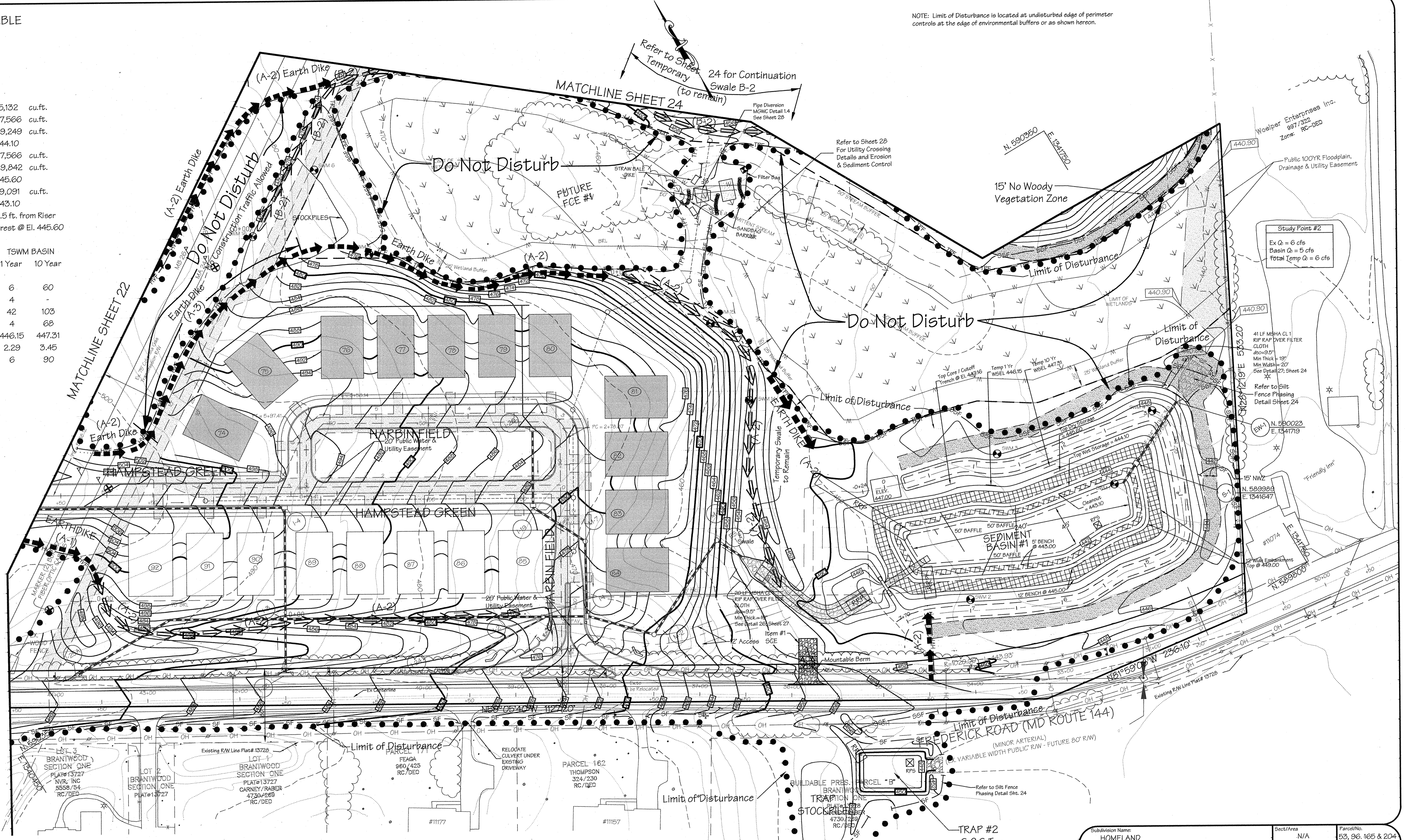
TRAP #2

Drainage Area	1.68 Acres
Storage Required	7,200 cu.ft.
Storage Provided	12,340 cu.ft.
Storage Elevation - Wet	449.50
Storage Elevation - Dry	451.00
Storage Depth - Wet	1.5 ft.
Storage Depth - Dry	1.5 ft.
Trap Bottom Elev.	448.00
Cleanout Elevation	448.90
Weir Crest Elevation	451.00
Top Elevation	452.00
Trap Size (Bottom)	36" x 63"
Trap Type	ST-II

- LEGEND
- (A-1) Earth Dike
  - Limit of Disturbance
  - SGF Super Silt Fence
  - Stabilized Construction Entrance
  - OH Overhead Utility
  - SF Silt Fence
  - (A-2) Temporary Swale
  - RPS Removable Pumping Station
  - RRP Rip Rap Protection
  - HVF Highly Visible Fence
  - Fiber Optic Cable Marker
  - Columbia Gas Line Marker

BAFFLE DESIGN BASIN #1

$L_e \geq 2$
$W_e = A/D$
$L_e = \text{Dist (In to Out Around Baffle)}$
$L_e \geq 2$
$W_e \geq 2$
$A = 39,200 \text{ ft}^2$
$D = 250 \text{ ft}$
$A/D = 157$
$L_e \geq 2$
$157 \times 2 = L_e$
$L_e = 314$
USE (3) 50' BAFFLES



NOTE: Limit of Disturbance is located at undisturbed edge of perimeter controls at the edge of environmental buffers or as shown hereon.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 5/7/04  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 7/21/04  
 CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 7/28/04  
 DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL

*[Signature]* 5/4/04  
 U.S. NATURAL RESOURCES CONSERVATION SERVICE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*[Signature]* 5/4/04  
 HOWARD SOIL CONSERVATION DISTRICT

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction and sediment control represents a practical and workable plan for the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer of the requirements of the Howard Soil Conservation District and the developer has agreed to comply with the requirements of the Howard Soil Conservation District.

*[Signature]* 4/22/04  
 ENGINEER

DEVELOPER'S CERTIFICATE

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 shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

*[Signature]* 4/22/04  
 DEVELOPER

STATE OF MARYLAND  
 PROFESSIONAL ENGINEER

*[Signature]* 4/22/04

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

*[Signature]* 6/18/04  
 COUNTY HEALTH OFFICER  
 HOWARD COUNTY HEALTH DEPARTMENT

REVISIONS

No.	Date	By	Description

Subdivision Name: HOMELAND

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

LDE, INC.

Grading and Soil Erosion & Sediment Control Plan

HOMELAND  
 PARCEL 'A' AND PARCEL 'B'

Tax Map No. 16 - Grid No. 16 & 22 - Parcel 53, 96, 165 & 204  
 3rd Election District - Howard County, Maryland  
 Previous Submittals: BA 00-52E, WF 03-12S, F 03-194

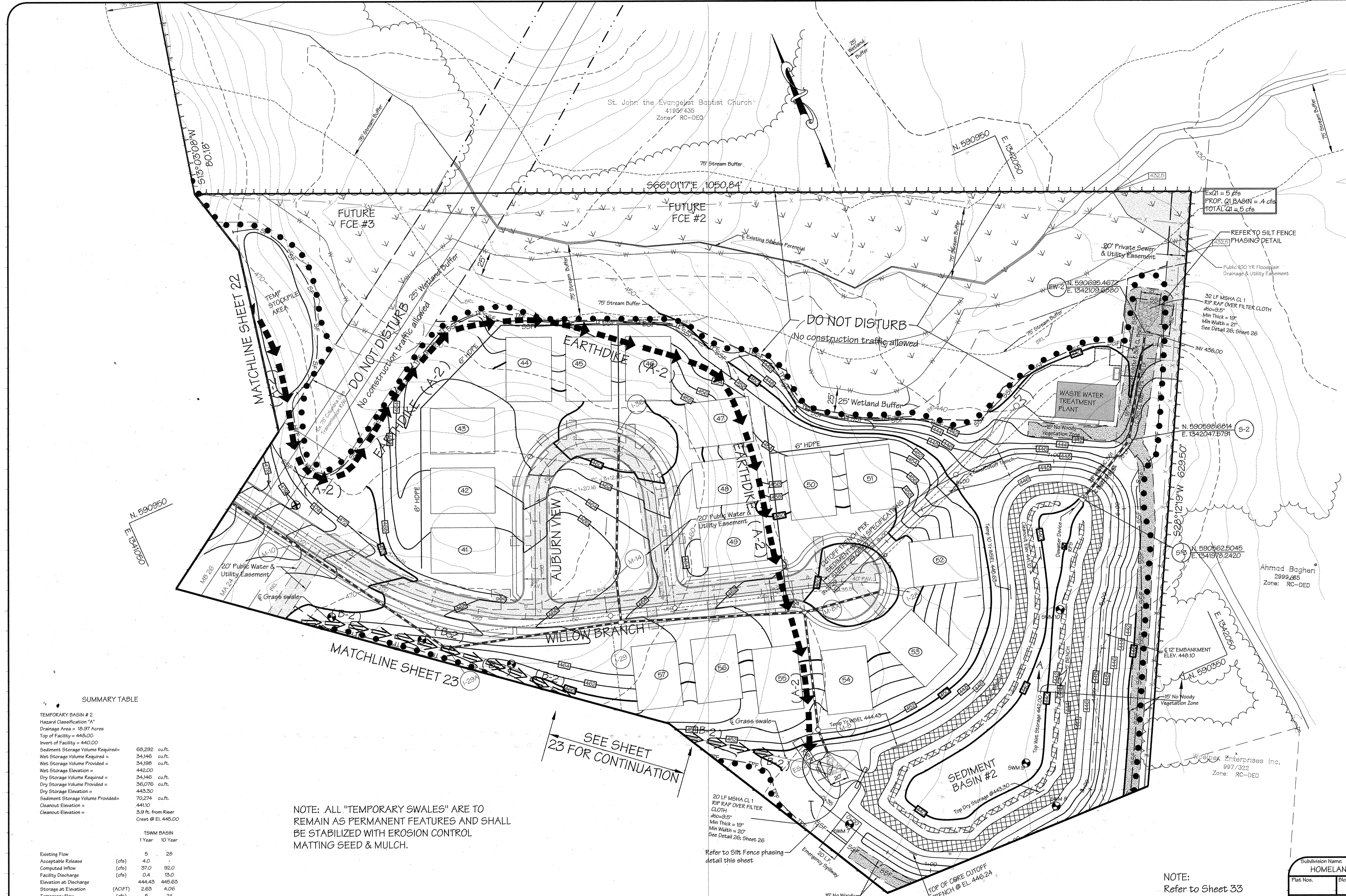
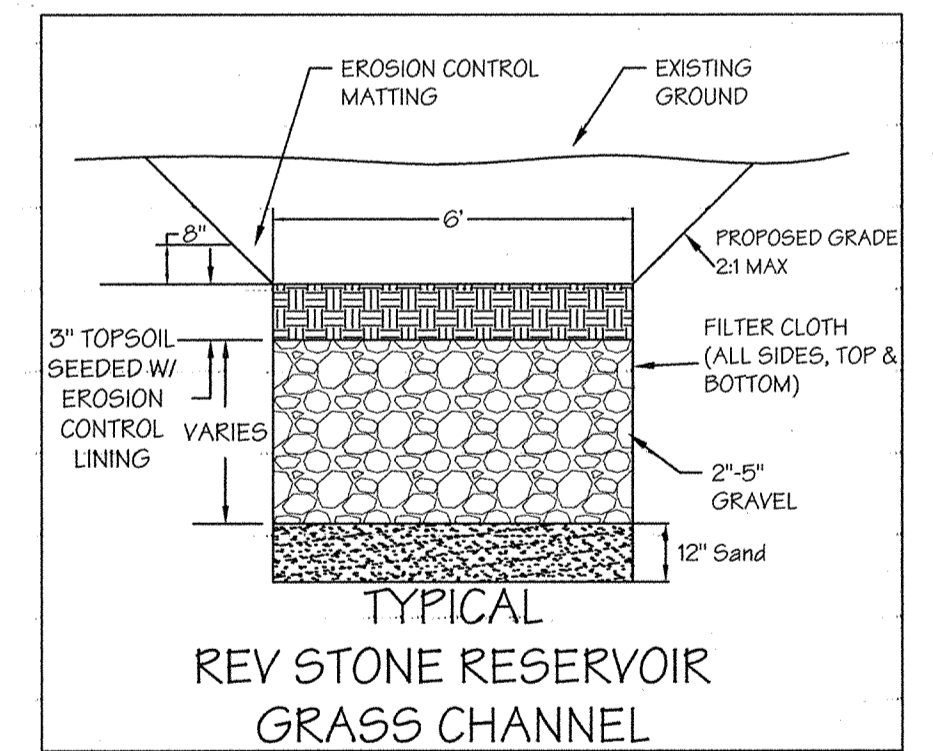
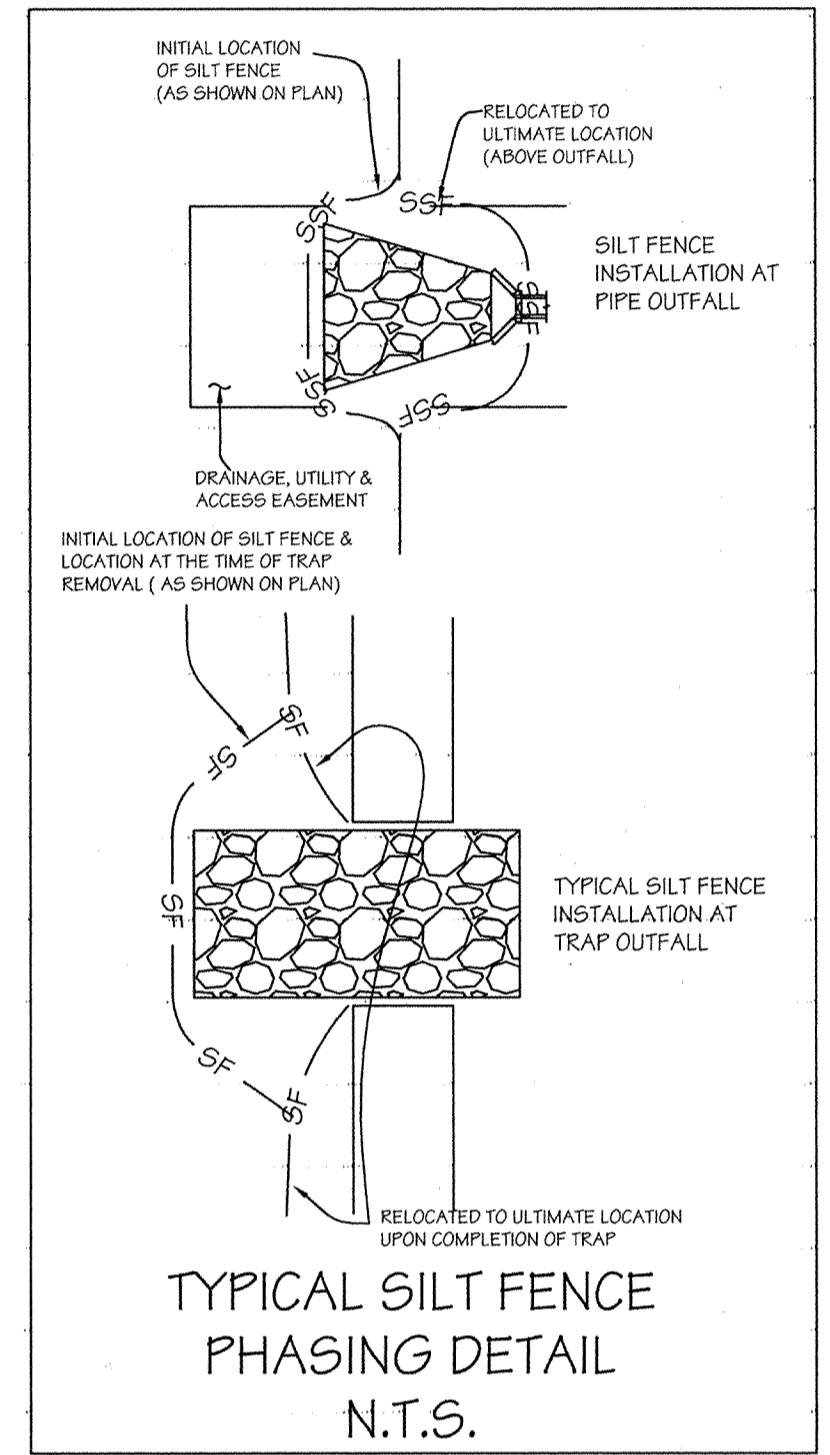
DESIGNED: EDS JLM, BDB  
 DRAWN: JLM, JDR  
 CHECKED: BDB  
 DATE: 4/2004

DEVELOPER: LB MEADOWS LLC  
 8825 - P. Columbia 100 Parkway  
 Columbia, Maryland 21045  
 (410) 730-0810

SCALE: 1" = 50'  
 DRAWING: 23 of 52  
 JOB NO.: 99-051.4  
 FILE NO.: SDP-03-30



- LEGEND**
- (A-1) Earth Dike
  - Limit of Disturbance
  - SSF Super Silt Fence
  - SCE Stabilized Construction Entrance
  - SF Silt Fence
  - (B-2) Temporary Swale
  - RPS Removable Pumping Station
  - RRP Rip Rap Protection
  - HVF Highly Visible Fence
  - ⊕ Fiber Optic Cable Marker
  - ⊥ Columbia Gas Line Marker



**SUMMARY TABLE**

TEMPORARY BASIN #2  
 Hazard Classification "A"  
 Drainage Area = 19.97 Acres  
 Top of Facility = 448.00  
 Invert of Facility = 440.00

Sediment Storage Volume Required =	68,292 cu.ft.
Wet Storage Volume Required =	34,146 cu.ft.
Wet Storage Volume Provided =	34,198 cu.ft.
Wet Storage Elevation =	442.00
Dry Storage Volume Required =	34,146 cu.ft.
Dry Storage Volume Provided =	36,076 cu.ft.
Dry Storage Elevation =	443.30
Sediment Storage Volume Provided =	70,274 cu.ft.
Cleanout Elevation =	441.30
Cleanout Elevation =	3.9 ft. from River Crest @ EL. 445.00

TSWM BASIN		
	1 Year	10 Year
Existing Flow	5	28
Acceptable Release	(cfs) 4.0	-
Computed Inflow	(cfs) 37.0	92.0
Facility Discharge	(cfs) 0.4	13.0
Elevation at Discharge	(ADFT) 444.43	445.63
Storage at Elevation	(ADFT) 2.63	4.06
Temporary Flow	(cfs) 5	24

NOTE: ALL "TEMPORARY SWALES" ARE TO REMAIN AS PERMANENT FEATURES AND SHALL BE STABILIZED WITH EROSION CONTROL MATTING SEED & MULCH.

NOTE: Refer to Sheet 33 for Section A-A at Pond Station 4+00

Subdivision Name: HOMELAND		Parcel No. 53, 96, 165 & 204
Block No. 16 & 22	Zone RC-DEO	Tax Map No. 16
Water Code J 02	Sewer Code	N/A

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 5/1/04  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 7/6/04  
 CHIEF, DIVISION OF LAND DEVELOPMENT

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL.

*[Signature]* 5/4/04  
 DISTRICT MANAGER

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*[Signature]* 5/4/04  
 DISTRICT MANAGER

**ENGINEER'S CERTIFICATE**

I certify that this plan for pond construction and erosion control represents a practical and workable plan based on the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer of the requirements of the Howard Soil Conservation District for an "as-built" plan of the pond within 30 days of completion. I also authorize myself to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize myself to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

*[Signature]* 4/22/04  
 ENGINEER

**DEVELOPER'S CERTIFICATE**

I 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 as a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize myself to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

*[Signature]* 4/22/04  
 DEVELOPER

**STATE OF MARYLAND**  
 PROFESSIONAL ENGINEER  
 DAVID G. BARTON  
 4/22/04

**BAFFLE DESIGN BASIN #2**

$L \geq 2$   
 $W \geq A/D$   
 $L_e = \text{Dist (In to Out Around Baffle)}$

$L \geq 2$   
 $A = 58,825 \text{ ft}^2$   
 $D = 500 \text{ ft}$   
 $A/D = 118$

$L \geq 2$   
 $118 \times 2 = L_e$   
 $L_e = 236$   
 NO BAFFLE REQUIRED

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

*[Signature]* 4/18/04  
 COUNTY HEALTH OFFICER  
 HOWARD COUNTY HEALTH DEPARTMENT

**REVISIONS**

No.	Date	By	Description

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

DESIGNED: EDS JLM  
 BDB

DRAWN: JLM  
 JDR

CHECKED: BDB

DATE: 4/2004

DEVELOPER: LB MEADOWS LLC  
 8835 - P Columbia 100 Parkway  
 Columbia, Maryland 21045  
 (410) 730-0810

SCALE: 1" = 50'

DRAWING: 24 of 52

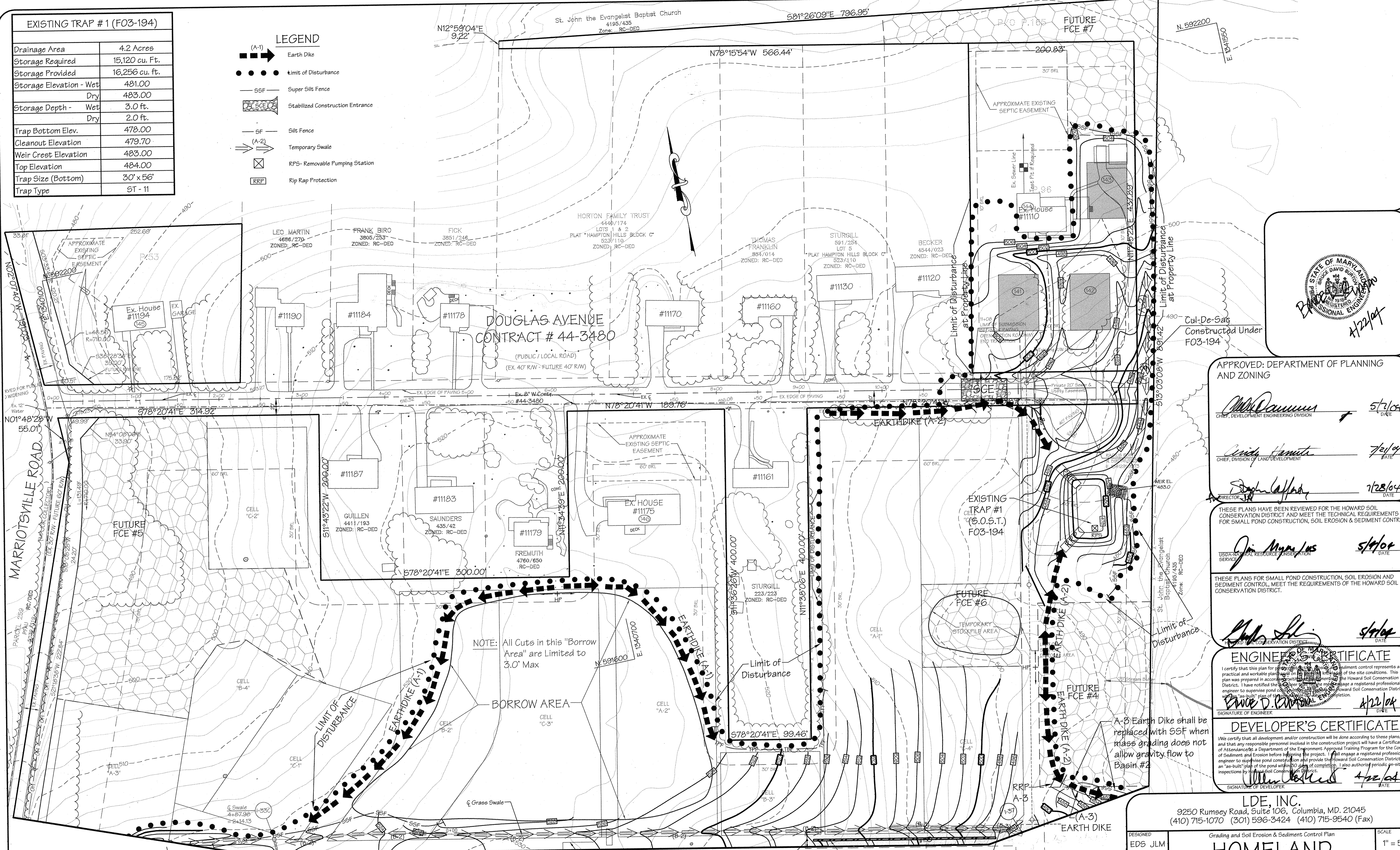
JOB NO.: 99-0514

FILE NO.: SDP-03-30

EXISTING TRAP # 1 (F03-194)	
Drainage Area	4.2 Acres
Storage Required	15,120 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

**LEGEND**

- (A-1) Earth Dike
- Limit of Disturbance
- 6SF — Super Silt Fence
- SF — Silt Fence
- (A-2) Temporary Swale
- ⊠ RPS - Removable Pumping Station
- RRP Rip Rap Protection
- Stabilized Construction Entrance



APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Michael D. ...* 5/1/04  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
*Christy Hamlett* 7/21/04  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
*Stephen Laffan* 7/28/04  
 DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL.

*Jim Myrland* 5/14/04  
 USDA/NATURAL RESOURCE CONSERVATION SERVICE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*Charles D. ...* 5/14/04  
 HOWARD SOIL CONSERVATION DISTRICT

**ENGINEER'S CERTIFICATE**  
 I certify that this plan for...  
*Charles D. ...* 4/22/04  
 SIGNATURE OF ENGINEER

**DEVELOPER'S CERTIFICATE**  
 We certify that all developments and/or construction will be done according to these plans...  
*Michael D. ...* 4/22/04  
 SIGNATURE OF DEVELOPER

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

DESIGNED EDS JLM BDB	Grading and Soil Erosion & Sediment Control Plan <b>HOMELAND</b> PARCEL 'A' AND PARCEL 'B'	SCALE 1" = 50'
DRAWN JLM JDR		DRAWING 25 of 52
CHECKED BDB	Tax Map No. 16 - Grid No. 16 & 22 - Parcel 53, 96, 165 & 204 3rd Election District - Howard County, Maryland Previous Submittals: BA 00-52E, WP 05-12B, F03-194	JOB NO. 99-0514
DATE 4/2/004	DEVELOPER LB MEADOWS LLC 8835 - P Columbia 100 Parkway Columbia, Maryland 21045 (410) 730-0810	FILE NO. SDP-03-30

**REVISIONS**

No.	Date	By	Description

NOTE: 1) ALL "TEMPORARY SWALES" ARE TO REMAIN AS PERMANENT FEATURES AND SHALL BE STABILIZED WITH EROSION CONTROL MATTING SEED & MULCH.  
 2) FOR RIGHT-OF-WAY DEDICATION INFORMATION FOR THE DOUGLAS AVENUE CUL-DE-SAC, REFER TO F03-194.

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY.  
*Penny E. Borenstein, MD/PE* 6/18/04  
 HOWARD COUNTY HEALTH OFFICER

Subdivision Name: <b>HOMELAND</b>	Sect./Area N/A	Parcel No. 53, 96, 165 & 204
Plot No. 16 & 22	Zone RC-DEO	Election District 3rd
Water Code J 02	Tax Map No. 16	Census Tract 6030
Sewer Code N/A		

File Name: Projects\2014\HOMELAND\SDP\SDP-03-30\SDP-03-30.dwg, SED, 4/22/2004 7:57:52 AM

HOWARD SOIL CONSERVATION DISTRICT  
STANDARD SEDIMENT CONTROL NOTES

- 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).
- 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.
- 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.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 7, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL (Section G) for permanent seeding, sod, temporary seeding, and mulching. Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:

Total Area of Site	70.4	Acres
Area Disturbed	55.4	Acres
Area to be roofed or paved	13.3	Acres
Area to be vegetatively stabilized	35.5	Acres
Total Cut	126,000	Cu. Yds.
Total Fill	111,000	Cu. Yds.
	N/A	ONSITE

- Offsite waste/borrow area location of utilities must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- Trenches for the construction of utilities is limited to three pipe lengths or that which 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:

- 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.).
- 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 (1.4 lbs/1000sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs per acre (1.4 lbs/1000sq. ft.) of Kentucky 31 Tall Fescue and 2 lbs. per acre (.05 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 rotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 215 gallons per acre (5 gal/1000sq. ft.) of emulsified asphalt on flat areas. On slopes 3 feet or higher, use 348 gallons per acre (8 gal/1000sq. ft.) for anchoring.

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

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.

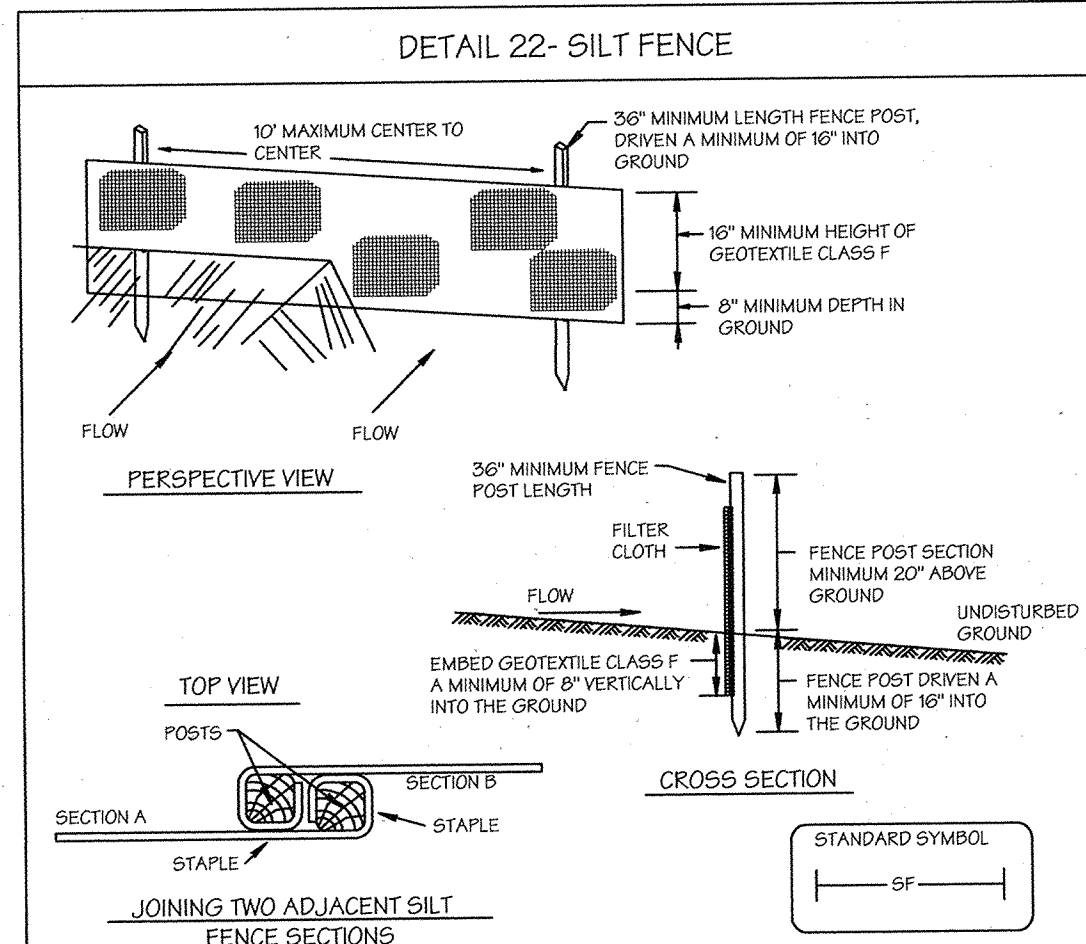
SEEDBED PREPARATION: -- Loosen upper three inches of soil by raking, disking, or other acceptable means before seeding, if not previously loosened.

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 2-1/2 bushels per acre of annual ryegrass (3.2 lbs/1000sq. ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (.07 lbs/1000sq. ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

MULCHING -- Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000sq. ft.) of rotted weed free small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 215 gallons per acre (5 gal/1000sq. ft.) of emulsified asphalt on flat areas. On slopes 3 feet or higher, use 348 gallons per acre (8 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.

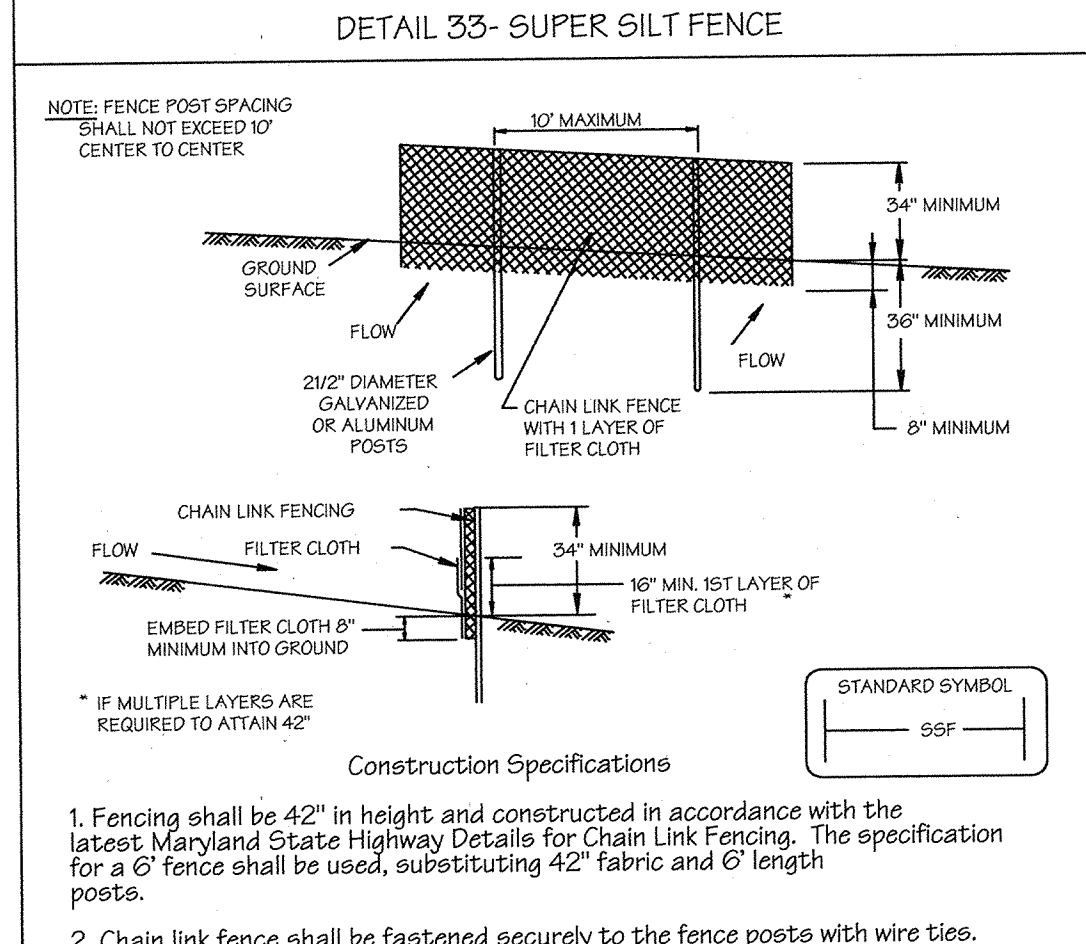


Construction Specifications

- Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pound per linear foot.
- Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:
 

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal/ft/minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE E-18-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

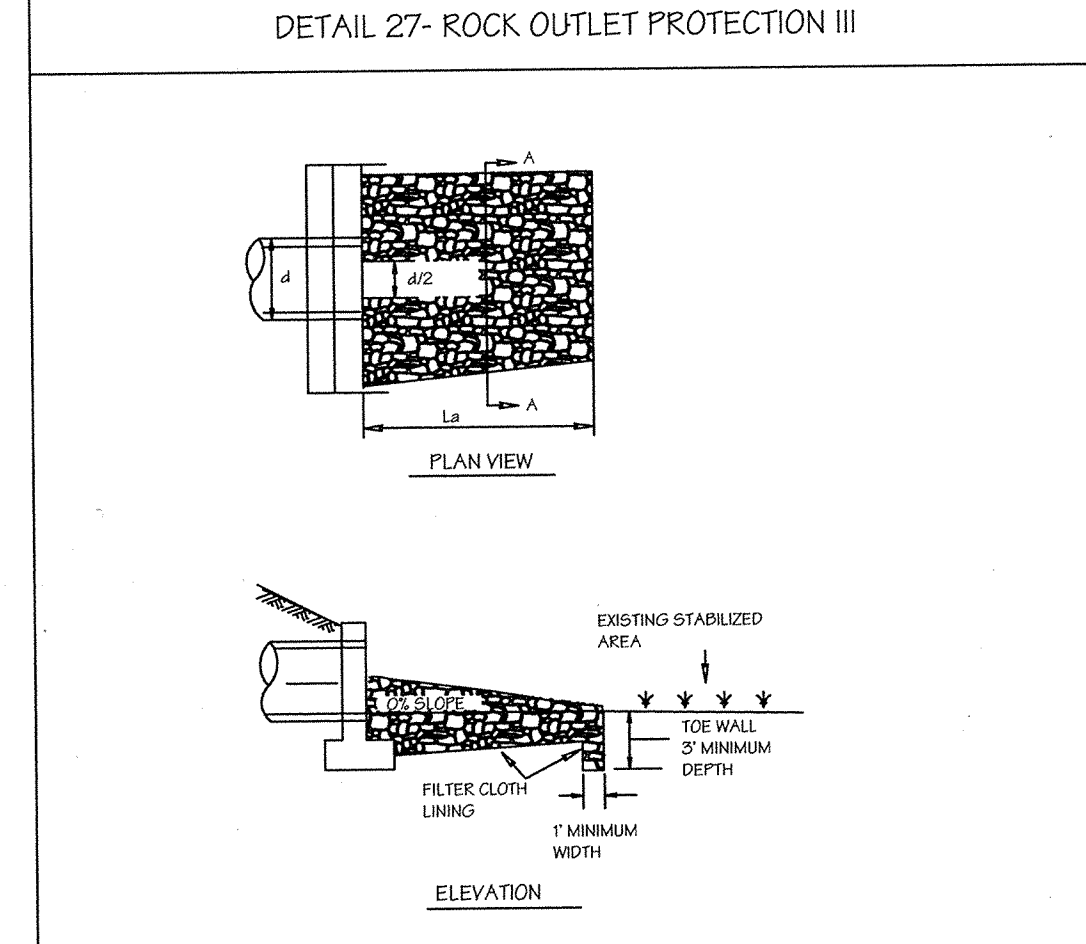


Construction Specifications

- Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6" fence shall be used, substituting 42" fabric and 6" length posts.
- Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.
- Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
- Filter cloth shall be embedded a minimum of 6" into the ground.
- When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
- Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height.
- Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:
 

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal/ft/minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

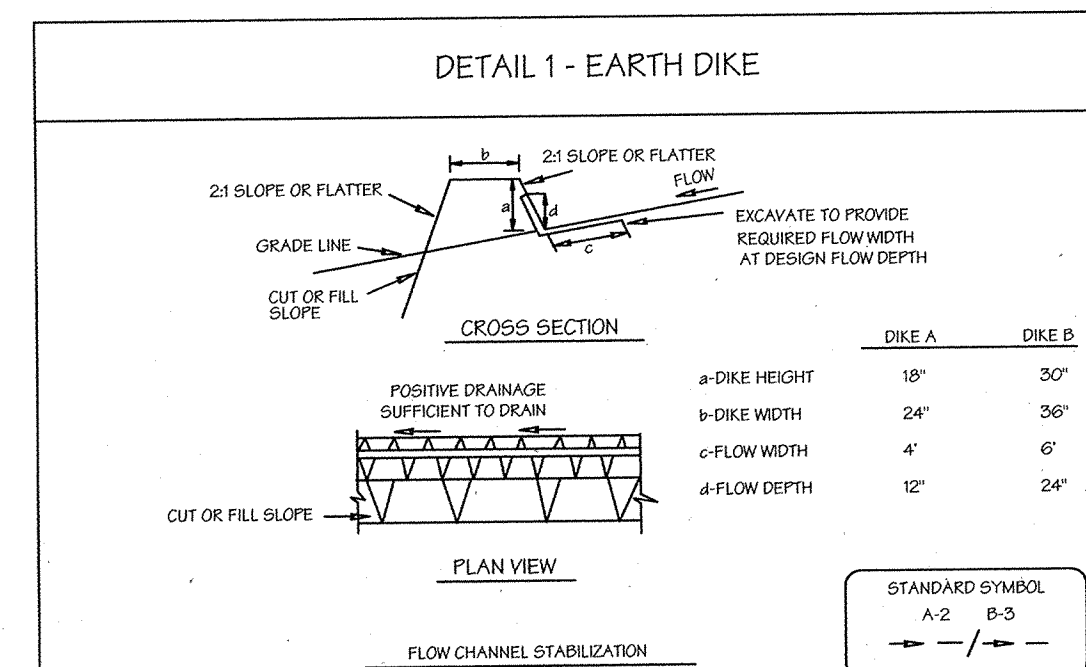
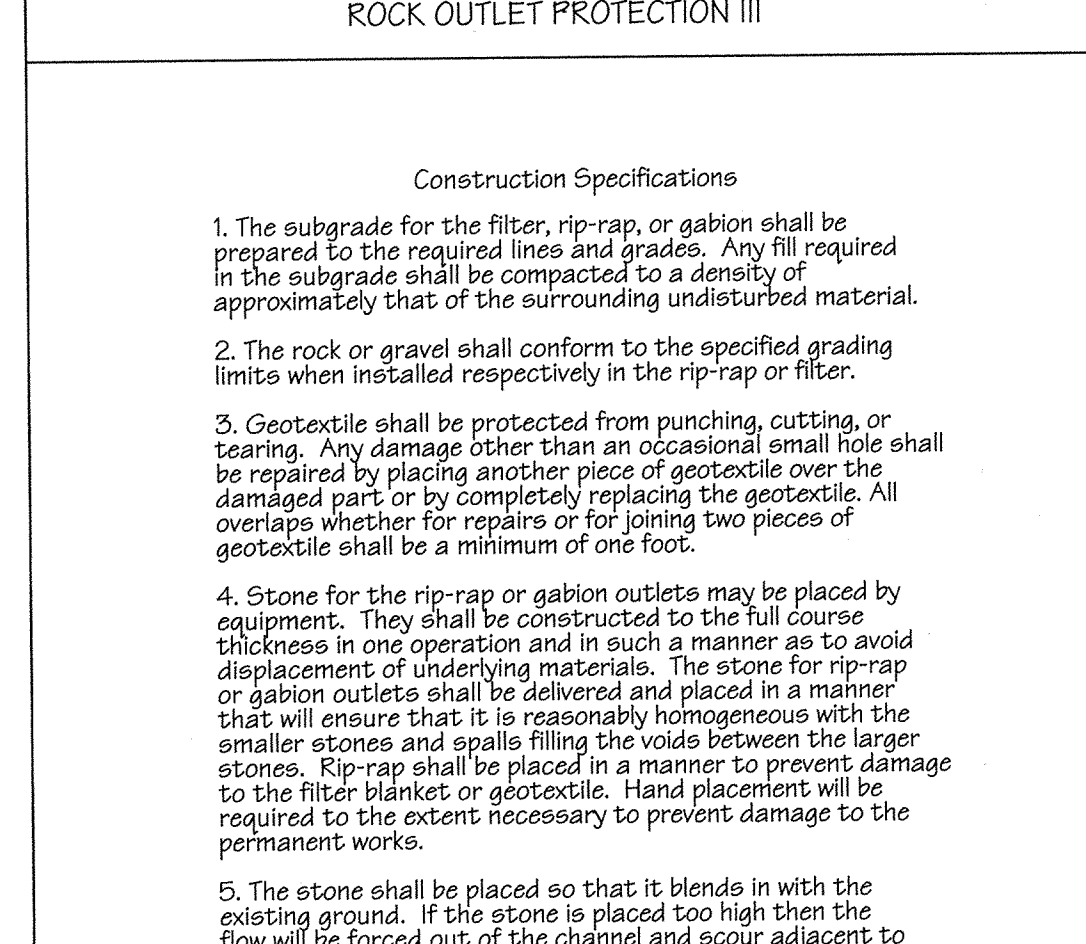
U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE H-28-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



Construction Specifications

- The subgrade for the filter, rip-rap, or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.
- The rock or gravel shall conform to the specified grading limits when installed respectively in the rip-rap or filter.
- Geotextile shall be protected from punching, cutting, or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of geotextile over the damaged part or by completely replacing the geotextile. All overlaps whether for repairs or for joining two pieces of geotextile shall be a minimum of one foot.
- Stone for the rip-rap or gabion outlets may be placed by equipment. They shall be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stones for rip-rap or gabion outlets shall be placed in a manner that will ensure that it is reasonably homogeneous with the smaller stones and spalls filling the voids between the larger stones. Rip-rap shall be placed in a manner to prevent damage to the filter blanket or geotextile. Hand placement will be required to the extent necessary to prevent damage to the permanent works.
- The stone shall be placed so that it blends in with the existing ground. If the stone is placed too high then the flow will be forced out of the channel and scour adjacent to the stone will occur.

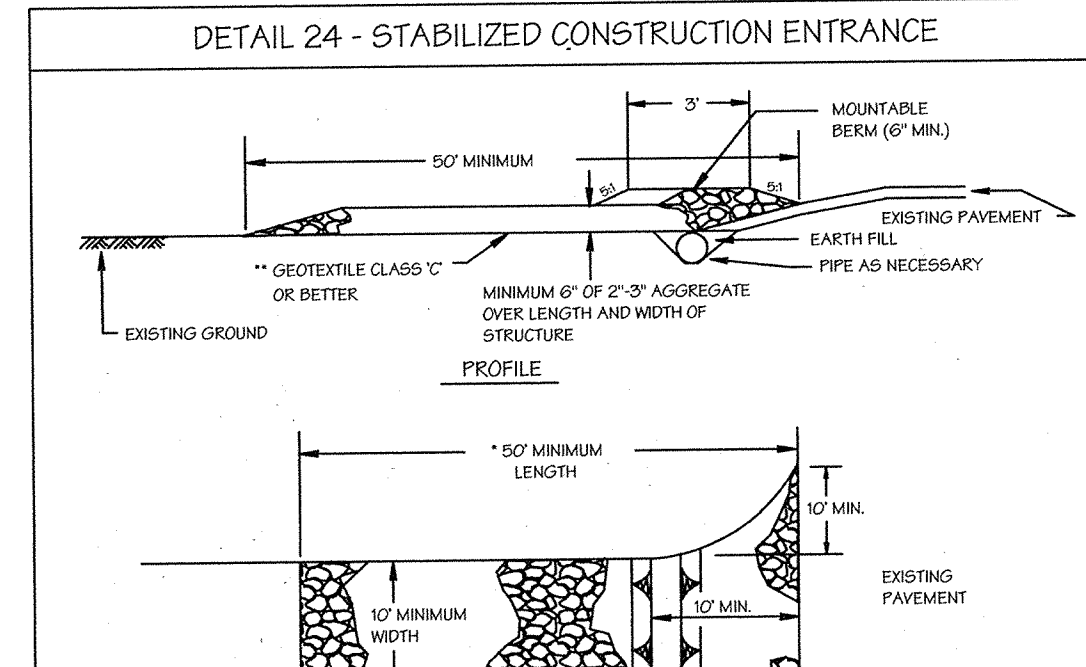
U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE F-18-10 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



Construction Specifications

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

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE A-11-6 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



Construction Specification

- Length - minimum of 50' (30' for single residence lot).
- Width - 10' minimum, should be flared at the existing road to provide a turning radius.
- Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. \*\*The plan approval authority may not require single family residences to use geotextile.
- Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
- Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 3:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
- Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE F-17-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

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

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

Conditions Where Practice Applies

- This practice is limited to areas having 2:1 or flatter slopes where:
  - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
  - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
  - The original soil to be vegetated contains material toxic to plant growth.
  - The soil is so acidic that treatment with limestone is not feasible.
- For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications

- Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experiment Station.
- Topsoil Specifications - Soil to be used as topsoil must meet the following:
  - 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 textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.
  - Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutedge, poison ivy, thistle, or others as specified.
  - Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

III. For sites having disturbed areas under 5 acres:

- Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

IV. For sites having disturbed areas over 5 acres:

- On soil testing Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
  - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
  - Organic content of topsoil shall be not less than 1.5 percent by weight.
  - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
  - No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min) to permit dissipation of 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 20.0 Vegetative Stabilization --Section 1- Vegetative Stabilization Methods and Materials.

- V. Topsoil Application
- 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.
  - Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.
  - 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.
  - 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:

- 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:
  - 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.
  - 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.
  - Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
- 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:Guideline Specifications, Soil Preparation and Sodding. MD-VA, Pub.#1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.

Subdivision Name: HOMELAND		Section/Area: N/A	Parcel No.: 53, 96, 165 & 204
Plot Nos.: 16 & 22	Zone: RC-DEO	Tax Map No.: 16	Election District: 3rd Census Tract: 6030
Water Code: J 02	Sewer Code: N/A		

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

Grading and Soil Erosion & Sediment Control Plan - Details

SCALE: As Shown

HOMELAND PARCEL 'A' AND PARCEL 'B'

Tax Map No. 16 - Grid No. 16 & 22 - Parcel 53, 96, 165 & 204  
3rd Election District - Howard County, Maryland  
Previous Submittals: BA 00-52E, WP 03-12B, F 03-194

FILE NO.: SDP-03-30

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division  
5/16/04 DATE

Chief, Division of Land Development  
7/21/04 DATE

Director  
12/28/04 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL.

Signature: Jim Mays  
5/16/04 DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Signature: [Signature]  
5/16/04 DATE

ENGINEER'S CERTIFICATE

Signature: Bruce D. Burton  
4/22/04 DATE

DEVELOPER'S CERTIFICATE

Signature: [Signature]  
4/22/04 DATE

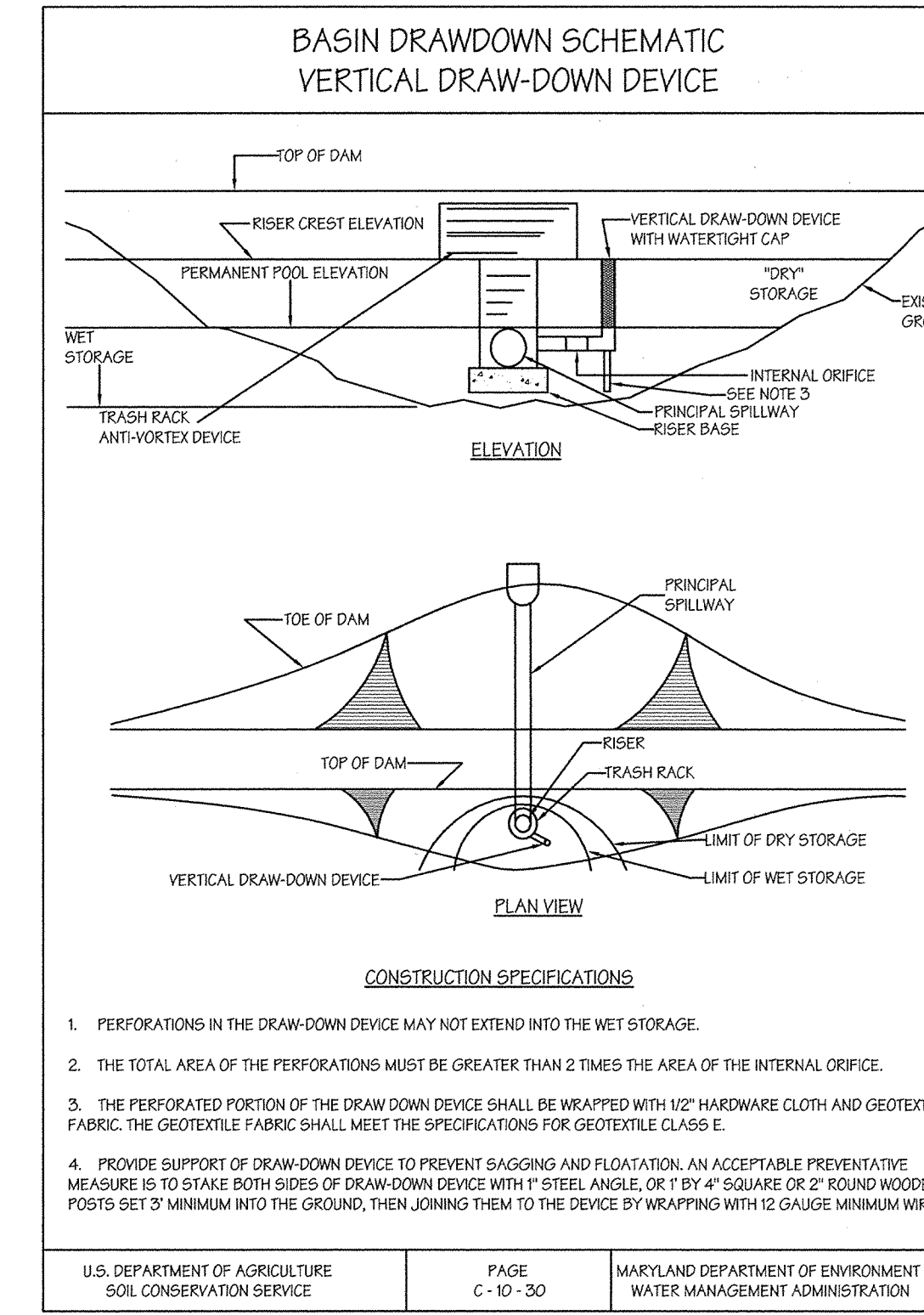
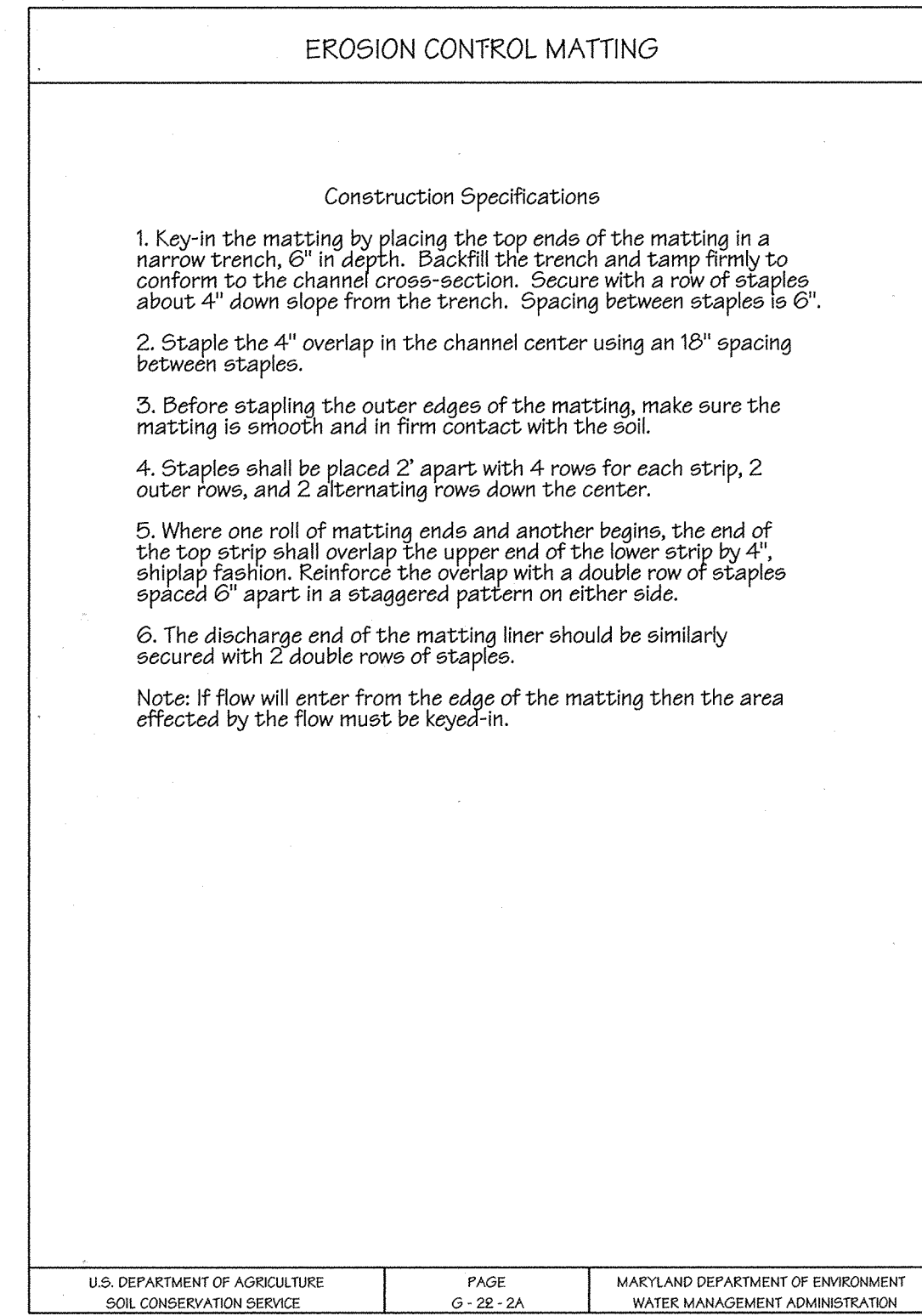
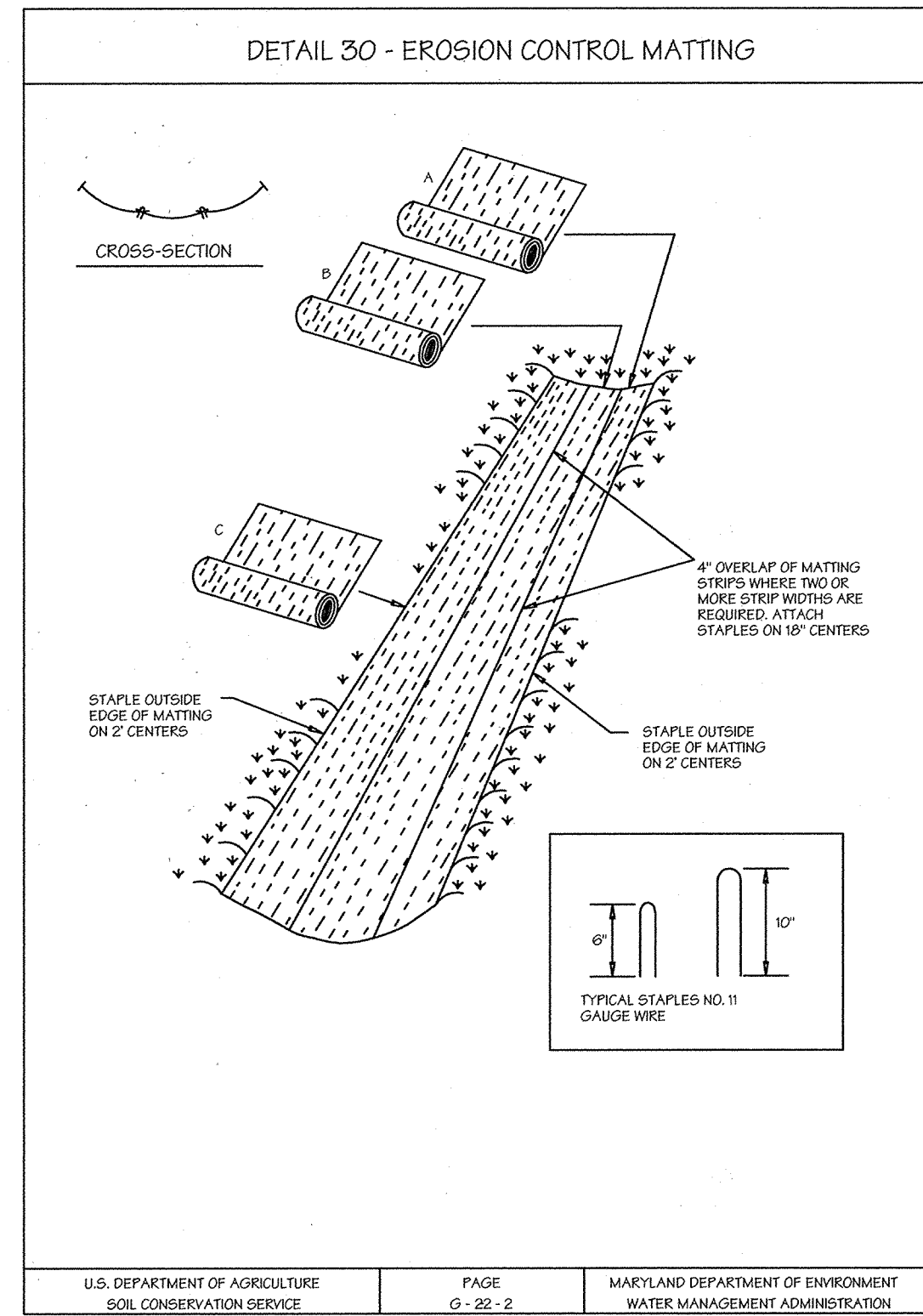
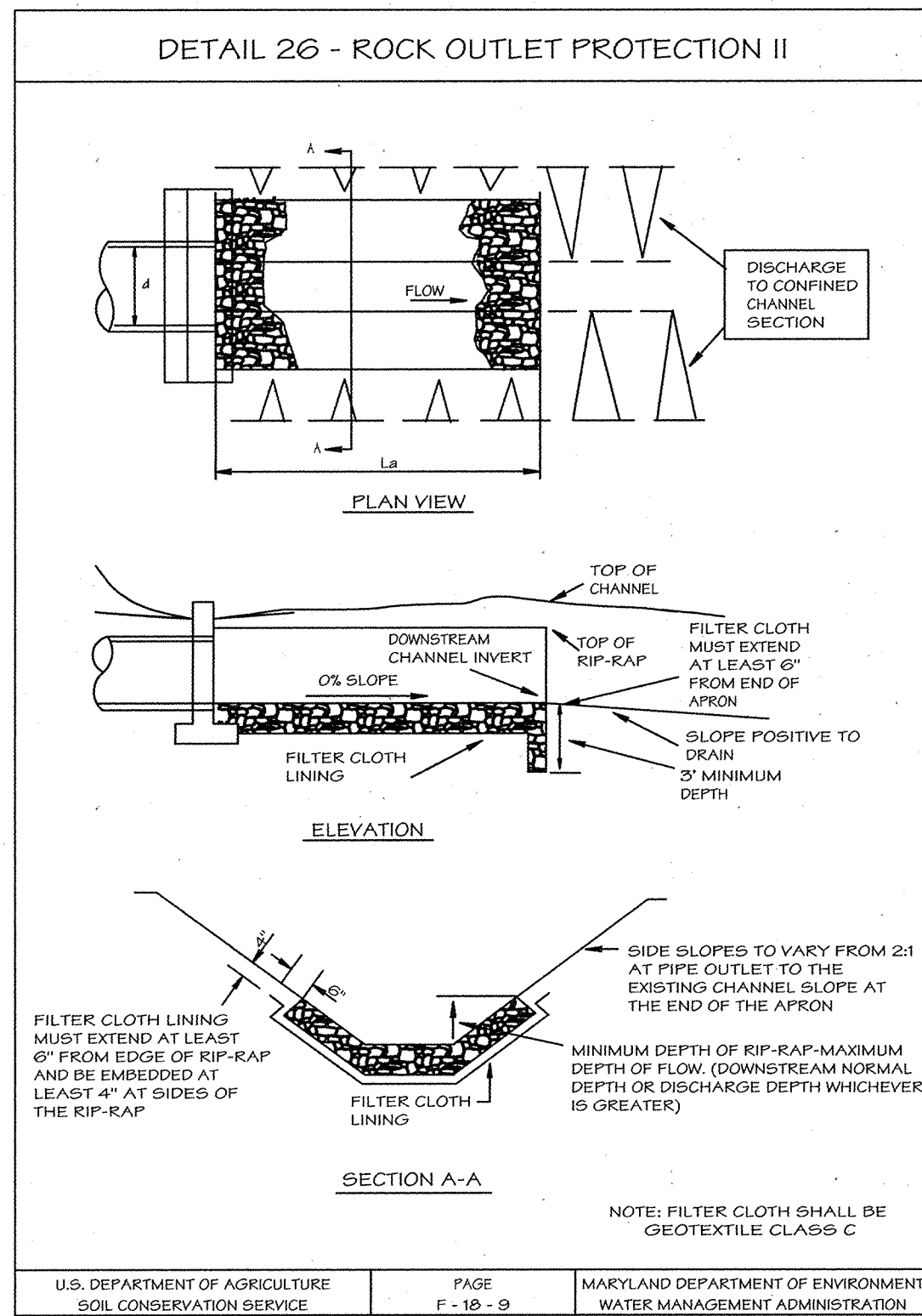
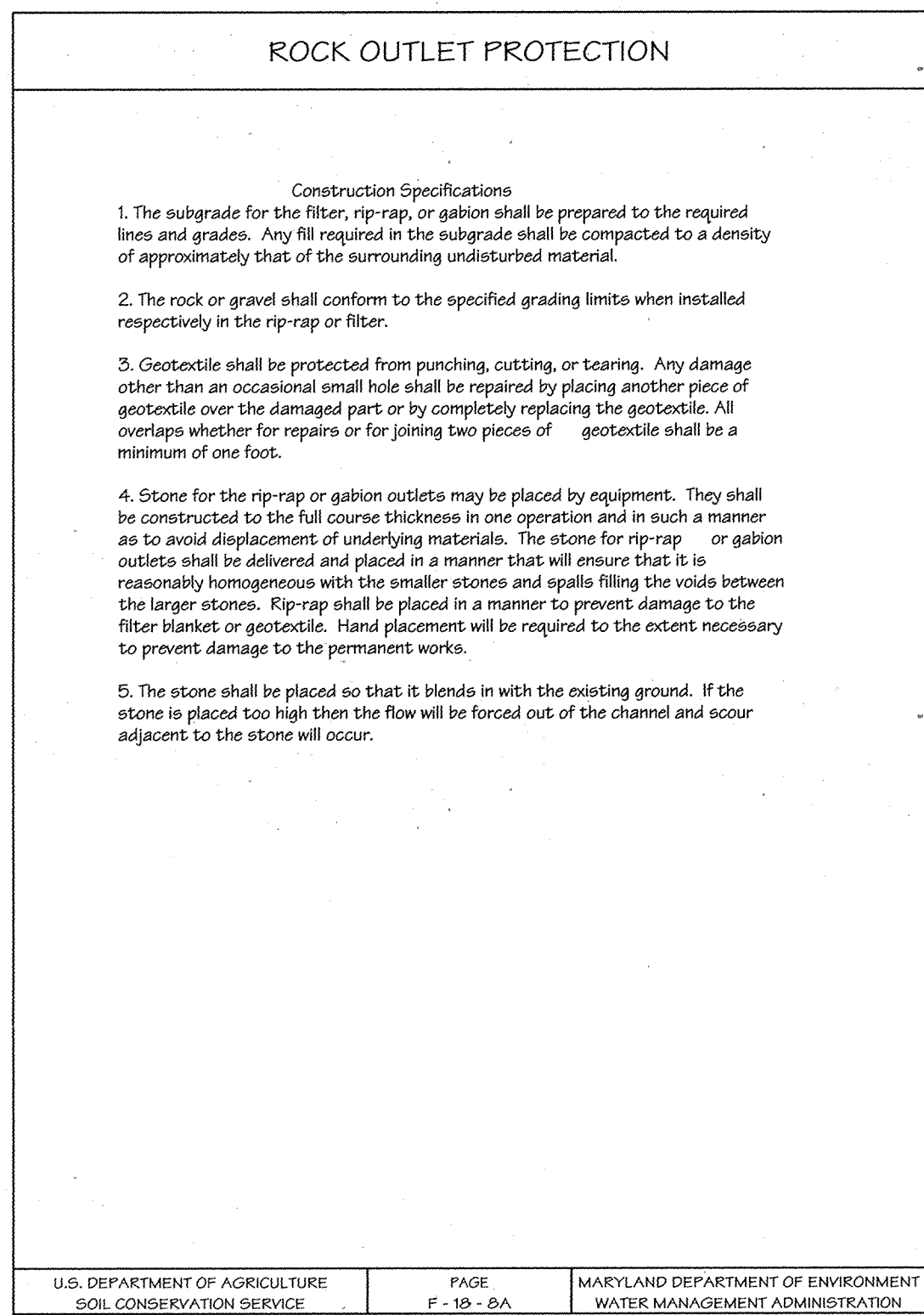
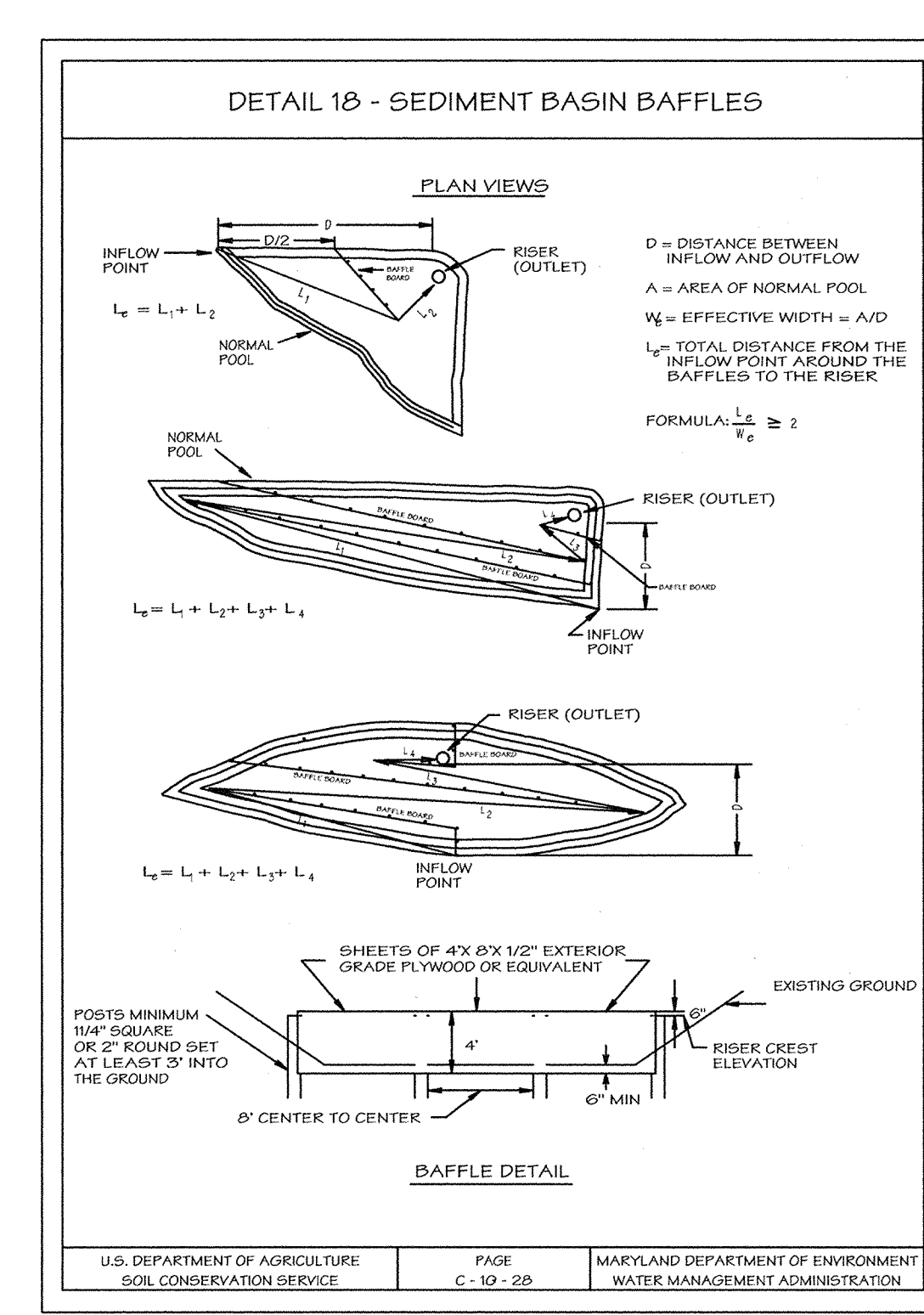
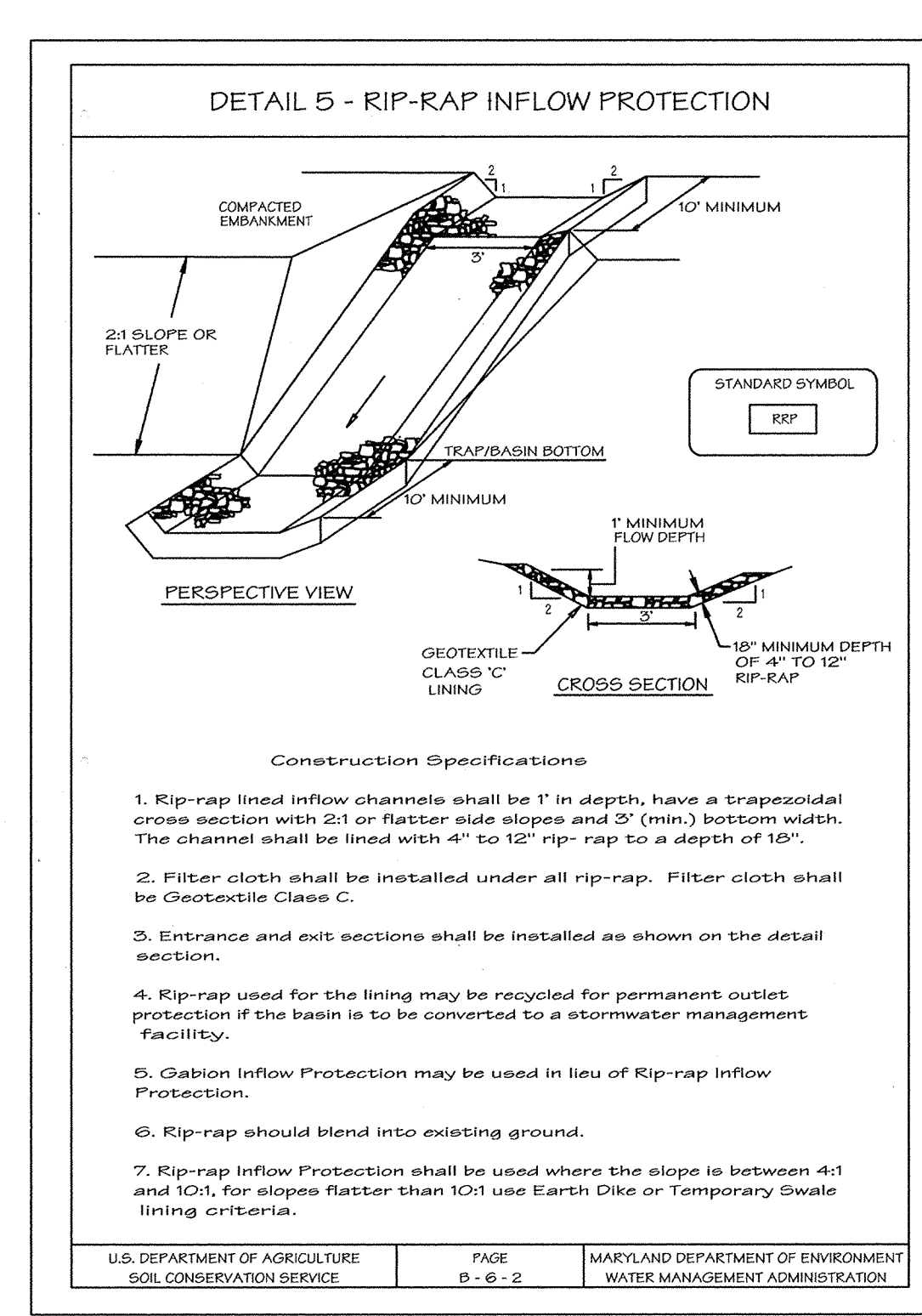
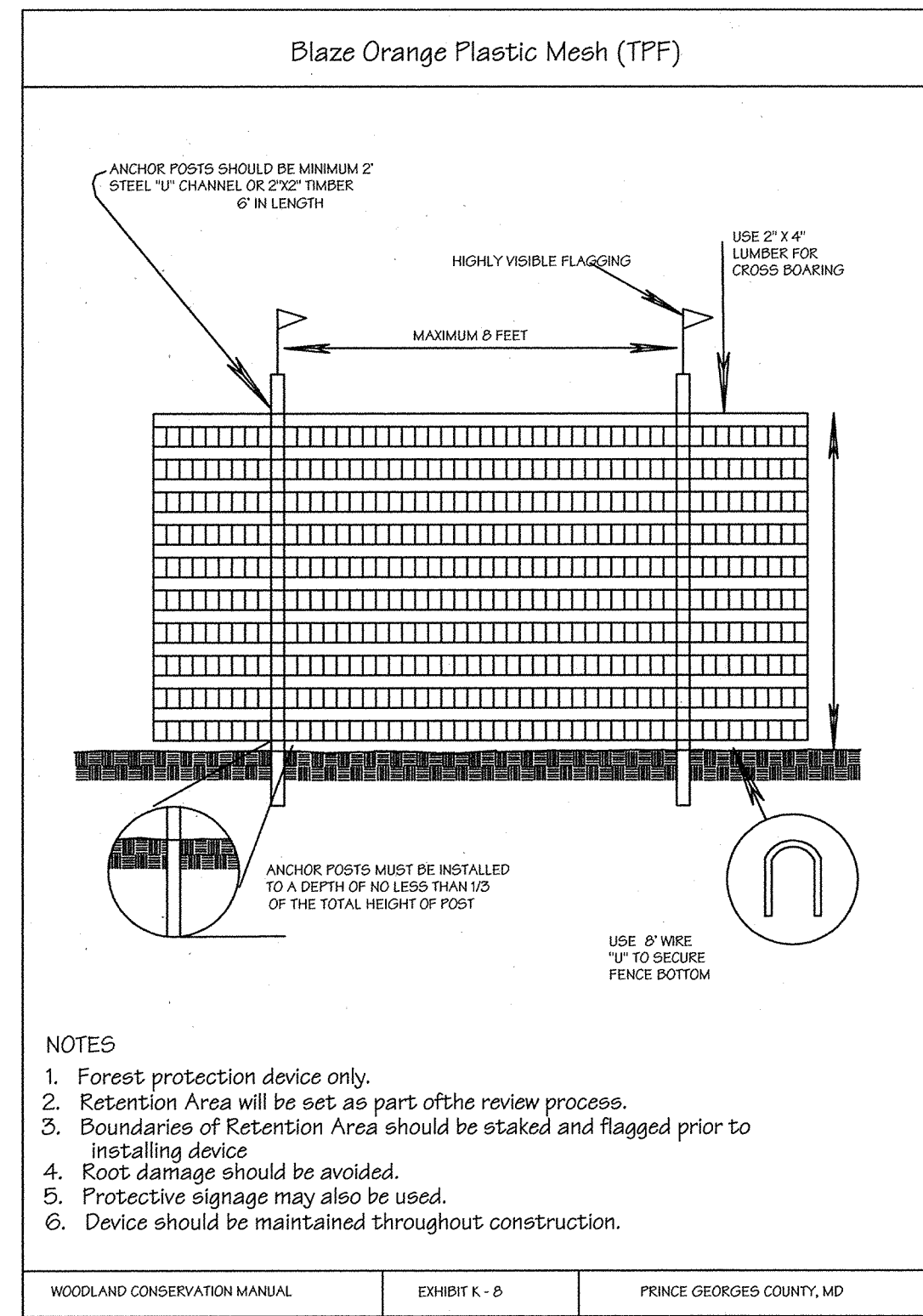
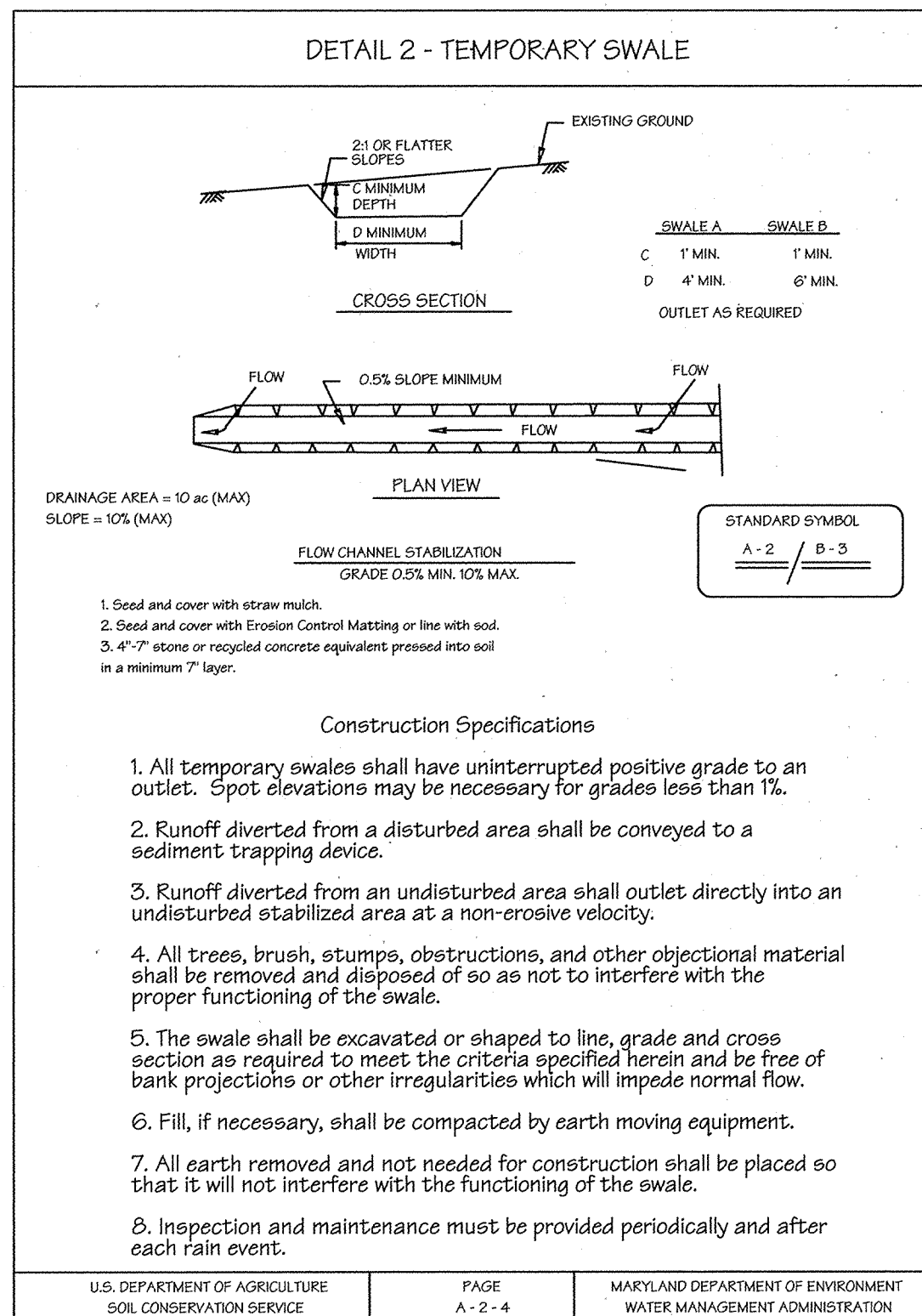
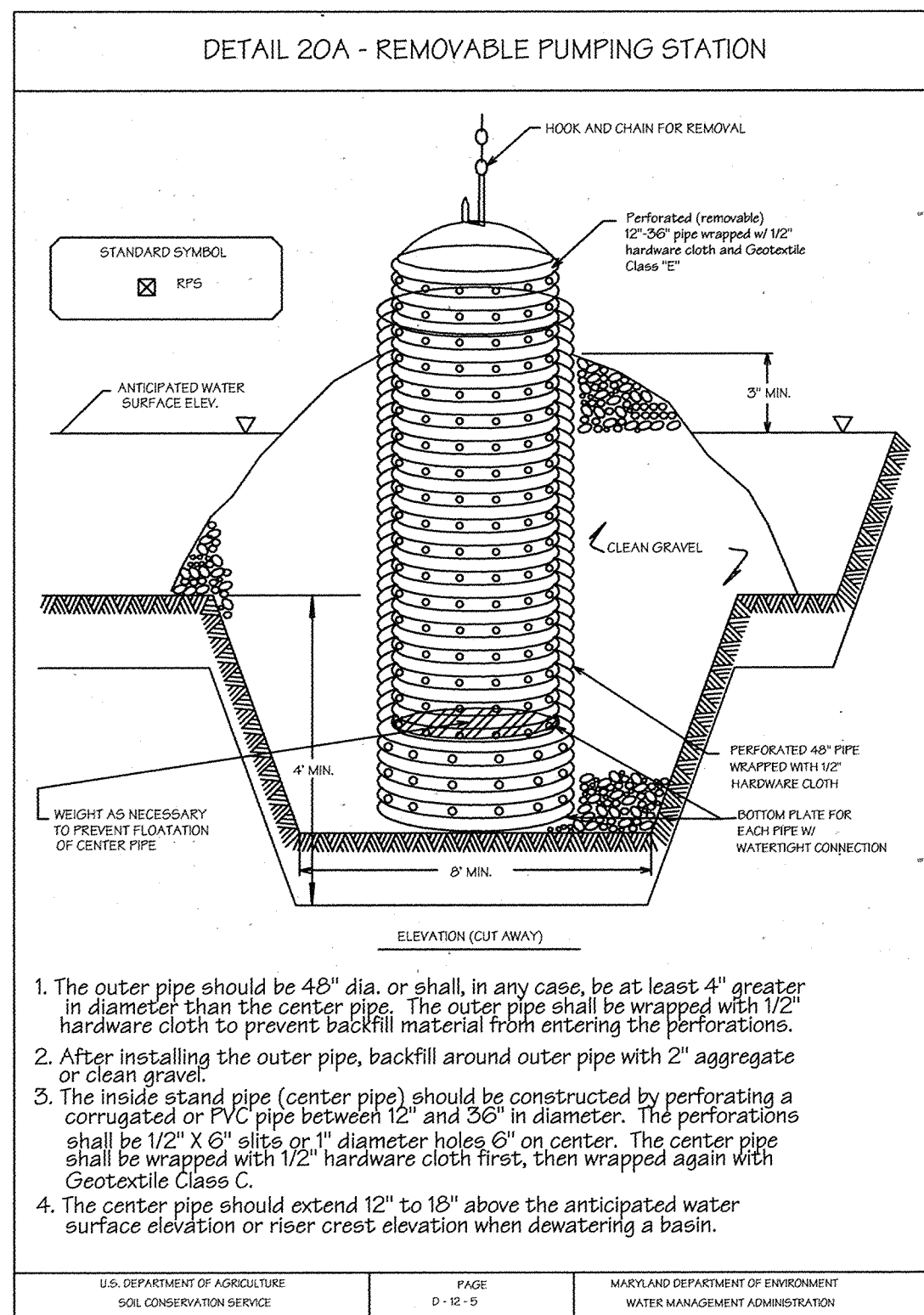
Professional Engineer Seal  
Signature: [Signature]  
4/22/04 DATE

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

Signature: [Signature]  
6/18/04 DATE

REVISIONS

No.	Date	By	Description



APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 5/1/04 DATE

*[Signature]* 7/1/04 DATE

*[Signature]* 7/28/04 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL

*[Signature]* 5/1/04 DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*[Signature]* 5/1/04 DATE

ENGINEER'S CERTIFICATE

I certify that this plan for erosion and sediment control represents a practical and workable plan for the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the Howard Soil Conservation District and the Howard County Health Department of the completion of this plan.

*[Signature]* 4/22/04 DATE

DEVELOPER'S CERTIFICATE

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 Sedimentation Erosion before beginning the project. I will engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

*[Signature]* 4/22/04 DATE

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

*[Signature]* 6/18/04 DATE

REVISIONS

No.	Date	By	Description

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

*[Signature]* 6/18/04 DATE

LDE, INC.

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

Grading and Soil Erosion & Sediment Control Plan - Details

HOMELAND  
PARCEL 'A' AND PARCEL 'B'

DESIGNED: EDS JLM, BDB  
DRAWN: JLM, JDR  
CHECKED: BDB  
DATE: 4/2004

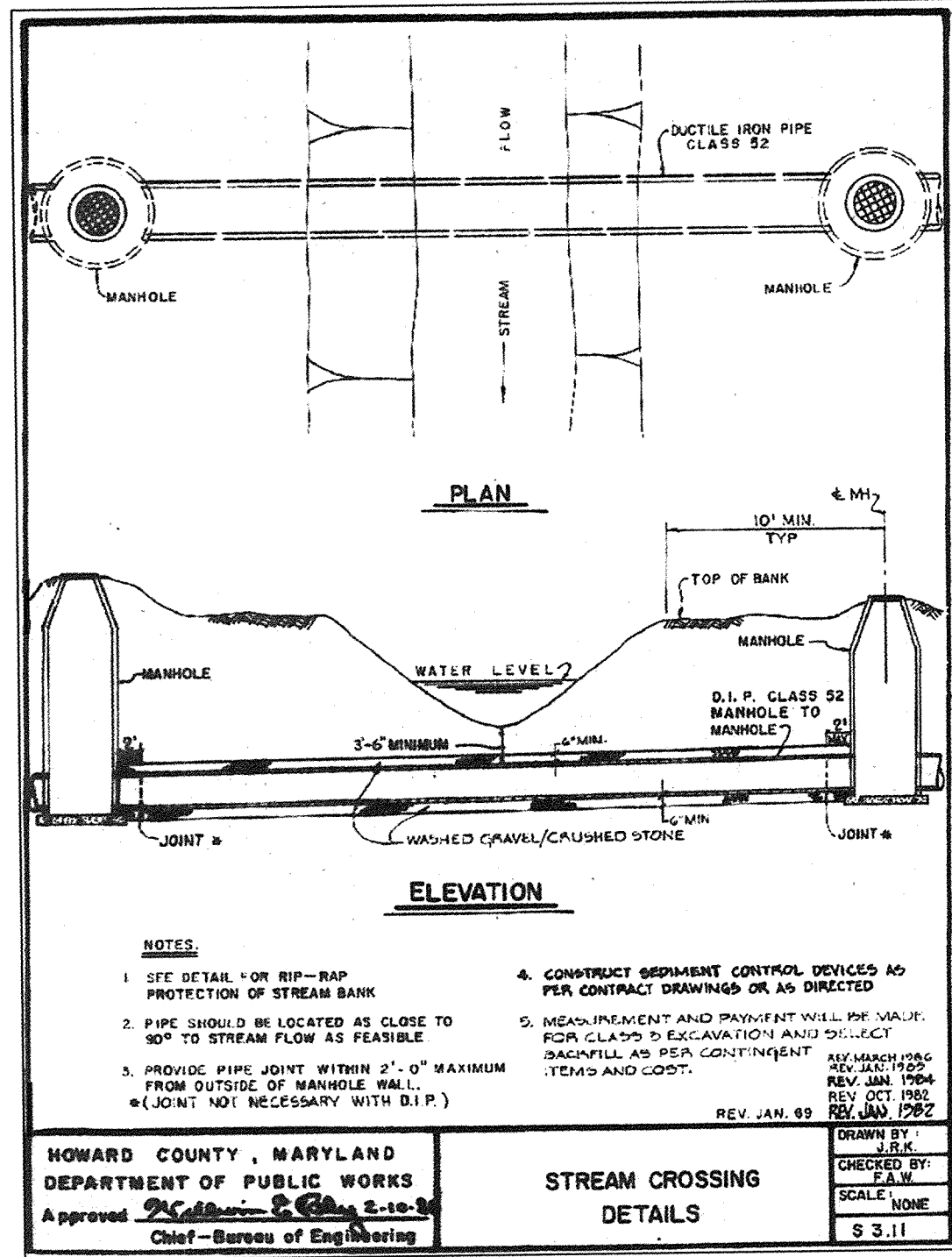
SCALE: As Shown  
DRAWING: 27 of 52  
JOB NO.: 99-051.4  
FILE NO.: SDP-03-30

Subdivision Name: HOMELAND Sect/Area: N/A Parcel No.: 53, 96, 165 & 204

Plot Nos.: 16 & 22 Zone: RC-DEO Tax Map No.: 16 Election District: 3rd Census Tract: 6030

Water Code: J 02 Sewer Code: N/A

DEVELOPER: LB MEADOWS LLC  
8835 - P Columbia 100 Parkway  
Columbia, Maryland 21045  
(410) 730-0810

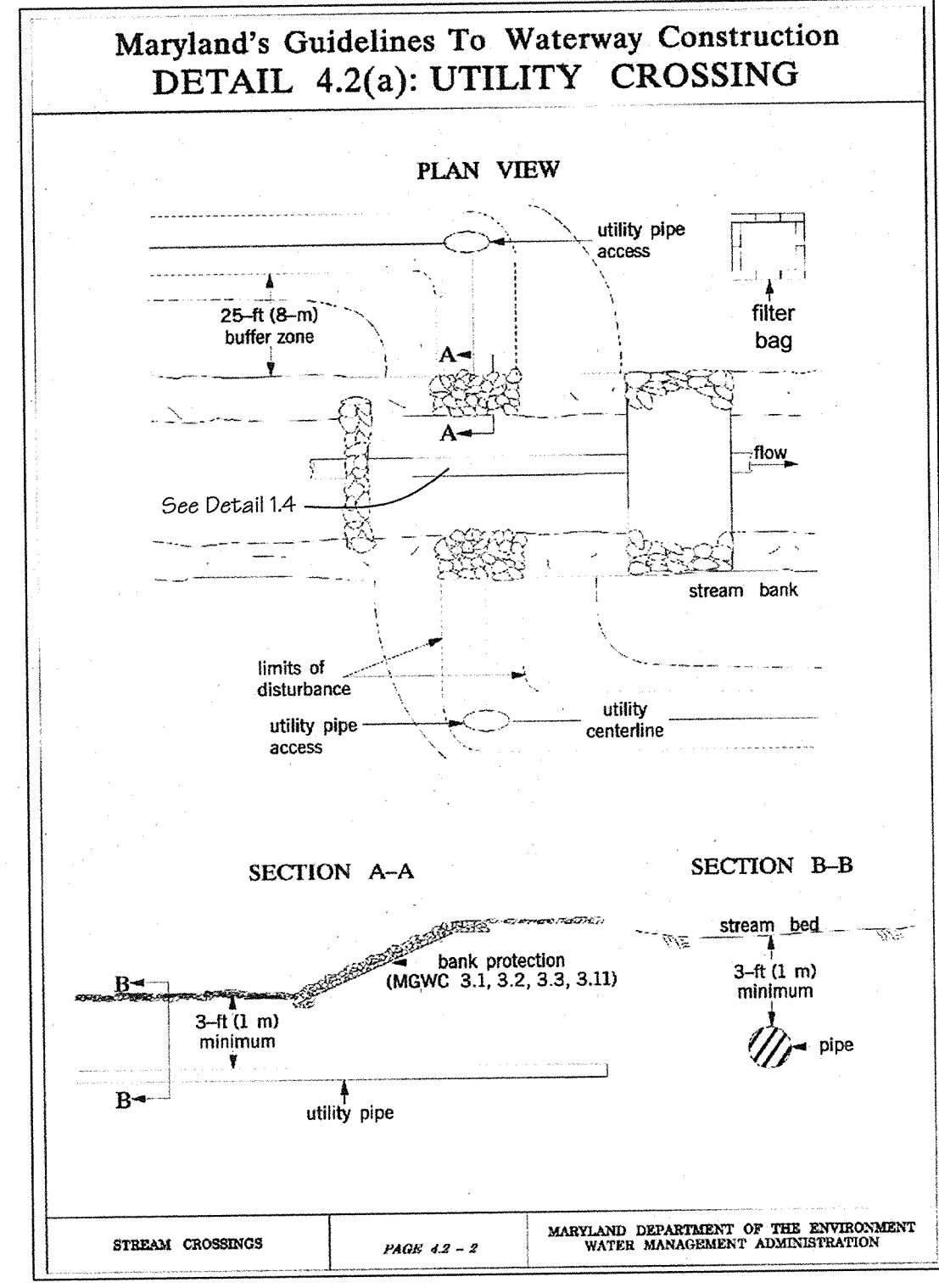


**MGWC 4.2: UTILITY CROSSING**

**DESCRIPTION**  
The work should consist of installing erosion control devices in and adjacent to the construction of utility crossings.

**INSTALLATION GUIDELINES**

- The contractor should ensure that a continuous perimeter control barrier is in place to minimize the amount of pollutants entering the flow. A diversion pipe as shown in MGWC 1.4: Diversion Pipe or other measure should be installed and sandbag or stone barriers as shown in MGWC 1.5: Sandbag/Stone Diversion should be constructed according to specifications to divert the streamflow.
- Excavated topsoil and subsoil should be kept separate, placed on the upland side of the excavation, and replaced in their natural order.
- All construction should take place during stream low flows. The length of construction time should be limited to a maximum of 5 consecutive days for each crossing.
- All utility crossings should be placed a minimum of 3 feet (1 meter) beneath the stream bed unless an alternative section is specifically approved by the WMA. For instances where a 3-foot cover is not viable, two alternate stabilization options are given in the Detail 4.2. A low flow channel shall be constructed through all riprap placements across the stream bed.
- The stream should be diverted by an approved temporary stream diversion, the construction area should be dewatered, and any disturbed banks should be stabilized. The contractor may elect to construct the utility crossing in two stages. In this case, a WMA approved flow barrier may be constructed to keep the construction area dry.
- Once the crossing is completed, the diversion should be removed from upstream to downstream. Sediment control devices, including perimeter erosion controls, are to remain in place until all disturbed areas are stabilized in accordance with an approved sediment and erosion control plan and the inspecting authority approves their removal.



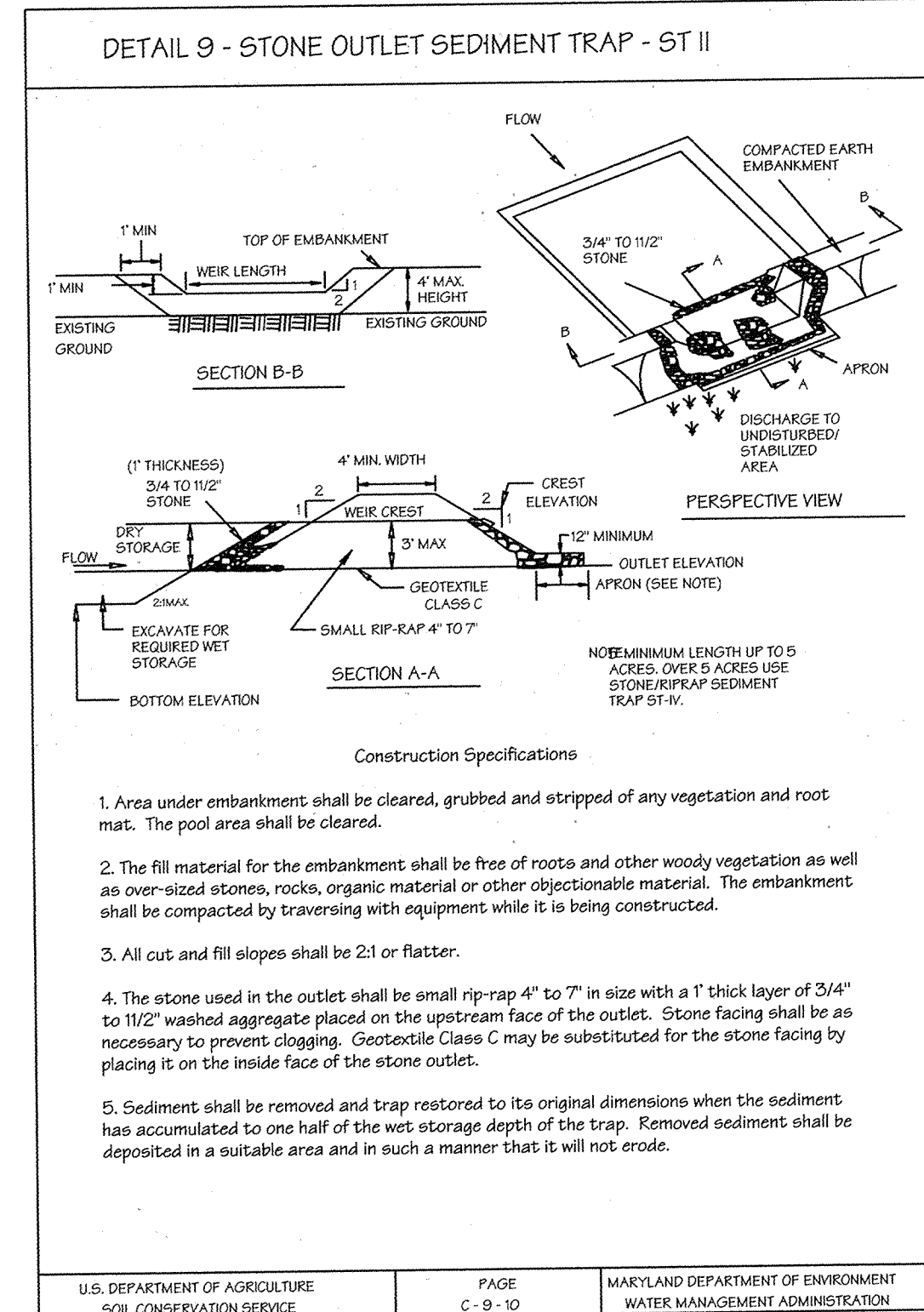
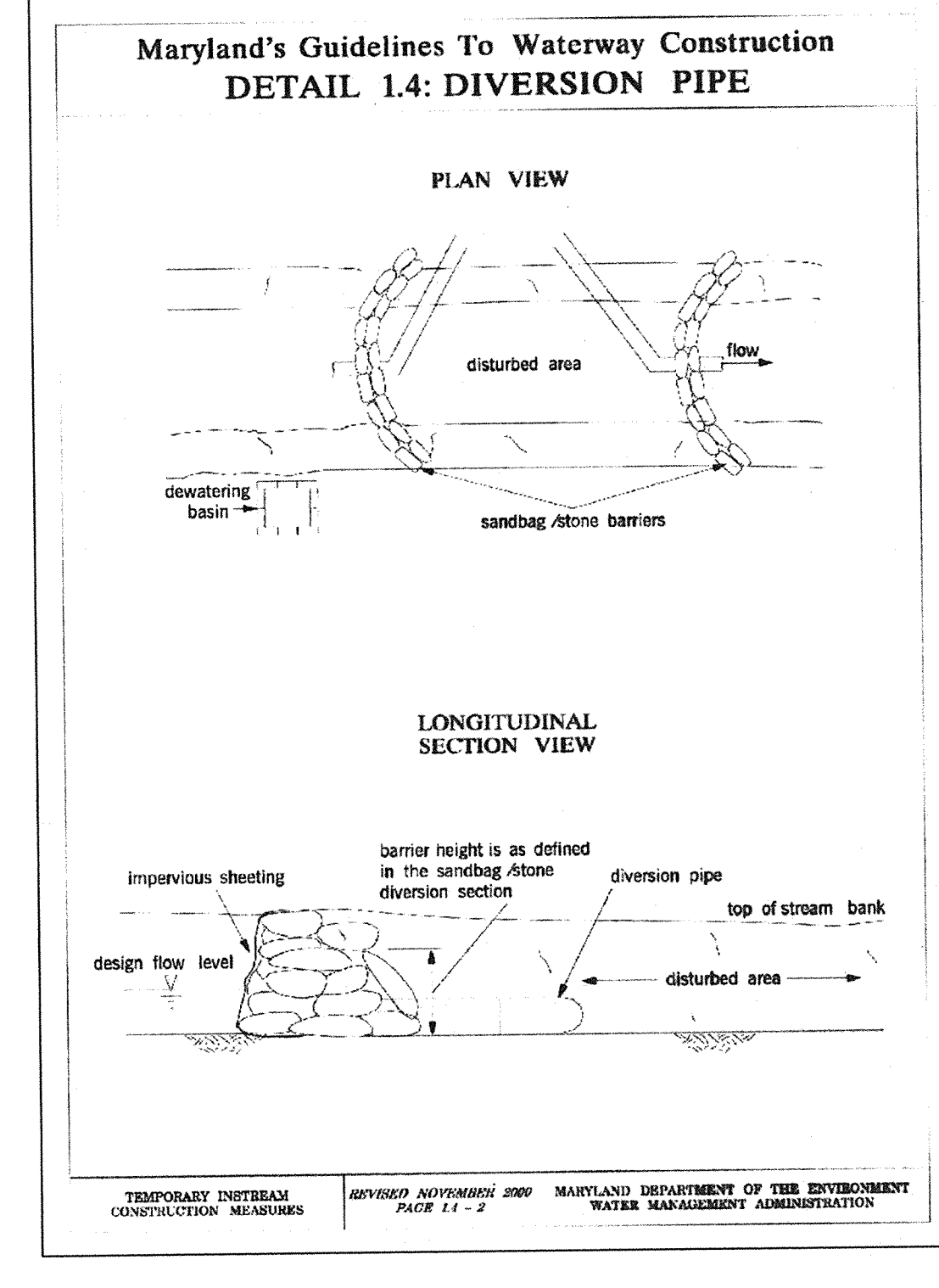
**MGWC 1.4: DIVERSION PIPE**

**DESCRIPTION**  
The work should consist of installing flow diversion pipes in combination with sandbag or stone diversions when construction activities occur within the stream channel.

**EFFECTIVE USES & LIMITATIONS**  
Diversion pipes with an insufficient flow capacity can cause the channel diversion to fail thereby resulting in severe erosion of the disturbed channel section under construction. Therefore, in-channel construction activities should occur only during periods of low flow.

**MATERIAL SPECIFICATIONS**  
Materials for stream diversions should meet the following requirements:  
• **Riprap:** Stone should be washed and have a minimum diameter of 6 inches (15 centimeters).  
• **Sandbags:** Sandbags should consist of materials which are resistant to ultra-violet radiation, tearing, and puncture and should be woven tightly enough to prevent leakage of fill material (i.e., sand, fine gravel, etc.).  
• **Sheeting:** Sheeting should consist of polyethylene or other material which is impervious and resistant to puncture and tearing.

**INSTALLATION GUIDELINES**  
All erosion and sediment control devices including temporary dewatering basins should be installed as the first order of business according to a plan approved by the WMA or local authority. Installation should proceed from upstream to downstream during low flow conditions. If necessary, silt fence or straw bales should be installed around the perimeter of the work area.  
Diversion pipes with sandbag or stone barriers should be completed as follows (refer to Detail 1.4):  
1. Sandbag/stone barriers should be sized and installed as detailed in MGWC 1.5: Sandbag/Stone Diversion. The materials should be sized to withstand baseflow velocities.  
2. All excavated material should be deposited and stabilized in an approved area outside the 100-year floodplain unless otherwise authorized by the WMA.  
3. Sediment-laden water from the construction area should be pumped to a dewatering basin.  
4. The diversion pipe should have a minimum capacity sufficient to convey the 2-year flow for projects with a duration of two weeks or greater. For projects of shorter duration, the capacity of the pipe can be reduced accordingly.  
5. If necessary, silt fence or straw bales should be installed around the perimeter of the work area.  
6. Sediment control devices are to remain in place until all disturbed areas are stabilized and the inspecting authority approves their removal.



**STONE OUTLET SEDIMENT TRAP - ST II**

- The structure shall be inspected periodically and after each rain and repairs made as needed.
- Construction of traps shall be carried out in such a manner that sediment pollution is abated. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. Points of concentration inflow shall be protected in accordance with Grade Stabilization Structure criteria. The remainder of the interior slopes should be stabilized (one time) with seed and mulch upon trap completion and monitored and maintained erosion free during the life of the trap.
- The structure shall be dewatered by approved methods, removed and the area stabilized when the drainage area has been properly stabilized.
- Refer to Section D for specifications concerning trap dewatering.
- Minimum trap depth shall be measured from the weir elevation.
- The elevation of the top of any dike directing water into the trap must equal or exceed the elevation of the trap embankment.
- Geotextile Class C shall be placed over the bottom and sides of the outlet channel prior to the placement of the stone. Sections of filter cloth must overlap at least 1' with the section nearest the entrance placed on top. The filter cloth shall be embedded at least 6\"/>

**WIND CONTROL**

**Definition**  
Controlling dust blowing and movement on construction sites and roads.

**Purpose**  
To prevent blowing and movement of dust from exposed soil surfaces, reduce on and off-site damage, health hazards, and improve traffic safety.

**Conditions Where Practice Applies**  
This practice is applicable to areas subject to dust blowing and movement where on and off-site damage is likely without treatment.

**Specifications**

**Temporary Methods**

- Mulches - See standards for vegetative stabilization with mulches only. Mulch should be clipped or tacked to prevent blowing.
- Negative Cover - See standards for temporary vegetative cover.
- Tillage - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12' apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.
- Irrigation - This is generally done as an emergency treatment. Site is sprinkled with water until the surface is moist. Repeat as needed. At an time should the site be irrigated to the point that runoff begins to flow.
- Barriers - Solid board fences, silt fences, straw fences, burlap fences, straw bales, and similar material can be used to control soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 10 times their height are effective in controlling soil blowing.
- Calcium Chloride - Apply at rates that will keep surface moist. May need re-treatment.

**Permanent Methods**

- Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with soil. Existing trees or large shrubs may afford valuable protection if left in place.
- Topsoiling - Covering with has erosive soil materials. See standards for topsoiling.
- Stone - Cover surface with crushed stone or coarse gravel.

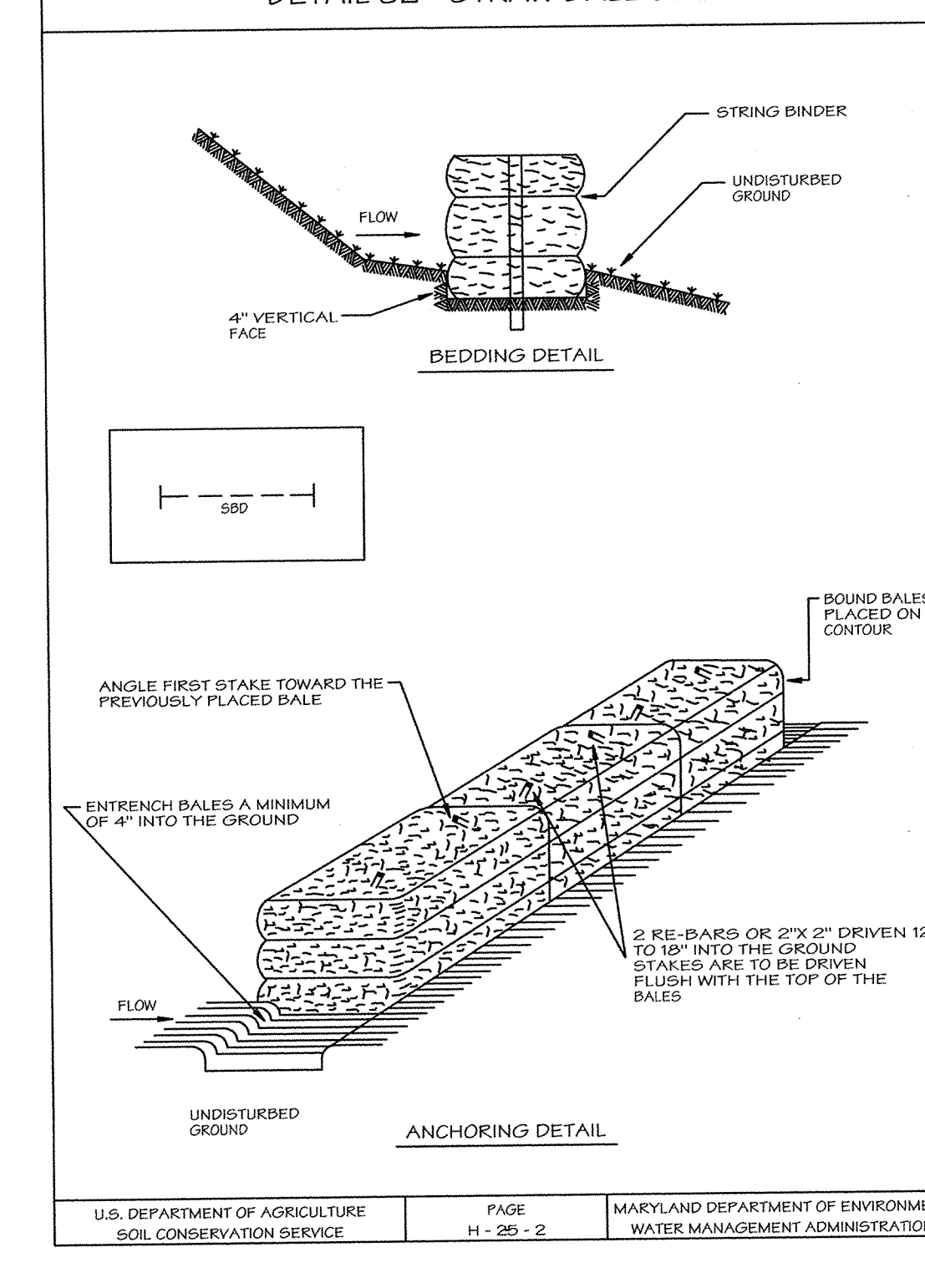
**References**

- AgriCultural Handbook 346. Wind Erosion Forces in the United States and Their Use in Predicting Soil Loss.
- AgriCultural Information Bulletin 354. How to Control Wind Erosion. USDA-ARS. H-30-1

**STRAW BALE DIKE**

**Construction Specifications**

- Bales shall be placed at the toe of a slope, on the contour, and in a row with the ends of each bale tightly abutting the adjacent bales.
- Each bale shall be entrenched in the soil a minimum of 4\"/>



APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Chief, Development Engineering Division* 5/1/04 DATE

*Chief, Division of Land Development* 7/21/04 DATE

*Director* 7/28/04 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL

*Jim Myers, Inc.* 5/4/03 DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*Signature* 5/4/03 DATE

**ENGINEER'S CERTIFICATE**

I certify that this plan for pond construction and sediment control represents a practical and workable plan for the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the appropriate State and local agencies and registered professional engineer to supervise pond construction and sediment control. I also authorized on-site inspections by the Howard Soil Conservation District.

*Signature* 4/22/04 DATE

**DEVELOPER'S CERTIFICATE**

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 as a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and sediment control. I shall engage a registered professional engineer to supervise pond construction and sediment control. I also authorized on-site inspections by the Howard Soil Conservation District.

*Signature* 4/22/04 DATE

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

*Signature* 4/18/04 DATE

**REVISIONS**

No.	Date	By	Description

Subdivision Name: **HOMELAND** Sect/Area: N/A Parcel No.: 53, 96, 165 & 204

PLOT NOS. 16 & 22 Zone RC-DEO Tax Map No. 16 Election District 3rd Census Tract 6030

Water Code J 02 Sewer Code N/A

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

DESIGNED: EDS JLM DBB SCALE: AS SHOWN  
DRAWN: JLM JDR DRAWING: 28 of 52  
CHECKED: BDB JOB NO.: 99-0514  
DATE: 4/20/04 DEVELOPER: LB MEADOWS LLC FILE NO.: SDP-03-30  
8835 - P Columbia 100 Parkway  
Columbia, Maryland 21046  
(410) 750-0810





HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

Project Name: Homeland Property  
Location: Howard County, MD  
Job Number: 03203A  
Boring Number: B-18  
Page 1 of 1

Blow	Soil Description (Color, Moisture, Density, Size, Proportion)	Blow	Scale	Depth of Soil	Blow	No.	Rel.	Boring and Sampling Notes
0.0	Topsoil 4"	1	2.3	1	7.5'			
1.0	Dark brown, moist, loose, sandy SILT, trace mica (M)	1	3.4	2	12"			
2.0	Light brown and gray, moist, loose, sandy SILT trace mica (M)	1	3.2	3	10"			
3.0	Multicolored, moist, loose, sandy SILT trace mica (M)	1	1.1	4	0"			
4.0	Orange black, moist, very loose, sandy SILT, trace mica (M)	1	1.1	5	10"			
5.0	Change, wet, loose, sandy SILT, trace mica (M)	1	1.3	6	10"			
6.0	MB 26 bottom of soil @ 23.5'							

HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

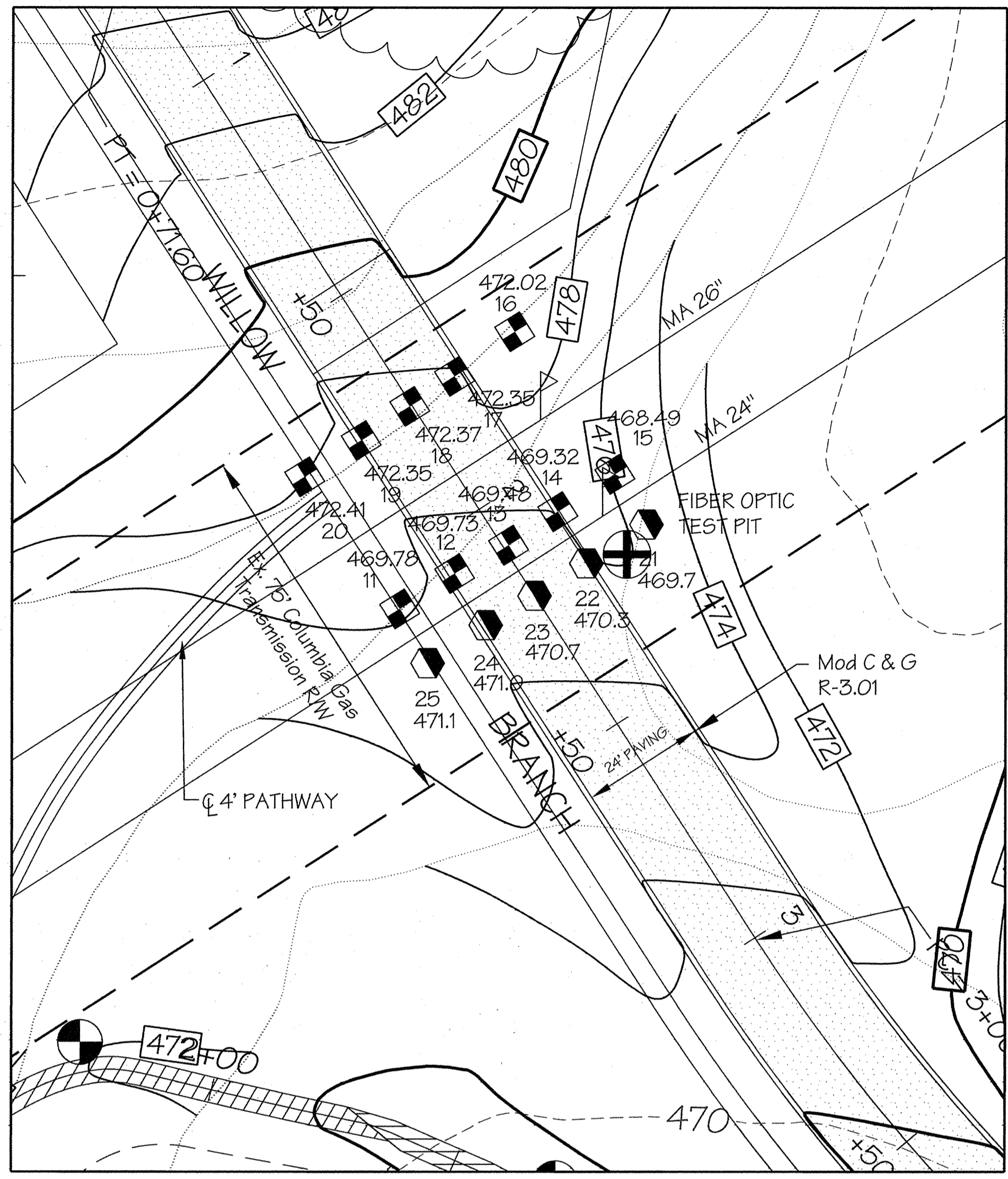
Project Name: Homeland Property  
Location: Howard County, MD  
Job Number: 03203A  
Boring Number: B-19  
Page 1 of 1

Blow	Soil Description (Color, Moisture, Density, Size, Proportion)	Blow	Scale	Depth of Soil	Blow	No.	Rel.	Boring and Sampling Notes
0.0	Topsoil 4"	1	2.2	1	10"			
1.0	Dark brown, moist, very loose, sandy SILT, trace mica (M)	1	5.6	2	12"			
2.0	Light brown, moist, medium dense, sandy SILT trace mica (M)	1	6.5	3	12.5"			
3.0	Multicolored, moist, loose, sandy SILT, trace mica (M)	1	15, 17, 19	4	12"			
4.0	Change, wet, loose, sandy SILT, trace mica (M)							
5.0	MB 26 bottom of soil @ 10.3'							

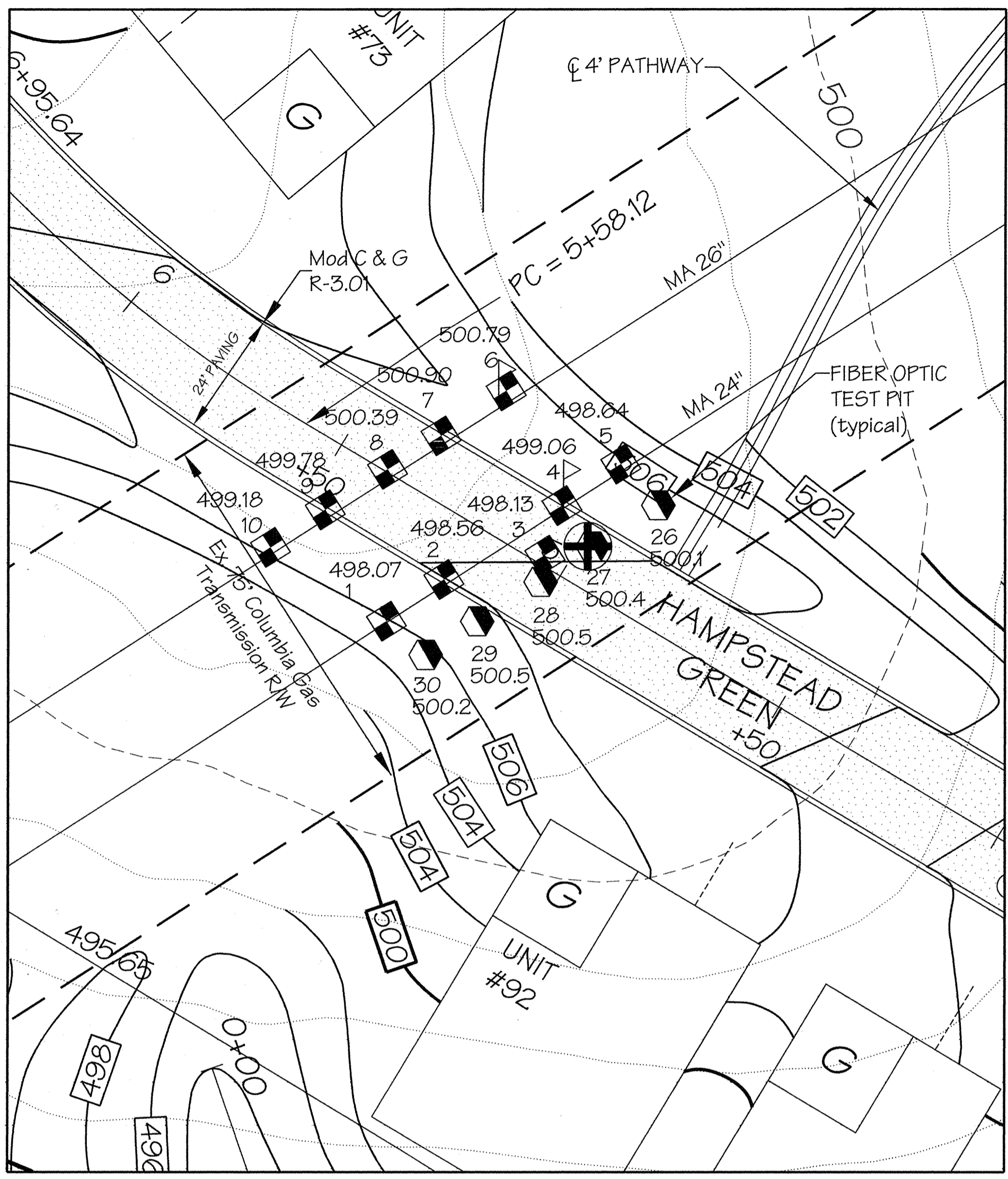
HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

Project Name: Homeland Property  
Location: Howard County, MD  
Job Number: 03203A  
Boring Number: B-20  
Page 1 of 1

Blow	Soil Description (Color, Moisture, Density, Size, Proportion)	Blow	Scale	Depth of Soil	Blow	No.	Rel.	Boring and Sampling Notes
0.0	Topsoil 4"	1	4.3	1	9.5'			
1.0	Dark brown, moist, loose, sandy SILT, trace mica (M)	1	4.5	2	11"			
2.0	Dark brown, moist, loose, sandy SILT, trace mica (M)	1	3.5	3	12.0"			
3.0	Change, brown, moist, loose, sandy SILT, trace mica (M)	1	2.4	4	10"			
4.0	Change, brown, moist, loose, sandy SILT, trace mica (M)							
5.0	MB 26 bottom of soil @ 10.0'							



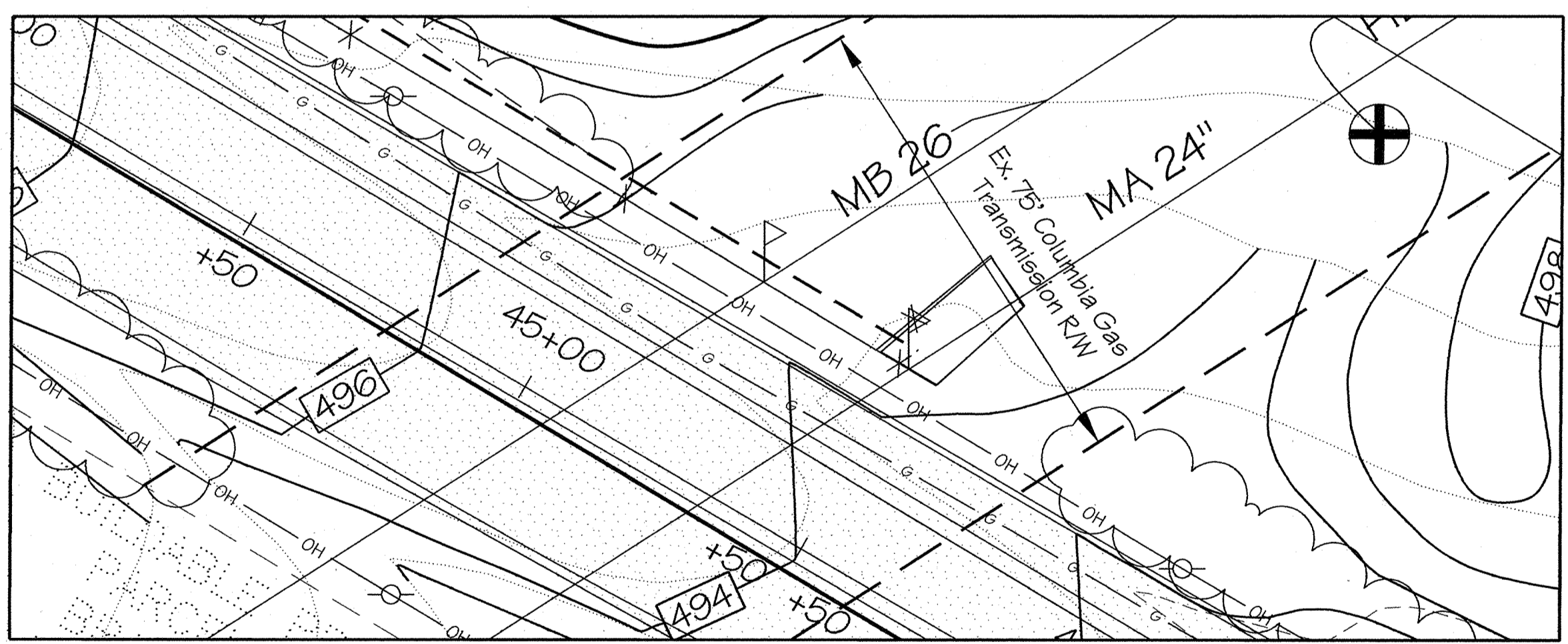
COLUMBIA GAS TRANSMISSION R/W CROSSING @ WILLOW BRANCH (SEE SHEET 3)  
SCALE: 1" = 20'



COLUMBIA GAS TRANSMISSION R/W CROSSING @ HAMPSTEAD GREEN (SEE SHEET 4)  
SCALE: 1" = 20'

Test Pit Number	Top of Pipe Elevation	Proposed Elevation +/-	Min. Elev. Over	Max. Elev. Over
<b>MB - 26"</b>				
6	500.79	506.5	503.79	507.79
7	500.90	507.1	503.90	507.90
8	500.33	507.0	503.33	507.33
9	499.78	506.8	502.78	506.78
10	499.18	506.0	502.18	506.18
16	472.02	476.2	475.02	479.02
17	472.35	476.0	475.35	479.35
18	472.37	475.5	475.37	479.37
19	472.35	475.4	475.35	479.35
20	472.41	476.0	475.41	479.41
<b>MB - 24"</b>				
1	498.07	505.5	501.07	506.07
2	498.56	506.0	501.56	506.56
3	498.73	506.2	501.73	506.73
4	499.05	506.5	502.05	506.05
5	499.64	506.0	501.64	506.64
11	469.78	474.0	472.78	476.78
12	469.73	474.0	472.73	476.73
13	469.48	473.5	472.48	476.48
14	469.52	474.0	472.52	476.52
15	469.49	474.0	471.49	475.49
<b>Fiber Optic Lines</b>				
21	469.70	473.5	472.70	476.70
22	470.30	474.0	473.30	477.30
23	470.70	473.0	473.70	477.70
24	471.00	472.8	474.00	478.00
25	471.10	472.7	474.10	478.10
26	500.10	506.3	503.10	507.10
27	500.40	506.1	503.40	507.40
28	500.50	505.8	503.50	507.50
29	500.50	506.2	503.50	507.50
30	500.20	505.8	503.20	507.20

NOTE:  
1) THE CONSTRUCTION OF HAMPSTEAD GREEN & WILLOW BRANCH MAY NECESSITATE PIPELINE INSPECTIONS & STRESS ANALYSIS FOR EACH PIPELINE.  
2) NO CUT ALLOWED OVER EITHER PIPELINE. (MA & MB)  
3) SEE SPECIAL NOTE TO CONTRACTORS ON SHEET 1 REGARDING CONSTRUCTION PRECAUTIONS WHEN CROSSING PIPELINE.



COLUMBIA GAS TRANSMISSION R/W CROSSING @ FREDERICK ROAD MD RTE 144 (SEE SHEET 2 & 3)  
SCALE: 1" = 20'

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 [Signature] 5/7/04  
 [Signature] 7/2/04  
 [Signature] 7/28/04

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL.  
 [Signature] 5/14/04  
 [Signature] 5/14/04  
 [Signature] 5/14/04

ENGINEER'S CERTIFICATE  
 [Signature] 4/22/04  
 DEVELOPER'S CERTIFICATE  
 [Signature] 4/22/04

PROFESSIONAL ENGINEER  
 [Signature] 04/22/04

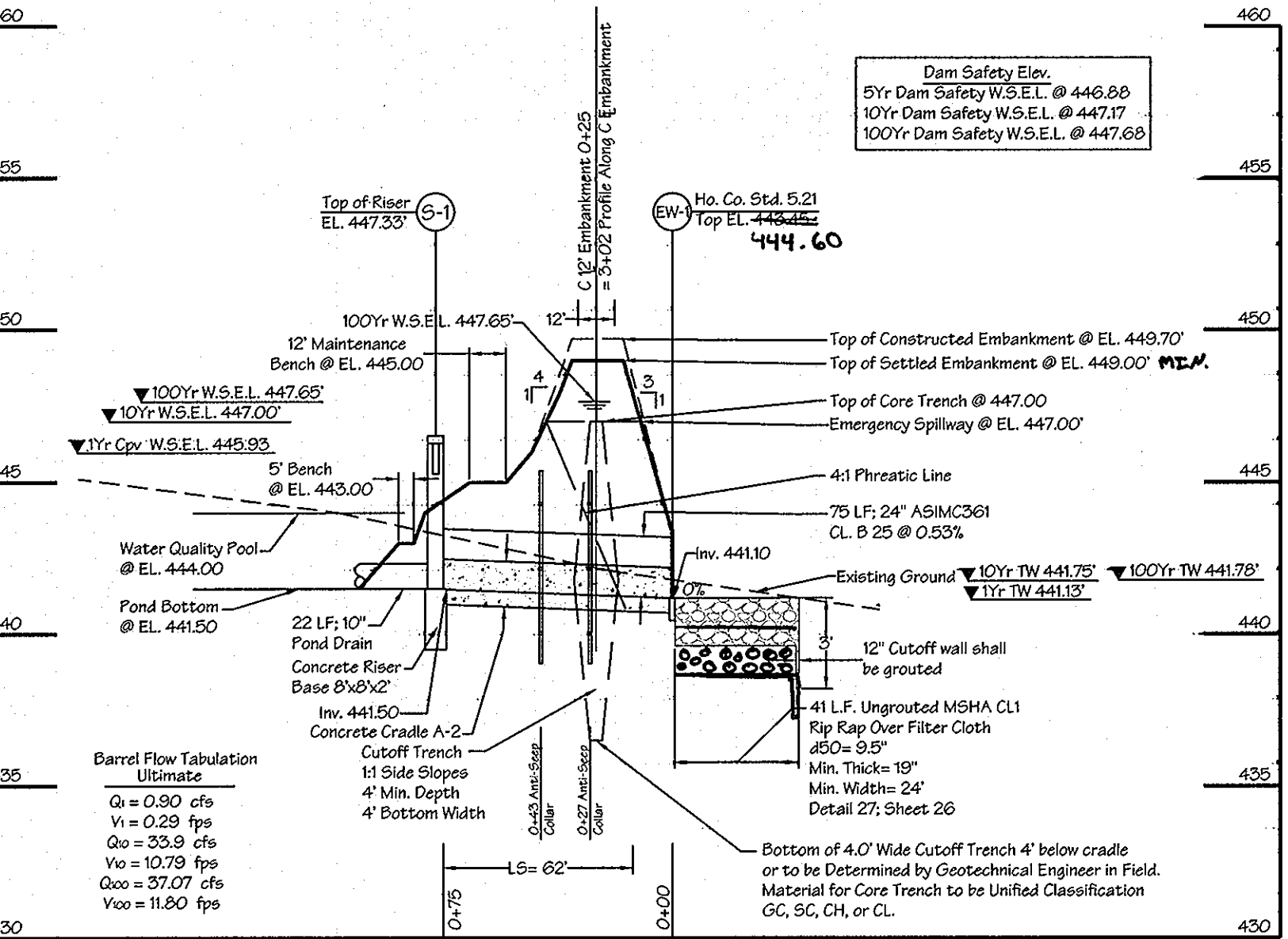
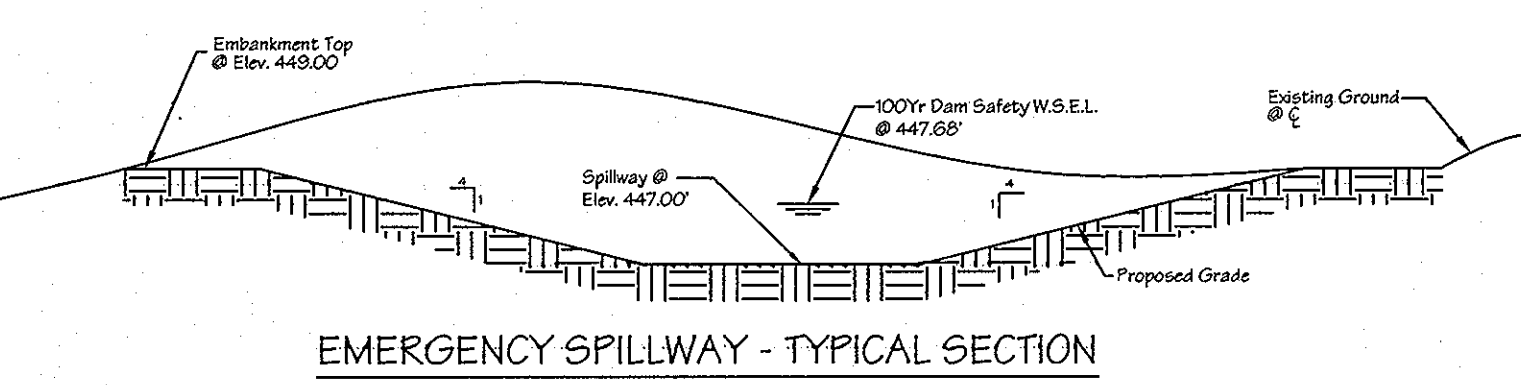
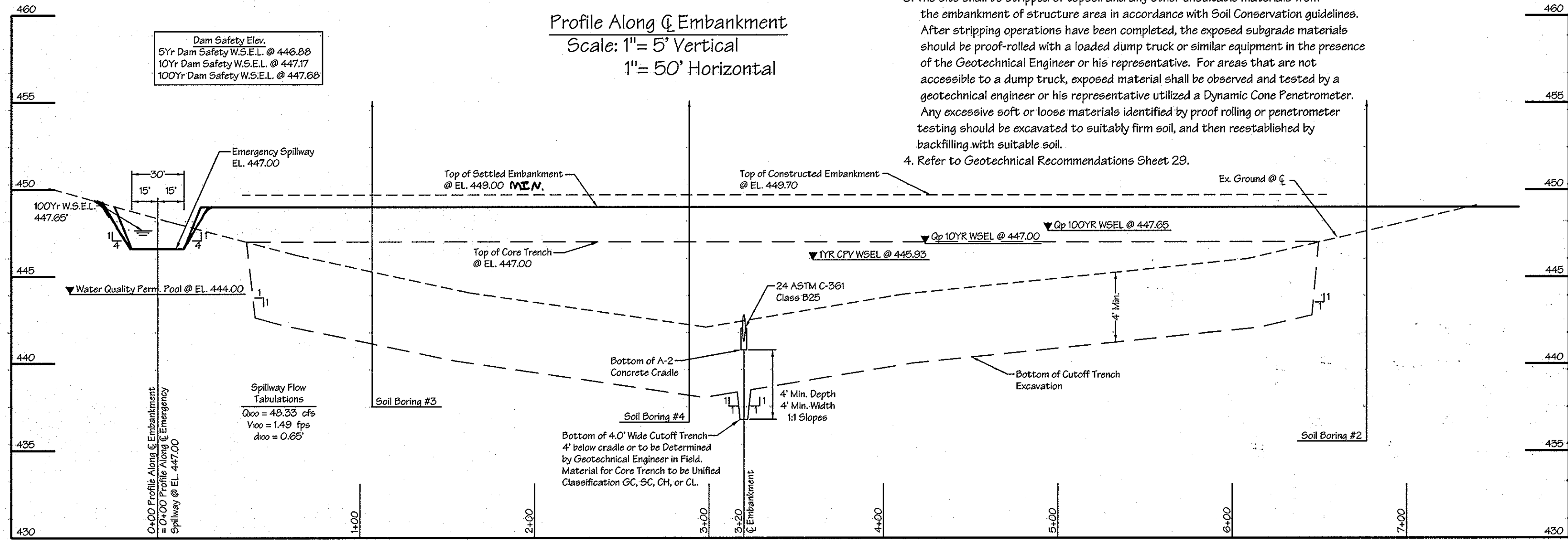
APPROVED FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY  
 [Signature] 4/18/04  
 REVISIONS  
 No. Date By Description

Subdivision Name: HOMELAND  
 Parcel No. 53, 96, 165 & 204  
 LDE, INC.  
 9250 Rumsey Road, Suite 106, Columbia, MD. 21045  
 (410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)  
 HOMELAND PARCEL 'A' AND PARCEL 'B'  
 Tax Map No. 16 - Grid No. 16 & 22 - Parcel 53, 96, 165 & 204  
 3rd Election District - Howard County, Maryland  
 Previous Submittals: BA 00-52E, WP 03-12B, F 03-194  
 LB MEADOWS LLC  
 8835 - F Columbia 100 Parkway  
 Columbia, Maryland 21045  
 (410) 750-0810

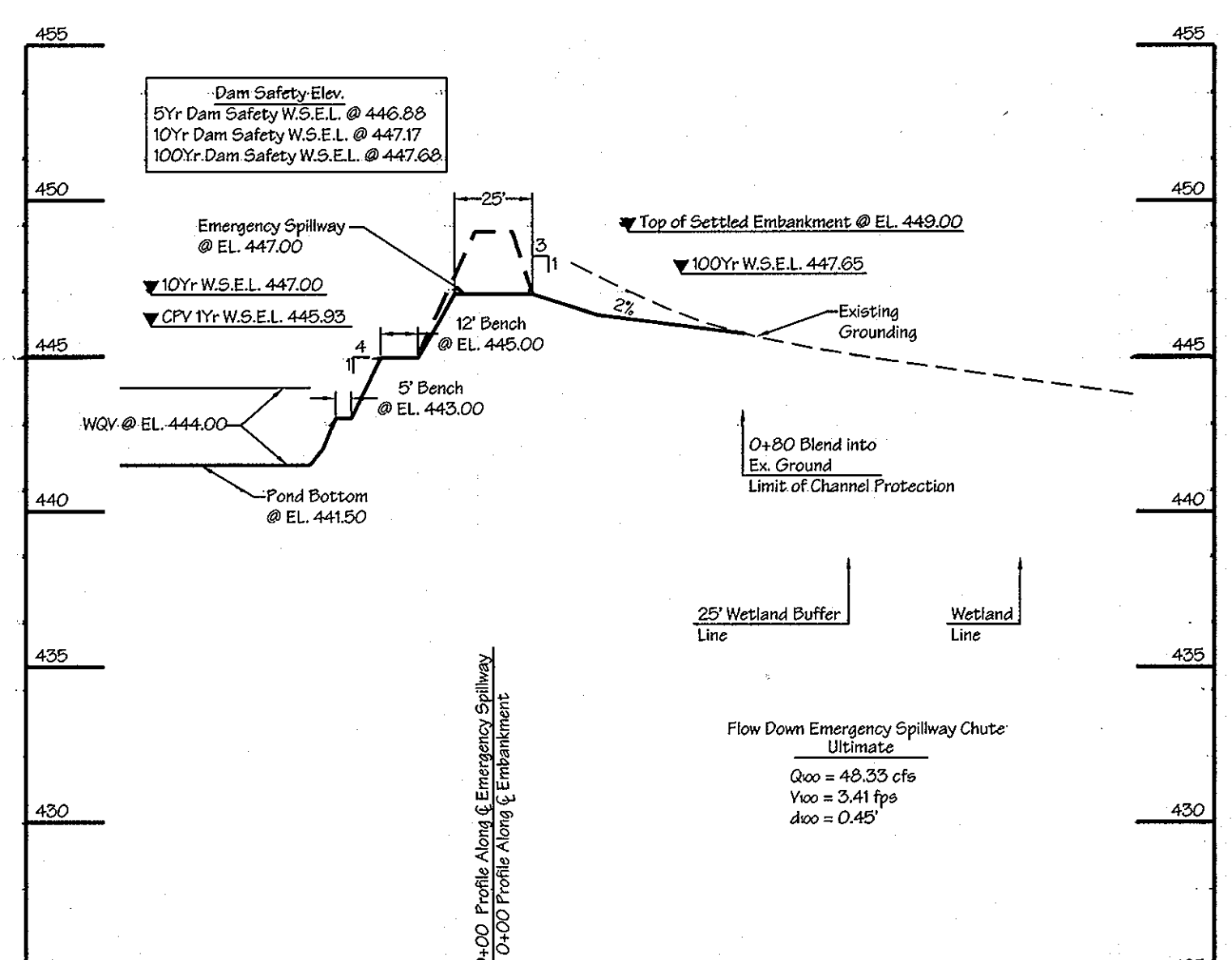
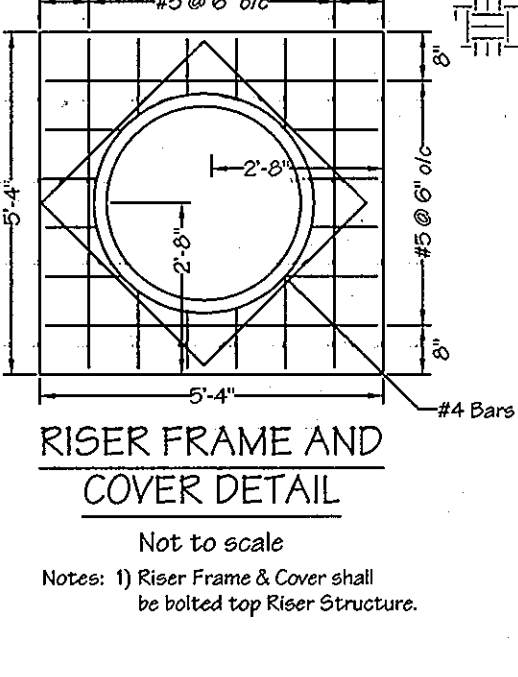
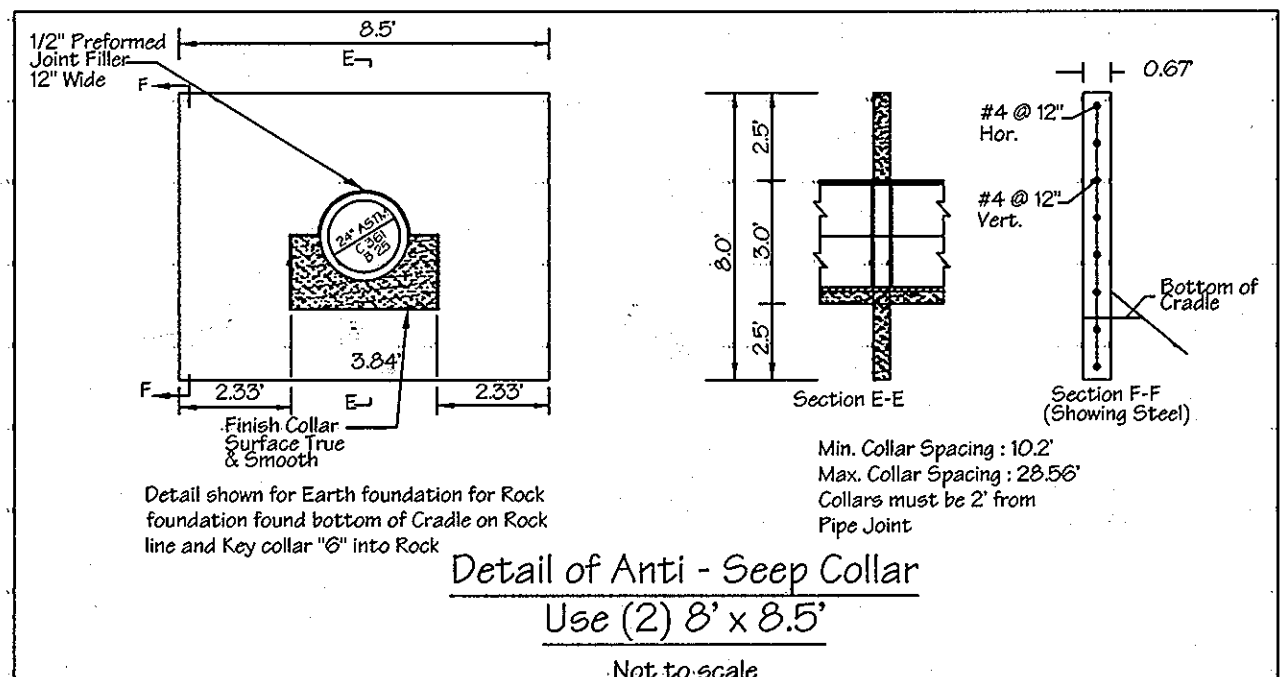


**NOTES:**

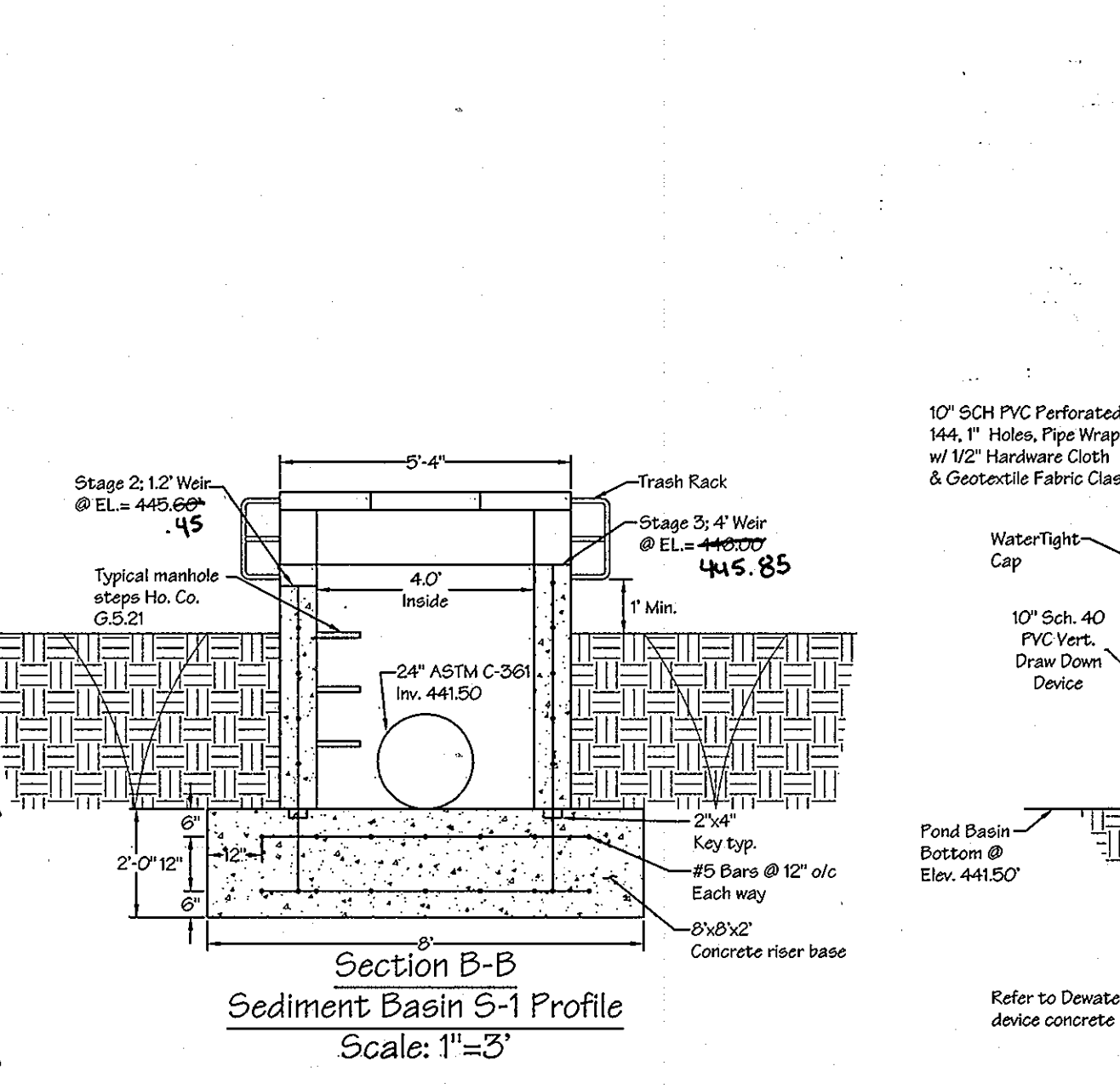
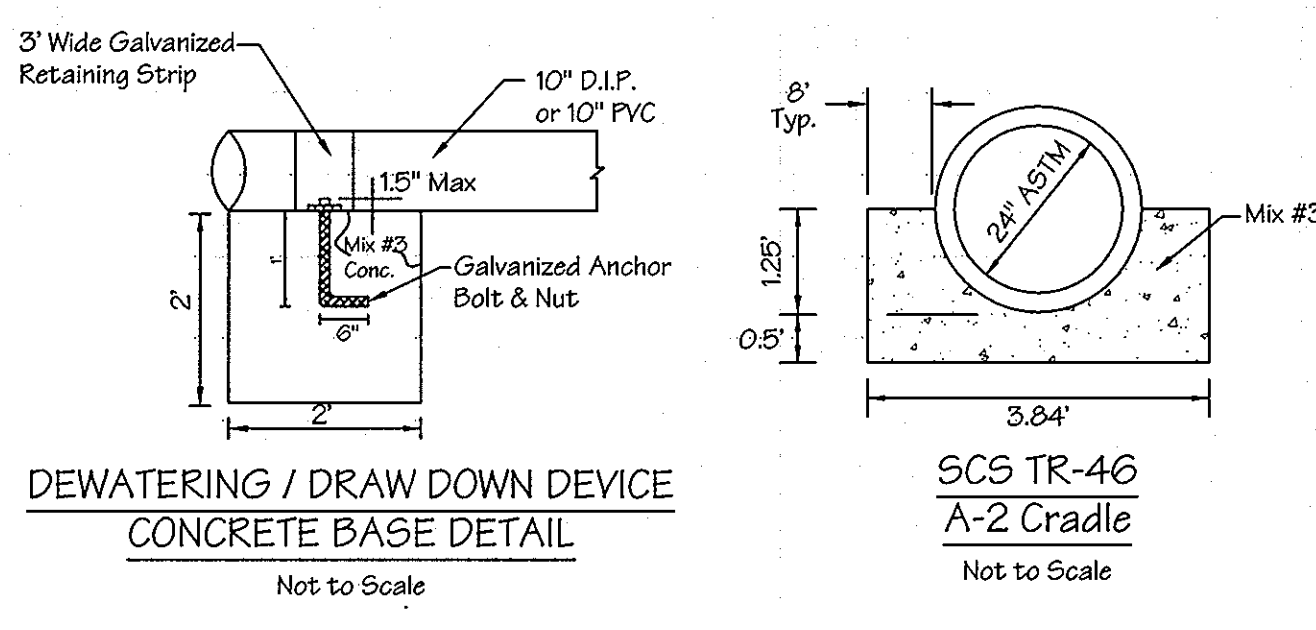
1. A Geotechnical Engineer is to be present on-site to supervise the construction of the core / cutoff trench, per MD 378 Specifications.
2. Core trench shall be dewatered prior to the placement of County Approved fill material.
3. The site shall be stripped of topsoil and any other unsuitable materials from the embankment of structure area in accordance with Soil Conservation guidelines. After stripping operations have been completed, the exposed subgrade materials should be proof-rolled with a loaded dump truck or similar equipment in the presence of the Geotechnical Engineer or his representative. For areas that are not accessible to a dump truck, exposed material shall be observed and tested by a geotechnical engineer or his representative utilizing a Dynamic Cone Penetrometer. Any excessive soft or loose materials identified by proof rolling or penetrometer testing should be excavated to suitably firm soil, and then reestablished by backfilling with suitable soil.
4. Refer to Geotechnical Recommendations Sheet 29.



1. All pipe joints must conform to ASTM C 361 Specifications
2. Use only County Approved fill material for Core / Cutoff trench.
3. All pipe joints shall be watertight. Grout joints w/ Mastic Sealer to ensure watertight connection.
4. Anti-Seep collar locations may require modification if pipe lengths are longer than 4 ft. sections. Contractor shall notify the engineer prior to construction for modified locations.
5. Maximum stub from riser = 2 ft.
6. Sediment Basin S-1 to be converted to Ultimate S-1 per details, sheet 34.
7. Refer to detail, this sheet, for Anti - Seep Collar (2 Required)



Profile Along Q Emergency Spillway Scale: 1"= 5' Vertical 1"= 50' Horizontal



Section B-B Sediment Basin S-1 Profile Scale: 1"= 3"

**OPERATION, MAINTENANCE, AND INSPECTION**

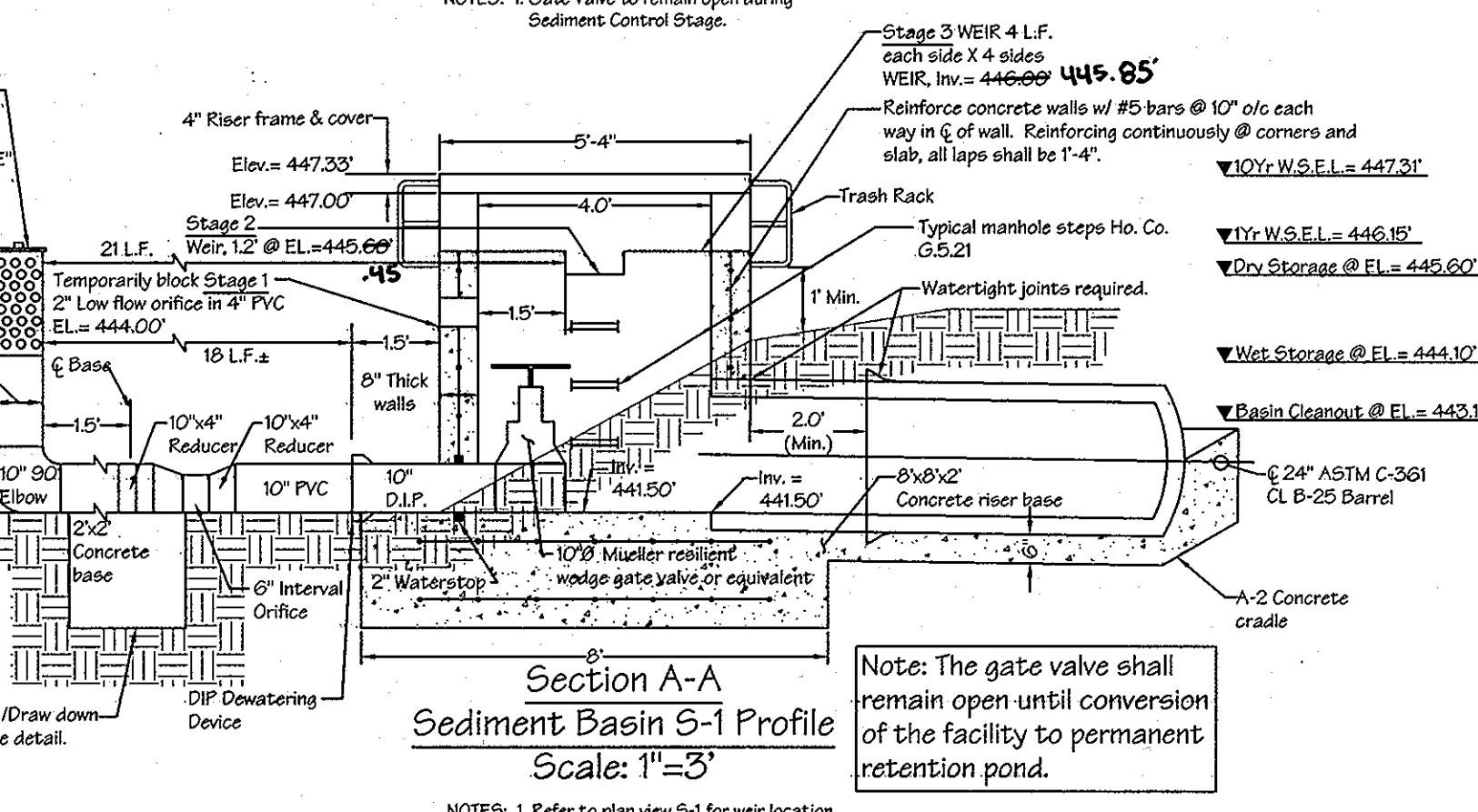
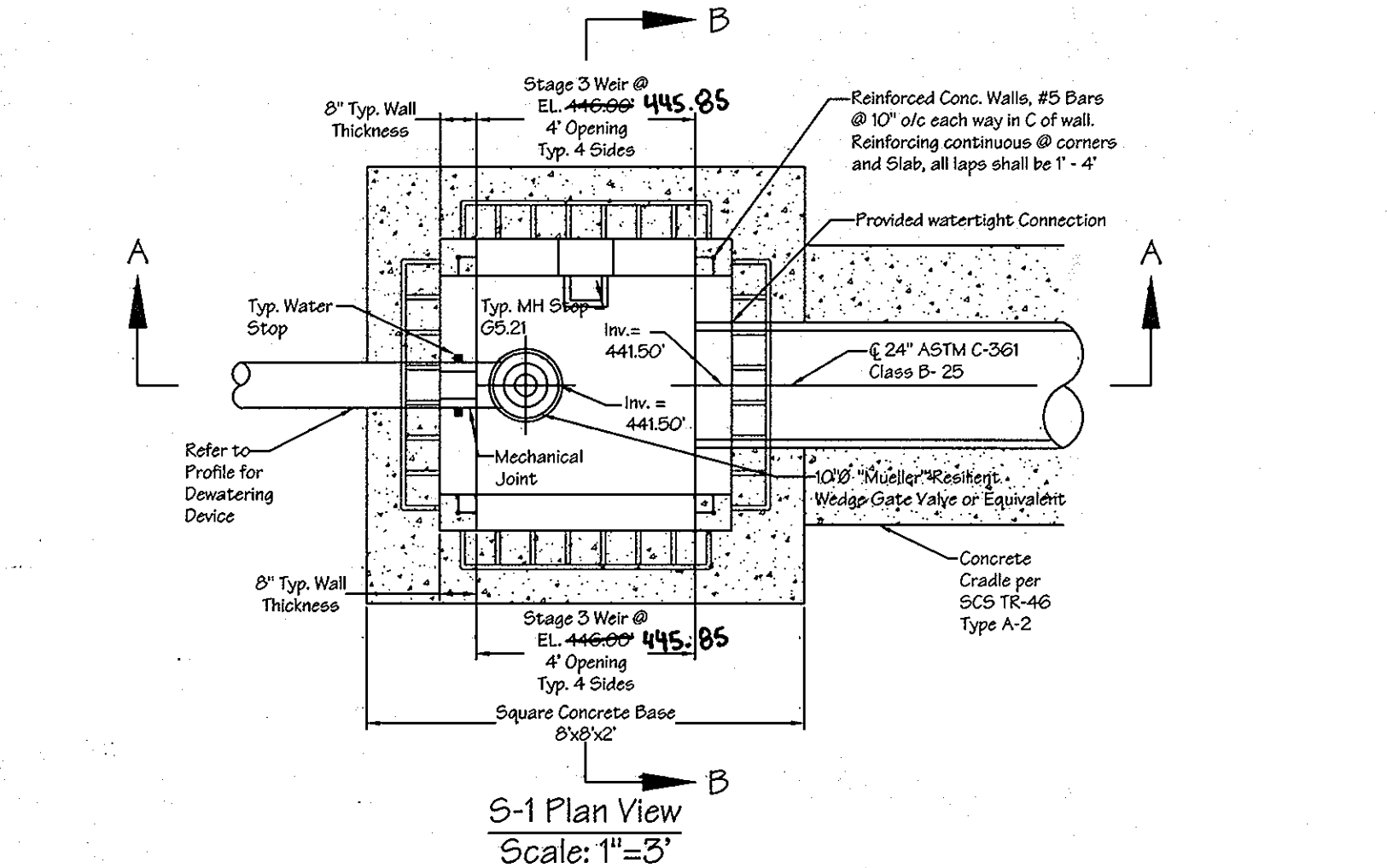
Inspection of the pond shown hereon shall be performed at least annually, in accordance with the checklist and requirements contained within USDA, SCS "Standards and Specifications for Ponds" (MD 378). The pond owner(s) and their heirs, successors, or assigns shall be responsible for the safety of the pond and the continued operations, surveillance, inspection, and maintenance thereof. The pond owner(s) shall promptly notify the Soil Conservation District of any unusual observations that may be indications of distress such as excessive seepage, turbid seepage, sliding or slumping.

**AS-BUILT CERTIFICATION**

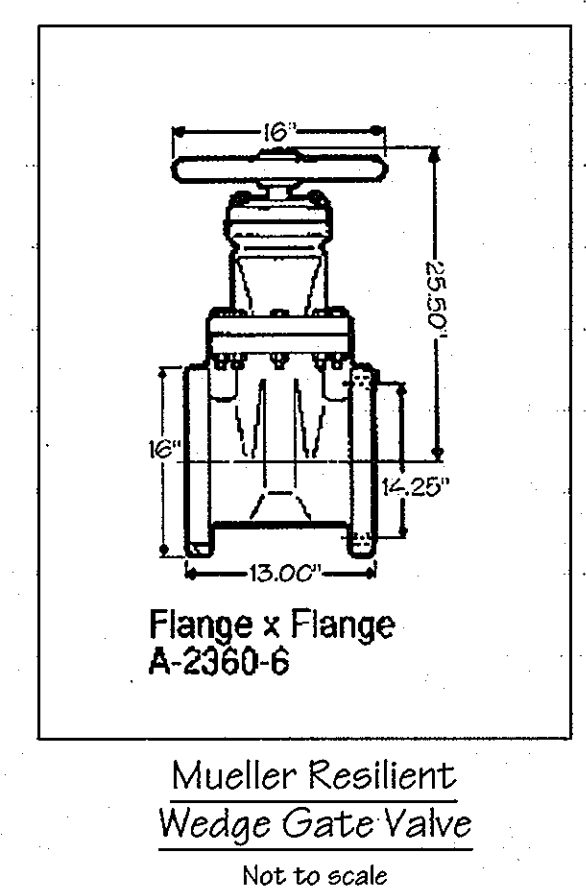
I hereby certify that the facility shown on this plan was constructed as shown on the "as-built" plans and meets the approved plans and specifications.

Signature \_\_\_\_\_ Date: P.E. No. \_\_\_\_\_

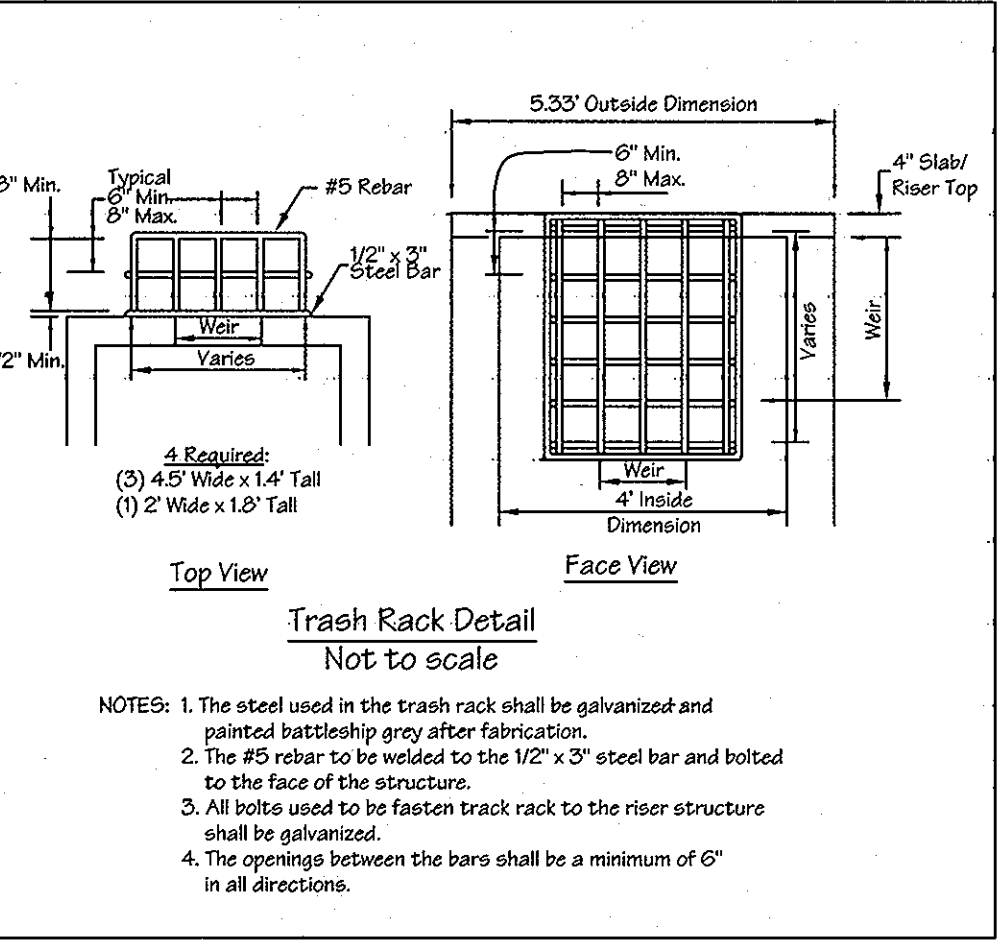
Certify means to state or declare a professional opinion based upon onsite inspections and material tests which are conducted during construction. The onsite inspections and material tests are those inspections and tests deemed sufficient and appropriate by a commonly accepted engineering standards. Certify does not mean or imply a guarantee by the engineer nor does an engineer's certification relieve any other party from meeting requirements imposed by contract, employment, or means, including meeting commonly accepted industry practices.



Section A-A Sediment Basin S-1 Profile Scale: 1"= 3"



Mueller Resilient Wedge Gate Valve Not to scale



Trash Rack Detail Not to scale

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Chief, Development Engineering Division  
 5/16/04 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL  
 Jim Mumfas 5/16/04 DATE

ENGINEER'S CERTIFICATE  
 I certify that this plan for pond construction, soil erosion and sediment control represents a practical and workable design based on the knowledge of the site conditions. This plan was prepared in accordance with the standards of the Howard Soil Conservation District. I have notified the District of the project and the District must engage a registered professional engineer to supervise pond construction and provide Site Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.  
 Eric D. Burton 4/22/04 DATE

DEVELOPER'S CERTIFICATE  
 I 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 shall engage a registered professional engineer to supervise pond construction and provide Site Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.  
 4/22/04 DATE

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY  
 Penny E. Ziemstra, P.E. 4/18/04 DATE

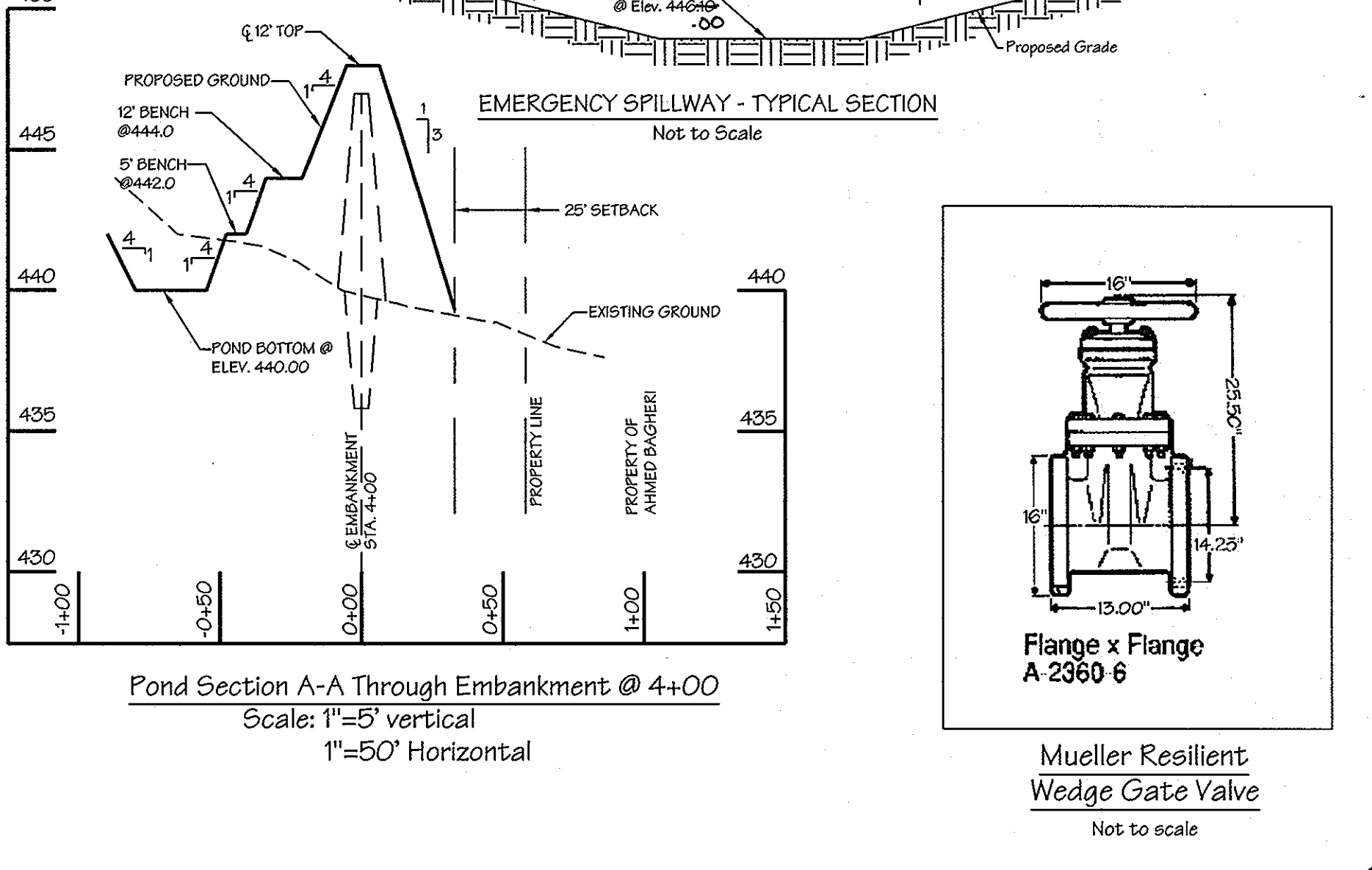
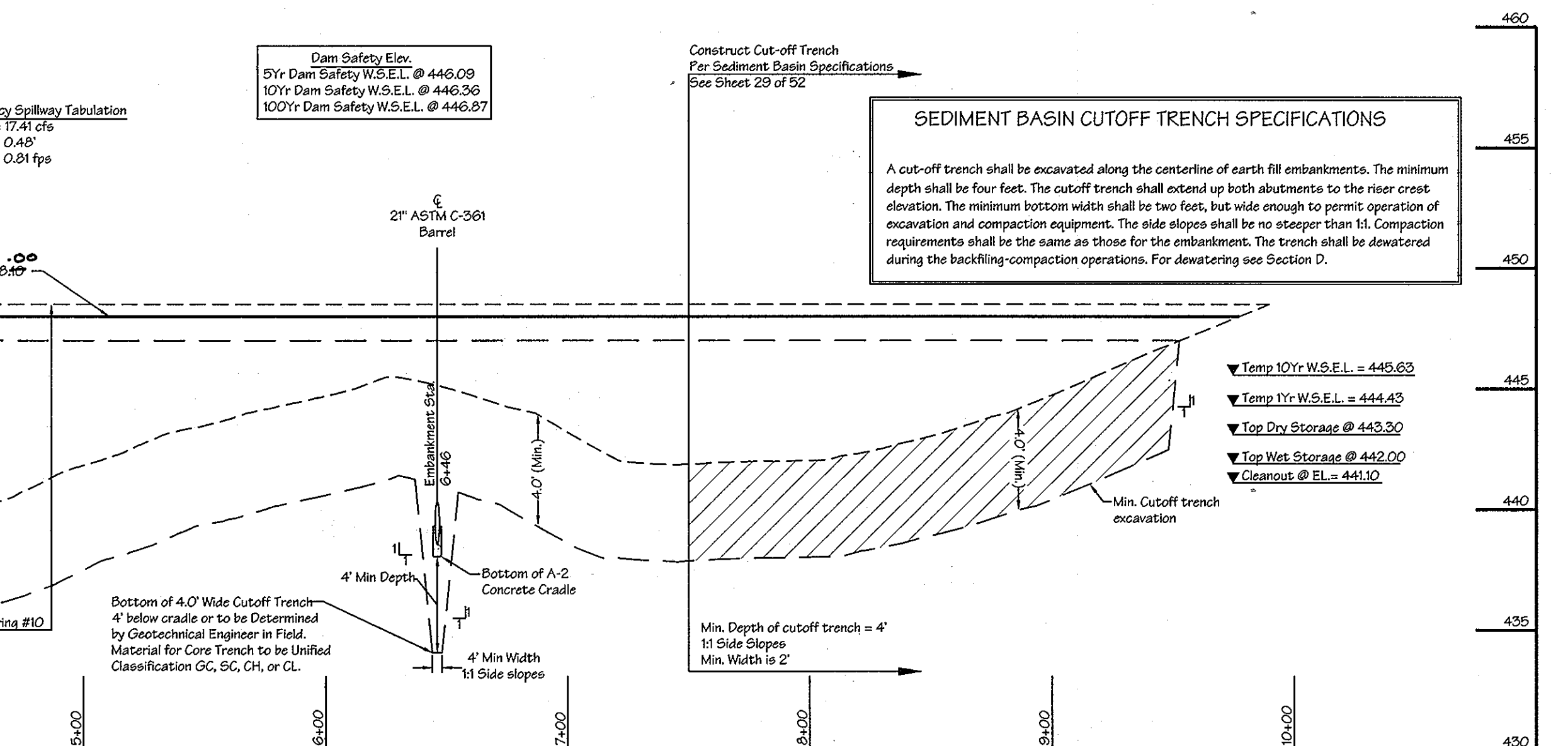
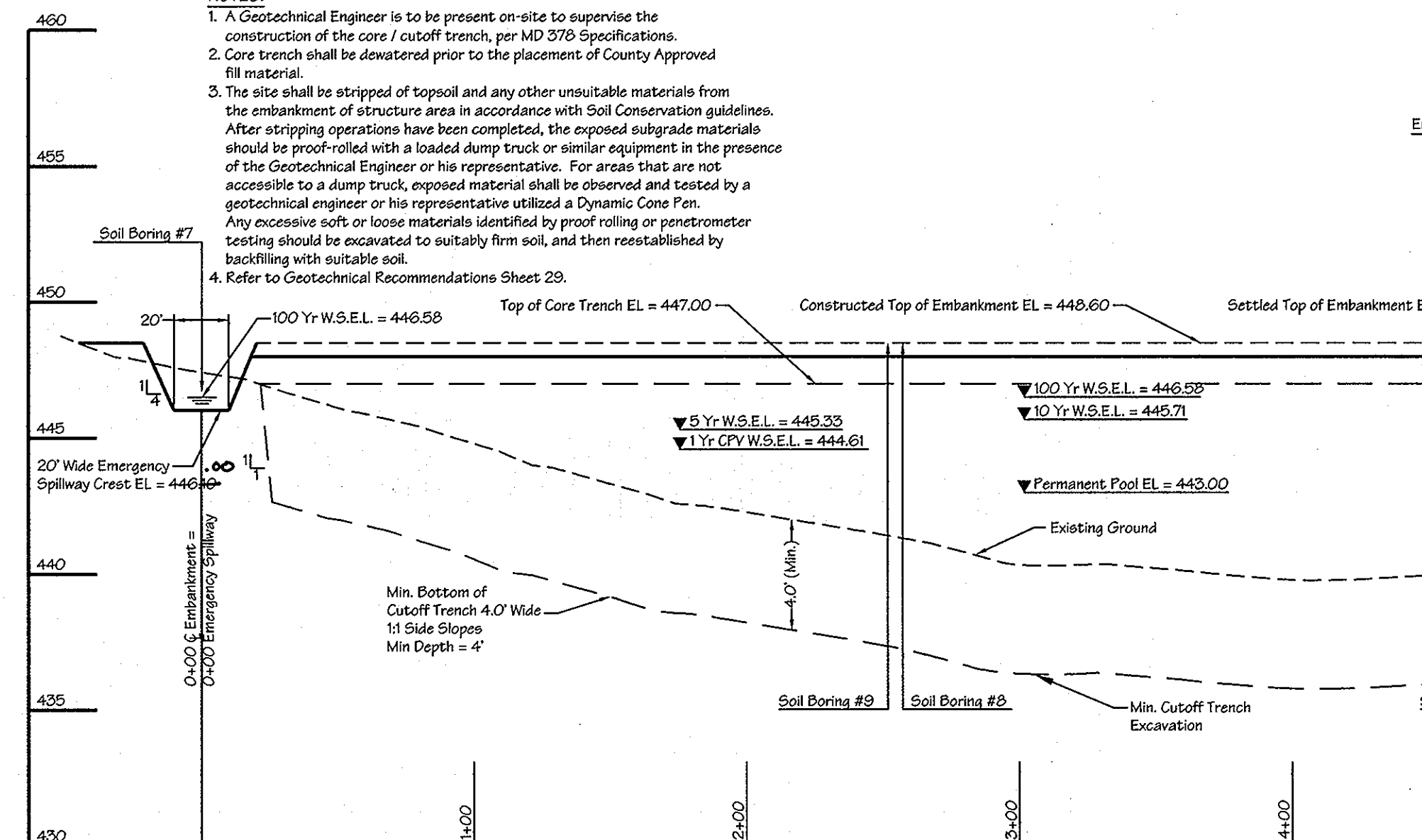
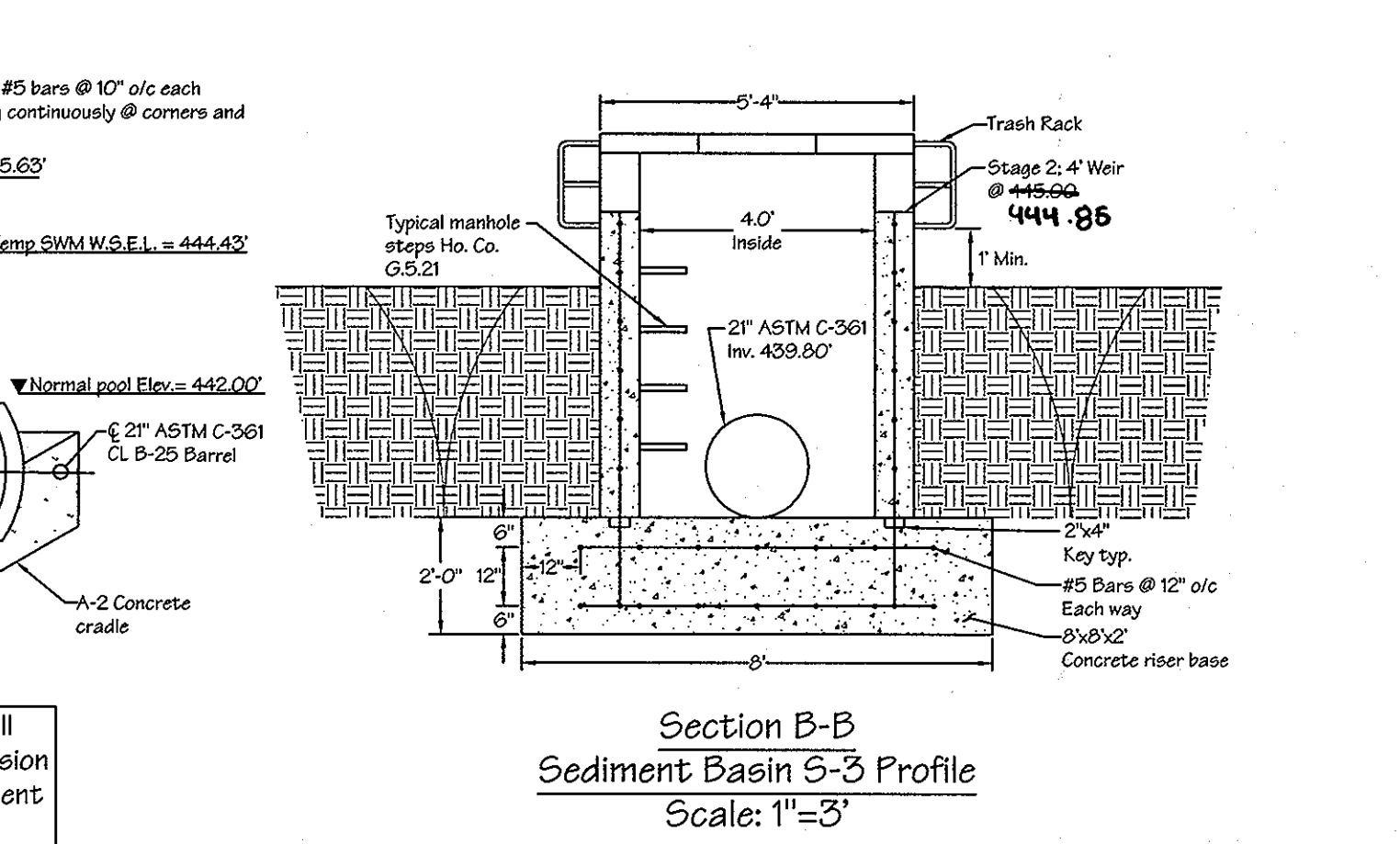
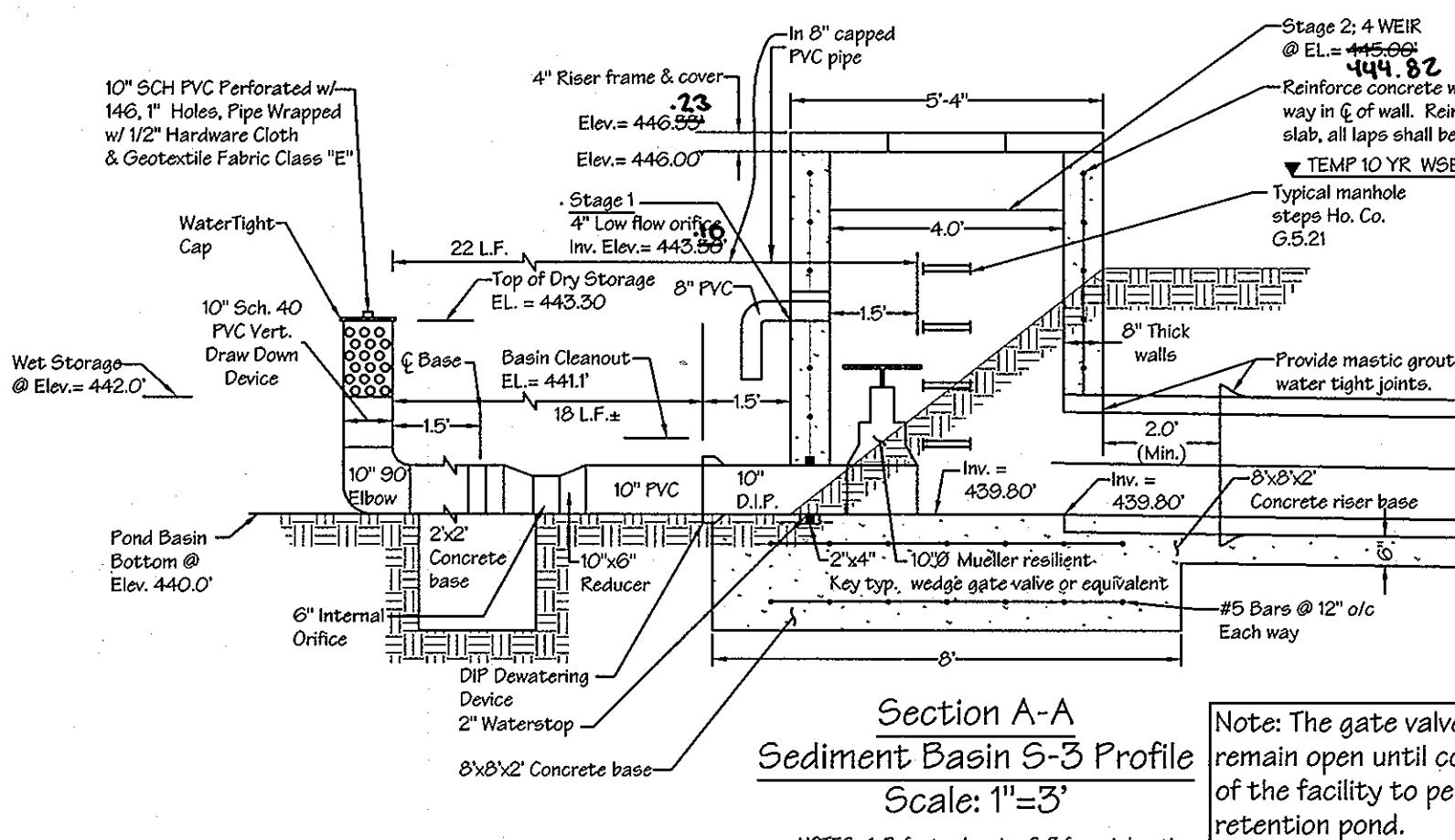
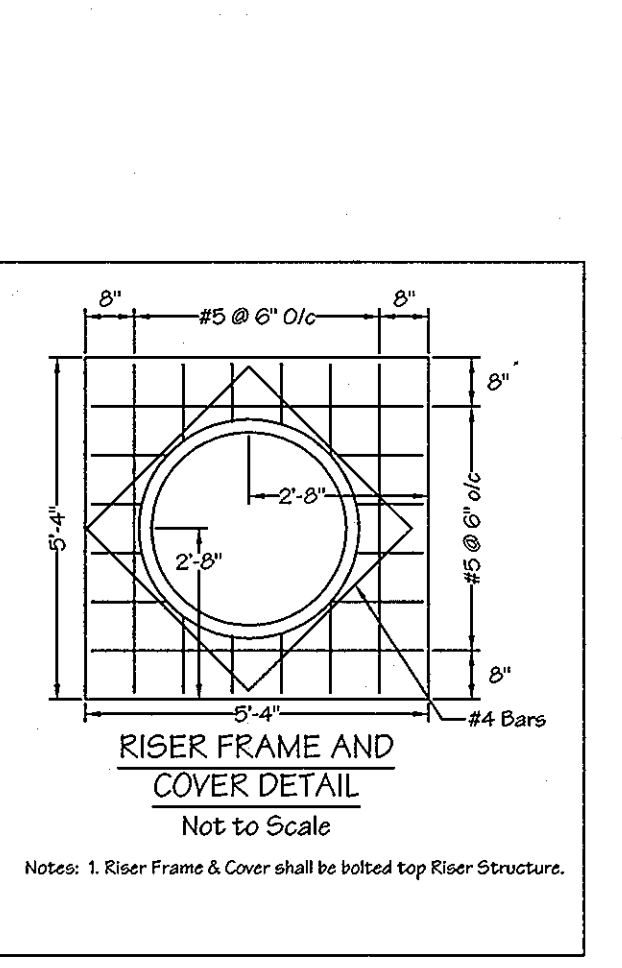
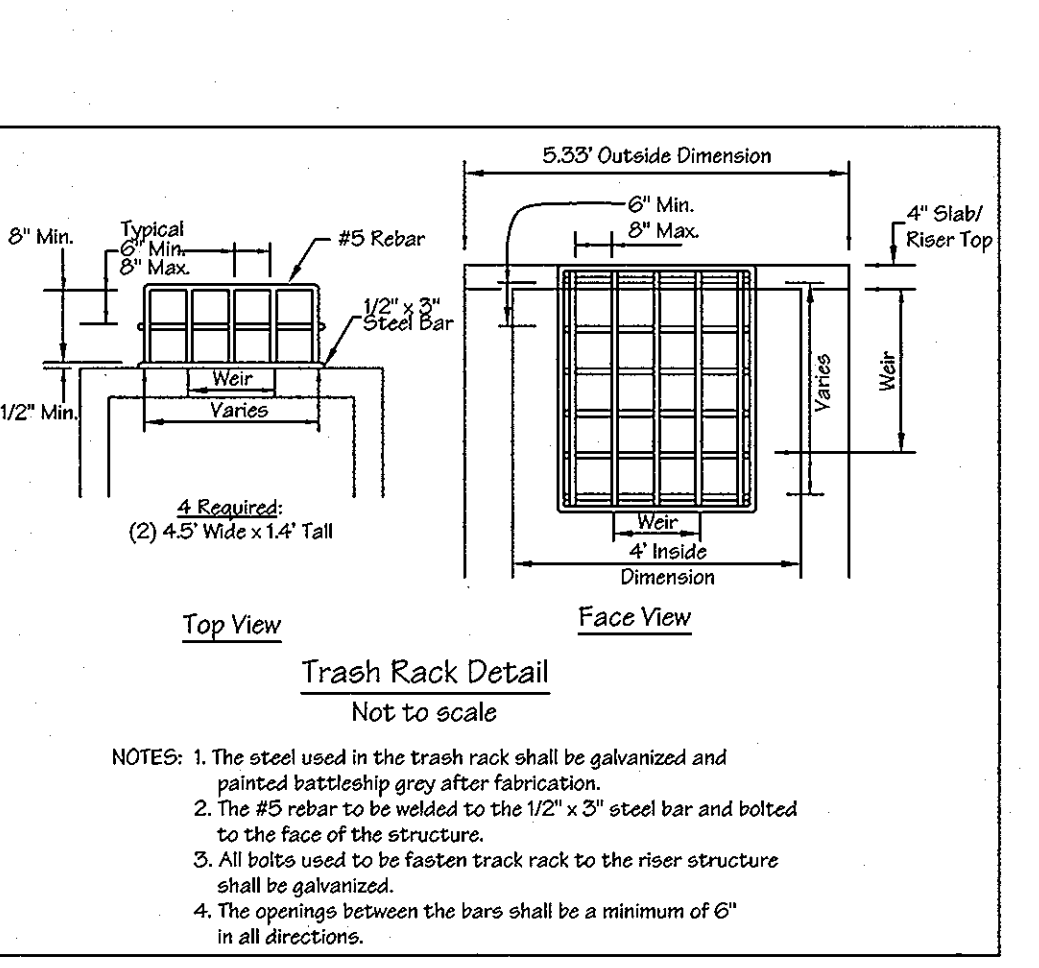
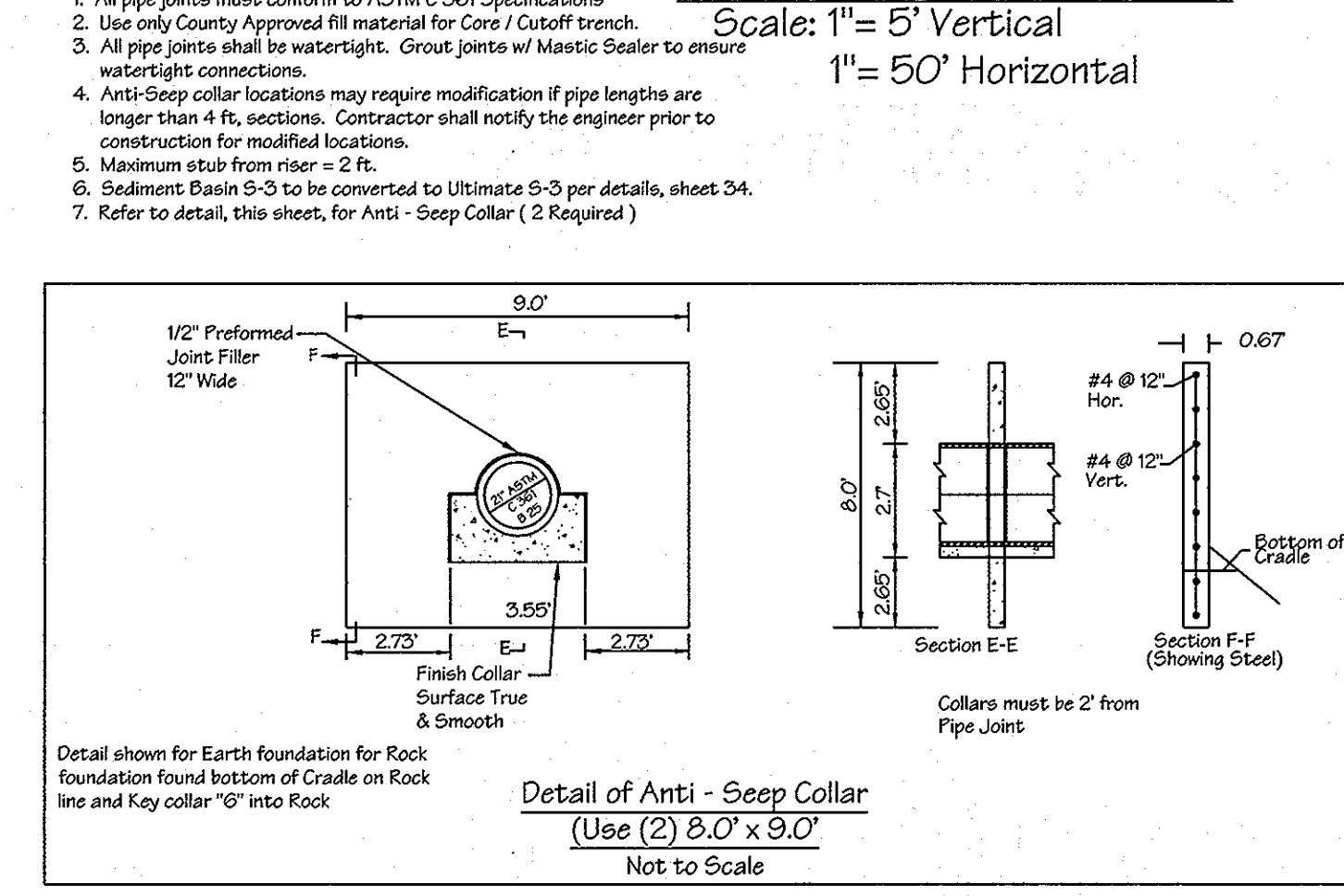
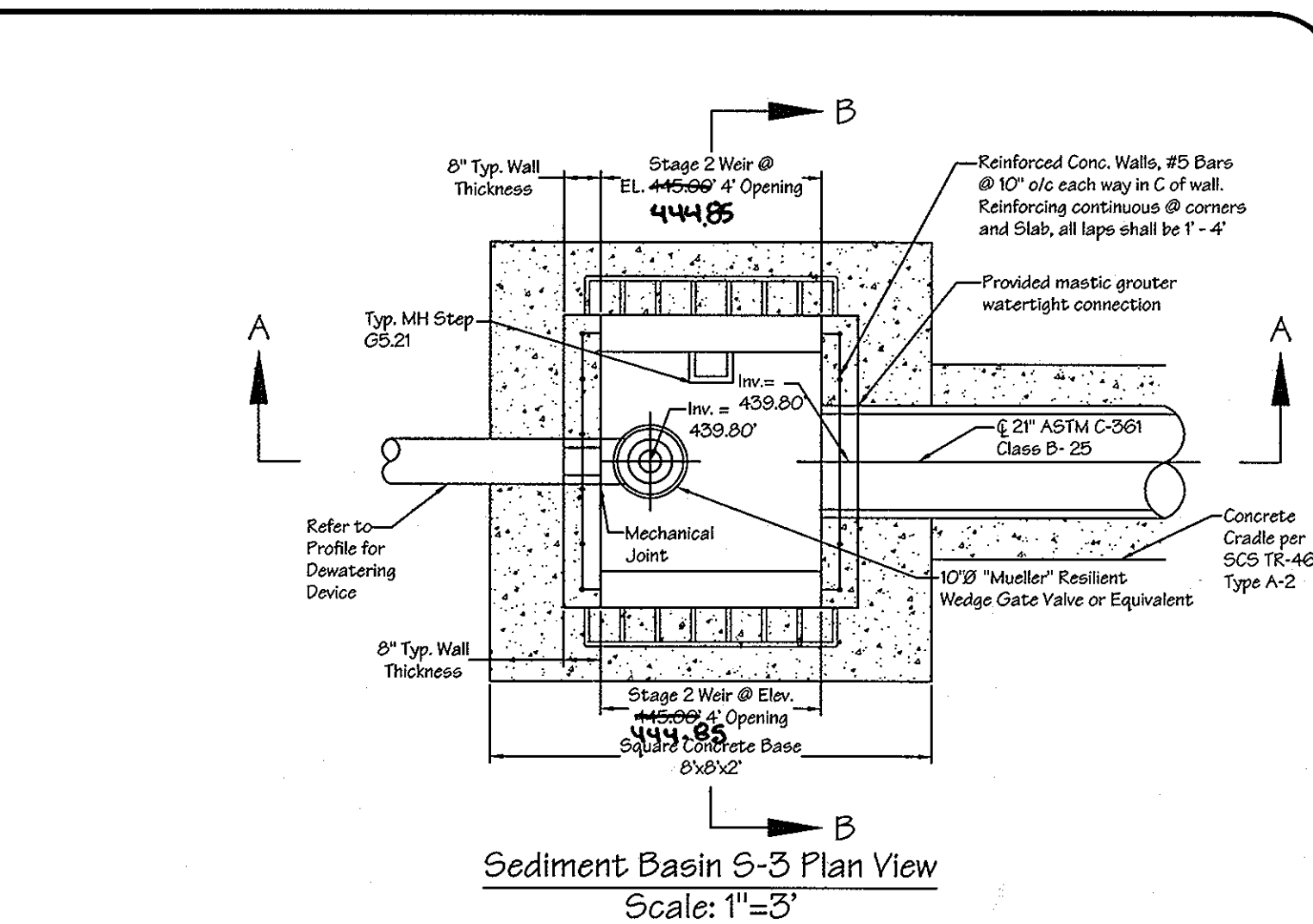
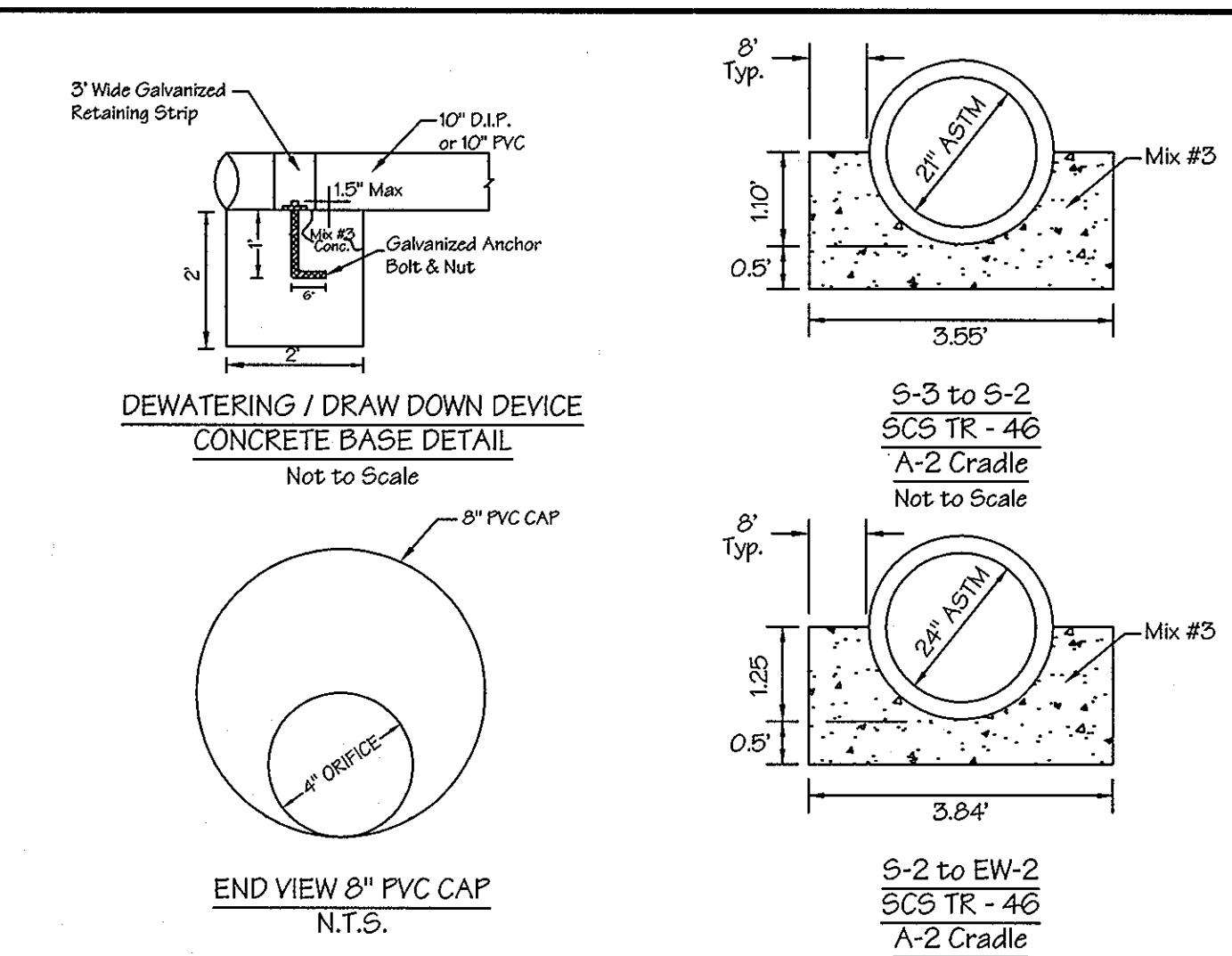
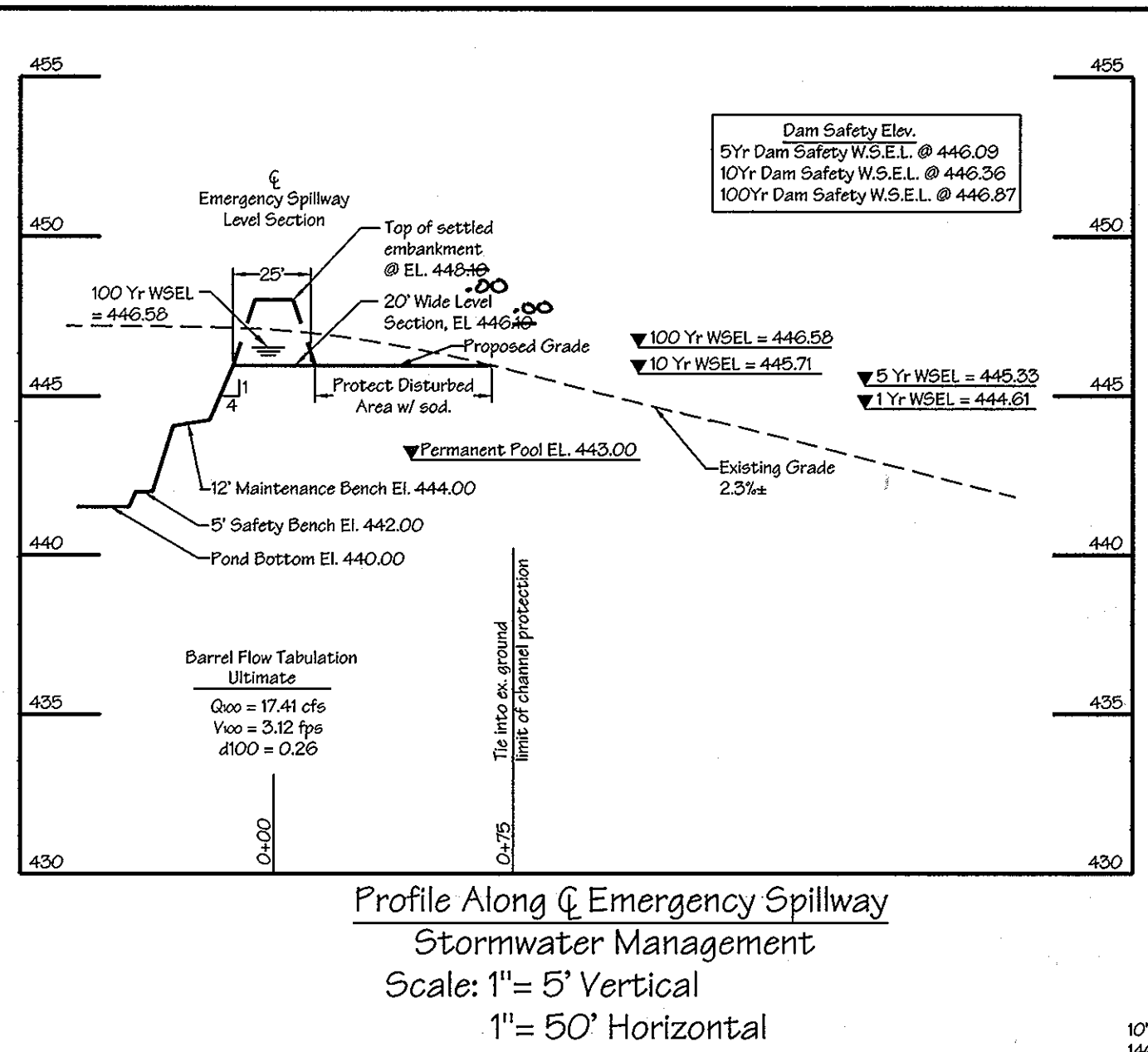
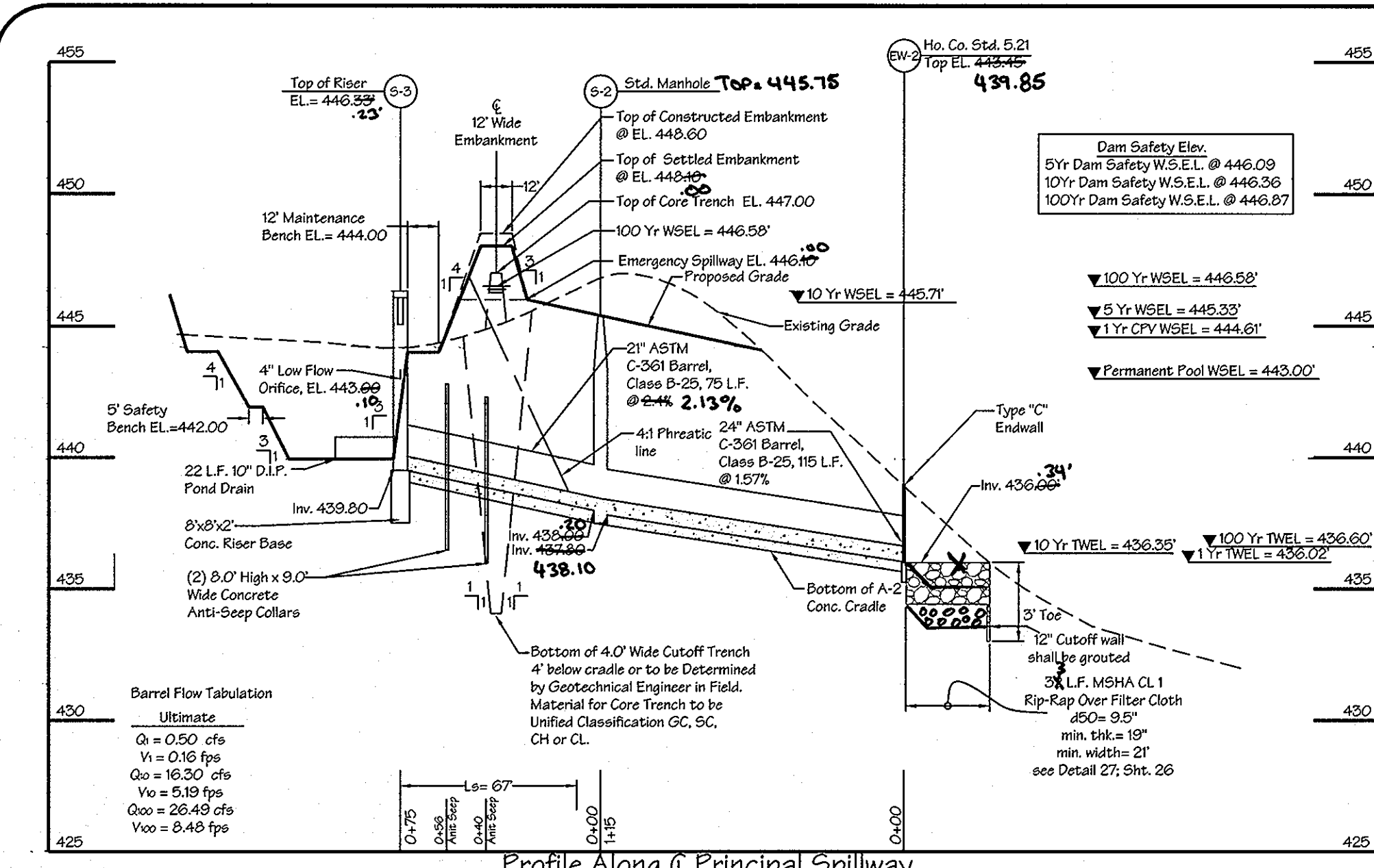
REVISIONS			
No.	Date	By	Description
1	6-11-2012	KCT	AS-BUILT

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

DESIGNED	EDS JLM	SCALE	A5
DRAWN	JLM JDR	DRAWING	32 of 52
CHECKED	BDB	JOB NO.	99-0514
DATE	4/20/04	FILE NO.	SDP-03-30

Parcel #1 Construction Details  
**HOMELAND**  
 PARCEL 'A' AND PARCEL 'B'  
 Tax Map No. 16 - Grid No. 16 & 22 - Parcel 53, 96, 165 & 204  
 3rd Election District - Howard County, Maryland  
 Previous Submittals: SA 00-92E, WP 03-129, F 03-194

DEVELOPER: LB MEADOWS LLC  
 8835 - P Columbia 100 Parkway  
 Columbia, Maryland 21045  
 (410) 730-0810



APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 5/14/04  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 7/21/04  
CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 7/28/04  
DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL

*[Signature]* 5/14/04  
USDA NATIONAL RESOURCE CONSERVATION SERVICE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*[Signature]* 5/14/04  
HOWARD SOIL CONSERVATION DISTRICT

ENGINEER'S CERTIFICATE

I certify that this plan for Stormwater Management Retention Pond #2 and Sediment Basin S-3 represents a practical and workable plan for the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the District of the project and the District has assigned a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

*[Signature]* 4/22/04  
SIGNATURE OF ENGINEER

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 Sedimentation and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

*[Signature]* 4/22/04  
SIGNATURE OF DEVELOPER

AS-BUILT CERTIFICATION

I hereby certify that the facility shown on this plan as constructed as shown on the "as-built" plans and meets the approved plans and specifications.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_ P.E. No: \_\_\_\_\_

Certify means to state or declare a professional opinion based upon onsite inspections and material tests which are conducted during construction. The onsite inspections and material tests are those inspections and tests deemed sufficient and appropriate by commonly accepted engineering standards. Certify does not mean or imply a guarantee by the engineer nor does an engineer's certification relieve any other party from meeting requirements imposed by contracts, employment, or means, including meeting commonly accepted industry practices.

OPERATION, MAINTENANCE, AND INSPECTION

Inspection of the pond shown hereon shall be performed at least annually, in accordance with the checklist and requirements contained within USDA, SCS "Standards And Specifications For Ponds" (MD 378). The pond owner(s) and their heirs, successors, or assigns shall be responsible for the safety of the pond and the continued operation, surveillance, inspection, and maintenance thereof. The pond owner(s) shall promptly notify the Soil Conservation District of any unusual observations that may be indications of distress such as excessive seepage, turbid seepage, sliding or slumping.

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN COMPLIANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY.

*[Signature]* 6/18/04  
COUNTY HEALTH OFFICER  
HOWARD COUNTY HEALTH DEPARTMENT

REVISIONS

No.	Date	By	Description
1	6-11-2012	KCF	AS-BUILT

Subdivision Name: HOMELAND Sect/Area: N/A Parcel No.: 53, 96, 165 & 204

Flot No.: 16 & 22 Zone: RC-DEO Tax Map No.: 16 Election District: 3rd Census Tract: 6030

Water Code: J 02 Sewer Code: N/A

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

Pond #2 Construction Details

**HOMELAND PARCEL 'A' AND PARCEL 'B'**

SCALE: As Shown

DESIGNED: EDS JLM, BDB  
DRAWN: JLM, JDR  
CHECKED: BDB  
DATE: 4/2004

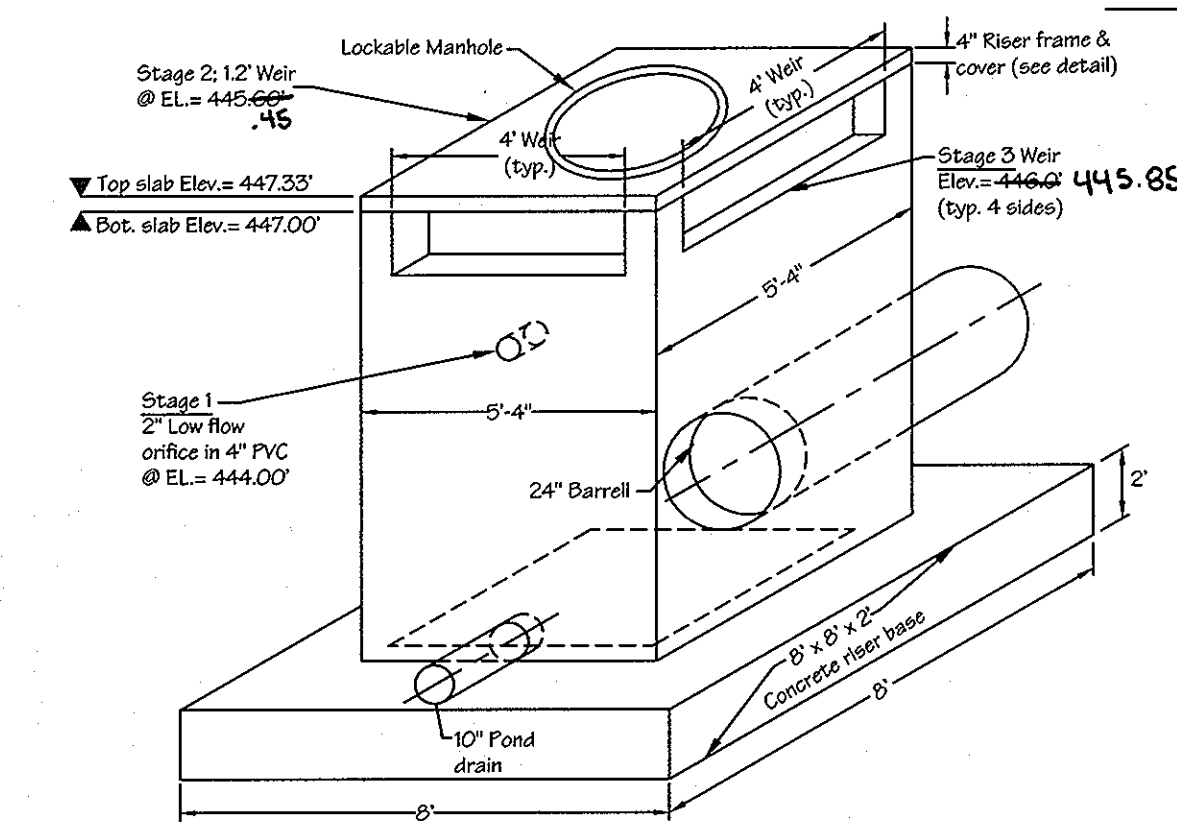
Tax Map No. 16 - Grid No. 16 & 22 - Parcel 53, 96, 165 & 204  
3rd Election District - Howard County, Maryland  
Previous Submittals: SA 00-52E, WP 05-12B, F 05-19A

JOB NO.: 99-0514  
FILE NO.: SDP-03-30

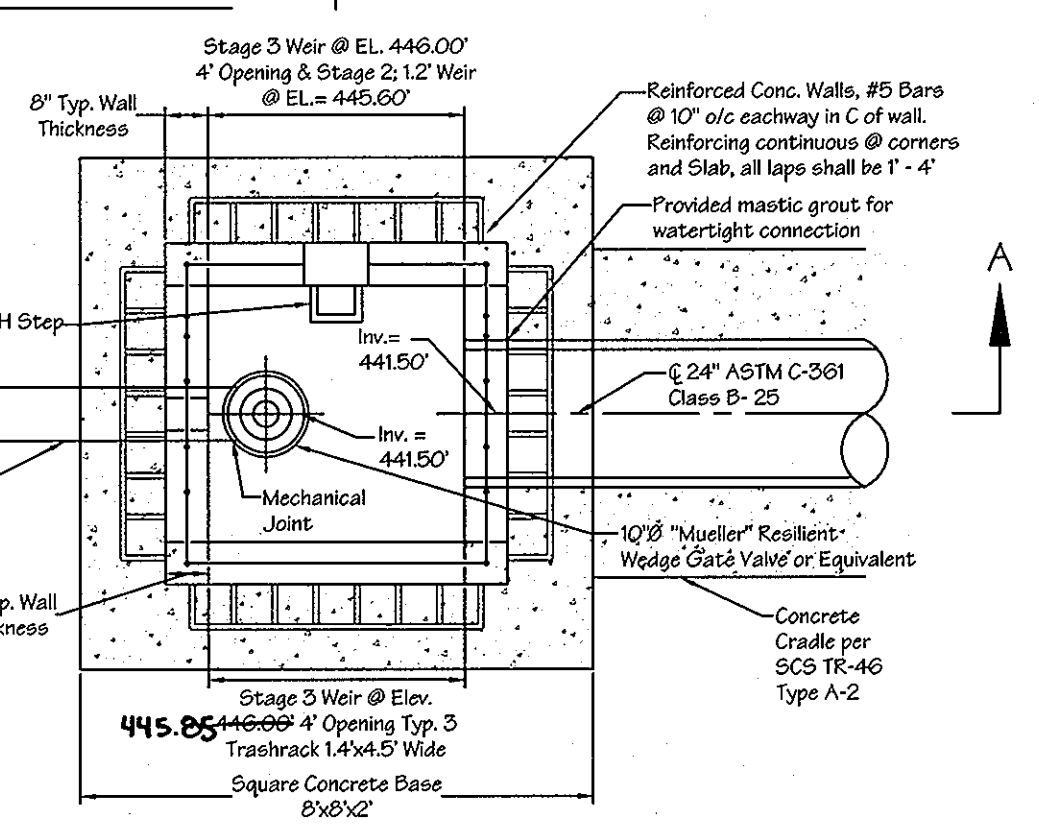
LB MEADOWS LLC  
8835 - P Columbia 100 Parkway  
Columbia, Maryland 21045  
(410) 730-0810

**Pond #1 Conversion Details**

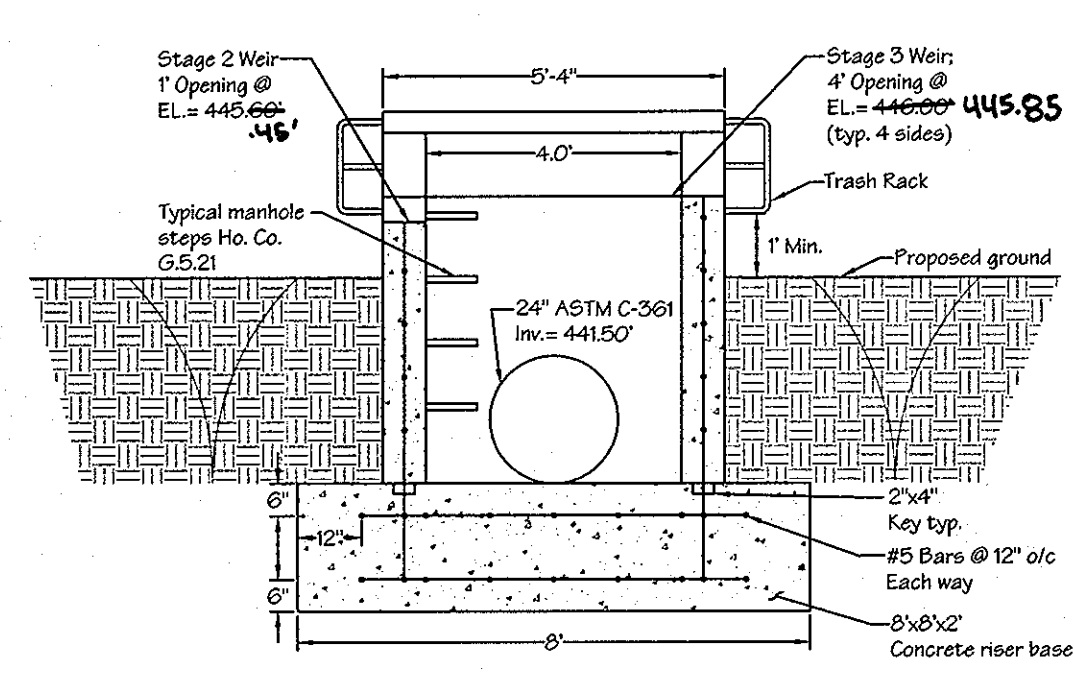
**Pond #2 Conversion Details**



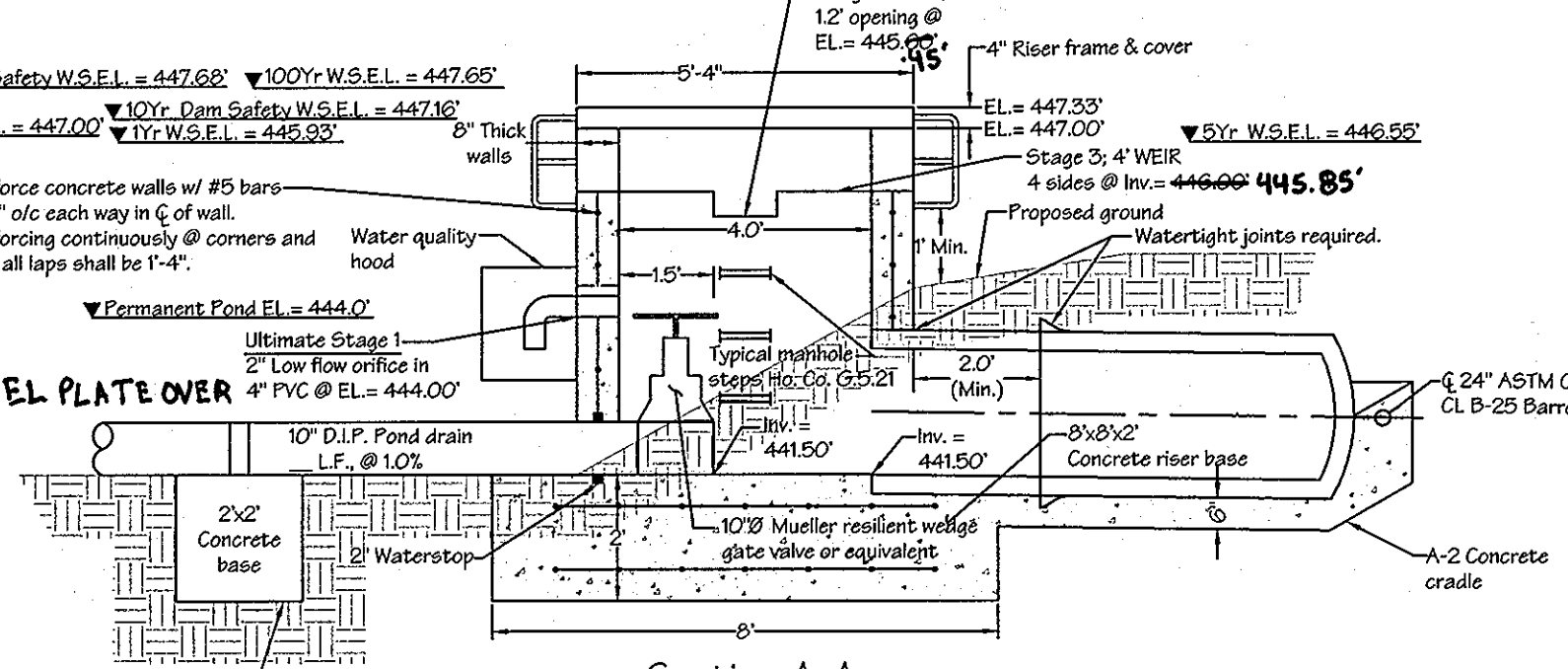
S-1 Isometric View  
Not to scale



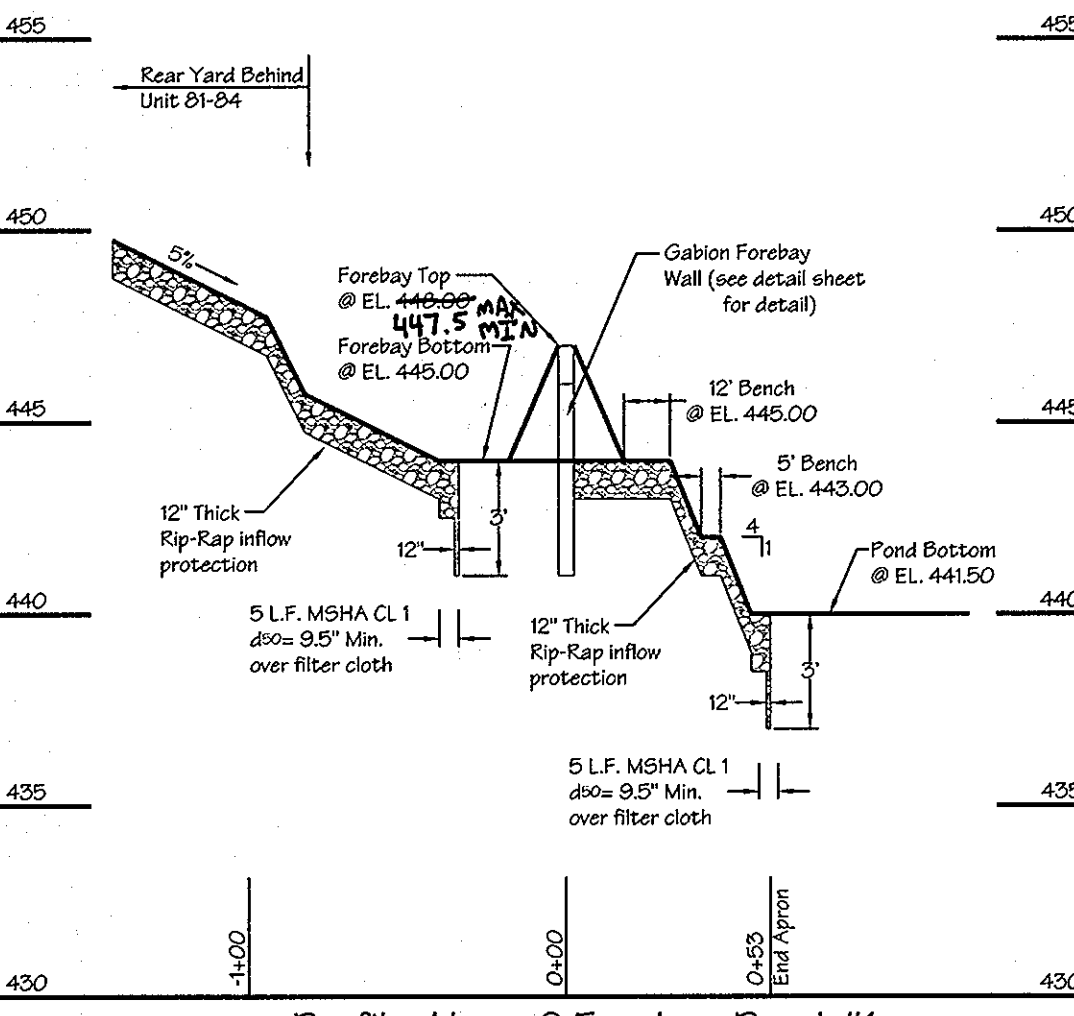
Ultimate S-1 Plan View  
Scale: 1"=3'



Section B-B  
Sediment Basin S-1 Profile  
Scale: 1"=3'

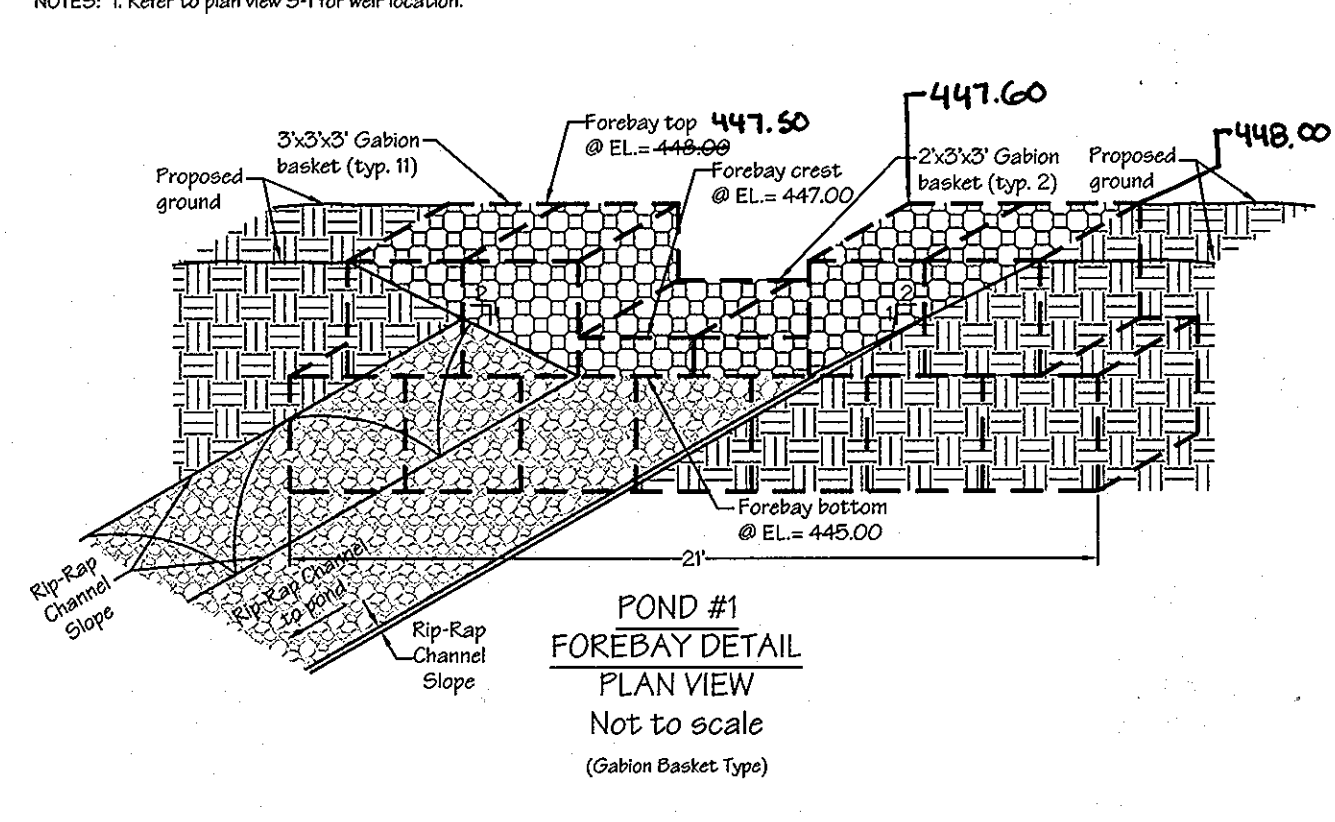


Section A-A  
Ultimate S-1 Profile  
Scale: 1"=3'

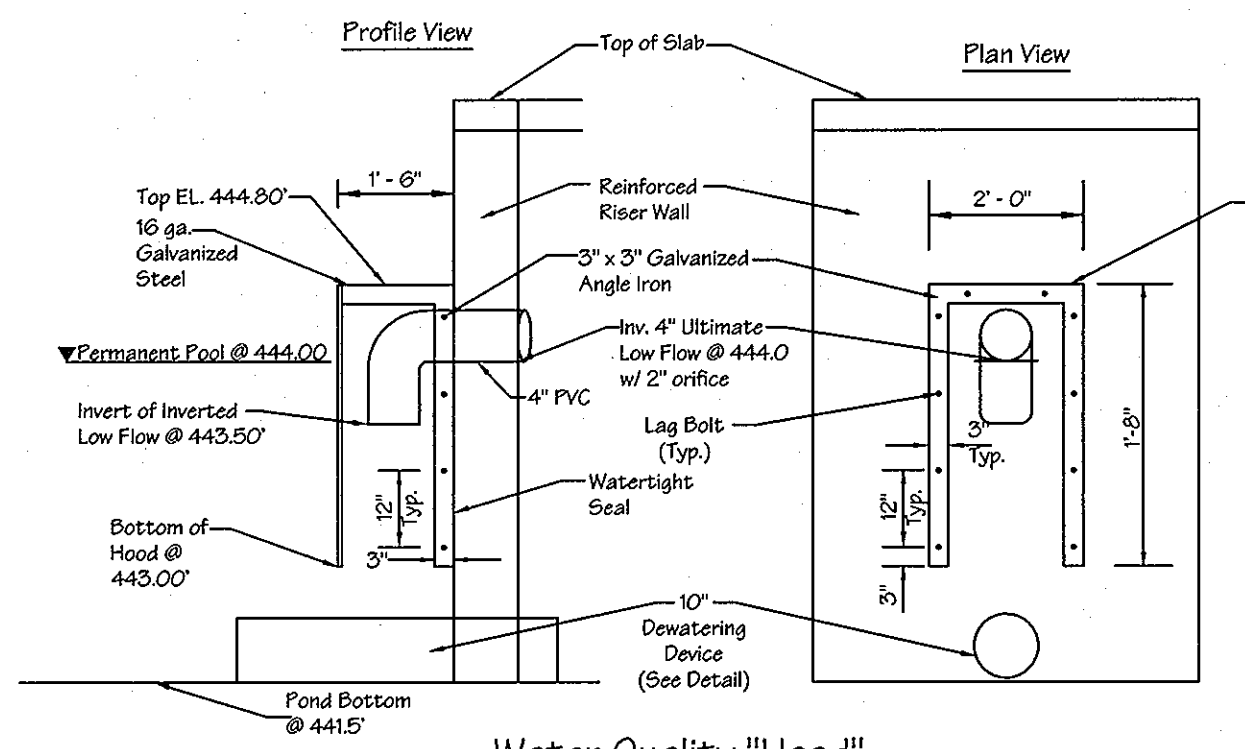


Profile Along Forebay Pond #1  
Stormwater Management  
Scale: 1"=5' Vertical  
1"=50' Horizontal

Gabion Basket Table	
Pond #1	
Bottom layer (Below Grade)	3 feet Wide
	3 feet Tall
	7 Baskets Required
	21 feet Total Length
Top Layer (Partially Covered)	3 feet Wide
	3 feet Tall
	3 feet Deep
	4 Baskets Required
Top Layer (Weir Window - 6' Wide)	3 feet Wide
	2 feet Tall
	3 feet Deep
	2 Baskets Required
	10 feet Total Length



POND #1  
FOREBAY DETAIL  
PLAN VIEW  
Not to scale  
(Gabion Basket Type)

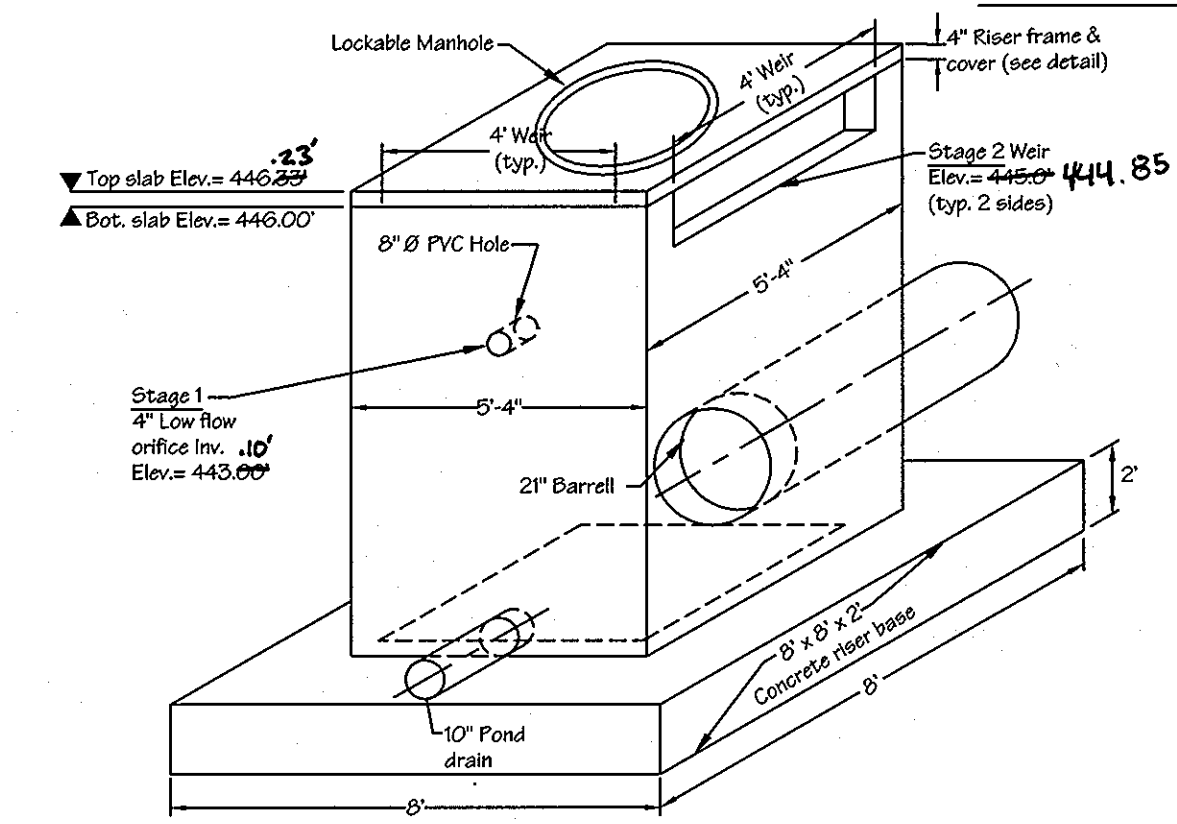


Water Quality "Hood"  
Not to Scale

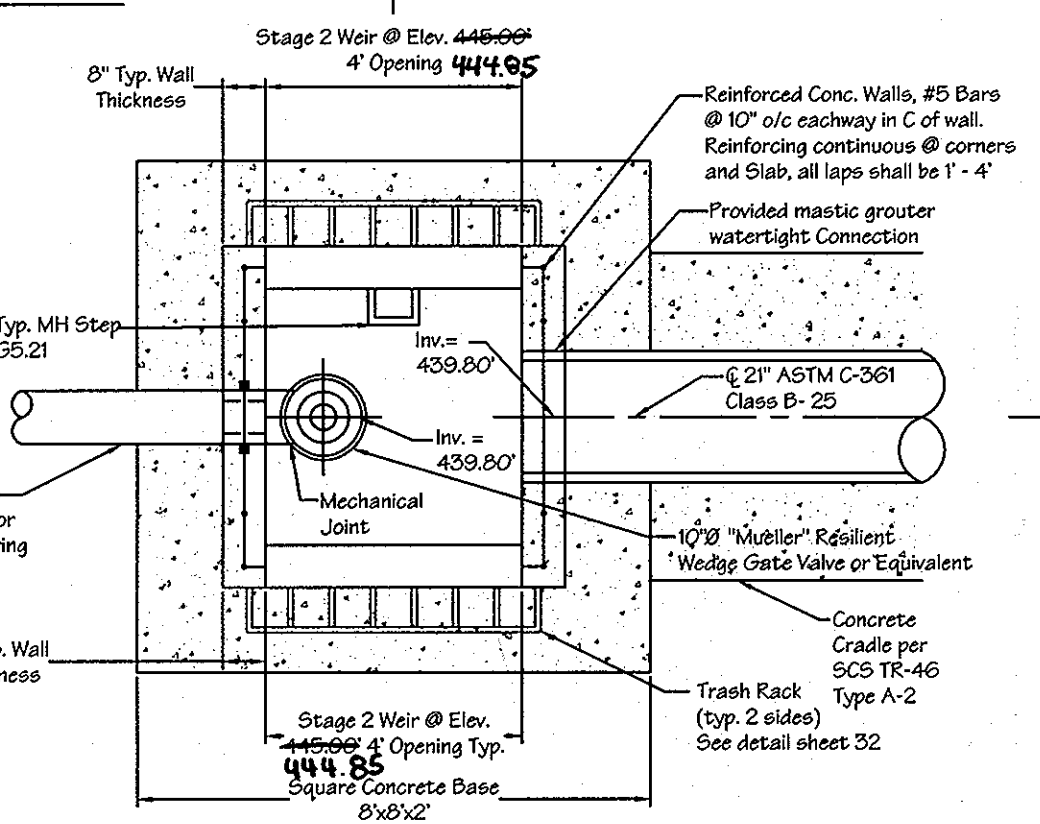
NOTES: 1. The steel used in the "Hood" shall be galvanized, 16 ga. and painted battleship gray after fabrication.  
2. 3" x 3" Angle galvanized, and bolted to the face of the structure. All bolts shall be galvanized.  
3. "Hood" shall be bolted into 3" x 3" Angle Iron.

**Operation and Maintenance Schedule  
Stormwater Management Facility  
Wet Pond #1 & #2**

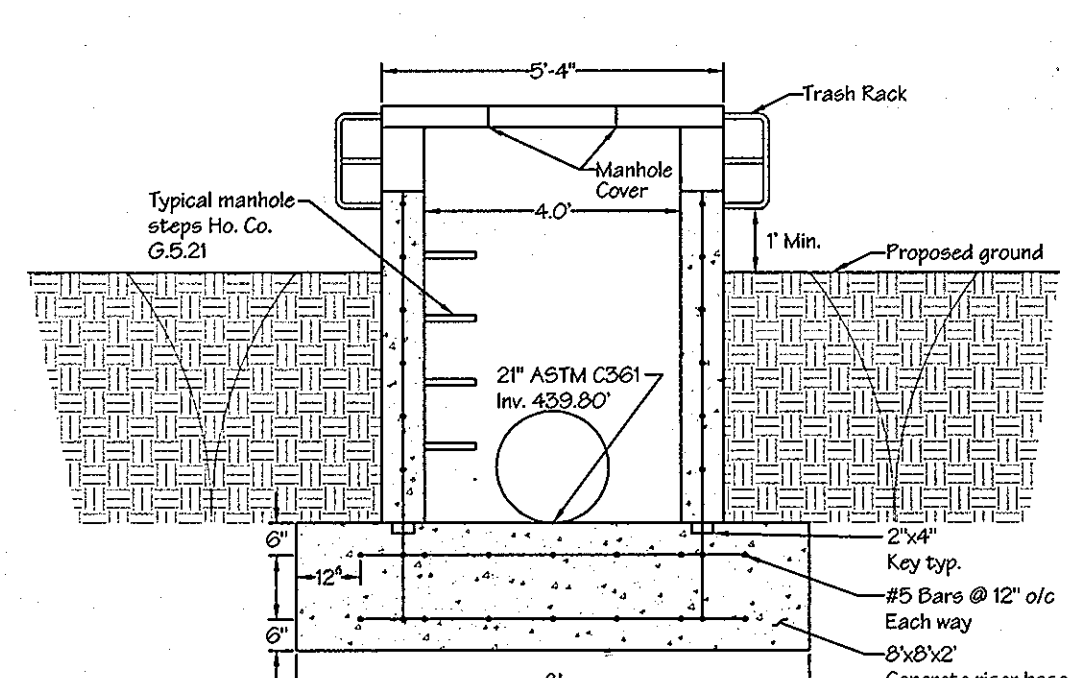
- Top and side slopes of the embankment shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes and maintenance access should be mowed as needed.
  - Debris and litter next to the outlet structure shall be removed during regular mowing operations and as needed.
  - When deemed necessary for aesthetic reasons, sediment should be removed from the pond. Approval of the Department of Public Works is required.
- Maintenance Requirements (POND #1 & POND #2)**
- Removal of silt when accumulation exceeds six (6) inches in basins without forebays. In basins with forebays, removal of silt shall occur when the accumulation exceeds four (4) inches in the forebay.
  - Removal of accumulated paper, trash and debris as necessary.
  - Vegetation growing on the embankment top and faces is not allowed to exceed 10 inches in height at any time.
  - Annual inspection and repair of the structure.
  - Corrective maintenance is required any time an extended detention basin does not drain the equivalent of the Water Quality Volume within 60 hours (i.e., no standing water is allowed).
  - Corrective maintenance is required any time the forebay does not drain down completely within 60 hours (i.e., no standing water is allowed).



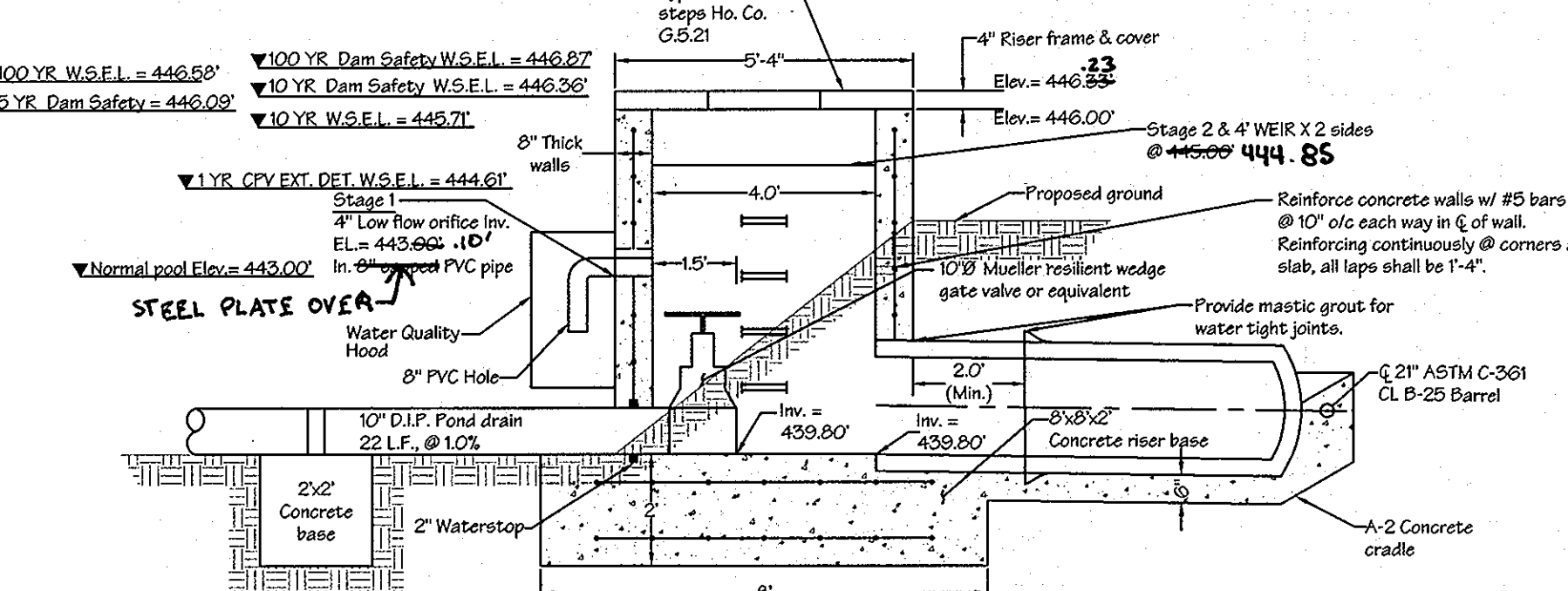
S-3 Isometric View  
Not to scale



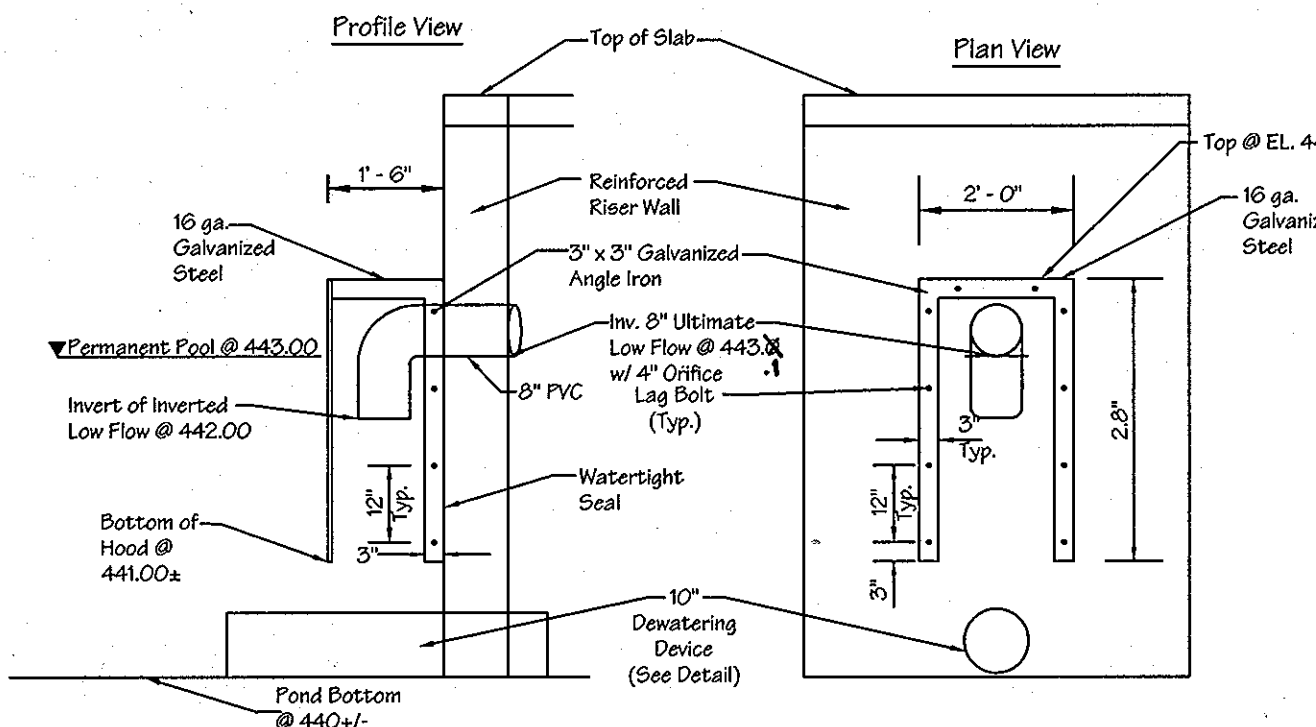
Ultimate S-3 Plan View  
Scale: 1"=3'



Section B-B  
Ultimate S-3 Profile  
Scale: 1"=3'



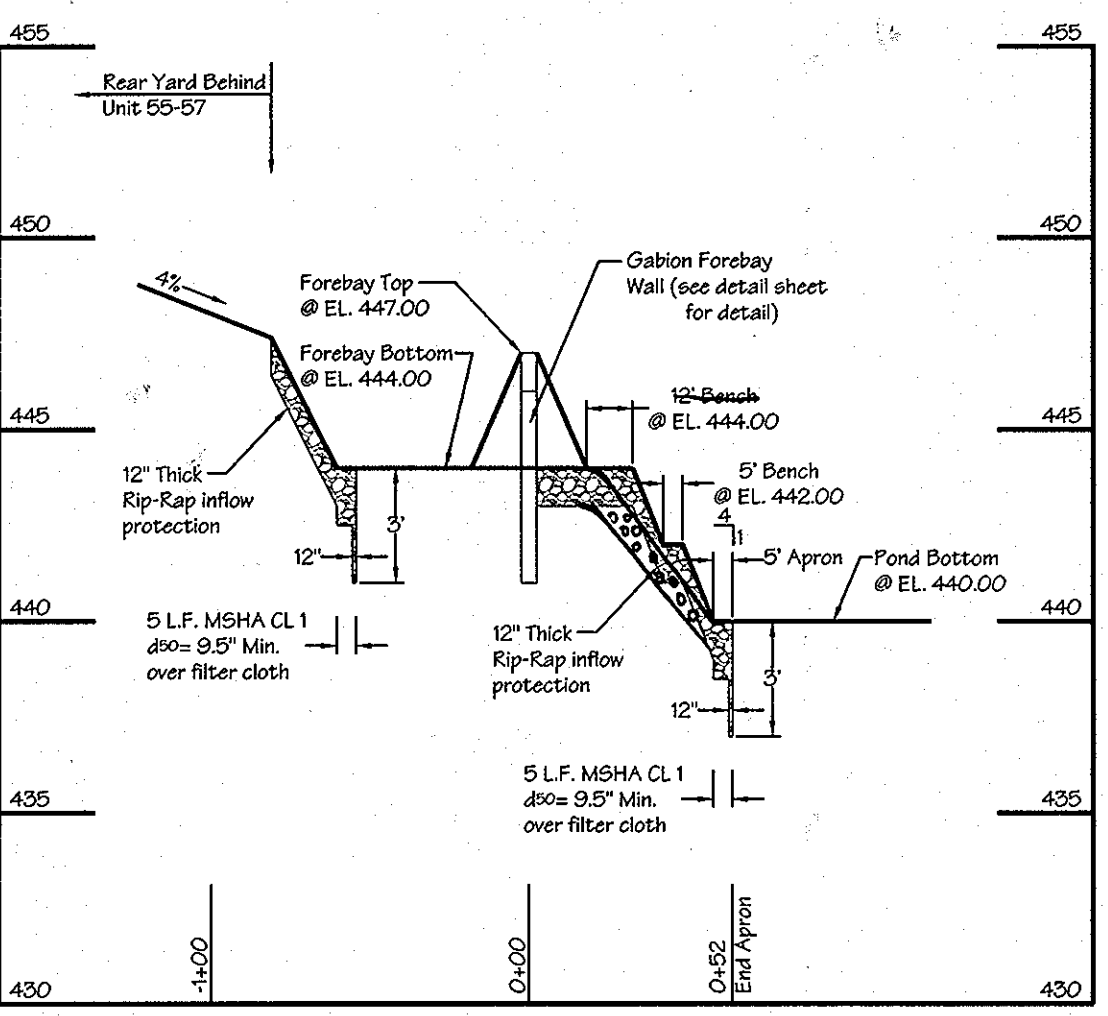
Section A-A  
Ultimate S-3 Profile  
Scale: 1"=3'



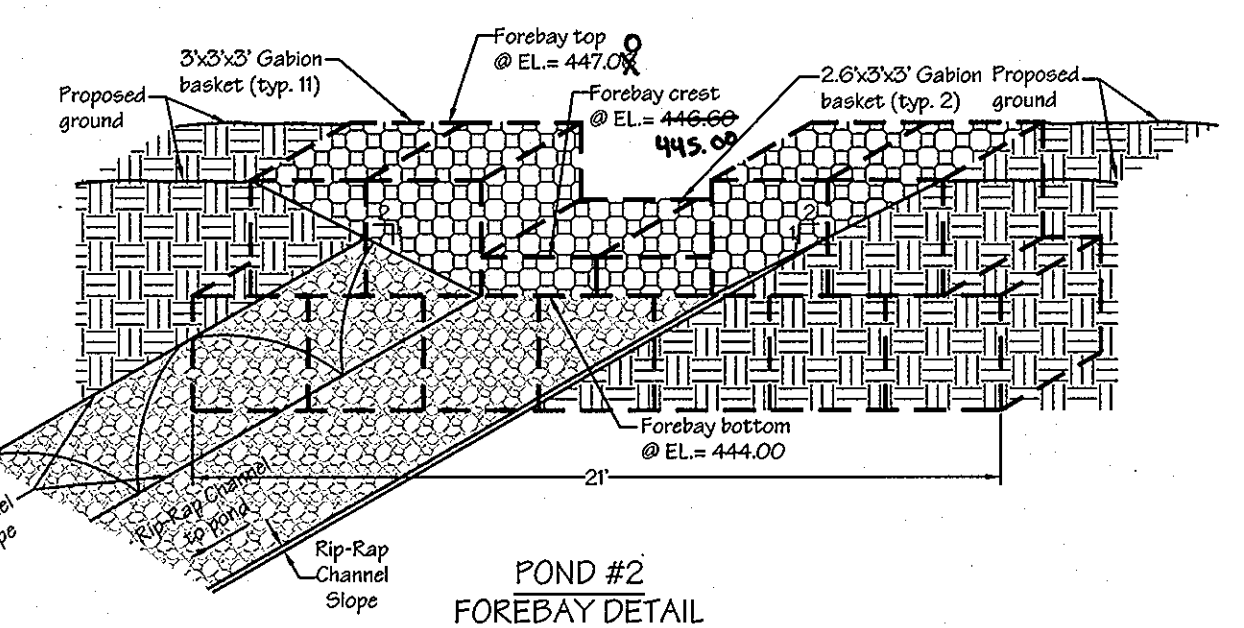
Water Quality "Hood"  
Not to Scale

NOTES: 1. The steel used in the "Hood" shall be galvanized, 16 ga. and painted battleship gray after fabrication.  
2. 3" x 3" Angle galvanized, and bolted to the face of the structure. All bolts shall be galvanized.  
3. "Hood" shall be bolted into 3" x 3" Angle Iron.

Gabion Basket Table	
Pond #2	
Bottom layer (Below Grade)	3 feet Wide
	3 feet Tall
	7 Baskets Required
	21 feet Total Length
Top Layer (Partially Covered)	3 feet Wide
	3 feet Tall
	3 feet Deep
	4 Baskets Required
Top Layer (Weir Window - 6' Wide)	3 feet Wide
	1 feet Tall
	3 feet Deep
	2 Baskets Required
	10 feet Total Length



Profile Along Forebay Pond #2  
Stormwater Management  
Scale: 1"=5' Vertical  
1"=50' Horizontal



POND #2  
FOREBAY DETAIL  
PLAN VIEW  
Not to scale  
(Gabion Basket Type)

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 5/7/04  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 7/6/04  
CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 7/6/04  
DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL.

*[Signature]* 5/14/04  
DISTRICT MANAGER

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*[Signature]* 5/14/04  
HOWARD SOIL CONSERVATION DISTRICT

ENGINEER'S CERTIFICATE

I certify that this plan represents a practical and workable design and sediment control represents a practical and workable design for the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the Howard Soil Conservation District of this project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 60 days of completion. I also authorize on-site inspections by the Howard Soil Conservation District.

*[Signature]* 4/22/04  
SIGNATURE OF ENGINEER

DEVELOPER'S CERTIFICATE

I 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 shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 60 days of completion. I also authorize on-site inspections by the Howard Soil Conservation District.

*[Signature]* 4/22/04  
SIGNATURE OF DEVELOPER

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

*[Signature]* 6/18/04  
COUNTY HEALTH OFFICER

REVISIONS

No.	Date	By	Description
1	6-11-2012	KCF	AS-BUILT

Subdivision Name: HOMELAND  
Parcel No: 53, 96, 165 & 204  
Plot No: 16 & 22  
Zone: RC-DEO  
Tax Map No: 16  
Election District: 3rd  
Census Tract: 6030  
Water Code: J02  
Sewer Code: N/A

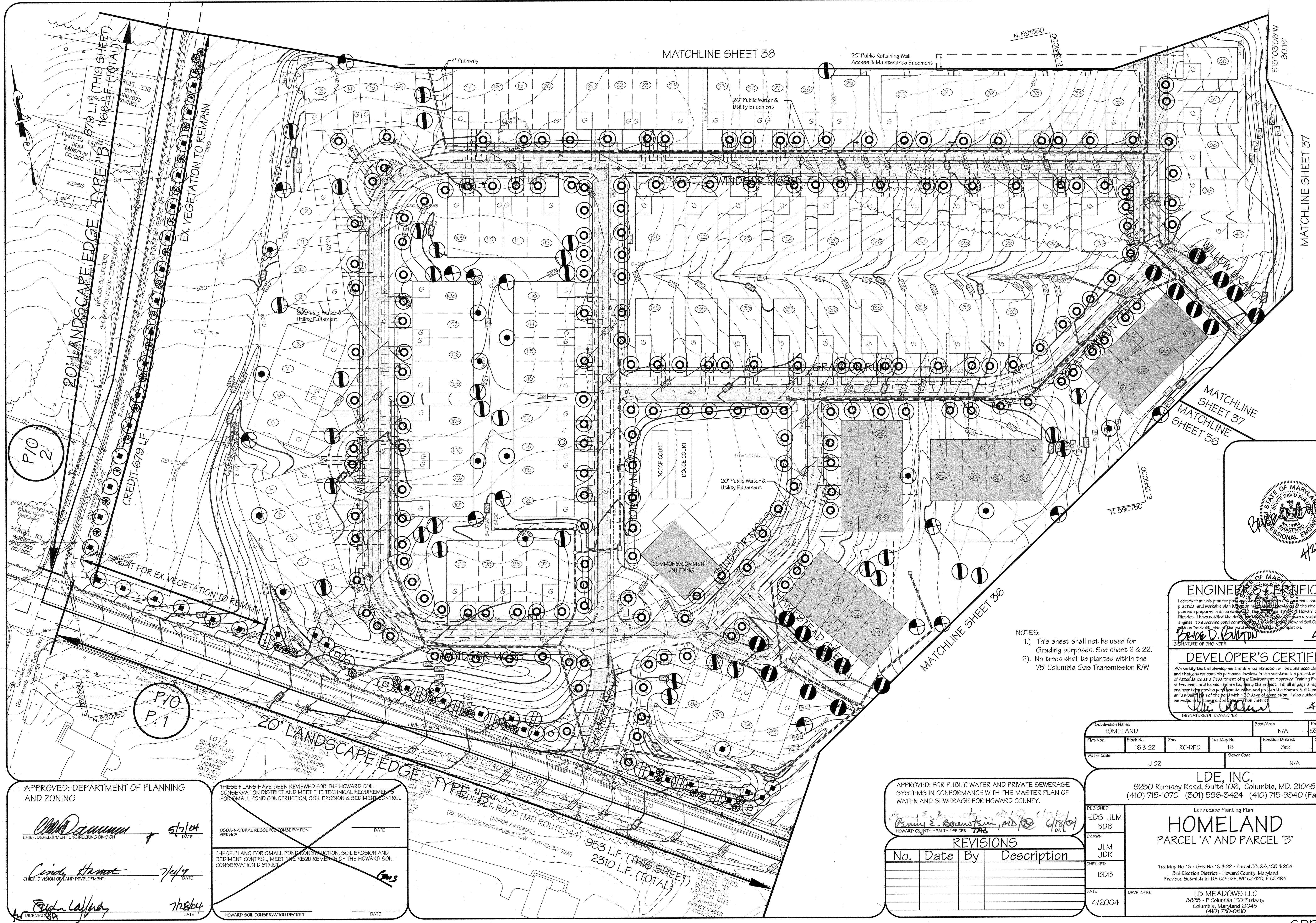
LDE, INC.  
9250 Rumsey Road, Suite 106, Columbia, MD. 21045  
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED: EDG JLM, BDB  
DRAWN: JLM, JDR  
CHECKED: BDB  
DATE: 4/20/04

SCALE: AS SHOWN  
DRAWING: 34 of 52  
JOB NO.: 99-0514  
FILE NO.: SDP-03-30

Parcel 'A' and Parcel 'B'  
Tax Map No. 16 - Grid No. 16 & 22 - Parcel 53, 96, 165 & 204  
3rd Election District - Howard County, Maryland  
Previous Submittals: BA 00-52E, WP 03-128, F 03-194

LB MEADOWS LLC  
8825 - P Columbia 100 Parkway  
Columbia, Maryland 21045  
(410) 730-0910



MATCHLINE SHEET 38

N. 591350

E. 141000

20' Public Retaining Wall Access & Maintenance Easement

20' Public Water & Utility Easement

EX. VEGETATION TO REMAIN

20' LANDSCAPE EDGE TYPE 'B' WITH 168 LF. (TOTAL)

CREDIT 679 LF.

P10 P.1

P10 2

MATCHLINE SHEET 37

MATCHLINE SHEET 36

MATCHLINE SHEET 36

MATCHLINE SHEET 36



**ENGINEER'S CERTIFICATE**

I certify that this plan for public water and private sewerage systems represents a practical and workable plan for the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer of the site conditions and the requirements of the Howard Soil Conservation District. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Signature of Engineer: *Bruce D. Berman* DATE: 4/22/04

**DEVELOPER'S CERTIFICATE**

I do 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 shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Signature of Developer: *[Signature]* DATE: 4/22/04

- NOTES:
- This sheet shall not be used for Grading purposes. See sheet 2 & 22.
  - No trees shall be planted within the 75' Columbia Gas Transmission RW

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY.

Signature: *Bruno E. Gornstein, MD* DATE: 4/18/04  
HOWARD COUNTY HEALTH OFFICER JAS

**REVISIONS**

No.	Date	By	Description

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Signature: *[Signature]* DATE: 5/7/04  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Signature: *[Signature]* DATE: 7/4/04  
CHIEF, DIVISION OF LAND DEVELOPMENT

Signature: *[Signature]* DATE: 7/28/04  
DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL

Signature: \_\_\_\_\_ DATE: \_\_\_\_\_  
USDA-NATURAL RESOURCE CONSERVATION SERVICE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT

Signature: \_\_\_\_\_ DATE: \_\_\_\_\_  
HOWARD SOIL CONSERVATION DISTRICT

Subdivision Name: HOMELAND		Sect/Area: N/A	Parcel No.: 53, 96, 165 & 204
Plot Nos.: 16 & 22	Zone: RC-DEO	Tax Map No.: 16	Election District: 3rd
Water Code: J 02		Sewer Code: N/A	
Census Tract: 6030			

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

DESIGNED: EDS JLM, BDB	<p>Landscape Planning Plan <b>HOMELAND</b> PARCEL 'A' AND PARCEL 'B'</p> <p>Tax Map No. 16 - Grid No. 16 &amp; 22 - Parcel 53, 96, 165 &amp; 204 3rd Election District - Howard County, Maryland Previous Submittals: BA 00-52E, WF 03-12B, F 03-194</p> <p>LB MEADOWS LLC 8835 - P Columbia 100 Parkway Columbia, Maryland 21045 (410) 750-0910</p>	SCALE: 1" = 50'
DRAWN: JLM, JDR		DRAWING: 35 of 52
CHECKED: BDB		JOB NO.: 99-051.4
DATE: 4/2004		DEVELOPER: LB MEADOWS LLC

PROFESSIONAL CERTIFICATION:  
*Steve Heiss* 4/22/04  
 Steve Heiss, Qualified Professional, MDCA

- NOTES:
- 1.) This sheet shall not be used for Grading purposes. See sheet 3 & 23.
  - 2.) No trees shall be planted within the 75' Columbia Gas Transmission R/W

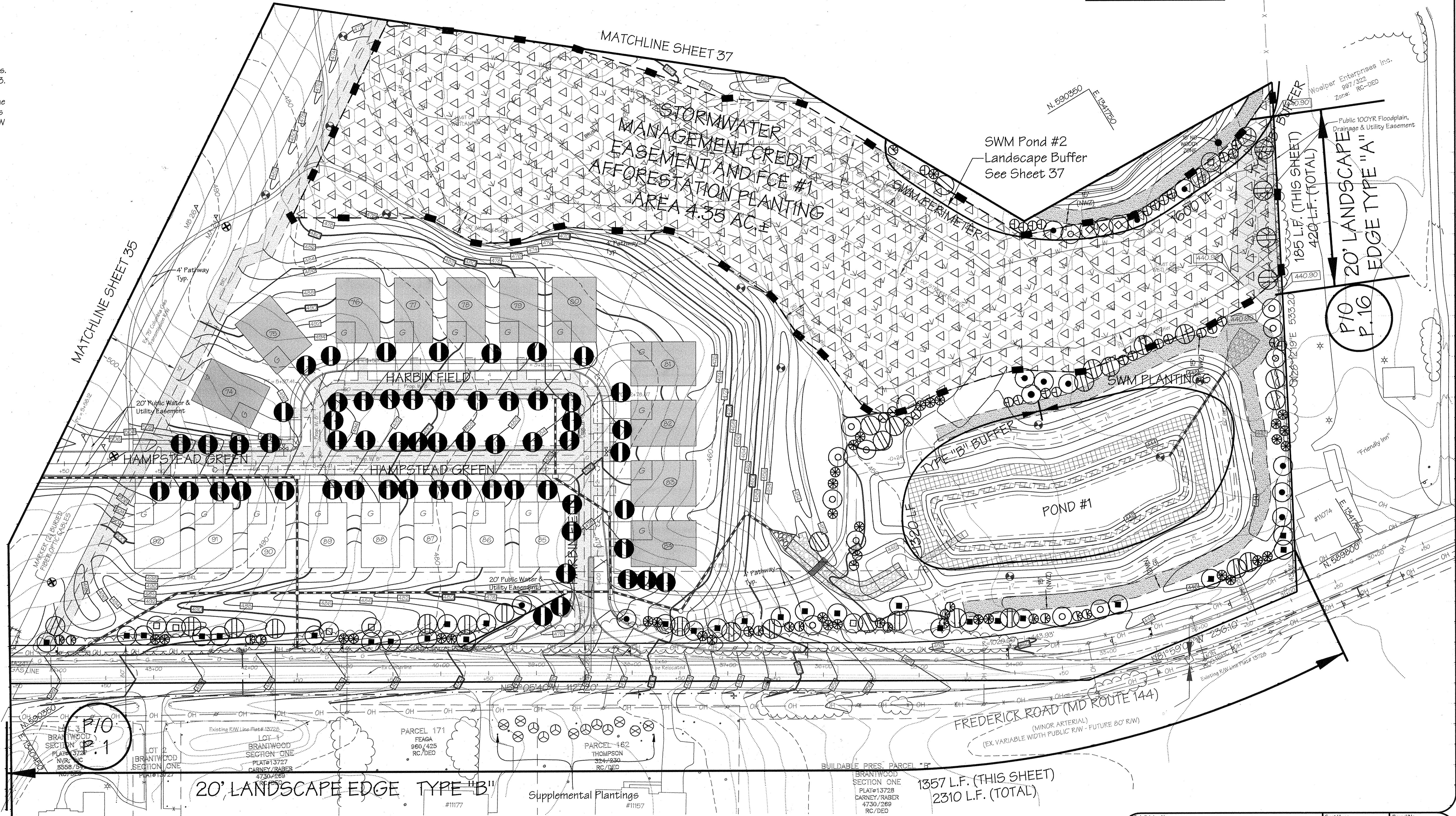
Onsite Forest Conservation Easements

Planting Area	Afforestation Planting (Acres)
FCE #1	4.35
FCE #2	2.92
FCE #3	0.66
FCE #4	0.69
FCE #5	1.55
FCE #6	0.28
FCE #7	0.64
	11.09

LEGEND

FOREST CONSERVATION EASEMENT

AFFORESTATION PLANTING AREA



Subdivision Name:	HOMELAND	Sect/Area:	N/A	Parcel No.:	53, 96, 165 & 204
Plat No.:	16 & 22	Zone:	RC-DEO	Tax Map No.:	16
Water Code:	J 02	Sewer Code:	N/A	Election District:	3rd
				Census Tract:	6030

DESIGNED		EDS JLM		SCALE	1" = 50'
DRAWN		JLM JDR			
CHECKED		BDB		JOB NO.	99-0514
DATE		4/20/04			
DEVELOPER		LB MEADOWS LLC		FILE NO.	SDP-03-30
		8825 - P Columbia 100 Parkway Columbia, Maryland 21045 (410) 750-0810			

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Chief Development Engineering Division* 5/1/04 DATE

*Chief, Division of Land Development* 7/2/04 DATE

*Director* 7/28/04 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL.

USDA-NATURAL RESOURCE CONSERVATION SERVICE

DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT

DATE

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction and sediment control represents a practical and workable plan for the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the Howard Soil Conservation District and engaged a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

*George D. Burton* 4/22/04 DATE

SIGNATURE OF ENGINEER

DEVELOPER'S CERTIFICATE

I 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 shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

*George D. Burton* 4/22/04 DATE

SIGNATURE OF DEVELOPER

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

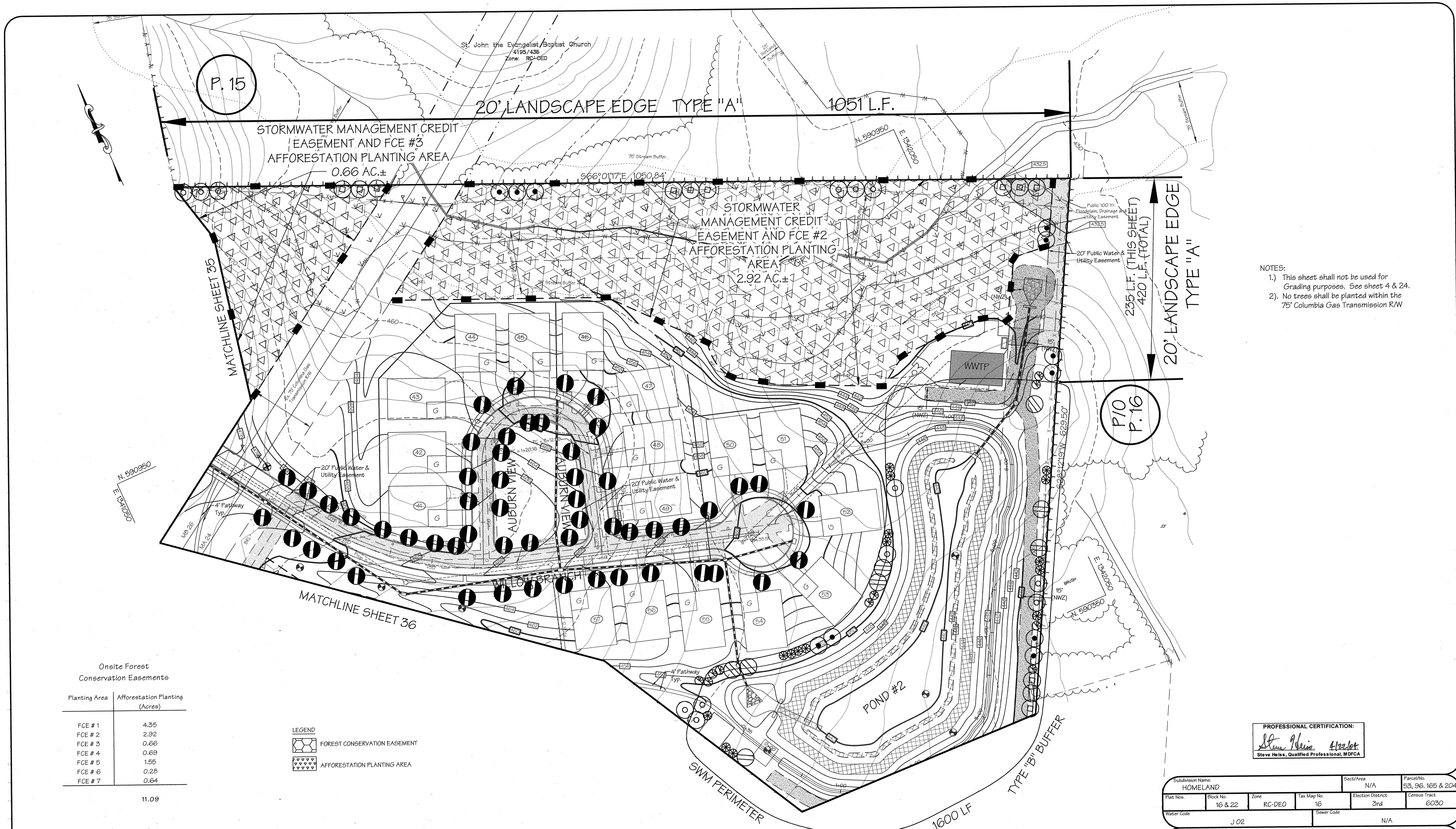
*Przemyslaw Borowicki, MD/PHD* 6/18/04 DATE

COUNTY HEALTH OFFICER  
HOWARD COUNTY HEALTH DEPARTMENT

REVISIONS

No.	Date	By	Description

Planned Project: E214VABIN.dwg | LANDSCAPE LANDS, 4/22/2004, 1:52:50 PM



- NOTES:
- 1.) This sheet shall not be used for Grading purposes. See sheet 4 & 24.
  - 2.) No trees shall be planted within the 75' Columbia Gas Transmission R/W

Onsite Forest Conservation Easements

Planting Area	Afforestation Planting (Acres)
FCE # 1	4.35
FCE # 2	2.92
FCE # 3	0.66
FCE # 4	0.69
FCE # 5	1.55
FCE # 6	0.28
FCE # 7	0.64
11.09	

LEGEND

FOREST CONSERVATION EASEMENT

AFFORESTATION PLANTING AREA

PROFESSIONAL CERTIFICATION:

*Steve Hels* 4/22/04

Steve Hels, Qualified Professional, MDCA

Subdivision Name: HOMELAND		Sect/Area: N/A	Parcel No.: 53, 96, 165 & 204
Plat No.: 16 & 22	Zone: RC-DEO	Tax Map No.: 16	Election District: 3rd
Water Code: J 02	Sanitary Code: N/A	Census Tract: 6030	

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Mike Deussen* 5/1/04  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*Cindy Hamilton* 7/6/04  
CHIEF, DIVISION OF LAND DEVELOPMENT

*John Lafferty* 7/28/04  
DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL.

DATE: \_\_\_\_\_

HOWARD SOIL CONSERVATION DISTRICT

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction and sediment control represents a practical and workable plan based on the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the Department of Planning and Zoning of my registration as a professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

*Ernie D. Burton* 04/22/04  
SIGNATURE OF ENGINEER

DEVELOPER'S CERTIFICATE

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 shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspection by the Howard Soil Conservation District.

*Steve Hels* 4/22/04  
SIGNATURE OF DEVELOPER

STATE OF MARYLAND

PROFESSIONAL ENGINEER

*Ernie D. Burton* 4/22/04

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

*Penny E. Rosenstein, PE* 4/15/04  
COUNTY HEALTH OFFICER  
HOWARD COUNTY HEALTH DEPARTMENT

REVISIONS

No.	Date	By	Description

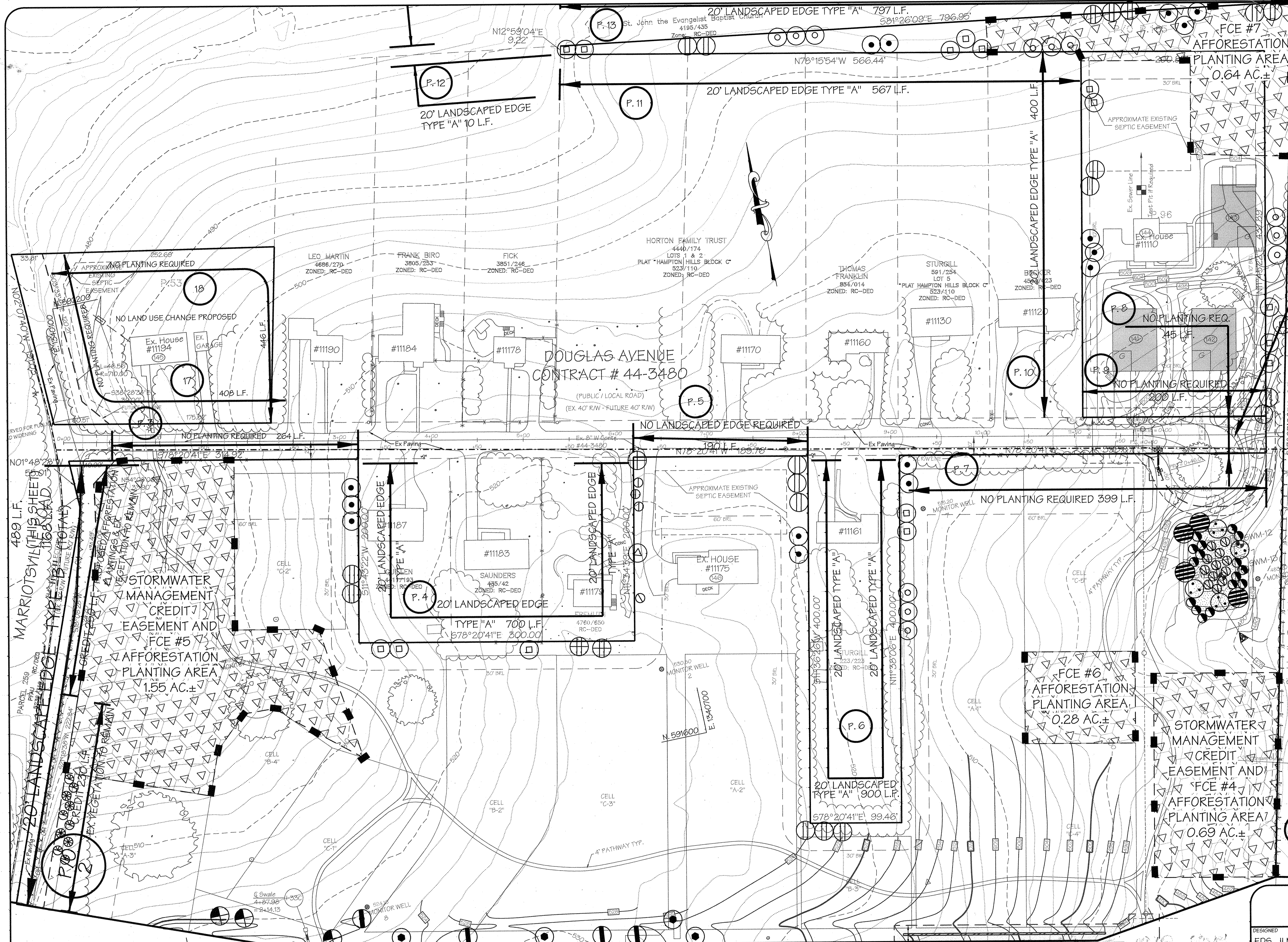
LDE, INC.  
9250 Rumsey Road, Suite 106, Columbia, MD, 21045  
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED: EDS JLM, BDB  
DRAWN: JLM, JDR  
CHECKED: BDB  
DATE: 4/2004

DEVELOPER: LB MEADOWS LLC  
8835 - P Columbia 100 Parkway  
Columbia, Maryland 21045  
(410) 730-0810

SCALE: 1" = 50'  
DRAWING: 37 of 52  
JOB NO.: 99-0514  
FILE NO.: SDP-03-30

F:\Land Projects\21\HARBEN\LANDSCAPE.dwg, LAND, 4/22/2004, 1:56:22 PM



Onsite Forest Conservation Easements

Planting Area	Afforestation Planting (Acres)
FCE #1	4.35
FCE #2	2.92
FCE #3	0.66
FCE #4	0.68
FCE #5	1.95
FCE #6	0.28
FCE #7	0.64
<b>TOTAL</b>	<b>11.09</b>



APPROVED: DEPARTMENT OF PLANNING AND ZONING

*John D. ...* 5/7/04  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
*Cindy ...* 7/21/04  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
*Debra ...* 7/28/04  
 DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL.

USDA-NATURAL RESOURCE CONSERVATION SERVICE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT

**ENGINEER'S CERTIFICATE**  
 I certify that this plan for pond construction and sediment control represents a practical and workable plan for the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the District of my intent to use a registered professional engineer to supervise pond construction and sediment control for the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.  
*Bruce D. Campbell* 4/22/04  
 SIGNATURE OF ENGINEER

**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 as a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and sediment control for the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.  
*John ...* 4/22/04  
 SIGNATURE OF DEVELOPER

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

DESIGNED	LANDSCAPE AND FOREST CONSERVATION PLANTING PLAN	SCALE
EDS JLM BDB	<b>HOMELAND</b> PARCEL 'A' AND PARCEL 'B'	1" = 50'
DRAWN JLM JDR		DRAWING 38 of 52
CHECKED BDB	Tax Map No. 16 - Grid No. 16 & 22 - Parcel 53, 96, 165 & 204 3rd Election District - Howard County, Maryland Previous Submittals: BA 00-52E, WP 03-123, F03-194	JOB NO. 99-0514
DATE 4/20/04	DEVELOPER LB MEADOWS LLC 8835 - F Columbia 100 Parkway Columbia, Maryland 21045 (410) 730-0810	FILE NO. SDP-03-30

REVISIONS

No.	Date	By	Description

Notes: 1) For Right-of-way dedication information for the Douglas Avenue Cul-de-sac, refer to F03-194.

LEGEND

	FOREST CONSERVATION EASEMENT
	AFFORESTATION PLANTING AREA

PROFESSIONAL CERTIFICATION:  
*Steve Heiss*  
 Steve Heiss, Qualified Professional, MDCA

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY.  
*Pearl E. Borawski* 6/18/04  
 HOWARD COUNTY HEALTH OFFICER

Subdivision Name: HOMELAND	Block No. 16 & 22	Zone RC-DEO	Tax Map No. 16	Section/Arca N/A	Parcel No. 53, 96, 165 & 204
Water Code J 02	Election District 3rd	Census Tract 6030	SEWER CODE N/A		

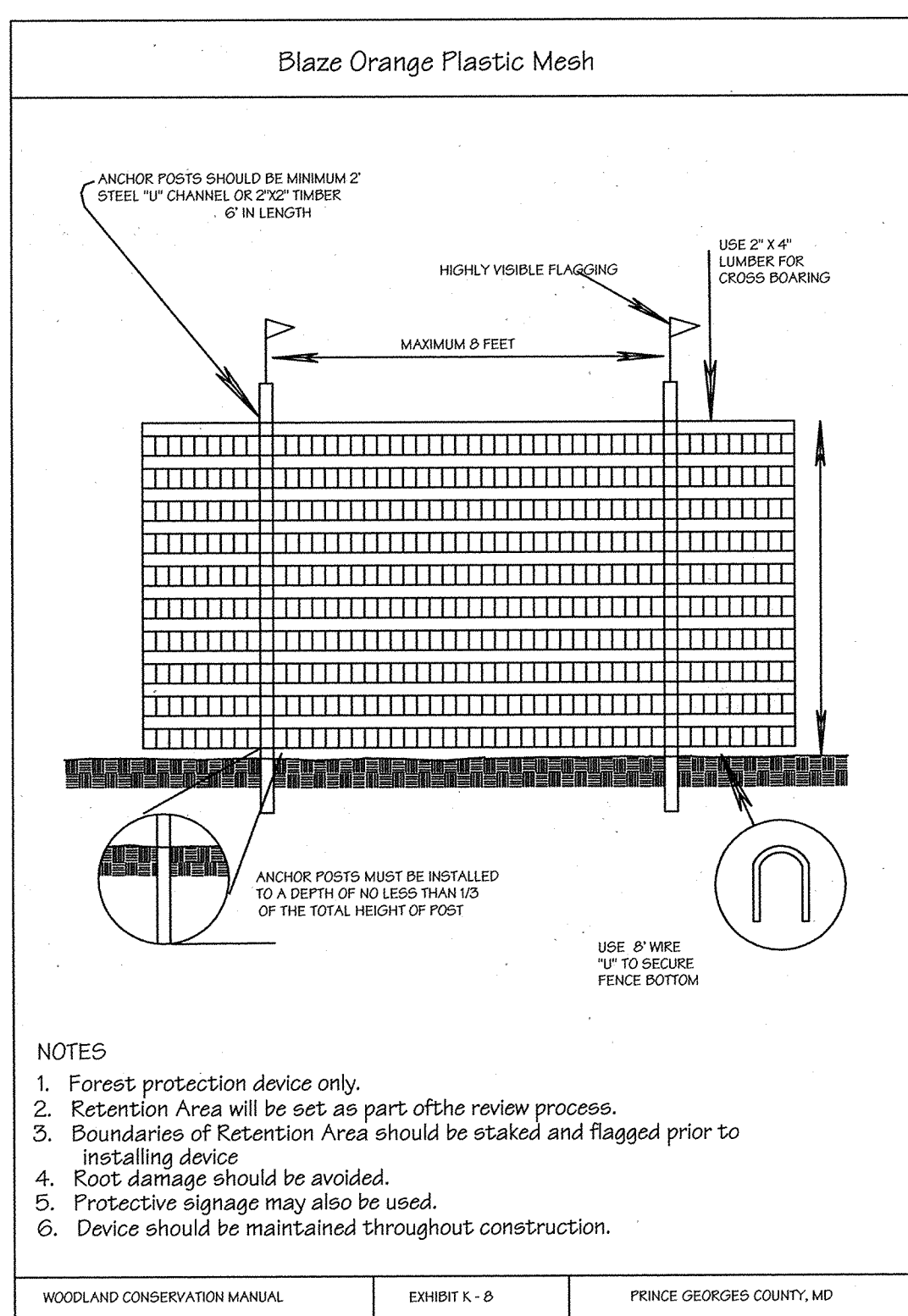
MATCHLINE SHEET 35

SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING (Pond #1) 150 Shade / 140 Evergreen	
Linear Feet of Perimeter	B Buffer - 1,320 LF
Number of Plants Required Shade Trees 1:50 Evergreen Trees 1:40	26 Shade 33 Evergreen
Credit for Existing Vegetation (Yes, No and %)	NO
Credit for Other Landscaping (Yes, No and %)	NO
Number of Trees Provided Shade Trees Evergreen Trees Other Trees (21 substitution)	26 Shade 33 Evergreen

SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING (Pond #2) 150 Shade / 140 Evergreen	
Linear Feet of Perimeter	B Buffer - 1,600 LF
Number of Plants Required Shade Trees 1:50 Evergreen Trees 1:40	32 Shade 40 Evergreen
Credit for Existing Vegetation (Yes, No and %)	NO
Credit for Other Landscaping (Yes, No and %)	NO
Number of Trees Provided Shade Trees Evergreen Trees Other Trees (21 substitution)	32 Shade 40 Evergreen

### 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 80 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.



- NOTES
- Forest protection device only.
  - Retention Area will be set as part of the review process.
  - Boundaries of Retention Area should be staked and flagged prior to installing device.
  - Root damage should be avoided.
  - Protective signage may also be used.
  - Device should be maintained throughout construction.

WOODLAND CONSERVATION MANUAL EXHIBIT K - D PRINCE GEORGES COUNTY, MD

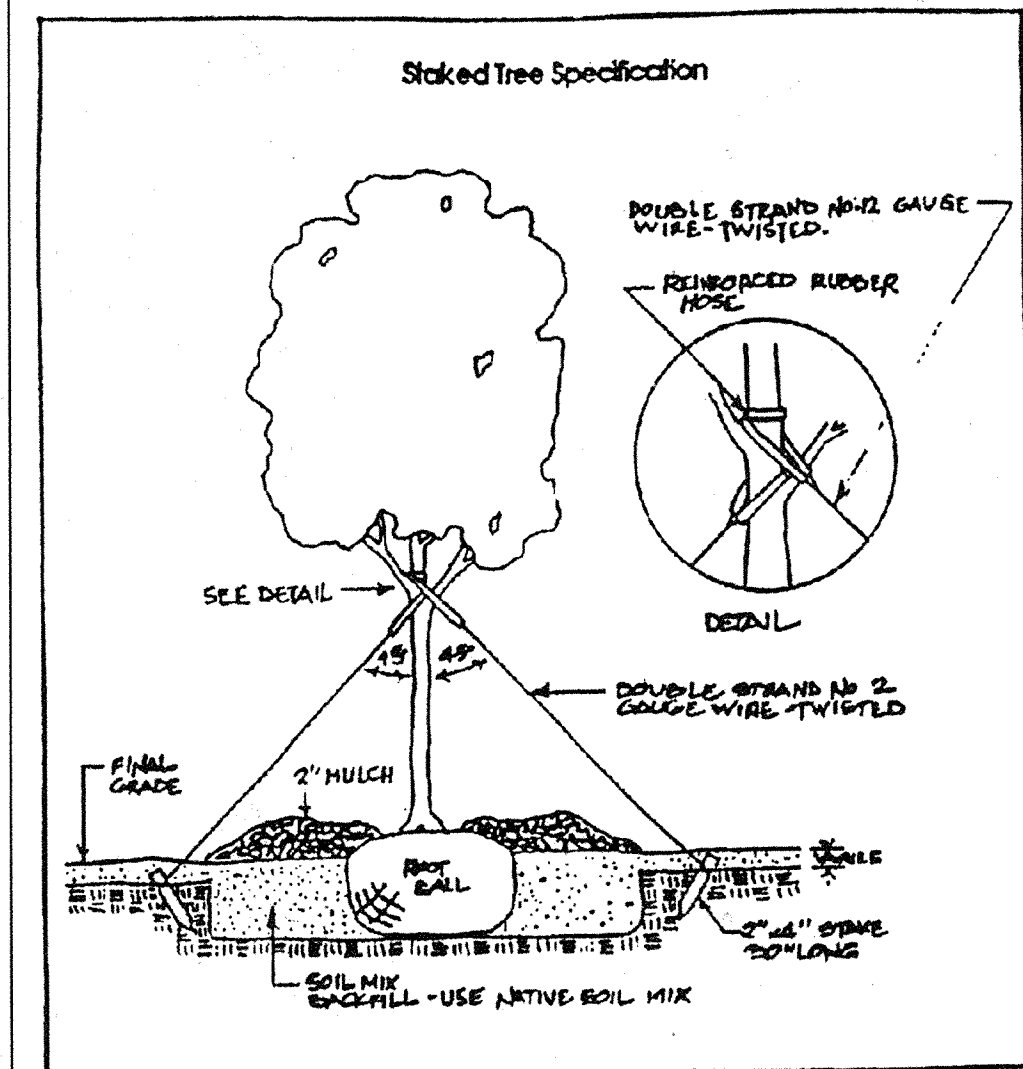
### STREET TREE REQUIREMENTS = 1 PER 40'

- \*Homeland Way 788 LF x 2 Sides = 39 Trees Req. --- 36 Provided
- \*Windsor Moss 2,238 LF x 2 Sides = 112 Trees Req. --- 113 Provided
- \*Grayton Run 856 LF x 2 Sides = 43 Trees Req. --- 48 Provided
- \*Hampstead Green 783 LF x 2 Sides = 39 Trees Req. --- 36 Provided
- \*Willow Branch 835 LF x 2 Sides = 42 Trees Req. --- 41 Provided
- \*Harbin Field 655 LF x 2 Sides = 33 Trees Req. --- 32 Provided
- \*Auburn View 444 LF x 2 Sides = 22 Trees Req. --- 22 Provided
- MD 144 (Frederick Road) = 2060LF x 1 side = 52 Tree Required --- 52 provided
- Marriottville Road --- 16 Provided

TOTAL REQUIRED = 382 Trees --- 396 PROVIDED  
\* = Private Access Place Trees Bonded As Landscape Trees

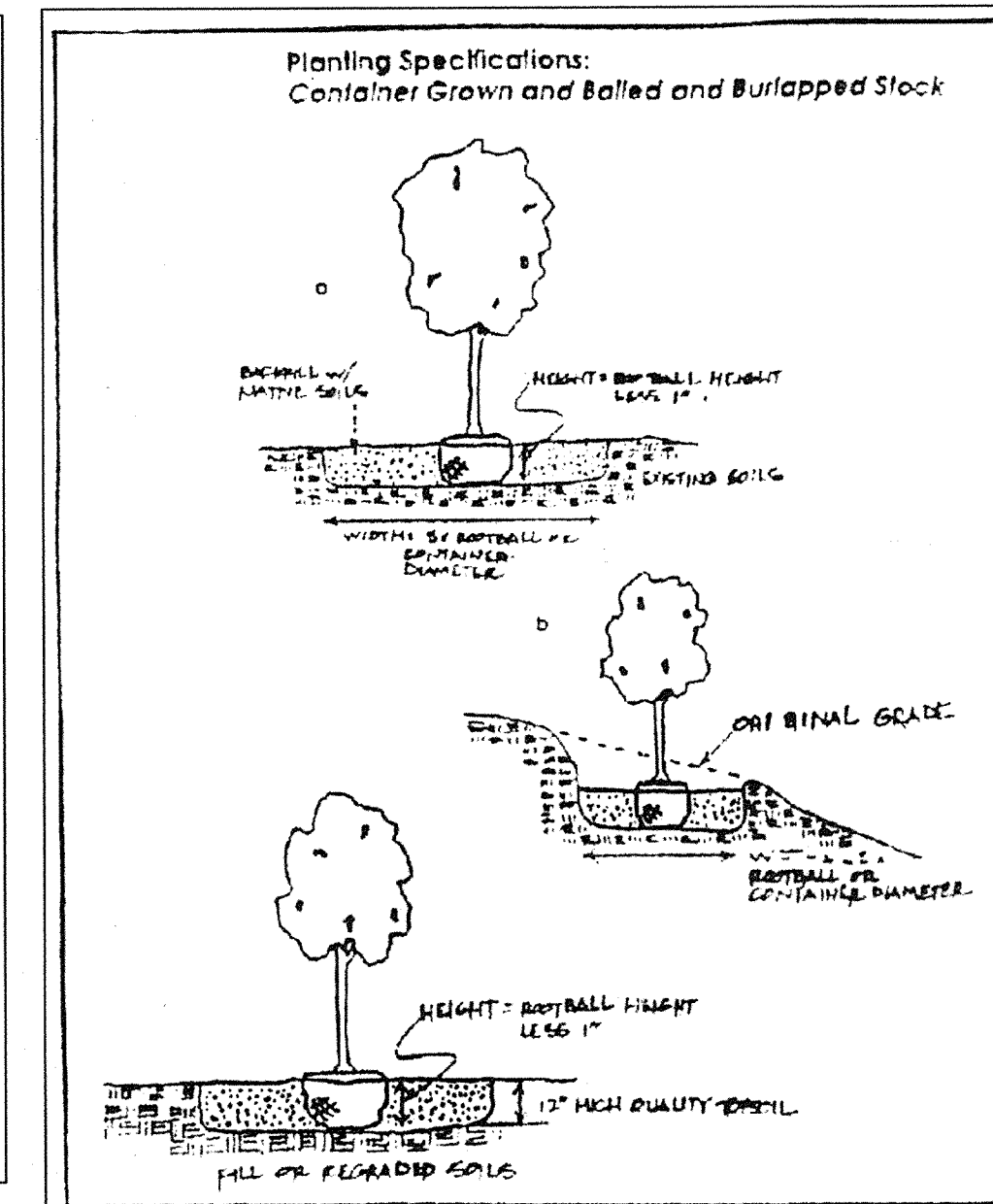
STREET TREE PLANTING SCHEDULE				
NO.	KEY	BOTANICAL / COMMON NAME	SIZE	COMMENT
131	⊙	Acer rubrum 'October Glory' October Glory Red Maple	2 to 2-1/2" - 3" cal. B&B	
187	⊙	Acer rubrum 'Red Sunset' Red Sunset Red Maple	2 to 2-1/2" - 3" cal. B&B	
68	⊙	Platanus x Acerifolia London Plane	2 to 2-1/2" - cal. B&B	
396		Total Street Trees		
68		Proposed Street Trees Along Existing MD 144 & Existing Marriottville Road		
68		Total Trees @ \$300.00 per tree - Street Tree Bond = \$20,400		
328		Total proposed "Private" Street Trees to be included in Landscape Surety Total Trees @ \$300.00 per tree - P/O Landscape Surety = \$98,400		

SUPPLEMENTAL SCREENING SCHEDULE				
NO.	KEY	BOTANICAL / COMMON NAME	SIZE	COMMENT
6	⊙	Norway Spruce Picea Abies	5' - 8' HT B&B	
7	⊙	Nella Stevens Holly Ilex x 'Nella Stevens'	5' - 6' HT B&B	

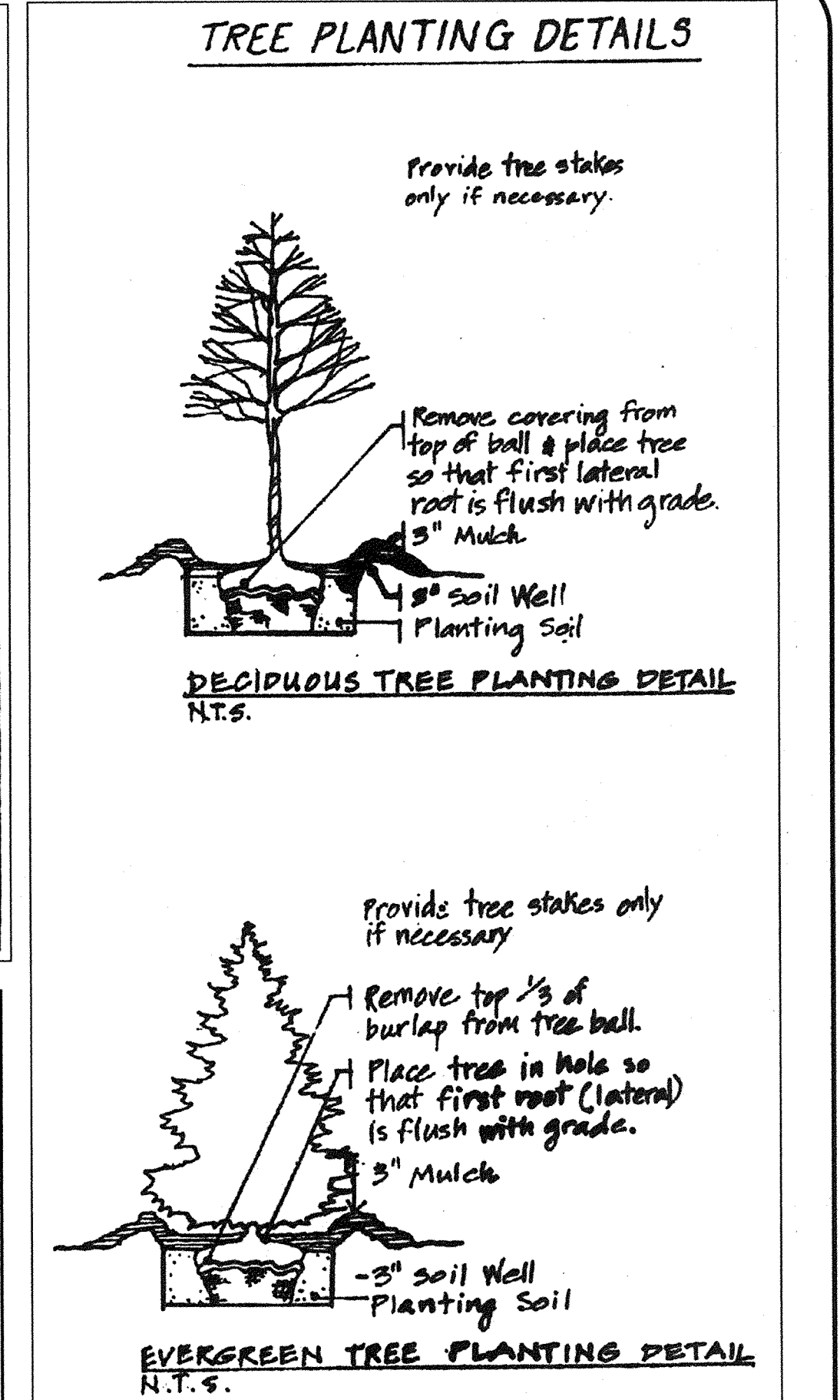


Staking of trees may be used only when transporting in areas of high traffic for trees larger than 6\"/>

INTERNAL PLANTING SCHEDULE				
NO.	KEY	BOTANICAL / COMMON NAME	SIZE	COMMENT
39	⊙	Acer rubrum 'October Glory' October Glory Red Maple	2 to 2-1/2" - 3" cal. B&B	
17	⊙	Acer rubrum 'Red Sunset' Red Sunset Red Maple	2 to 2-1/2" - 3" cal. B&B	
18	⊙	Platanus x Acerifolia London Plane	2 to 2-1/2" - cal. B&B	
74		Total proposed Trees to be included in Landscape Surety Total Trees @ \$300.00 per tree - P/O Landscape Surety = \$22,200		



STORMWATER MANAGEMENT & PERIMETER PLANTING SCHEDULE				
NO.	KEY	BOTANICAL / COMMON NAME	SIZE	COMMENT
38	⊙	Acer rubrum 'October Glory' October Glory Red Maple	2 to 2-1/2" - 3" cal. B&B	
38	⊙	Acer rubrum 'Red Sunset' Red Sunset Red Maple	2 to 2-1/2" - 3" cal. B&B	
40	⊙	Liquidambar styraciflua American Sweetgum	2 to 2-1/2" - 3" cal. B&B	
1	⊙	Fagus sylvatica Rohrsii European Purple Beech	2 to 2-1/2" - 3" cal. B&B	Fremuth 1179 Douglas Avenue
68	⊙	Quercus borealis Northern Red Oak	2 to 2-1/2" - 3" cal. B&B	
1	⊙	Magnolia x loebneri Magnolia	5'-6' HT. B&B	Fremuth 1179 Douglas Avenue
187		Total proposed Trees to be included in Landscape Surety Total Trees @ \$300.00 per tree - P/O Landscape Surety = \$56,100		
<b>Evergreens</b>				
85	⊙	Pinus strobus Eastern White Pine	6' - 8' HT. B&B	B&B
44	⊙	Cupressocyparis x leylandii Leyland Cypress	6' - 8' HT. B&B	7 Gal Cont.
4	⊙	Ficus ornifolia Serbian Spruce	6' - 7' HT. B&B	Fremuth 1179 Douglas Avenue
29	⊙	Taxodium distichum Bald Cypress	5' - 6' HT. B&B	B&B
2	⊙	Metasequoia glyptostroboides Dawn Redwood	7' - 8' HT. B&B	Fremuth 1179 Douglas Avenue
162		Total proposed Trees to be included in Landscape Surety Total Trees @ \$150.00 per tree - P/O Landscape Surety = \$24,300		
P/O Total Surety = \$80,400				



BIORETENTION PLANTING SCHEDULE				
NO.	KEY	BOTANICAL / COMMON NAME	SIZE	COMMENT
4	⊙	Acer rubrum 'October Glory' October Glory Red Maple	2 to 2-1/2" - 3" cal. B&B	
4	⊙	Betula nigra River Clump Birch	2 to 2-1/2" - 3" cal. B&B	
16	⊙	Ilex glabra Inkberry	2-1/2" - 3" HT.	
12	⊙	Viburnum dentatum Arrowwood	2-1/2" - 3" HT.	
400	⊙	Andropogon virginicus 'Broom Sedge' Eupatorium purpureum - Joe Pye Weed Panicum virgatum - Switch Grass	1 0c. Clump @ 10"	

PERIMETER SUMMARY							
No.	Buffer Type	Linear Feet / Buffer Type	Required Plants	Credit Length	Trees Credited	Required Plants After Credit	Provided Plants
1	"B"	2310	46 Shade 58 Ever.	245	5	41 Shade 58 Ever.	41 Shade 54 Ever.
2	"B"	1168	24 Shade 29 Ever.	1168	24	0 Shade 29 Ever.	0 Shade 29 Ever.
3	"A"	315	0	-	0	0	0
4	"A"	700	12 Shade	-	12	12 Shade	9 Shade 6 Ever. 1 Small
5	"A"	190	0	-	0	0	0
6	"A"	900	15 Shade	-	15	15 Shade	15 Shade
7	"A"	399	0	-	0	0	0
8	"A"	45	0	-	0	0	0
9	"A"	200	0	-	0	0	0
10	"A"	400	7 Shade	-	7	7 Shade	7 Shade
11	"A"	567	9 Shade	-	9	9 Shade	10 Shade
12	"A"	10	0	-	0	0	0
13	"A"	797	13 Shade	-	13	13 Shade	13 Shade
14	"A"	954	16 Shade	595	7	9 Shade	9 Shade
15	"A"	1051	18 Shade	-	18	18 Shade	18 Shade
16	"A"	420	7 Shade	-	7	7 Shade	8 Shade (3)
17	"A"	408	0	408	-	0	0
18	"A"	446	0	446	-	0	0
		11280 LF	167 Shade 87 Ever.	2417 LF	36	131 Shade 89 Ever.	130 Shade 89 Ever. 1 Small

- (1) No Landscape Edge Required / No Plantings Proposed  
(2) ⊙ Evergreen = 3 Shade Trees  
1 Small = 1/2 Shade Trees  
(3) Perimeter 18 total length of 1120 LF is reduced by 700LF due to "Schedule D" planting requirements of Pond #1 & Pond #2  
(4) 130 Shade + 36 Credited Shade = 166 Shade Provided ( 2 Shade Deficit)  
+ 1 Small Tree = 1/2 Shade Total = 166.5 Shade + 2 Extra Evergreen  
= 1 Shade Total = 167.5 Shade TOTAL  
Therefore: 167.5 Provided > 167 Required

"A" Buffer = 1: 60' Shade  
"B" Buffer = 1: 50' Shade  
= 1: 40' Evergreen

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 5/7/04  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 7/4/04  
CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 7/28/04  
DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL

USDA-NATURAL RESOURCE CONSERVATION SERVICE

DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT

DATE

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, soil erosion and sediment control represents a practical and workable plan for the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the Howard Soil Conservation District and engaged a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

*[Signature]* 4/22/04  
SIGNATURE OF ENGINEER

DATE

DEVELOPER'S CERTIFICATE

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 will engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

*[Signature]* 4/22/04  
SIGNATURE OF DEVELOPER

DATE

STATE OF MARYLAND

REGISTERED PROFESSIONAL ENGINEER

*[Signature]* 4/22/04

GENERAL NOTES

- This plan has been prepared in accordance with the provisions of Section 18.124 of the Howard County Code, Landscape Manual and Forest Conservation Manual.
- The Owner/Developer is responsible for the planting of all plants 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 \$201,150. A separate Street Tree Bond = \$20,400

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

*[Signature]* 6/18/04  
COUNTY HEALTH OFFICER  
HOWARD COUNTY HEALTH DEPARTMENT

REVISIONS

No.	Date	By	Description

Subdivision Name: HOMELAND

Parcel No: 53, 96, 165 & 204

Block No: 16 & 22

Zone: RC-DEO

Tax Map No: 16

Election District: 3rd

Census Tract: 6030

Water Code: J 02

Sewer Code: N/A

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

DESIGNED: EDS JLM BDB

DRAWN: JLM JDR

CHECKED: BDB

DATE: 4/2004

DEVELOPER: LB MEADOWS LLC  
8835 - F Columbia 100 Parkway  
Columbia, Maryland 21045  
(410) 730-0810

SCALE: AS SHOWN

DRAWING: 39 of 52

JOB NO.: 99-0514

FILE NO.: SDP-03-30

Tax Map No. 16 - Grid No. 16 & 22 - Parcel 53, 96, 165 & 204  
3rd Election District - Howard County, Maryland  
Previous Submittals: BA 00-52E, WP 03-12S, F 03-184



**TREE PLANTING NOTES**

1. Notify "Mise Utility" 72 hours prior to installation of all plant material.
2. Plant installation must conform to the minimum standards cited in the latest edition of Landscape Specification Guidelines, published by the Landscape Contractors Association.
3. Plants to be located in the field by the owner or owner's representative. Notify owner 72 hours in advance of planting.
4. A Certification of Landscape Installation is required as per the Howard County Landscape Ordinance.
5. 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.
6. Street tree locations may be adjusted for final location of driveways. The drive aprons may not allow the typical 1 per 40 foot requirement. Trees to be located a minimum of 10 feet from driveways.
7. Street tree planting must conform to the Subdivision and Land Development Regulations and the Department of Public Works Design Manual of Howard County.
8. 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.
9. Tree pits shall be backfilled with 50% topsoil, 25% peat, 25% sand with one pound of 10-10-10 fertilizer per pit.
10. 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 pH 4.5 to 5.5, free of woody material or harmful minerals.
11. 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.
12. 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.
13. Plant material to be alive and healthy at the time of the guarantee period (one year), as specified in the Howard County Landscape Ordinance.
14. Maintenance shall begin immediately after planting and continue to the end of guarantee period.
15. Maintenance consist of pruning, watering, weeding, re-mulching, resetting plants to proper grades as needed and repairing guys and stakes as needed.
  - a. A Biological root inhibitor barrier or containment shall be installed for trees planted closer than 3 feet to sidewalk.
  - b. Trees shall be placed 30 feet (min) from all signs and intersections when planting occurs between sidewalk & curb.
  - c. 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.
  - d. There shall be a minimum of 20 feet between street lights and street trees.

**GENERAL NOTES**

- 1.) This re-af-forestation planting plan is provided in accordance with the requirements set forth by the Forest Conservation Act/Bill/Ordinance of Howard County. The preparation of these plans (s), the notes and details incident thereto were prepared using the guidelines of the Howard County Forest Conservation Manual, the State of Maryland's Forest Conservation Manual, as well as sound professional forestry, arborist, and nurseryman practice.
- 2.) This plan and shall be implemented by a contractor that is knowledgeable and experienced in the methods set forth herein.
- 3.) The survival rate of the plantings shall be 75% of the total number of plantings per acre as provided by this plan.
- 4.) Base sheet information was provided by LDE, Inc.

**QUALITY ASSURANCE**

- 1.) Names of plant material listed conform generally with names accepted by the nursery trade. The contractor is to provide stock true to botanical / scientific name.
- 2.) Material shall be grown and delivered so as to be that specified herein.
- 3.) If specified material is not available or there are other technical, logistical, financial imperatives that shall necessitate the substitution of plant materials, the contractor shall contact the plan preparer for permission to use equivalent material.

**SITE PREPARATION AND SOILS**

- 1.) Control: Cutting three to six times per growing season for several years can be effective in controlling this species. Herbicide application is also possible, particularly application to regrowth of cut material. The application of glyphosate (Roundup) has been successful when used as a 1% volume/volume (v/v) solution or as a 0.5% v/v with the addition of a surfactant (soap). The herbicide should be applied in the fall to kill the root and the stem. Glyphosate is a non-selective herbicide and great care should be taken in its use. Biological control methods are currently being explored, but are not yet available.
- 2.) Disturbance of soils should be limited to the Planting Field for each plant unless the area has been prepared with/for soil amendments and/or broadcast seeding for groundcovers, etc.
- 3.) Soil amendments should be considered for any site only after careful analysis of existing conditions. Soil samples should be analyzed by a qualified soils lab to determine the need for any amendments. Results of the soil analysis should be provided to the landscaping contractor and/or the local County Co-operative Extension Agent or interpretation in the context of the intended plantings. Their recommendations should be followed closely. In the case of highly compacted sites that need only soil aeration or loosening treatment, a mixture of 25% leaf mold and 25% manure, the remainder being landscape topsoil, may be added. This mixture should be applied at the rate of one cubic yard per 165 square feet of area. Till deeply taking care not to bring subsoils to the surface. Amendments should be tilled in after the initial tilling. This method is particularly suitable when broadcast seeding or perennial beds are invoked.
- 4.) Soil mix for calcareous material: Native topsoil into which the contractor shall thoroughly incorporate 25% by volume peat moss and 25% leaf mold may be mixed into soil.

**PLANT STORAGE AND INSPECTION**

- 1.) For container grown nursery stock, planting should occur within two weeks after delivery to site.
- 2.) Planting stock should be inspected prior to planting. Plants not conforming to standard nurseryman specifications for size, form, and vigor, roots, trunk wounds, insects and disease should be replaced.
- 3.) Container stock, if not planted within two weeks, may be banked up with mulch and watered every other day or as needed until planting. Bare root stock may NOT be delivered and left on-site prior to planting.

**SEASONAL PLANTING LIMITATIONS**

- 1.) Planting activities shall conform with established nurseryman's practice and approximate the growing season for the geographic area. Planting of bare-root stock after March 15 should be avoided unless seasonal progression is measurably retarded by observable temperature or weather patterns and stock has been kept appropriately dormant through proper storage.
- 2.) Planting shall not take place in sub-freezing temperatures, when the ground is frozen, or when the soil is too wet or dry or otherwise a condition not generally accepted as satisfactory for planting and may adversely affect plant materials.

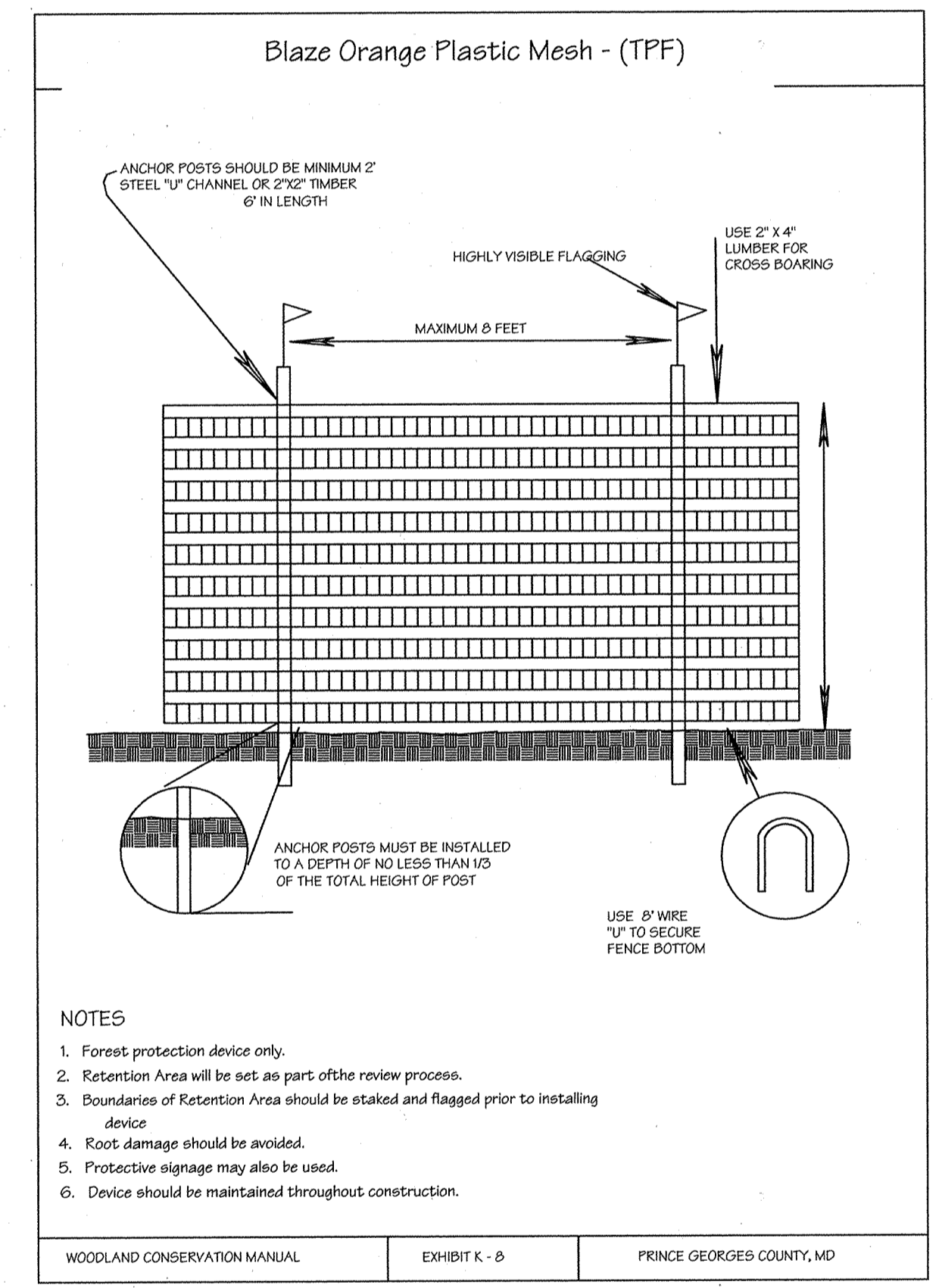
**PLANT INSTALLATION**

- 1.) Container grown stock should be removed from the container and roots gently loosened from the soil. If the roots encircle the root ball, substitution is strongly recommended. J-shaped or knicked root systems should also be noted. ROOTS MAY NOT BE TRIMMED ON SITE, due to the increased chances of soil borne diseases.
- 2.) Bare root stock should be unwrapped on-site only when ready to plant then held in water. When handled for planting, stock shall be immediately dipped in Super-sorb or equivalent water-holding polymer prepared with water as a slurry per manufacturer's specification. Roots must be thoroughly coated upon withdrawal from slurry; plant stock immediately after dipping. If not planted immediately, wrap in burlap. Roots are not to be exposed to air.
- 3.) For trees planted in the afforestation area, contractor shall evenly disperse species in groups of two to four per species over the entire designated area to be planted or on random center spacing by species as dictated by planting density.
- 4.) Avoid planting in a straight grid pattern. Trees shall be planted on an average spacing of ten feet O.C., randomly.
- 5.) As shown on the detail view, a Planting Field diameter of two - three times the diameter of the root ball or container is recommended. The depth of the hole should be no more than 1 - 1.5 times the length of the root mass. The hole should be established with an auger. If the walls of the hole should glaze due to auger rotation, they can be scored with a spade or the auger may be "wiggled" upon withdrawal to assure no glazing occurs. Additionally, there will be loose earth in the bottom of any hole. This should be lightly tamped with the foot to keep the planting unit from settling too much. Native stockpiled soils should be used to backfill Planting Field except where soil amendments are site-wide and specific. After plant placement in hole, move stock around in hole to allow settling of initial fill to avoid air pockets. Finish filling hole and use water to further settle soil backfilled around trees. Mulch with composted wood chips (>1 year composting). Mulch should be 3" deep and extend to limits of augered hole. This should keep weeds down for about one year.
- 6.) Newly planted trees may need watering as much as once a week for the entire growing season on well drained sites combined with the looseness of the backfilled, newly amended soil within the Planting Field. The next two years may require watering only a few times a year during summer and dry months. After that period, trees should only need water in severe droughts. Any watering plan should compensate for recent rainfall patterns.
- 7.) Do not fertilize newly planted trees within the first growing season after planting. Doing so may cause a spurt of canopy growth which the roots cannot support and add additional shock to the already disturbed plant. Fertilize by sidecasting after one year, if desirable.
- 8.) If and when it is time to fertilize, organic fertilizers are preferred to synthetic fertilizers. Bone meal or seaweed-based products are available commercially and are recommended. They have the ability to supply nutrients to the plant as needed while minimizing the risk of excess nutrients entering the forest system and water supply.
- 9.) All tags, labels, string, wire, etc., shall be removed from plant material.
- 10.) The landscape contractor is responsible for the location of all existing underground utilities such that the repair of utilities damaged during planting shall be the landscape contractor's expense.

Note: Refer this Sheet for Afforestation Plant List

**AFFORESTATION PLANT LIST**

NO.	KEY	BOYANICAL/ COMMON NAME	SIZE	COMMENT
<b>1" CALIPER TREE (200 PLANTS / ACRE)</b>				
229		Acer Rubrum Red Maple	1" Cal.	avg. spacing 15' x 15'
343		Liriodendron tulipifera Tulip Poplar	1" Cal.	avg. spacing 15' x 15'
136		Cercis canadensis American Redbud	1" Cal.	avg. spacing 15' x 15'
86		Betula Populifolia Gray Birch	1" Cal.	avg. spacing 15' x 15'
229		Sassafras Albidum Sassafras	1" Cal.	avg. spacing 15' x 15'
229		Prunus Serotina Black Cherry	1" Cal.	avg. spacing 15' x 15'
229		Quercus borealis Northern Red Oak	1" Cal.	avg. spacing 15' x 15'
171		Viburnum prunifolium Bluntflower	1" Cal.	avg. spacing 15' x 15'
<b>EVERGREEN SEEDLINGS (350 PLANTS / ACRE)</b>				
241		Pinus strobus White Pine	6" ht. min. 1/8"-1/4" cal.	avg. spacing 11' x 11'
722		Juniperus virginiana Eastern Red Cedar	6" ht. min. 1/8"-1/4" cal.	avg. spacing 11' x 11'



REFORESTATION PLANTING					
Forest Conservation Technique	Area / sq. ft.	Area / acre	Plant Density	Plants Required	Plants Shown
Afforestation w/ 1" Caliper tree / acre	360070	8.25	200 trees / ac.	1650 trees	1650 trees
Afforestation w/ ever seedlings with tree shelters	107970	2.70	350 trees / ac.	963 trees	963 trees
<b>Total Planting Area</b>	<b>478040</b>	<b>11.00</b>			

Financial Surety for the required Forest Conservation Planting is \$239,500.

**Planting Schedule/Time Frame**

Planting shall occur after construction activities have ceased. If the planting stock is to be bare root material, it shall be planted no earlier than immediately after the first frost and no later than March 15. Container stock may be planted at any time and if such stock is chosen, planting shall be accomplished by the end of the first growing season after completion of construction activities.

**Binding Maintenance Agreement/Schedule**

- 1.) Annual maintenance during the growing season, for a period of two years. These tasks are the responsibility of the owner or individual to whom ownership has been conveyed or who has legally accepted responsibility for these tasks. Management may include the following: watering, fertilizing, pruning, removal of dead material and the control of pests and competing vegetation.
- 2.) Schedule: Year 1: 3 times (March-April), (July-August), (October - November). Year 2: Twice annually (April-May), (September-October). At the end of the time period specified in item #1 above, there shall be 75% survival of the total number of trees planted. If the survival rate is determined to have fallen below 75%, material identical to that not surviving shall be planted as replacement.
- 3.) Assess tree mortality of planting stock, remove and replace any dead or diseased plantings.
- 4.) Volunteer seeding of native, local and endemic vegetation is to be expected. Do not discourage this effort unless it is negatively affecting the planted stock.
- 5.) Remove through manual means (grubbing, pulling, cutting) aggressive, noxious, invasive species herbaceous and otherwise, if deemed necessary. Twice annual mowing/brushhogging and spot treatment with Rodeo or Roundup is one of the most effective means to control exotic/invasive species. No mowing shall occur during the wildlife nesting period of early April through mid-July.
- 6.) Remove and dispose of man-made trash. Do not remove down and dead material naturally occurring or accumulating, unless it is smothering planting stock.
- 7.) Certification of survival as required shall be completed by a licensed forester, licensed landscape architect or other qualified professional per COMAR and submitted to Howard County Planning and Zoning personnel. Release of bond or other security shall occur at this time.

**PROFESSIONAL CERTIFICATION:**  
  
 Steve Heiss, Qualified Professional, MDCA

**IV. REFORESTATION CALCULATIONS N/A**

A. Net Tract Area	---
B. Reforestation Threshold (--- % x A)	---
C. Existing Forest on Net Tract Area	---
D. Forest Areas to Be Cleared	---
E. Forest Areas to Be Retained	---
F. Forest Areas Cleared Above Reforestation Threshold (D - E, if F is less than B, Alternate 1)	---
G. Forest Areas Cleared Below Reforestation Threshold (B - F, if applicable)	---
H. Forest Areas Retained Above Reforestation Threshold (F - B, Retention Credit, if applicable)	---

**SELECT THE ALTERNATIVE THAT APPLIES:**

**1. CLEARING ABOVE THE THRESHOLD ONLY**

If forest areas to be retained equal or are greater than the reforestation threshold (if F equals or is greater than B), the following calculations apply:

Reforestation for clearing above threshold (G x 1/4)	---
Credit for forest areas retained above threshold (--- Retention Credit)	---
Total Reforestation required (G x 1/4) - I	---

If the total reforestation requirement is equal to or less than 0, no reforestation is required.

**2. CLEARING BELOW THE THRESHOLD**

If forest areas to be retained are less than the reforestation threshold (if F is less than B), the following calculations apply:

Reforestation for clearing below threshold (G x 1/4)	---
Reforestation for clearing below threshold (H x 2)	---
<b>Total Reforestation required (G x 1/4) + (H x 2)</b>	<b>---</b>

Since clearing occurs below the threshold, no forest retention credit is possible.

**V. AFFORESTATION CALCULATIONS**

A. Net Tract Area	73.4
B. Reforestation Minimum (--- % x A)	11.0
C. Existing Forest on Net Tract Area	0
D. Forest Areas to Be Cleared	0
E. Forest Areas to Be Retained	0

**SELECT THE ALTERNATIVE THAT APPLIES:**

**1. No Clearing below the Minimum**

If existing forests are less than the afforestation minimum (if D is less than C) and no clearing is proposed, the following calculations apply:

Total afforestation required (C - D)	---
Afforestation must make total forest area equal the minimum required	---

**2. Clearing below the Minimum**

If existing forests are less than the afforestation minimum (if D is less than C) and clearing is proposed, the following calculations apply:

Afforestation for Clearing below Minimum (E x 2)	---
<b>Total Afforestation Required (C - D) + (E x 2)</b>	<b>11.0</b>

Afforestation requires the total forest area be equal to the minimum and it requires compensation for clearing.

1. TOTAL AFFORESTATION = 11.0 ac.
2. REQUIRED QUOTE = 11.0 ac.

**AFFORESTATION PLANTING NOTES**

1. Forest Stand Delineation and the Forest Conservation Plan prepared by Steve D. Heiss, Qualified Professional.
2. Written Documentation including afforestation location, construction protection and management, cost estimate, plant densities, etc., prepared by Steve D. Heiss, Qualified Professional.
  - A. Construction Protection and Management  
Upon completion of the rough grading of the afforestation areas, a protective fence and signs will 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 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.
3. All planting to meet the implementation techniques and practices as described in the Howard County Forest Conservation Manual.
4. There are existing trees on the site.
5. The hardwood container grown stock should be planted randomly at an average of eleven feet 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).
6. Evergreen seedlings should be planted randomly at an average of eight feet on center in a naturalized pattern.
7. 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.
8. All disturbed areas within the afforestation area to be seeded with K-31 Tall Fescue, March 1 thru April 30 and August 1 thru October 15, seed with 60 lbs./acre; May 1 thru July 31 use 60 lbs./acre K-31 and 2 lbs./acre of weeping lovegrass; October 16 thru February 28 use 60 lbs./acre K-31 and mulch with 2 tons/acre well anchored straw or mulch and seed in the spring.
9. 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.
10. 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.
11. 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.
12. All inspections as required by the Forest Conservation Manual shall be performed by the Landscape Architect.

**APPENDIX E FOREST CONSERVATION WORKSHEET**

ACRES (1/10 acre)	73.4
Gross Site Area	0.2
Area Within 100 Year Floodplain	0.0
Area Within Agricultural Use or Preservation Parcel (if Applicable)	73.2
Net Tract Area	73.2
Land Use Category (R-RLD, R-RMD, R-S, C/IO, I)	R-2

II. INFORMATION FOR CALCULATIONS	
A. Net Tract Area	73.2
B. Reforestation Threshold (--- % x A)	11.0
C. Afforestation Minimum (--- % x A)	11.0
D. Existing Forest on Net Tract Area	0
E. Forest Areas to Be Cleared	0
F. Forest Areas to Be Retained	0

**III. DETERMINING REQUIREMENTS: AFFORESTATION OR REFORESTATION**

**1. REFORESTATION N/A**

If existing forest areas equal or exceed the afforestation minimum (if D equals or is more than C) and clearing of forest areas is proposed, reforestation requirements may apply.

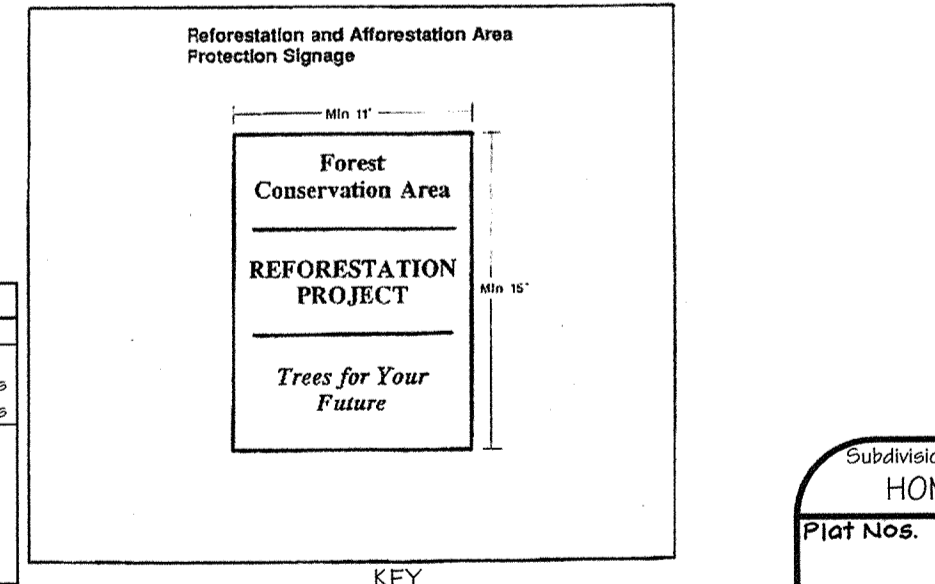
**GO TO SECTION IV**

If existing forests exceed the afforestation minimum (if D equals or is more than C) and no clearing of existing forest resources is proposed, no reforestation is required. No further calculations are needed.

**2. AFFORESTATION**

If existing forest areas are less than the afforestation minimum (if D is less than C), afforestation requirements apply.

**GO TO SECTION V**



**FOREST CONSERVATION EASEMENT STANDARD NOTES:**

The Forest Conservation Easement has been established to fulfill the requirements of Section 16.1200 of the Howard County Code, Forest Conservation Act. No clearing, grading or construction is permitted within the Forest Conservation Easement; however, forest management practices as defined in the Deed of Forest Conservation Easement are allowed.

Subdivision Name: <b>HOMELAND</b>	Section/Area: <b>N/A</b>	Parcel No.: <b>53, 96, 165 &amp; 204</b>
Block No.: <b>16 &amp; 22</b>	Zone: <b>RC-DEO</b>	Tax Map No.: <b>16</b>
Water Code: <b>J 02</b>	Sewer Code: <b>N/A</b>	Election District: <b>3rd</b>
		Census Tract: <b>6030</b>

**APPROVED: DEPARTMENT OF PLANNING AND ZONING**

CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 5/16/04

CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 7/2/04

DIRECTOR  
 DATE: 7/28/04

**THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL.**

USDA-NATURAL RESOURCE CONSERVATION SERVICE  
 DATE: \_\_\_\_\_

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
 HOWARD SOIL CONSERVATION DISTRICT  
 DATE: \_\_\_\_\_

**ENGINEER'S CERTIFICATE**

I certify that this plan for pond construction, soil erosion control represents a practical and workable plan based on the best knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer of the requirements of the Howard Soil Conservation District and the engineer to supervise pond construction. I am a registered professional engineer in the State of Maryland.  
 SIGNATURE OF ENGINEER:   
 DATE: 4/22/04

**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 shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.  
 SIGNATURE OF DEVELOPER:   
 DATE: 4/22/04

**APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY**

PUBLIC WORKS DIRECTOR  
 DATE: 4/16/04

**REVISIONS**

No.	Date	By	Description

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

DESIGNED: **EDS JLM**  
**BDB**

DRAWN: **JLM**  
**JDR**

CHECKED: **BDB**

DATE: **4/2004**

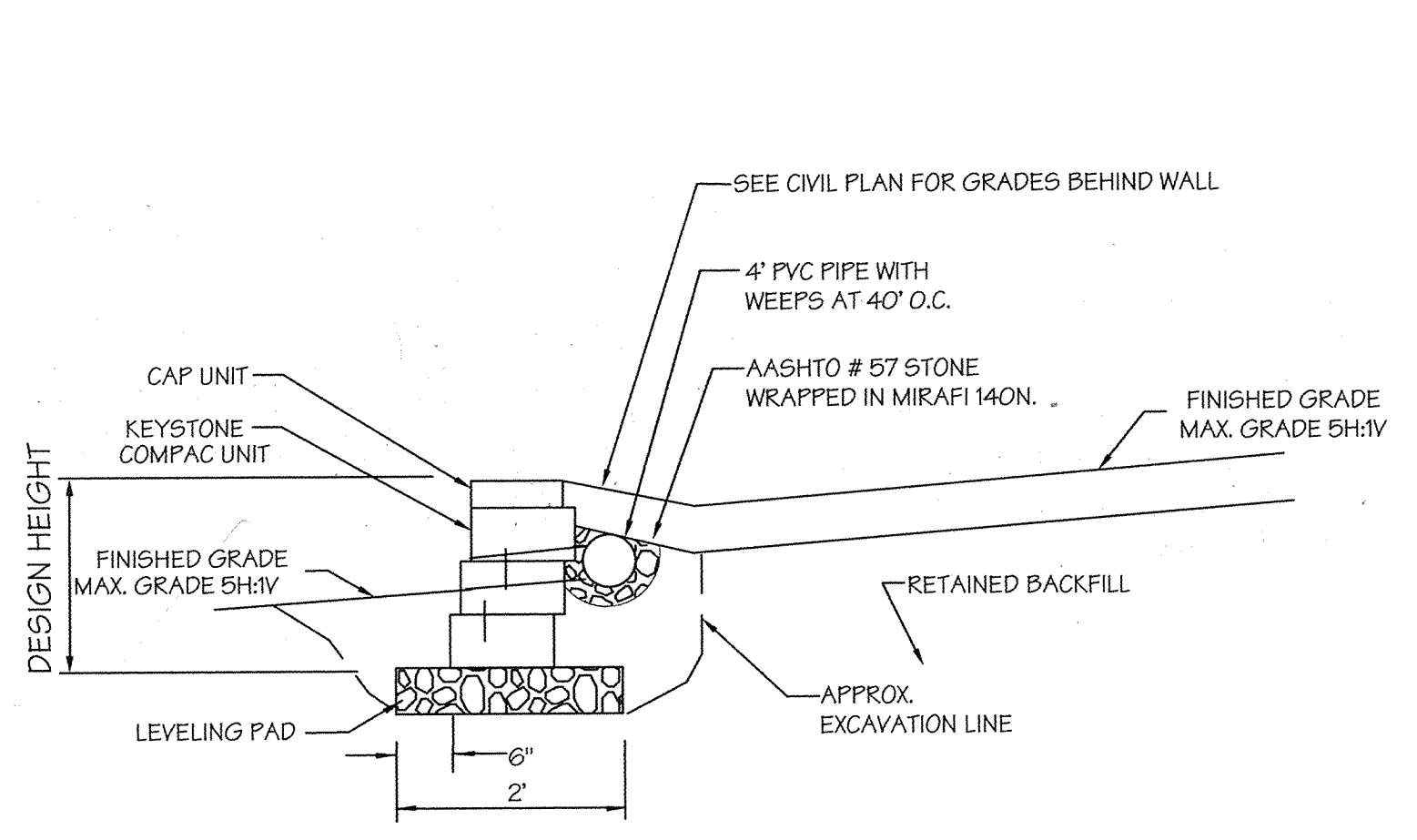
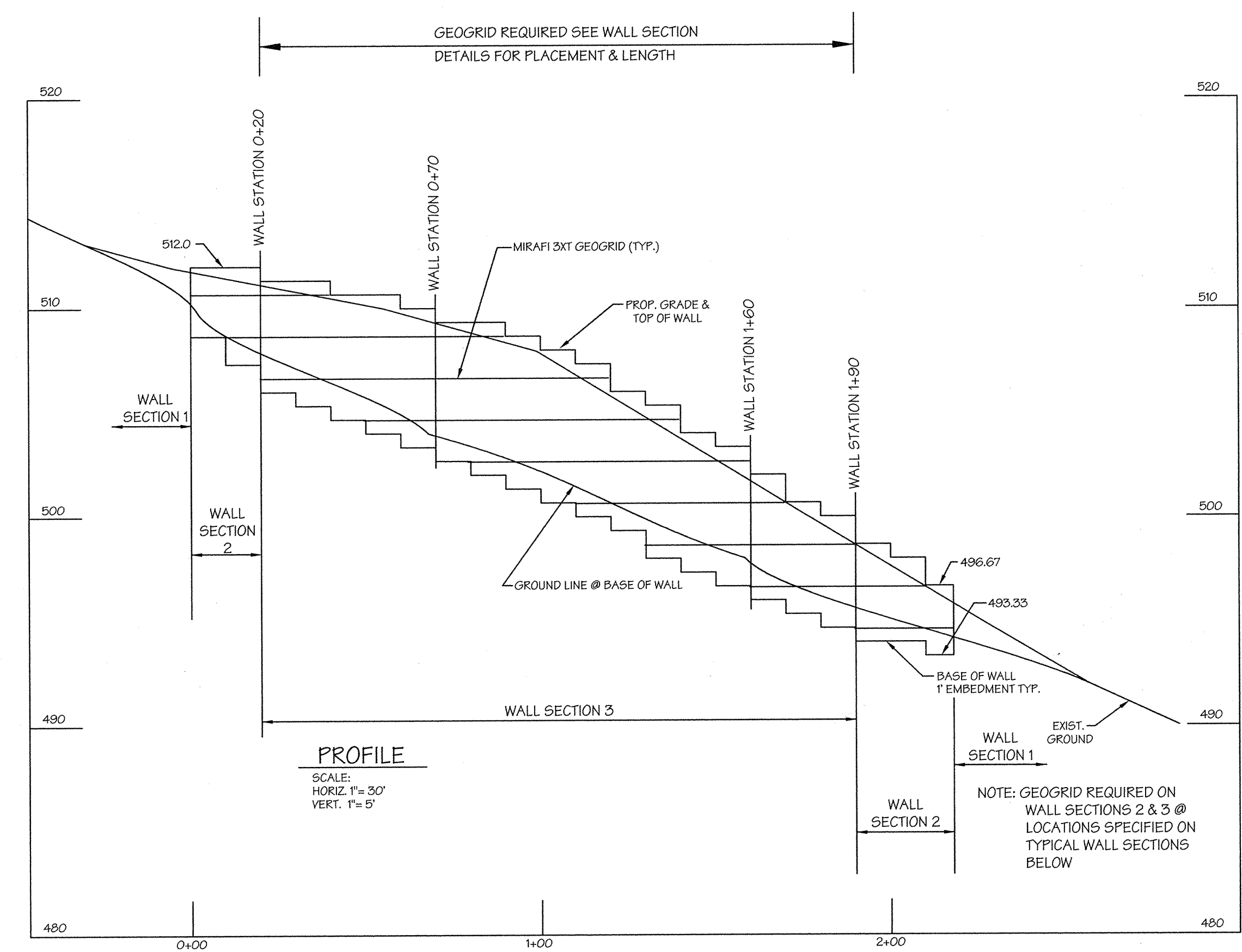
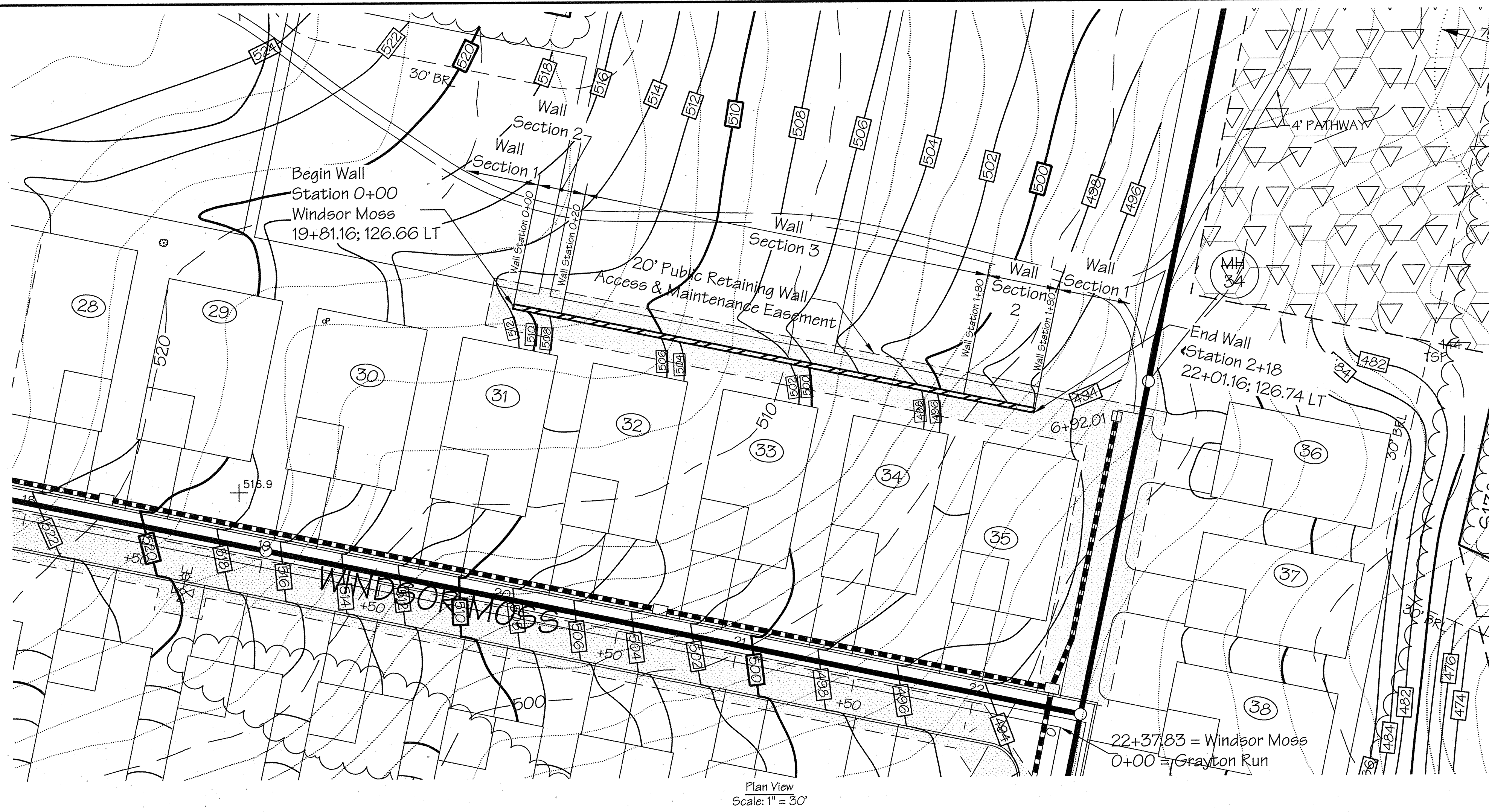
DEVELOPER: **LB MEADOWS LLC**  
 8835 - F Columbia 100 Parkway  
 Columbia, Maryland 21045  
 (410) 730-0810

SCALE: **As Shown**

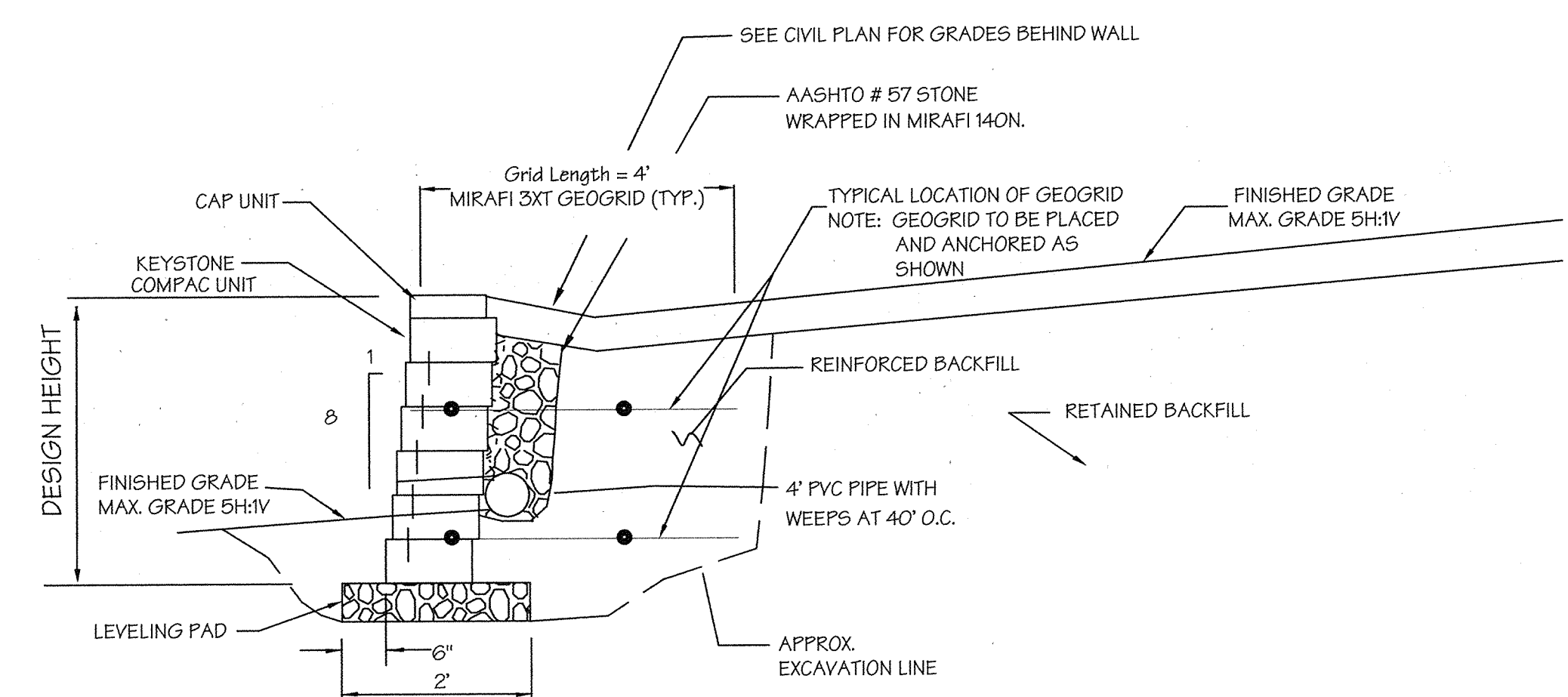
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JOB NO.: **99-0514**

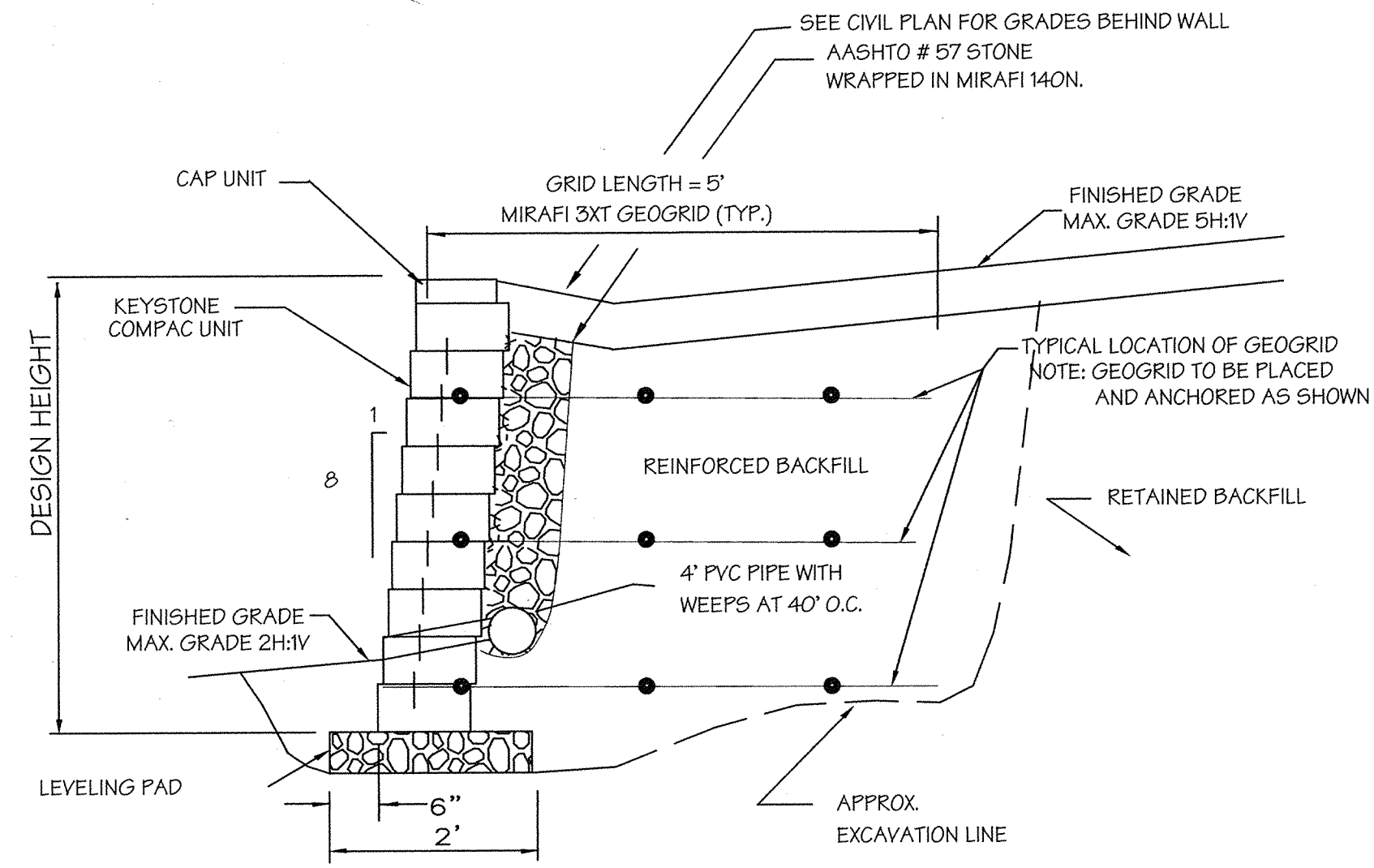
FILE NO.: **SDP-03-30**



WALL SECTION 1  
 WALL HEIGHT: 0 TO 2 FEET  
 COMPAC UNIT - 1" SETBACK  
 REQUIRED BEARING PRESSURE = 3000 PSF  
 SCALE: NONE



WALL SECTION 2  
 WALL HEIGHT: 2 TO 4 FEET  
 COMPAC UNIT - 1" SETBACK  
 REQUIRED BEARING PRESSURE = 3000 PSF  
 SCALE: NONE



WALL SECTION 3  
 WALL HEIGHT: 4 TO 6 FEET  
 COMPAC UNIT - 1" SETBACK  
 REQUIRED BEARING PRESSURE = 3000 PSF  
 SCALE: NONE

### WALL SECTIONS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Chris Hammit* 5/7/04  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Chris Hammit* 7/21/04  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Gregory J. Smith* 7/28/04  
 DIRECTOR DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL

USDA-NATURAL RESOURCE CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT DATE

**ENGINEER'S CERTIFICATE**

I certify that this plan represents a practical and workable plan for sediment control representative of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the Howard Soil Conservation District and engaged a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections for Howard Soil Conservation District.

*David D. Kenton* 4/22/04  
 SIGNATURE OF ENGINEER DATE

**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 shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections for Howard Soil Conservation District.

*Gregory J. Smith* 4/22/04  
 SIGNATURE OF DEVELOPER DATE



APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY.

*Penney E. Rose* 4/15/04  
 COUNTY HEALTH OFFICER DATE

*JAG*  
 HOWARD COUNTY HEALTH DEPARTMENT

REVISIONS			
No.	Date	By	Description

Subdivision Name: HOMELAND	Sect/Area: N/A	Parcel No: 53, 96, 165 & 204
Plot No.: 16 & 22	Zone: RC-DEO	Tax Map No.: 16
Water Code: J 02	Election District: 3rd	Census Tract: 6030
Sewer Code: N/A		

HILLIS-CARNES ENGINEERING ASSOCIATES, INC.  
 P.O. BOX 647 NEW MARKET, MD 21774-0647  
 (301) 631-3960 FAX (301) 631-2166

DESIGNED: H.C.E.A.  
 DRAWN: J.D.C.  
 CHECKED: J.D.C.  
 DATE: 4/2004

RETAILING WALL DETAILS

**HOMELAND**  
 PARCEL 'A' AND PARCEL 'B'

Tax Map No. 16 - Grid No. 16 & 22 - Parcel 53, 96, 165 & 204  
 3rd Election District - Howard County, Maryland  
 Previous Submittals: BA 00-52E, WP 03-12B, F 03-194

SCALE: As Shown  
 DRAWING: 41 of 52  
 JOB NO.: 99-051.4  
 11302A(H.C.)  
 FILE NO.: SDP-03-30

DEVELOPER: 1B MEADOWS LLC  
 8835 - F Columbia 100 Parkway  
 Columbia, Maryland 21045  
 (410) 730-0810

Specifications

KEYSTONE Concrete Modular Retaining Wall  
Part 1: General

- 1.01 Description
- A. Work includes furnishing and installing concrete modular block retaining wall units to the lines and grades shown on the construction drawings and as specified herein.
  - B. Work includes preparing foundation soils, furnishing and installing leveling pad, unit fill and backfill to the lines and grades shown on the construction drawings.
  - C. Work includes furnishing and installing all related materials required for construction of the retaining wall as shown on the construction drawings.
- 1.02 Related work
- A. Section 02200 - Earthwork.
  - B. Section 02246 - Geogrid soil reinforcing.
- 1.03 Reference standards
- A. ASTM C-90 Load Bearing Concrete Masonry Units.
  - B. ASTM C-140 Sampling and Testing Concrete Masonry Units.
  - C. ASTM D-448 Sizes of Aggregate for Road and Bridge Construction.
  - D. ASTM D-698 Laboratory Compaction Characteristics using Standard Effort.
- 1.04 Delivery, storage and handling
- A. Contractor shall check the materials upon delivery to assure the proper materials have been received.
  - B. Contractor shall prevent excessive mud, wet cement, epoxy, and similar materials (which may affix themselves) from coming in contact with the materials.
  - C. Contractor shall protect the materials from damage. Damaged materials shall not be incorporated into the retaining wall structure.
- 1.05 Submittals
- A. Samples of all materials used in the work of this section.
  - B. Manufacturer's specifications (latest edition) for proposed materials, methods of installation and list of materials proposed for use.
  - C. Design information establishing the stability of the proposed structure(s).
- 1.06 Quality assurance
- A. Owner will be responsible for soil testing and inspection quality control during earthwork operations.

- Part 2: Products
- 2.01 Definitions
- A. Modular Concrete Unit - a KEYSTONE COMPAC modular facing unit, machine made from Portland cement, water and mineral aggregates.
  - B. Structural Geogrid - a structural geogrid formed by a regular network of integrally connected tensile elements with apertures of sufficient size to allow interlocking with surrounding soil, rock or earth and function primarily as reinforcement.
  - C. Unit Fill - drainage aggregate which is placed within and immediately behind the modular concrete units.
  - D. Reinforced Backfill - compacted soil which is within the reinforced soil mass as shown on the plans.
- 2.02 Concrete units
- A. Modular wall units shall be KEYSTONE COMPAC Retaining Wall Units as manufactured in accordance with ASTM C-90 and ASTM C-140.
  - B. Concrete wall units shall have a minimum 28-day compressive strength of 3,000 psi. Standard weight concrete shall have a maximum moisture absorption of 8%.
  - C. Dimensional tolerances shall be in accordance with ASTM C-90 except those measured to the split face which varies. Standard and Compact units shall have a minimum of one square foot face area each. Mini units shall have a minimum one half square foot area each.
  - D. Keystone modular units shall provide an in-place weight of 114 pcf, including the unit fill which is contained within the nominal dimension of the unit.
  - E. Units shall have angled sides capable of concave and convex alignment curves with a minimum radius of 3.5 feet (where applicable, for straight walls, use non-angled straight side cap units).

- 2.03 Fiberglass connecting pins
- A. Connecting pins shall be 1/2" in diameter, thermoset isophthalic polyester resin-pultruded fiberglass reinforcement rods supplied by the unit manufacturer.
- 2.04 KEYSTONE KAPSEAL construction adhesive
- A. Material shall conform to ASTM 2339 and be supplied by the KEYSTONE unit supplier.
- 2.05 Base leveling and pad material
- A. Material shall consist of compacted crushed stone or unreinforced concrete as shown on the construction drawings. "Pea gravel" shall not be used.
- 2.06 Unit fill
- A. Fill for units shall be free draining crushed stone or gravel, 1/2" to 3/4", with no more than 5% passing the No. 50 sieve and conforming to ASTM D-448.
  - B. Gradation of the fill shall be approved by the Engineer. "Pea gravel" shall not be used.
- 2.07 Backfill
- A. Material may be site excavated soils when approved by the Engineer or otherwise specified in the construction drawings. Unsuitable soils for backfill (high plastic clays or organic material) shall not be used in the backfill or in the reinforced soil mass.
  - B. Where borrow or imported fill is required, the contractor shall submit samples and material specifications to the Engineer for approval.

Part 3: Execution

- 3.01 Excavation
- A. Contractor shall excavate to the lines and grades shown on the construction drawings. Contractor shall be careful not to disturb embankment and foundation materials beyond lines shown.
- 3.02 Foundation soil preparation
- A. Foundation soils shall be excavated as required for leveling pad dimensions shown on the construction drawings or as directed by the Engineer.
  - B. Foundation soil shall be approved by the Engineer to confirm that the actual foundation soils meet or exceed assumed design conditions.
  - C. Unsuitable soils shall be removed and replaced with acceptable material.
  - D. Over excavated areas shall be backfilled with approved compacted backfill material.
- 3.03 Base leveling pad
- A. Leveling pad materials shall be placed upon an approved foundation as shown on the construction drawings to a minimum thickness of 6".
  - B. Aggregate material shall be compacted to provide a dense, level surface on which to place the first course of modular units. Compaction shall be 95% of Standard Proctor Density as determined in accordance with ASTM D-698. For crushed rock, material shall be densely compacted as determined by visual observation.
  - C. Leveling pad shall be prepared and leveled to ensure complete contact of retaining wall unit with base.
  - D. Contractor may use a reduced depth of gravel or crushed stone in conjunction with a concrete topping. Concrete shall be unreinforced and a minimum of 3" thick.
- 3.04 Units installation
- A. The first course of modular concrete units shall be carefully placed on the base leveling pad.
  - B. Ensure that all units are in complete contact with base and properly seated.
  - C. Units are placed side by side for full length wall alignment. Alignment may be done by means of a string line or offset from a base line.
  - D. Install fiberglass connecting pins and fill all voids in and around the modular units with unit fill material. Tamp or rod unit fill to ensure all voids are completely filled.
  - E. Sweep excess material from top of units and install next course. Ensure that each course is completely unit filled, backfilled and compacted prior to proceeding to next course.
  - F. Place each subsequent course ensuring that pins protrude into adjoining course a minimum of 1". Two pins are required per unit. Pull each unit forward, away from the fill zone, locking against the pins in the previous course and backfill as the course is completed. Repeat the procedure to extent of wall height.
  - G. Follow wall erection and unit fill closely with any other backfilling required. Compaction of all soils shall be to 95% of Standard Proctor Density as determined in accordance with ASTM D-698. The top 8" of the structure fill shall be a low permeability soil to minimize surface water run off from directly entering the unit fill or reinforced soil zone.
  - H. As appropriate where the wall changes elevation, units can be stepped with grade or turned into the embankment with a convex return end. Provide appropriate buried units on compacted leveling pad in area of convex return end.

- 3.05 Cap installation
- A. Place KEYSTONE Cap units over projecting pins from units below. Pull forward to setback position. Backfill and compact to finished grade with low permeability soil.
  - B. As required, provide permanent mechanical connection to wall units with KEYSTONE Kapseal construction adhesive. Apply adhesive to top surface of unit below and place cap unit into position.
- 3.06 Geogrid installation
- A. Follow requirements of Section 02246, Geogrid soil reinforcement.

Geogrid Soil Reinforcement

Part 1: General

- 1.01 Description
- A. Work includes furnishing and installing geogrid reinforcement and backfill to the lines and grades designated on the construction drawings.
  - B. Work includes furnishing and installing all related materials required for construction of the geogrid reinforced soil retaining wall as shown on the construction drawings.
- 1.02 Related work
- A. Section 02276: KEYSTONE Concrete Modular Retaining Wall.
- 1.03 Reference standards
- A. See specific geogrid manufacturer's reference standard.
- 1.04 Delivery, storage and handling
- A. Contractor shall check the geogrid upon delivery to assure the proper material has been received.
  - B. Geogrids shall be stored at temperatures above -20 degrees Fahrenheit.
  - C. Contractor shall prevent excessive mud, wet cement, epoxy and similar materials (which may affix themselves) from coming in contact with the geogrid material.
  - D. Rolled geogrid material may be laid flat or stood on end for storage.
- 1.05 Submittals
- A. Samples of all materials use in the work of this section.
  - B. Manufacturer's specifications (latest edition) for proposed materials, method of installation and list of materials proposed for use.
- 1.06 Quality assurance
- A. Contractor will be responsible for soil testing and quality control during earthwork operations.

Part 2: Products

- 2.01 Definitions
- A. Geogrid products high-density polyethylene or polypropylene expanded sheet or polyester woven fiber materials, specifically fabricated for use as soil reinforcement.
  - B. Structural Geogrid - a structural geogrid formed by a regular network of integrally connected tensile elements with apertures of sufficient size to allow interlocking with surrounding soils, rock or earth and function primarily as reinforcement.
  - C. Modular Concrete Units - a KEYSTONE segmental concrete facing unit, machine made from Portland cement, water and mineral aggregates.
  - D. Unit Fill - drainage aggregate which is placed within and immediately behind the modular concrete units.
  - E. Reinforced backfill - compacted soil which is within the reinforced soil mass as shown on the plans.
- 2.02 Geogrid
- A. Geogrid shall be the type shown on the construction drawings having the property requirements described within the manufacturers specifications and required by the design.
- 2.03 Acceptable manufacturers
- A. A manufacturer's product shall be approved by the Engineer.

Part 3: Execution

- 3.01 Excavation
- A. Contractor shall excavate to the lines and grades shown on the construction drawings. Contractor shall be careful not to disturb embankment and foundation materials beyond the lines shown.
- 3.02 Foundation soil preparation
- A. Foundation soils shall be excavated as required for leveling pad dimensions shown on the construction drawings, or as directed by the Engineer.
  - B. Foundation soil shall be approved by the Engineer to confirm that the actual foundation soil conditions meet or exceed assumed design conditions. Unsuitable soil shall be removed and replaced with acceptable material compacted to 95% standard Proctor Density as defined by ASTM D-698.
  - C. Over excavated areas shall be backfilled with approved compacted backfill materials.
  - D. Foundation soil shall be proof rolled prior to geogrid placement.
- 3.02 Wall erection
- A. Wall erection shall be in accordance with Section 02276: KEYSTONE Concrete Modular Retaining Wall.
- 3.03 Geogrid installation
- A. Geogrid shall be laid at the proper elevations and oriented as shown on the construction drawings or as directed by the Engineer.
  - B. Correct orientation (roll direction) or the geogrid shall be verified by the contractor.
  - C. The geogrid soil reinforcement shall be connected to the modular wall units by placing the geogrid over the fiberglass pins and laying the grid back to the fill side.
  - D. Backfill shall be pulled taut (50lbs/ft +/-) to eliminate loose folds and pretension the reinforcement. Stakes or secure back edge of geogrid prior to and during backfill and compaction.
  - E. Follow manufacturer's guidelines relative to overlap requirements of uniaxial and biaxial geogrids.
- 3.04 Fill placement
- A. Soils to be used as backfill soils must be approved by the geotechnical engineer and meet the following assumed soil parameters: Internal friction Angle of 28 Degrees or greater, Unit Weight of 120 PCF or greater, and a Unified Soils Classification of ML, SM, SW, SP, GM, GW, or GP.
  - B. Backfill shall be placed in 8" loose lifts and compacted to 95% of Standard Proctor density as determined in accordance with ASTM D-698. The in-place moisture content shall not exceed optimum moisture content by more than 2% and be no lower than 2% below optimum moisture content.
  - C. Backfill shall be placed, spread and compacted in such a manner that minimizes the development of slack or loss of pretension of the geogrid.
  - D. Only hand operated compaction equipment shall be allowed within 3' of the back of the modular concrete wall units.
  - E. Backfill shall be placed from the wall back towards the embankment to ensure that the geogrid remains taut.
  - F. Tracked construction equipment shall not be operated directly on the geogrid. A minimum backfill thickness of 6" is required prior to the operation of tracked equipment over the geogrid. Turning of tracked equipment should be kept to a minimum to prevent tracks from displacing fill and damaging the geogrid.
  - G. Rubber tired equipment may pass over geogrid reinforcement at low speeds (less than 10 mph). Avoid sudden braking and sharp turning.

KEYSTONE RETAINING WALL DESIGN  
Based on NCM-Codebook (revised) Methodology 3.1.1

Project: Harbor Property  
Pkg. No. 112324  
Design Parameters

Date: 6/14/2002  
Rev. DC

Soil Parameters	γ	c	φ	γ <sub>sat</sub>	γ <sub>sub</sub>
Retained Fill:	130	0	0	120	10
Foundation Fill:	120	0	0	110	10
Unit Fill: Crushed Stone, 1 inch minus	120	0	0	110	10

Factors of Safety: Sliding: 1.50, Overturning: 1.50, Bearing: 1.50

Analysis: 2' case  
Unit Type: Compac  
Leveling Pad: Crushed Stone  
Wall Ht.: 2.00 ft  
Level Backfill: 2.00 ft

Case: Case 1  
Wall Batter: 8.80 deg.  
embedment: 1.00 ft (not used in bearing calc.)

Soil Parameters	γ	c	φ	γ <sub>sat</sub>	γ <sub>sub</sub>
Retained Fill:	130	0	0	120	10
Foundation Fill:	120	0	0	110	10
Unit Fill: Crushed Stone, 1 inch minus	120	0	0	110	10

Factors of Safety: Sliding: 1.50, Overturning: 1.50, Bearing: 2.00  
Uncertainties: Peak: 1.50, Serviceability: N/A  
Base Friction used in Tension of base grid

Reinforcing Parameters: Mirafix XT Geogrids

Material	T <sub>ult</sub>	R <sub>FR</sub>	R <sub>FD</sub>	R <sub>FD</sub>	L <sub>TDS</sub>	F <sub>S</sub>	F <sub>S</sub>	T <sub>ul</sub>	C <sub>1</sub>	C <sub>2</sub>
Mirafix DXT	2803	1.67	1.10	1.15	137	1.50	884	0.80	0.80	0.80

Analysis: 4' case  
Unit Type: Compac  
Leveling Pad: Crushed Stone  
Wall Ht.: 4.00 ft  
Level Backfill: 4.00 ft

Case: Case 2  
Wall Batter: 8.80 deg.  
embedment: 1.00 ft (not used in bearing calc.)

Results: Factors of Safety: Calculated Bearing Pressure: 518 pcf  
Eccentricity at base: 0.06 ft  
Allow. Bearing: 10.08  
Peak Connection: 11.40  
Serviceability Connection: 3.26

Reinforcing: (R & B) Calculated Tension: 781 ok  
Mirafix DXT: 781 ok  
MIRAFIX DXT: 590 ok  
MIRAFIX DXT: 324 ok  
MIRAFIX DXT: 282 ok  
(% of Ret. Strength Used = 21 %)

Reinforcing Quantities (no waste included):  
Mirafix DXT: 0.89 sqft

Analysis: 6' case  
Unit Type: Compac  
Leveling Pad: Crushed Stone  
Wall Ht.: 6.00 ft  
Level Backfill: 6.00 ft

Case: Case 3  
Wall Batter: 8.80 deg.  
embedment: 1.00 ft (not used in bearing calc.)

Results: Factors of Safety: Calculated Bearing Pressure: 772 pcf  
Eccentricity at base: 0.19 ft  
Allow. Bearing: 10.08  
Peak Connection: 6.99  
Serviceability Connection: 3.26

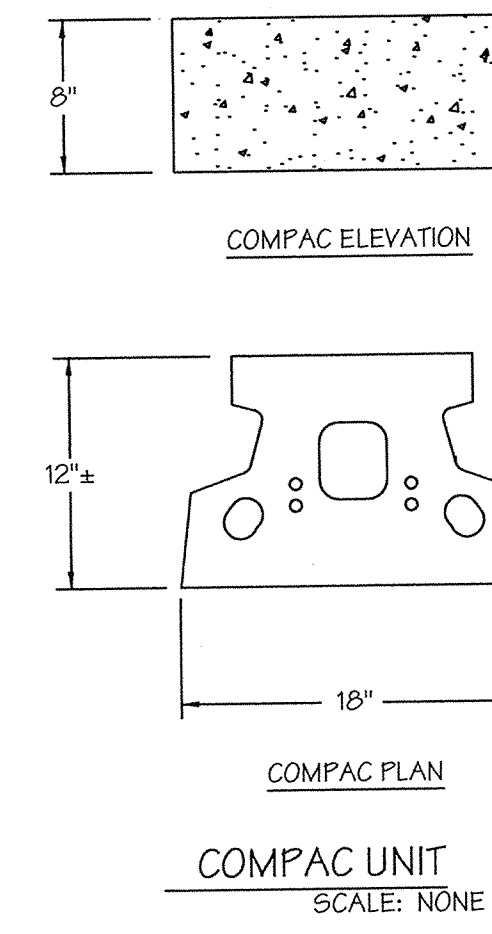
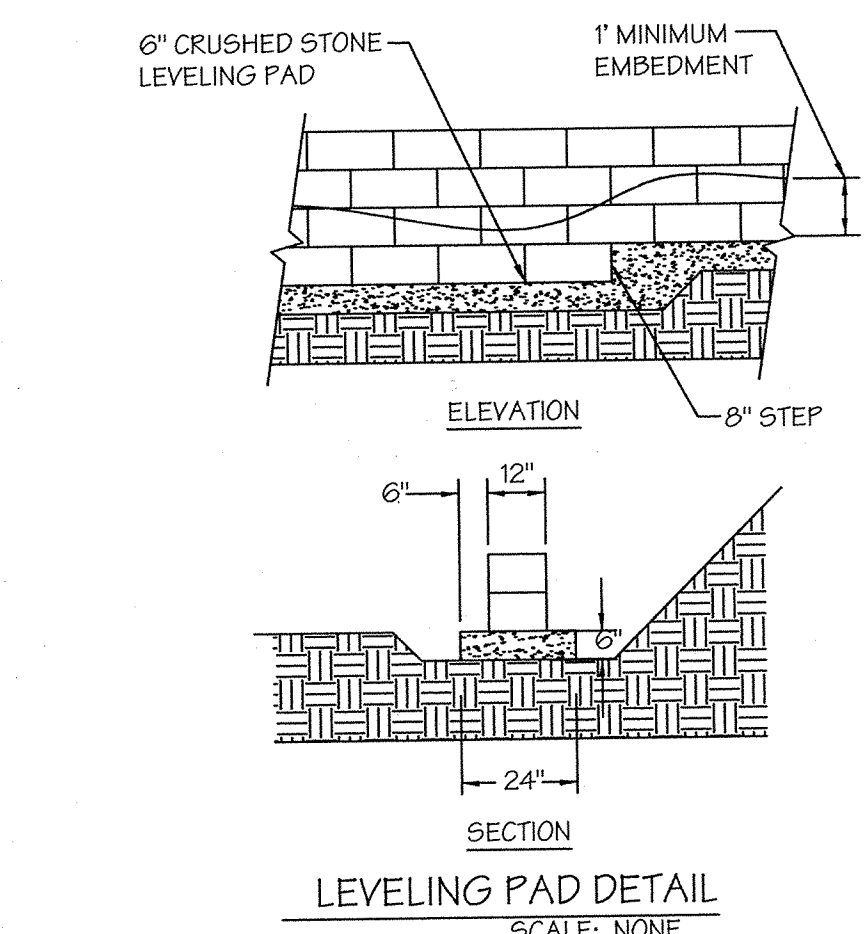
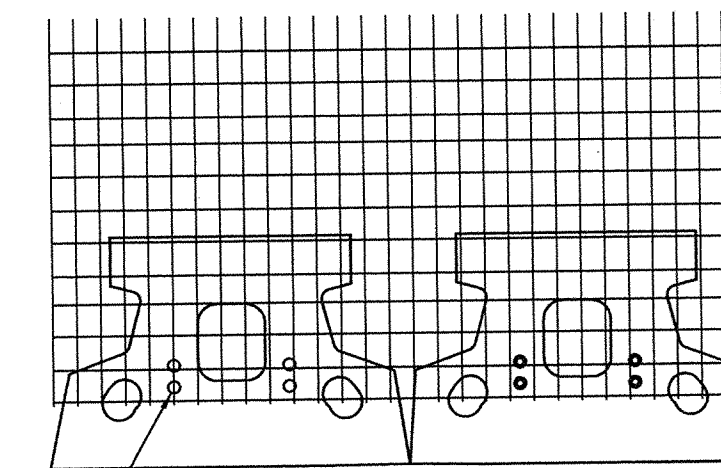
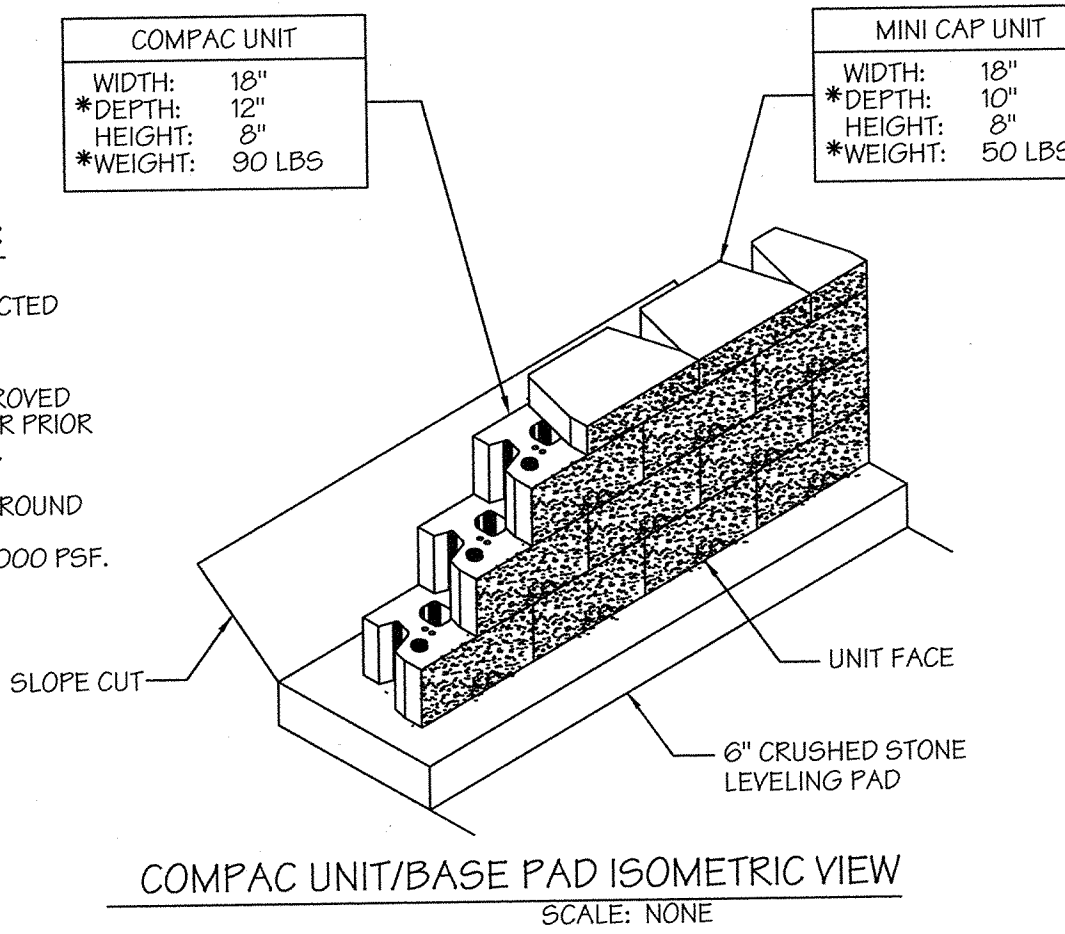
Reinforcing: (R & B) Calculated Tension: 781 ok  
Mirafix DXT: 781 ok  
MIRAFIX DXT: 590 ok  
MIRAFIX DXT: 324 ok  
MIRAFIX DXT: 282 ok  
(% of Ret. Strength Used = 44 %)

Reinforcing Quantities (no waste included):  
Mirafix DXT: 1.60 sqft

Prof: H. H. Hillis, P.E.  
HILLIS-CARNES ENGINEERING ASS.

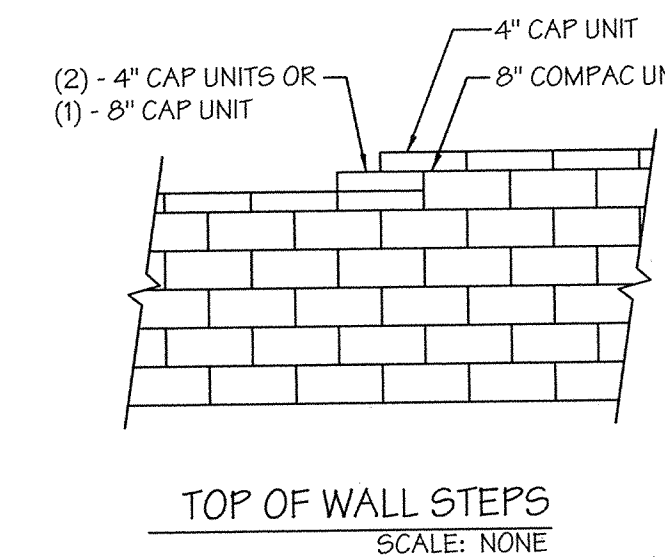
BASE LEVELING PAD NOTES:

- THE LEVELING PAD IS TO BE CONSTRUCTED OF CRUSHED STONE.
- THE BASE FOUNDATION IS TO BE APPROVED BY THE SITE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF THE LEVELING PAD.
- SUBGRADE SOIL IS TO BE NATURAL GROUND OR CONTROLLED FILL WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 3000 PSF.



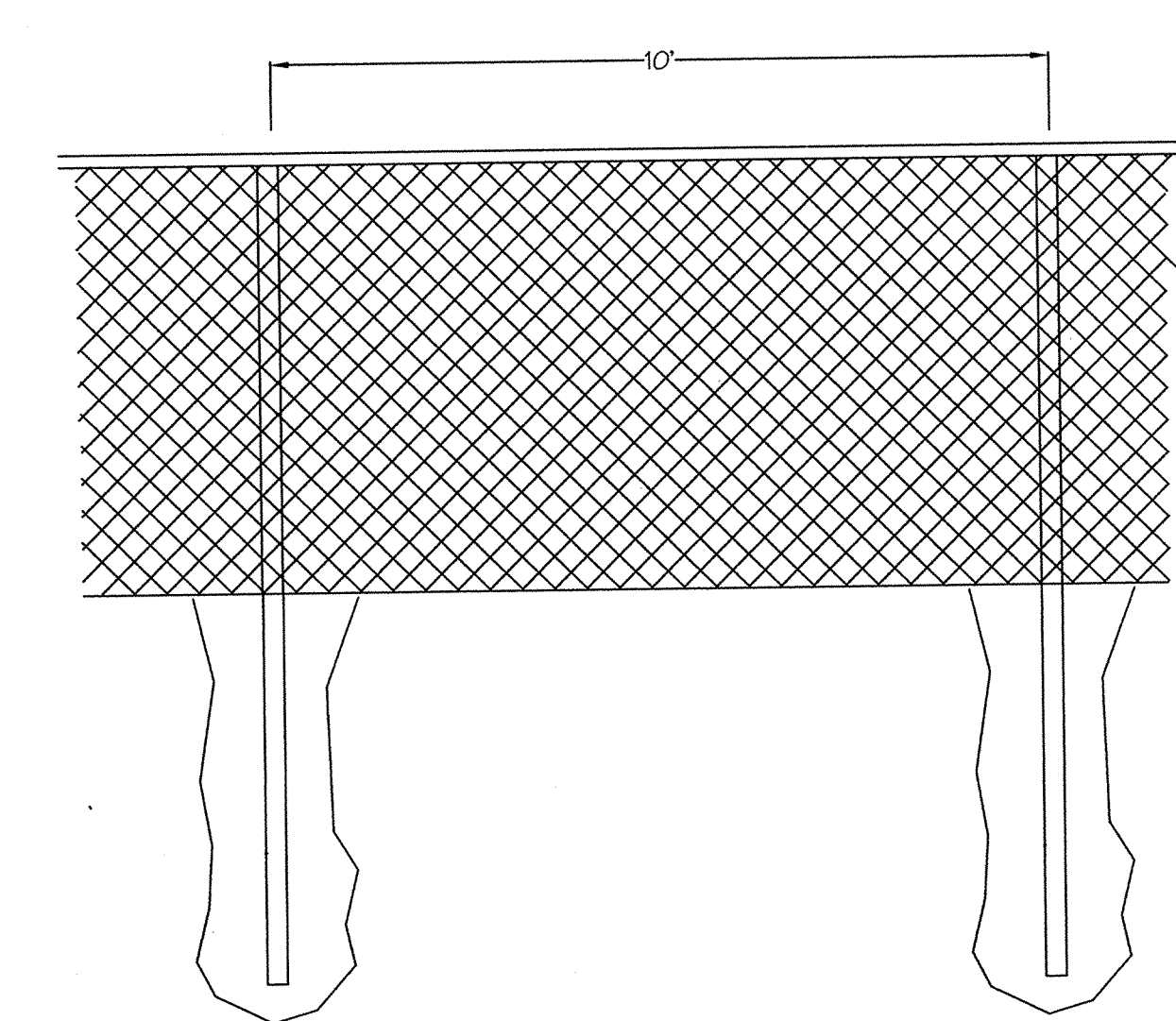
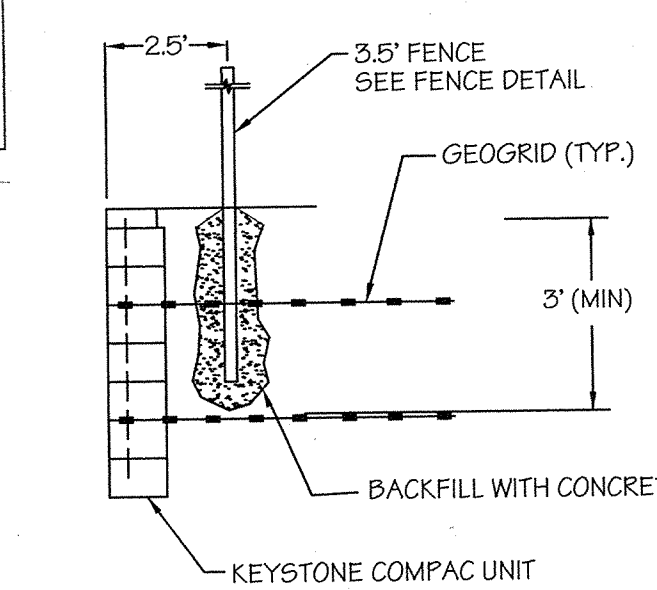
GRID & PIN CONNECTION

SCALE: NONE



NOTE:

- AUGER THROUGH GEORGRID LAYERS.
- CONCRETE FENCE POSTS IN PLACE



Revised 11/18/02 to include county comments

Subdivision Name: HOMELAND		Block No. 16 & 22	Zone RC-DEO	Tax Map No. 16	Election District 3rd	Conserv. Tract 6030
Water Code J 02	Sewer Code N/A		Parcel No. 53, 96, 165 & 204			

HILLIS-CARNES ENGINEERING ASSOCIATES, INC.  
P.O. BOX 647 NEW MARKET, MD 21774-0647  
(301) 631-3960 FAX (301) 631-2166

APPROVED: DEPARTMENT OF PLANNING AND ZONING

5/7/04  
7/2/04  
7/28/04

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL

DATE: 5/7/04  
DATE: 7/2/04  
DATE: 7/28/04

ENGINEER'S CERTIFICATE

DATE: 4/22/04

DEVELOPER'S CERTIFICATE

DATE: 4/22/04

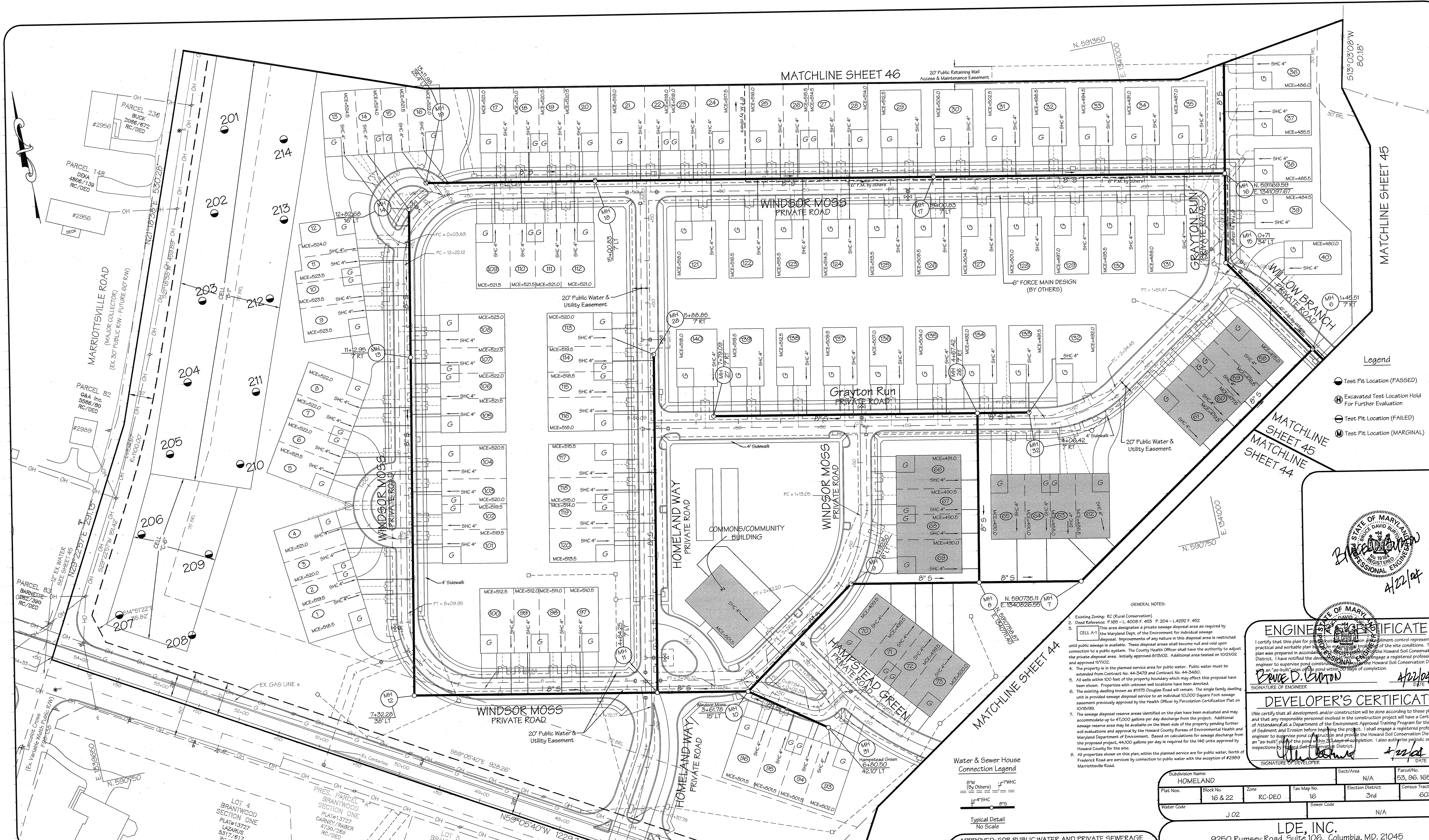
APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY.

REVISIONS

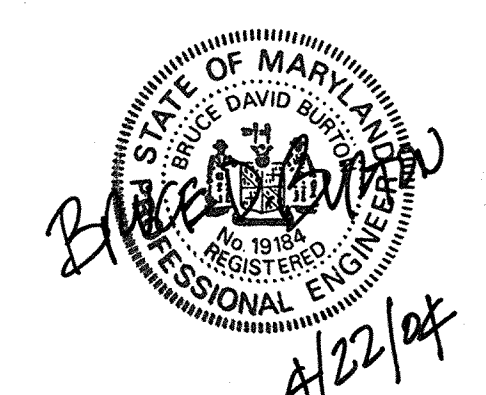
No.	Date	By	Description

DESIGNED: H.C.E.A.	SCALE: As Shown
DRAWN: J.D.C.	DRAWING: 42 of 52
CHECKED: J.D.C.	JOB NO: 99-051.4
DATE: 4/2004	FILE NO: 11302A(H.C.)
DEVELOPER: LB MEADOWS LLC	8825 - P Columbia 109 Parkway Columbia, Maryland 21045 (410) 730-0810

SDP-03-30



- Legend**
- Test Pit Location (PASSED)
  - ⊕ Excavated Test Location Hold For Further Evaluation
  - ⊖ Test Pit Location (FAILED)
  - ⊙ Test Pit Location (MARGINAL)



**ENGINEER'S CERTIFICATE**

I certify that this plan for public sewerage disposal area as required by the Maryland Dept. of the Environment for individual sewage disposal. Improvements of any nature in this disposal area is restricted until public sewerage is available. These disposal areas shall become null and void upon connection to a public system. The County Health Officer shall have the authority to adjust the private disposal area. Initially approved 08/20/02. Additional area tested on 10/21/02 and approved 11/7/02.

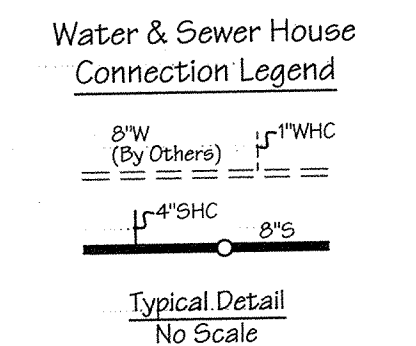
**Signature: David J. Brown** DATE: 4/22/04

**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 shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

**Signature: [Signature]** DATE: 4/22/04

- GENERAL NOTES:**
- Existing Zoning: RC (Rural Conservation)
  - Deed Reference: F-105 - L-400B F. 453 P. 204 - L-4292 F. 452
  - CELL A-1 This area designates a private sewage disposal area as required by the Maryland Dept. of the Environment for individual sewage disposal. Improvements of any nature in this disposal area is restricted until public sewerage is available. These disposal areas shall become null and void upon connection to a public system. The County Health Officer shall have the authority to adjust the private disposal area. Initially approved 08/20/02. Additional area tested on 10/21/02 and approved 11/7/02.
  - The property is in the planned service area for public water. Public water must be extended from Contract No. 44-3479 and Contract No. 44-3480.
  - All wells within 100 feet of the property boundary which may affect the proposal have been shown. Properties with unknown well locations have been denoted.
  - The existing dwelling known as #117D Douglas Road will remain. The single family dwelling unit is provided sewage disposal service to an individual 10,000 Square Foot sewage easement previously approved by the Health Officer by Percolation Certification Plat on 10/19/99.
  - The sewage disposal reserve areas identified on the plan have been evaluated and may accommodate up to 47,000 gallons per day discharge from the project. Additional sewage reserve area may be available on the West side of the property pending further soil evaluations and approval by the Howard County Bureau of Environmental Health and Maryland Department of Environment. Based on calculations for sewage discharge from the proposed project, 44,100 gallons per day is required for the 146 units approved by Howard County for the site.
  - All properties shown on this plan, within the planned service area for public water, North of Frederick Road are to be connected to public water with the exception of #2990 Marriottville Road.



APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY.

**Signature: Penny S. Brantwood** DATE: 6/18/04

**REVISIONS**

No.	Date	By	Description

Subdivision Name:	HOMELAND	Section/Area:	N/A	Parcel No.:	53, 96, 165 & 204
Plot No.:	16 & 22	Zone:	RC-DEO	Tax Map No.:	16
Water Code:	J 02	Election District:	3rd	Genus Tract:	6030
Sewer Code:	N/A	Previous Submittals:	BA 00-52E, WP 03-12B, F 03-194		

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

DESIGNED: EDS JLM, BDB  
 DRAWN: JLM, JDR  
 CHECKED: BDB  
 DATE: 4/2004

**HOMELAND PARCEL 'A' AND PARCEL 'B'**

SCALE: 1" = 50'  
 DRAWING: 43 of 52  
 JOB NO.: 99-0514  
 FILE NO.: SDP-03-30

APPROVED: DEPARTMENT OF PLANNING AND ZONING

**Signature: [Signature]** DATE: 5/7/04

**Signature: Cindy Hamilton** DATE: 7/2/04

**Signature: [Signature]** DATE: 7/28/04

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL.

USDA-NATURAL RESOURCES CONSERVATION SERVICE

DATE: \_\_\_\_\_

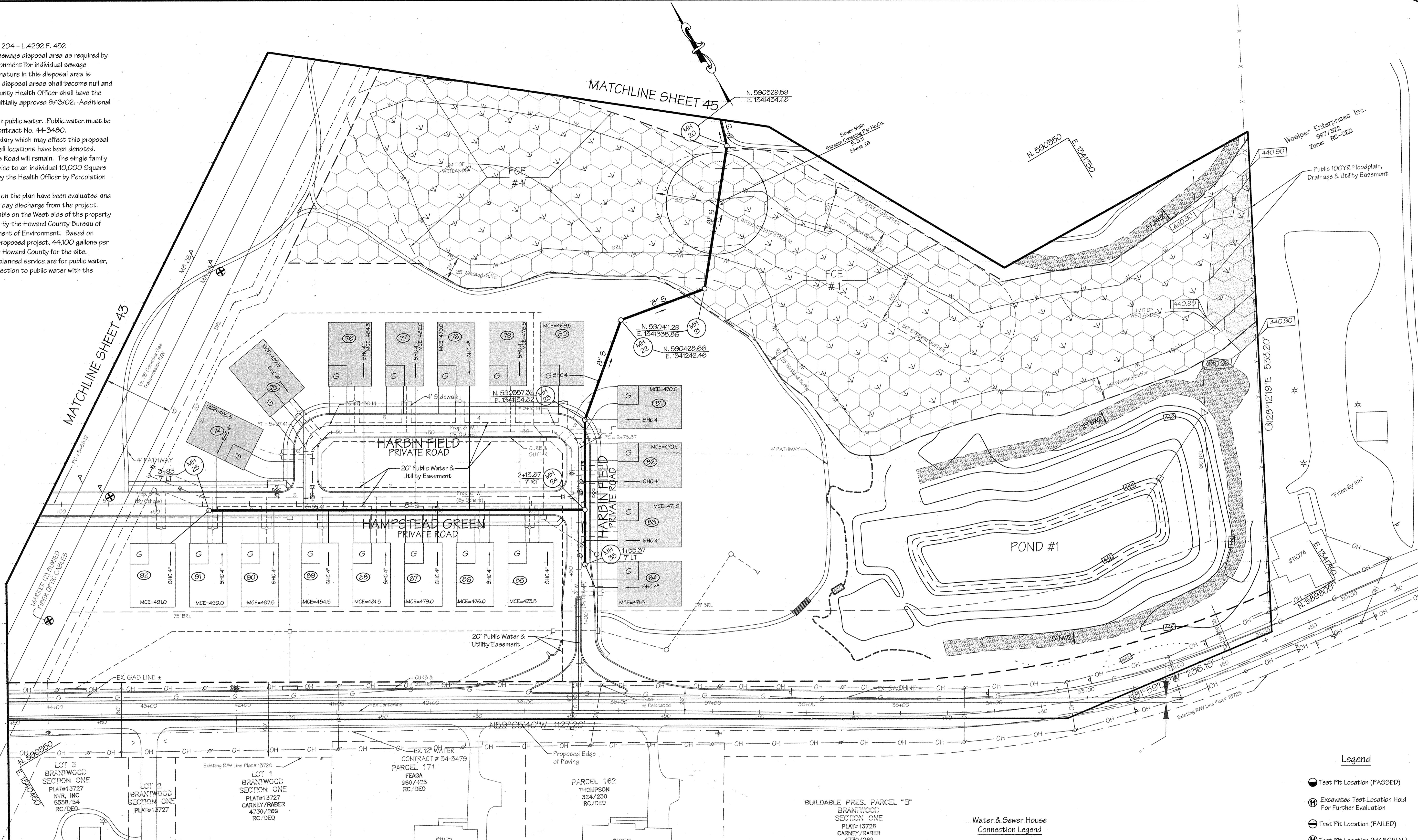
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT

DATE: \_\_\_\_\_

GENERAL NOTES:

- Existing Zoning: RC (Rural Conservation)
- Deed Reference: P.165 - L. 4008 F. 453 P. 204 - L.4292 F. 452
- This area designates a private sewage disposal area as required by the Maryland Dept. of the Environment for individual sewage disposal. Improvements of any nature in this disposal area is restricted until public sewage is available. These disposal areas shall become null and void upon connection to a public system. The County Health Officer shall have the authority to adjust the private disposal area. Initially approved 8/13/02. Additional area tested on 10/21/02.
- The property is in the planned service area for public water. Public water must be extended from Contract No. 44-3479 and Contract No. 44-3480.
- All wells within 100 feet of the property boundary which may effect this proposal have been shown. Properties with unknown well locations have been denoted.
- The existing dwelling known as #11175 Douglas Road will remain. The single family dwelling unit is provided sewage disposal service to an individual 10,000 Square Foot sewage easement previously approved by the Health Officer by Percolation Certification Plat on 10/18/99.
- The sewage disposal reserve areas identified on the plan have been evaluated and may accommodate up to 47,000 gallons per day discharge from the project. Additional sewage reserve area may be available on the West side of the property pending further soil evaluations and approval by the Howard County Bureau of Environmental Health and Maryland Department of Environment. Based on calculations for sewage discharge from the proposed project, 44,100 gallons per day is required for the 146 units approved by Howard County for the site.
- All properties shown on this plan, within the planned service are for public water. North of Frederick Road are services by connection to public water with the exception of #2989 Marriottville Road.



- Legend**
- Test Pit Location (PASSED)
  - ⊕ Excavated Test Location Hold For Further Evaluation
  - ⊖ Test Pit Location (FAILED)
  - ⊙ Test Pit Location (MARGINAL)
- Water & Sewer Connection Legend**
- 8" W (By Others)
  - 4" SHC
  - 1" TWHC
  - Typical Detail No Scale

Subdivision Name: <b>HOMELAND</b>		Sect/Area: <b>N/A</b>	Parcel No.: <b>53, 96, 165 &amp; 204</b>
Plot No.: <b>16 &amp; 22</b>	Zone: <b>RC-DEO</b>	Tax Map No.: <b>16</b>	Election District: <b>3rd</b>
Water Code: <b>J 02</b>	Sewer Code: <b>N/A</b>		Census Tract: <b>6030</b>

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

DESIGNED <b>EDS JLM</b> <b>BDB</b>	<p align="center"><b>HOMELAND</b>                  PARCEL 'A' AND PARCEL 'B'</p> <p>Tax Map No. 16 - Grid No. 16 &amp; 22 - Parcel 53, 96, 165 &amp; 204                  3rd Election Districts - Howard County, Maryland                  Previous Submittals: BA 00-52E, WP 03-12B, F 03-194</p>	SCALE <b>1" = 50'</b>
DRAWN <b>JLM</b> <b>JDR</b>		DRAWING <b>44 of 52</b>
CHECKED <b>BDB</b>		JOB NO. <b>99-0514</b>
DATE <b>4/2004</b>	DEVELOPER <b>LB MEADOWS LLC</b> 8835 - F Columbia 100 Parkway Columbia, Maryland 21045 (410) 730-0810	FILE NO. <b>SDP-03-30</b>

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY  
*Priscilla E. Brown* 4/22/04  
 COUNTY HEALTH OFFICER  
 HOWARD COUNTY HEALTH DEPARTMENT

REVISIONS		
No.	Date	Description

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Michael P. ...* 5/7/04  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

*Cindy Hamstra* 7/21/04  
 CHIEF, DIVISION OF LAND DEVELOPMENT

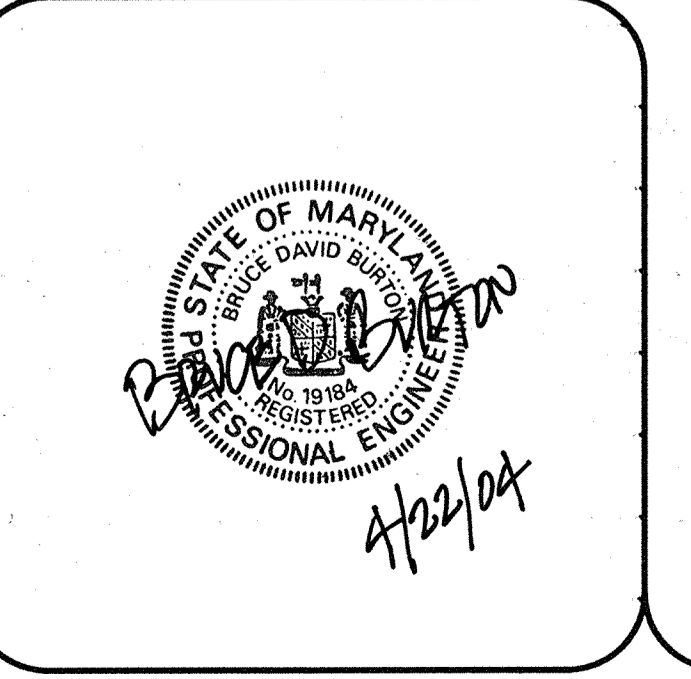
*Stephen ...* 7/28/04  
 DIRECTOR

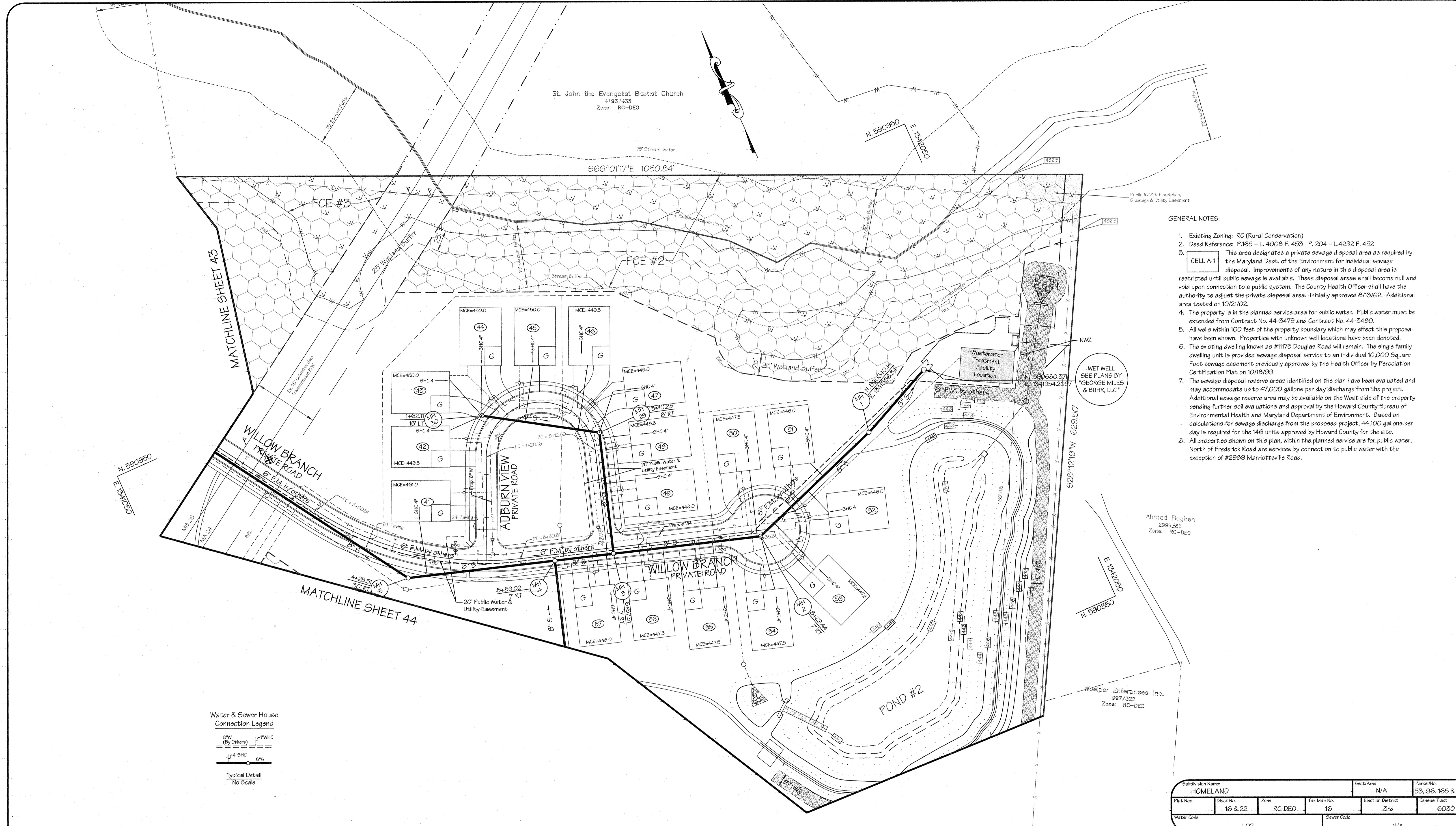
THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL  
 USDA-NATURAL RESOURCES CONSERVATION SERVICE  
 DATE: **4/22/04**

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
 HOWARD SOIL CONSERVATION DISTRICT  
 DATE: **4/22/04**

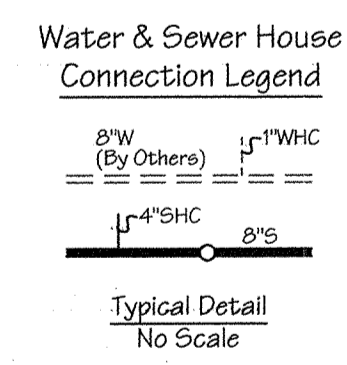
**ENGINEER'S CERTIFICATE**  
 I certify that this plan for pond construction and sediment control represents a practical and workable plan based on the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer of the requirements of the Howard Soil Conservation District as an "as-built" plan of the pond within 30 days of completion.  
*David D. ...* 4/22/04  
 SIGNATURE OF ENGINEER

**DEVELOPER'S CERTIFICATE**  
 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 shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.  
*David D. ...* 4/22/04  
 SIGNATURE OF DEVELOPER





- GENERAL NOTES:**
- Existing Zoning: RC (Rural Conservation)
  - Deed Reference: P.165 - L. 4008 F. 453 P. 204 - L.4292 F. 452
  - CELL A-1 This area designates a private sewage disposal area as required by the Maryland Dept. of the Environment for individual sewage disposal. Improvements of any nature in this disposal area is restricted until public sewage is available. These disposal areas shall become null and void upon connection to a public system. The County Health Officer shall have the authority to adjust the private disposal area. Initially approved 8/13/02. Additional area tested on 10/21/02.
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  - The sewage disposal reserve areas identified on the plan have been evaluated and may accommodate up to 47,000 gallons per day discharge from the project. Additional sewage reserve area may be available on the West side of the property pending further soil evaluations and approval by the Howard County Bureau of Environmental Health and Maryland Department of Environment. Based on calculations for sewage discharge from the proposed project, 44,100 gallons per day is required for the 146 units approved by Howard County for the site.
  - All properties shown on this plan, within the planned service are for public water, North of Frederick Road are serviced by connection to public water with the exception of #2989 Marriottville Road.



Subdivision Name: <b>HOMELAND</b>	Sect/Area: N/A	Parcel No. 53, 96, 165 & 204
Plot No. 16 & 22	Zone RC-DEO	Tax Map No. 16
Water Code J 02	Election District 3rd	Census Tract 6030
Sewer Code N/A		

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 5/7/04  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 7/21/04  
CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 7/28/04  
DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL

USDA-NATURAL RESOURCE CONSERVATION SERVICE

DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT

DATE

**ENGINEER'S CERTIFICATE**

I certify that this plan for... represents a practical and workable plan... of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the... of this project and engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic pre-site inspections by Howard Soil Conservation District.

*[Signature]* 4/22/04  
SIGNATURE OF ENGINEER

**DEVELOPER'S CERTIFICATE**

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 will engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic pre-site inspections by Howard Soil Conservation District.

*[Signature]* 4/22/04  
SIGNATURE OF DEVELOPER

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

*[Signature]* 6/18/04  
COUNTY HEALTH OFFICER  
HOWARD COUNTY HEALTH DEPARTMENT

**REVISIONS**

No.	Date	By	Description

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

DESIGNED: EDS JLM  
BDB

DRAWN: JLM  
JDR

CHECKED: BDB

DATE: 4/20/04

DEVELOPER: LB MEADOWS LLC  
8835 - P Columbia 100 Parkway  
Columbia, Maryland 21045  
(410) 730-0810

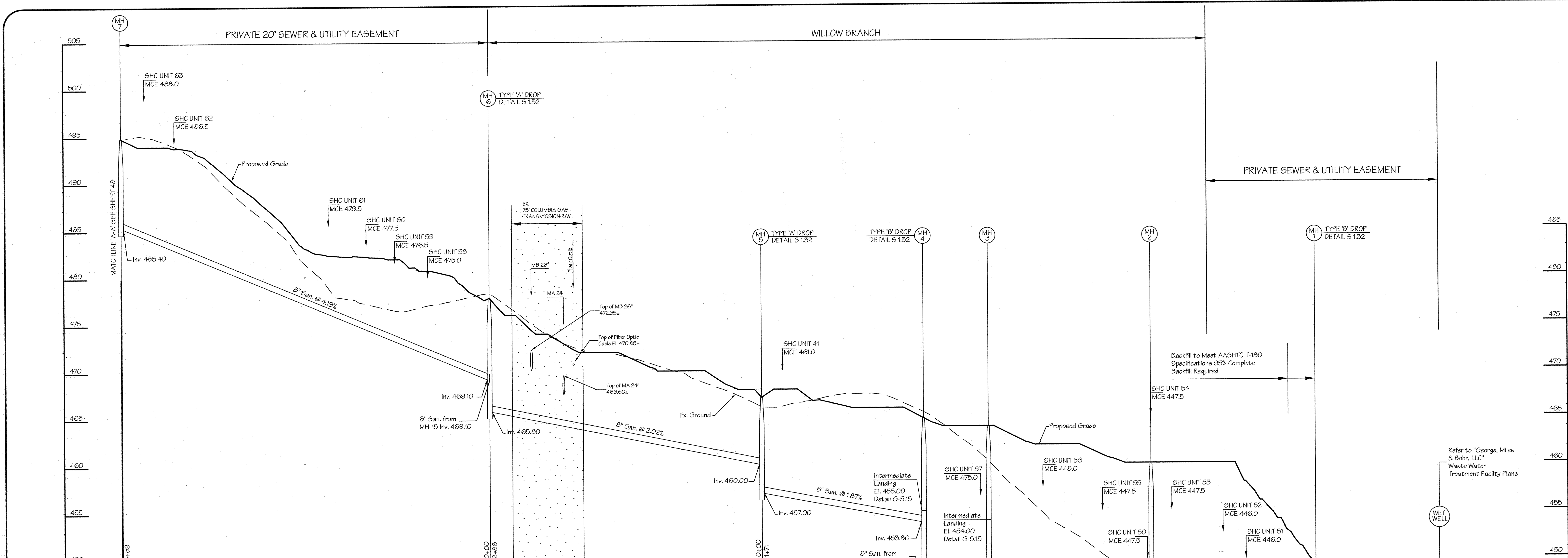
SCALE: 1" = 50'

DRAWING: 45 of 52

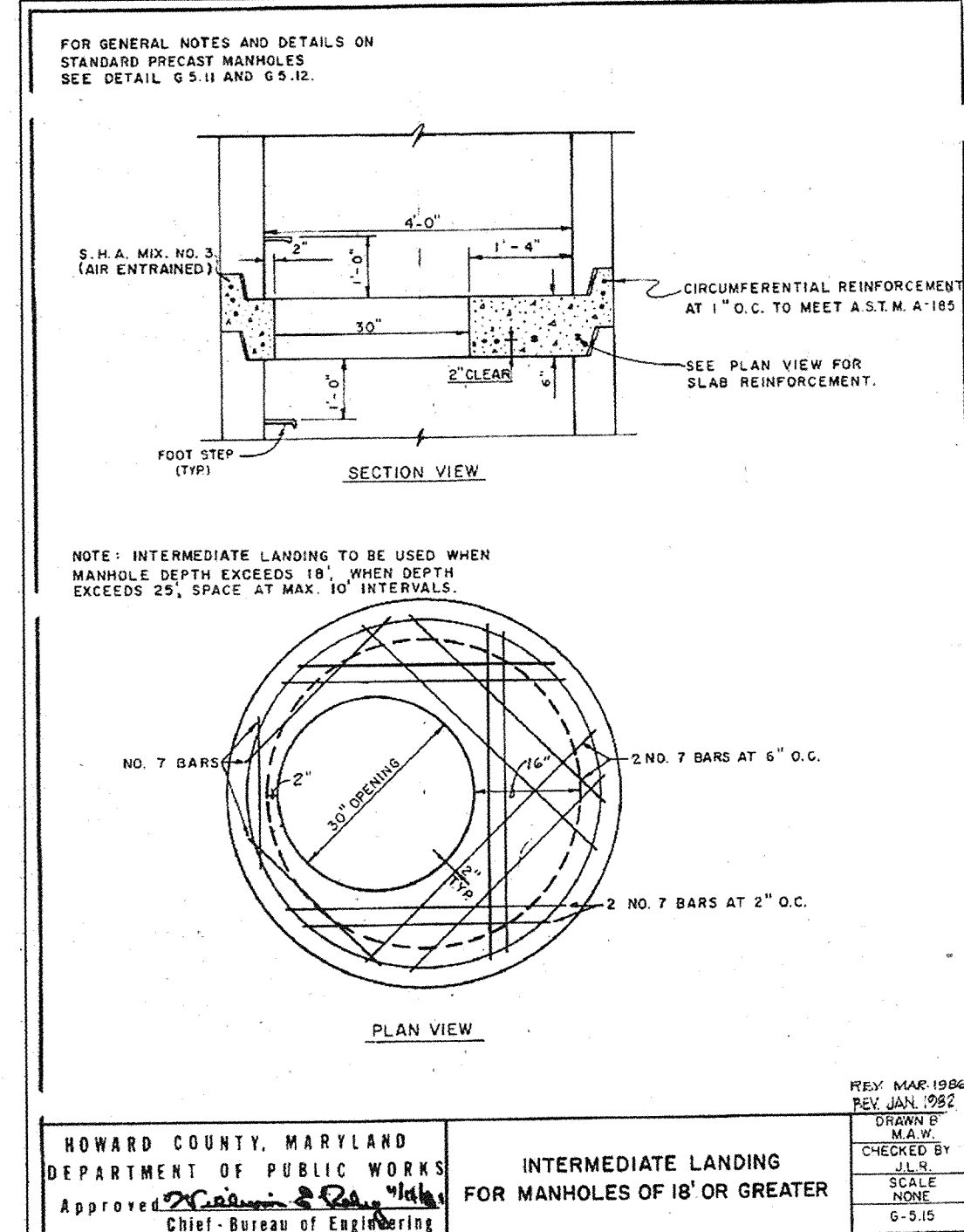
JOB NO.: 99-0514

FILE NO.: SDP-03-30





Str. No.	Inv. In	Inv. Out	Top Elevation	Detail	Location	Remarks
MH-1	442.16	437.99	449.20	G 5.13	N. 59064014 / E. 1340666.34	TYPE "B" DROP
MH-2	443.14	443.04	460.00	G 5.13	8+29.44 / 7 RT	
MH-3	444.12/444.10	444.00	464.00	G 5.12	6+57.51 / 7 RT	
MH-4	443.80/447.55	444.50	464.88	G 5.12	5+89.22 / 7 RT	TYPE "B" DROP
MH-5	460.00	467.00	467.16	G 5.12	4+25.91 / 30 RT	TYPE "A" DROP
MH-6	469.10	469.80	477.83	G 5.12	1+45.51 / 7 RT	TYPE "A" DROP
MH-7	485.50	485.40	494.83	G 5.12	N. 59072611 / E. 13402826.55	
MH-8	486.85/495.10	486.75	502.19	G 5.13	N. 590756.87 / E. 13407140	TYPE "B" DROP
MH-9	496.40	496.30	512.00	G 5.13	1+92.50 / 8' LT	
MH-10	501.76/497.98	467.85	512.00	G 5.13	3+61.76 / 8' LT	TYPE "B" DROP
MH-11	504.00	503.90	514.05	G 5.13	4+64.25 / 7 LT	
MH-12	513.30	511.50	524.36	G 5.12	7+32.39 / 30' LT	TYPE "A" DROP
MH-13	519.06	515.90	535.11	G 5.12	14+09.91 / 7 LT	
MH-14	520.35	520.35	532.00	G 5.12	12+82.68 / 18' LT	
MH-15	480.10	480.00	490.00	G 5.12	0+71.24' LT	
MH-16	481.60	481.50	494.00	G 5.12	N. 591699.99 / E. 1341097.67	
MH-17	508.60	505.50	516.64	G 5.12	19+00.83 / 7 LT	TYPE "A" DROP
MH-18	516.80	516.70	528.00	G 5.12	15+00.83 / 7 LT	
MH-19	518.24	520.46	516.64	G 5.12	13+18.8 / 25.4' LT	
MH-20	448.30	448.20	457.15	G 5.12	N. 590629.59 / E. 1341424.49	
MH-21	449.17	449.07	458.30	G 5.12	N. 590412.9 / E. 1341026.86	
MH-22	466.09	457.25	475.35	G 5.12	N. 590428.66 / E. 1341242.46	
MH-23	466.75	466.65	483.07	G 5.12	N. 590267.22 / E. 134154.82	
MH-24	467.50/467.38	467.23	480.00	G 5.12	2+13.87 / 7 LT	
MH-25	487.03	487.03	501.37	G 5.12	3+85 / 7 LT	
MH-26	498.60/487.89	487.85	506.82	G 5.12	4+67.42 / 7 RT	TYPE "B" DROP
MH-27	514.50	522.00	522.00	G 5.12	7+79.09 / 7 RT	
MH-28	516.00	526.22	526.22	G 5.12	5+59.95 / 7 RT	
MH-29	444.91	444.81	460.00	G 5.12	3+40.29 / 8' RT	
MH-30	445.90	461.14	461.14	G 5.12	1+62.1 / 8' LT	
MH-31	488.75	512.00	512.00	G 5.12	6+80.50 / 42' LT	
MH-32	488.50	501.53	501.53	G 5.12	4+08.42 / 7 RT	
MH-33	467.80	478.00	478.00	G 5.12	1+56.32 / 7 LT	
MH-34	482.40	482.30	492.51	G 5.12	N. 591007.48 / E. 1341126.46	
MH-35	485.92	485.82	489.80	G 5.12	N. 591056.55 / E. 134183.71	
MH-36	485.68	497.09	497.09	G 5.12	N. 591824.44 / E. 1341232.90	



Subdivision Name: <b>HOMELAND</b>		Sect/Area: <b>N/A</b>		Parcel No.: <b>53, 96, 165 &amp; 204</b>	
Plan No.: <b>16 &amp; 22</b>	Zone: <b>RC-DEO</b>	Tax Map No.: <b>16</b>	Election District: <b>3rd</b>	Census Tract: <b>6030</b>	
Water Code: <b>J 02</b>			Sewer Code: <b>N/A</b>		

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 5/1/04  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 7/2/04  
 CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 7/28/04  
 DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL

USDA-NATURAL RESOURCE CONSERVATION SERVICE

DATE: \_\_\_\_\_

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT

DATE: \_\_\_\_\_

**ENGINEER'S CERTIFICATE**

I certify that this plan for... represents a practical and workable plan... This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the... of this project. I will engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic site inspections by... upon completion.

*[Signature]* 4/22/04  
 SIGNATURE OF ENGINEER

**DEVELOPER'S CERTIFICATE**

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 will engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic site inspections by... upon completion.

*[Signature]* 4/22/04  
 SIGNATURE OF DEVELOPER

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

*[Signature]* 4/22/04  
 COUNTY HEALTH OFFICER  
 HOWARD COUNTY HEALTH DEPARTMENT

**REVISIONS**

No.	Date	By	Description

DESIGNED: **EDS JLM**  
**BDB**

DRAWN: **JLM**  
**JDR**

CHECKED: **BDB**

DATE: **4/20/04**

DEVELOPER: **LB MEADOWS LLC**

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

Private Sewer Main Profiles

**HOMELAND**  
 PARCEL 'A' AND PARCEL 'B'

Tax Map No. 16 - Grid No. 16 & 22 - Parcel 53, 96, 165 & 204  
 3rd Election District - Howard County, Maryland  
 Previous Submittals: BA 00-52E, WF 03-12B, F 03-194

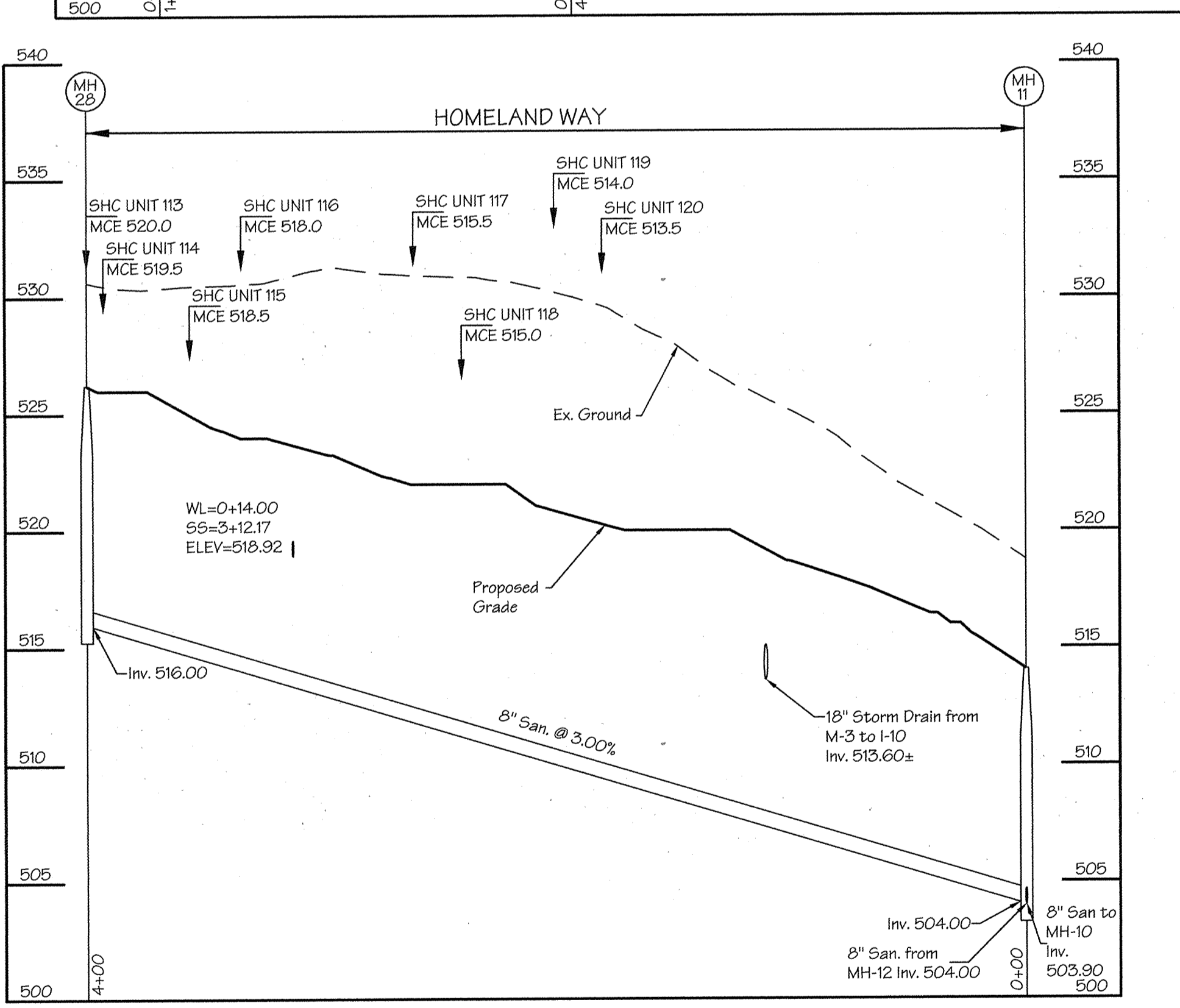
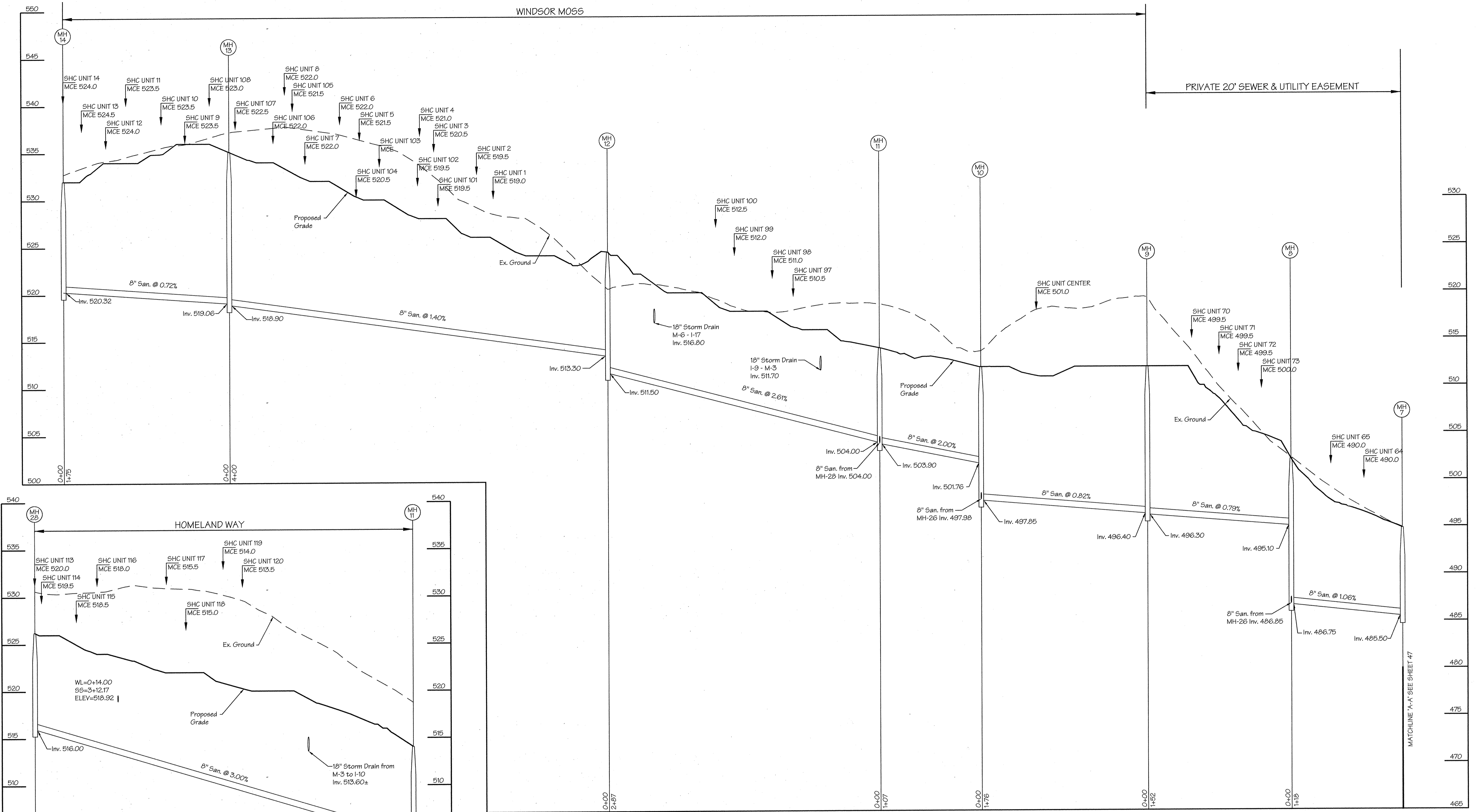
SCALE: 1" = 5' Ver., 1" = 50' Hor.

DRAWING: 47 of 52

JOB NO.: 99-0514

FILE NO.: GDP-03-30





Subdivision Name <b>HOMELAND</b>		Sect./Area N/A		Parcel No. 53, 96, 165 & 204
Plot Nos. 16 & 22	Zone RC-DEO	Tax Map No. 16	Election District 3rd	Census Tract 6030
Water Code J 02		Sewer Code N/A		

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 5/2/04  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 7/2/04  
CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 7/28/04  
DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENT FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL.

TSDA-NATURAL RESOURCES CONSERVATION SERVICE

DATE: \_\_\_\_\_

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT

DATE: \_\_\_\_\_

**ENGINEER'S CERTIFICATE**

I certify that this plan for pond construction and sediment control represents a practical and workable plan based on a thorough review of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer of the requirements of the Howard Soil Conservation District and have supervised the construction of the pond and sediment control structures.

*[Signature]* 4/22/04  
REGISTERED PROFESSIONAL ENGINEER

**DEVELOPER'S CERTIFICATE**

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 will engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

*[Signature]* 4/22/04  
SIGNATURE OF DEVELOPER



APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

*[Signature]* 4/18/04  
COUNTY HEALTH OFFICER  
HOWARD COUNTY HEALTH DEPARTMENT

REVISIONS			
No.	Date	By	Description

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

Private Sewer Main Profiles

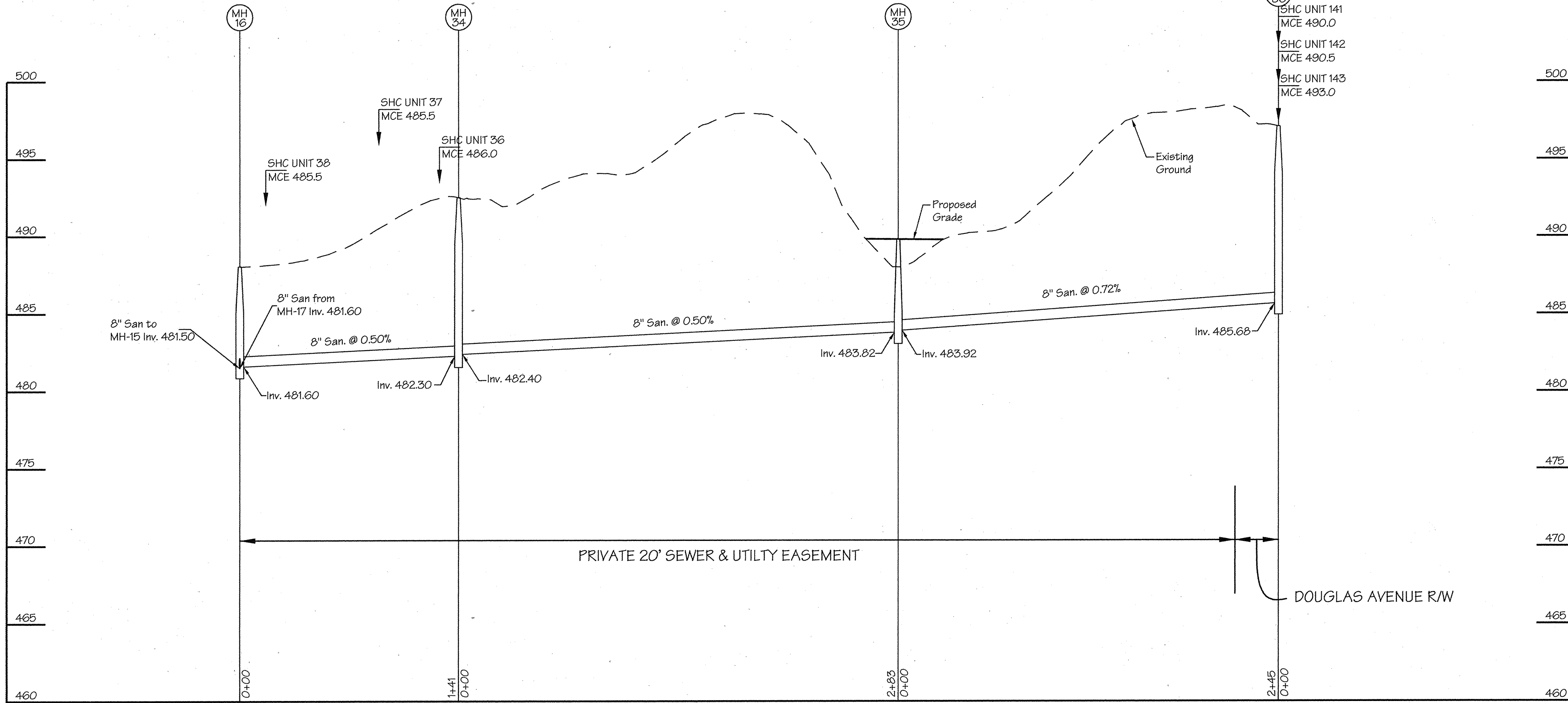
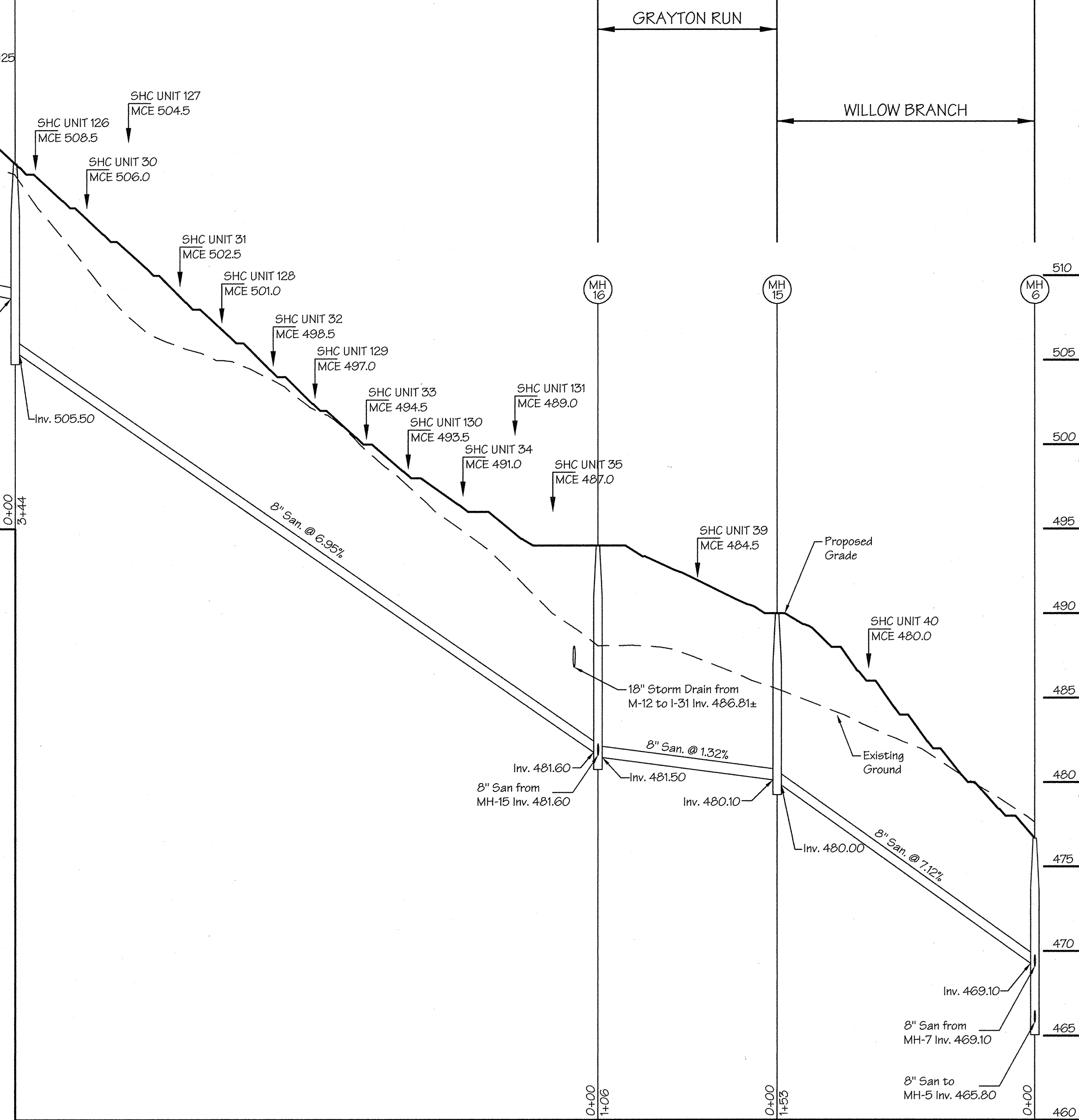
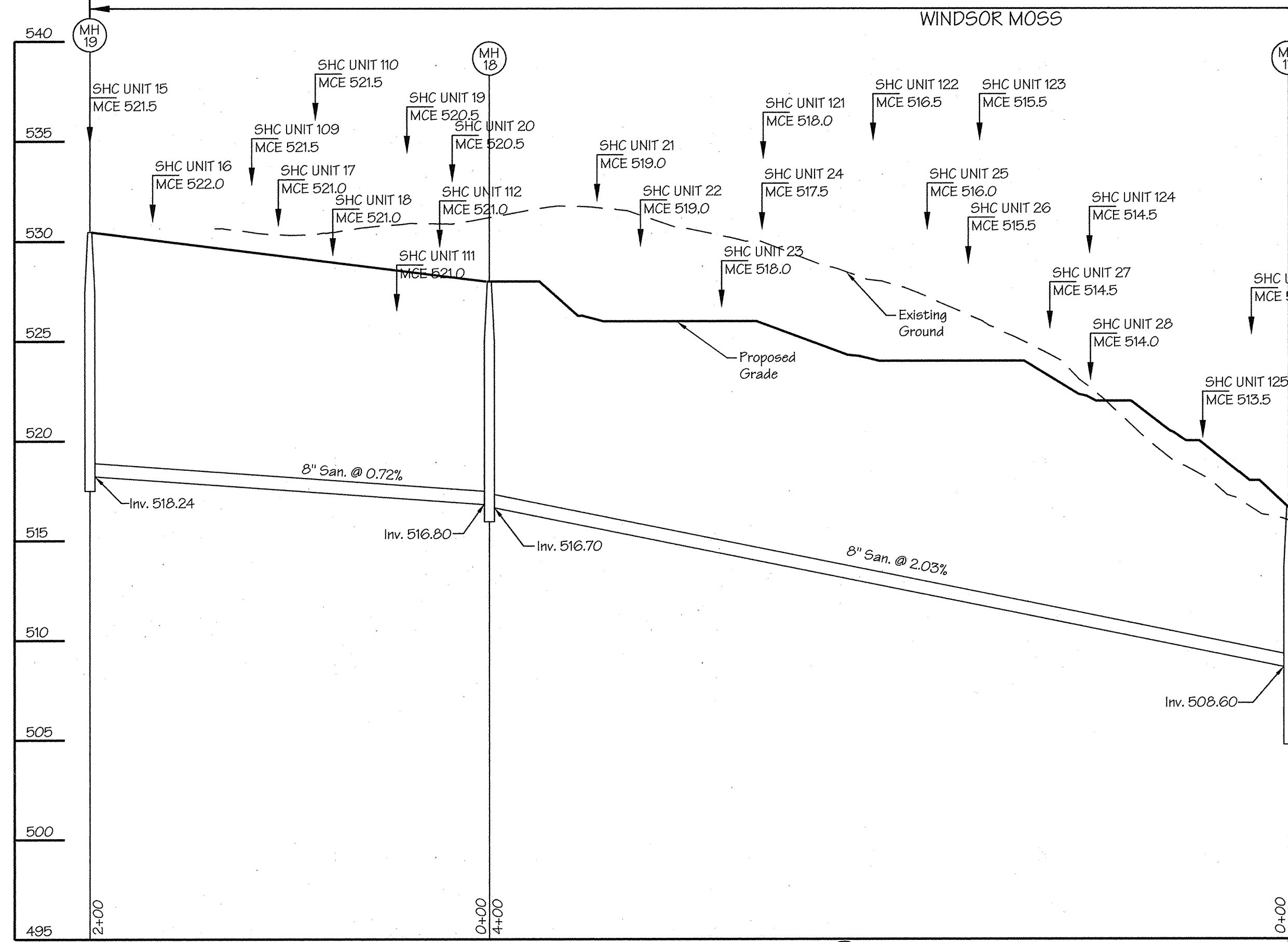
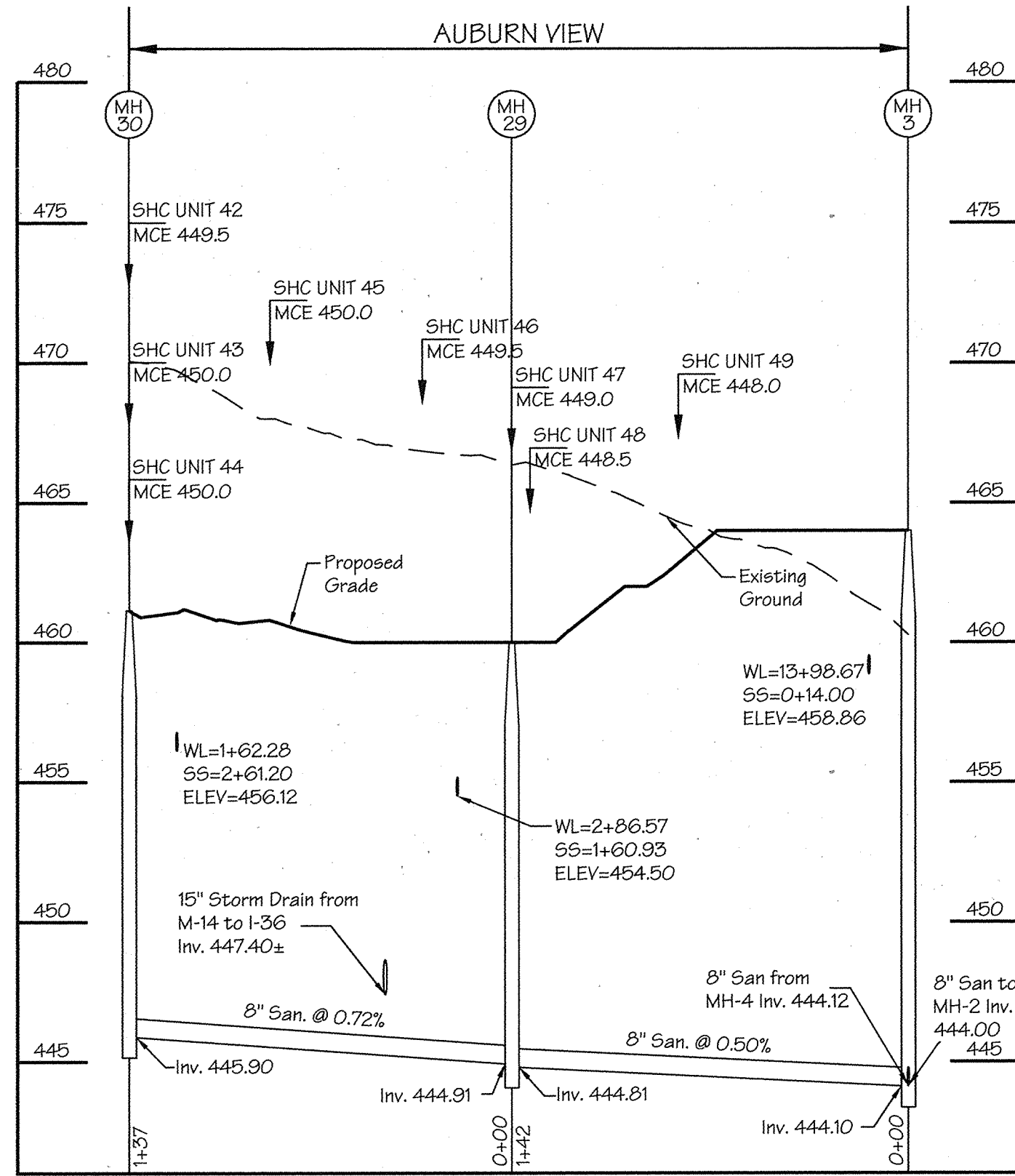
**HOMELAND**  
PARCEL 'A' AND PARCEL 'B'

Tax Map No. 16 - Grid No. 16 & 22 - Parcel 53, 96, 165 & 204  
3rd Election District - Howard County, Maryland  
Previous Submittals: BA 00-52E, WP 03-12B, F 03-194

DESIGNED: EDS JLM  
DRAWN: JLM JDR  
CHECKED: BDB  
DATE: 4/2004

DEVELOPER: LB MEADOWS LLC  
8835 - F Columbia 100 Parkway  
Columbia, Maryland 21045  
(410) 730-0810

SCALE: 1" = 5' Ver.  
1" = 50' Hor.  
DRAWING: 48 of 52  
JOB NO.: 99-0514  
FILE NO.: SDP-03-30



Subdivision Name: HOMELAND		Sect./Area: N/A		Parcel No. 53, 96, 165 & 204	
Plot No. 16 & 22	Zone RC-DEO	Tax Map No. 16	Election District 3rd	Consent Tract 6030	
Water Code J 02			Sewer Code N/A		

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]*  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

5/1/04  
 DATE

*[Signature]*  
 CHIEF, DIVISION OF LAND DEVELOPMENT

7/2/04  
 DATE

*[Signature]*  
 DIRECTOR

1/28/04  
 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL

DATE

TSDA-NATURAL RESOURCE CONSERVATION SERVICE

DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

DATE

HOWARD SOIL CONSERVATION DISTRICT

**ENGINEER'S CERTIFICATE**

I certify that this plan for the construction of a pond, including sediment control, represents a practical and workable plan for the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the district of the project and engaged a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

*[Signature]*  
 DATE: 4/22/04

**DEVELOPER'S CERTIFICATE**

I 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 shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

*[Signature]*  
 DATE: 4/22/04



APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

*[Signature]*  
 COUNTY HEALTH OFFICER  
 HOWARD COUNTY HEALTH DEPARTMENT

DATE: 4/18/04

**REVISIONS**

No.	Date	By	Description

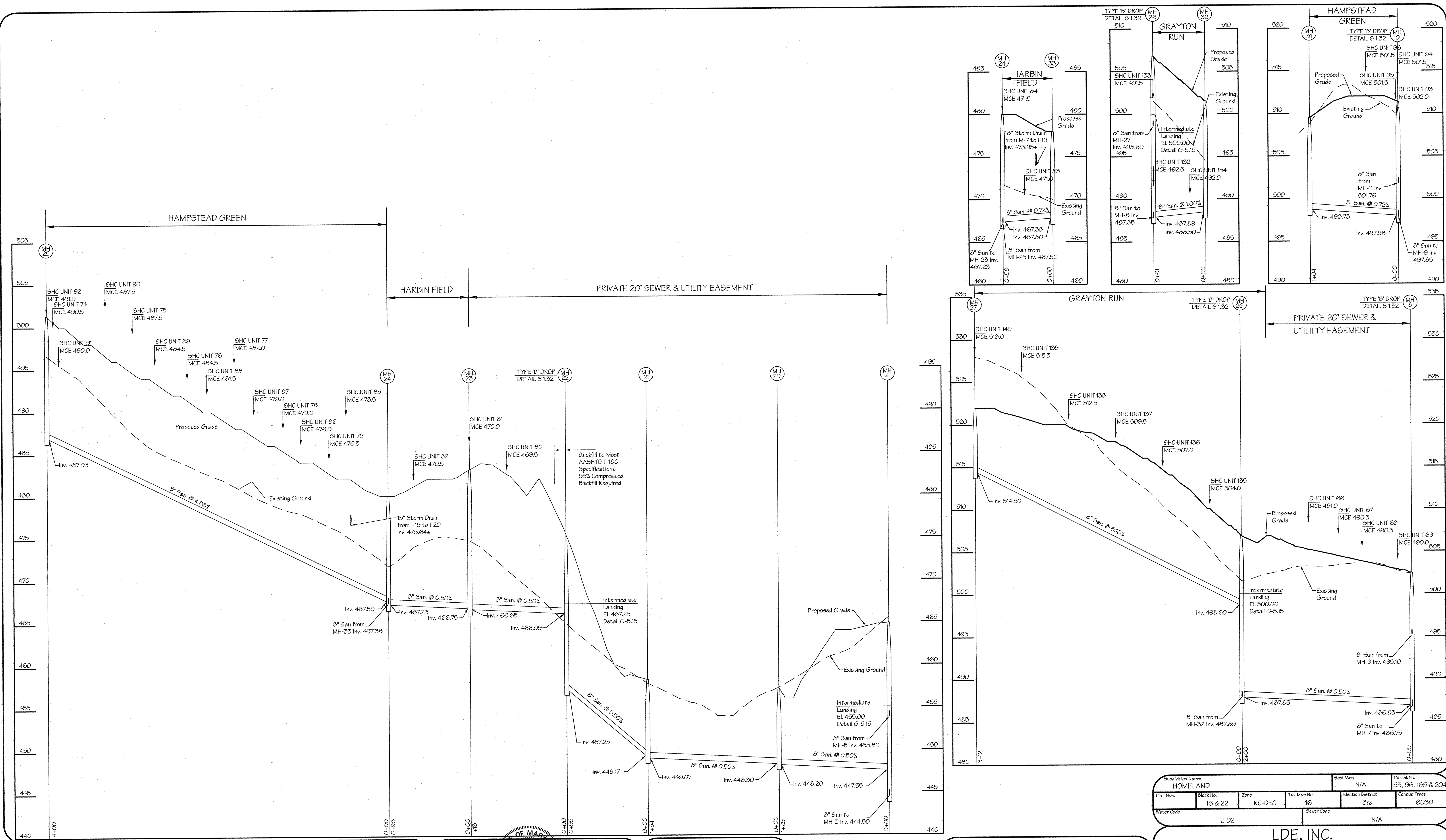
**LDE, INC.**  
 9250 Rumsay Road, Suite 106, Columbia, MD. 21045  
 (410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED: EDS JLM, BDB  
 DRAWN: JLM, JDR  
 CHECKED: BDB  
 DATE: 4/2004

DEVELOPER: LB MEADOWS LLC  
 8835 - P Columbia 100 Parkway  
 Columbia, Maryland 21045  
 (410) 730-0810

SCALE: 1" = 5' Ver., 1" = 50' Hor.  
 DRAWING: 49 of 52  
 JOB NO.: 99-0514  
 FILE NO.: SDP-03-30

Fulland Projects\224\HARBIN\DWG\SDP\SDP-03-30.dwg, 5/22/2004, 8:58:41 AM



APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 5/1/04  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 7/2/04  
 CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 7/2/04  
 DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL.

USDA-NATURAL RESOURCE CONSERVATION SERVICE

DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT

DATE

ENGINEER'S CERTIFICATE

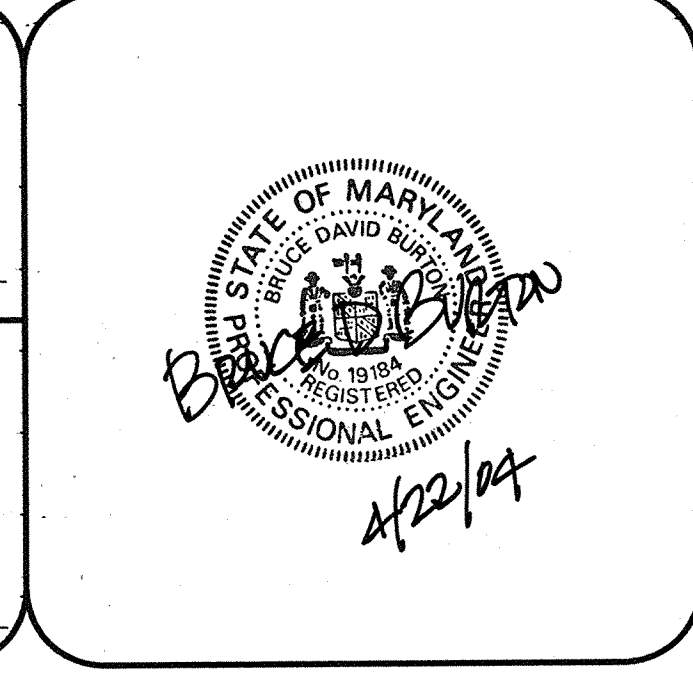
I certify that the plan for... represents a practical and workable... of the site conditions. This plan was prepared in accordance with... of the Howard Soil Conservation District. I have notified the... of the Howard Soil Conservation District with an "as-built" plan of the... completion.

*[Signature]* 4/22/04  
 PRINCE D. BURTON  
 SIGNATURE OF ENGINEER

DEVELOPER'S CERTIFICATE

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 shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

*[Signature]* 4/22/04  
 SIGNATURE OF DEVELOPER



APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

*[Signature]* 4/15/04  
 COUNTY HEALTH OFFICER  
 HOWARD COUNTY HEALTH DEPARTMENT

REVISIONS			
No.	Date	By	Description

Subdivision Name: HOMELAND		Sect./Area: N/A	Parcel No.: 53, 96, 165 & 204
Plot No.: 16 & 22	Zone: RC-DEO	Tax Map No.: 16	Election District: 3rd
Water Code: J 02	Sewer Code: N/A	Comms Tract: 6030	

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

DESIGNED: EDG JLM BDB  
 DRAWN: JLM JDR  
 CHECKED: BDB  
 DATE: 4/2004

Private Sewer Main Profiles  
**HOMELAND**  
 PARCEL 'A' AND PARCEL 'B'

Tax Map No. 16 - Grid No. 16 & 22 - Parcel 53, 96, 165 & 204  
 3rd Election District - Howard County, Maryland  
 Previous Submittals: BA 00-52E, WP 03-12B, F 03-19A

DEVELOPER: LB MEADOWS LLC  
 2835 - F Columbia 100 Parkway  
 Columbia, Maryland 21045  
 (410) 730-0810

SCALE: 1" = 5' Ver. 1" = 50' Hor.  
 DRAWING: 50 of 52  
 JOB NO.: 99-0514  
 FILE NO.: SDP-03-30

**GENERAL NOTES**

**PART I: GENERAL**

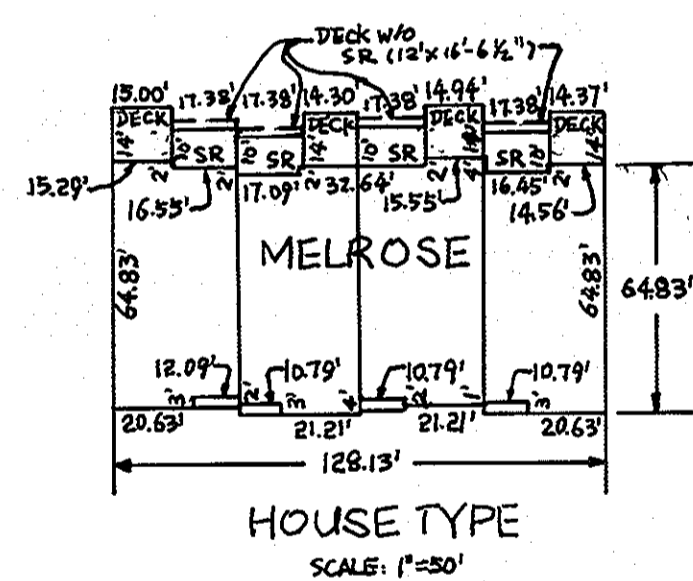
- Approximate location of existing mains are shown. The Contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted service. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer at the Contractor's expense.
- All horizontal controls are based on Maryland State Coordinates, NAD 83/91.
- All vertical controls are based on NAD 83.
- All pipe elevations shown are invert elevations unless otherwise noted on the plans.
- Clear all utilities by a minimum of 12 inches. Clear all poles by 5'-0" minimum or tunnel as required unless otherwise noted. The owner has contacted the utility companies and has made arrangements for bracing of poles as shown on the drawings. In the event the Contractor's work requires the bracing of additional poles, any cost incurred by the Owner for bracing of additional poles or damages shall be deducted from monies owed the Contractor. The Contractor shall coordinate with the utility companies to schedule the bracing of the poles, if required.
- For details not shown on the drawings, and for materials and construction methods, use Howard County Design Manual, Volume IV, Standard Specifications and Details for Construction (latest edition). The Contractor shall have a copy of Volume IV on the job.
- Where test pits have been made on existing utilities, they are noted by the symbol at the location of the test pit. A note or notes containing the results of the test pit or pits is included on the drawing. Existing utilities in the vicinity of the proposed work for which test pits have not been dug shall be located by the Contractor two weeks in advance of construction operations at his own expense.
- Contractor shall notify the following utility companies or agencies at least five (5) working days before starting work shown on these plans:
  - AT&T: (800) 252-1133
  - BGE (Contractor Services): (410) 850-4620
  - BGE (Underground Damage Control): (410) 787-9068
  - Bureau of Utilities: (410) 531-4900
  - Colonial Pipeline Co.: (410) 795-1390
  - Columbia Gas Transmission Corporation: (301) 762-6308
  - Miss Utility: 1-800-257-7777
  - State Highway Administration: (410) 531-5533
  - Verizon: 1-800-743-0023/ 410-224-9210
  - Howard County Health Department: (410) 313-6300
- Trees and shrubs are to be protected from damage to maximum extent. Trees and shrubs within the construction area are not to be removed or damaged by the Contractor.
- Contractor shall remove trees, stumps and roots along line of excavation. Payment for such removal shall be included in the unit price bid for construction of the main.

**PART III: SEWER**

- All sewer mains to be D.I.P. and P.V.C. unless otherwise noted.
- The Contractor shall provide a joint in all sewer mains within 2'-0" of exterior manhole wall.
- All manholes shall be 4'0" inside diameter unless otherwise noted.
- Force mains shall be SDR 21 P.V.C.
- All manholes are to be constructed on undisturbed earth.
- Manholes shown with 12" and 16" walls are for brick manholes only.
- Manholes designated W.T. in plan and profile shall have watertight frame & covers, Standard Details G. 5.52 where watertight manhole frame & cover is used, set top of frame 1"-6" above finished grade unless otherwise noted on this drawing.
- Houses with the symbol "C.N.S." indicates that cellar cannot be served.

**NOTES:**

- A Septic Fee in the amount of \$180 per unit serviced by the common septic system shall be paid to the Howard County Environmental Health Department at the time of the septic construction permit issuance.
- The builder shall install a backflow preventer and relief vent on the sewer service at the house. At the time of the house construction or as required by the plumbing inspector.
- Contractor shall notify the Construction Inspection Division (410-313-1880) at least fourteen (14) days prior to construction.
- The portions of the private sewer line which are closer than 50 feet to any well will be encased in concrete or constructed out of welded steel as required by COMAR 26.04.04.05.
- LDE, Inc. shall perform all as-built surveys and drawing recodification for the sewer system as specified by the Developer Agreement, including the as-built survey of the septic trench portion of the multi use septic system for the Health Department's Approval.
- The Developer or Developer's Contractor shall provide a full time private inspector who is qualified to inspect large septic system designs. This individual is to be provided on site during all phases of septic system construction. During septic system construction, the Howard County Health Department is to be kept informed, on a daily basis, of the progress of installation to better coordinate its inspection events.



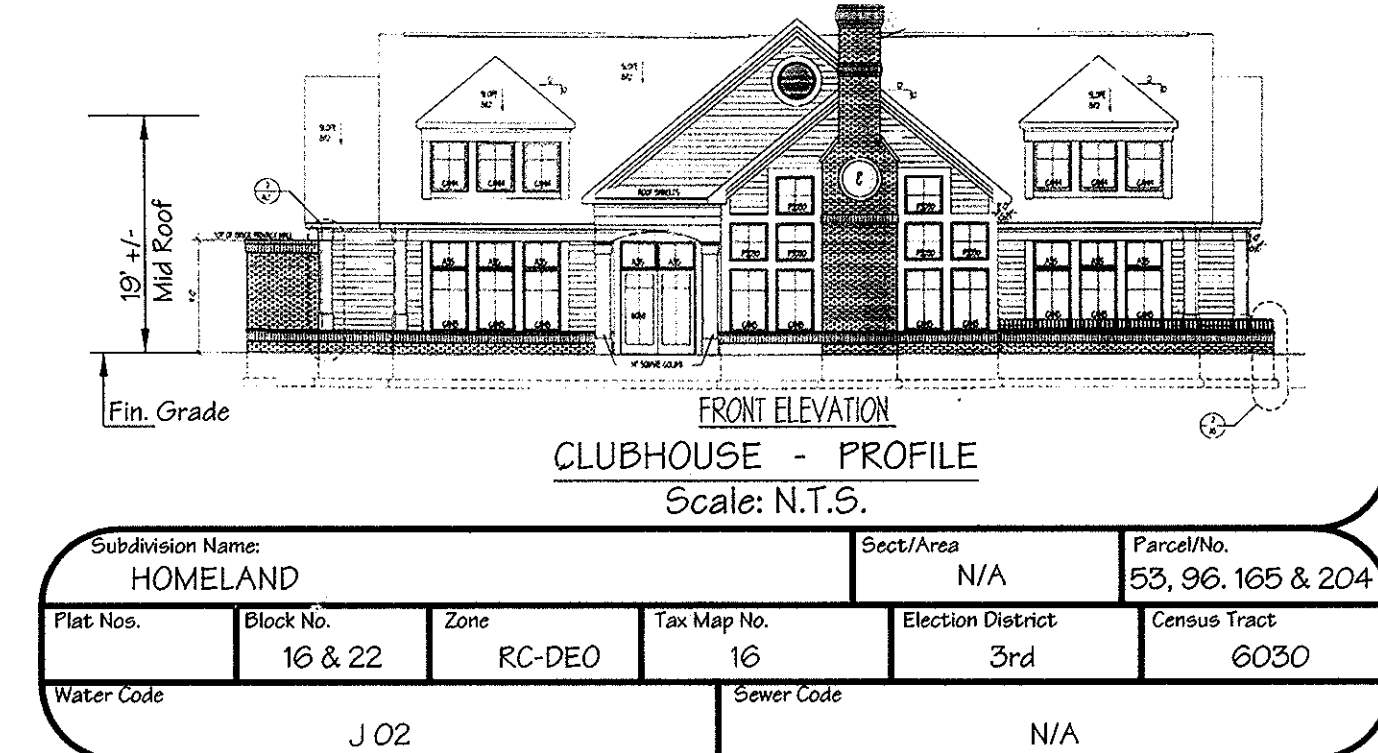
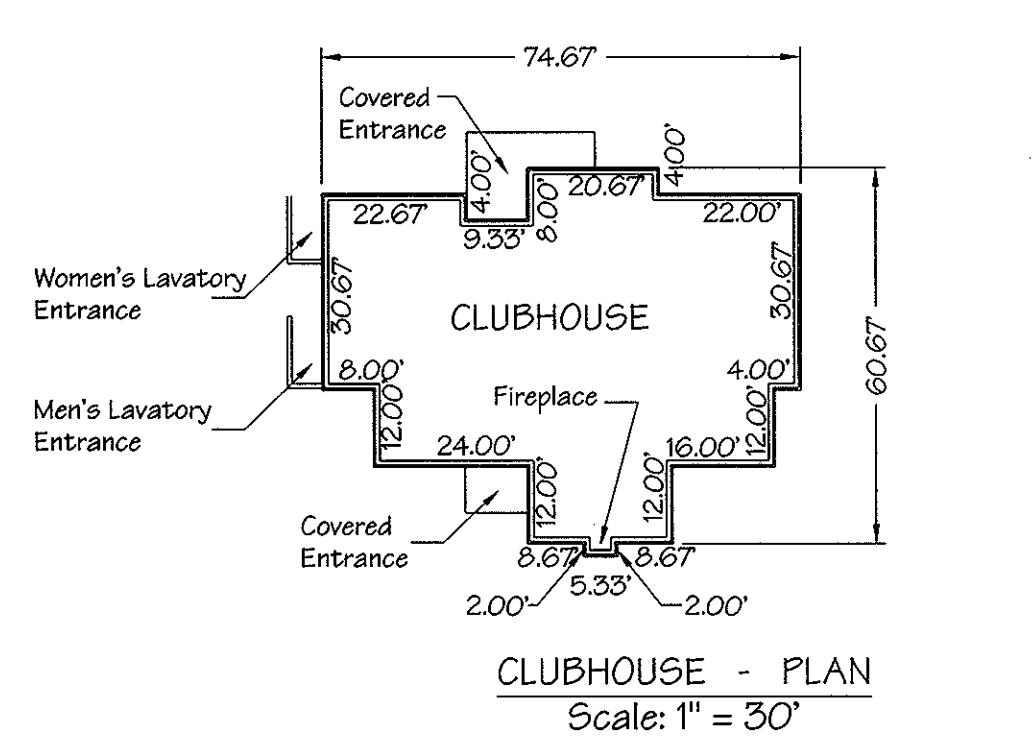
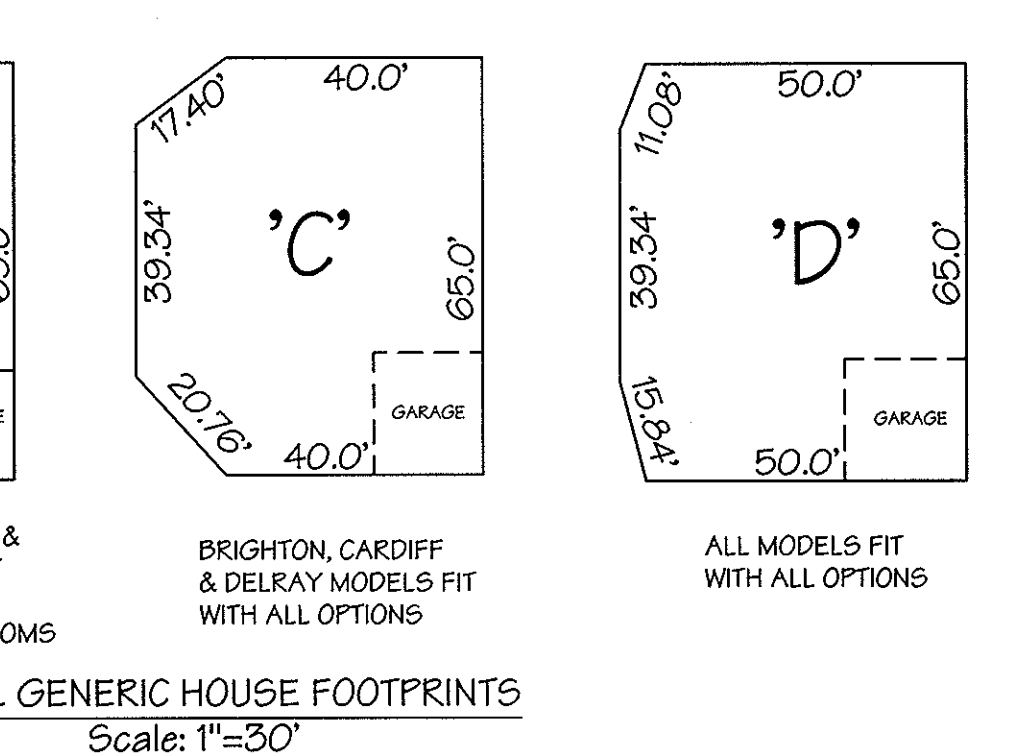
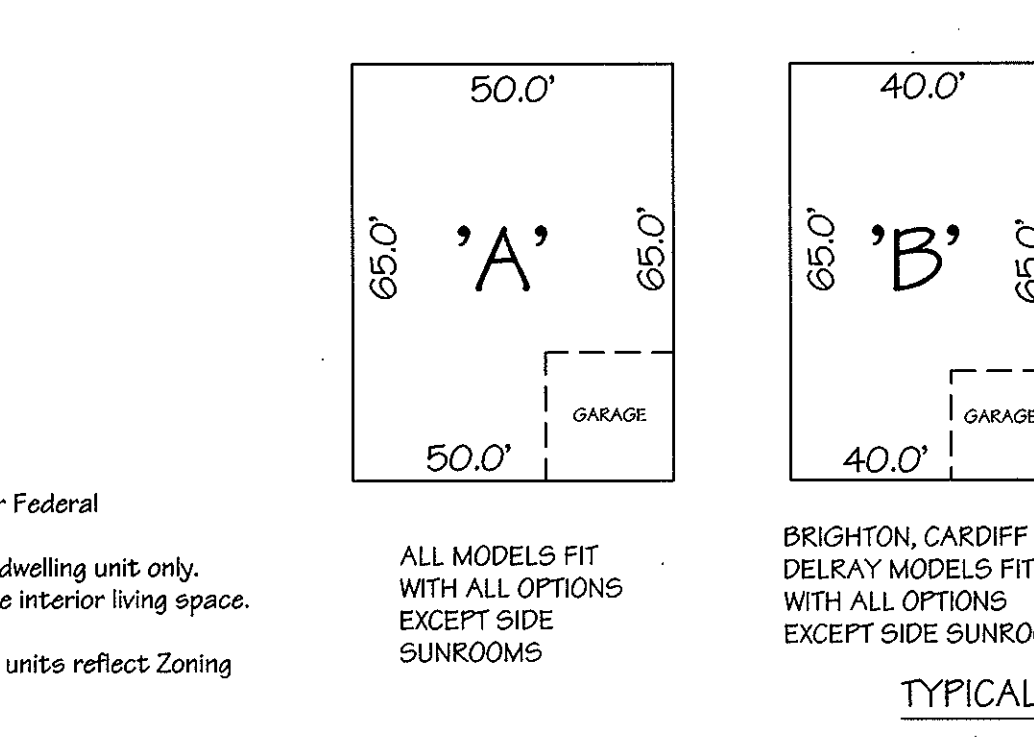
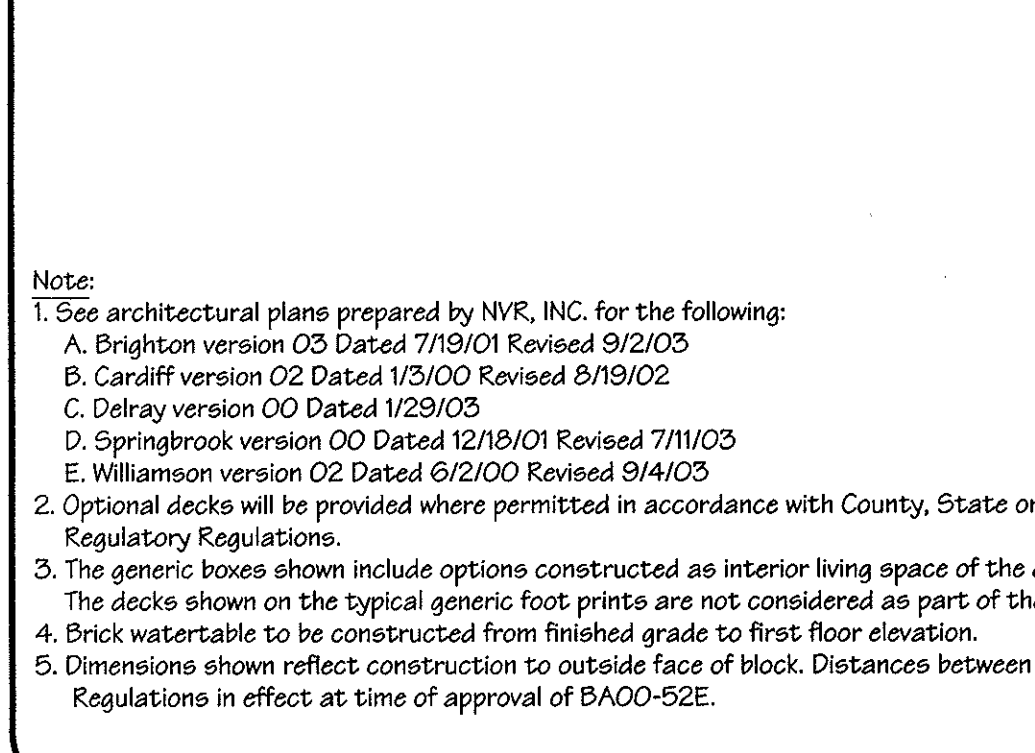
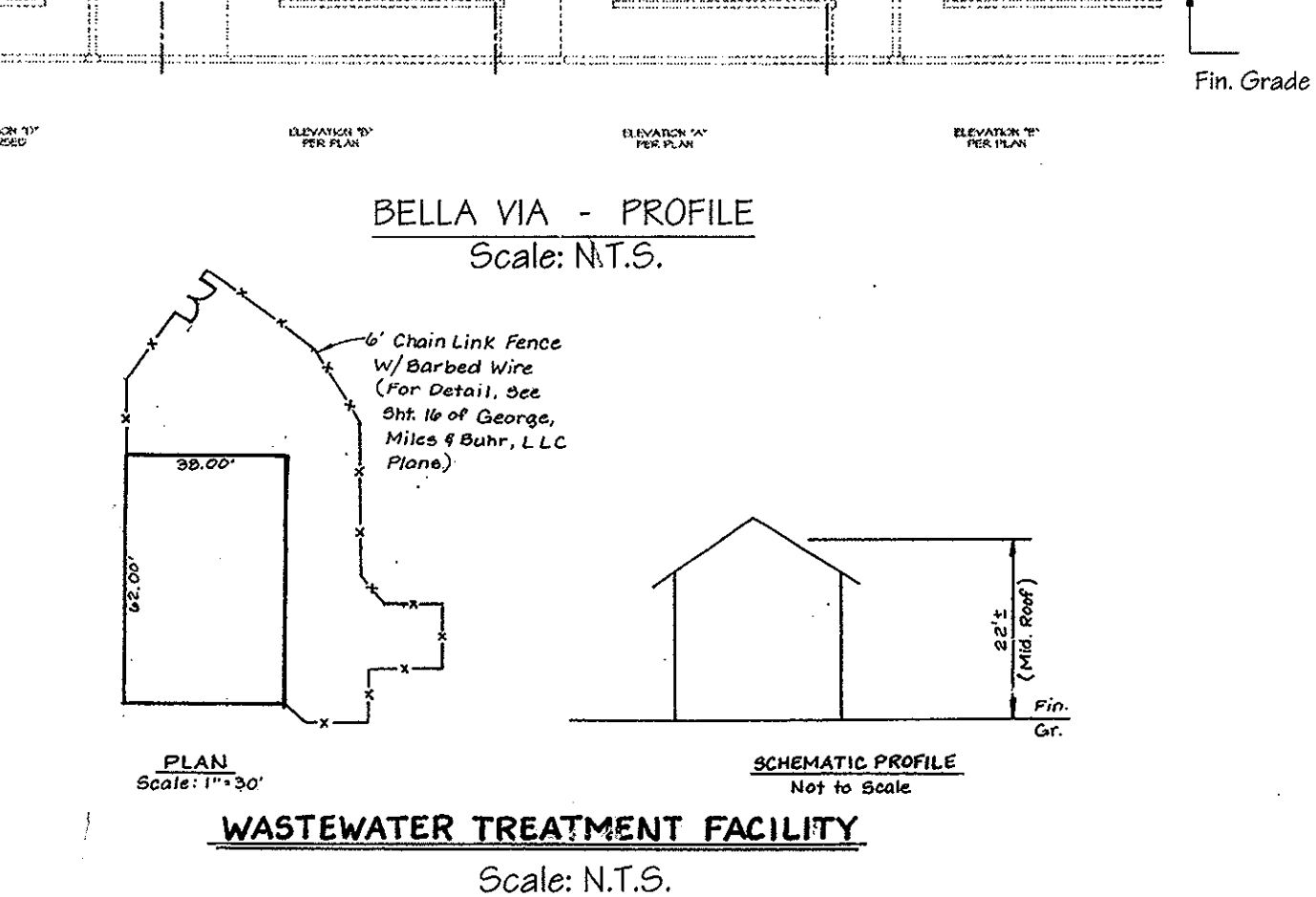
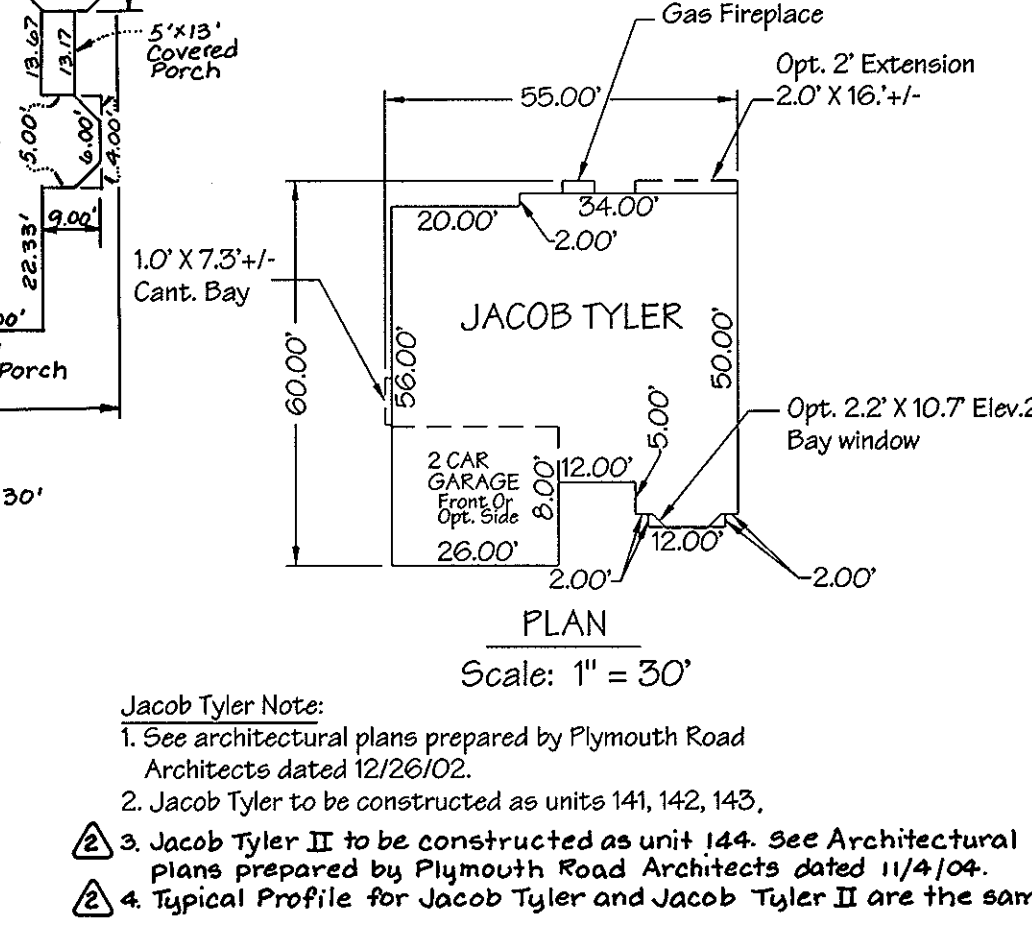
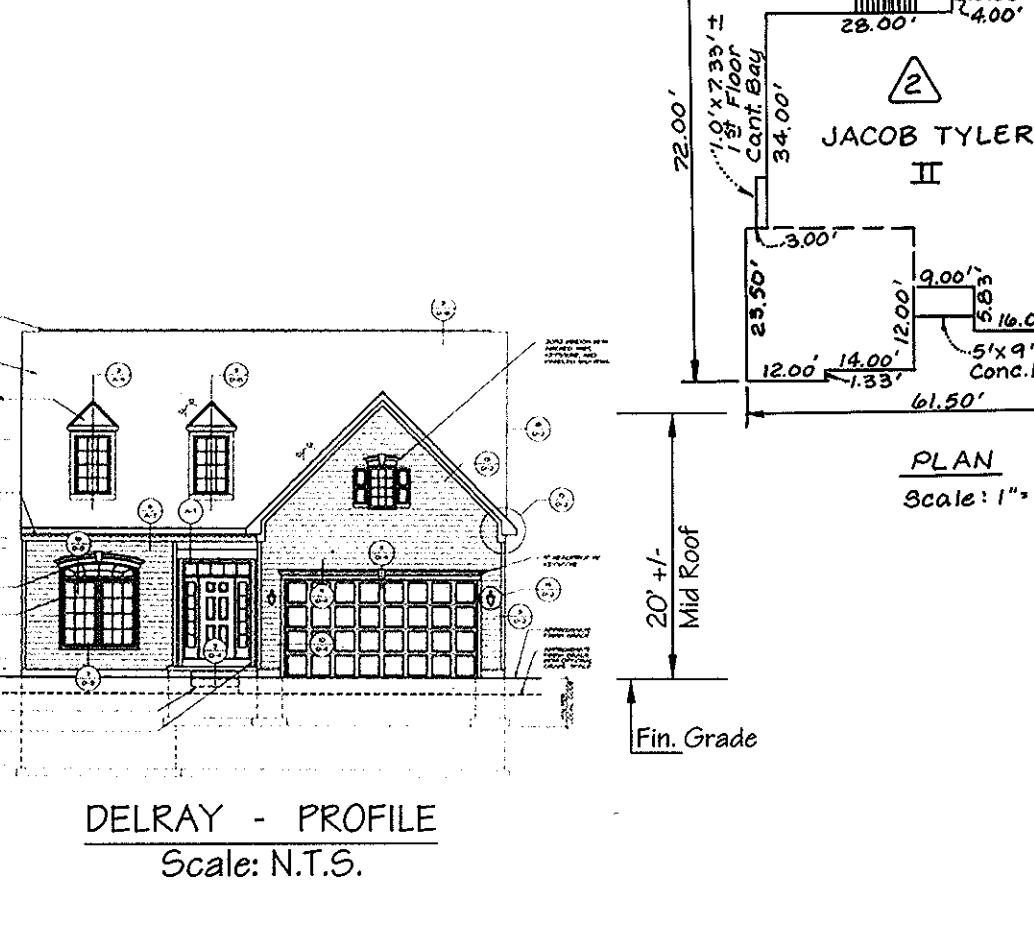
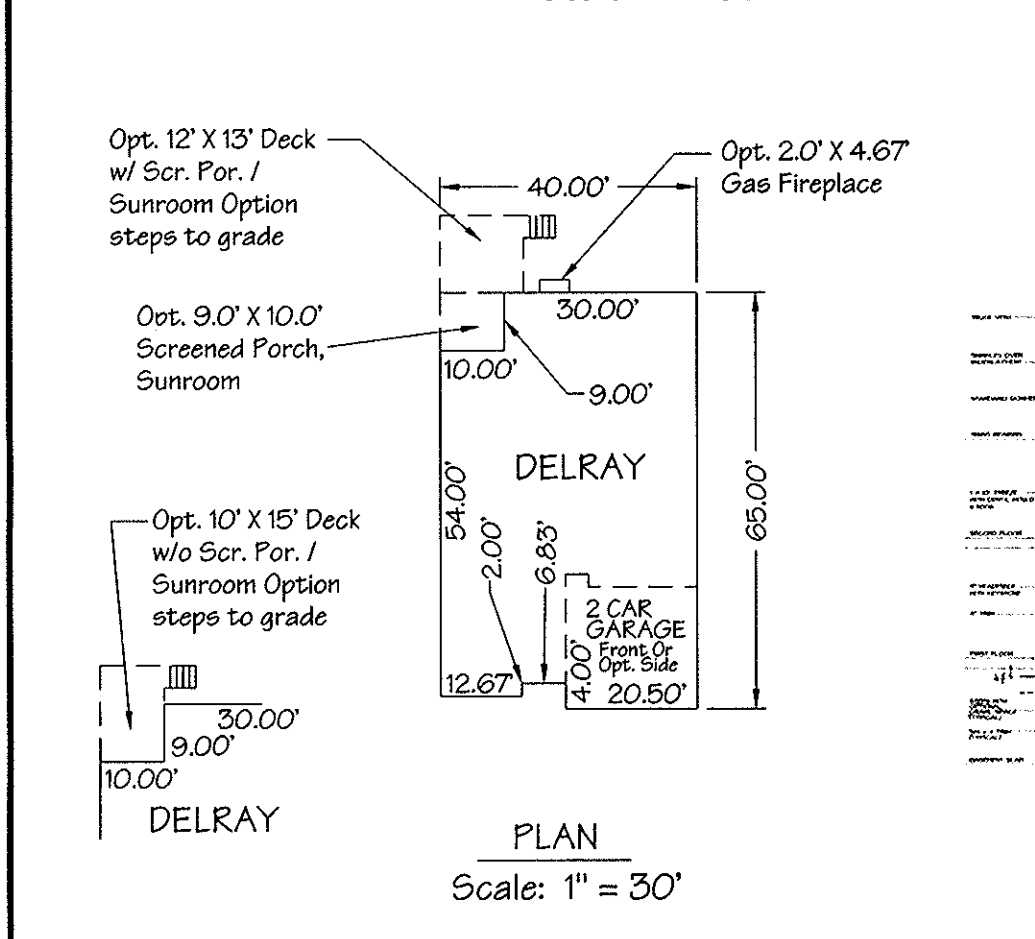
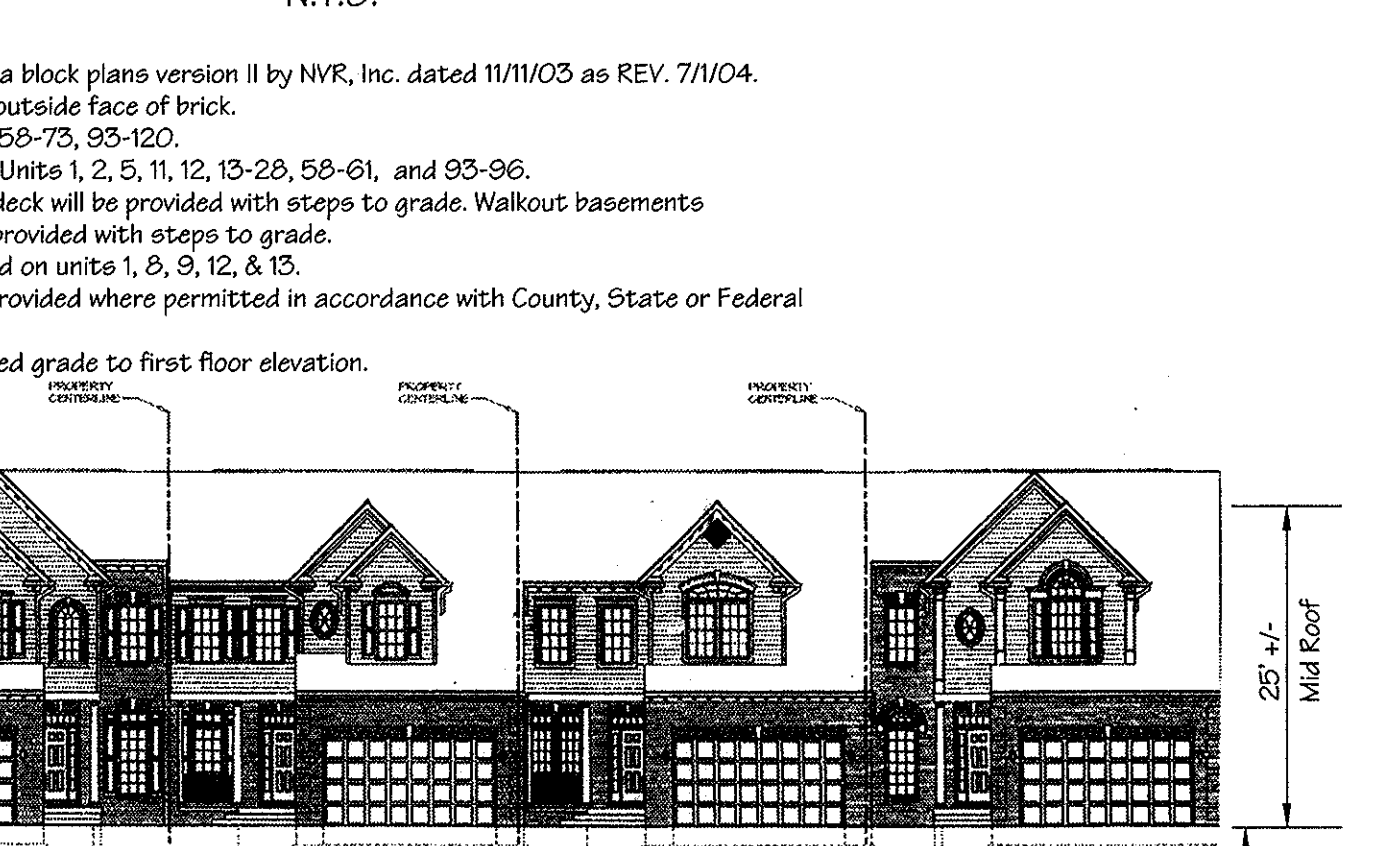
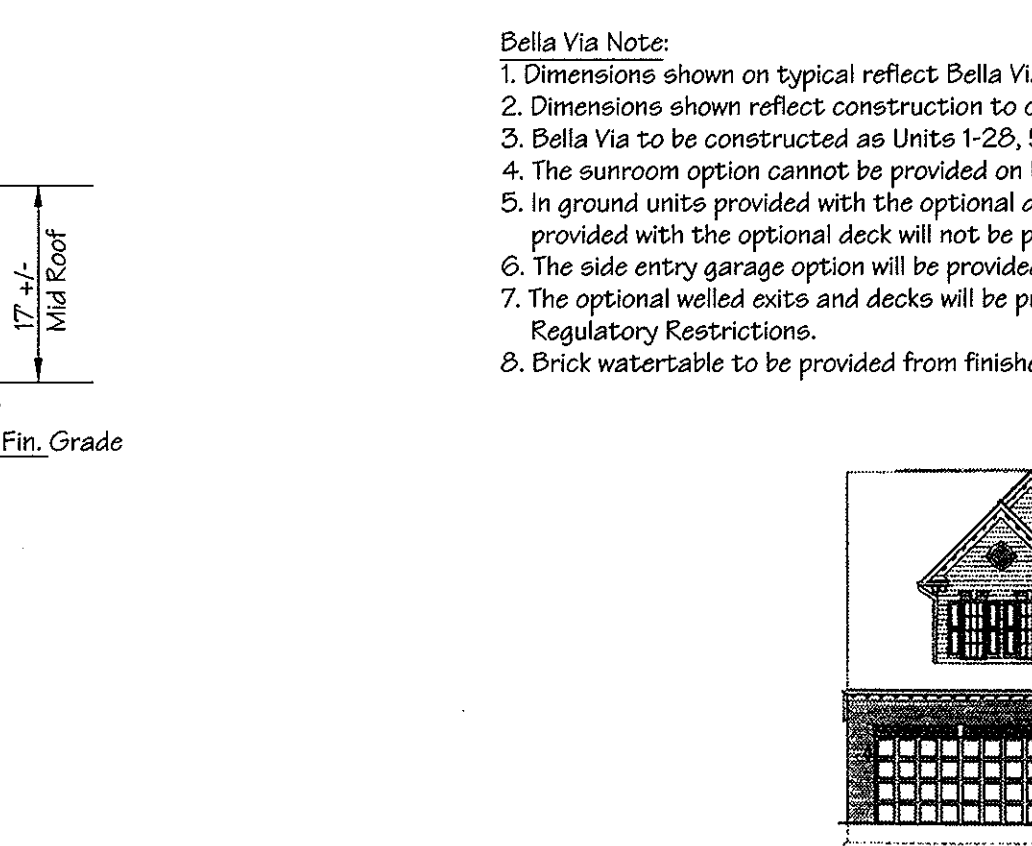
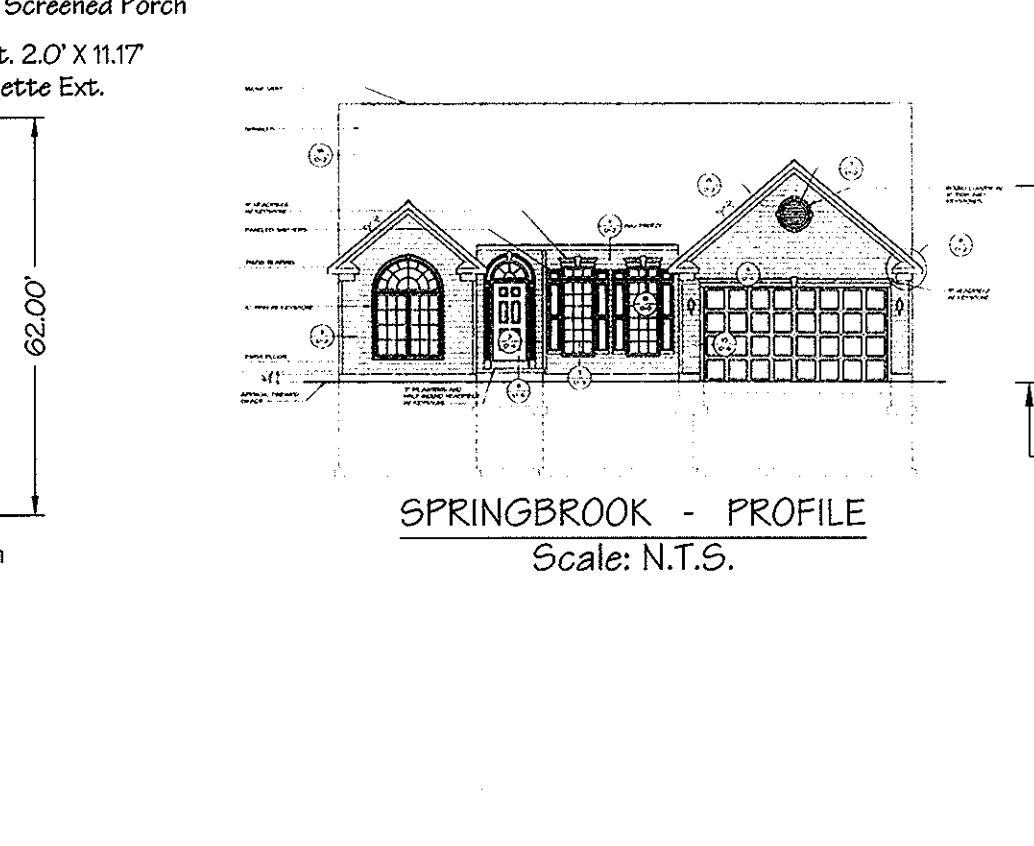
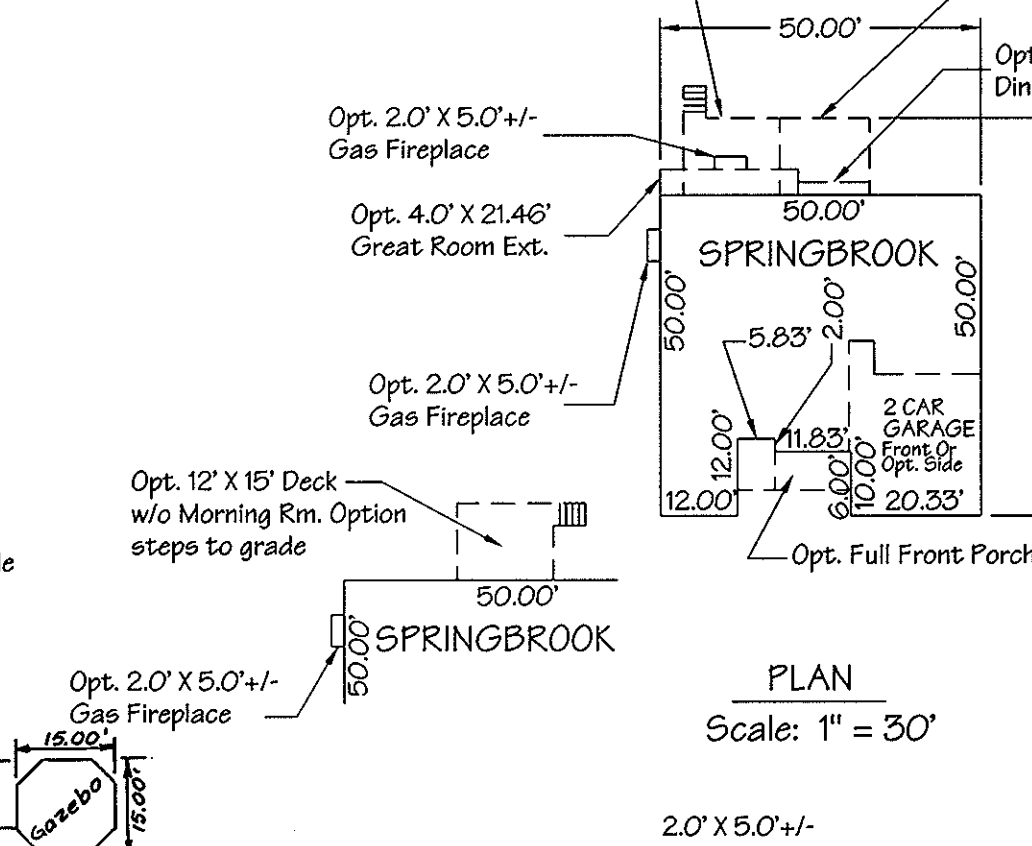
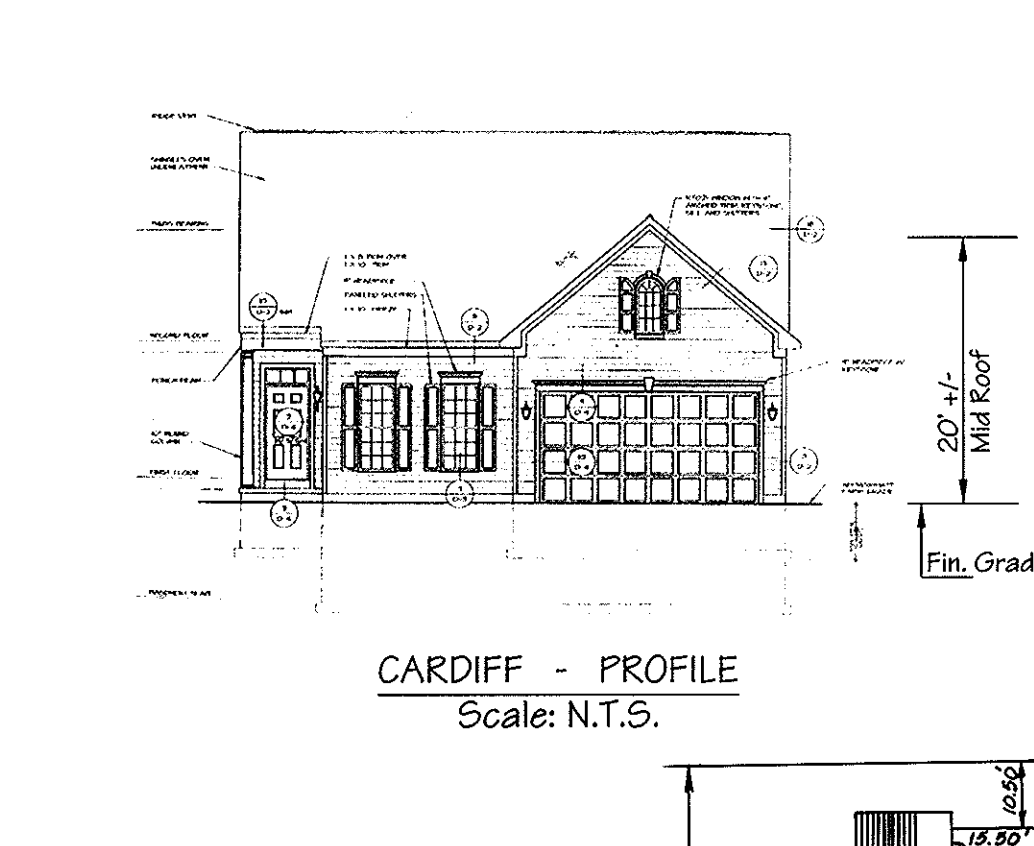
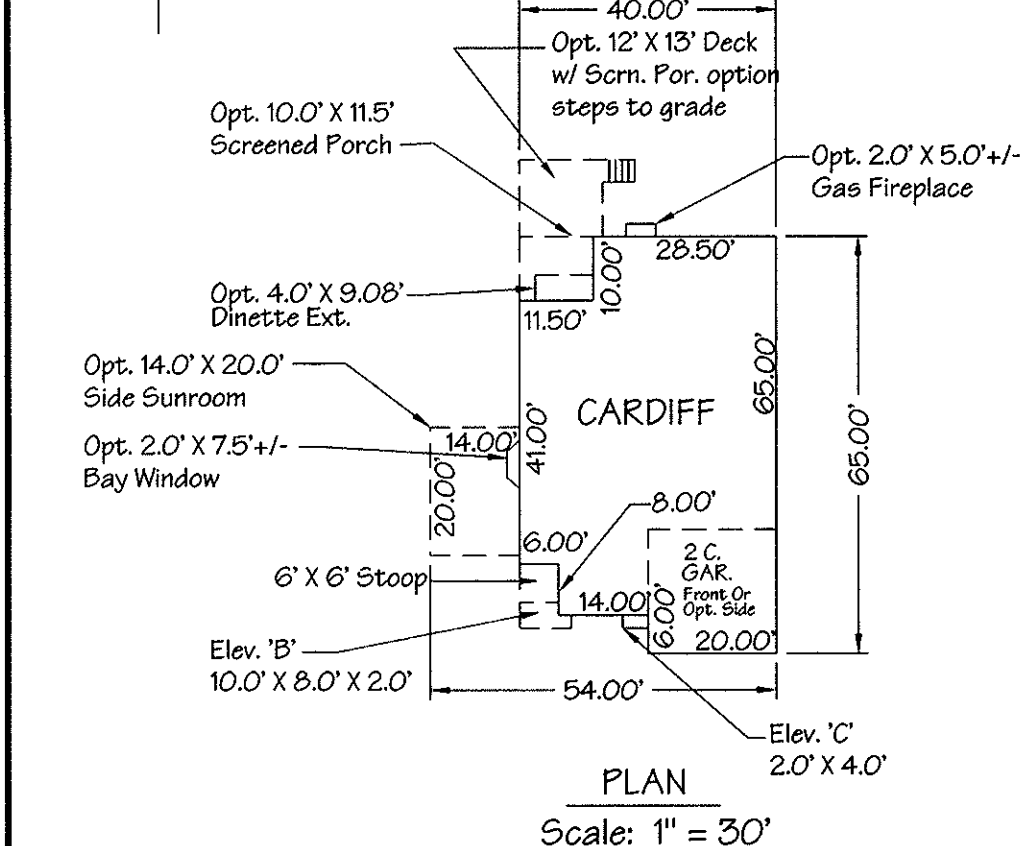
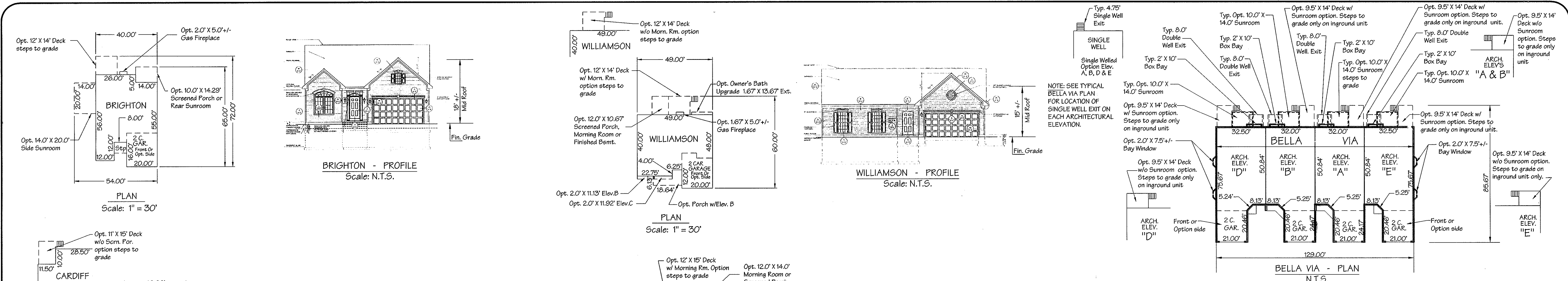
SEE "GEORGE, MILES & BUHR", LLC PLANS FOR SEPTIC SYSTEM DESIGN & TRENCH LAYOUT

**SUMMARY OF SOIL DATA COLLECTED FROM TEST PITS**

TEST NO.	LAND SURFACE ELEVATION (ft)	TOTAL DEPTH (ft)	THICKNESS (ft)	SOLUM	SOIL TYPE	DEPTH (ft)	TEXTURE	MOISTURE (%)	POTENTIAL DISPOSAL STRATUM	PERCOLATION TEST	PERCENTAGE PASSING	DEPTH TO WATER (ft)
101	14.0	36	1.0	L1	CL	1.0	CL	2.7	SL	5	7	214
102	13.8	35	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
103	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
104	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
105	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
106	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
107	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
108	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
109	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
110	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
111	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
112	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
113	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
114	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
115	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
116	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
117	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
118	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
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124	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
125	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
126	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
127	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
128	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
129	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
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192	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
193	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
194	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
195	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
196	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
197	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
198	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
199	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214
200	14.0	36	1.0	L1	CL	1.0	CL	3.0	SL	5	8	214

**Sewer House Connection Table**

UNIT #	Real Inv. Main	Min. Cellar Elev.
1	515.16	518.50
2	515.40	519.50
3	516.03	520.00
4	516.24	521.00
5	517.13	521.50
6	517.43	522.00
7	517.94	522.00
8	518.24	522.00
9	519.55	523.50
10	519.74	523.50
11	520.01	523.50
12	520.16	524.00
13	520.35	524.50
14	520.49	524.00
15	518.41	521.50
16	518.18	522.00
17	517.73	521.00
18	517.53	521.00
19	517.26	520.50
20	517.10</	



APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Chad Damann* 3/1/05  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*Cindy Klumpp* 3/15/05  
CHIEF, DIVISION OF LAND DEVELOPMENT

*Paul A. Wynn* 3/15/05  
DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION & SEDIMENT CONTROL.

TSDA-NATURAL RESOURCE CONSERVATION SERVICE

DATE: *3/15/05*

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT

DATE: *3/15/05*

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, including erosion control, represents a practical and workable plan based on my personal observations. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that this plan is subject to the professional engineer's supervision of pond construction and that the Howard Soil Conservation District will conduct inspections of the pond construction.

*David D. Burton* 2/18/05  
SIGNATURE OF ENGINEER

DATE: *2/18/05*

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 shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize the professional engineer to conduct inspections by the Howard Soil Conservation District.

*David D. Burton* 2/18/05  
SIGNATURE OF DEVELOPER

DATE: *2/18/05*

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER AND SEWERAGE FOR HOWARD COUNTY

*Robert J. Weller* 3/15/05  
COUNTY HEALTH OFFICER  
HOWARD COUNTY HEALTH DEPARTMENT

REVISIONS

No.	Date	By	Description
1	01/21/05	LDE	Replace Sheet 52
2	4/19/05	LDE	Add Footprint for Jacob Tyler II / Unit 144.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Chad Damann* 3/1/05  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*Cindy Klumpp* 3/15/05  
CHIEF, DIVISION OF LAND DEVELOPMENT

*Paul A. Wynn* 3/15/05  
DIRECTOR

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

DESIGNED: EDS JLM BDB  
DRAWN: JLM JDR  
CHECKED: BDB  
DATE: 4/2004

REVISIONS

No.	Date	By	Description
1	01/21/05	LDE	Replace Sheet 52
2	4/19/05	LDE	Add Footprint for Jacob Tyler II / Unit 144.

SCALE: Not to Scale  
DRAWING: 52A of 52  
JOB NO.: 99-051.4  
FILE NO.: SDP-03-30

Tax Map No. 16 - Grid No. 16 & 22 - Parcel 53, 96, 165 & 204  
3rd Election District - Howard County, Maryland  
Previous Subdivisions: BA 00-52E, WF 03-12B, F 03-194

DEVELOPER: LB MEADOWS LLC  
8825 - P Columbia 100 Parkway  
Columbia, Maryland 21045  
(410) 720-0810