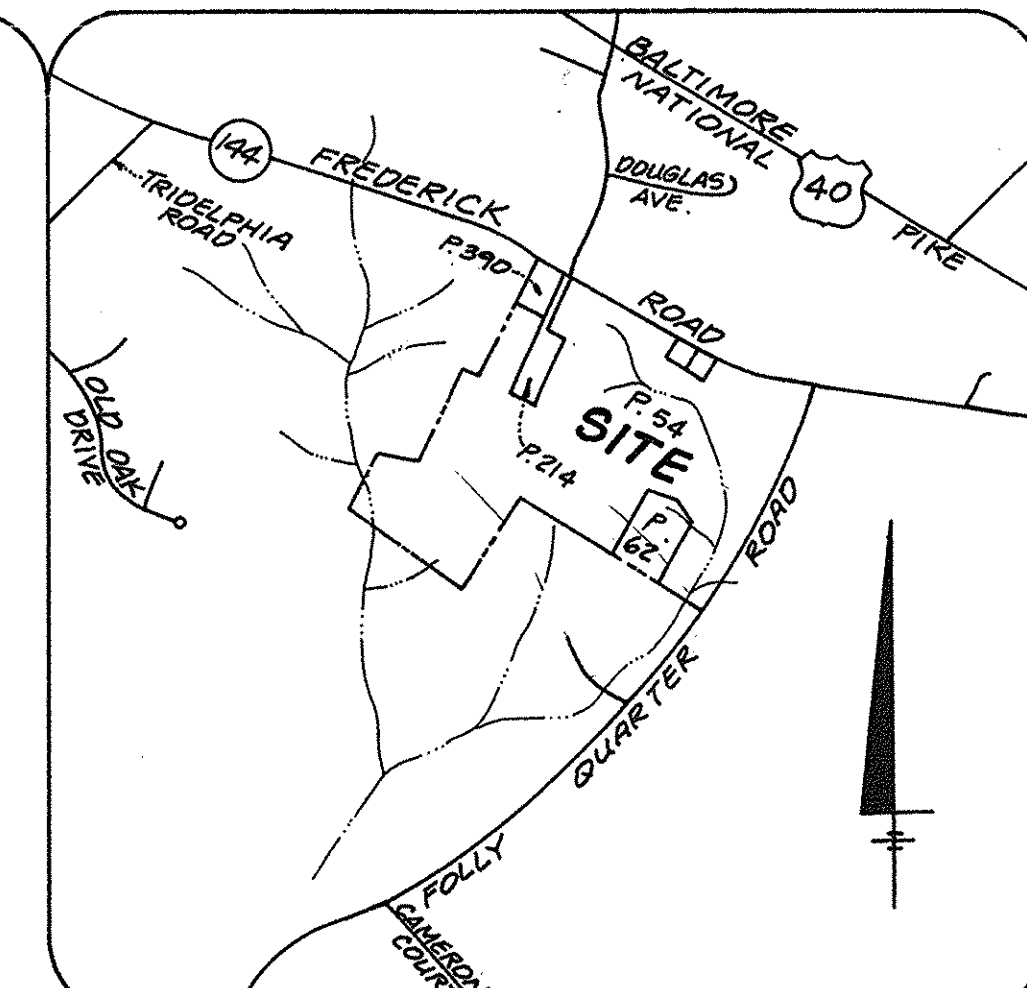


INDEX OF SHEETS	
SHEET NO.	TITLE
1	Cover Sheet
2	Frederick Road - Plan & Profile
3	Frederick Road - Plan & Profile
4	Lancelot Cross - Plan & Profile
5	Roundabout - Plan & Profile / Lancelot Cross - Exit Profile
6	Stardust Lane - Plan & Profile
7	Argent Path - Plan & Profile
8	Road Details
9	Storm Drain Profiles
10	Storm Drain Profiles
11	Drainage Area Map
12	Drainage Area Map
13	Drainage Area Map
14	Drainage Area Map
15	Drainage Area Map
16	Grading and Soil Erosion & Sediment Control Plan
17	Grading and Soil Erosion & Sediment Control Plan
18	Grading and Soil Erosion & Sediment Control Plan
19	Grading and Soil Erosion & Sediment Control Plan
20	Grading and Soil Erosion & Sediment Control Plan
21	Soil Erosion & Sediment Control Plan - Details
22	Soil Erosion & Sediment Control Plan - Details
23	Soil Erosion & Sediment Control Plan - Details
24	Pond Construction Details & Specifications
25	Pond Construction Details & Specifications
26	Ultimate Pond Configuration
27	Landscape, Forest Conservation & Street Tree Plan
28	Landscape, Forest Conservation & Street Tree Plan
29	Landscape, Forest Conservation & Street Tree Plan
30	Landscape, Forest Conservation & Street Tree Plan
31	Landscape, Forest Conservation & Street Tree Plan
32	Landscape, Forest Conservation & Street Tree Plan
33	Landscape, Forest Conservation & Street Tree Plan
34	Landscape, Forest Conservation & Street Tree Plan Details

BENCHMARKS

Howard County Monument # 1G HC
Elevation: 449.451
Description: Concrete Monument 2' below surface, South side MD 144, 0.1 Mile West Folly Quarter Road

Howard County Monument # 16HB
Elevation: 540.658
Description: Concrete Monument flush with surface, 21.9' South of centerline MD 144, 147.5' West of Marriottsville Road



VICINITY MAP

Scale 1" = 2000'

GENERAL NOTES

- This plan is subject to WP 96-133. The Planning Director approved the request to waive Section 16-123 (a)(2) and Section 16-156 to allow grading prior to final subdivision plan or site development plan, to create stockpile areas on September 3, 1998 subject to conditions.
- This plan is subject to WP 99-14. The Planning Director approved the request to waive Section 16-146 to allow final subdivision plan inclusion of Lot 11 prior to Preliminary Plan approval on September 16, 1998 subject to conditions.
- All construction shall be in accordance with the latest standards and specifications of Howard County Design Manual Vol IV and MSHA standards & specifications.
- The contractor shall notify the Department of Public Works/Bureau of Engineering/Construction Inspection at (410) 313-1880 at least five (5) working days prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-257-7777 at least forty-eight (48) hours prior to any excavation work.
- Project Background:
Location: Ellicott City, Maryland
Tax Map: 16 & 23
Parcels: 54, 62, 214, & 390
Deed Reference: P. 54, Liber 974, Folio 614
P. 62, Liber 974, Folio 57
P. 214, Liber 983, Folio 57
P. 390, Liber 980, Folio 423
Zoning: RC (Rural) / Conservation: Per 10/18/93 Comprehensive Plan
Election District: 3rd
Total Tract Area: 208,893 sq. ft. plus minus (Limit of Submission: 123,994 sq. ft.)
Previous Submittals: WP 96-133, S 96-23, P 98-08, WP 98-133, WP 99-14
- Traffic control devices, markings, and signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
- Any damage caused by the contractor to existing public right-of-way, existing paving, existing curb and gutter, existing utilities, etc. shall be corrected at the contractor's expense.
- The existing utilities shown hereon are located from field surveys and construction drawings of record. The approximate location of existing utilities are shown for the contractor's information and convenience. The contractor shall locate existing utilities to his own satisfaction and well in advance of any construction activities. Additionally, the contractor shall take all necessary precautions to protect all existing utilities and maintain uninterrupted service.
- The topography shown hereon is compiled from Howard County Aerial Photography except in areas where site improvements are planned, to include road construction and stormwater management facilities. Topography for site improvement areas was field run by LDE, Inc. in December, 1997.
- Horizontal and vertical datums are related to the Maryland State Plane Coordinate System as projected from Howard County Geodetic Control Station Nos. 16HC and 16HB (MD 83).
- The property shown hereon is based on a field run boundary survey performed by LDE, Inc. dated July 1995.
- The proposed Water and Sewer systems to be private well and septic. The property is not located within the Metropolitan District.
- The existing structures located on Lots 26 & 33 are to remain, Maryland Route 144 (Old Frederick Road) and Folly Quarter Road are scenic roads.
- All private use-in-common driveways shall meet the following specifications:
- 16 foot width - 6" compacted crusher run and chip coating
- Minimum turning radius of 45 feet - Designed to support vehicles with a gross weight of 25 tons - 12 feet of overhead clearance - Maintained for all weather use - Maximum grade is 15% with the durable and sustained grade of 8% - Where one (1) driveway serves more than one (1) lot, a house number sign must be placed at each lot entrance and a range of street address house numbers sign where the common driveway intersects with the main road.
- All hydraulic data is for the 10-year storm unless otherwise noted.
- See sheet 16 for construction sequence.
- OSR composition in all fill areas shall be determined by AASHTO T-180.
- The Geotechnical Report was compiled by Hillis Carner Engineering Associates, Inc. dated August 22, 1997, and approved under P 98-08.
- The Noise Study was compiled by LDE, Inc., dated October, 1997 and approved under P 98-08.
- The Floodplain Study was compiled by LDE, Inc., dated August, 1997 and approved under P 98-08.
- The Wetland Delineation was compiled by Dennis J. Labare, M.S. & Associates.
- The Traffic Study was compiled by Lee Cunningham & Associates, Inc. titled "Transportation Analysis for The Feaga Property" dated August 10, 1996 and approved under P 96-23.
- The Sign Distance analysis was submitted and approved as part of the S 96-23 submission.
- Stormwater management will be met in Pond #1 on Preservation Parcel "C" by RETENTION. Pond #1 shall be a public facility and maintained by the H.O.A.
- The plan is subject to WP 96-133. The Planning Director approved the request to waive Section 16-119 (f)(1) to allow the proposed driveway for Lots 1 - 3, and the existing driveway for Lot 33 to have direct access onto Maryland Route 144 (Minimum detour) on August 2, 1998, subject to conditions.
- Street Light placement and the type of fixture and pole selected shall be in accordance with the Howard County Design Manual, Volume III (1993) and approved by the Planning Director. "A minimum spacing of 20' shall be maintained between any street light. Tree Protection Fence or Black Orange Fence shall be placed around the perimeter of the sewage disposal easement prior to any construction of road or lot improvements to insure that placement of fill material upon the easement area will not occur.
- Water Quality will be met in Water Quality Facility #1 on Preservation Parcel "B". The facility shall be a private facility and maintained by the Homeowners' Association.
- The Contractor shall be responsible for maintaining full vehicular ingress and egress to the existing homes on Lots 2, 26 & 33. Upon completion of Lancelot Cross, driveway access to Lot 26 shall be relocated to Lancelot Cross Road Station 10 + 20 ±.
- The Contractor shall be responsible for maintenance of traffic along the Maryland Route 144 property frontage. Maintenance of traffic shall be in conformance with MSHA standard No. MD 104.00, MD 104.04-01 and MD 104.02-01.



LOCATION MAP

Scale: 1" = 600'

ROAD & STORM DRAIN CONSTRUCTION PLANS

BRANTWOOD SECTION ONE

3rd Election District - Howard County, Maryland

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Michael Dammann
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 11/13/98
Cinda Hamilton
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 11/12/98
Howard Shick
Chief, Bureau of Highways
DATE: 11/12/98

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

Cheryl Summers
NATURAL RESOURCE CONSERVATION SERVICE
DATE: 11/9/98
John Blum
HOWARD SOIL CONSERVATION DISTRICT
DATE: 11/9/98

ENGINEER'S CERTIFICATE

I certify that the construction, erosion and sediment control plan is a logical and workable plan based on my personal knowledge of the conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have advised the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with a "as-built" plan of the pond within 30 days of completion of construction.

David B. Brown
REGISTERED PROFESSIONAL ENGINEER
DATE: 11/12/98

DEVELOPER'S CERTIFICATE

I/we certify that all development and/or construction will be done according to these plans, and that my/our 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 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 of construction.

Hugh F. Cole
DATE: 4/15/99



OWNERS

Parcel 54: Charles C. Feaga, ETAL, 11305 Frederick Road, Ellicott City, MD 21042 (410) 531-6579
Parcel 214: Charles C. & Barbara W. Feaga, 11305 Frederick Road, Ellicott City, MD 21042 (410) 531-6579
Parcel 62: NVR Homes, Inc., 2200 Defense Hwy., #301, Crofton, MD 21114 (410) 721-9709
Parcel 390: Marian E. Feaga, (Lot 1), 11315 Frederick Road, Ellicott City, MD 21042 (410) 531-3489

LDE, INC.

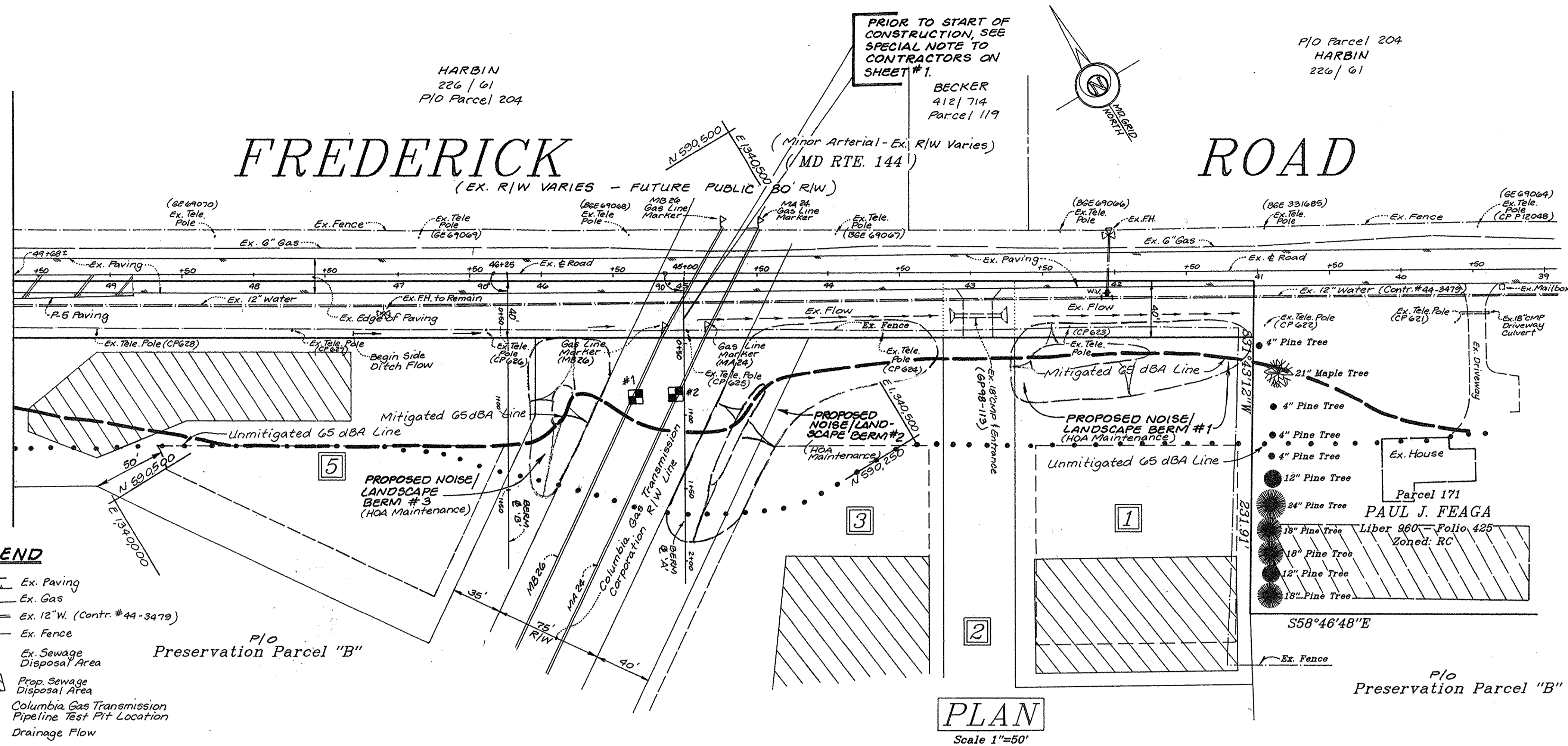
9250 Rumsey Road, Suite 106, Columbia, MD. 21045
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED	Cover Sheet	SCALE	As Shown
B.D.S.		DRAWING	1 of 34
E.D.S.		CHECKED	95-056
K.B.W.		DATE	10/98
B.D.B.		FILE NO.	F98-138

BRANTWOOD SECTION ONE
Lots 1 - 33, Preservation Parcels "A", "B", "C", "D", Non-Buildable "Bulk Parcel" and A Residential "Lot 1 - Feaga Property"
Tax Maps 16 & 23 Parcels 54, 62, 214, & 390
3rd Election District - Howard County, Maryland
Previous Submittals: WP 96-133, S 96-23, P 98-08, WP 98-133, WP 99-14
Developer: BRANTWOOD, LLC
8835 - F Columbia 100 Parkway
Columbia, Maryland 21045
(410) 730-0810

PLAN
 SURVEYED BY: []
 PLOTTED BY: []
 CHECKED BY: []
 DATE: []

MATCHLINE SEE SHEET 3



PLAN
 Scale 1"=50'

- NOTES:**
1. For street tree location, see sheets 27 thru 34.
 2. All street trees and/or street signs shall be located 5 ft. minimum from proposed drainage and utility structures.
 3. There shall be a minimum of 20' feet between street lights and street trees.
 4. Contractor shall coordinate adjustment and/or relocation of existing utility poles with the appropriate utility companies. All utility poles shall be braced subsequent to and during construction.
 5. Contractor shall be responsible for adjusting all existing water meter tops, water valve tops, etc. to finished grade. The Contractor shall be responsible for identifying all existing structures requiring adjustment prior to beginning construction.
 6. Refer to sheet 8 for road widening typical section, typical sections and road widening/stripping information.
 7. Prior to start of construction, see Special Note to Contractors on sheet No. 1.
 8. For Noise Landscape Berm Construction Data, see sheet No. 23.
 9. Contractor shall be responsible for maintaining full ingress and egress to the existing home (Lot 2) during all phases of construction.

APPROVED: Department of Planning & Zoning

Ainda Hamstra 11/2/98
 Chief, Division of Land Development

Chris Drummond 11/13/98
 Chief, Development Engineering Division

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

Howard Hill 11/14/98
 Chief, Bureau of Highways

PAVING LEGEND

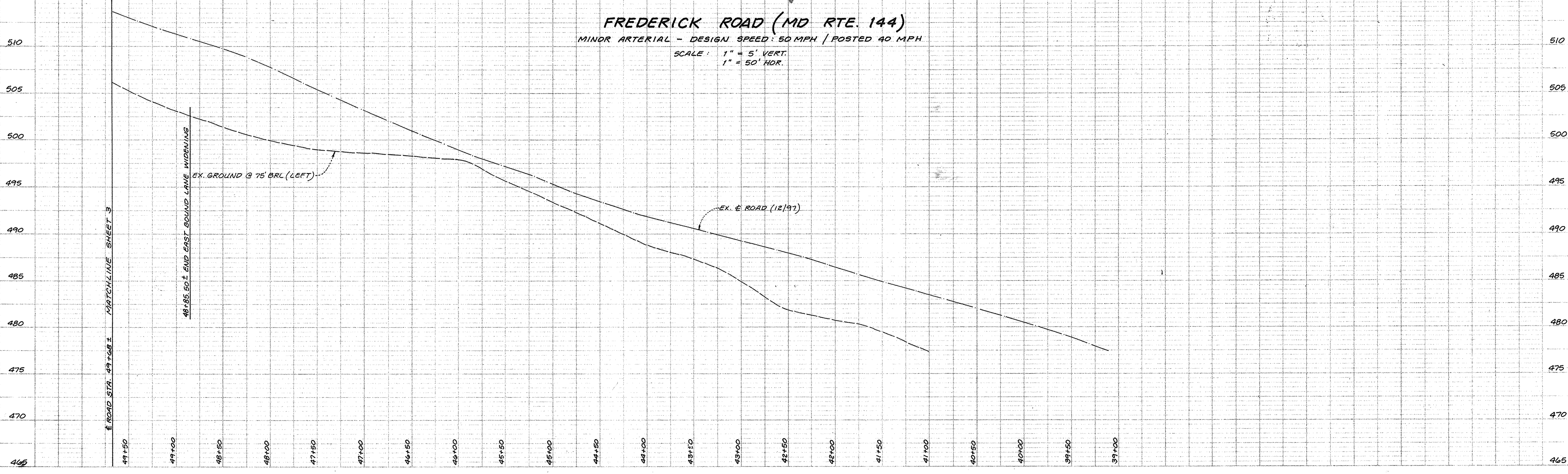
- [Hatched Pattern] Pavement Improvement Overlay w/ Rut Mix Seal
- [Hatched Pattern] SHA Full Depth Pavement Section



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

DESIGNED	E.D.S.	Plan & Profile FREDERICK ROAD (MD 144) 39+00 ± - 49+65 ±	SCALE 1"=5' V. 1"=50' H.
DRAWN	K.B.W.	BRANTWOOD SECTION ONE	DRAWING 2 of 34
CHECKED	B.D.B.	Tax Map 16 & 23 - Parcel 54, 62, 214, & 390 3rd Election District - Howard County, Maryland Previous Submittals: F80-07, WP 96-133, S 96-23, P 98-08, WP 98-133, WP 99-14	JOB NO. 95-056
DATE	10 / 98	Developer BRANTWOOD, LLC 8835-P Columbia 100 Parkway Columbia, Maryland 21045 (410) 730-0810	FILE NO. F 98-138

PROFILE
 SURVEYED BY: []
 PLOTTED BY: []
 CHECKED BY: []
 DATE: []



PROFILE
 Scale 1"=5' VERT.
 1"=50' HOR.

DATE: _____
 BY: _____
 CHECKED: _____
 SUPERVISOR: _____
 PLANNING: _____
 ENGINEERING: _____
 NO. OF WAY CHECKED: _____
 NO. OF WAY CHECKED: _____

Street Name	Symbol	Station	Offset	Lamp Type	Fixture Type	Pole Type
Lancelot Cross	⊗	0+58	24' R	250 w HPS Vapor	Pendant Fixture (Cut off) 30' Elev.	Bronze Fiberglass - 12' Arm

- NOTES:**
- For street tree location, see sheets 27-34.
 - All street trees and/or street signs shall be located 5ft minimum from proposed drainage and utility structures.
 - There shall be a minimum of 20ft. between street lights and street trees.
 - For storm drain profiles, refer to sheets 21-10.
 - Contractor shall coordinate adjustment and/or relocation of existing utility poles with the appropriate utility companies. All utility poles shall be braced subsequent to and during construction.
 - Contractor shall be responsible for adjusting all existing water meter tops, water valve tops, etc. to finished grade. The Contractor shall be responsible for identifying all existing structures requiring adjustment prior to beginning construction.
 - Contractor shall be responsible for maintaining full ingress and egress to the existing homes (lot 26 & 33) during all phases of construction. Upon completion of Lancelot Cross, driveway access to lot 26 shall be relocated to Lancelot Cross road station 10+70 ±.
 - Refer to sheet B for Road Widening Typical Section, Typical Sections, and Road Widening / Striping Information.
 - Contractor shall salvage and relocate the existing fire hydrants, Frederick Road Sta. 52+12 ± and 57+00 ± in accordance with Standard Details W.11.1. Fire Hydrant grading shall be in accordance with Standard Detail W.1.2.
 - For Noise/Landscape Derm Construction Data, see sheet 23.
 - For Traffic Control Sign Location Table see sheet 8.

APPROVED: Department of Planning & Zoning

Cindy Hamble 11/27/98
 Chief, Division of Land Development

Michael Williams 11/15/98
 Chief, Development Engineering Division

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

Samuel Hill 11/12/98
 Chief, Bureau of Highways

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

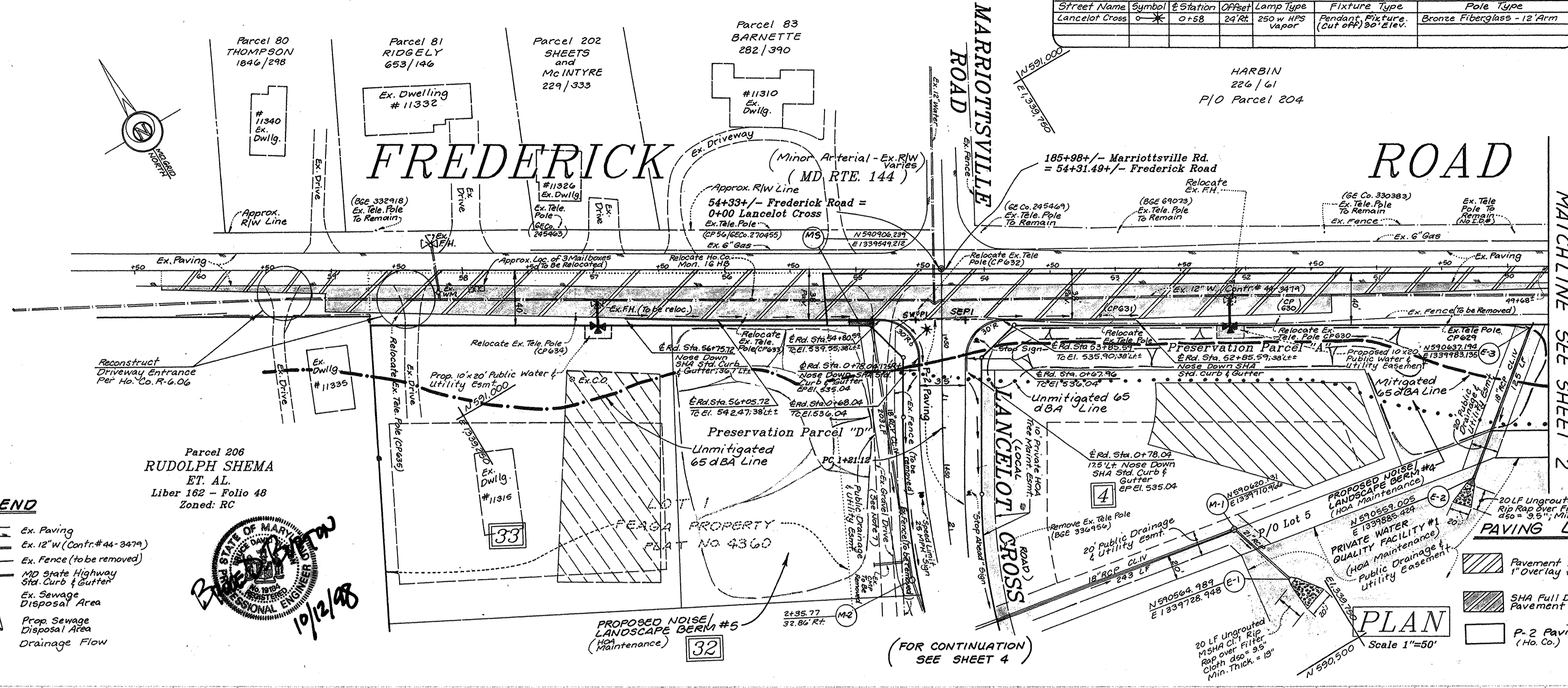
Plan & Profile
FREDERICK ROAD (MD 144)
 49+68 ± - 60+50 ±
BRANTWOOD SECTION ONE

DESIGNED: E.D.S.
 DRAWN: K.B.W.
 CHECKED: B.D.B.
 DATE: 10/98

SCALE: 1"=5' V., 1"=50' H.
 DRAWING: 3 OF 34
 JOB NO.: 95-056
 FILE NO.: F 98-138

Tax Map 16 & 23 - Parcel 54, 62, 214, & 390
 3rd Election District - Howard County, Maryland
 Previous Submittals: F80-07, WP 98-133, S 96-23, P 98-08, WP 98-133, WP 99-14

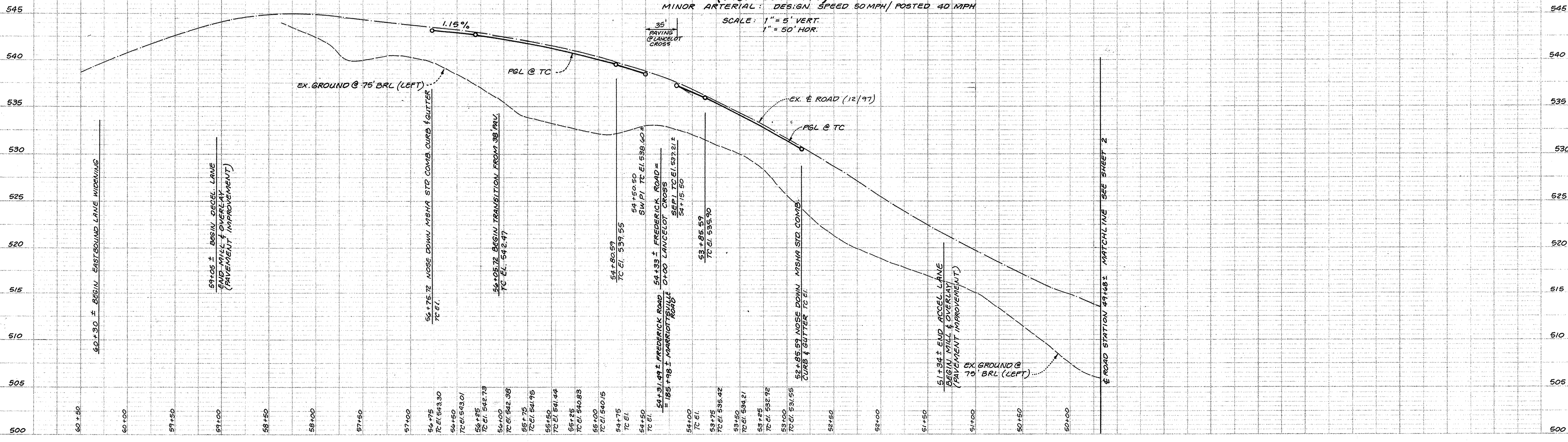
BRANTWOOD, LLC
 8835-P Columbia 100 Parkway
 Columbia, Maryland 21045
 (410) 730-0810



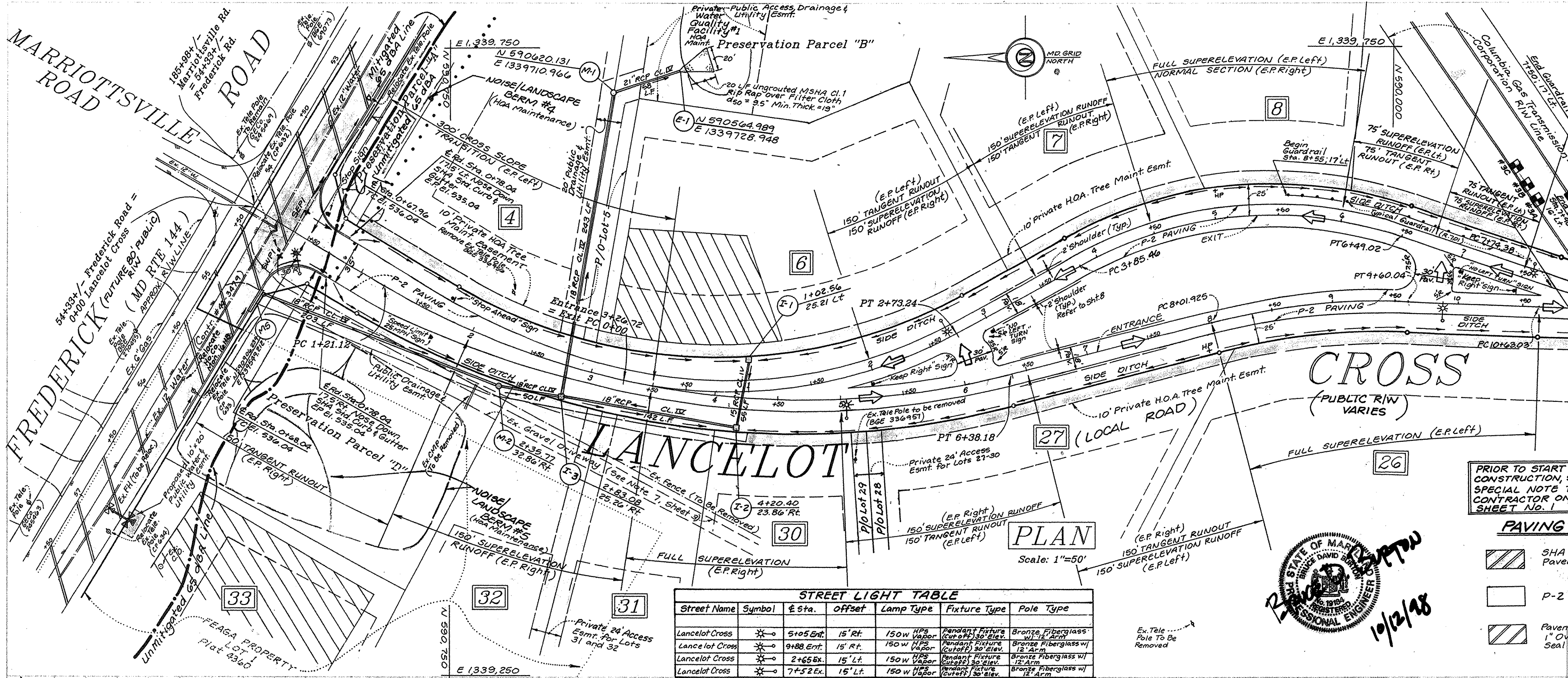
- LEGEND**
- Ex. Paving
 - Ex. 12' W (Contr. #44-3474)
 - Ex. Fence (to be removed)
 - MD State Highway Sta. Curb & Gutter
 - Ex. Sewage Disposal Area
 - Prop. Sewage Disposal Area
 - Drainage Flow



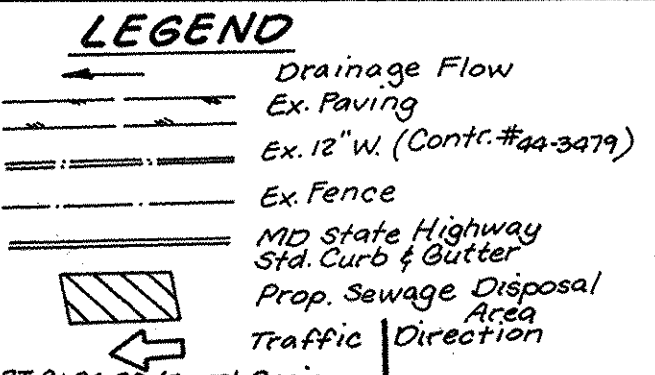
FREDERICK ROAD (MD. ROUTE 144)
 MINOR ARTERIAL DESIGN SPEED 50 MPH / POSTED 40 MPH
 SCALE: 1"=5' VERT., 1"=50' HOR.



DATE: _____
 BY: _____
 CHECKED: _____
 SUPERVISOR: _____
 PLANNING: _____
 ENGINEERING: _____
 NO. OF WAY CHECKED: _____
 NO. OF WAY CHECKED: _____



CENTERLINE CURVE DATA					
Name & Station	Radius	Delta	Length	Tangent	Chord Bearing & Dist.
Lancelot Cross - 1+21.12 - 6+38.18	650.00'	45°34'39"	517.08'	273.08'	S08°07'00"W 503.53'
Lancelot Cross - 8+01.93 - 9+60.04	525.00'	17°15'23"	158.12'	79.66'	S06°02'38"E 157.52'
Lancelot Cross - 10+63.03 - 11+71.41	1675.00'	03°42'26"	108.38'	54.21'	S00°43'50"W 108.36'
Lancelot Cross - 0+00 - 2+73.24	375.00'	41°44'53"	273.24'	143.00'	S08°05'31"E 267.24'
Lancelot Cross - 3+85.46 - 6+49.02	316.00'	47°47'16"	263.56'	139.99'	S05°04'20"E 265.99'
Lancelot Cross - 7+74.38 - 8+84.98	316.00'	19°56'41"	110.00'	55.56'	S05°56'58"W 109.45'

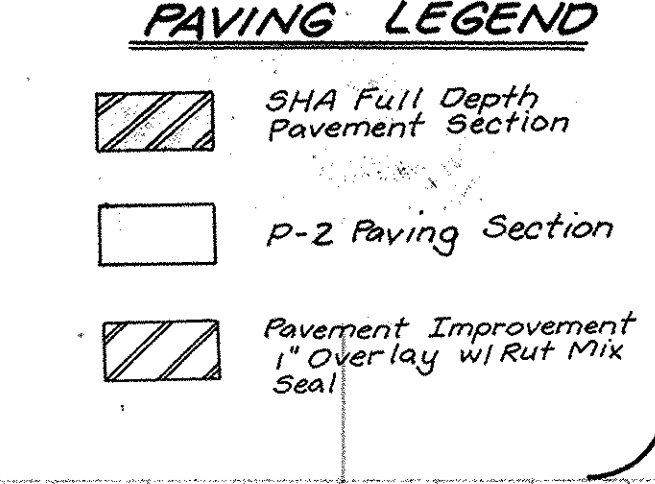


APPROVED: Department of Planning & Zoning
 Cindy Hamilton 11/17/98
 Chief, Division of Land Development

APPROVED: Department of Public Works for Storm Drainage Systems and Roads
 [Signature] 11/17/98
 Chief, Bureau of Highways

STREET LIGHT TABLE						
Street Name	Symbol	Sta.	Offset	Lamp Type	Fixture Type	Pole Type
Lancelot Cross	☼	5+05.84	15' Rt.	150w Vaper	Pendant Fixture	Brook Fiberglass
Lancelot Cross	☼	9+88.84	15' Rt.	150w Vaper	Pendant Fixture	Brook Fiberglass
Lancelot Cross	☼	2+65.55	15' Lt.	150w Vaper	Pendant Fixture	Brook Fiberglass
Lancelot Cross	☼	7+52.25	15' Lt.	150w Vaper	Pendant Fixture	Brook Fiberglass

PRIOR TO START OF CONSTRUCTION, SEE SPECIAL NOTE TO CONTRACTOR ON SHEET NO. 1



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

DESIGNED: E.D.S.
 DRAWN: K.B.W.
 CHECKED: B.D.B.
 DATE: 10/98

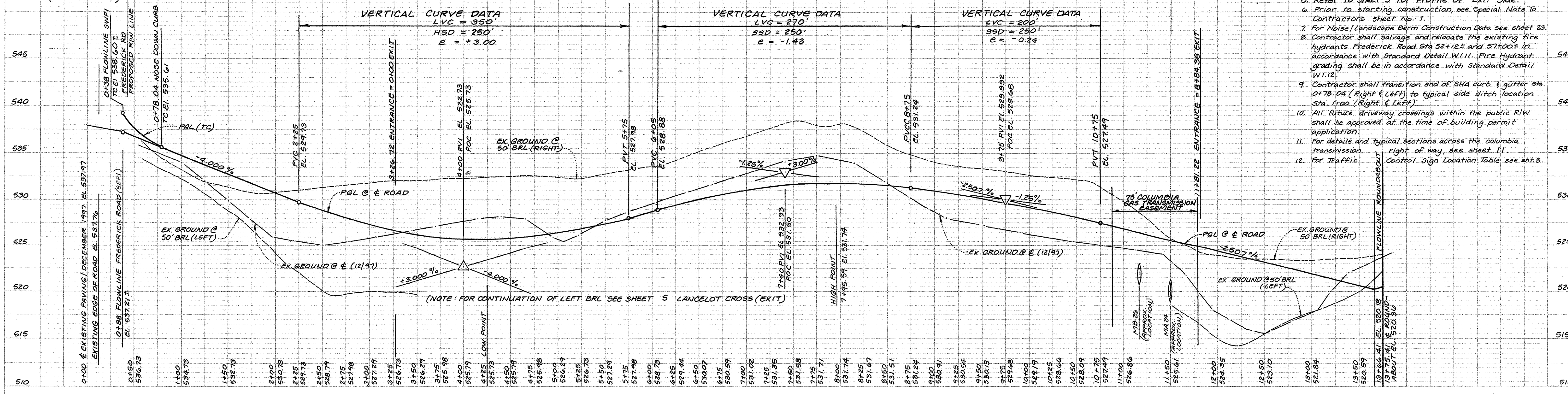
Plan & Profile
 Lancelot Cross - Entrance Rd. 0+00 - 12+50
 Exit Rd. 0+00 - 8+84.38

BRANTWOOD SECTION ONE

Tax Map 16 & 23 - Parcel 54, 62, 214, & 390
 3rd Election District - Howard County, Maryland
 Previous Submittals: F80-07, WP 96-133, S 96-23, P 98-08, WP 98-133, WP 99-14

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

LANCELOT CROSS (ENTRANCE)
 LOCAL ROAD - DESIGN SPEED: 25 MPH
 SCALE: 1" = 5' VERT.
 1" = 50' HOR.

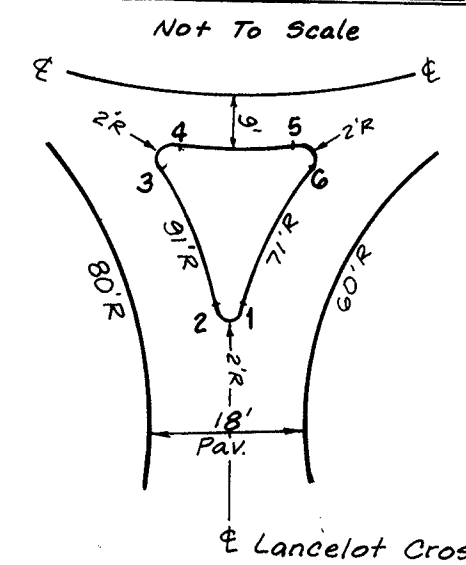


- NOTES:**
- For Street Tree Location, see sheets 27-34.
 - There shall be a minimum of 20 ft between street lights and street trees.
 - For Storm Drain Profiles and Structure Schedule, see sheets 9 and 10.
 - Refer to Sheet B for Superlevation Tables (Typical Sections).
 - Refer to Sheet 5 for Profile of "Exit" Side.
 - Prior to starting construction, see special Note To Contractors sheet No. 1.
 - For Noise/Landscape Berm Construction Data see sheet 23.
 - Contractor shall salvage and relocate the existing fire hydrants Frederick Road Sta 52+12± and 57+00± in accordance with Standard Detail W.11.1. Fire Hydrant grading shall be in accordance with Standard Detail W.1.12.
 - Contractor shall transition end of SHA curb & gutter sta. 0+78.04 (Right & Left) to typical side ditch location Sta. 1+00 (Right & Left).
 - All future driveway crossings within the public R/W shall be approved at the time of building permit application.
 - For details and typical sections across the Columbia transmission right of way, see sheet 11.
 - For Traffic Control sign Location Table see sht. B.

LEGEND

- Proposed Sewage Disposal Area
- Ho. Co. Std. 7' Comb. Curb & Gutter
- Ho. Co. Std. Bituminous Curb
- Ho. Co. Std. Barrier Curb
- Traffic Flow
- Drainage Flow

#1 ISLAND DETAIL



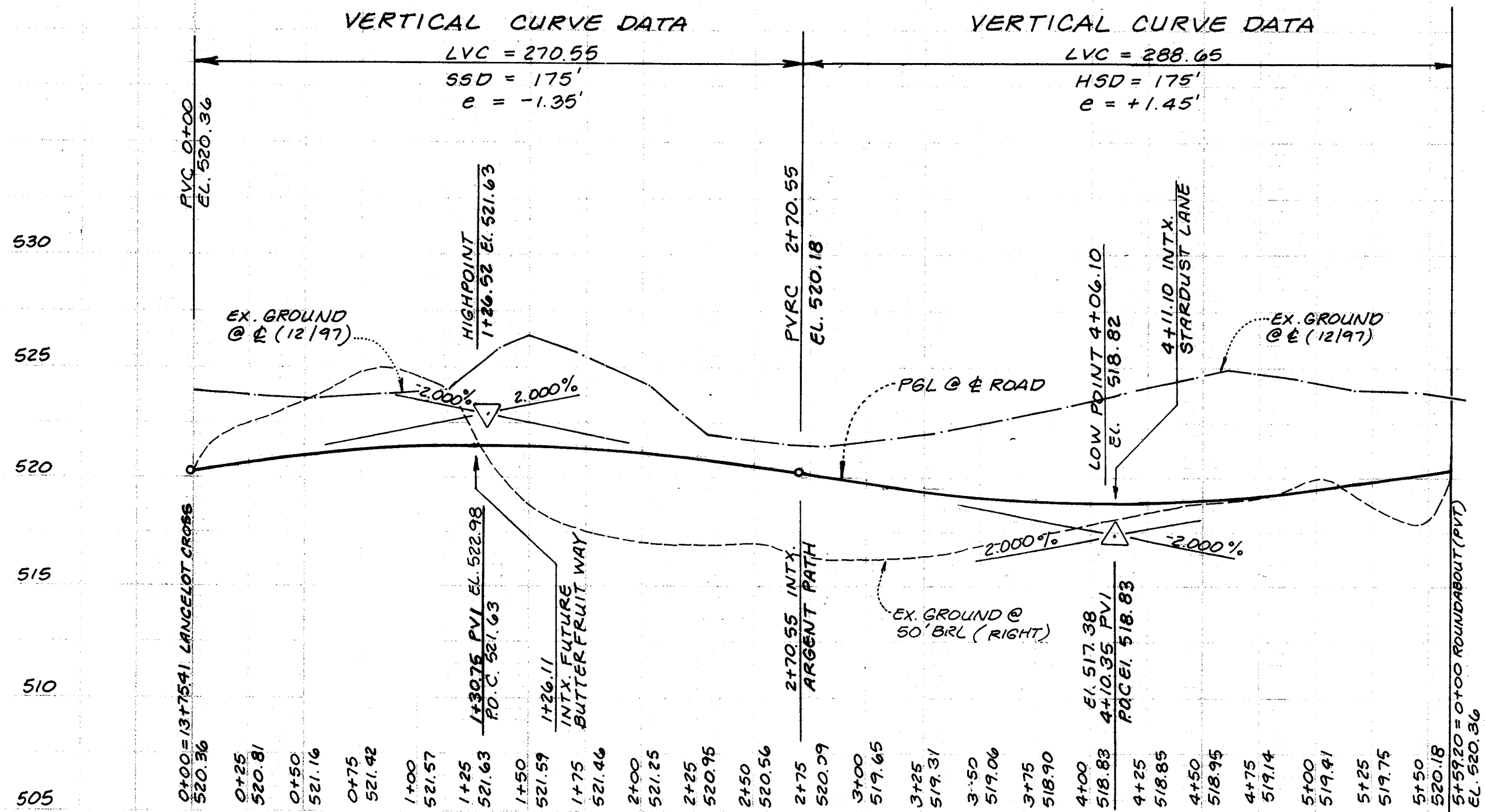
Island Point	Road Sta. To Elev.	Offset
1	13+34.71/521.79	0.93' Rt.
2	13+34.52/521.76	2.98' Lt.
3	5+44.18/520.47	12.41' Rt.
4	5+45.43/520.52	9' Rt.
5	0+09.93/520.97	9' Rt.
6	0+11.25/520.77	12.33' Rt.

STREET LIGHT TABLE

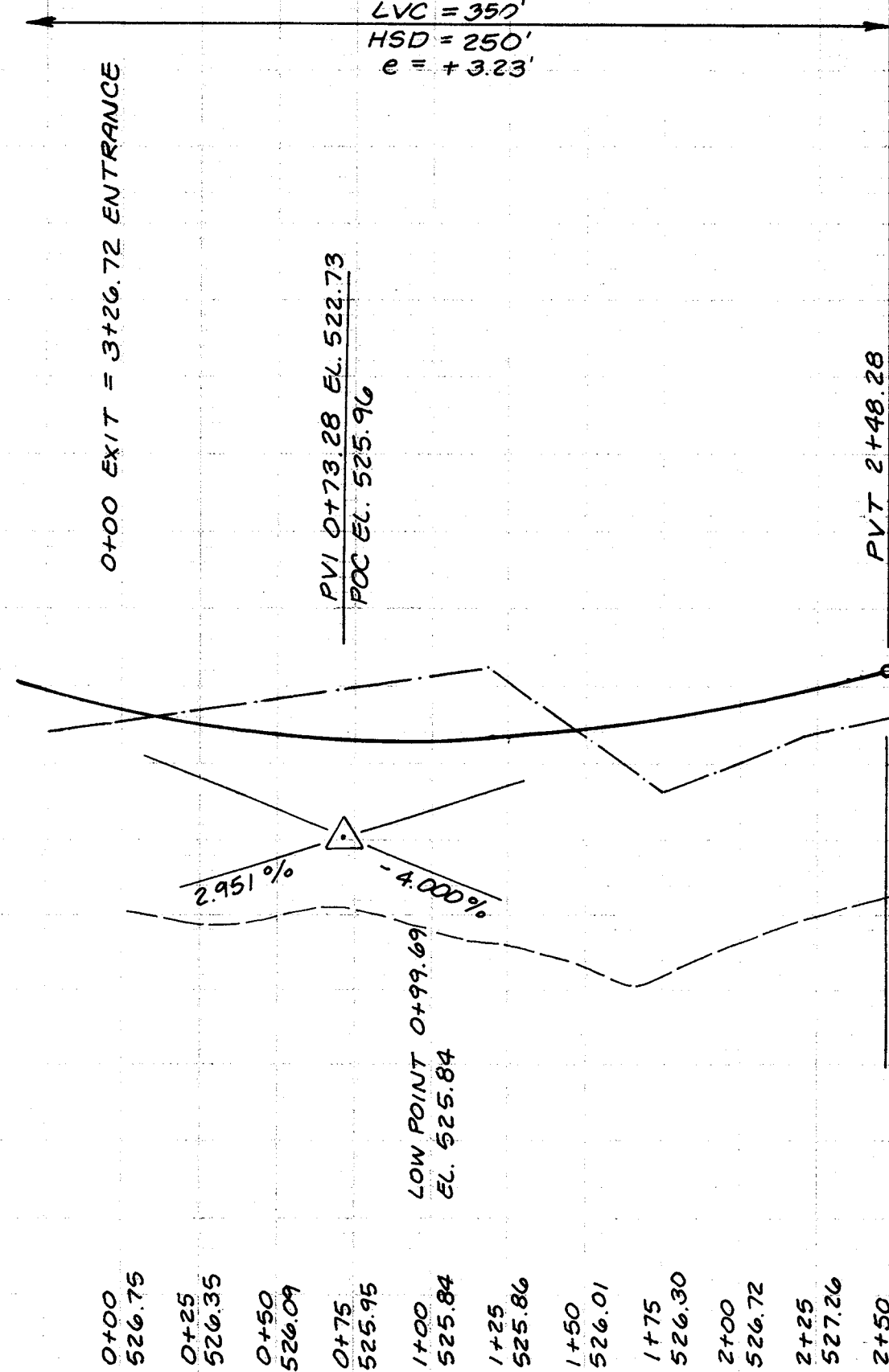
Street Name	Symbol	Station	Offset	Lamp Type	Fixture Type	Pole Type
Lancelot Cross		13+35	2.3 Rt.	150w VAPOR	BRONZE FIBERGLASS W/12' ARM	BRONZE FIBERGLASS W/12' ARM
Stardust Lane		0+40	19' Lt.	150w VAPOR	PENDANT FUTURE (CUTOFF)	BRONZE FIBERGLASS W/12' ARM
Argent Path		15+97	19' Lt.	150w VAPOR	PENDANT FUTURE (CUTOFF)	BRONZE FIBERGLASS W/12' ARM

LANCELOT CROSS ROUNDABOUT

LOCAL ROAD - DESIGN SPEED: 25 MPH
SCALE: 1" = 5' VERT.
1" = 50' HOR.

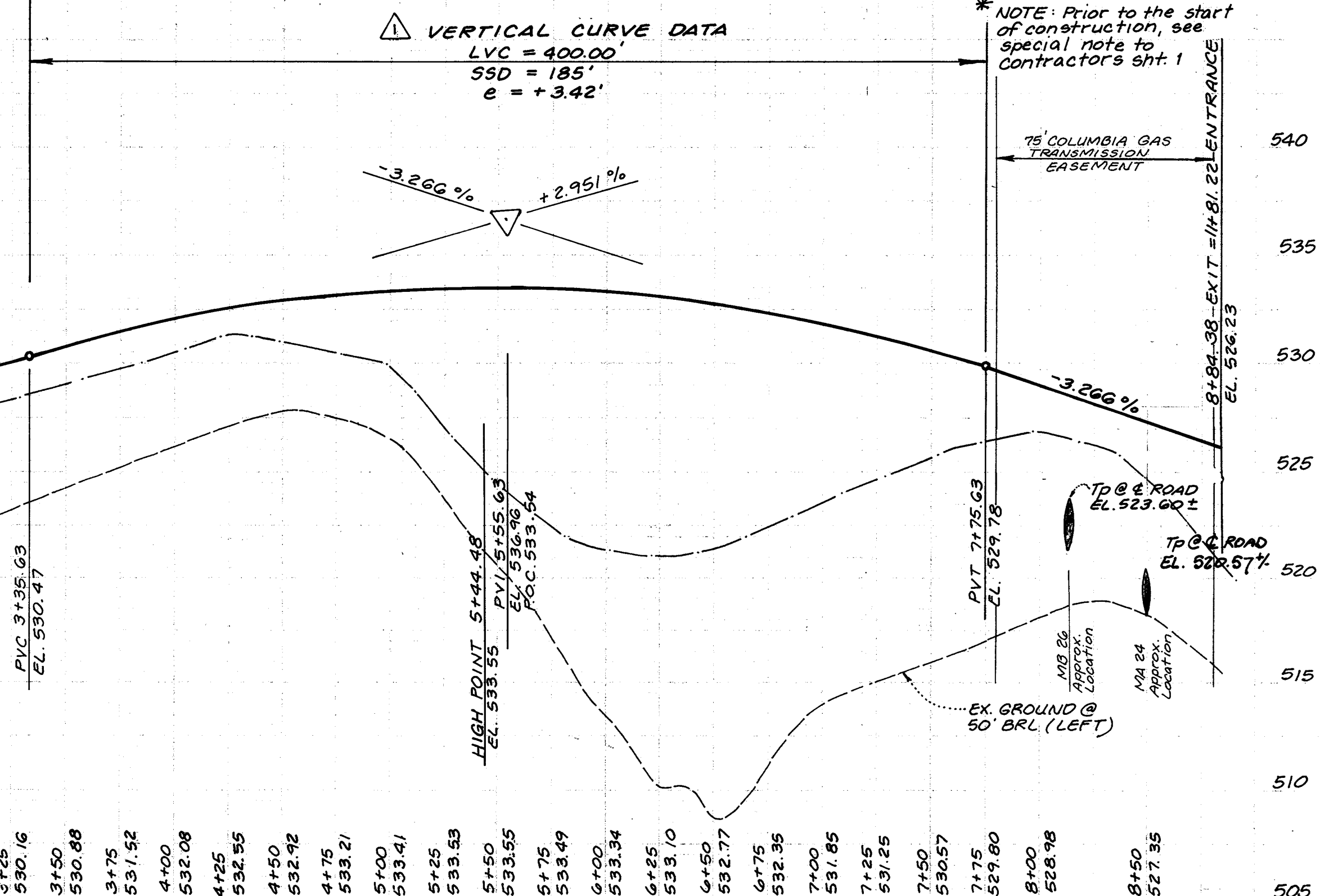


VERTICAL CURVE DATA



LANCELOT CROSS

(EXIT)
LOCAL ROAD - DESIGN SPEED: 25 MPH
SCALE: 1" = 5' VERT.
1" = 50' HORIZ.



CENTERLINE CURVE DATA

Name & Station	Radius	Delta	Length	Tangent	Chord Bearing & Dist.
Roundabout #1 - 0+00 - 1+26.11	88.00'	81°11'09"	126.11'	76.26'	S 48°17'03" W 115.82'
Roundabout #2 - 1+26.11 - 2+70.55	88.00'	92°59'07"	144.44'	93.76'	S 38°48'05" E 129.10'
Roundabout #3 - 2+70.55 - 4+11.10	88.00'	90°28'59"	140.55'	89.75'	N 49°27'52" E 126.39'
Roundabout #4 - 4+11.10 - 5+59.20	88.00'	95°20'46"	148.11'	97.72'	N 43°27'00" W 131.60'

NOTES:

- For street tree location, see sheets 27 - 34
- There shall be a minimum of 20 ft between street lights and street trees.
- For storm drain profiles and structure schedule, see sheets 9 & 10
- Sidewalks and ramps shall be designed in accordance with ADA requirements.
- See sheet 8 for Typical Section for Roundabout.
- For Island #2 & Island #3 data refer to sheets 6 and 7, & Detail Sheet 8.
- Vehicular ingress and egress is restricted from residential lots 9, 23, 25 and 50 to the Lancelot Cross roundabout.
- Prior to start of construction, see special note to Contractors on sheet 1.
- For details and typical sections across the Columbia Transmission RLW see sheet 23.
- For Traffic control sign location Table, see sheet 8.

PAVING LEGEND

- P-2 Paving Section (Ho. Co.)

PLAN
Scale 1" = 50'

APPROVED: Department of Planning & Zoning

Cinda Hamilton 11/17/98
Chief, Division of Land Development

Mike
Chief, Development Engineering Division

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

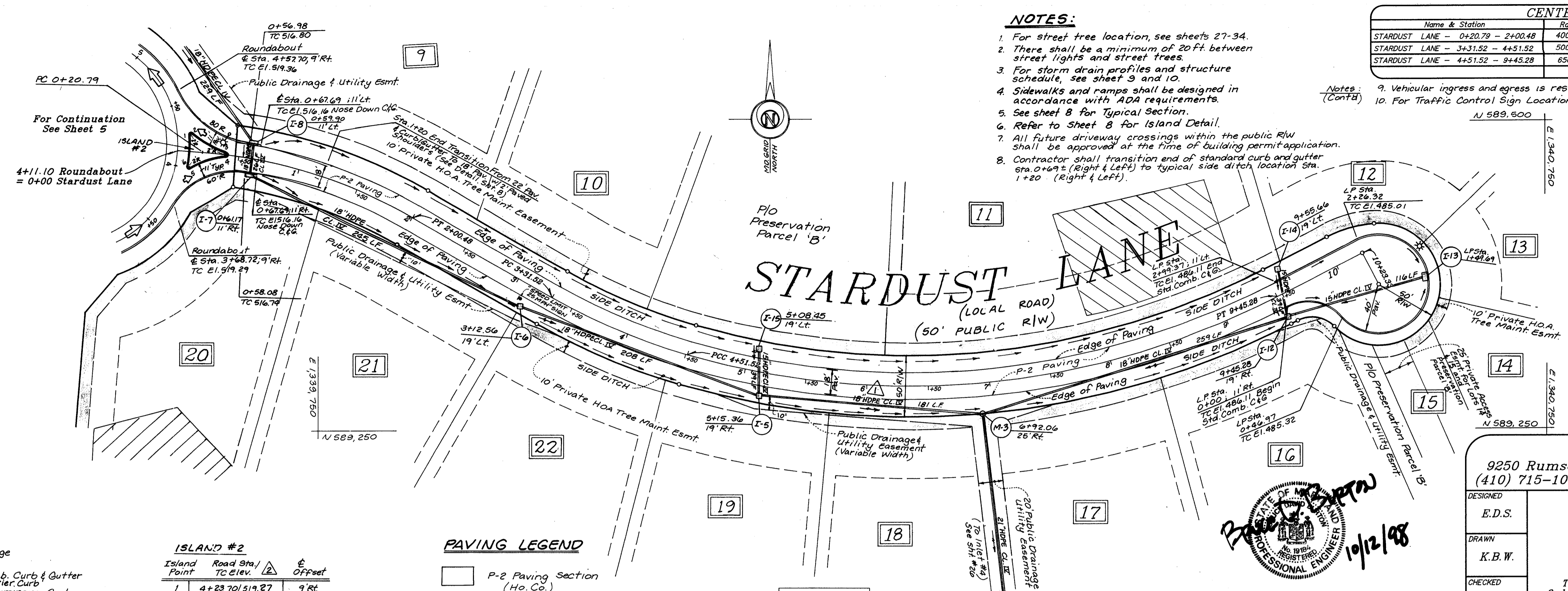
Howard S. ... 11/17/98
Chief, Bureau of Highways

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

DESIGNED	Plan & Profile 0+00 - 5+59.20 Roundabout	SCALE	1"=5' V. 1"=50' H.
DRAWN	K.B.W.	DRAWING	5 OF 34
CHECKED	B.D.B.	JOB NO	95-056
DATE	10/98	FILE NO.	F 98-138

REVISIONS

BY	DATE	NO.	DESCRIPTION
LDE	9/99	1	Revised Profile / RCP Label to HDPE
LDE	7/01	2	Add Curb Type in Legend - Revise TC Grades Island #1 Table



- NOTES:**
- For street tree location, see sheets 27-34.
 - There shall be a minimum of 20 ft. between street lights and street trees.
 - For storm drain profiles and structure schedule, see sheet 9 and 10.
 - Sidewalks and ramps shall be designed in accordance with ADA requirements.
 - See sheet 8 for Typical Section.
 - Refer to Sheet 8 for Island Detail.
 - All future driveway crossings within the public R/W shall be approved at the time of building permit application.
 - Contractor shall transition end of standard curb and gutter sta. 0+69± (Right & Left) to typical side ditch location sta. 1+20± (Right & Left).

CENTERLINE CURVE DATA					
Name & Station	Radius	Delta	Length	Tangent	Chord Bearing & Dist.
STARDUST LANE - 0+20.79 - 2+00.48	400.00'	21°57'08"	153.28'	77.60'	S72°54'29"E 178.18'
STARDUST LANE - 4+51.52 - 4+51.52	500.00'	13°45'04"	120.00'	60.29'	S88°54'52"E 112.77'
STARDUST LANE - 4+51.52 - 9+45.28	650.00'	43°31'28"	493.76'	259.48'	N84°26'54"E 481.98'

Notes: (Cont'd)
 9. Vehicular ingress and egress is restricted to Lots 9 and 23 to the Lancelot Cross roundabout.
 10. For Traffic Control Sign Location Table, see sheet No. 8.

APPROVED: Department of Planning & Zoning

Cathy Hamilton 11/17/98
 Chief, Division of Land Development

Bill Damann 11/16/98
 Chief, Development Engineering Division

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

Howard Shild 11/17/98
 Chief, Bureau of Highways

- LEGEND**
- Proposed Sewage Disposal Area
 - Ho. Co. Std. 7' Comb. Curb & Gutter
 - Ho. Co. Std. Barrier Curb
 - Ho. Co. Std. Bituminous Curb
 - Drainage Flow
 - Traffic Flow

ISLAND #2

Island Point	Road Sta./TC Elev.	Offset
1	4+23.70/519.27	9' Rt.
2	4+24.96/519.03	12.41' Rt.
3	0+39.98/517.95	1.98' Lt.
4	0+39.94/517.95	1.92' Rt.
5	3+98.95/519.03	12.33' Rt.
6	4+00.27/519.25	9' Rt.

- PAVING LEGEND**
- P-2 Paving Section (Ho. Co.)

PLAN
 Scale 1" = 50'

STREET LIGHT TABLE

Street Name	Symbol	Station	Offset	Lamp Type	Fixture Type	Pole Type
Stardust Lane	SL	LP Sta. 1+77	3' Rt.	100w HPS	Traditionaire	Black Fiber-glass / 14 Ft.

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

DESIGNED: E.D.S.
 DRAWN: K.B.W.
 CHECKED: B.D.B.
 DATE: 10/98

Plan & Profile
 Stardust Lane
 0+00 - 10+23.33

BRANTWOOD SECTION ONE

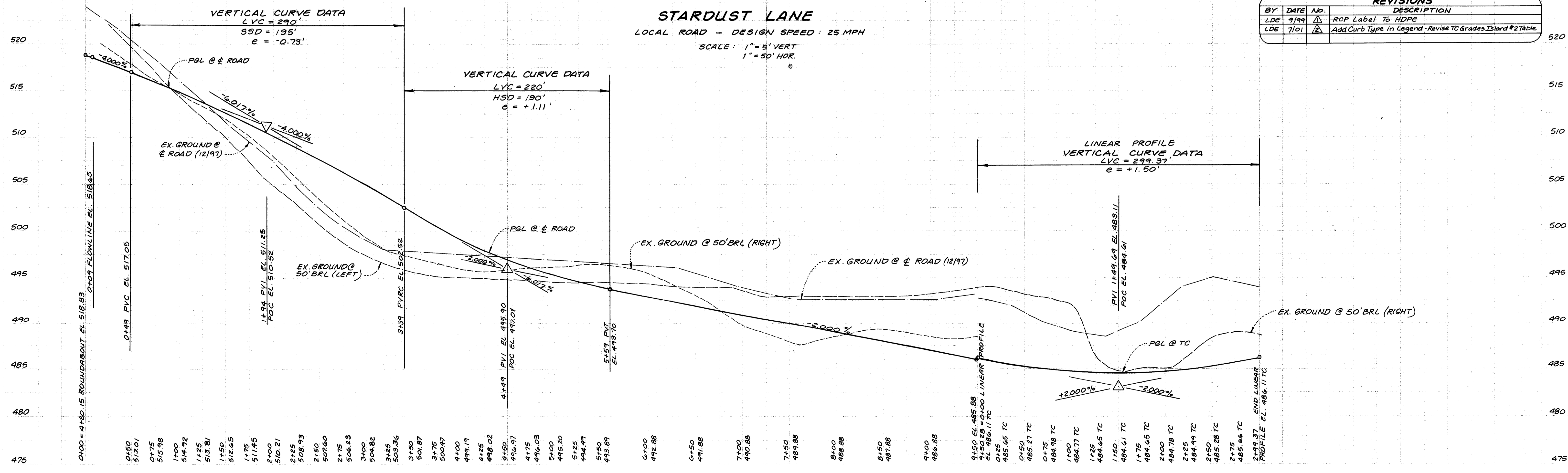
Tax Map 16 & 23 - Parcel 54, 62, 214, & 390
 3rd Election District - Howard County, Maryland
 Previous Submittals: P80-07, WP 96-133, S 96-23,
 P 98-08, WPT8-133, WPT9-14

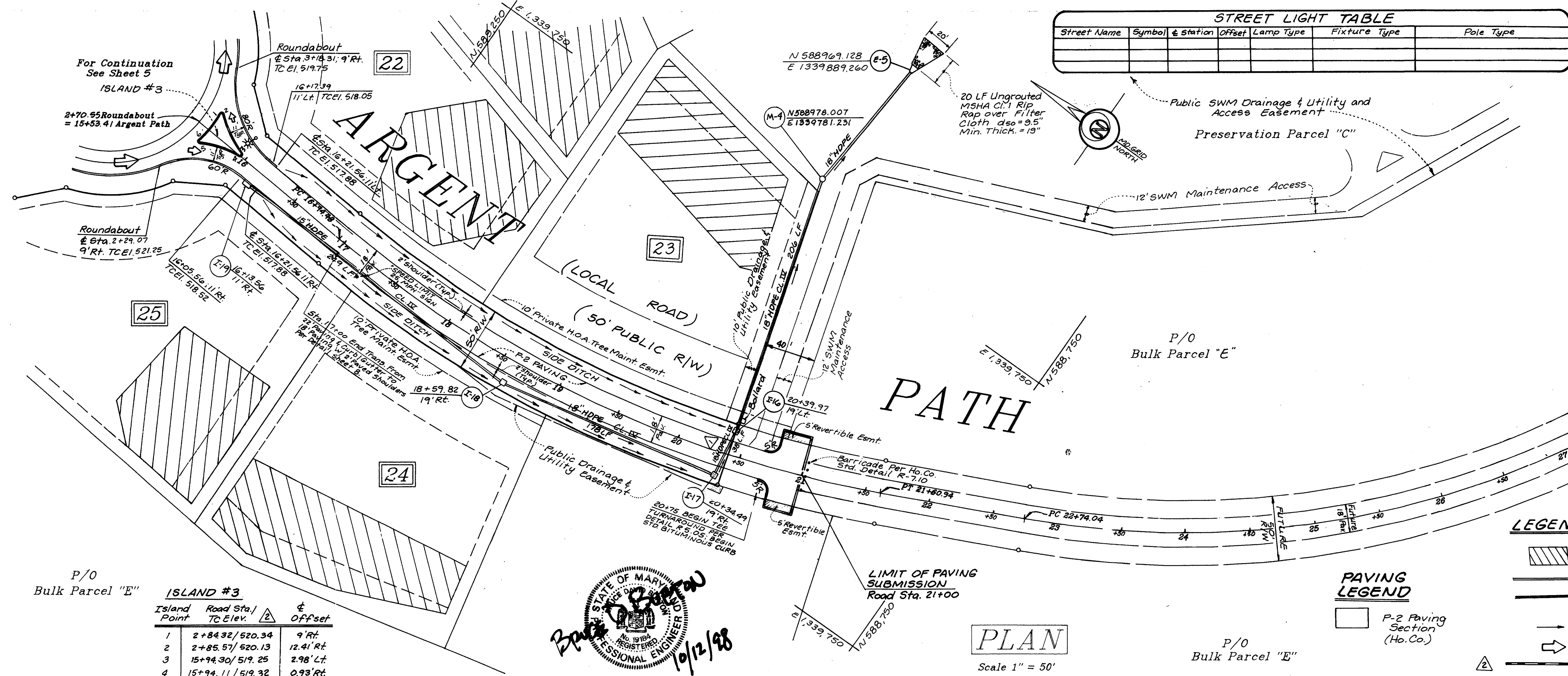
Developer: **BRANTWOOD, LLC**
 8835-P Columbia 100 Parkway
 Columbia, Maryland 21045
 (410) 730-0810

SCALE: 1"=5' V., 1"=50' H.
 DRAWING: 6 OF 34
 JOB NO.: 95-056
 FILE NO.: F 98-138

REVISIONS

BY	DATE	No.	DESCRIPTION
LDE	9/99	1	RCP Label To HDPE
LDE	7/01	2	Add Curb Type in Legend - Revise TC Grades Island #2 Table





Street Name	Symbol	Station	Offset	Lamp Type	Fixture Type	Pole Type

Name & Station	Radius	Delta	Length	Tangent	Chord Bearing & Dist.
Argent Path - 16+94.48 - 21+60.94	900.00'	29°41'46"	466.46'	238.80'	S10°08'31"E 481.26'
Argent Path - 22+74.04 - 27+53.41	700.00'	39°14'13"	479.37'	249.51'	S44°36'31"E 470.06'

- NOTES:**
- For street tree location, see sheets 27-34
 - There shall be a minimum of 20 feet between street lights and street trees.
 - For storm drain profiles and structure schedule, see sheets 9410.
 - Sidewalk and ramps shall be designed in accordance with ADA requirements.
 - Refer to Sheet 8 for Island Detail.
 - Vehicular ingress & egress is restricted from residential lots 23 and 25 to the Lancelot Cross Roundabout.
 - All future driveway crossings within the public R/W shall be approved at the time of building permit application.
 - Contractor shall transition end of standard curb and gutter sta. 16+21.56 (Right & Left) to typical side ditch location sta. 17+00 (Right & Left).
 - For Traffic Control Sign Location Table, see sheet No. 8.

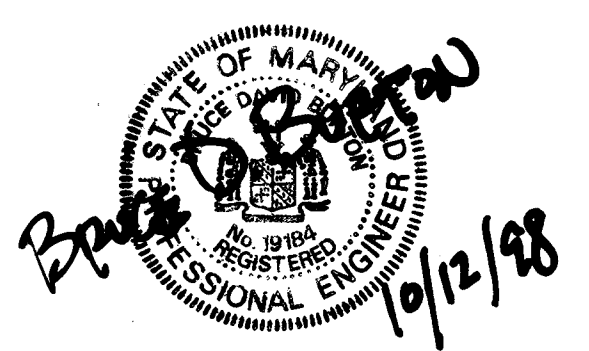
APPROVED: Department of Planning & Zoning
Cindy Hamilton 11/17/98
 Chief, Division of Land Development

APPROVED: Department of Public Works for Storm Drainage Systems and Roads
John D. ... 11/17/98
 Chief, Development Engineering Division

APPROVED: Department of Public Works for Storm Drainage Systems and Roads
Lawrence Skid ... 11/17/98
 Chief, Bureau of Highways

ISLAND #3

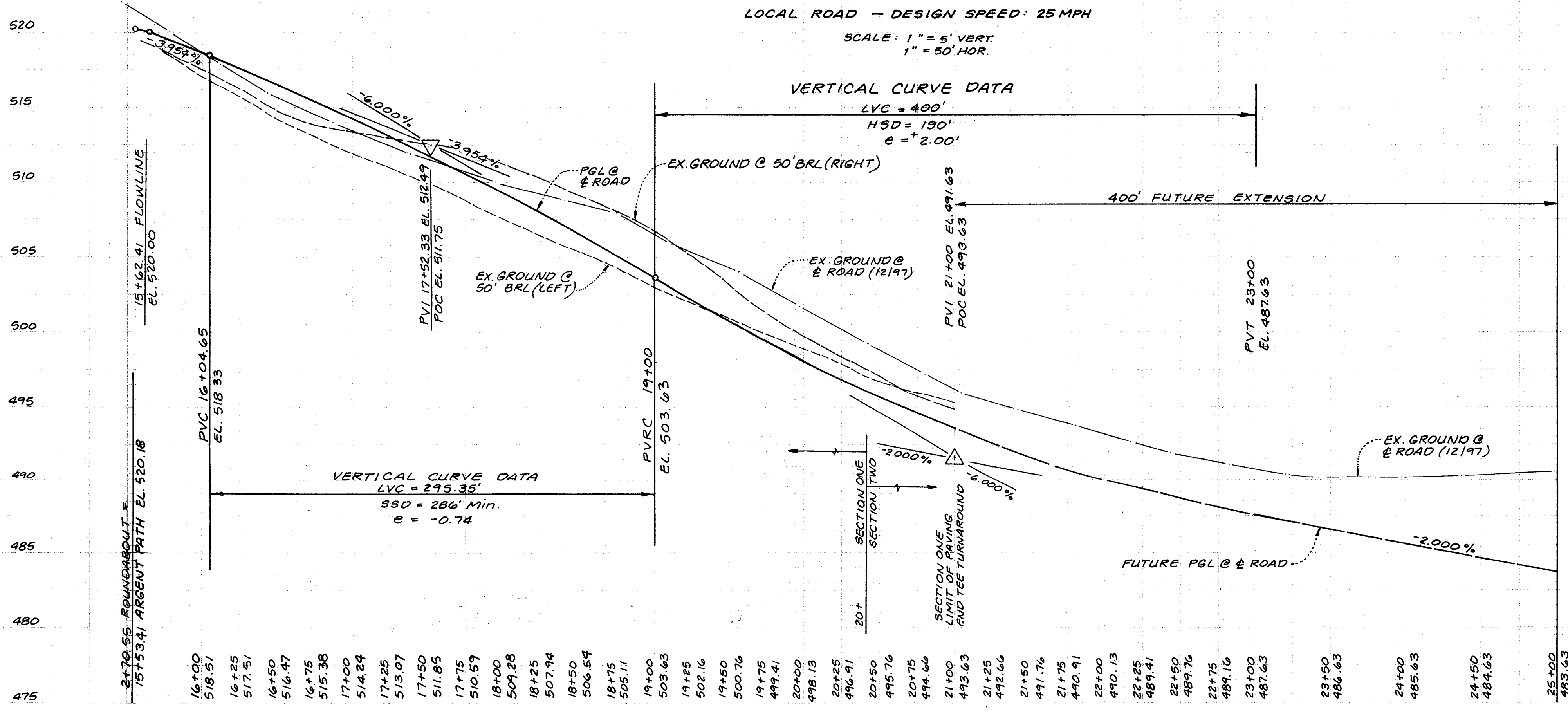
Island Point	Road Sta. / To Elev.	Offset
1	2+84.32 / 520.34	9' Rt.
2	2+86.57 / 520.13	12.41' Rt.
3	15+94.30 / 519.25	2.98' Lt.
4	15+94.11 / 519.32	0.93' Rt.
5	2+59.30 / 520.44	12.33' Rt.
6	2+60.62 / 520.79	9' Rt.

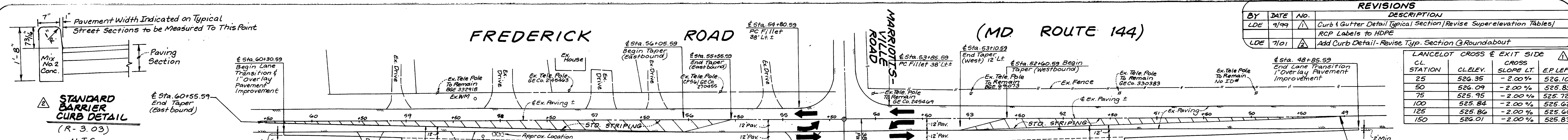


LDE, INC.
 9250 Rumsey Road, Suite 106, Columbia, MD. 21045
 (410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED E.D.S.	Plan & Profile Argent Path 15+53.41 - 21+00	SCALE 1"=5' V. 1"=50' H.
DRAWN K.B.W.	BRANTWOOD SECTION ONE	DRAWING 7 OF 34
CHECKED B.D.B.	Tax Map 16 & 23 - Parcel 54, 62, 214, & 390 3rd Election District - Howard County, Maryland Previous Submittals: F80-07, WP 96-133, S 96-23, P 98-08, WP 98-133, WP 99-14	JOB NO. 95-056
DATE 10/98	Developer BRANTWOOD, LLC 8835-P Columbia 100 Parkway Columbia, Maryland 21045 (410) 730-0810	FILE NO. F 98-138

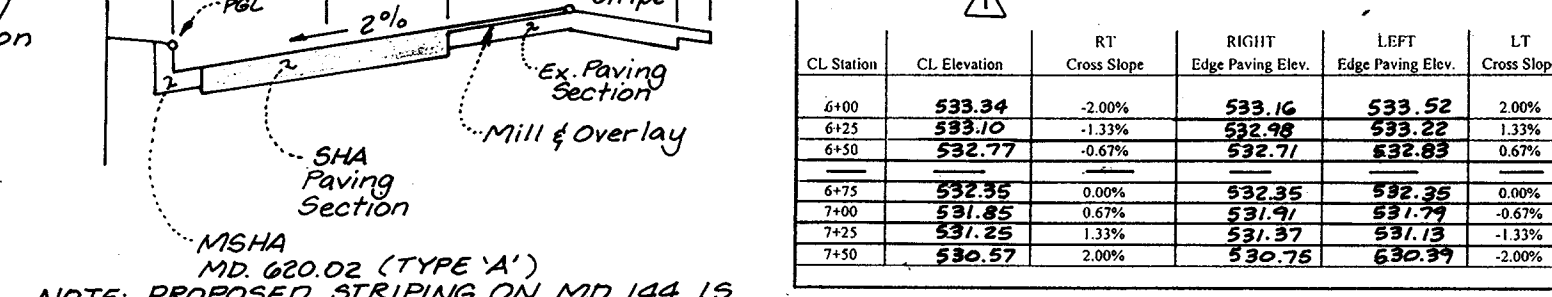
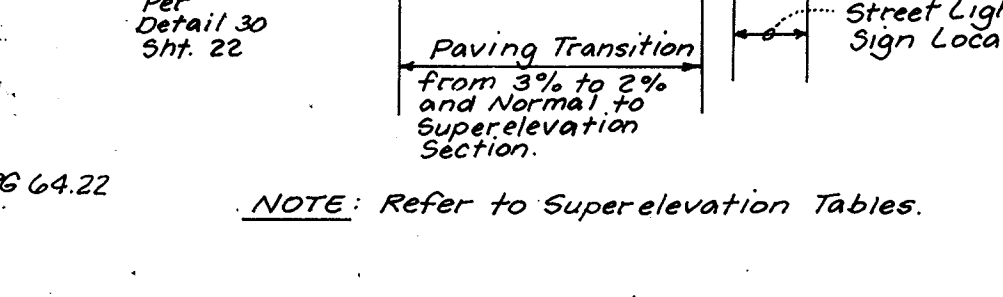
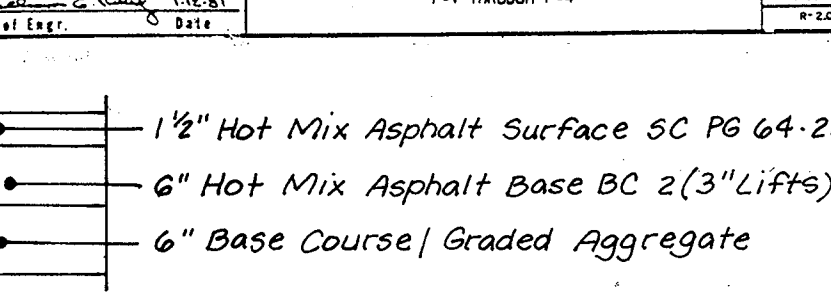
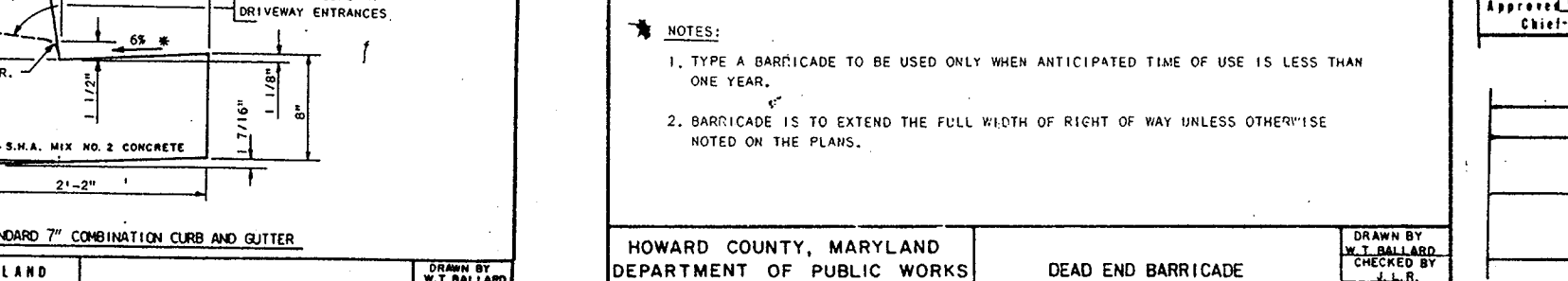
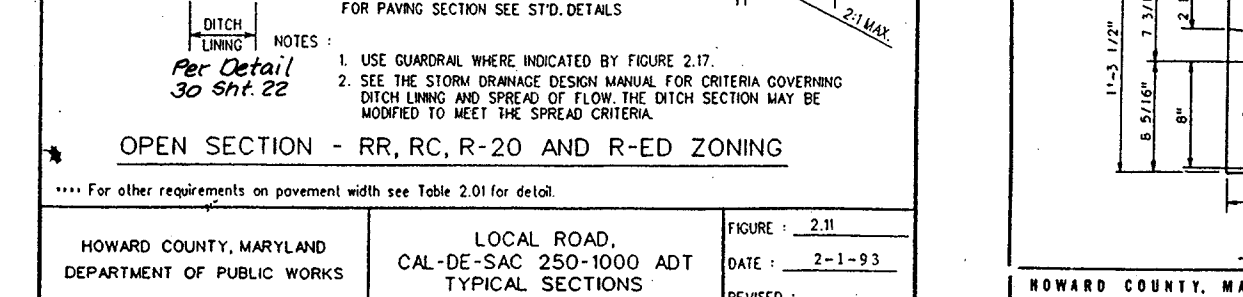
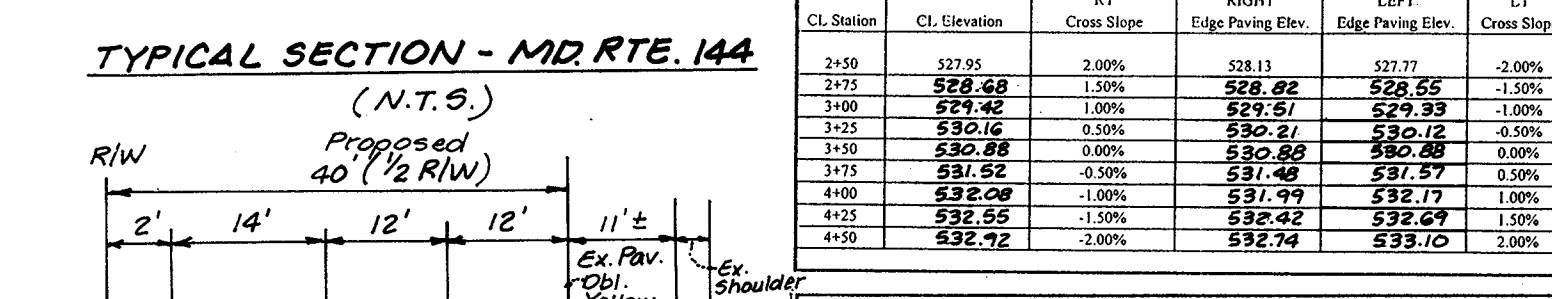
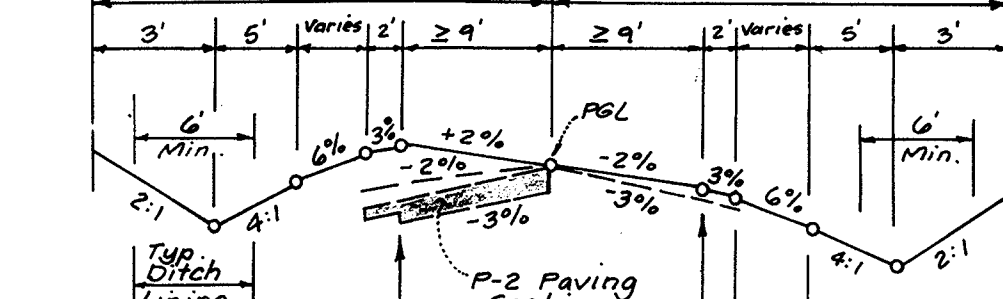
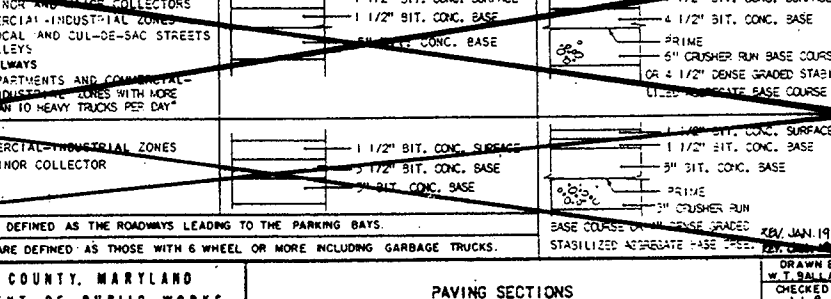
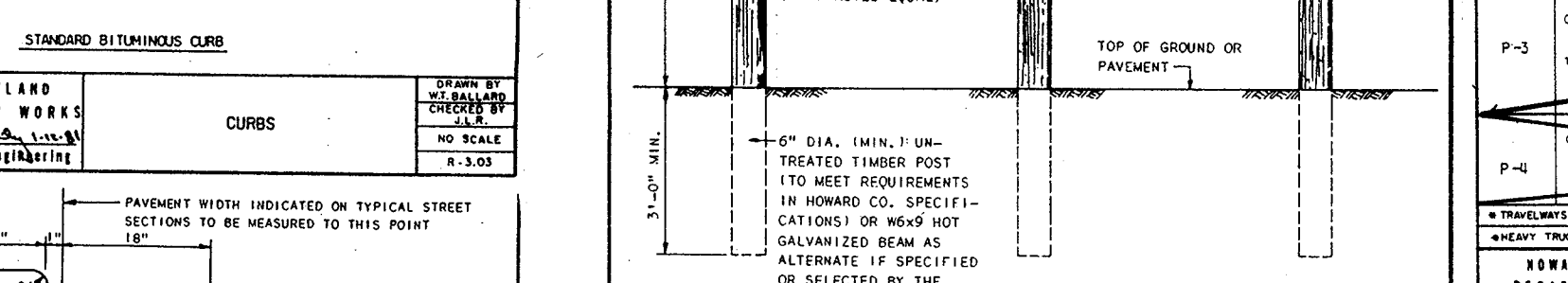
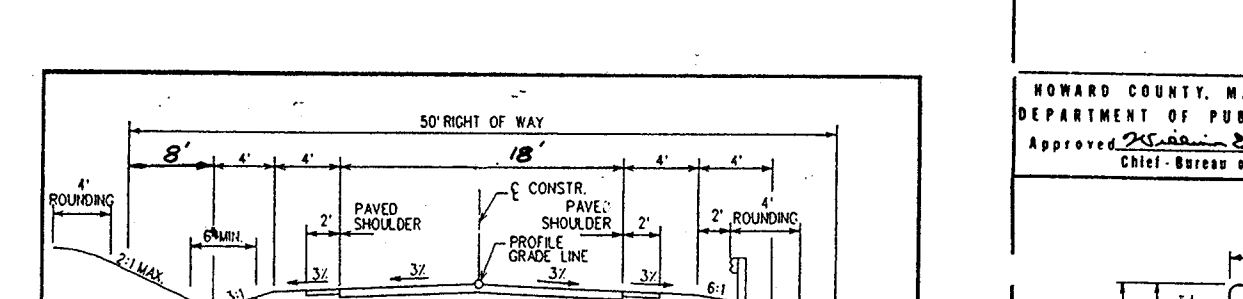
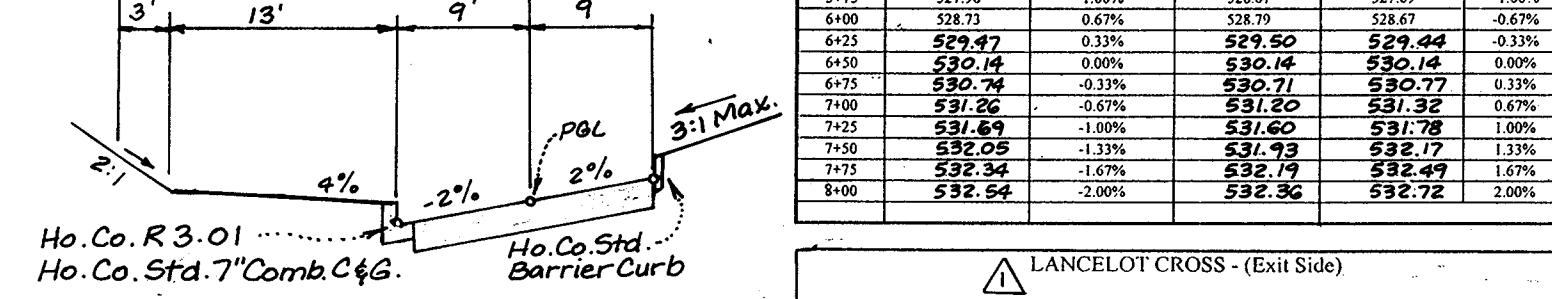
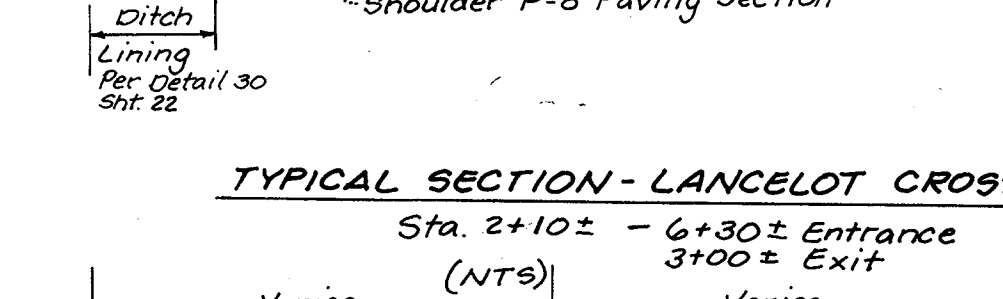
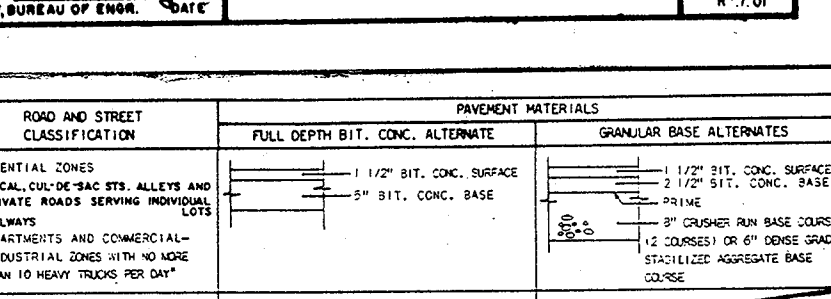
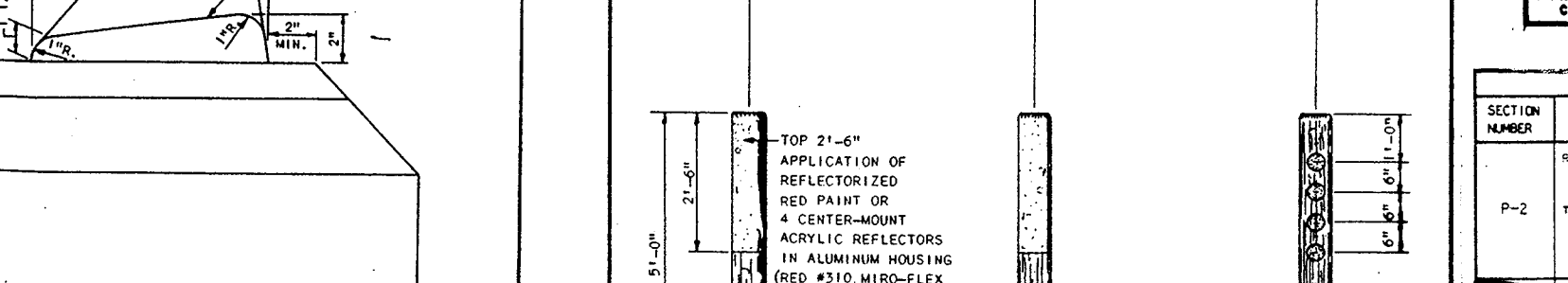
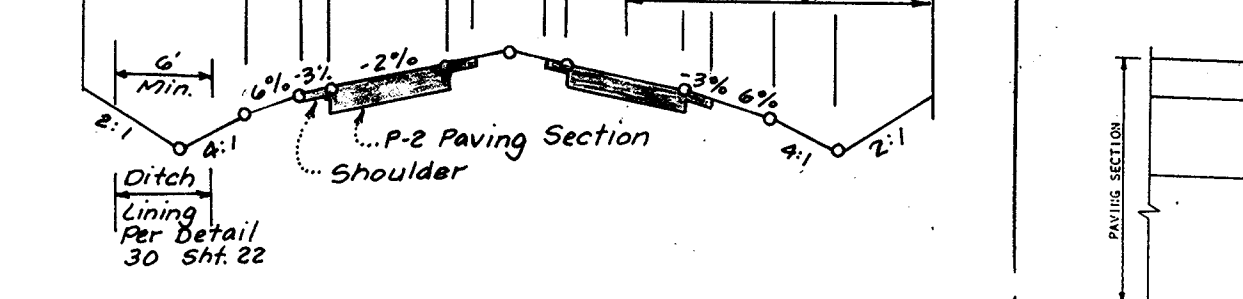
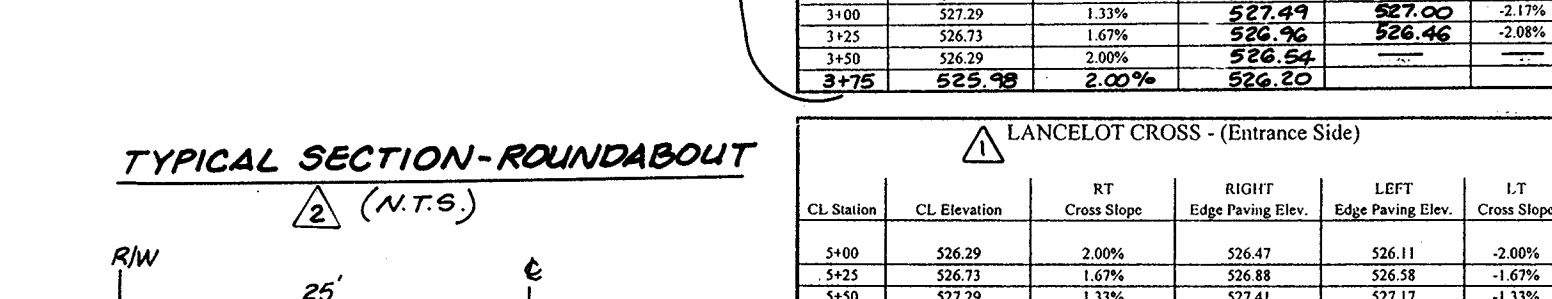
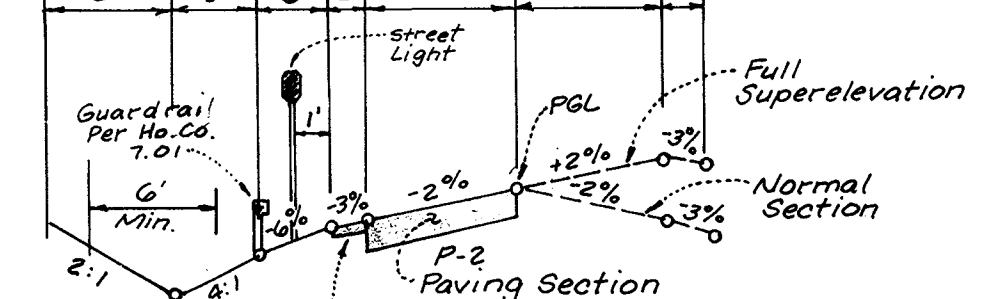
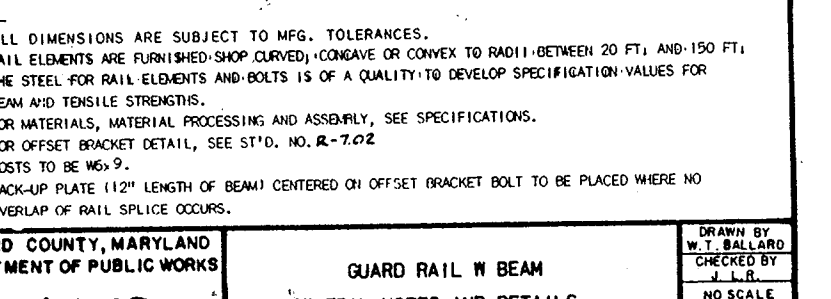
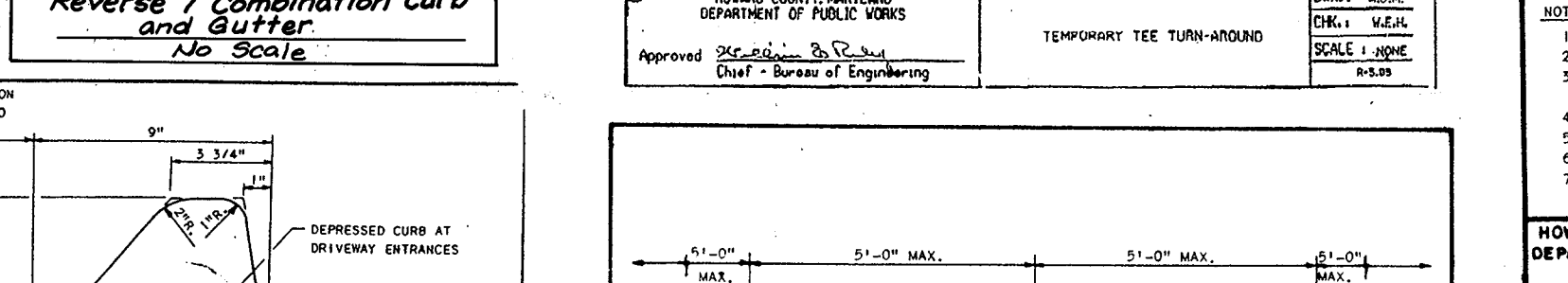
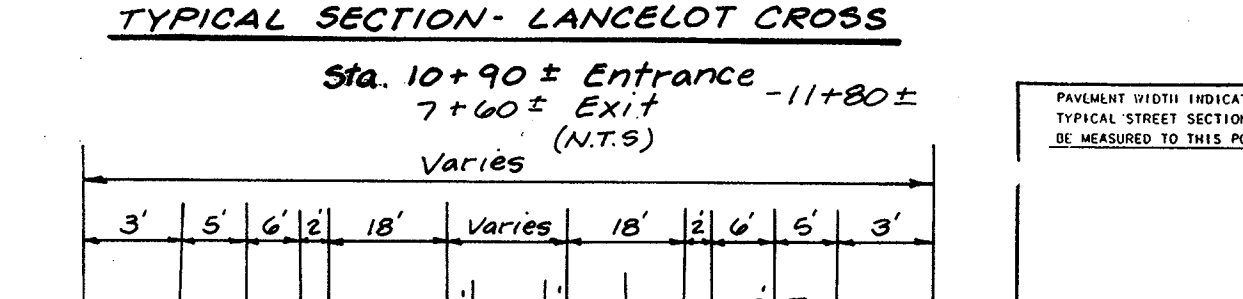
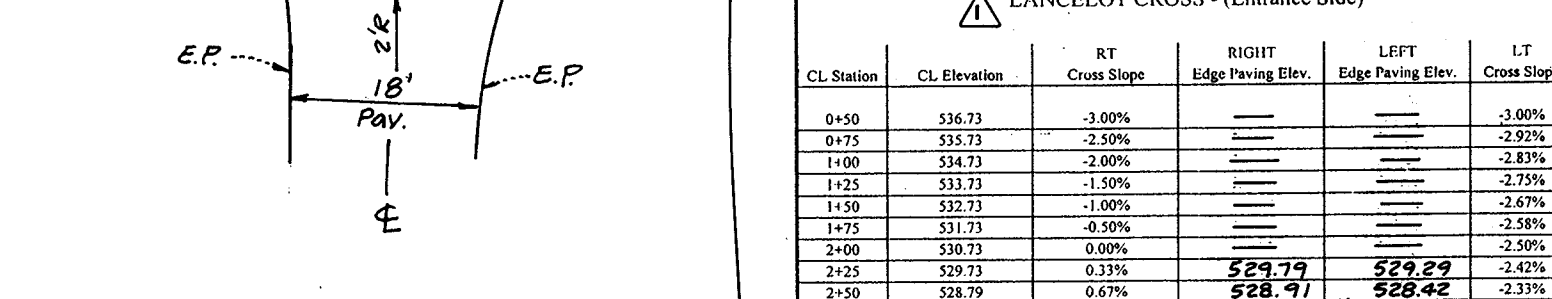
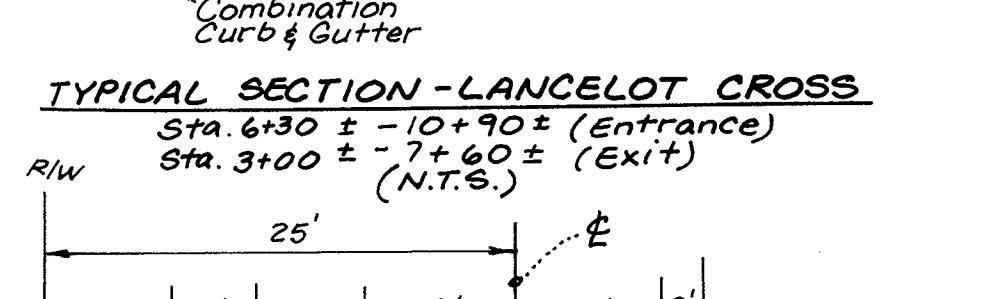
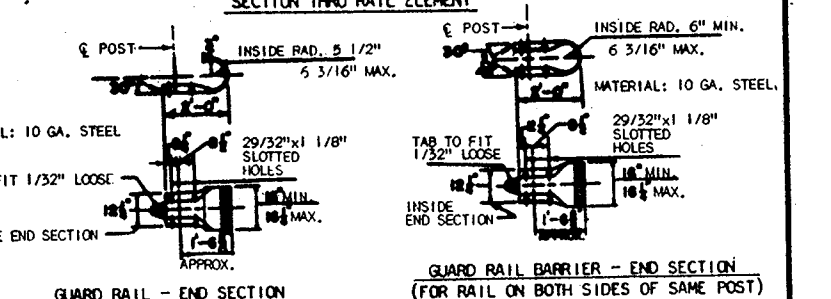
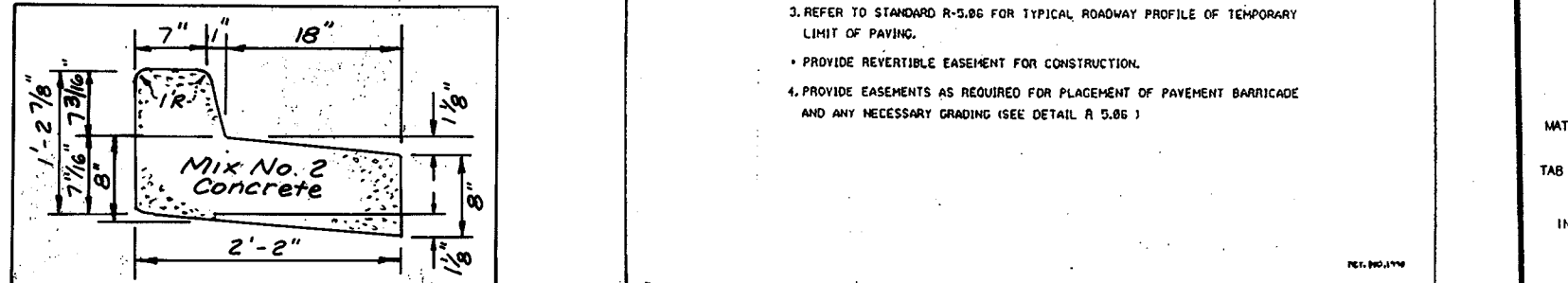
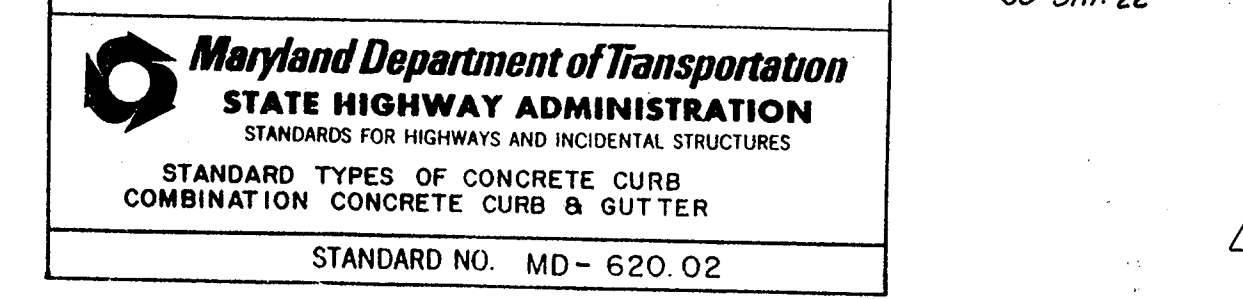
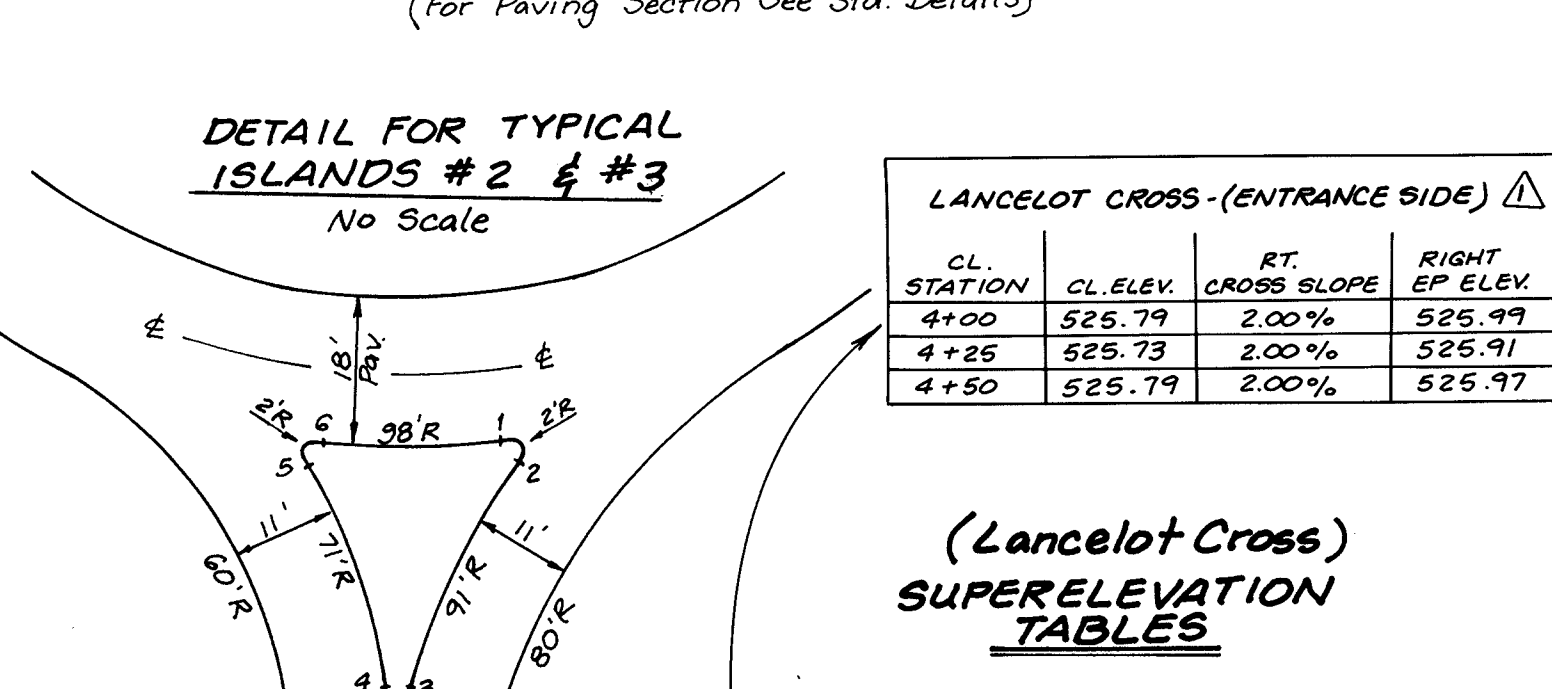
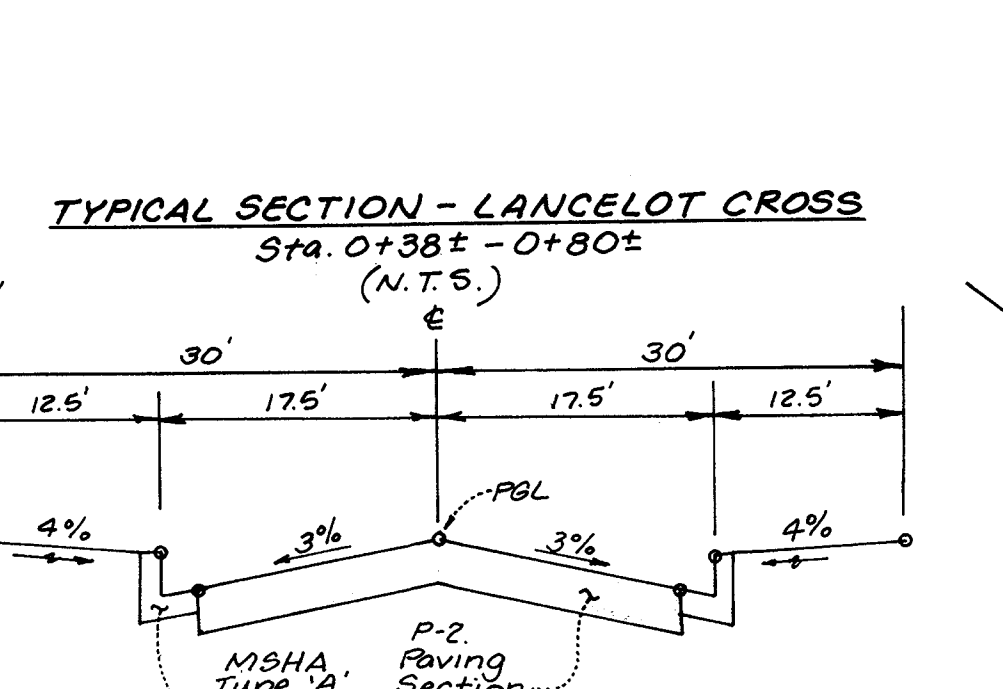
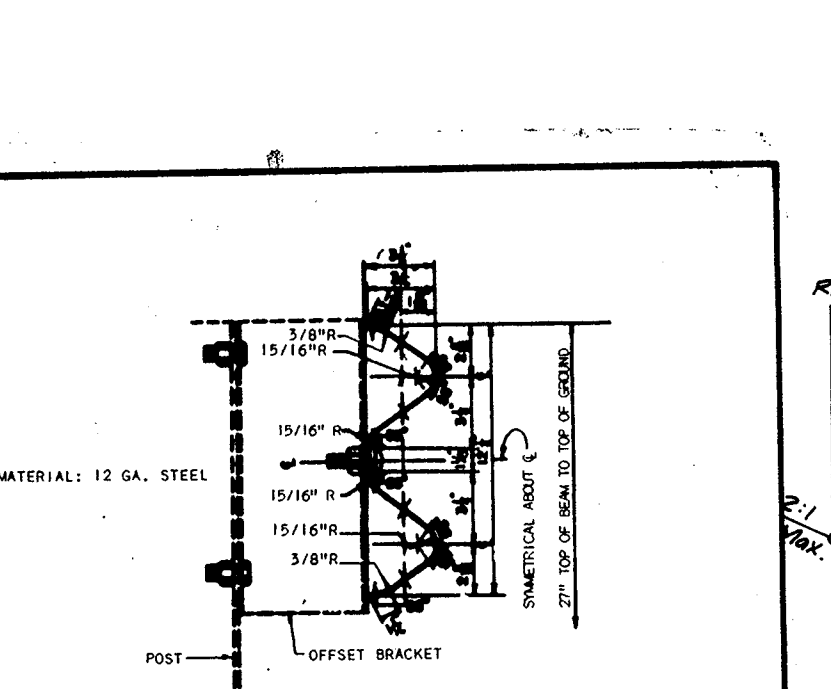
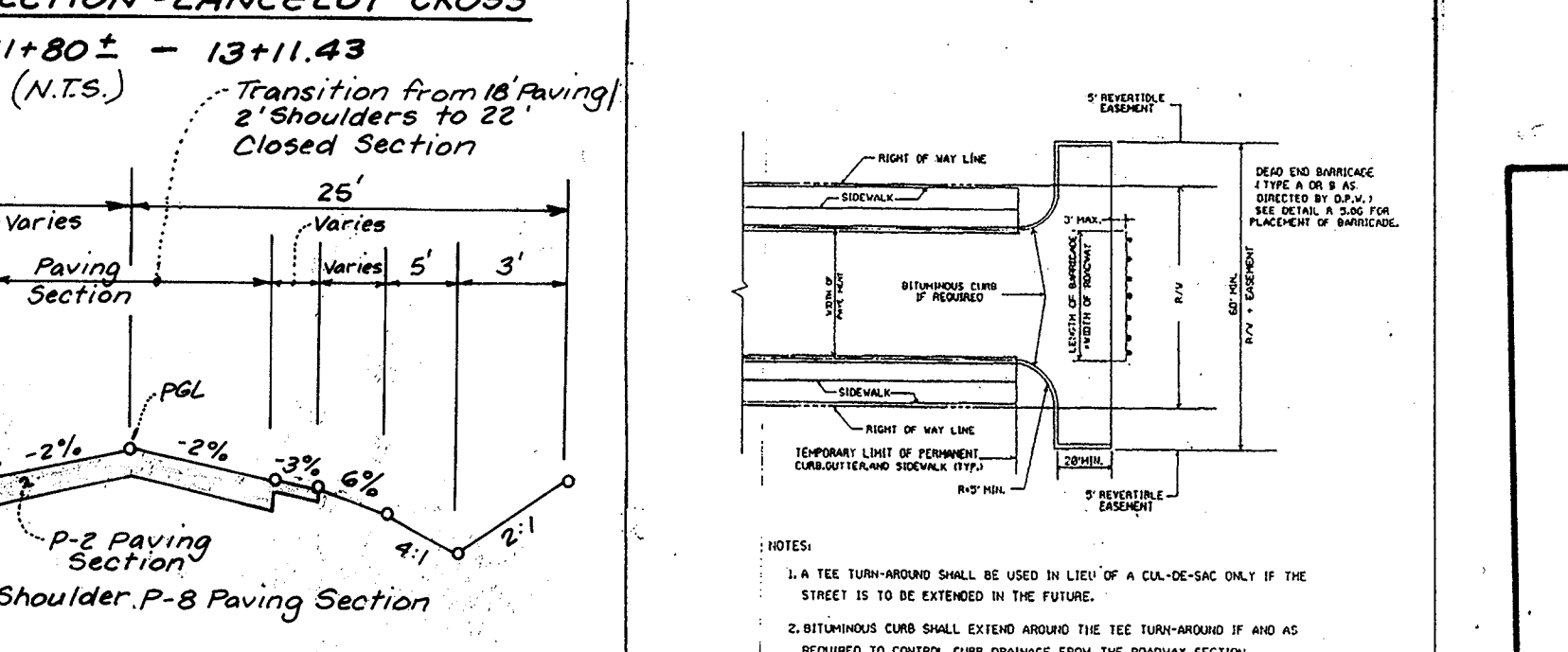
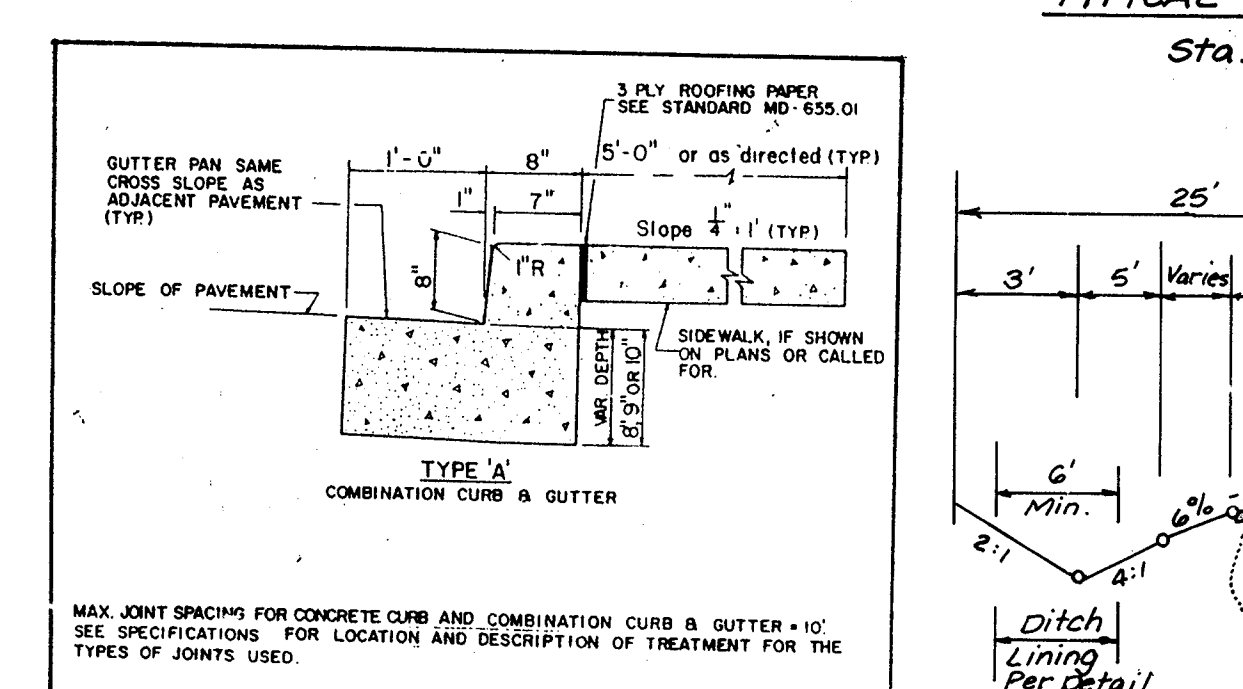
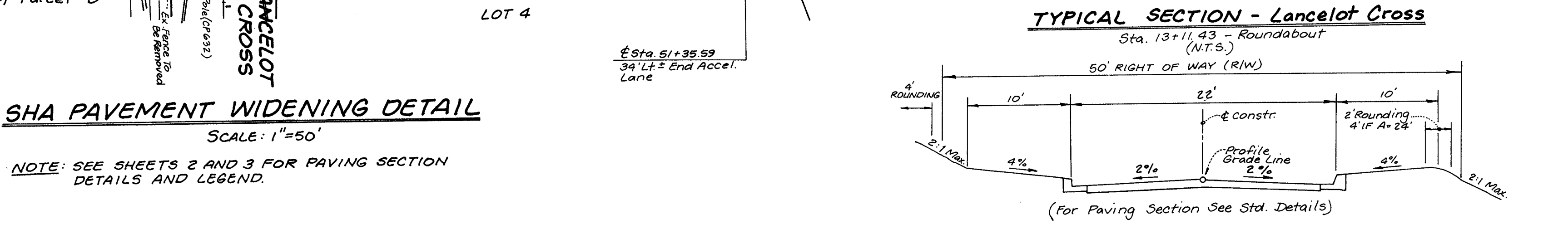
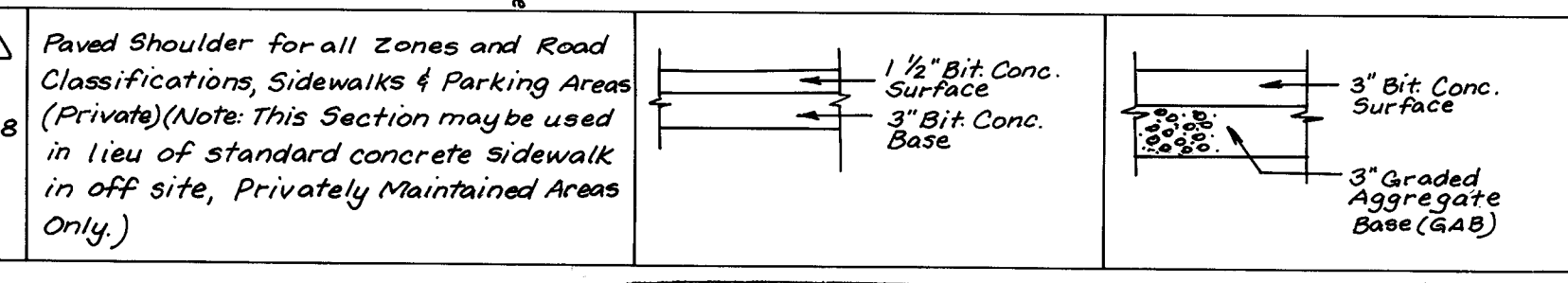
ARGENT PATH
 LOCAL ROAD - DESIGN SPEED: 25 MPH
 SCALE: 1" = 5' VERT.
 1" = 50' HOR.





BY	DATE	NO.	DESCRIPTION
LDE	9/99	1	Curb & Gutter Detail Typical Section (Revise Super-elevation Tables) / RCP Labels to HDPE
LDE	7/01	1	Add Curb Detail - Revise Typ. Section @ Roundabout

Symbol	Street Name	Centerline Station	Centerline Offset	Type
▼	Lancelot Cross	0+52	25' LT	R1-1 "STOP" Sign, 30" x 30" Octagon
▼	Lancelot Cross	2+50	18' LT	W1-1a "Stop Ahead" Sign (Diagrammatic), 36" x 36" Diamond
▼	Lancelot Cross	4+25	11' LT	R2-1 "Speed Limit 25" Sign, 24" x 30" Rectangle
▼	Lancelot Cross	5+20	27' LT	R4-7 "Keep Right" Sign (Diagrammatic), 24" x 30" Rectangle
▼	Lancelot Cross	10+45	12' LT	R4-7 "Keep Right" Sign (Diagrammatic), 24" x 30" Rectangle
▼	Lancelot Cross	12+00	14' LT	R2-1 "Speed Limit 25" Sign, 24" x 30" Rectangle
▼	Lancelot Cross	13+80	23' RT	R1-2 "Yield" Sign, 36" x 36" Triangle
▼	Lancelot Cross	13+88	23' RT	R6-2 "One Way" Sign, 18" x 24" Rectangle
▼	Stardust Lane	0+20	26' RT	R1-2 "Yield" Sign, 36" x 36" Triangle
▼	Stardust Lane	3+10	14' RT	R1-2 "Yield" Sign, 36" x 36" Triangle
▼	Stardust Lane	0+13	-	R6-2 "One Way" Sign, 18" x 24" Rectangle
▼	Argent Path	15+75	26' LT	R1-2 "Yield" Sign, 36" x 36" Triangle
▼	Argent Path	17+25	14' RT	R2-1 "Speed Limit 25" Sign, 24" x 30" Rectangle
▼	Lancelot Cross	2+00 Exit	12' LT	"No Left Turn" 18" x 24" Rectangle
▼	Lancelot Cross	2+05 Exit	12' LT	"No Left Turn" 18" x 24" Rectangle
▼	Argent Path	15+40	-	R6-2 "One Way" Sign, 18" x 24" Rectangle



APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 11/13/98
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 11/17/98
 CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 11/17/98
 CHIEF, BUREAU OF HIGHWAYS

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

[Signature] 11/9/98
 NATURAL RESOURCE CONSERVATION SERVICE

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

[Signature] 11/9/98
 HOWARD SOIL CONSERVATION DISTRICT

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, erosion and sediment control, and soil conservation was prepared in accordance with the provisions of the Howard Soil Conservation District Act. I, the undersigned, am a duly licensed Professional Engineer in the State of Maryland and I am duly qualified to supervise the construction 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 of the project.

[Signature] 10/12/98
 SIGNATURE OF ENGINEER

DEVELOPER'S CERTIFICATE

I certify that all development and/or construction will be done according to these plans, and that any deviation from the provisions of the contract project will have a Certificate of Attendance of a Department of the Environment to approve pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion of the project.

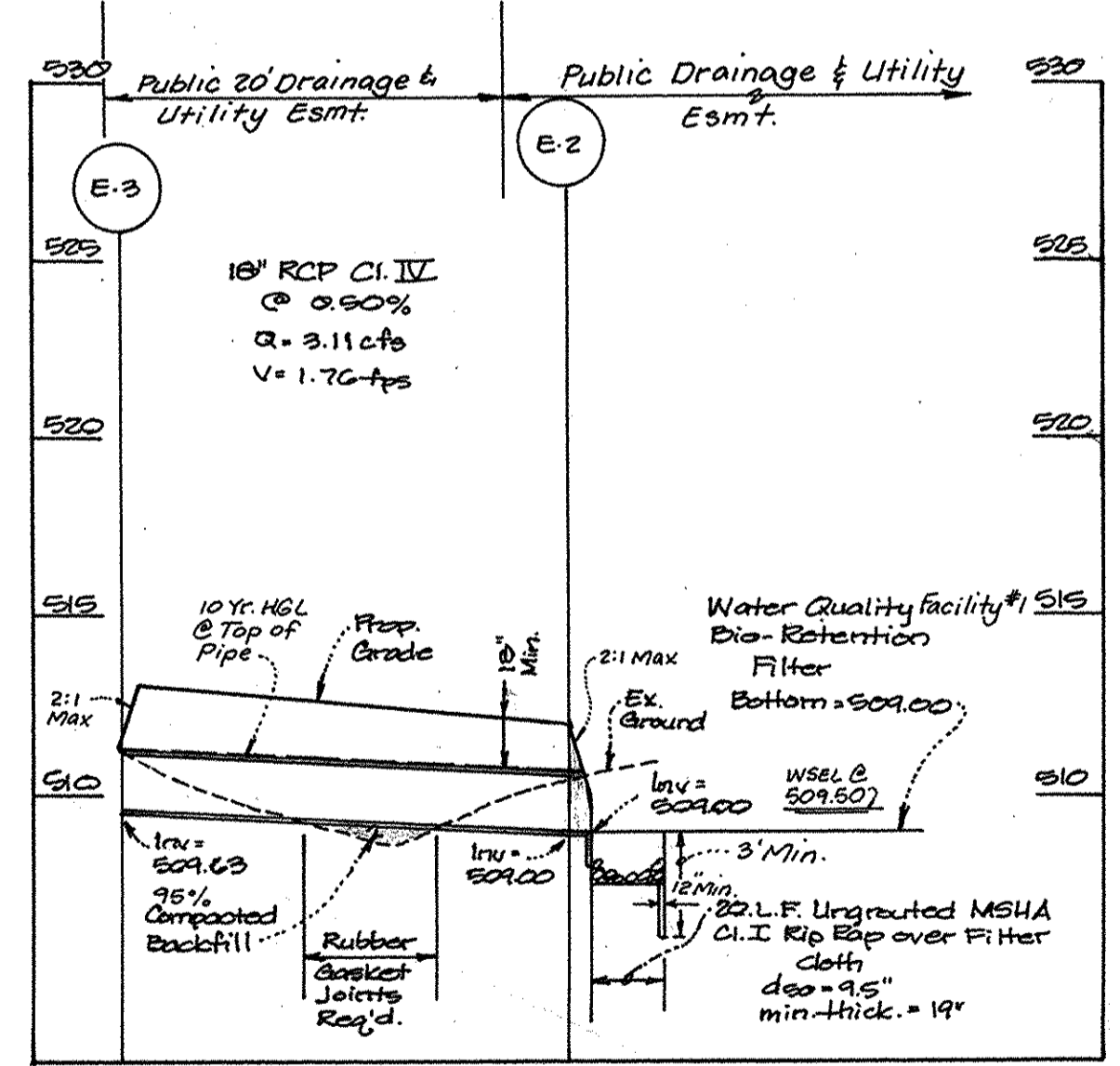
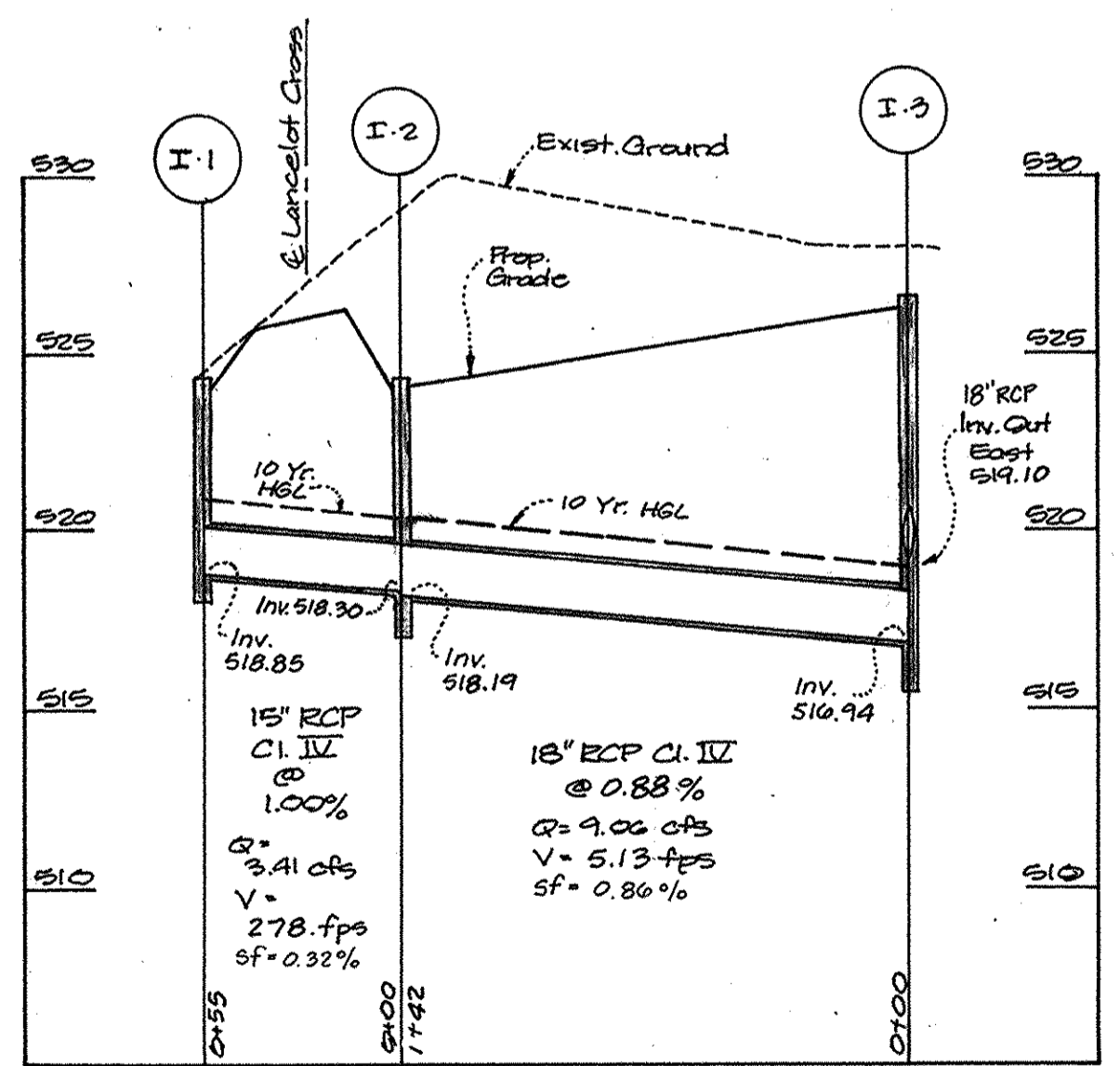
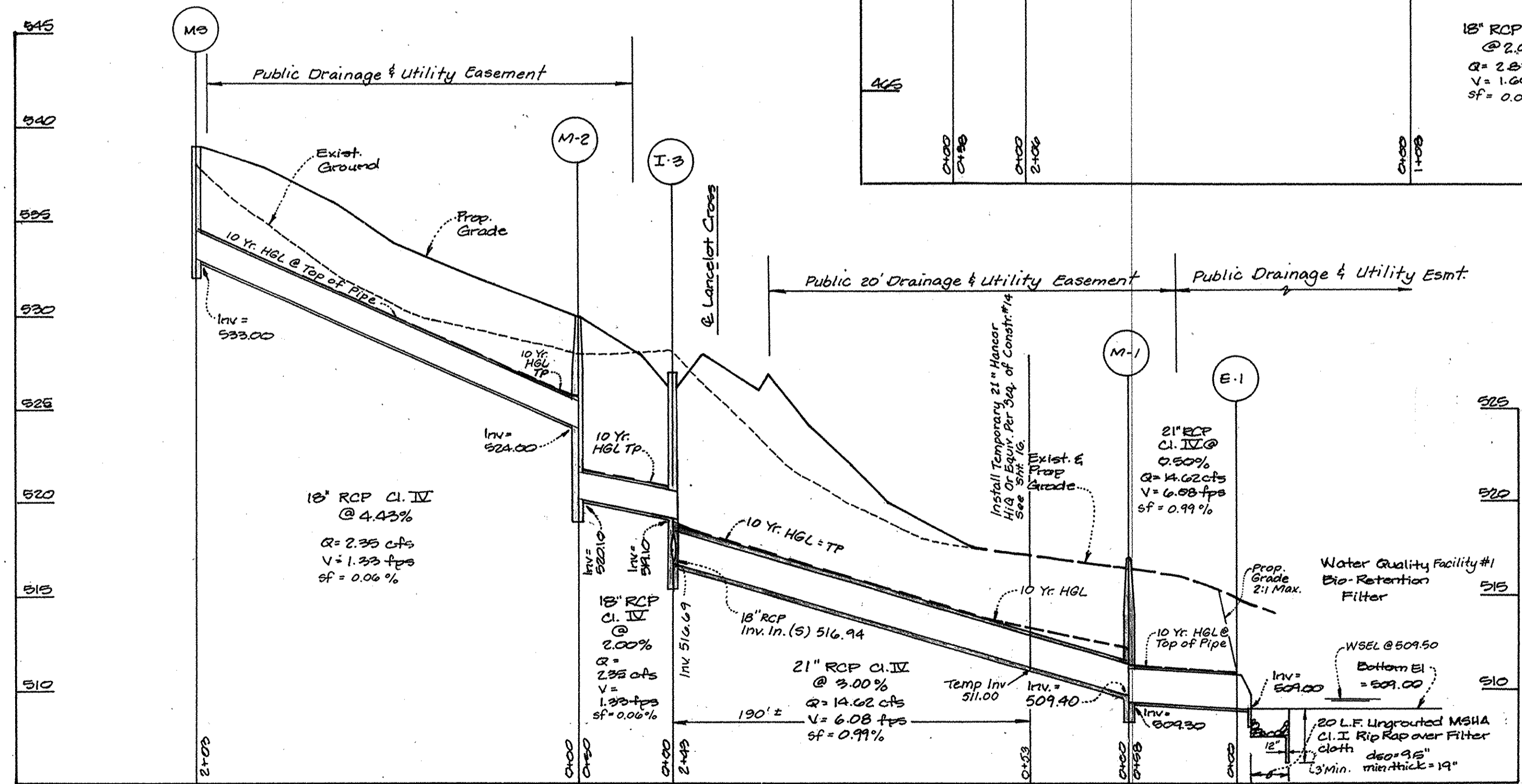
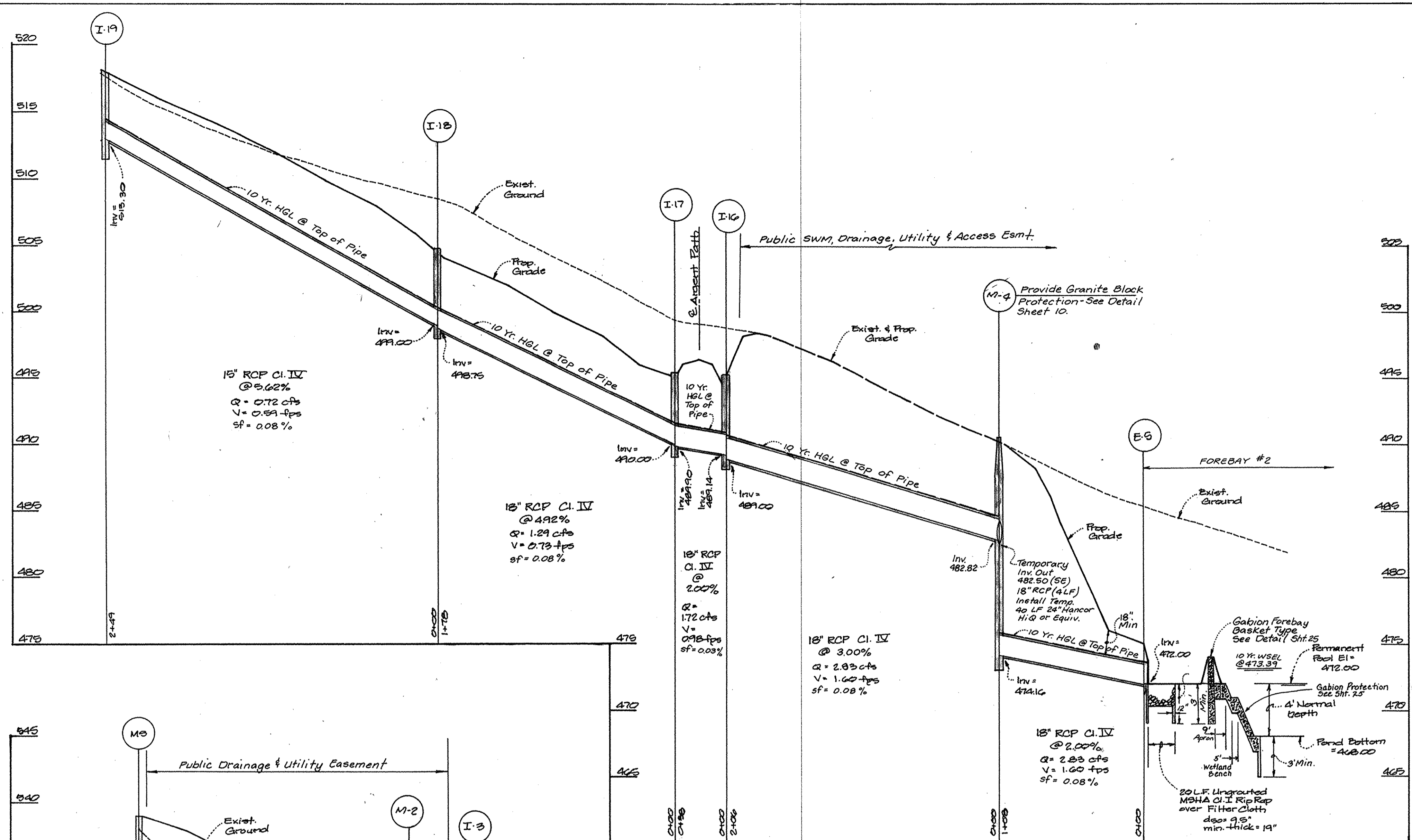
[Signature] 4/15/98
 SIGNATURE OF DEVELOPER

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

DESIGNED: E.D.S.
 DRAWN: K.B.W.
 CHECKED: B.D.B.
 DATE: 10/98

SCALE: AS SHOWN
 DRAWING: 8 of 34
 JOB NO.: 95-056
 FILE NO.: P 98-138

BRANTWOOD SECTION ONE
 Lots 1 - 33, Preservation Parcels "A", "B", "C", "D", "E", and "F", and a Resubdivision of "Lot 1 - Feaga Property", Tax Maps 16 & 23, Parcels 54, 62, 214, & 390, 3rd Election District - Howard County, Maryland
 Previous Submittals: WP 98-133, S 98-23, P 98-100, WP 98-133, WP 98-14

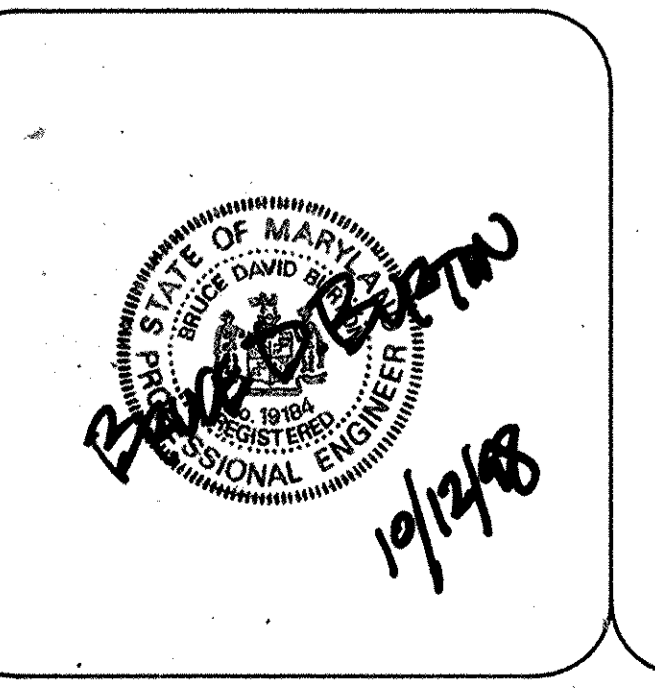


STRUCTURE SCHEDULE							
Inlet No.	Type	Inv. In	Inv. Out	Upper	Lower	Detail	Remarks
I-1	"D"	-	518.85	524.25		SD 4.39	Throat 4 Sides
I-2	"D"	518.30	518.19	524.70		SD 4.39	Throat 4 Sides
I-3	"D"	519.10/516.94	516.69	526.90		SD 4.39	Throat 4 Sides
I-4	"D"	472.67	472.42	476.50		SD 4.39	Throat 4 Sides
I-5	"D"	488.65/488.50	488.40	493.30		SD 4.39	Throat 4 Sides
I-6	"D"	496.50	496.40	502.70		SD 4.39	Throat 4 Sides
I-7	A-5	510.60	510.50	516.74	516.66	SD 4.01	
I-8	A-5	511.22	511.12	516.80	516.71	SD 4.01	
I-9	"D"	514.10	514.00	520.80		SD 4.39	Throat 4 Sides
I-10	"D"	515.25	515.00	520.70		SD 4.39	Throat 4 Sides
I-11	A-5	-	516.47	520.40		SD 4.01	Sump
I-12	"D"	478.59	478.34	484.50		SD 4.39	Throat 4 Sides
I-13	Dbl. "S" Comb.	-	479.75	484.00		SD 4.34	Sump
I-14	"D"	-	479.37	484.10		SD 4.39	Throat 4 Sides
I-15	"D"	-	489.43	493.50		SD 4.39	Throat 4 Sides
I-16	"D"	489.14	489.00	494.80		SD 4.39	Throat 4 Sides
I-17	"D"	490.00	489.90	495.00		SD 4.39	Throat 4 Sides
I-18	"D"	499.00	498.75	504.50		SD 4.39	Throat 4 Sides
I-19	A-5	-	513.30	518.33	518.08	SD 4.01	
MS	COG-20	-	533.00	540.31	539.68	MD-374.51	State Highway Administration
M-1	Manhole	509.40	509.30	516.50		G 5.12	
M-2	Manhole	524.00	520.10	530.00		G 5.12	
M-3	Manhole	484.50/475.75	475.65	492.00		G 5.12	Provide Granite Block Protection
M-4	Manhole	478.00	474.16	490.50		G 5.12	Provide Granite Block Protection
E-1	End Section	-	509.00	510.75		SD-5.52	
E-2	End Section	-	509.00	510.50		SD-5.52	
E-3	"E" Endwall	-	509.63	511.88		MD-356.02	State Highway Administration
E-4	"A" Headwall	472.00	472.00	475.00		SD-5.11	
E-5	"A" Headwall	472.00	472.00	475.00		SD-5.11	
S-1	"A" Headwall	466.00	466.00	465.50		SD-5.11	
S-2	Riser	468.00	467.90	475.33		-	See Sheet 20 & 24

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] 11/13/98
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] 11/17/98
 CHIEF, DIVISION OF LAND DEVELOPMENT
 Approved: Department of Public Works for Storm Drainage Systems and Roads
 [Signature] 11/17/98
 CHIEF, Bureau of Highways

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDIMENT CONTROL
 [Signature] 11/17/98
 NATURAL RESOURCE CONSERVATION SERVICE
 THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
 [Signature] 11/17/98
 HOWARD SOIL CONSERVATION DISTRICT

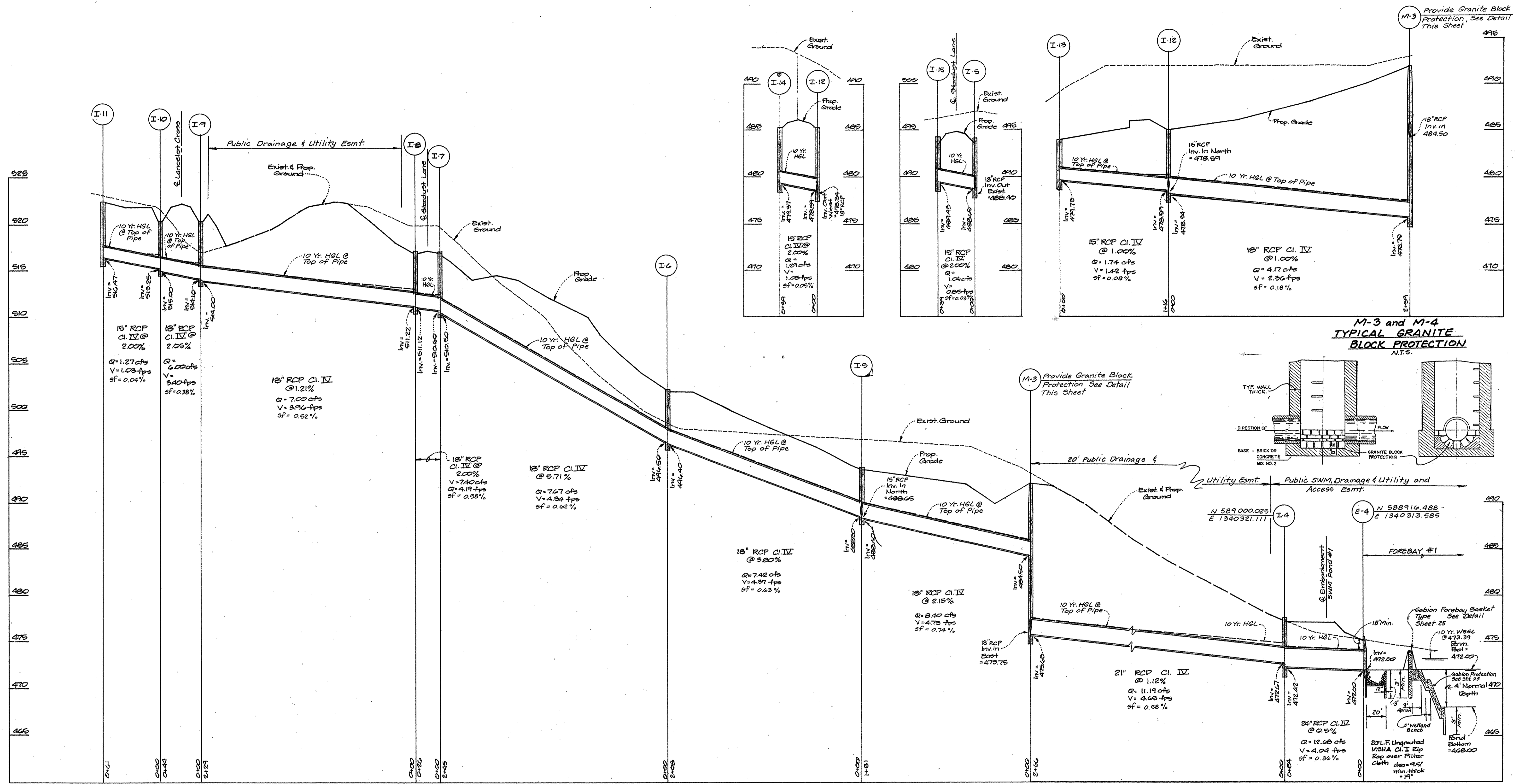
ENGINEER'S CERTIFICATE
 I certify that this plan...
 [Signature] 10/12/98
 DEVELOPER'S CERTIFICATE
 I/we certify that all development and/or construction will be done according to these plans...
 [Signature] 4/15/98



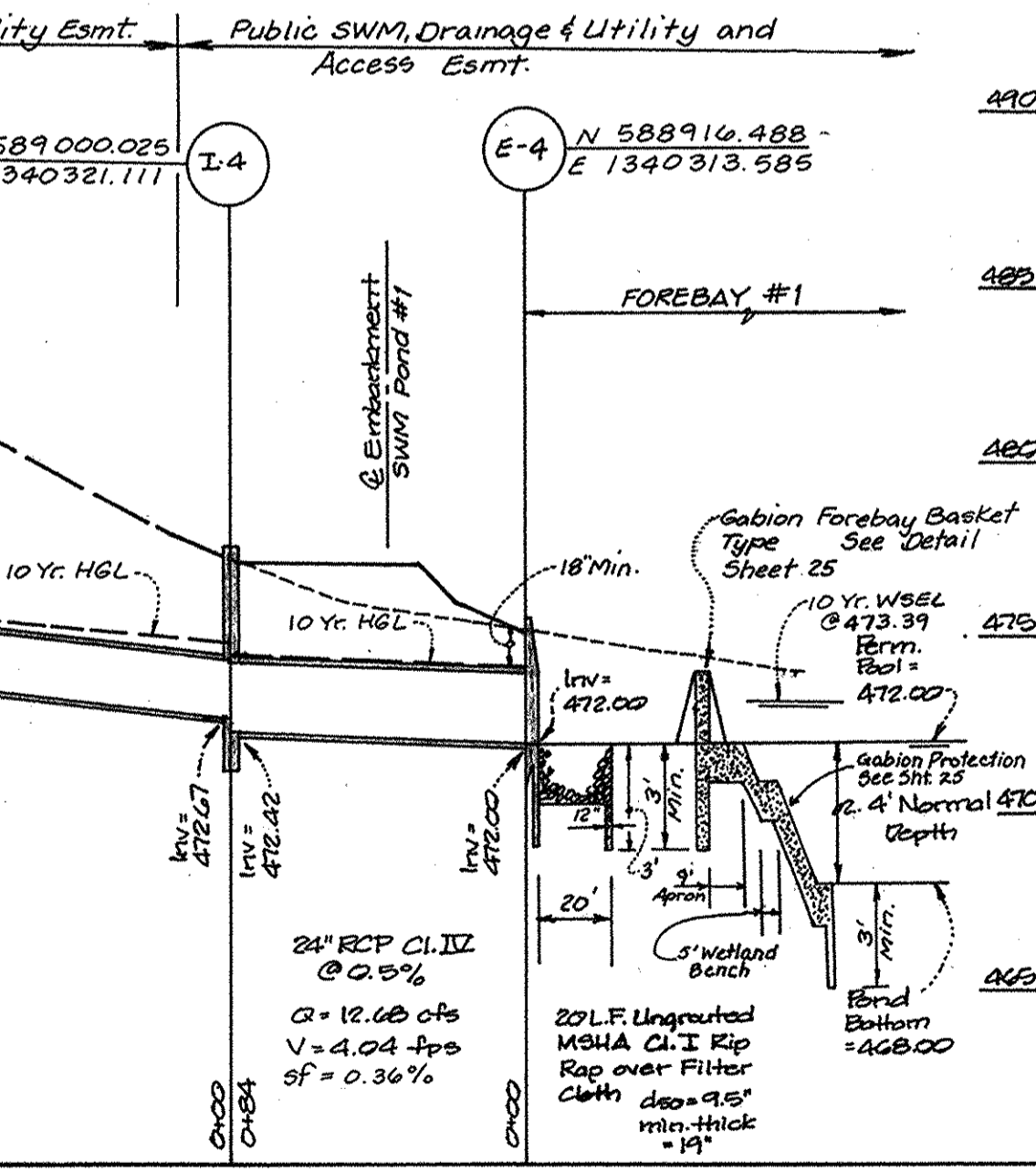
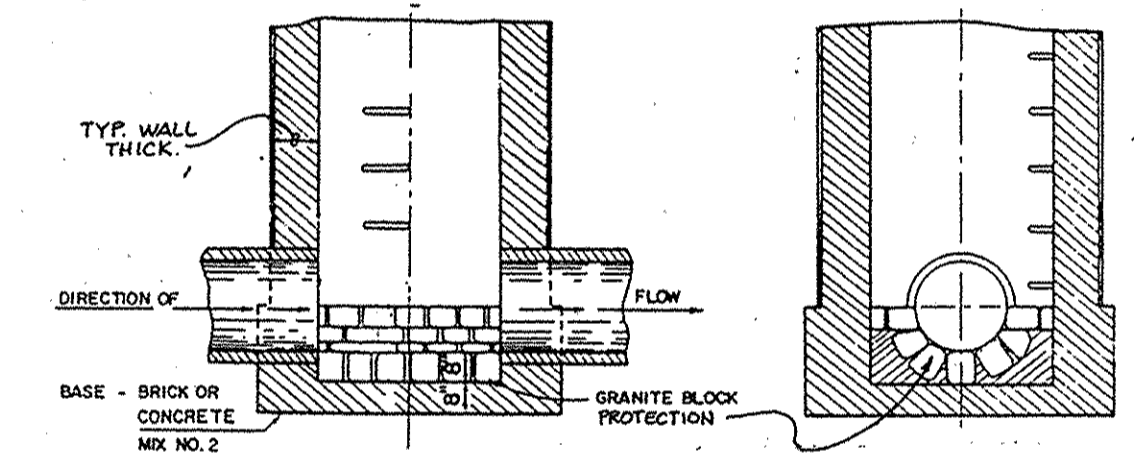
LDE, INC.
 9250 Rumsey Road, Suite 106, Columbia, MD. 21045
 (410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED E.D.S.	Storm Drain Profiles BRANTWOOD SECTION ONE Lots 1 - 33, Preservation Parcels "A", "B", "C", "D", Non-Buildable Bulk Parcel "E", and A Resubdivision of "Lot 1 - Feago Property" Tax Maps 16 & 23 Parcels 54, 62, 214, & 390 3rd Election District - Howard County, Maryland Previous Submittals: WP 98-133, S 98-23, P 98-08, WP 98-133, WP 98-14	SCALE 1" = 50' Vert. 1" = 50' Hor.
DRAWN B.E.I.		DRAWING 9 of 34
CHECKED B.D.B.		JOB NO. 95-056
DATE 10/98		FILE NO. F 98-138

BRANTWOOD, LLC
 8835 - P Columbia 100 Parkway
 Columbia, Maryland 21045
 (410) 750-0810



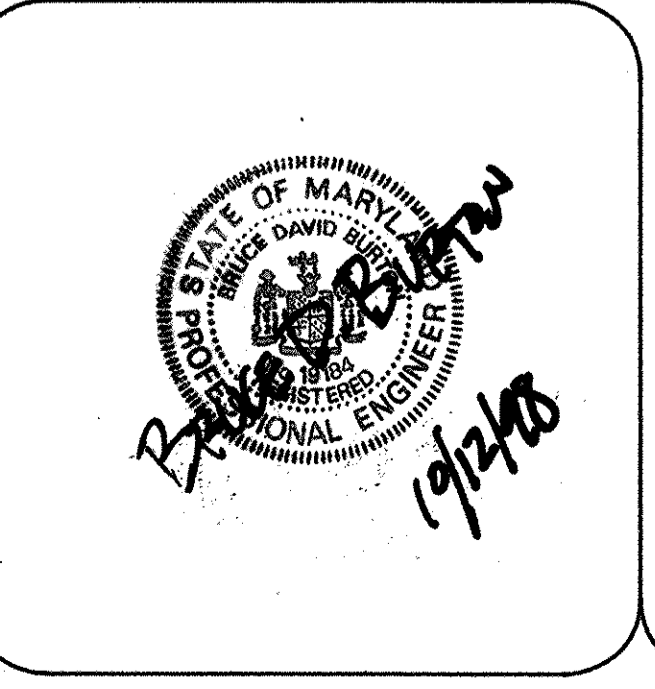
M-3 and M-4
TYPICAL GRANITE
BLOCK PROTECTION
N.T.S.



APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 11/13/98
 APPROVED: DIVISION OF LAND DEVELOPMENT
 CHIEF, DIVISION OF LAND DEVELOPMENT
 11/12/98
 APPROVED: CHIEF, BUREAU OF HIGHWAYS
 11/12/98

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDIMENT CONTROL.
 CHIEF, NATURAL RESOURCE CONSERVATION SERVICE
 4/9/98
 THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
 CHIEF, HOWARD SOIL CONSERVATION DISTRICT
 11/9/98

ENGINEER'S CERTIFICATE
 I certify that this plan for pond construction, erosion and sediment control represents a true and correct copy of the work as prepared in accordance with the provisions of the Howard Soil Conservation District Act. I also certify that the developer that he/she must 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.
 SIGNATURE OF ENGINEER: [Signature]
 DATE: 10/13/98
 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 OF DEVELOPER: [Signature]
 DATE: 9/15/98



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

DESIGNED E.D.S.	Storm Drain Profiles BRANTWOOD SECTION ONE Lots 1 - 33, Preservation Parcels "A", "B", "C", "D", and "E" and A Resubdivision of "Lot 1 - Feaga Property" Tax Maps 16 & 23 Parcels 54, 62, 214, & 390 3rd Election District - Howard County, Maryland Previous Submittals: WP 96-133, S 98-23, P 98-08, WP 98-133, WP 99-14	SCALE 1" = 5' Vert. 1" = 50' Hor.
DRAWN B.E.I.		DRAWING 10 of 34
CHECKED B.D.B.		JOB NO. 95-056
DATE 10/98		FILE NO. F 98-138

Developer: BRANTWOOD, LLC
 8835 - P Columbia 100 Parkway
 Columbia, Maryland 21045
 (410) 736-0810

FREDERICK ROAD

(MD RTE. 144)

A = 0.98 Ac ±
C = .44

EX. 18" CMP
32% IMP.

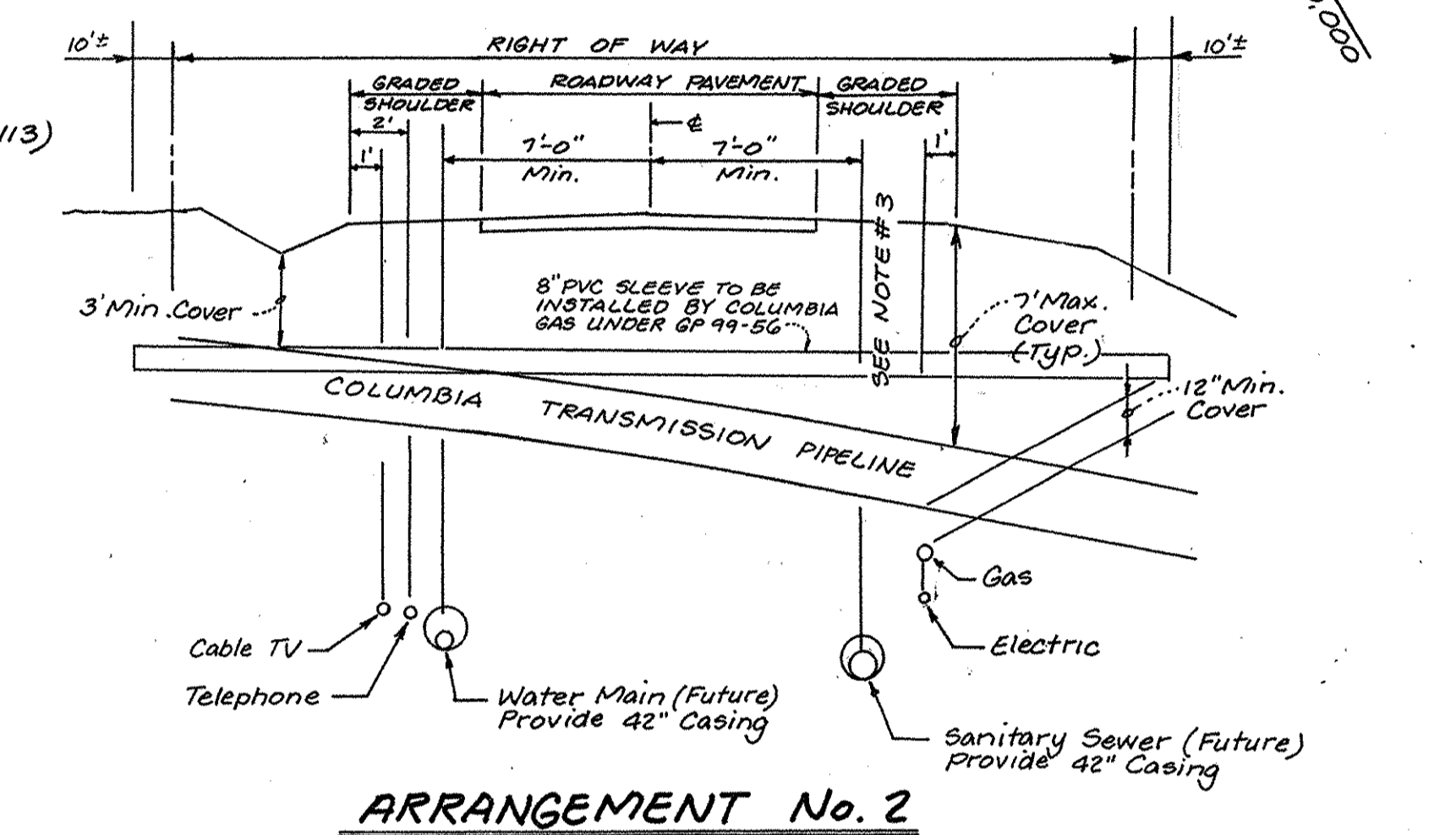
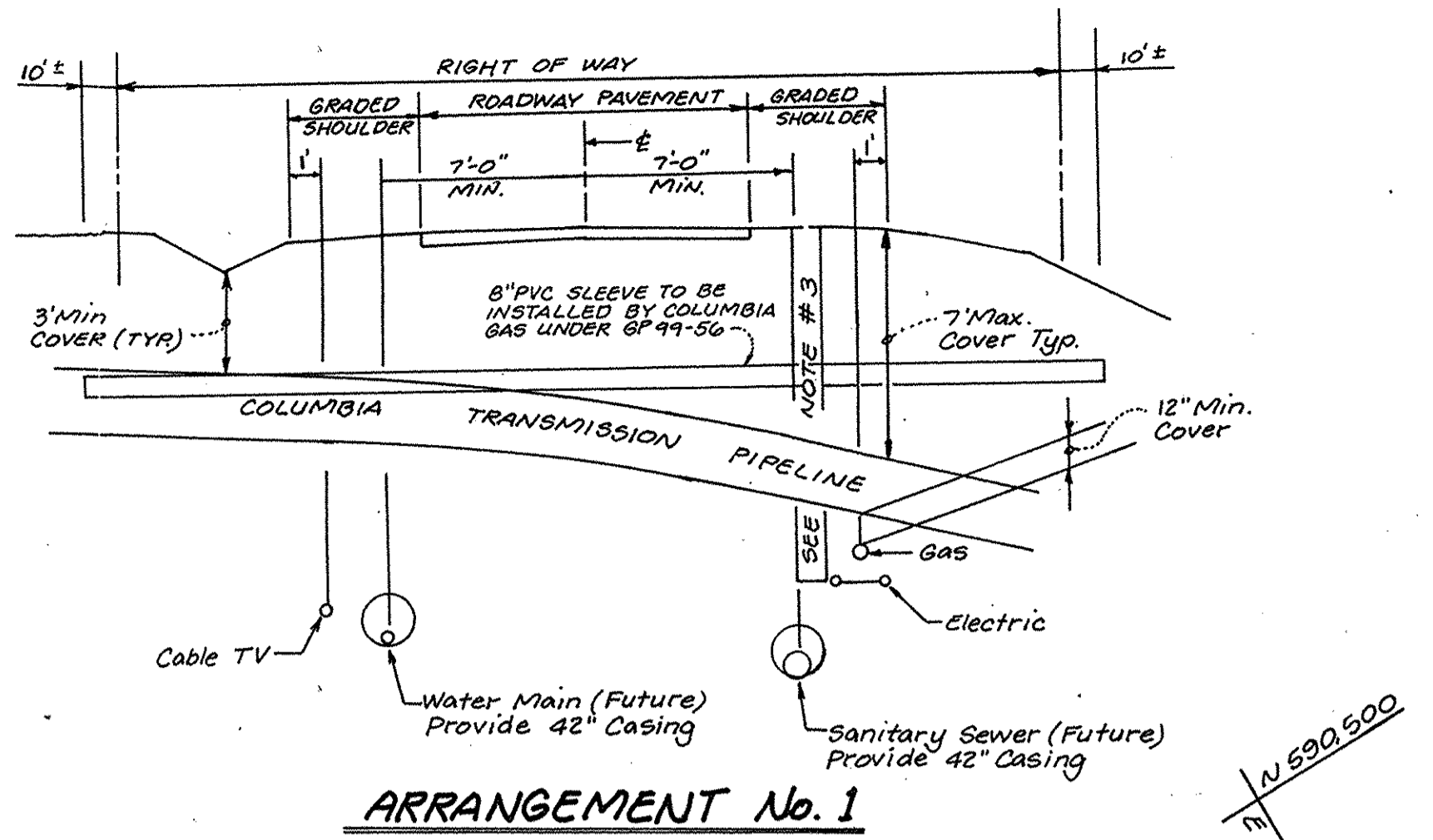
LEGEND

- 522 EX. 2 FT. CONTOUR
- 520 PROP. 2 FT. CONTOUR
- EX. 10 FT. CONTOUR
- PROP. SEPTIC AREA
- EX. SEPTIC AREA
- EX. TREES
- EX. TREES TO REMAIN
- EX. E. STREAM
- 75 FT. STREAM BUFFER
- EX. NON-TIDAL WETLANDS
- 25 FT. WETLAND BUFFER
- FP 100 YEAR FLOODPLAIN
- SF SF SILT FENCE
- SSF SSF SUPER SILT FENCE
- TP TP TREE PROTECTION FENCE
- LIMIT OF DISTURBANCE
- SCE STABILIZED CONSTRUCTION ENTRANCE
- EX. DRAINAGE DIVIDE (GP 98-113)

AREA Inlet ZONING
C'Factor # % IMPERVIOUS

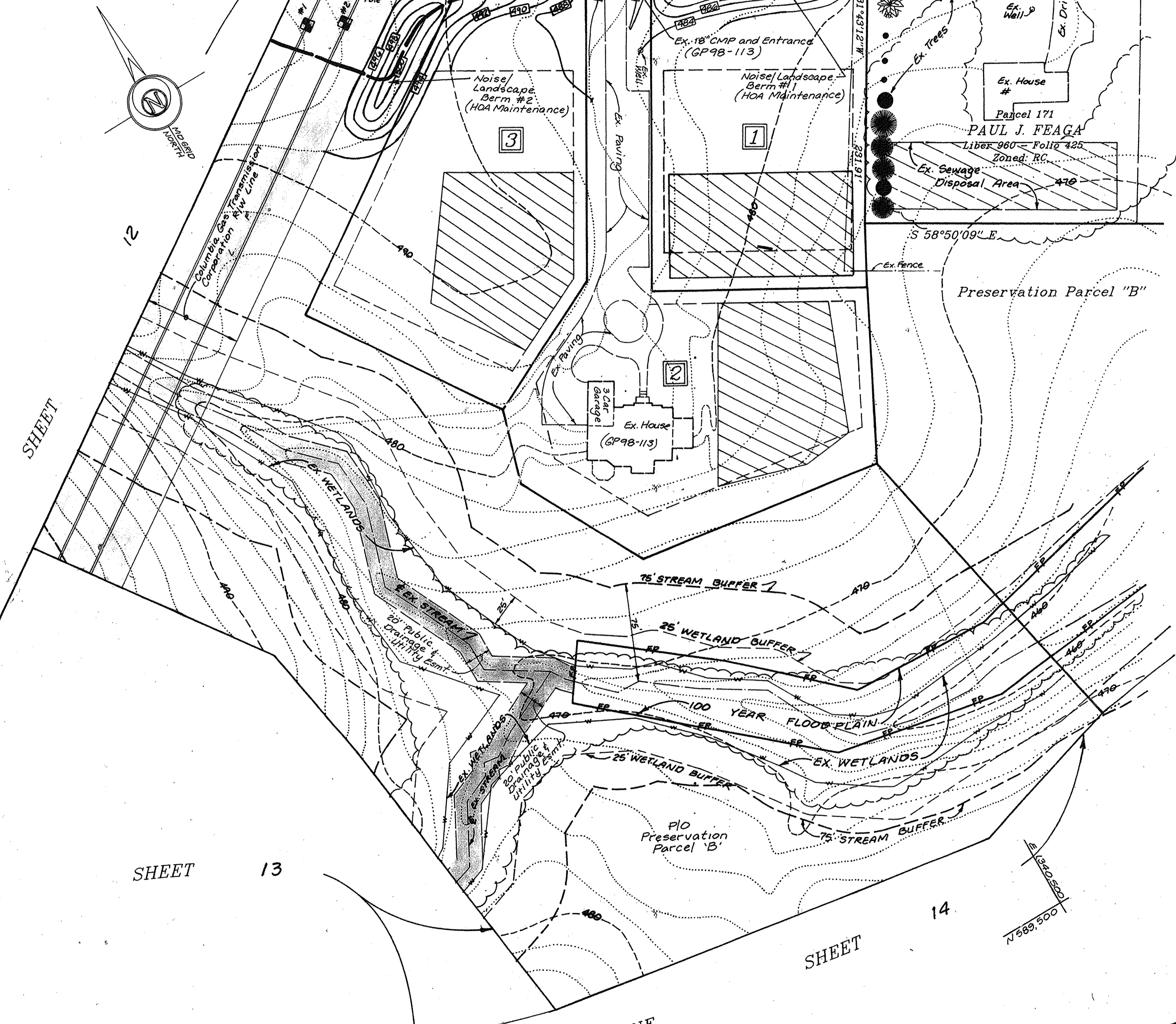
DRAINAGE DIVIDE

TC PATH



TYPICAL UTILITY LOCATIONS AT COLUMBIA GAS TRANSMISSION MAIN CROSSING
NOT TO SCALE

- NOTES:
1. The Department of Public Works shall be consulted concerning the utility location arrangement for a given street project.
 2. Gas, electric and telephone lines may be placed in the same trench at the option of the Baltimore Gas & Electric Co. and Bell Atlantic.
 3. Electric: 0-600 V 24" Cover; Over 600 V 36" Cover. Telephone: Main Service 24" Cover; Residential Connection-11" Cover. Cable: 11" Cover
 4. See standard Fig. 2.16 for normal location of public utilities open section.
 5. 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.
 6. All work performed within the Columbia Gas Pipeline R/W shall be in accordance with the special note to contractors on sheet 1.



APPROVED: DEPARTMENT OF PLANNING AND ZONING

William J. ... 11/13/98
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Chris ... 11/13/98
CHIEF, DIVISION OF LAND DEVELOPMENT

Approved: Department of Public Works for Storm Drainage, Systems and Roads

Howard ... 11/13/98
CHIEF, Bureau of Highways

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

Charles ... 11/9/98
NATURAL RESOURCE CONSERVATION SERVICE

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

Howard ... 11/9/98
HOWARD SOIL CONSERVATION DISTRICT

ENGINEER'S CERTIFICATE

I certify that this plan was prepared, checked, and worked on by me or my personal knowledge and experience. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District and the developer that has been must 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 ... 10/12/98
SIGNATURE OF ENGINEER

DEVELOPER'S CERTIFICATE

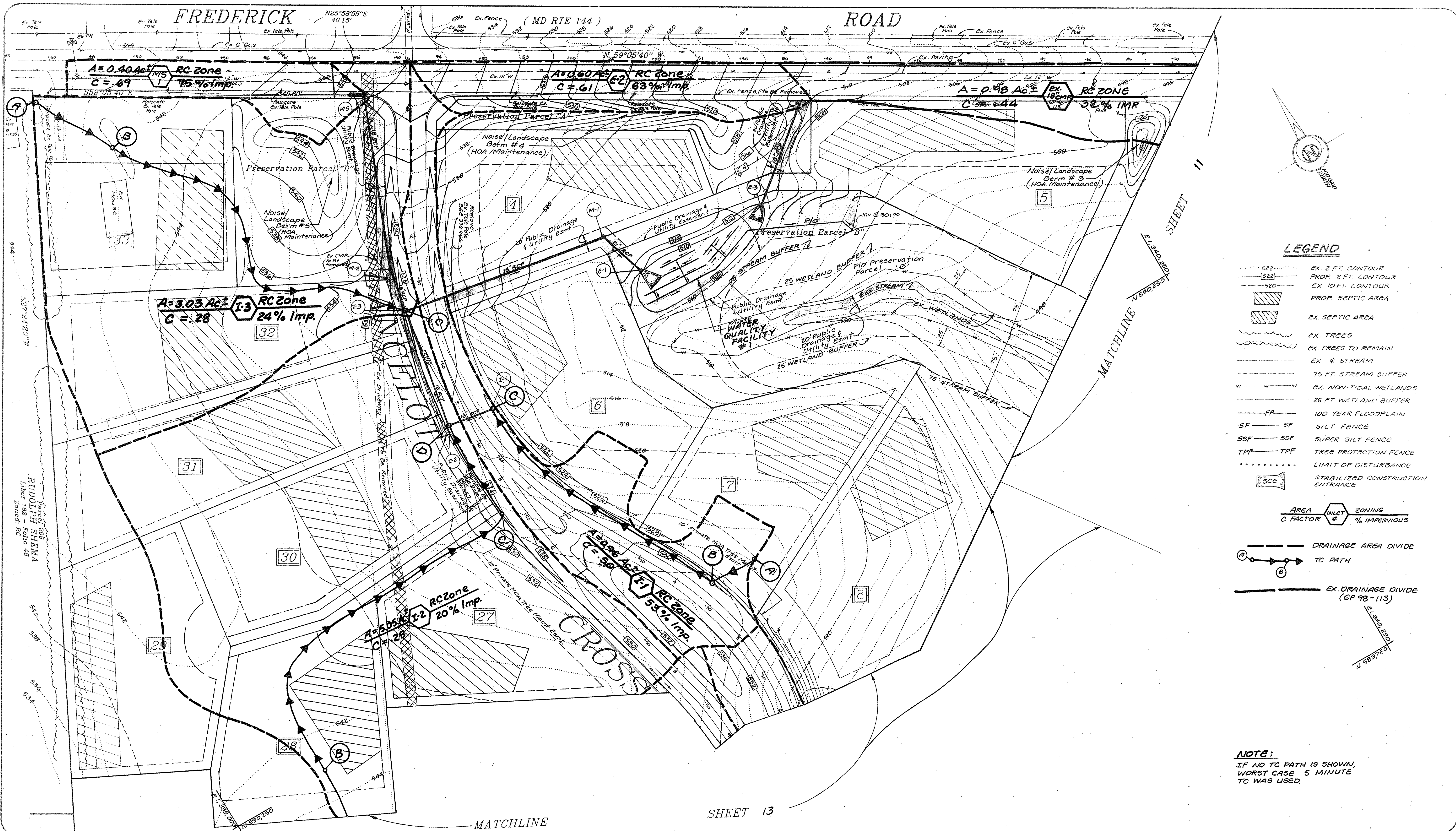
I/We certify that all development and/or construction will be done according to these plans, and that my responsible personnel involved in the construction project will have a Certificate of Attendance of a Department of the Environment Approved Training Program for the Control of Sediment and Erosion 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 ... 11/12/98
SIGNATURE OF DEVELOPER

STATE OF MARYLAND
BOARD OF PROFESSIONAL ENGINEERS

David ... 10/12/98
PROFESSIONAL ENGINEER

LDE, INC. 9250 Rumsey Road, Suite 106, Columbia, MD. 21045 (410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)		
DESIGNED	DRAINAGE AREA MAP	SCALE
E.D.S.	BRANTWOOD	1" = 50'
DRAWN	SECTION ONE	DRAWING
K.B.W.	Lots 1 - 33, Preservation Parcels "A", "B", "C", "D", Non-Buildable Bulk Parcel "E", and A Resubdivision of "Lot 1 - Feaga Property"	11 of 34
CHECKED	Tax Maps 16 & 23 Parcels 54, 62, 214, & 390	JOB NO.
B.D.B.	3rd Election District - Howard County, Maryland	95-056
DATE	Developer	FILE NO.
10/98	BRANTWOOD, LLC 8835 - F Columbia 100 Parkway Columbia, Maryland 21045 (410) 736-0810	F 98-138



LEGEND

- 522 --- EX. 2 FT. CONTOUR
- 520 --- PROP. 2 FT. CONTOUR
- 520 --- EX. 10 FT. CONTOUR
- ▨ PROP. SEPTIC AREA
- ▨ EX. SEPTIC AREA
- EX. TREES
- EX. TREES TO REMAIN
- EX. 4" STREAM
- 75 FT. STREAM BUFFER
- EX. NON-TIDAL NETLANDS
- 25 FT. WETLAND BUFFER
- 100 YEAR FLOODPLAIN
- SF --- SF SILT FENCE
- SSF --- SSF SUPER SILT FENCE
- TPF --- TPF TREE PROTECTION FENCE
- LIMIT OF DISTURBANCE
- SCS EX. STABILIZED CONSTRUCTION ENTRANCE

AREA	INLET	ZONING
C FACTOR	#	% IMPERVIOUS
1	1	95% IMP.
2	2	63% IMP.
3	3	52% IMP.
4	4	24% IMP.
5	5	20% IMP.
6	6	53% IMP.

- DRAINAGE AREA DIVIDE
- TC PATH
- EX. DRAINAGE DIVIDE (GP 98-113)

NOTE:
IF NO TC PATH IS SHOWN,
WORST CASE 5 MINUTE
TC WAS USED.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chris Dammann 11/13/98
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Cindy Hamstra 11/17/98
CHIEF, DIVISION OF LAND DEVELOPMENT

Kawanda Shill 11/17/98
Chief, Bureau of Highways

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

Chris Dammann 11/9/98
NATURAL RESOURCE CONSERVATION SERVICE

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

Chris Dammann 11/9/98
HOWARD SOIL CONSERVATION DISTRICT

ENGINEER'S CERTIFICATE

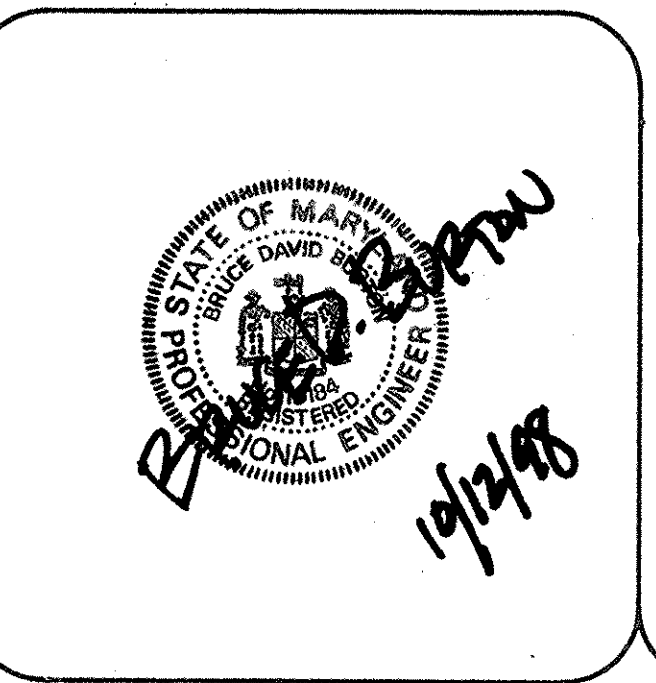
I certify that this plan, showing construction, erosion and sediment control measures, and a workable plan based on my personal knowledge of the site and conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I, the engineer, certify that the developer has/she must 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.

Chris Dammann 11/12/98
SIGNATURE OF ENGINEER

DEVELOPER'S CERTIFICATE

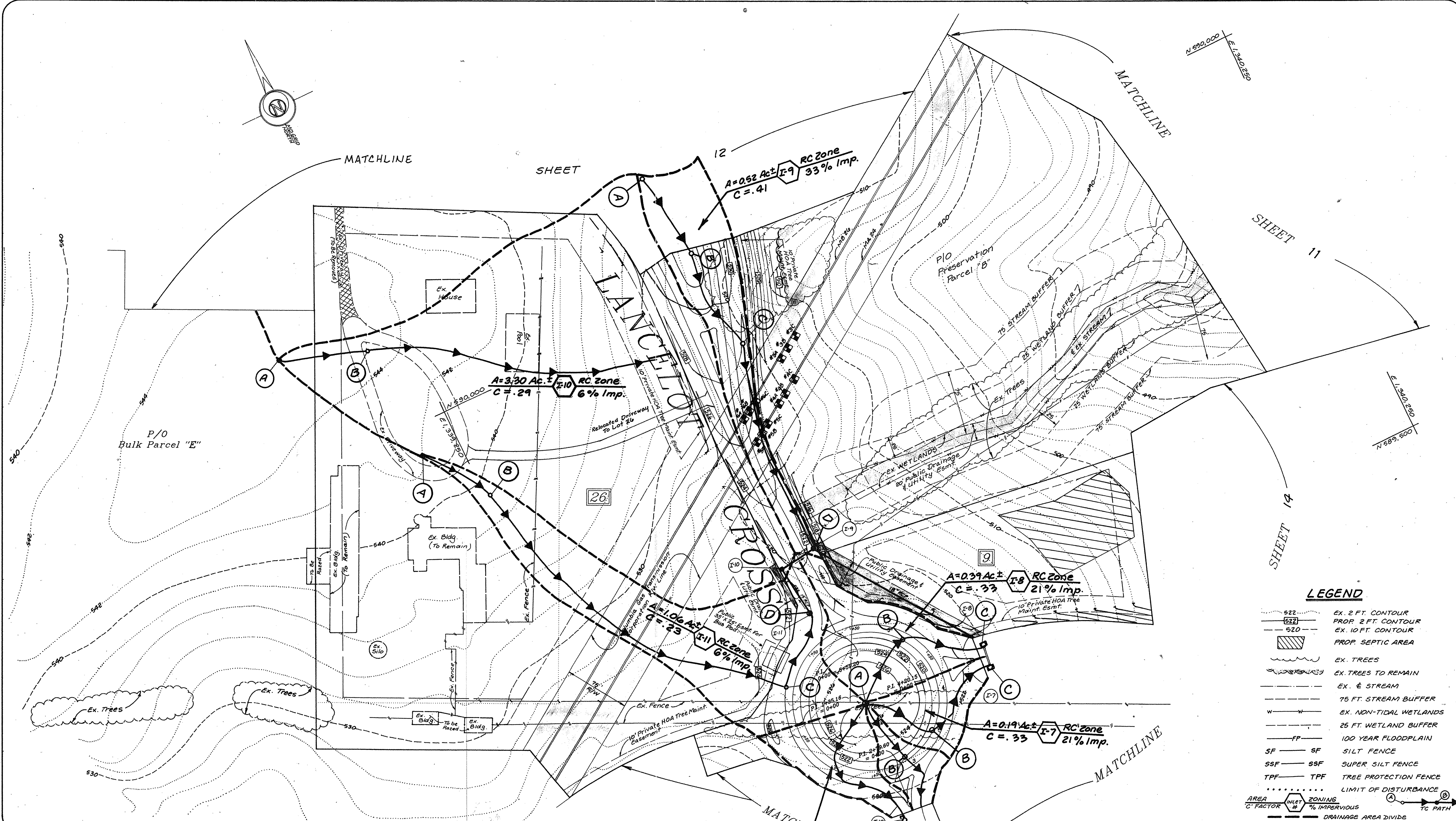
I, the developer, certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment 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 Howard Soil Conservation District.

Chris Dammann 11/15/98
SIGNATURE OF DEVELOPER



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

DESIGNED E.D.S.	DRAINAGE AREA MAP BRANTWOOD SECTION ONE Lots 1 - 33, Preservation Parcels "A", "B", "C", "D", Non-Buildable Bulk Parcel "E", and A Resubdivision of "Lot 1 - Feago Property"	SCALE 1" = 50'
DRAWN K.B.W.		DRAWING 12 of 34
CHECKED B.D.B.	Tax Maps 16 & 23 3rd Election District - Howard County, Maryland Previous Submittals: WP 98-133, S 98-23, P 98-08, WP 98-133, WP 99-14	JOB NO. 95-056
DATE 10/98	Developer BRANTWOOD, LLC 8835 - P Columbia 100 Parkway Columbia, Maryland 21045 (410) 730-0810	FILE NO. F 98-138



LEGEND

- 622 --- EX. 2 FT. CONTOUR
- 520 --- PROP. 2 FT. CONTOUR
- 520 --- EX. 10 FT. CONTOUR
- ▨ PROP. SEPTIC AREA
- EX. TREES
- EX. TREES TO REMAIN
- EX. & STREAM
- 75 FT. STREAM BUFFER
- EX. NON-TIDAL WETLANDS
- 25 FT. WETLAND BUFFER
- FP --- 100 YEAR FLOODPLAIN
- SF --- SF SILT FENCE
- SSF --- SSF SUPER SILT FENCE
- TPF --- TPF TREE PROTECTION FENCE
- LIMIT OF DISTURBANCE
- AREA # ZONING % IMPERVIOUS TC PATH

APPROVED: DEPARTMENT OF PLANNING AND ZONING

W.D. Dunnington 11/13/98
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE

Cindy Hamilton 11/12/98
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE

Howard Shil 11/12/98
 CHIEF, Bureau of Highways
 DATE

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

Cheryl Summers 11/9/98
 NATURAL RESOURCE CONSERVATION SERVICE
 DATE

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

Yvette J. Hill 11/9/98
 HOWARD SOIL CONSERVATION DISTRICT
 DATE

ENGINEER'S CERTIFICATE

I certify that this plan for construction, erosion and sediment control, and drainage and workable 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 and the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with a "submittal" plan of the pond within 30 days of completion. I also authorize periodic onsite inspections by Howard Soil Conservation District.

David P. Brown 10/12/98
 PROFESSIONAL ENGINEER
 DATE

DEVELOPER'S CERTIFICATE

I, the developer, 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 a "submittal" plan of the pond within 30 days of completion. I also authorize periodic onsite inspections by Howard Soil Conservation District.

Hugh J. Cole 4/15/98
 SIGNATURE OF DEVELOPER
 DATE

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 10/12/98

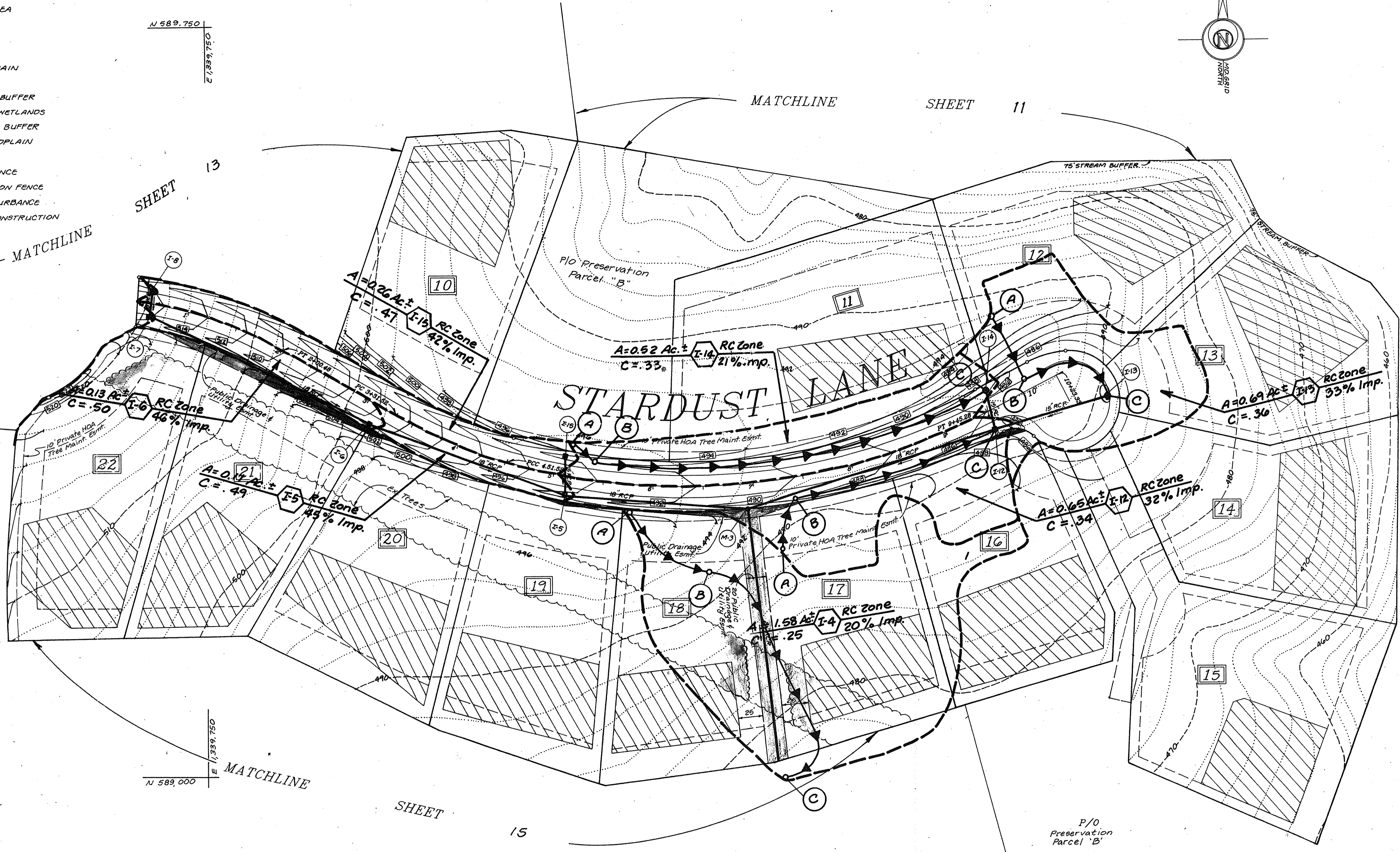
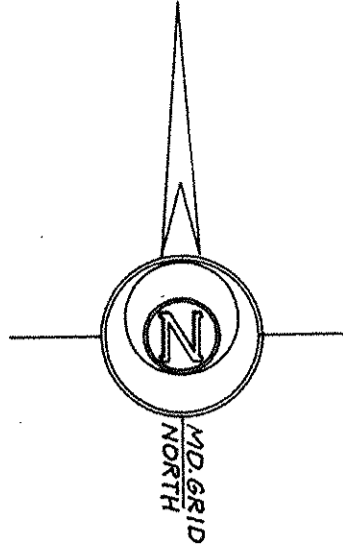
NOTE:
 IF NO TC PATH IS SHOWN, WORST CASE 5 MINUTE TC WAS USED.

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

DESIGNED E.D.S.	DRAINAGE AREA MRP BRANTWOOD SECTION ONE	SCALE 1" = 50'
DRAWN K.B.W.	Lots 1 - 33, Preservation Parcels "A", "B", "C", "D", Non-Buildable Bulk Parcel "E" and A Resubdivision of "Lot 1 - Feaga Property"	DRAWING 13 of 34
CHECKED B.D.B.	Tax Maps 16 & 23 Parcels 54, 62, 214, & 390 3rd Election District - Howard County, Maryland Previous Submittals: WP 98-133, S 98-23, P 98-08, WP 98-133, WP 99-14	JOB NO. 95-056
DATE 10/98	Developer BRANTWOOD, LLC 8835 - P Columbia 100 Parkway Columbia, Maryland 21045 (410) 730-0810	FILE NO. P 98-133

LEGEND

- 522 --- EX. 2 FT. CONTOUR
 - 520 --- PROP. 2 FT. CONTOUR
 - 520 --- EX. 10 FT. CONTOUR
 - [Hatched Box] PROP. SEPTIC AREA
 - [Hatched Box] EX. SEPTIC AREA
 - [Wavy Line] EX. TREES
 - [Wavy Line] EX. TREES TO REMAIN
 - [Dashed Line] EX. STREAM
 - [Dashed Line] 75 FT. STREAM BUFFER
 - [Dashed Line] EX. NON-TIDAL WETLANDS
 - [Dashed Line] 25 FT. WETLAND BUFFER
 - [Line with 'FP'] 100 YEAR FLOODPLAIN
 - [Line with 'SF'] SF SILT FENCE
 - [Line with 'SSF'] SSF SUPER SILT FENCE
 - [Line with 'TPF'] TPF TREE PROTECTION FENCE
 - [Dotted Line] LIMIT OF DISTURBANCE
 - [Arrow] SCE STABILIZED CONSTRUCTION ENTRANCE
- AREA ZONING
C FACTOR # % IMPERVIOUS
- DRAINAGE AREA DIVIDE
- TC PATH



APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 11/13/98
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE

[Signature] 4/15/98
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE

[Signature] 4/15/98
 CHIEF, BUREAU OF HIGHWAYS
 DATE

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

[Signature] 11/9/98
 NATURAL RESOURCE CONSERVATION SERVICE
 DATE

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

[Signature] 11/9/98
 HOWARD SOIL CONSERVATION DISTRICT
 DATE

ENGINEER'S CERTIFICATE

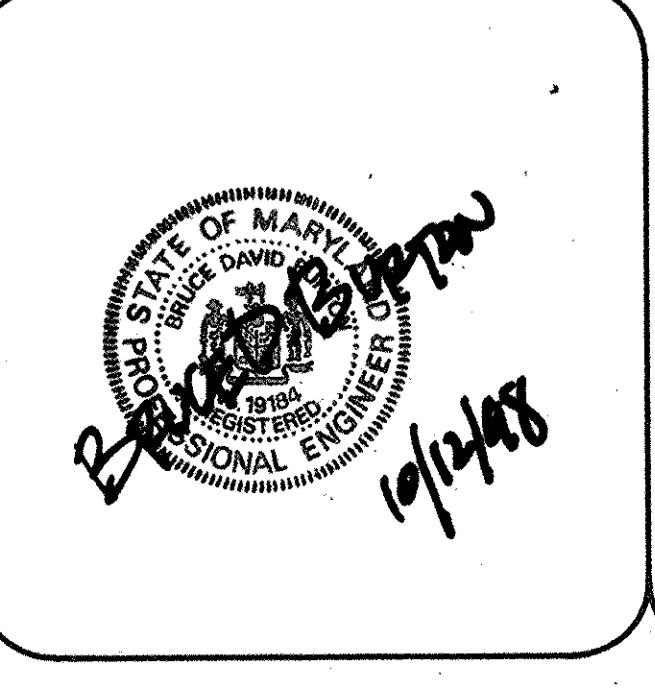
I certify that this plan for construction, erosion and sediment control represents a true and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with a "swallow" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

[Signature] 10/12/98
 SIGNATURE OF ENGINEER
 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 the Howard Soil Conservation District with a "swallow" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

[Signature] 4/15/98
 SIGNATURE OF DEVELOPER
 DATE



NOTE:
 IF NO TC PATH IS SHOWN, WORST CASE 5 MINUTE TC WAS USED.

LDE, INC.		
9250 Rumsey Road, Suite 106, Columbia, MD. 21045 (410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)		
DESIGNED E.D.S.	DRAINAGE AREA MAP BRANTWOOD SECTION ONE	SCALE 1" = 50'
DRAWN K.B.W.	Lots 1 - 33, Preservation Parcels "A", "B", "C", "D", Non-Buildable Bulk Parcel "E", and A Resubdivision of "Lot 1 - Feaga Property"	DRAWING 14 of 34
CHECKED B.D.B.	Tax Maps 16 & 23 Parcels 54, 62, 214, & 390 3rd Election District - Howard County, Maryland Previous Submittals: WP 98-133, S 98-23, P 98-08, WP 98-133, WP 99-14	JOB NO. 95-056
DATE 10/98	Developer BRANTWOOD, LLC 8835 - P Columbia 100 Parkway Columbia, Maryland 21045 (410) 750-0810	FILE NO. F 98-138

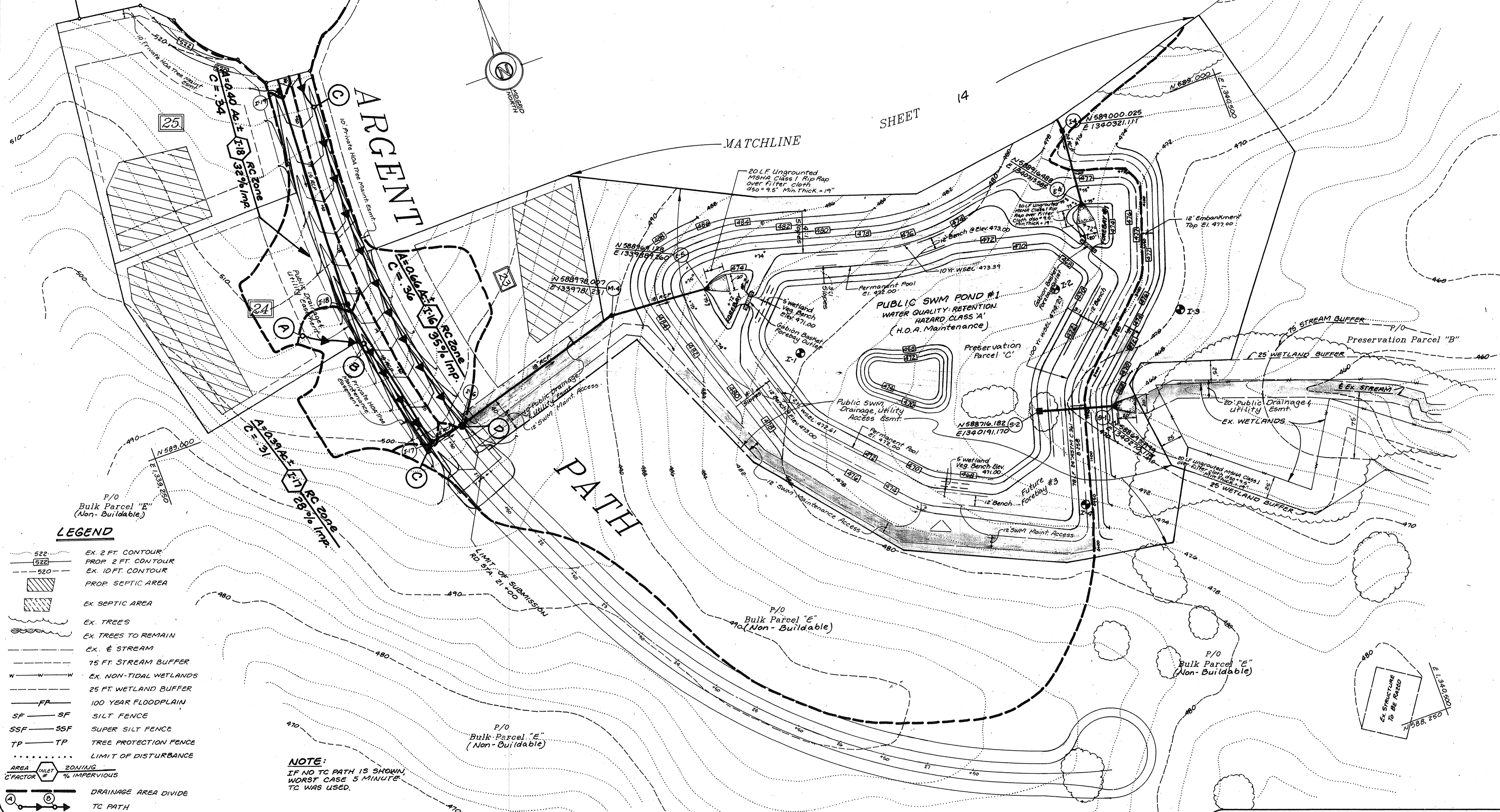
MATCHLINE SHEET 13

SHEET 14

MATCHLINE

ARGENT

PATH



LEGEND

- 522 --- EX. 2 FT. CONTOUR
- 522 --- PROP. 2 FT. CONTOUR
- 520 --- EX. 10 FT. CONTOUR
- [Hatched Box] PROP. SEPTIC AREA
- [Hatched Box] EX. SEPTIC AREA
- [Wavy Line] EX. TREES
- [Wavy Line] EX. TREES TO REMAIN
- [Dashed Line] EX. E. STREAM
- [Dashed Line] 75 FT. STREAM BUFFER
- [Dashed Line] EX. NON-TIDAL WETLANDS
- [Dashed Line] 25 FT. WETLAND BUFFER
- [Dashed Line] 100 YEAR FLOODPLAIN
- [Dashed Line] SF --- SF SILT FENCE
- [Dashed Line] SSF --- SSF SUPER SILT FENCE
- [Dashed Line] TP --- TP TREE PROTECTION FENCE
- [Dotted Line] LIMIT OF DISTURBANCE
- [Box with Inlet] AREA ZONING
- [Box with Inlet] C FACTOR % IMPERVIOUS
- [Arrow] DRAINAGE AREA DIVIDE
- [Arrow] TC PATH

NOTE:
 IF NO TC PATH IS SHOWN,
 WORST CASE 5 MINUTE
 TC WAS USED.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

David J. Hamilton 11/13/98
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE

Charles Hamilton 4/15/98
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE

Howard Shik 4/15/98
 CHIEF, BUREAU OF HIGHWAYS
 DATE

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

Charles J. Simon 1/9/98
 NATURAL RESOURCE CONSERVATION SERVICE
 DATE

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

Mark A. Le... 4/15/98
 HOWARD SOIL CONSERVATION DISTRICT
 DATE

ENGINEER'S CERTIFICATE

I certify that this plan, showing construction, erosion and sediment control measures, and a workable 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 and the Department of the Environment. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with a "as-built" plan of the pond within 30 days of completion of construction.

Bruce E. B... 10/12/98
 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 of construction.

Joseph F. Cole 4/15/98
 SIGNATURE OF DEVELOPER
 DATE

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 BRUCE E. B...

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

DESIGNED	E.D.S.	DRAINAGE AREA MAP	SCALE	1" = 50'
DRAWN	K.B.W.	BRANTWOOD SECTION ONE	DRAWING	15 of 34
CHECKED	B.D.B.	Lots 1 - 33, Preservation Parcels "A", "B", "C", "D", Non-Buildable Bulk Parcel "E" and A Resubdivision of Lot 1 - Faaga Property	JOB NO.	95-056
DATE	10/98	Tax Maps 16 & 23 Parcels 54, 62, 214, & 390 3rd Election District - Howard County, Maryland Previous Submittals: WP 98-133, S 98-23, P 98-08, WP 98-133, WP 99-14	FILE NO.	F 98-138

Developer: BRANTWOOD, LLC
 8835 - P Columbia 100 Parkway
 Columbia, Maryland 21045
 (410) 730-9810

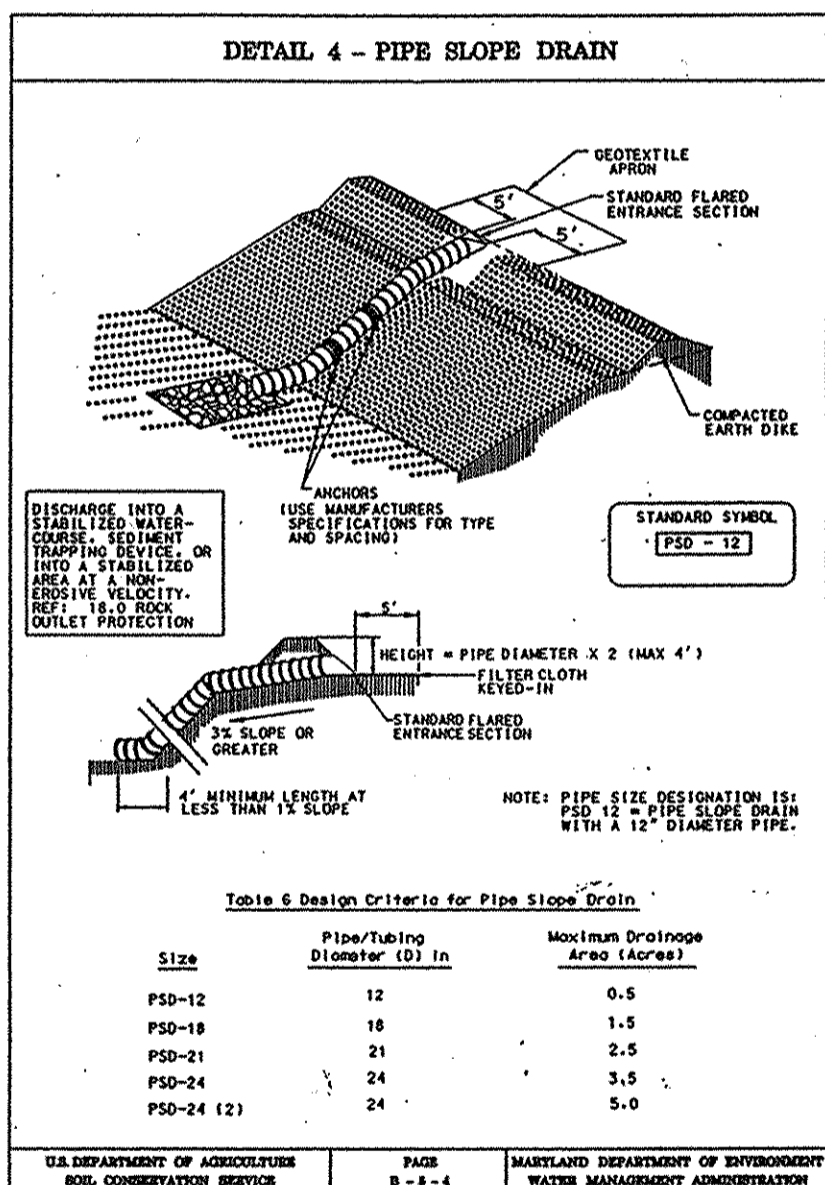
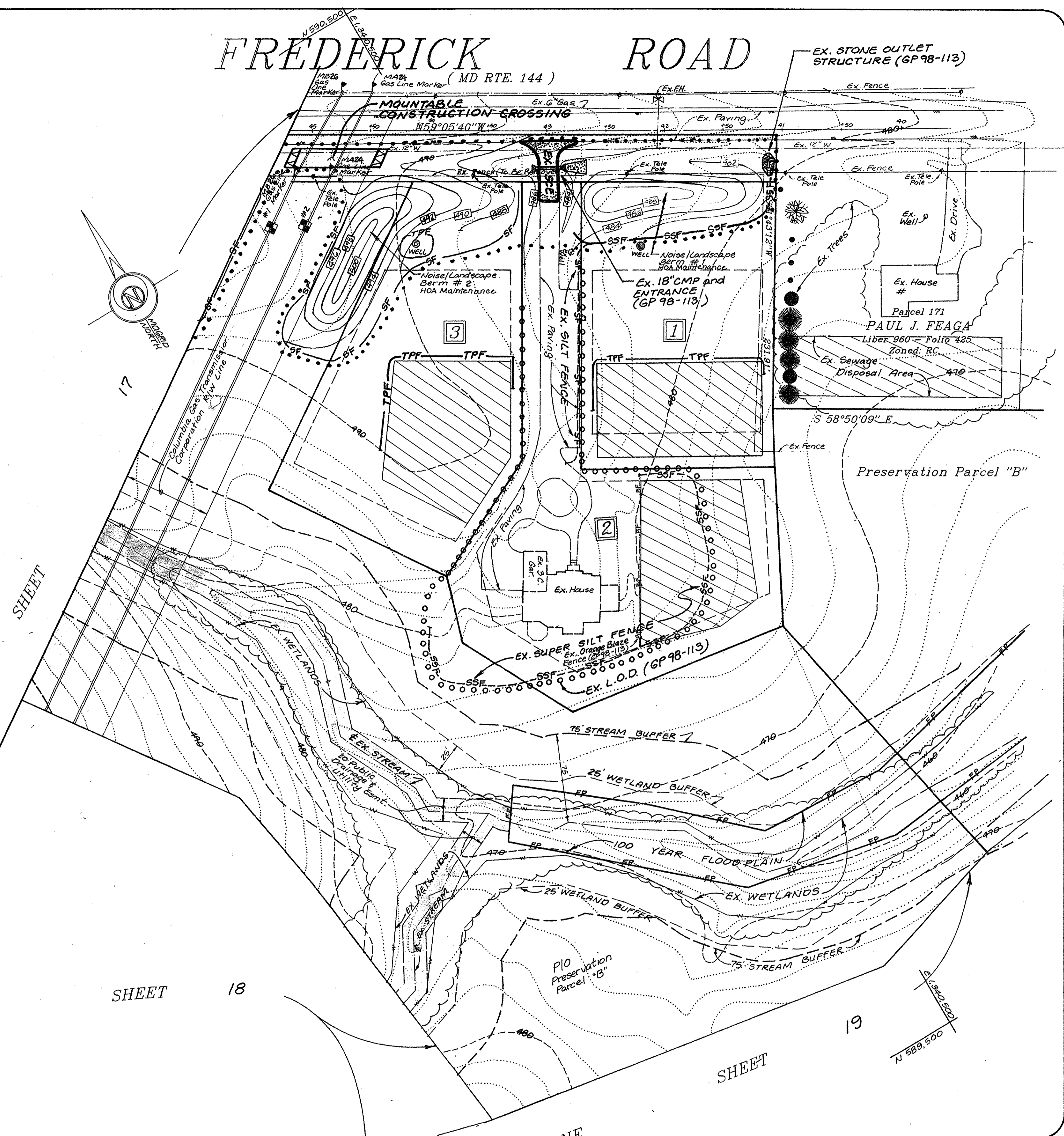
LEGEND

- 522 --- EX 2 FT CONTOUR
- 522 --- PROP 2 FT CONTOUR
- 520 --- EX 10 FT CONTOUR
- [Hatched Box] --- PROP SEPTIC AREA
- [Hatched Box] --- EX SEPTIC AREA
- [Wavy Line] --- EX TREES
- [Dashed Line] --- EX & STREAM
- [Dashed Line] --- 75 FT STREAM BUFFER
- [Dashed Line] --- EX NON-TIDAL WETLANDS
- [Dashed Line] --- 25 FT WETLAND BUFFER
- [Dashed Line] --- 100 YEAR FLOODPLAIN
- SF --- SF SILT FENCE
- SSF --- SSF SUPER SILT FENCE
- TPF --- TPF TREE PROTECTION FENCE
- [Dotted Line] --- LIMIT OF DISTURBANCE
- [Square with X] --- STABILIZED CONSTRUCTION ENTRANCE
- [Dotted Circle] --- EXISTING LIMIT OF DISTURBANCE
- SSF--- EXISTING SUPER SILT FENCE (GP98-113)
- SF--- EXISTING SILT FENCE (GP98-113)
- [Circle with Center Dot] --- PROPOSED WELL

CONSTRUCTION SEQUENCE

- NOTE: The contractor shall maintain access to the Feaga properties at all times (LOTS 2, 26, and 33)
- Obtain Grading Permit - 1 day
 - Install stabilized construction entrance - 1 day
 - Stakeout limits of disturbance - 3 days
 - Install Tree Protection Fence (TPF) where shown hereon - 1 week
 - Install Silt Fence (SF) and Super Silt Fence (SSF) at the limit of disturbance where shown - 2 days
 - Construct Earth Dike, Clearwater Diversion Dike, TRAP #1, and Trap #5 per plan details - 1 Week
 - Install Temporary Pipe from Clearwater Diversion near I-3, under Earth Dike, and outlet east of TRAP #1, as shown hereon - 1 day
 - Construct Pond # 1 per the MD 378 specifications shown on sheet 14. The riser shall be constructed per the Sediment Basin Riser Details shown on sheet 10. Obtain permission from the sediment control inspector to proceed - 3 weeks
 - Cut temporary swales shown on sheets 19 & 20. Temporary swale at rear of Lots 18 & 17 shall remain as a permanent feature draining toward future I-4, and should be constructed as such - 1 day
 - Clear & grub and grade site - 1 week
 - The sediment shall be removed from the sediment traps and Basin when the cleanout elevation has been reached - 2 days
 - The contractor shall inspect and provide necessary maintenance on the sediment and erosion control structures shown hereon after each rainfall and on a daily basis - 1 day
 - The sediment traps and basin shall be dewatered by pumping the accumulated sediment from the trap and basin shall be placed up grade from the structures in such a manner as not to interfere with construction operations or cause erosion down grade from the structures - 1 day
 - Install sods. On Sheet 17 - Install storm drain run from MS to I-3, I-1 to I-3 and I-3 to temporary pipe approximately 70'-only. Temporary pipe shall empty into TRAP #1 - 3 weeks
 - Install curb & gutter, road base and stabilize road swales - 2 weeks
 - With permission of the sediment control inspector, remove temporary pipe per item # 7, and install paving - 1 week
 - Complete any grading, add topsoil per the specifications per sheet 21, and stabilize disturbed areas with permanent seeding mixture and straw mulch - 1 week
 - After all upgrade areas from Basin #1 have been stabilized and permission has been given by Sediment Control Inspector, flush the storm drain system into the Basin #1 - 1 day
 - After permission has been given by Sediment Control Inspector, remove earth and clearwater diversion dikes shown on sheet 17 and stabilize the disturbed areas with permanent seeding mixture and straw mulch - 3 days
 - After all upgrade areas from Water Quality Facility #1 have been stabilized, and permission has been given by Sediment Control Inspector, open storm drain shown on sheet 17 - 1 day
 - After permission has been given by Sediment Control Inspector, remove TRAP #1 and TRAP #5, remove earth dikes, and stabilize the disturbed areas with permanent seeding mixture and straw mulch - 3 days
 - The sediment shall be removed from Basin #1 and convert Basin #1 to POND #1 per the details on sheet 26. The temporary riser components are to remain in place during the grading of the pond body. Full stabilization must be achieved prior to the removal of the temporary riser components - 2 weeks
 - Convert riser (5-2) by removing dewatering device and installing "Water Quality Hood" and removing temporary brickwork per details on sheet 25 - 1 week
 - Construct Water Quality Facility #1 - 1 week
 - Construct storm drain run E-2 to E-3 and complete storm drain run I-3 to M-1 and M-1 to E-1 - 3 days
 - After permission has been given by Sediment Control Inspector, remove silt fence & super silt fence, and stabilize the disturbed areas from the aforementioned disturbances with permanent seeding mixture and straw mulch - 1 week

FREDERICK ROAD
(MD RTE. 144)



- PIPE SLOPE DRAIN**
- Construction Specifications - Pipe Slope Drain
- The Pipe Slope Drain (PSD) shall have a slope of 3 percent or steeper.
 - The top of the earth dike over the inlet pipe shall be at least 2 times the pipe diameter measured on the inner side of the pipe.
 - Flexible tubing is preferred. However, corrugated metal pipe or equivalent PVC pipe can be used. All connections shall be watertight.
 - A stored section shall be attached to the inlet end of pipe with a watertight connection. Filter cloth shall be placed under the inlet of the pipe slope drain and shall extend out 5' from the inlet. The filter cloth shall be "keyed in" on all sides.
 - The Pipe Slope Drain shall be securely anchored to the slope by staking at the grouters provided. Spacing of anchors shall be as provided by manufacturer's specification. In no case shall less than two (2) anchors be provided, and they shall be spaced along the length of pipe. These details should be provided by pipe supplier.
 - The soil ground and under the pipe and section shall be none topped in 4' inch lifts to the top of the earth dike.
 - All pipe connections shall be watertight.
 - Whenever possible, a PSD shall be installed on a stabilized area. If this is not possible, the PSD shall be installed on a stable discharge area. If this is not possible, the PSD shall be installed on a stable discharge area. The PSD shall be installed on a stable discharge area. The PSD shall be installed on a stable discharge area.
 - When the drainage area is stabilized, the PSD shall discharge onto a stabilized area at a non-erosive velocity.
 - Inspection and any required maintenance shall be performed periodically and after each rain event.
 - The inlet must be kept open at all times.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 11/13/98
CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 11/14/98
CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 11/12/98
CHIEF, Bureau of Highways

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

[Signature] 11/9/98
NATURAL RESOURCE CONSERVATION SERVICE

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

[Signature] 11/9/98
HOWARD SOIL CONSERVATION DISTRICT

ENGINEER'S CERTIFICATE

I certify that this plan for road construction, erosion and sediment control represents a true and correct plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the regulations of the Howard Soil Conservation District. I advise the developer that he/she must engage a registered professional engineer to supervise pond construction and provide a final construction plan to the Howard Soil Conservation District within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

[Signature] 11/9/98
PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE

I hereby certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with a "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

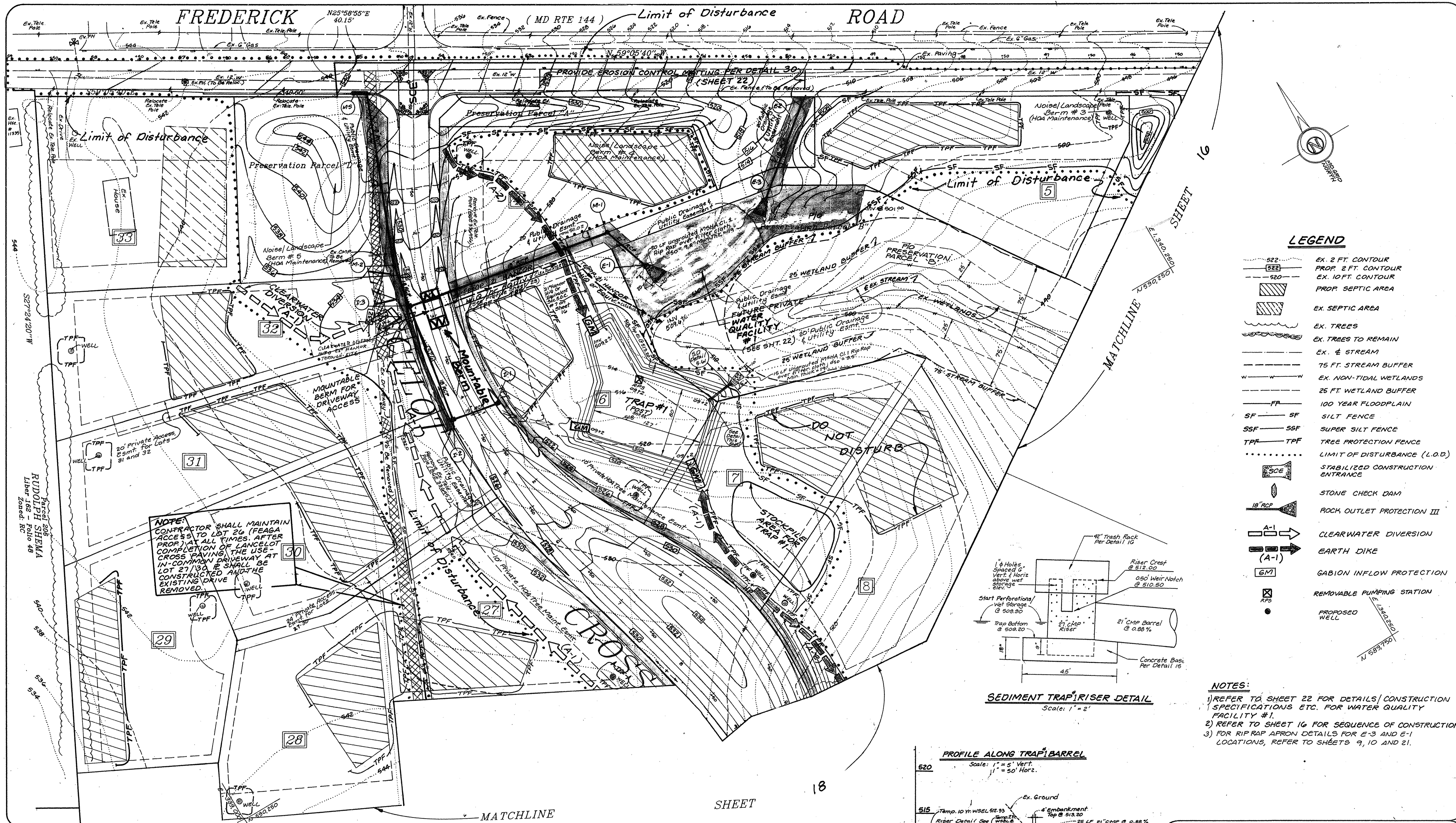
[Signature] 11/15/98
DEVELOPER

STATE OF MARYLAND
DAVID B. BROWN
PROFESSIONAL ENGINEER
11/15/98

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

DESIGNED	GRADING and SEDIMENT & EROSION CONTROL PLAN	SCALE	1" = 50'
E.D.S.	BRANTWOOD SECTION ONE	DRAWING	16 of 34
DRAWN		K.B.W.	JOB NO.
CHECKED	Lots 1 - 33, Preservation Parcels "A", "B", "C", "D", and A Resubdivision of "Lot 1 - Feaga Property"	DATE	10/98
B.D.B.	Tax Maps 16 & 23 Parcels 54, 62, 214, & 390 3rd Election District - Howard County, Maryland	FILE NO.	F 98-138
	Previous Submittals: WP 98-133, S 96-23, P 98-08, WP 98-133, WP 99-14		

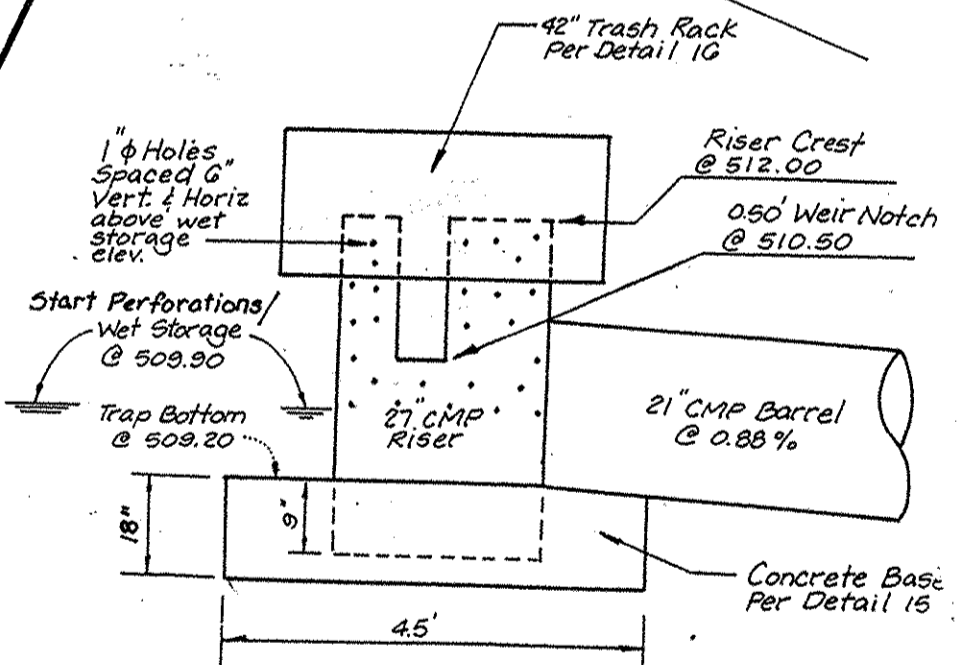
Developer: BRANTWOOD, LLC
8835 - P Columbia 100 Parkway
Columbia, Maryland 21045
(410) 730-0810



LEGEND

- EX. 2 FT. CONTOUR
- PROP. 2 FT. CONTOUR
- EX. 10 FT. CONTOUR
- PROP. SEPTIC AREA
- EX. SEPTIC AREA
- EX. TREES
- EX. TREES TO REMAIN
- EX. & STREAM
- 75 FT. STREAM BUFFER
- EX. NON-TIDAL WETLANDS
- 25 FT. WETLAND BUFFER
- 100 YEAR FLOODPLAIN
- SF SILT FENCE
- SSF SUPER SILT FENCE
- TPF TREE PROTECTION FENCE
- LIMIT OF DISTURBANCE (L.O.D.)
- STABILIZED CONSTRUCTION ENTRANCE
- STONE CHECK DAM
- ROCK OUTLET PROTECTION III
- CLEARWATER DIVERSION (A-1)
- EARTH DIKE (A-1)
- GABION INFLOW PROTECTION (GM)
- REMOVABLE PUMPING STATION (RPS)
- PROPOSED WELL

NOTE:
CONTRACTOR SHALL MAINTAIN ACCESS TO LOT 26 (FEAGA PROP.) AT ALL TIMES. AFTER COMPLETION OF LANE/CROSS-CROSS PAVING, THE USE-IN-COMMON DRIVEWAY AT LOT 27/30 SHALL BE CONSTRUCTED AND THE EXISTING DRIVE REMOVED.



SEEDIMENT TRAP RISER DETAIL
Scale: 1" = 2'

- NOTES:**
- REFER TO SHEET 22 FOR DETAILS/CONSTRUCTION SPECIFICATIONS ETC. FOR WATER QUALITY FACILITY #1.
 - REFER TO SHEET 16 FOR SEQUENCE OF CONSTRUCTION.
 - FOR RIP RAP APRON DETAILS FOR E-3 AND E-1 LOCATIONS, REFER TO SHEETS 9, 10 AND 21.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief Development Engineering Division
11/13/98
Chief, Division of Land Development
11/12/98
Chief, Bureau of Highways
11/12/98

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

Chief, Natural Resource Conservation Service
11/9/98
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
Chief, Howard Soil Conservation District
11/11/98

ENGINEER'S CERTIFICATE

I certify that this plan, showing construction, erosion and sediment control, represents a true and correct plan based on my personal knowledge and the conditions. 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 provide the Howard Soil Conservation District with a copy of the plan within 30 days of completion.

Professional Engineer
11/12/98

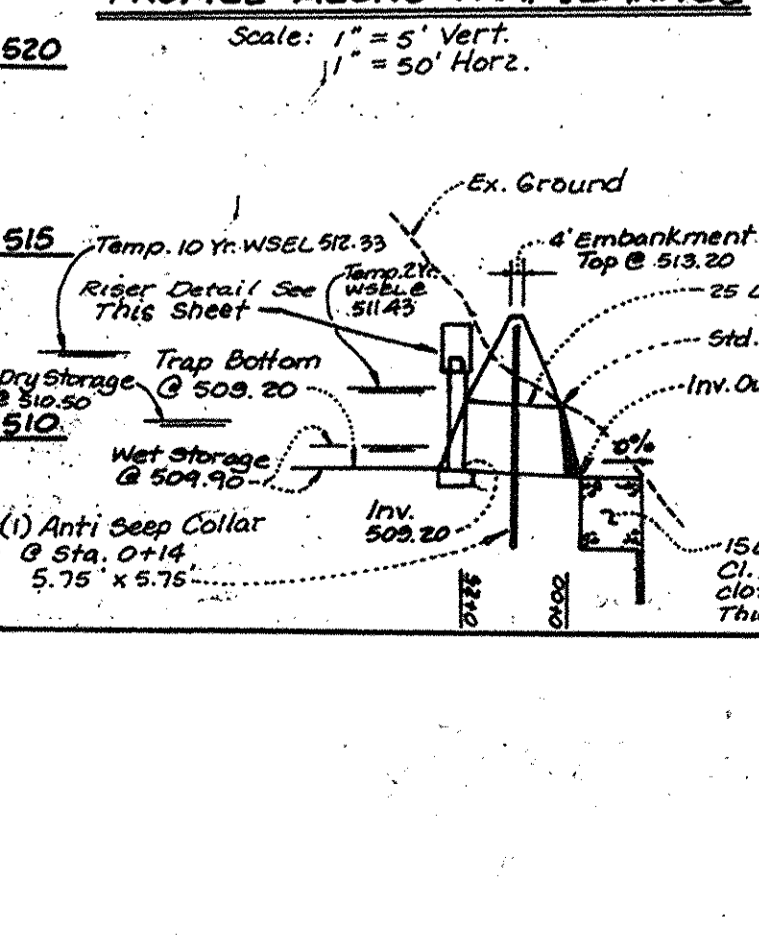
DEVELOPER'S CERTIFICATE

I certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction of these plans, and that any responsible personnel involved in the construction of these plans, shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with a copy of the plan within 30 days of completion. I also authorize periodic onsite inspections by Howard Soil Conservation District.

Developer
11/12/98

TRAP #1	
Drainage Area	4.54 Acres
Storage Required	16,344 sq. ft.
Storage Provided	16,780 sq. ft.
Storage Elevation - Wet	509.90
Dry	510.50
Storage Depth - Wet	0.70 ft.
Dry	1.30 ft.
Trap Bottom Elev.	509.20
Cleanout Elevation	509.40
Riser Crest Elevation	512.00
Riser Notch Elevation	510.50
Top Elevation	513.20
Trap Size	See Plan View
Trap Type	ST-1

PROFILE ALONG TRAP BARREL



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

DESIGNED: GRADING and SEDIMENT & EROSION CONTROL PLAN
SCALE: 1" = 50'

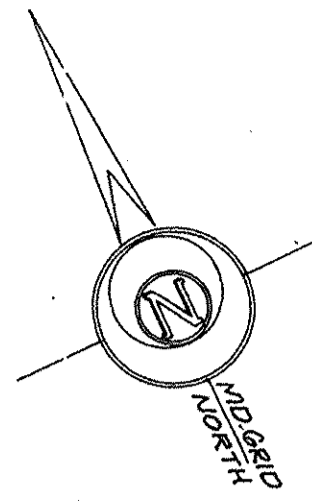
DRAWN: **BRANTWOOD SECTION ONE**
DRAWING: 17 of 34

CHECKED: Lots 1 - 33, Preservation Parcels "A", "B", "C", "D", "E", and a Resubdivision of "Lot 1 - Feaga Property"
JOB NO. 95-056

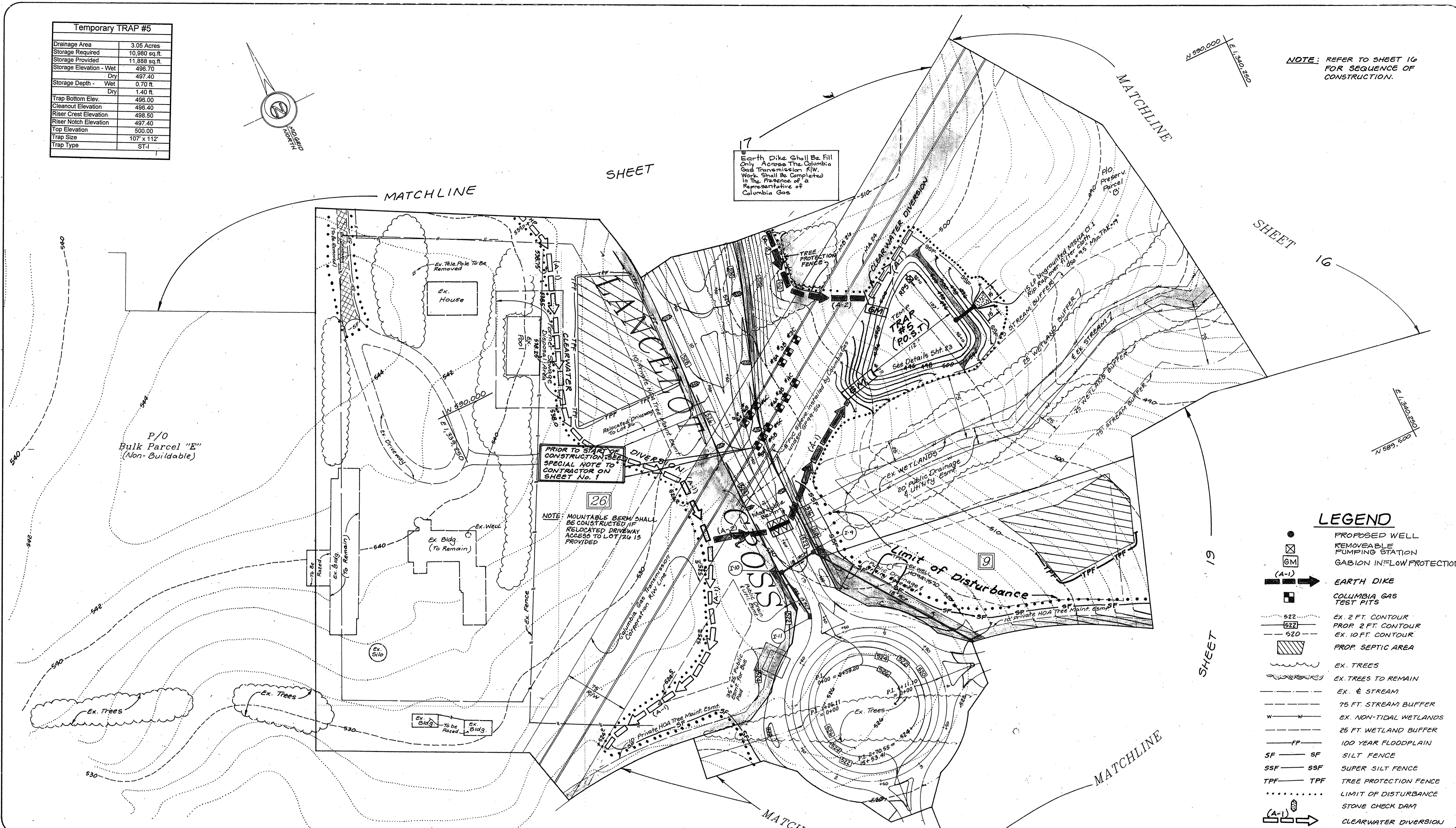
D.B.D. 3rd Election District - Howard County, Maryland
Previous Submittals: WP 98-153, S 98-23, P 98-08, WP 98-153, WP 99-14

DATE: 10/98
Developer: **BRANTWOOD, LLC**
8835 - P Columbia 100 Parkway
Columbia, Maryland 21045
FILE NO. F 98-138
(410) 730-0810

Temporary TRAP #5	
Drainage Area	3.05 Acres
Storage Required	10,800 sq.ft.
Storage Provided	11,388 sq.ft.
Storage Elevation - Wet	496.70
Dry	497.40
Storage Depth - Wet	0.70 ft.
Dry	1.40 ft.
Trap Bottom Elev.	496.00
Cleanout Elevation	496.40
Riser Crest Elevation	498.50
Riser Notch Elevation	497.40
Top Elevation	500.00
Trap Size	107' x 112'
Trap Type	ST-1



NOTE: REFER TO SHEET 16 FOR SEQUENCE OF CONSTRUCTION.



PRIOR TO START OF CONSTRUCTION, SEE SPECIAL NOTE TO CONTRACTOR ON SHEET No. 1

NOTE: MOUNTABLE BERM SHALL BE CONSTRUCTED IF RELOCATED DRIVEWAY ACCESS TO LOT 14 IS PROVIDED

Earth Dike Shall Be Fill Only Across The Columbia Gas Transmission R/W. Work Shall Be Completed In The Presence of Representative of Columbia Gas

LEGEND

- PROPOSED WELL
- ⊠ REMOVEABLE PUMPING STATION
- GM GABION INFLOW PROTECTION
- (A-1) → EARTH DIKE
- ⊕ COLUMBIA GAS TEST PITS
- 522 --- EX. 2 FT. CONTOUR
- 527 --- PROP. 2 FT. CONTOUR
- 520 --- EX. 10 FT. CONTOUR
- ▨ PROP. SEPTIC AREA
- ~ EX. TREES
- ~ EX. TREES TO REMAIN
- EX. & STREAM
- 75 FT. STREAM BUFFER
- 25 FT. WETLAND BUFFER
- 100 YEAR FLOODPLAIN
- SF SF SILT FENCE
- SSF SSF SUPER SILT FENCE
- TPF TPF TREE PROTECTION FENCE
- LIMIT OF DISTURBANCE
- ⊕ STONE CHECK DAM
- (A-1) → CLEARWATER DIVERSION

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 11/13/98
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 11/12/98
 CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 11/12/98
 CHIEF, BUREAU OF HIGHWAYS

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

[Signature] 4/9/98
 NATURAL RESOURCE CONSERVATION SERVICE

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

[Signature] 4/9/98
 HOWARD SOIL CONSERVATION DISTRICT

ENGINEER'S CERTIFICATE

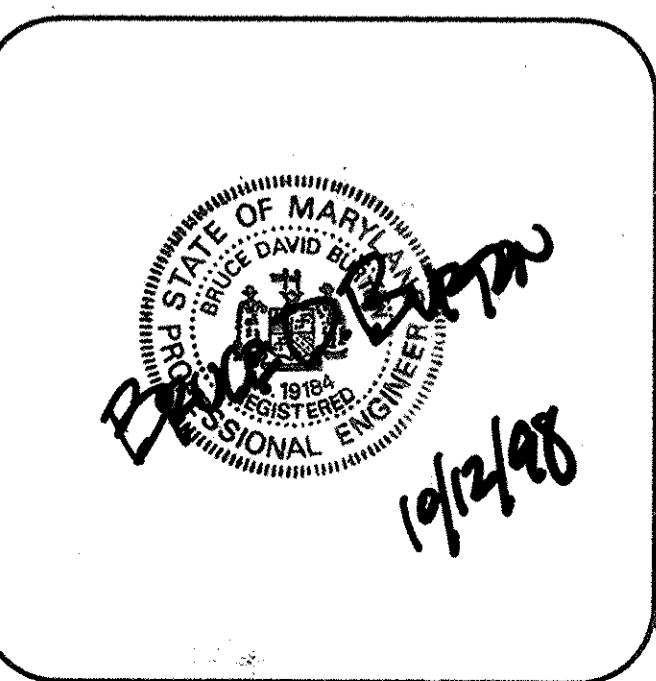
I certify that this plan for construction, erosion and sediment control represents a true and correct and workable plan based on my personal knowledge and professional judgment. This plan was prepared in accordance with the provisions of the Howard Soil Conservation District and I certify that the developer has the right to 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.

10/12/98
 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 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.

4/15/98
 SIGNATURE OF DEVELOPER



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

DESIGNED	GRADING and SEDIMENT & EROSION CONTROL PLAN	SCALE	1" = 50'
E.D.S.	BRANTWOOD SECTION ONE	DRAWING	18 of 34
DRAWN		K.B.W.	Tax Maps 16 & 23 Parcels 54, 62, 214, & 390 3rd Election District - Howard County, Maryland Previous Submittals: WP 96-133, S 96-23, P 98-08, WP 98-133, WP 99-14
CHECKED	B.D.B.	JOB NO.	95-056
DATE	10/98	FILE NO.	F 98-138

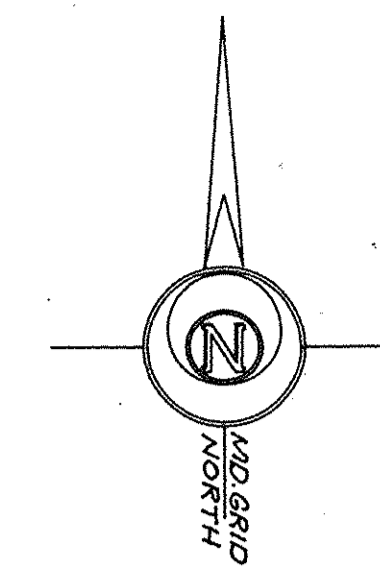
Developer: BRANTWOOD, LLC
 8835 - P Columbia 100 Parkway
 Columbia, Maryland 21045
 (410) 730-0810

LEGEND

- 522 --- EX. 2 FT. CONTOUR
- 520 --- PROP. 2 FT. CONTOUR
- 520 --- EX. 10 FT. CONTOUR
- [Hatched Box] PROP. SEPTIC AREA
- [Hatched Box] EX. SEPTIC AREA
- [Wavy Line] EX. TREES
- [Wavy Line] EX. TREES TO REMAIN
- EX. 4' STREAM
- 75 FT. STREAM BUFFER
- EX. NON-TIDAL WETLANDS
- 25 FT. WETLAND BUFFER
- 100 YEAR FLOODPLAIN
- SF --- SF SILT FENCE
- SSF --- SSF SUPER SILT FENCE
- TPF --- TPF TREE PROTECTION FENCE
- LIMIT OF DISTURBANCE
- [Box with SCE] STABILIZED CONSTRUCTION ENTRANCE
- [Dam Symbol] STONE CHECK DAM
- [Circle with W] PROPOSED WELL
- TEMPORARY GRADE

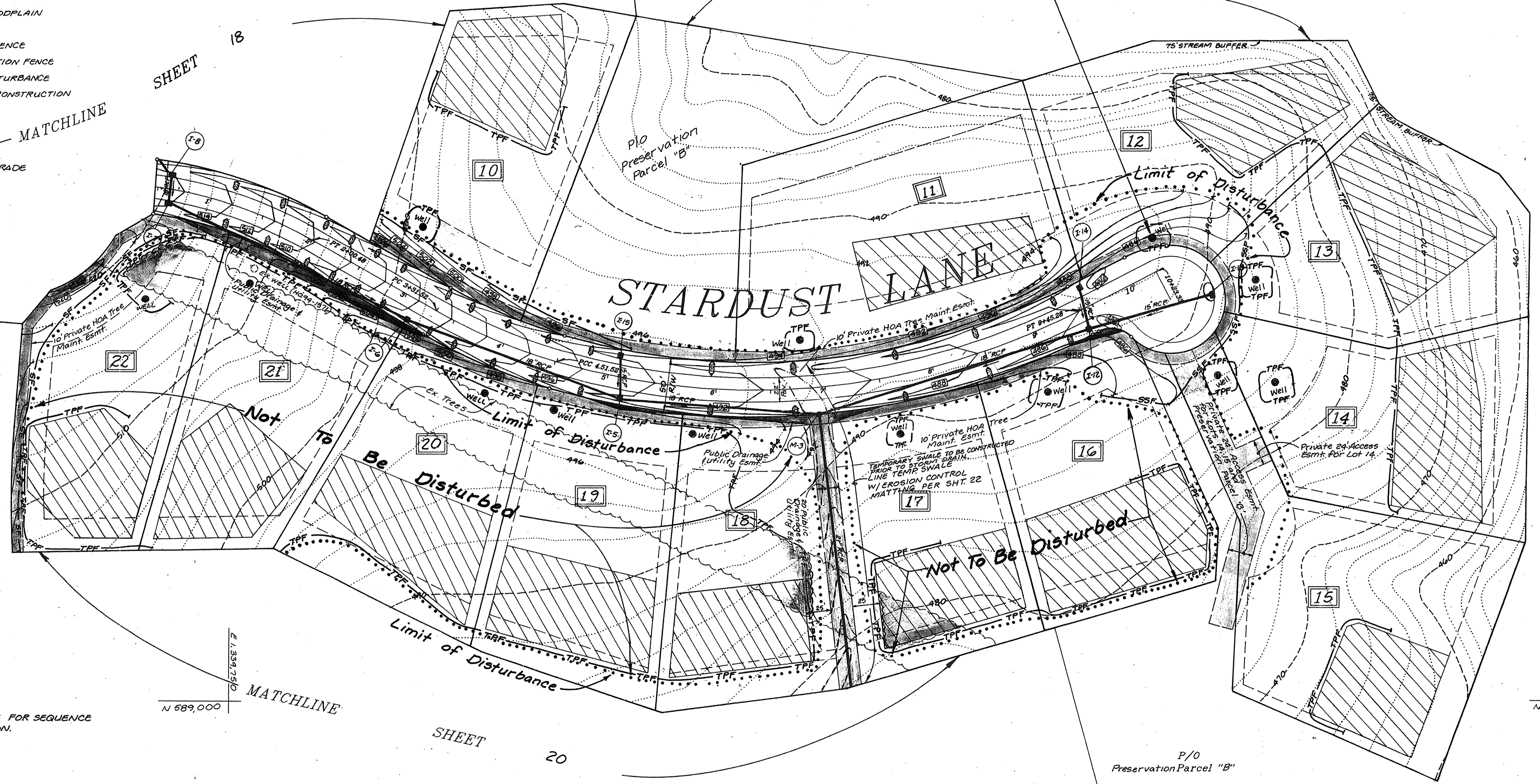
N 589,750
E 1,339,750

NOTE: WELL SITE FOR LOT 12 TO BE ADJUSTED TO FINISHED GRADE. INSTALL 30' x 30' TREE PROTECTION FENCE AROUND WELL SITE.



MATCHLINE SHEET 16

MATCHLINE SHEET 18



N 589,000
E 1,339,750

N 589,000
E 1,341,000

NOTES: 1) REFER TO SHEET 16 FOR SEQUENCE OF CONSTRUCTION.

MATCHLINE SHEET 20

P/O Preservation Parcel "B"

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 11/13/98
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE

[Signature] 11/19/98
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE

[Signature] 11/12/98
 CHIEF, BUREAU OF HIGHWAYS
 DATE

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

[Signature] 11/12/98
 NATURAL RESOURCE CONSERVATION SERVICE
 DATE

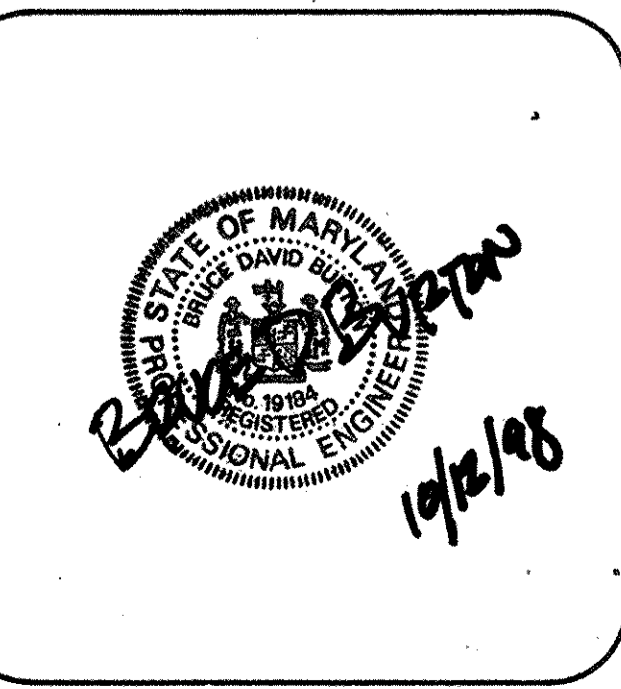
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

[Signature] 11/9/98
 HOWARD SOIL CONSERVATION DISTRICT
 DATE

ENGINEER'S CERTIFICATE

I certify that this plan for construction, erosion and sediment control represents a true and workable plan based on my personal knowledge and experience. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I, the undersigned, a registered professional engineer, supervise the 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 onsite inspections by Howard Soil Conservation District.

[Signature] 10/12/98
 SIGNATURE OF ENGINEER
 DATE



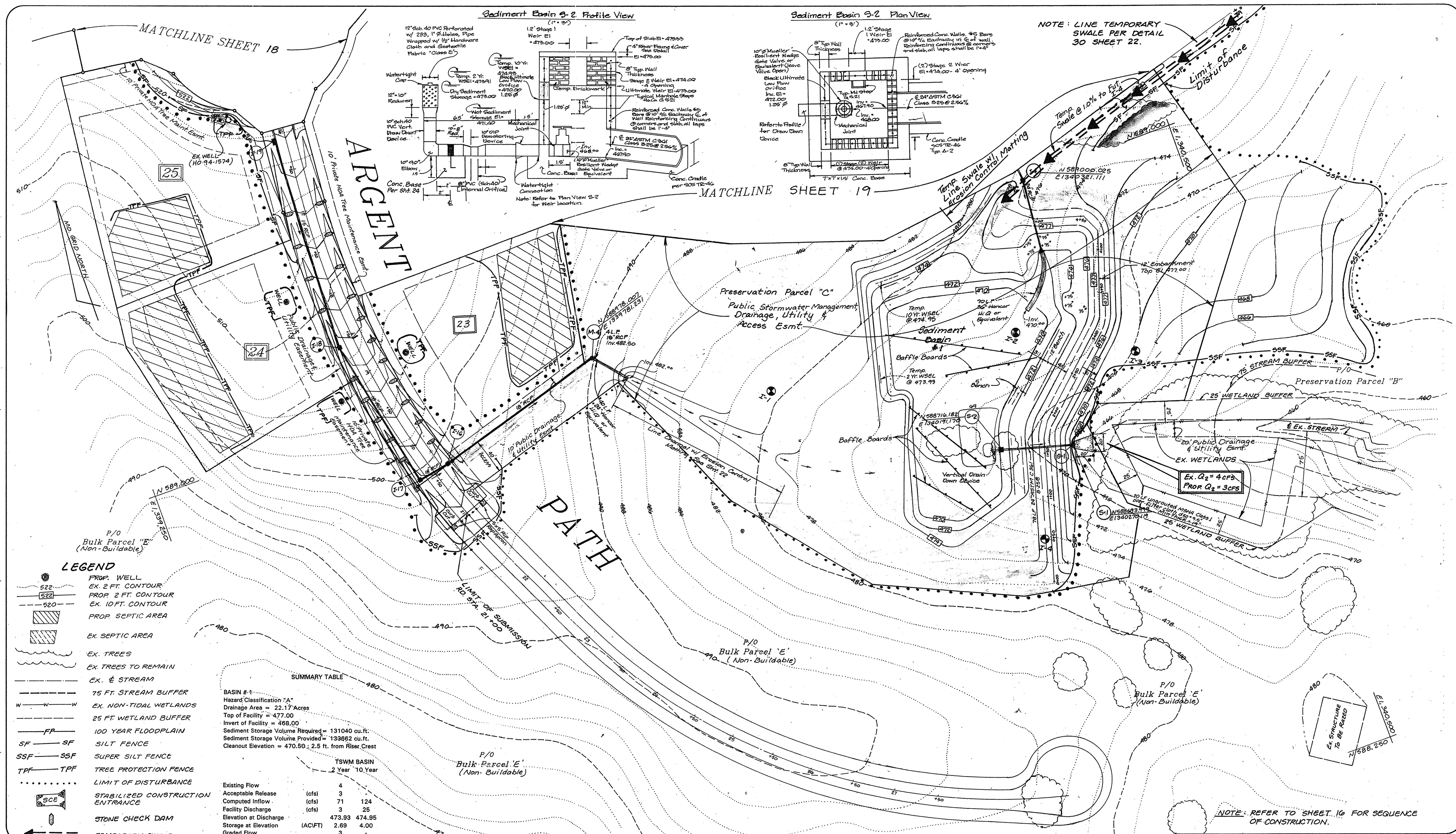
DEVELOPER'S CERTIFICATE

I certify that all development and 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 employ 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 onsite inspections by Howard Soil Conservation District.

[Signature] 11/13/98
 SIGNATURE OF DEVELOPER
 DATE

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

DESIGNED E.D.S.	GRADING and SEDIMENT & EROSION CONTROL PLAN	SCALE 1" = 50'
DRAWN K.B.W.	BRANTWOOD SECTION ONE Lots 1 - 33, Preservation Parcels "A", "B", "C", "D", Non-Buildable Bulk Parcel "E", and A Resubdivision of "Lot 1 - Feago Property"	DRAWING 19 of 34
CHECKED B.D.B.		JOB NO. 95-056
DATE 10/98	Developer BRANTWOOD, LLC 8835 - P Columbia 100 Parkway Columbia, Maryland 21045 (410) 730-0810	FILE NO. P 98-138



Sediment Basin S-2 Profile View (1"=5')

Sediment Basin S-2 Plan View (1"=5')

NOTE: LINE TEMPORARY SWALE PER DETAIL 30 SHEET 22.

LEGEND

- 522 PROP. WELL
- 522 EX. 2 FT. CONTOUR
- 920 PROP. 2 FT. CONTOUR
- 920 EX. 10 FT. CONTOUR
- PROP. SEPTIC AREA
- EX. SEPTIC AREA
- EX. TREES
- EX. TREES TO REMAIN
- EX. & STREAM
- 75 FT. STREAM BUFFER
- EX. NON-TIDAL WETLANDS
- 25 FT. WETLAND BUFFER
- FP 100 YEAR FLOODPLAIN
- SF SILT FENCE
- SSF SUPER SILT FENCE
- TPF TREE PROTECTION FENCE
- LIMIT OF DISTURBANCE
- STABILIZED CONSTRUCTION ENTRANCE
- STONE CHECK DAM
- TEMPORARY SWALE

SUMMARY TABLE

BASIN #1
 Hazard Classification "A"
 Drainage Area = 22.17 Acres
 Top of Facility = 477.00
 Invert of Facility = 468.00
 Sediment Storage Volume Required = 131040 cu. ft.
 Sediment Storage Volume Provided = 133662 cu. ft.
 Cleanout Elevation = 470.50; 2.5 ft. from Riser Crest

TSMW BASIN		
	2 Year	10 Year
Existing Flow	4	
Acceptable Release	(cfs) 3	
Computed Inflow	(cfs) 71	124
Facility Discharge	(cfs) 3	25
Elevation at Discharge	473.93	474.95
Storage at Elevation	(ACFT) 2.69	4.00
Graded Flow	3	

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Michael J. ... 11/13/98
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE

Charles ... 11/12/98
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE

Howard ... 11/12/98
 CHIEF, BUREAU OF HIGHWAYS
 DATE

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

Charles ... 11/12/98
 NATURAL RESOURCE CONSERVATION SERVICE
 DATE

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

Charles ... 11/12/98
 HOWARD SOIL CONSERVATION DISTRICT
 DATE

ENGINEER'S CERTIFICATE

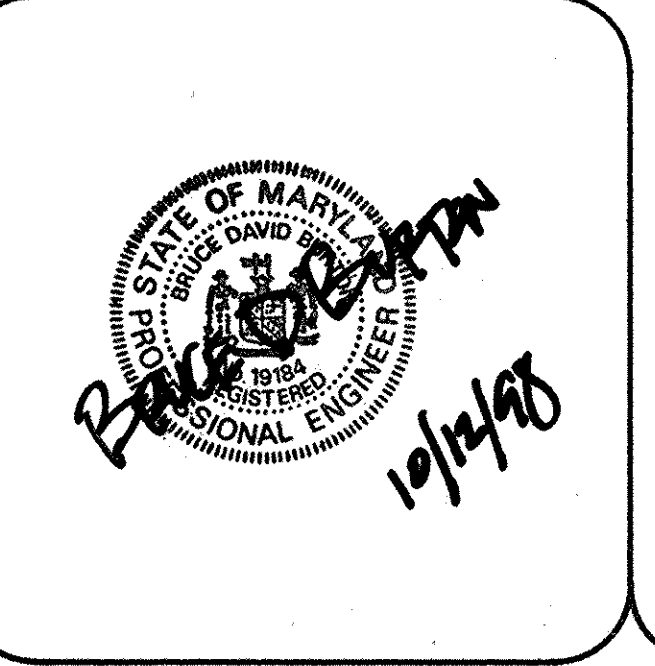
I certify that this plan, showing construction, erosion and sediment control, and workable plan based on my personal knowledge and conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District and the developer that has/she must engage a registered professional 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 B. ... 10/12/98
 SIGNATURE OF ENGINEER
 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 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.

Hugh F. ... 4/15/98
 SIGNATURE OF DEVELOPER
 DATE



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

DESIGNED	GRADING and SEDIMENT & EROSION CONTROL PLAN	SCALE	1" = 50'
E.D.S.		DRAWING	20 of 34
DRAWN	BRANTWOOD SECTION ONE	JOB NO.	95-056
K.B.W.	Lots 1 - 33, Preservation Parcels "A", "B", "C", "D", Non-Buildable Bulk Parcel "E", and A Resubdivision of "Lot 1 - Feogo Property"	FILE NO.	F 98-138
CHECKED	Tax Maps 16 & 23 Parcels 54, 62, 214, & 390		
B.D.B.	3rd Election District - Howard County, Maryland		
DATE	Developer		
10/98	BRANTWOOD, LLC 8835 - P Columbia 100 Parkway Columbia, Maryland 21045 (410) 730-0810		

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, (313-1855).
- 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, 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 for 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	123.4	Acre
Area to be vegetated	29.5	Acre
Area to be roofed or paved	2.1	Acre
Area to be vegetatively stabilized	91.8	Acre
Total Cut	6.2	Cu. Yds.
Total Fill	46,209	Cu. Yds.
- Offsite waste/borrow area location: Fill Areas on GP 99-56 (5620 Cu. Yds.)
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- 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./1000sq. 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./1000sq. 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 (0.5 lbs./1000sq. ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by Option (1) --- 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) --- Use sod. Option (3) --- Seed with 60 lbs per acre Kentucky 31 Tall Fescue and mulch 2 tons / acre well anchored straw.

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

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

TEMPORARY SEEDING NOTES

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

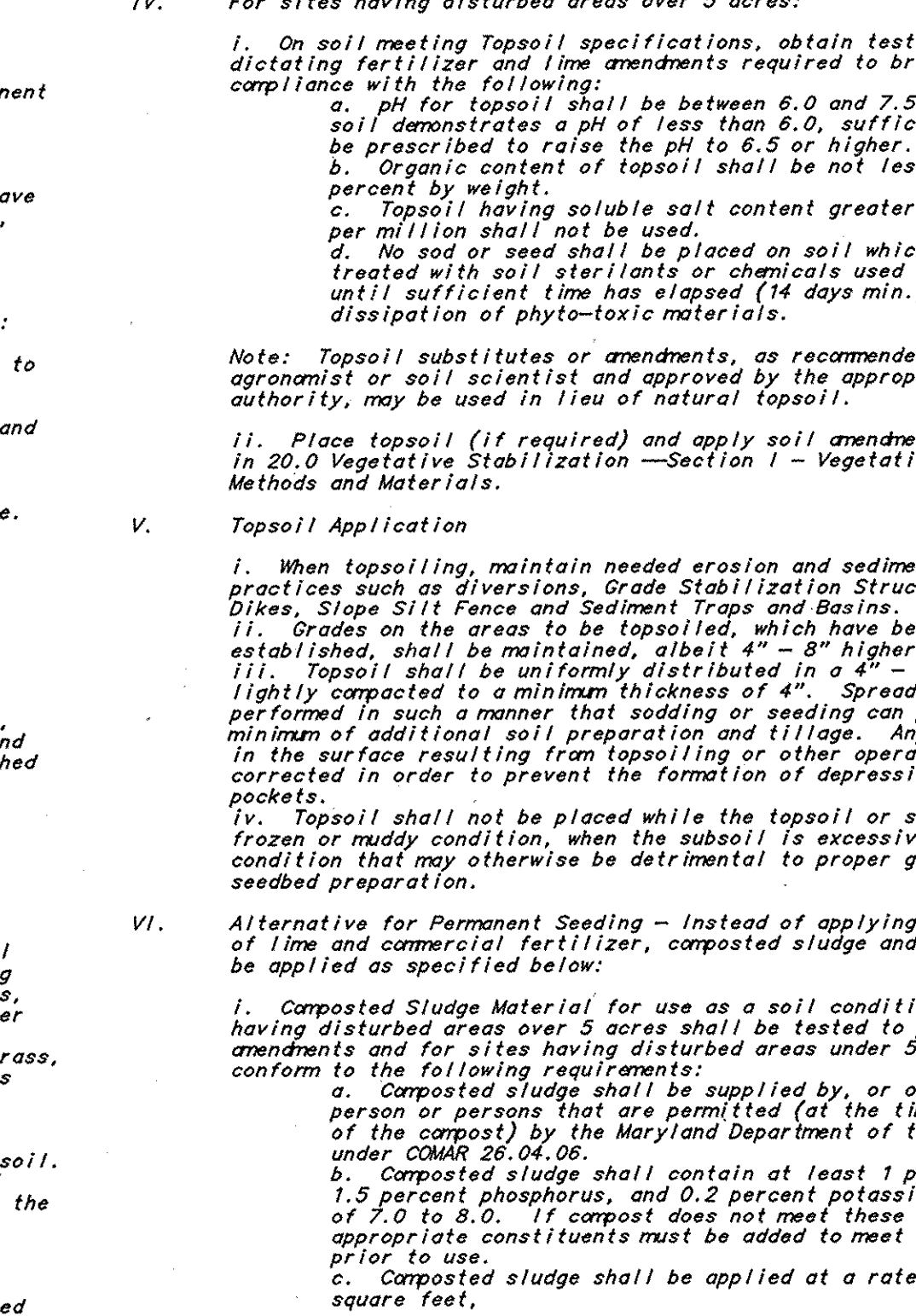
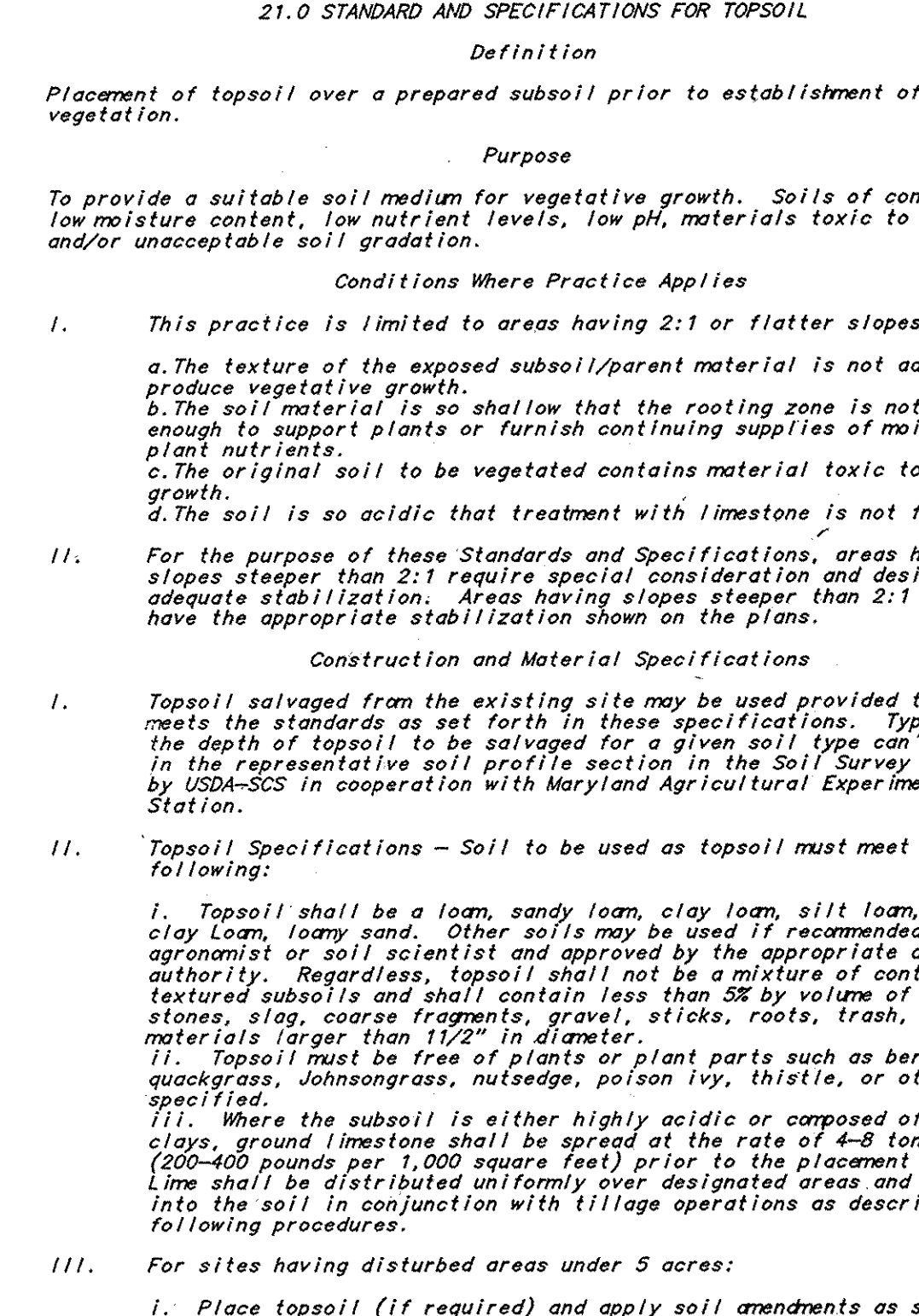
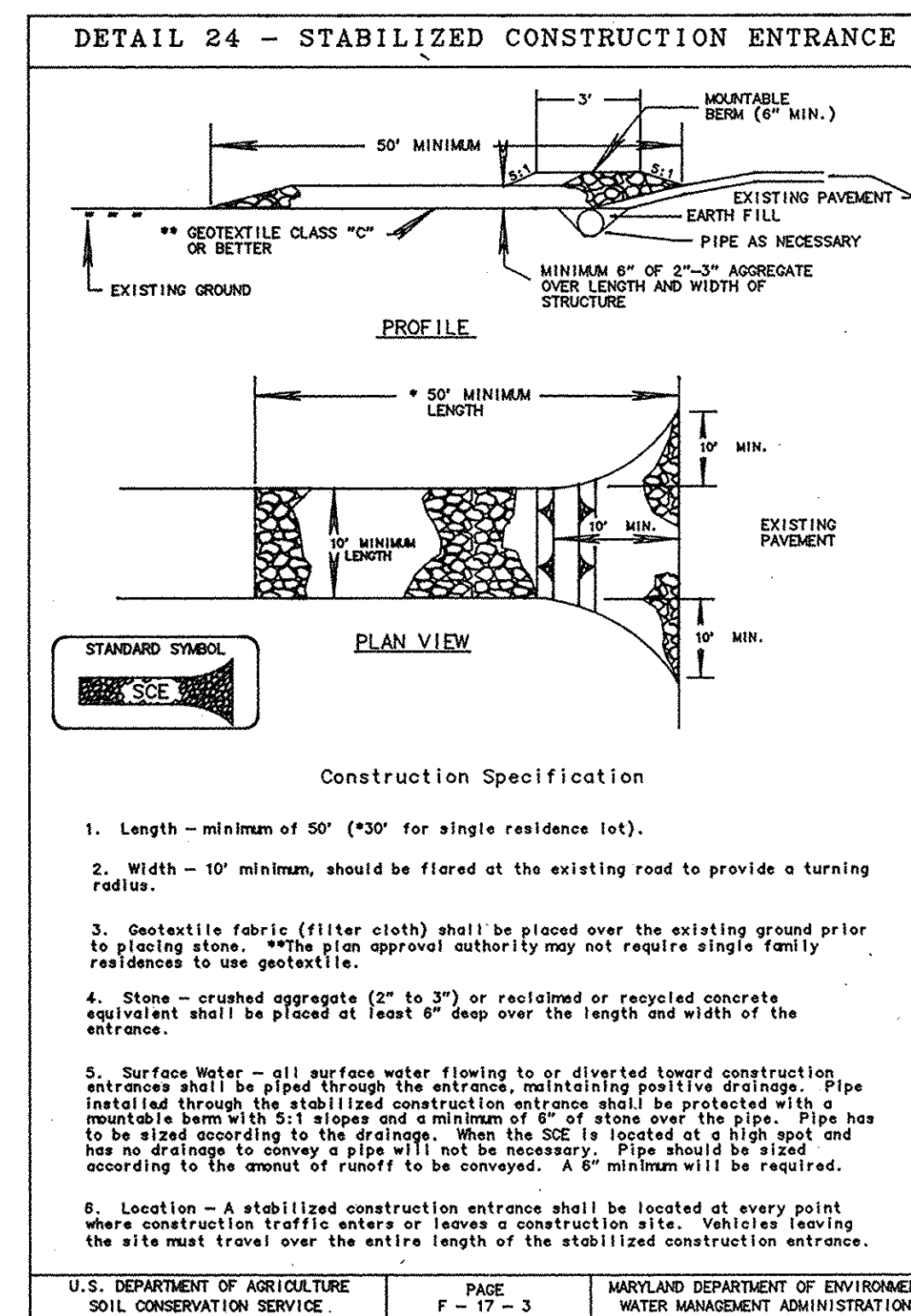
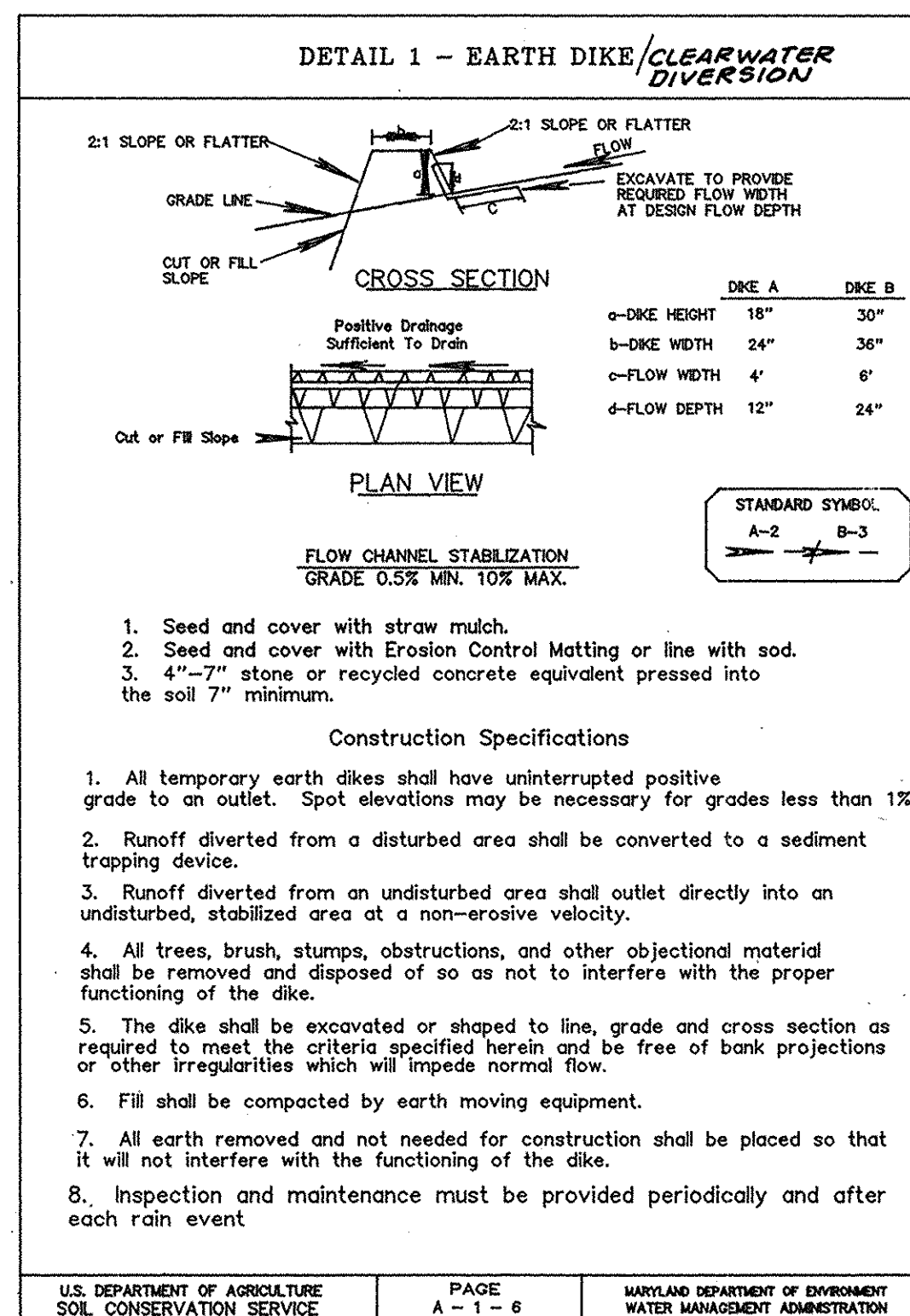
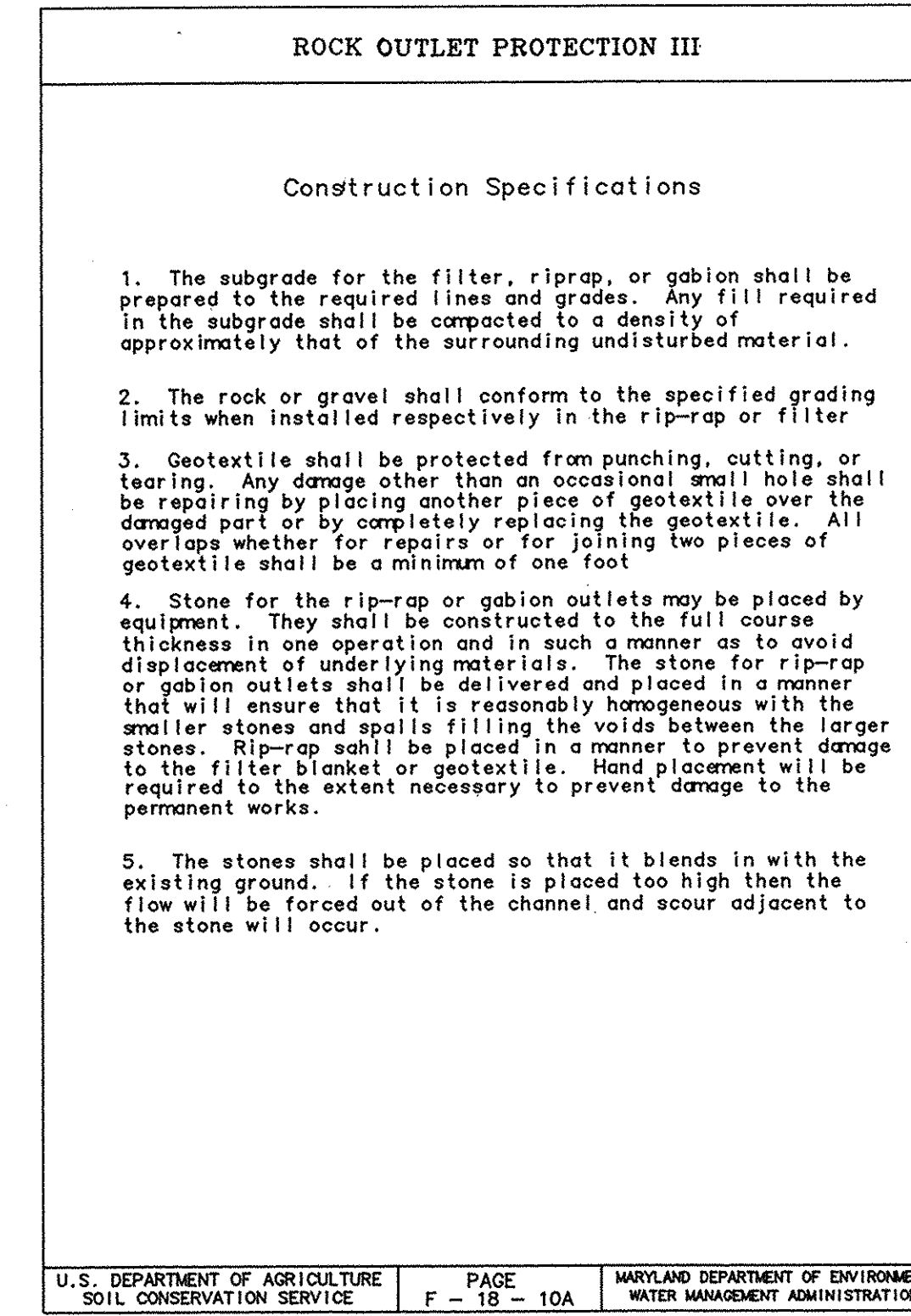
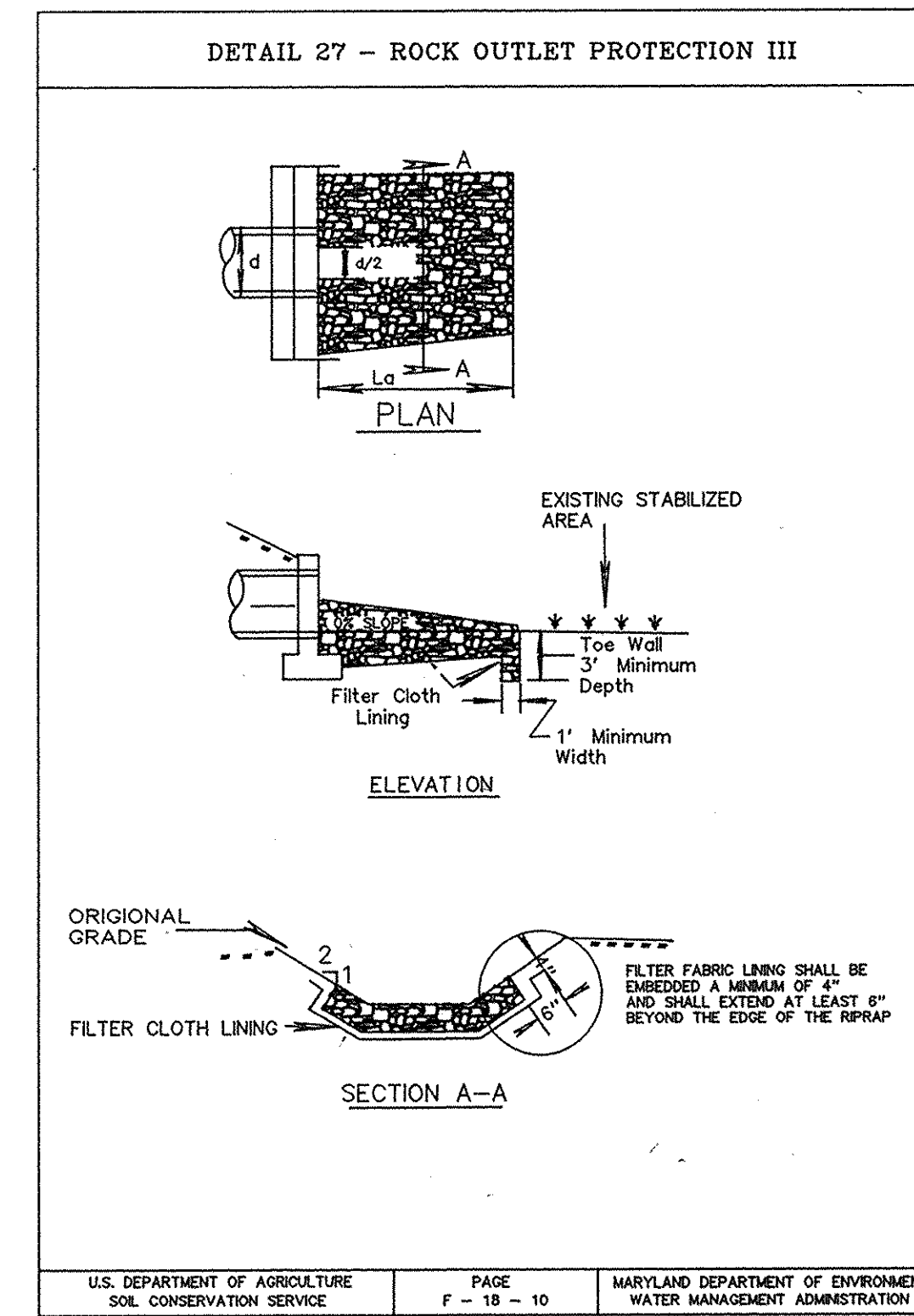
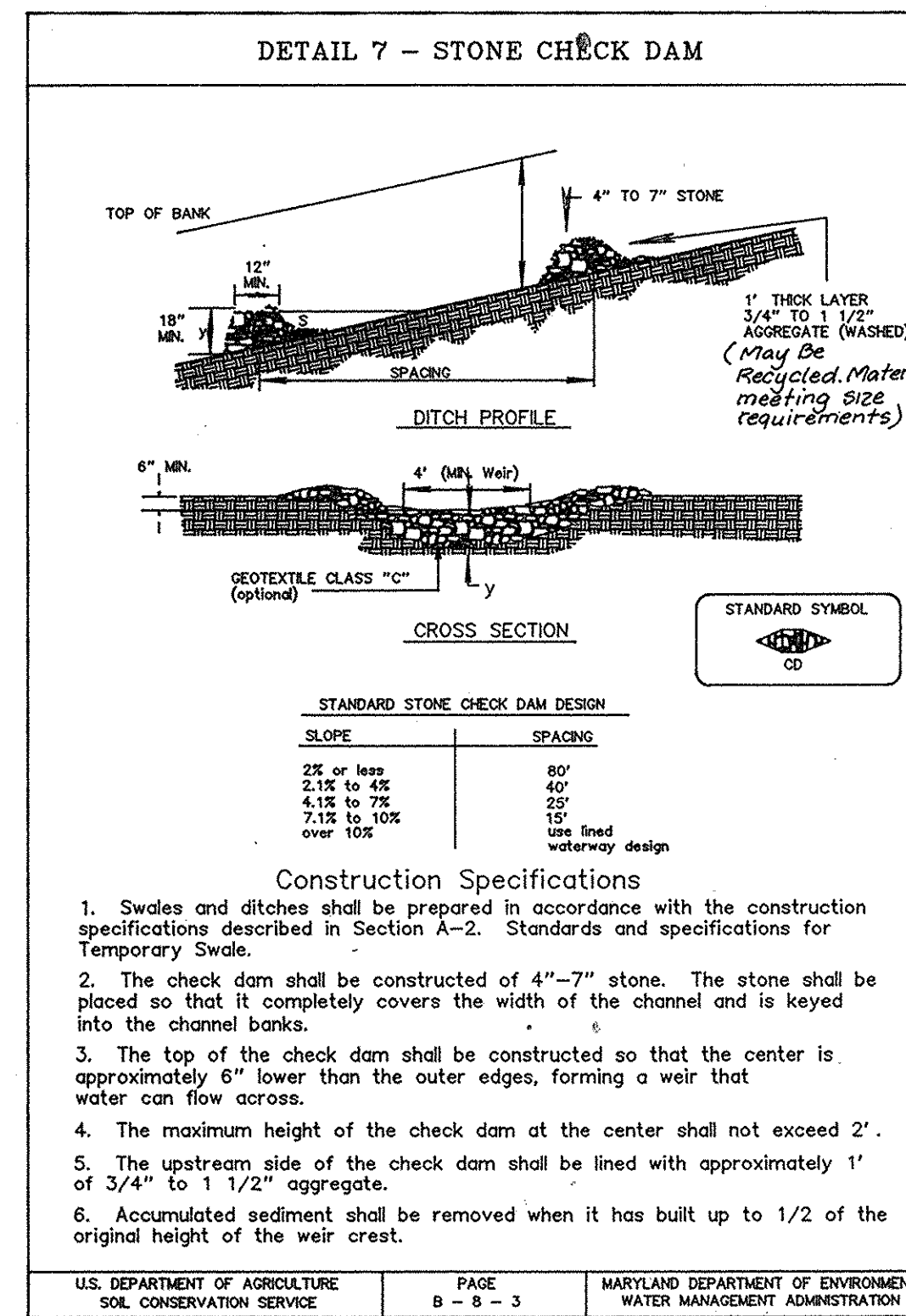
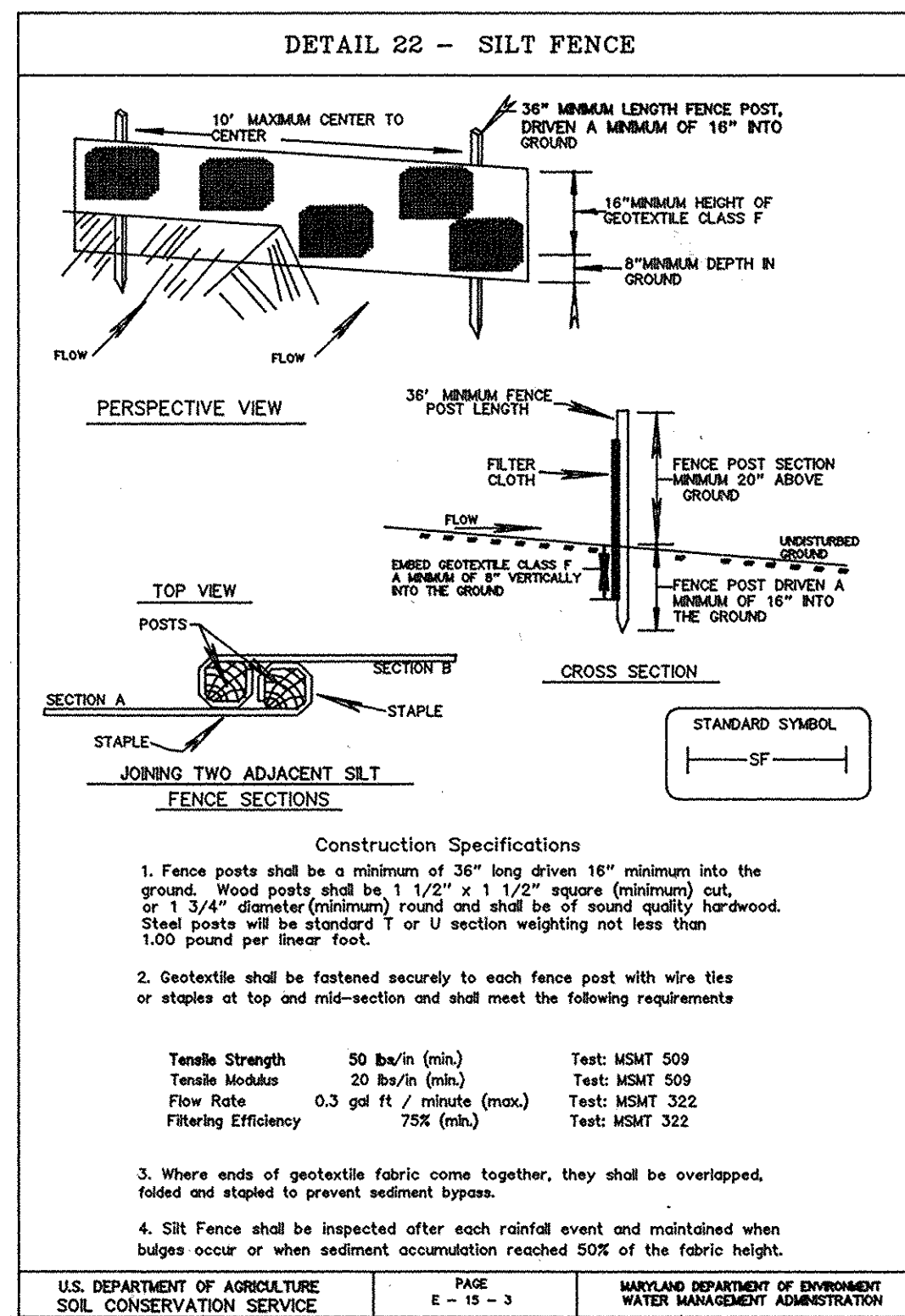
SEEDBED PREPARATION: --- Loosen upper three inches of soil by raking, disking, or other acceptable means before seeding, if not previously loosened.

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

SEEDING --- For periods March 1 thru April 30, and from August 15 thru October 15 seed with 2-12 bushels per acre of annual rye (3.2 lbs./1000sq. ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.7 lbs./1000sq. ft.). For the period November 15 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

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

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



APPROVED: DEPARTMENT OF PLANNING AND ZONING

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

11/13/98
11/14/98
11/9/98

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, erosion and sediment control was prepared in accordance with the standards and specifications of the Howard Soil Conservation District and that I am a duly registered professional engineer in the State of Maryland. I will supervise the construction of the project and will certify to the 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.

10/15/98

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 Certificates of Attendance at the 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.

10/15/98

STATE OF MARYLAND
REGISTERED PROFESSIONAL ENGINEER

10/15/98

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

DESIGNED: E.D.S.
DRAWN: C.A.D.D.
CHECKED: B.D.B.
DATE: 10/98

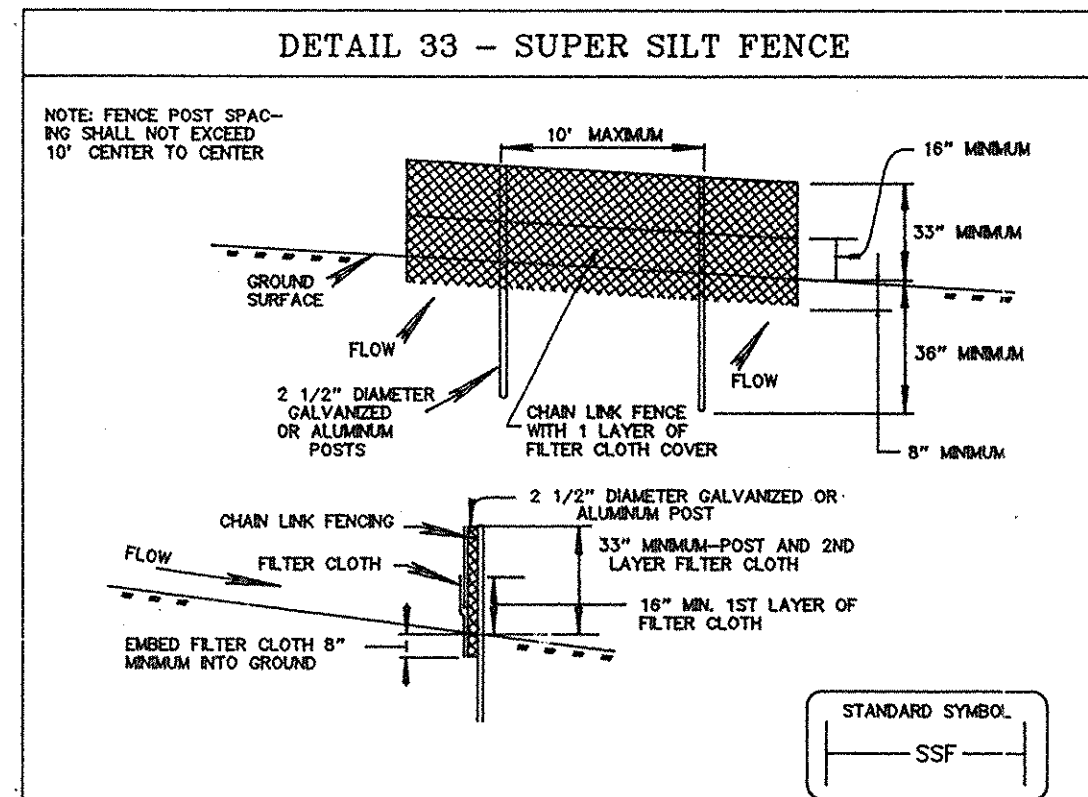
Soil Erosion & Sediment Control Plan - Details

BRANTWOOD SECTION ONE

21 of 34

95-056

FILE NO. F98-138

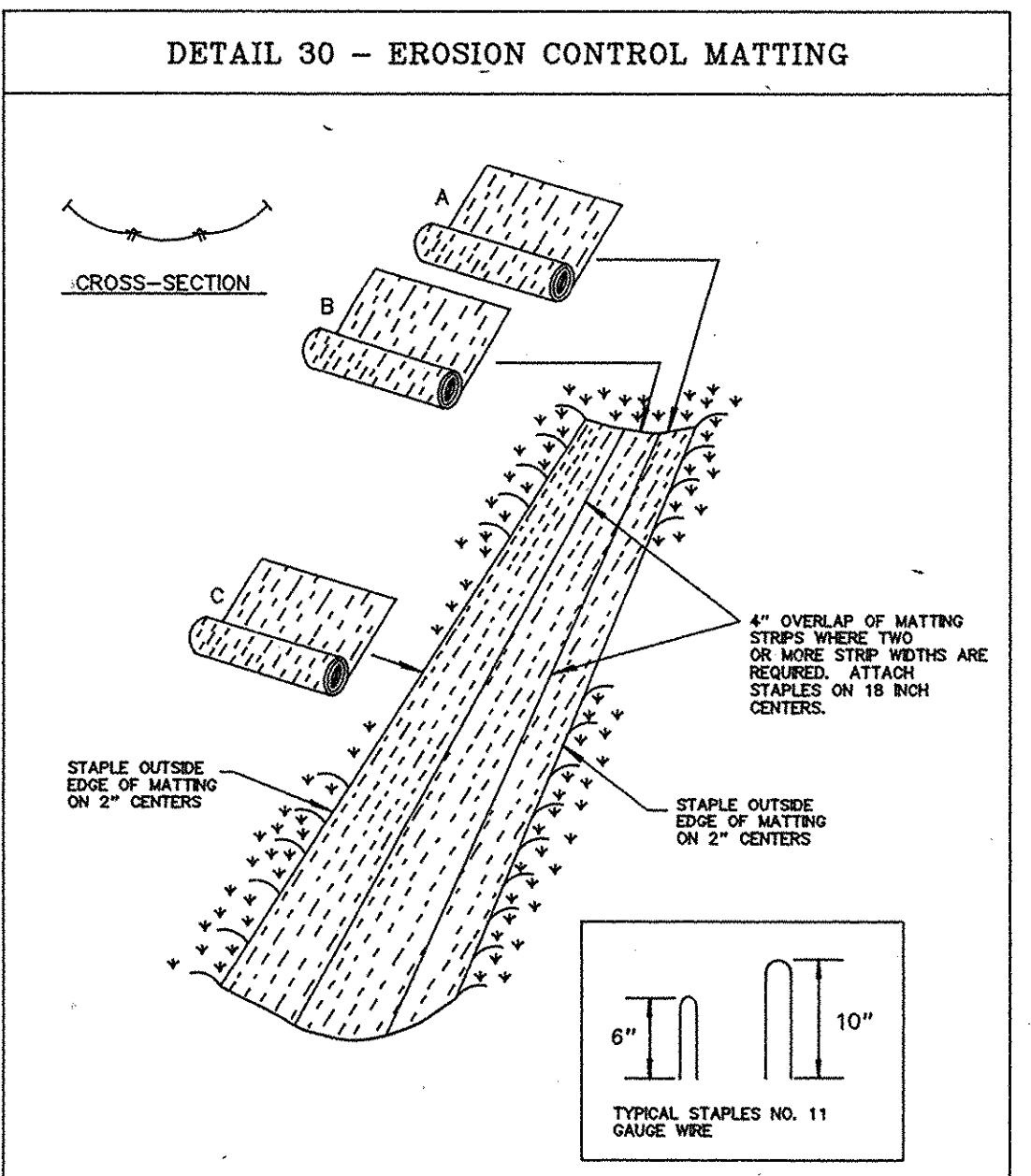


Construction Specifications

Fencing shall be 42 inches in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6 foot fence shall be used, substituting 42 inch fabric and 6 foot length posts.

- The poles do not need to be set in concrete.
- Chain link fence shall be fastened securely to the fence posts with wire ties or staples.
- 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 8" into the ground.
- When two sections of filter cloth adjoin each other, they should be overlapped by 6" and folded.
- Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE H-26-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



Construction Specifications

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

NOTE: If flow will enter from the edge of the matting then the area effected by the flow must be keyed-in.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE O-22-2 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

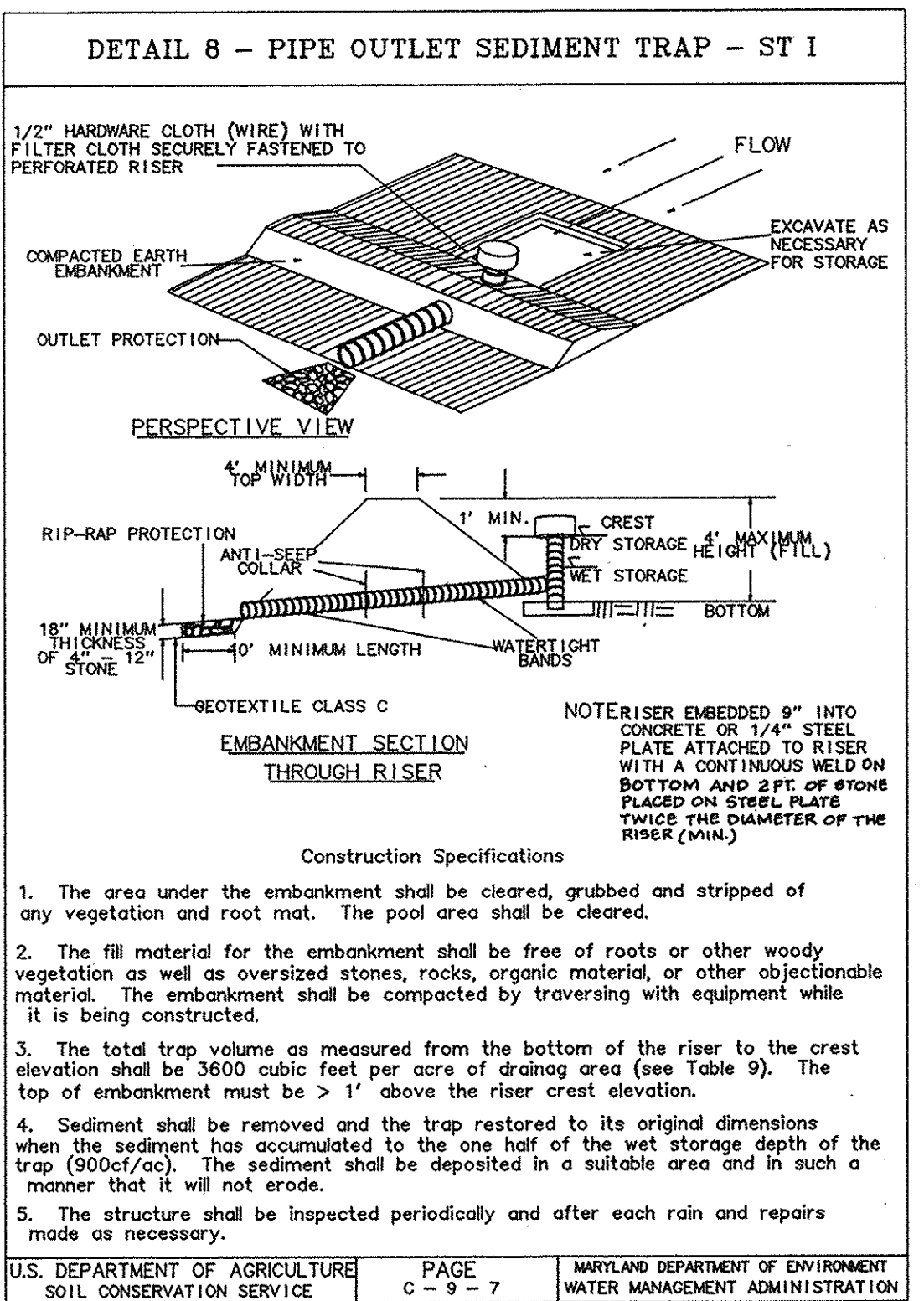
EROSION CONTROL MATTING

Construction Specifications

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

NOTE: If flow will enter from the edge of the matting then the area effected by the flow must be keyed-in.

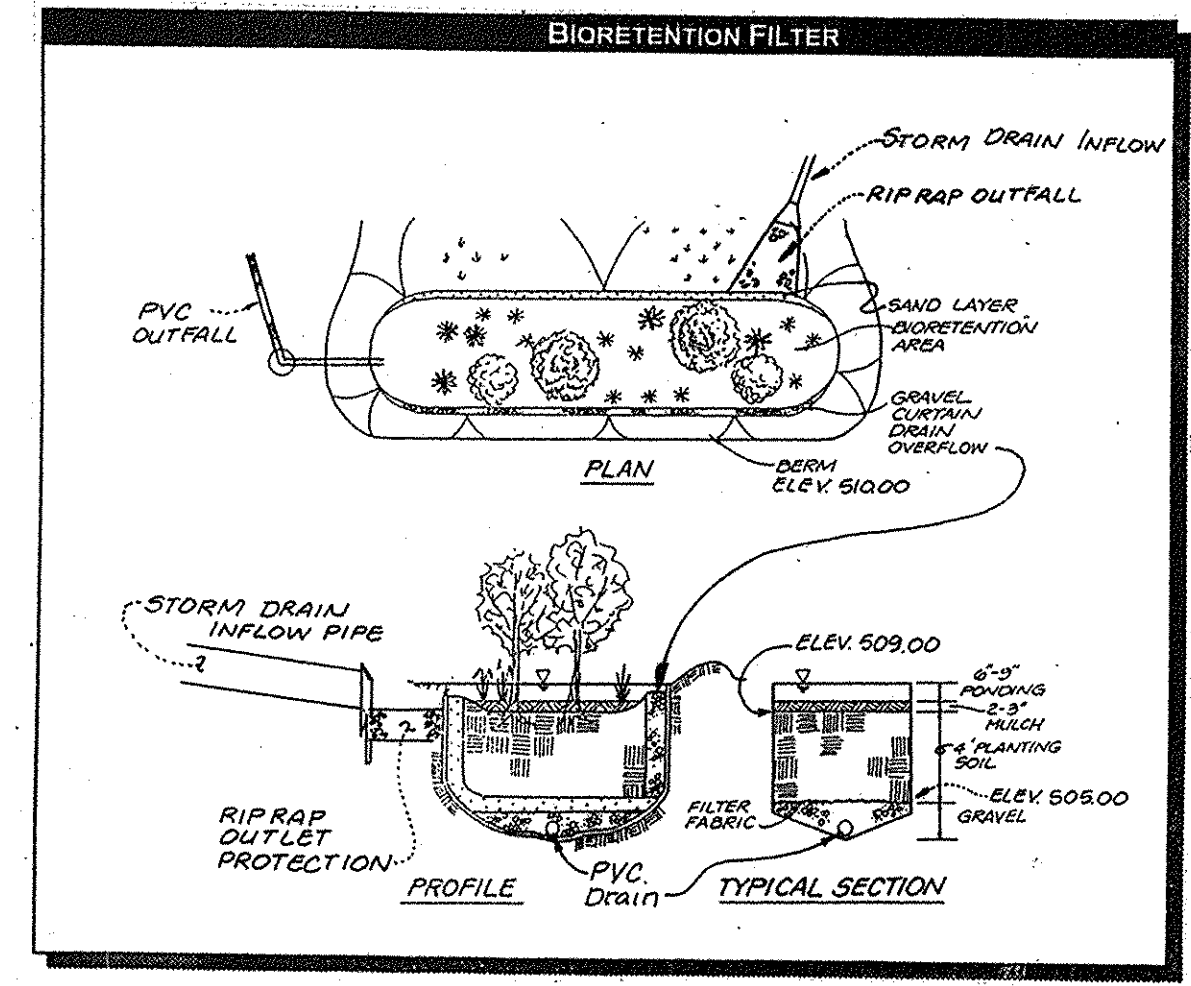
U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE O-22-2A MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



PIPE OUTLET SEDIMENT TRAP - ST 1

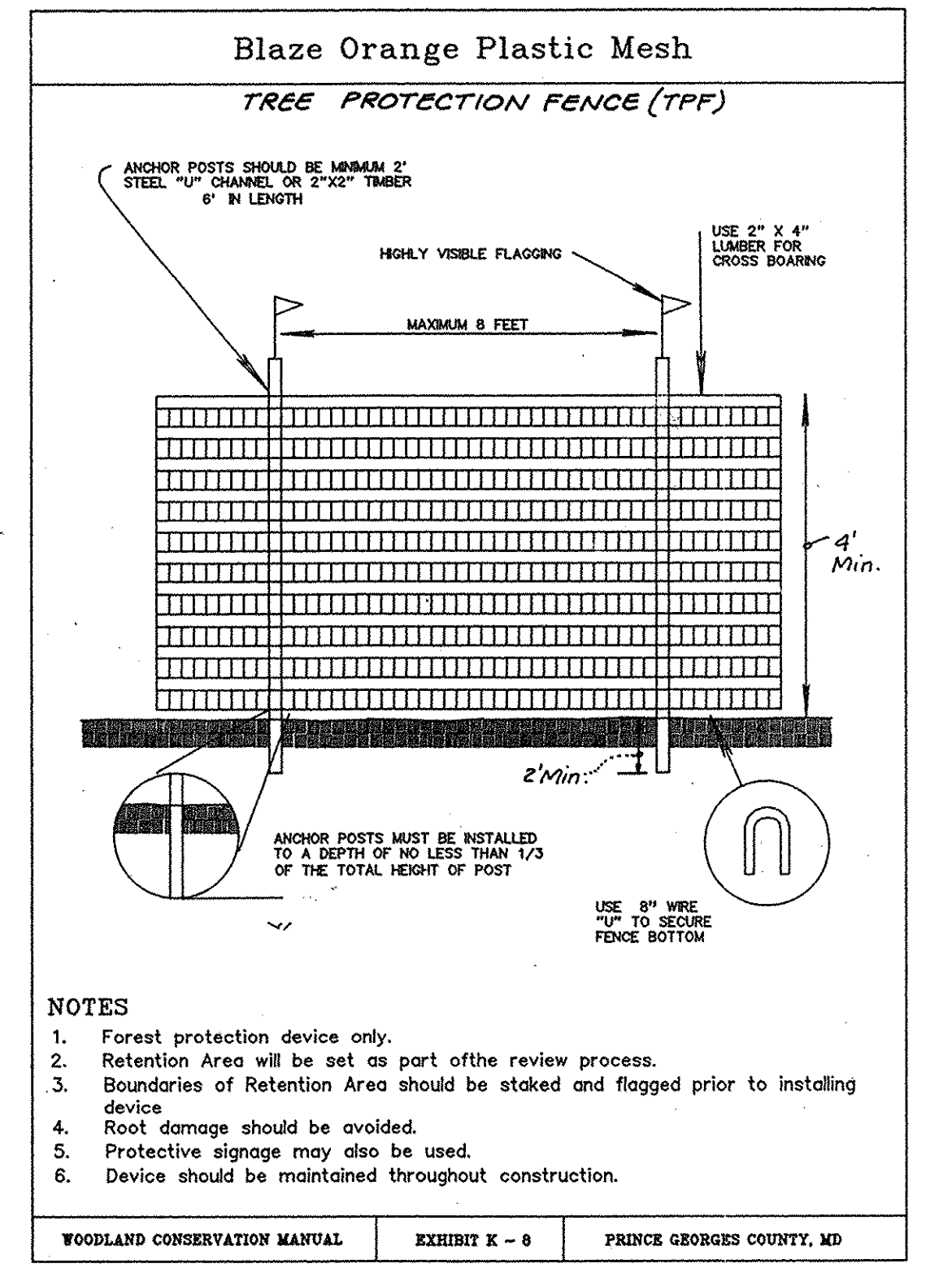
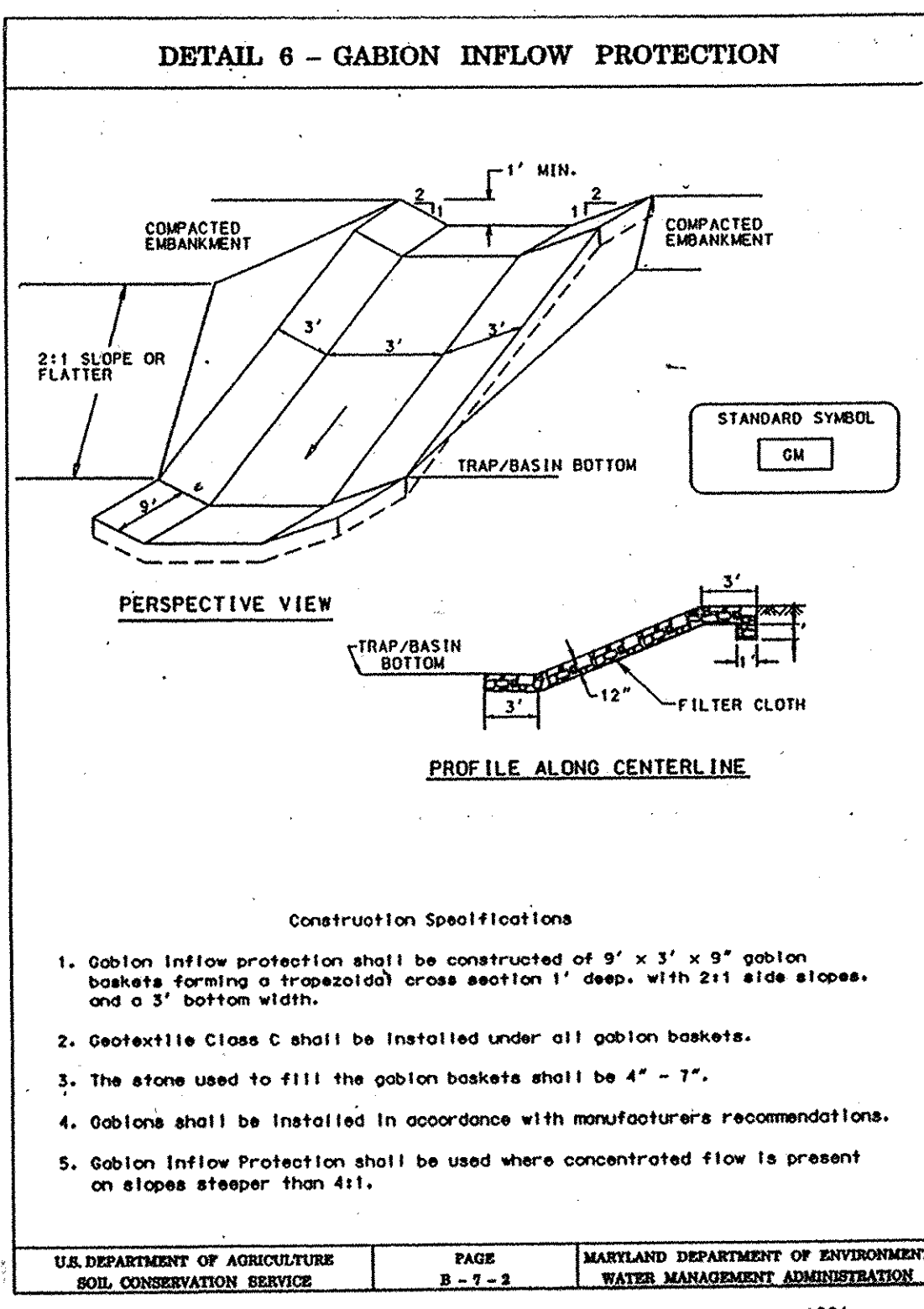
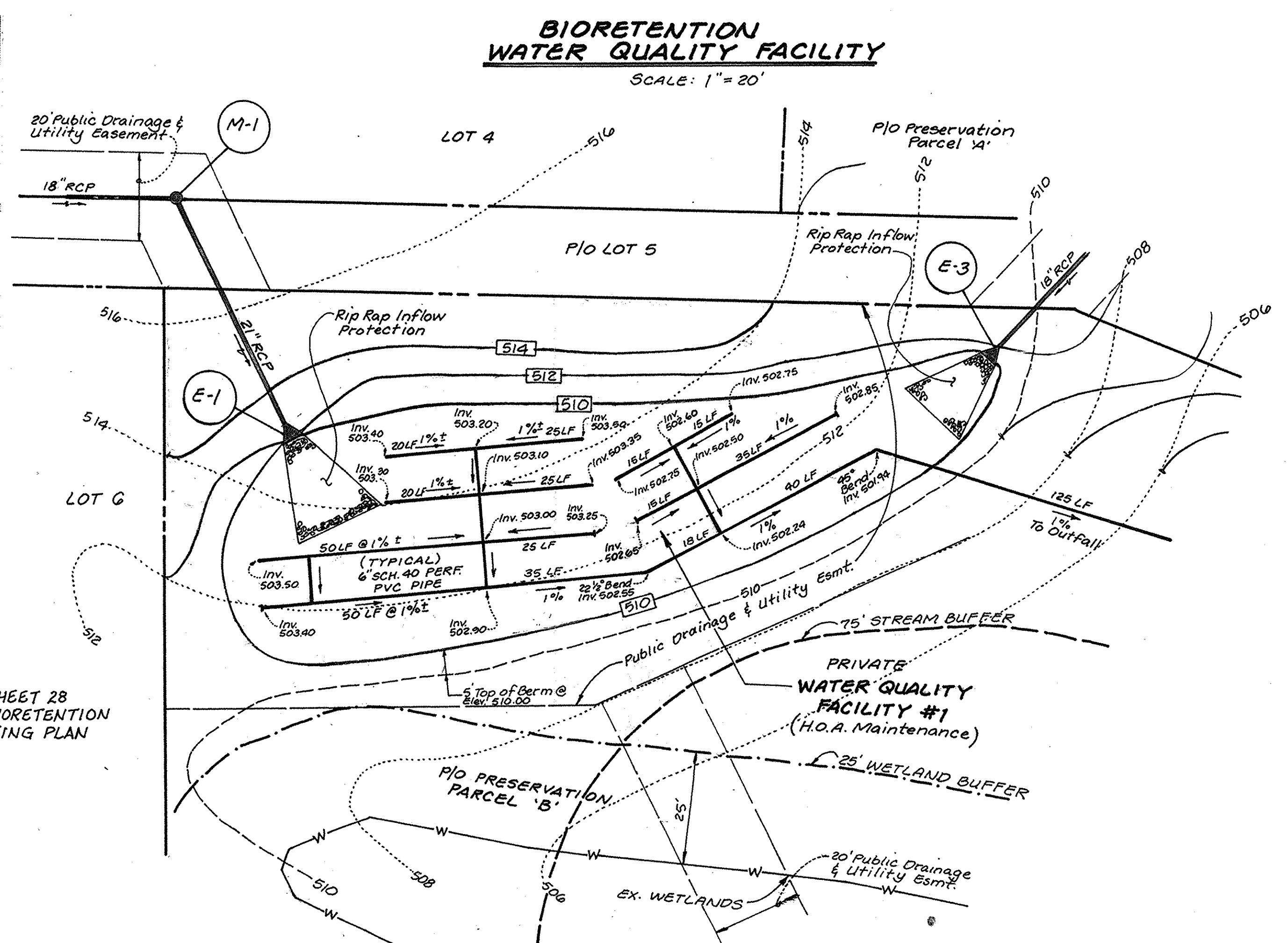
- Construction operations shall be carried out in such a manner that erosion and water pollution are abated. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. Points of concentrated inflow shall be protected in accordance with Grade Stabilization Structure 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 removed and area stabilized when the drainage area has been properly stabilized.
- All out and fill slopes shall be 2:1 or flatter.
- All pipe connections shall be watertight.
- Above the wet storage elevation, the riser shall be perforated with 1/2" wide by 6" long slits or 1" diameter holes spaced 6" vertically and horizontally. No perforations will be allowed within 6" of the horizontal barrel.
- The riser shall be wrapped with 1/2" hardware cloth (wire) then wrapped with Geotextile Class E. The filter cloth shall extend 6" above the highest slit and 6" below the lowest slit. Where ends of filter cloth come together, they shall be overlapped, folded and fastened to prevent bypass. Filter cloth shall be replaced as necessary to prevent clogging.
- Straps or connecting bands shall be used to hold the filter cloth and wire fabric in place. They shall be placed at the top and bottom of the cloth.
- Fill material around the pipe spillway shall be hand compacted in 4" layers. A minimum of 2' of hand-compacted backfill shall be placed over the pipe spillway before crossing it with construction equipment.
- The riser shall be anchored with either a concrete base or a steel plate base to prevent flotation. Concrete bases shall be at least twice the riser diameter and 12" deep with the riser embedded 9". Steel plate bases shall be at least twice the riser diameter, 1/4" minimum thickness and attached to the bottom of the riser by a continuous weld to form a watertight connection. Then place 2' of stone, gravel or tamped earth on the plate.
- Anti seep collars shall be constructed in accordance with plans (ref. table 16 and Details 13 and 14).
- Concentric trash rack and anti-vortex device design details are on Detail 16.
- Refer to Section D for dewatering requirements of sediment traps.
- Outlet - An outlet shall be provided, which includes a means of conveying the discharge in an erosion free manner to an existing stable channel.
- Where discharge occurs at the property line, local ordinances and drainage easement requirements shall be met.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE C-9-7A MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



MATERIAL SPECIFICATIONS

Parameter	Specification	Size	Notes
Planting Soil	Refer to Table 6.5	N/A	
Plantings	Refer to Sheet 2B		
Mulch	Shredded hardwood	N/A	Aged 2 to 12 months, minimum.
Pea gravel (siphon and curtain drain)	ASTM D 448 size no. 6	Varies (approximately 1/4" - 3/8")	Use clean bank-run river pea gravel.
Underdrain gravel	AASHTO M-43	1/2" - 2"	Use clean bank-run river pea gravel.
PVC piping	AASHTO M-278	6" - Rigid Schedule 40	3/4" perf. @ 6" centers, 4' max per row.



APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 11/13/98
 CHEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 11/13/98
 CHEF, DIVISION OF LAND DEVELOPMENT

Approved: Department of Public Works for Storm Drainage Systems and Roads

[Signature] 11/13/98
 Chief, Bureau of Highways

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

[Signature] 11/9/98
 NATURAL RESOURCE CONSERVATION SERVICE

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

[Signature] 11/9/98
 HOWARD SOIL CONSERVATION DISTRICT

ENGINEER'S CERTIFICATE

I certify that this plan for construction, erosion and sediment control represents a feasible and workable plan based on my personal knowledge and the data provided. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. The developer 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 will authorize periodic on-site inspections by Howard Soil Conservation District.

[Signature] 11/9/98
 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 will authorize periodic on-site inspections by Howard Soil Conservation District.

[Signature] 11/9/98
 SIGNATURE OF DEVELOPER

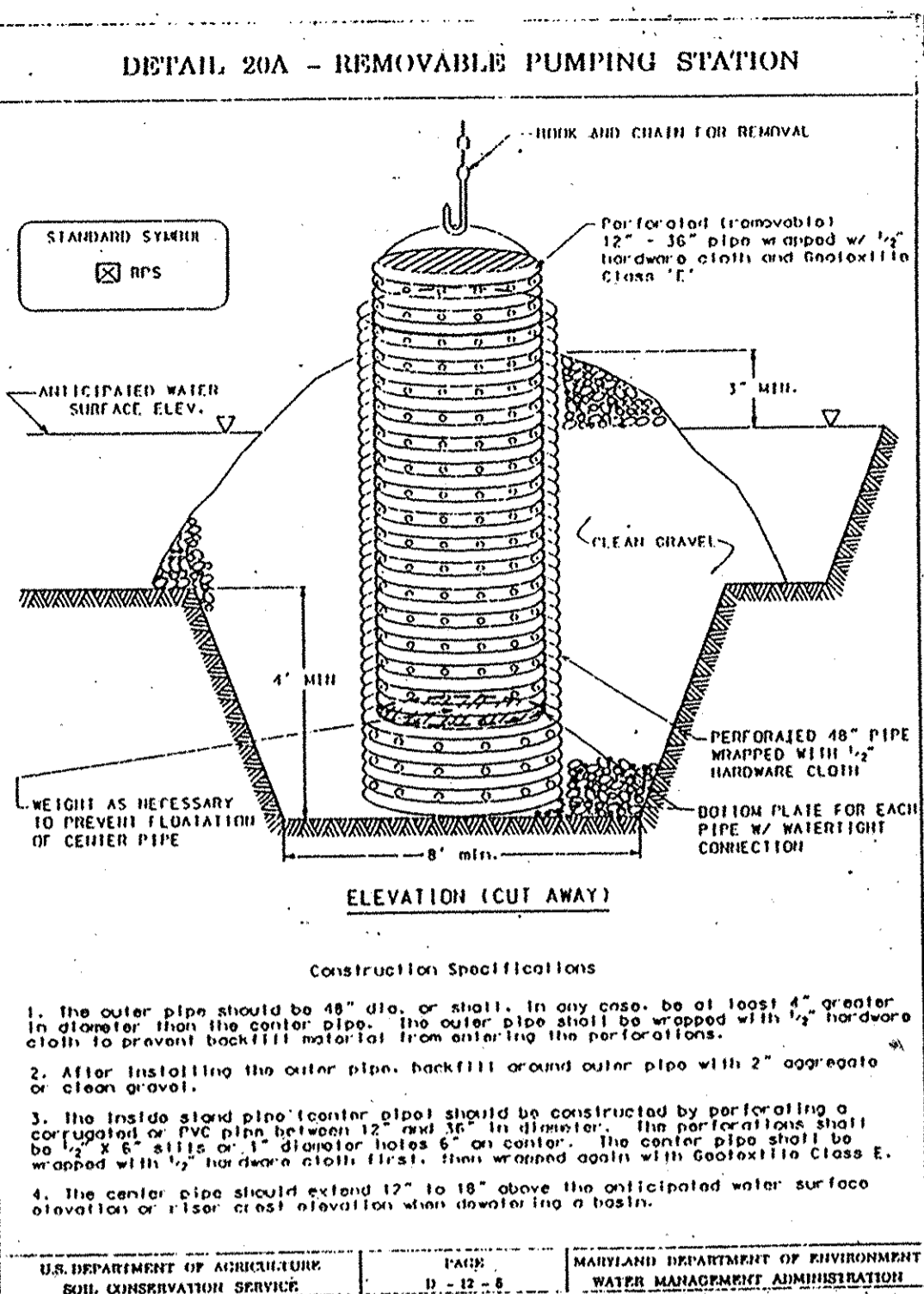
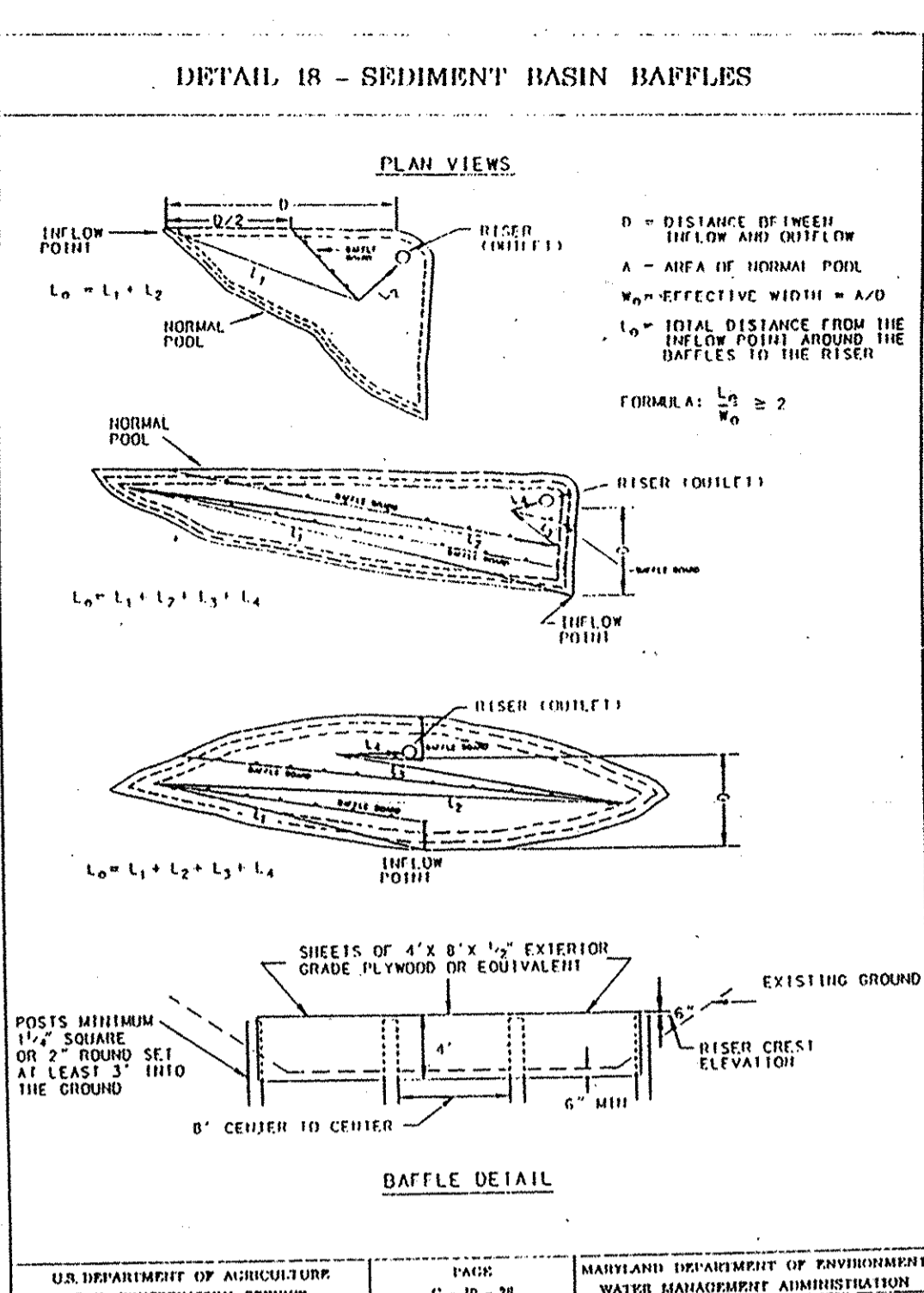
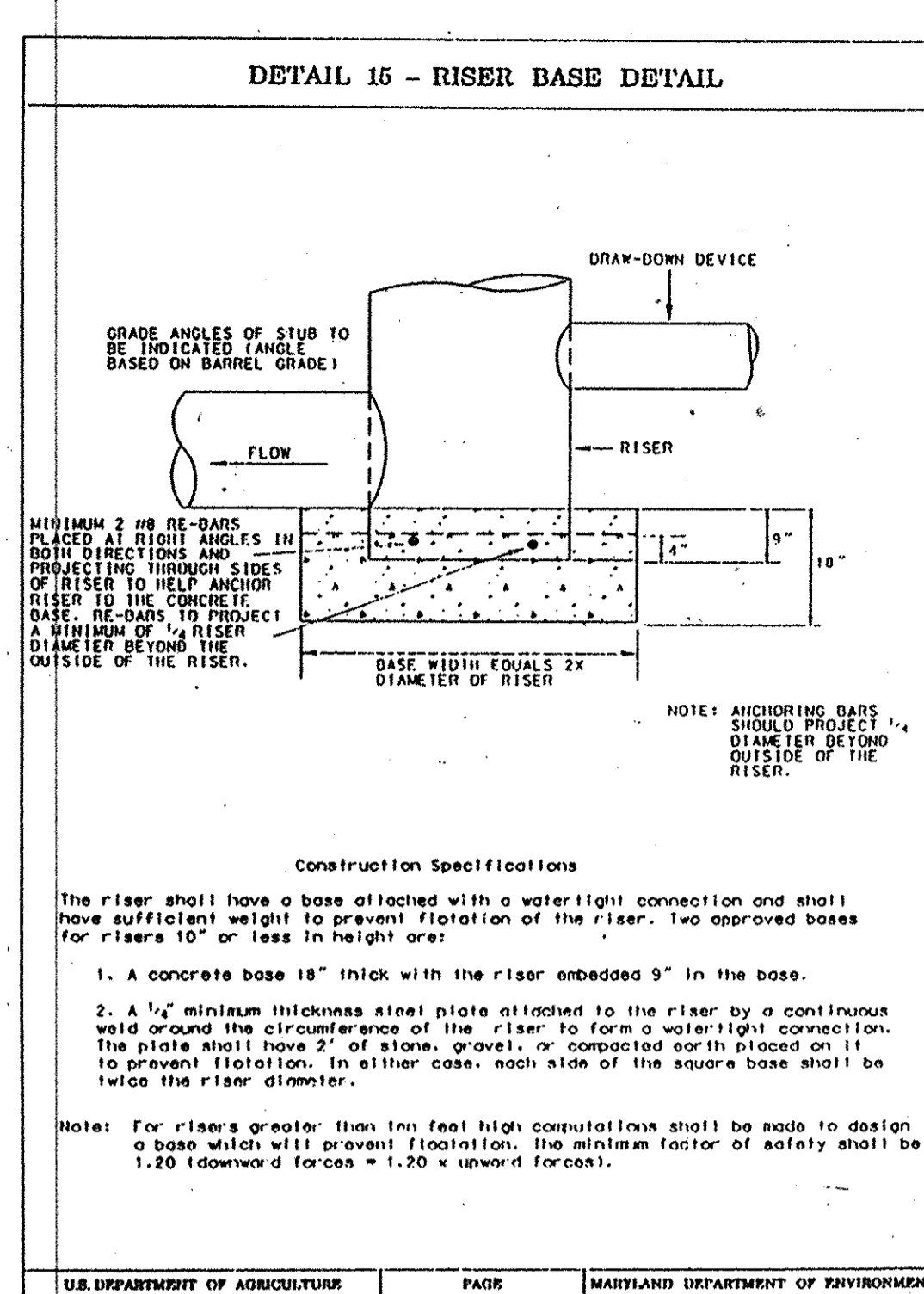
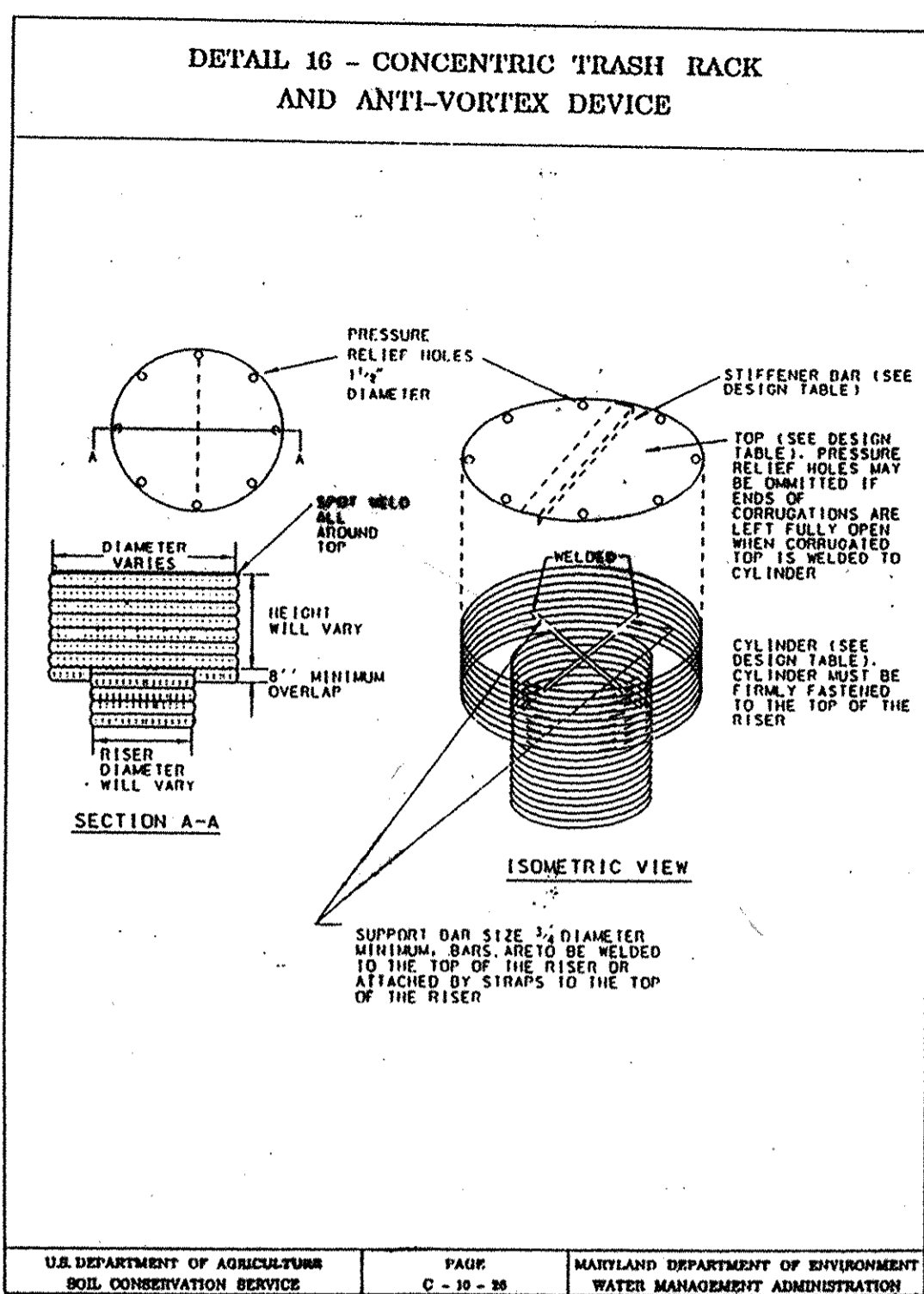
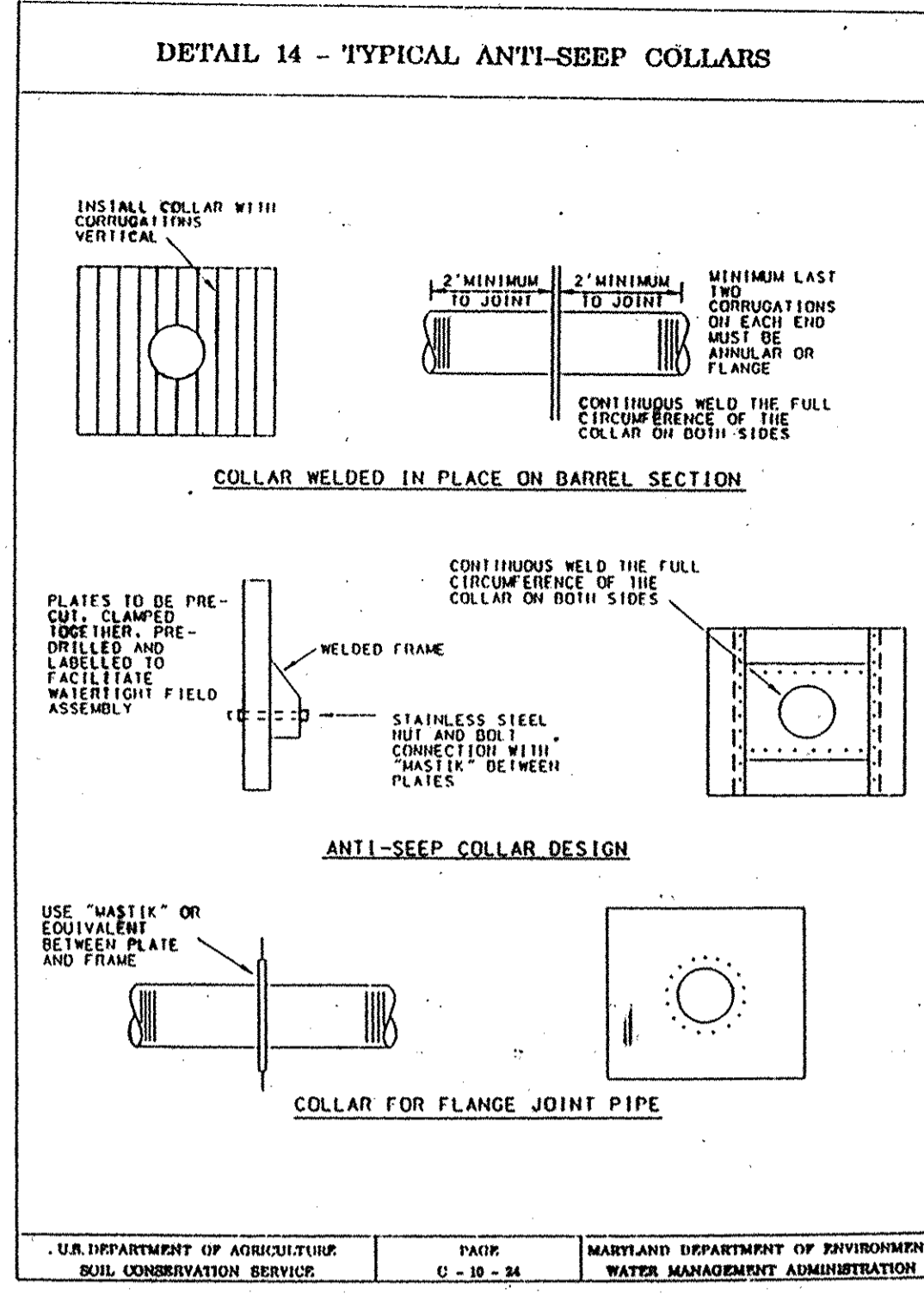
STATE OF MARYLAND
 DAVID B. PATTON
 PROFESSIONAL ENGINEER
 11/9/98

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

DESIGNED	E.D.S.	SCALE	As SHOWN
DRAWN	K.B.W.	DRAWING	22 of 34
CHECKED	B.D.B.	JOB NO.	95-056
DATE	10/98	FILE NO.	F 98-138

BRANTWOOD SECTION ONE
 Lots 1 - 33, Preservation Parcels "A", "B", "C", "D",
 Non-Buildable Bulk Parcel "E",
 and A Resubdivision of "Lot 1 - Feaga Property"
 Tax Maps 16 & 23 Parcels 54, 62, 214, & 390
 3rd Election District - Howard County, Maryland
 Previous Submittals: WP 98-133, S 98-23, P 98-08, WP 98-133, WP 98-14

BRANTWOOD, LLC
 8835 - P Columbia 100 Parkway
 Columbia, Maryland 21045
 (410) 750-0810



Noise Berm #1 Construction Data

Centerline Station	Distance / Offset	Elevation	Description
4145	60' LT	480.0	Toe @ Corner
4145	35' LT	481.0	Toe
4145	60' LT	482.0	Centerline
4130	35' LT	481.0	Toe
4130	60' LT	480.0	Toe @ Corner
4145	35' LT	472.0	Toe
4145	60' LT	473.0	Toe @ Corner
4145	35' LT	482.0	Toe
4145	60' LT	483.0	Toe @ Corner
4240	35' LT	482.0	Toe
4240	60' LT	483.0	Toe @ Corner
4240	35' LT	484.0	Toe
4240	60' LT	485.0	Toe @ Corner
4245	60' LT	484.0	Toe @ Corner

Noise Berm #2 Construction Data

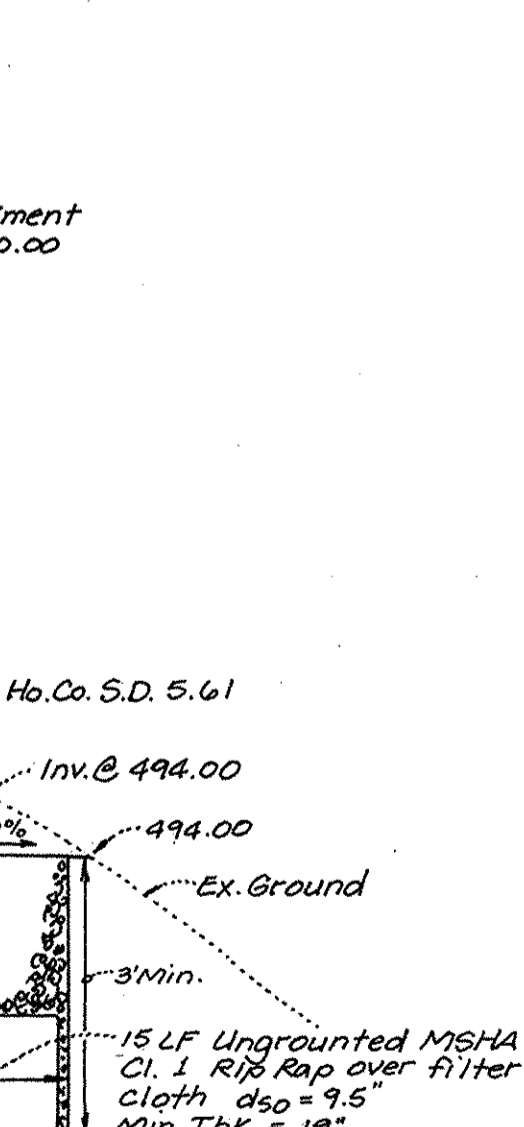
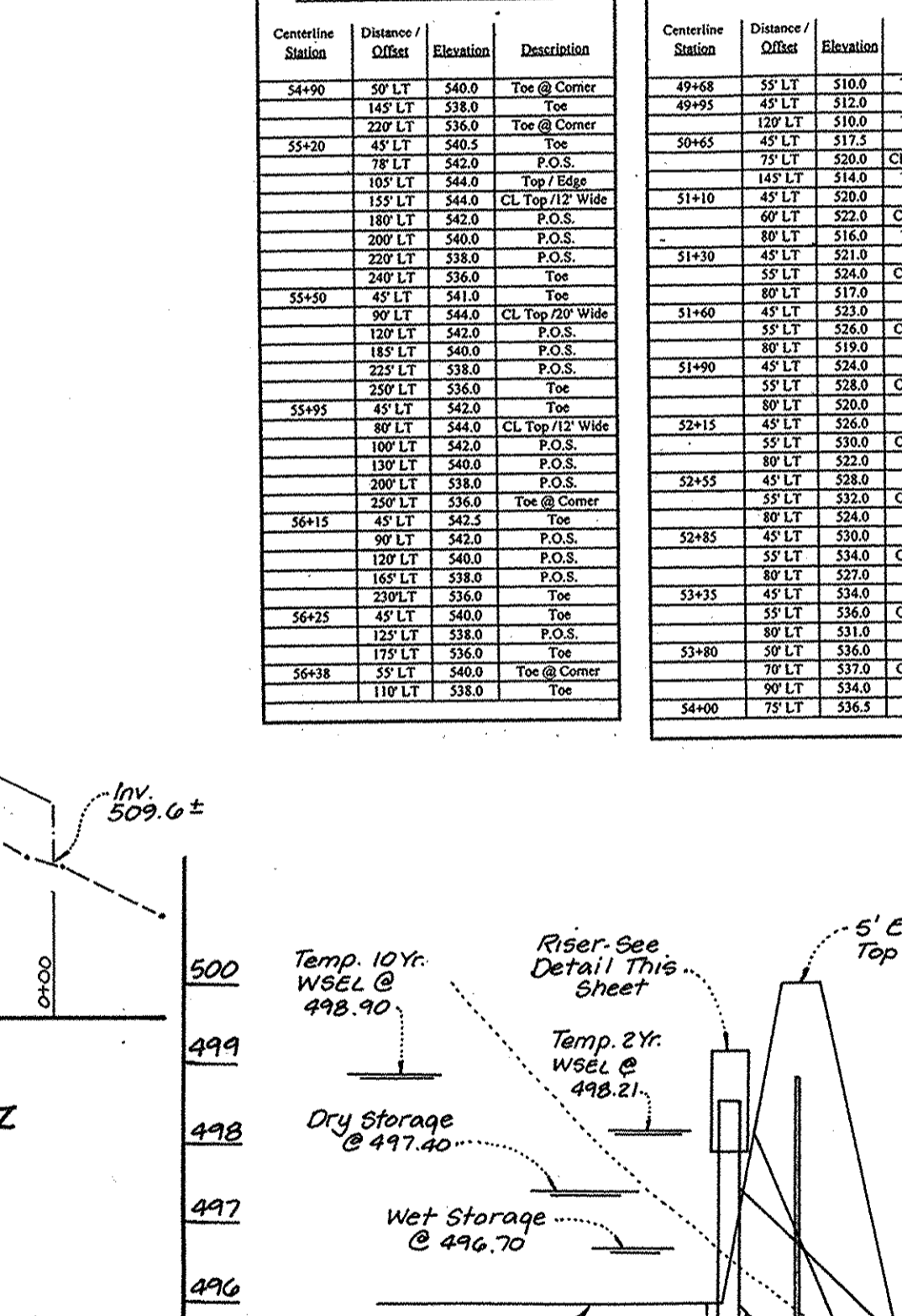
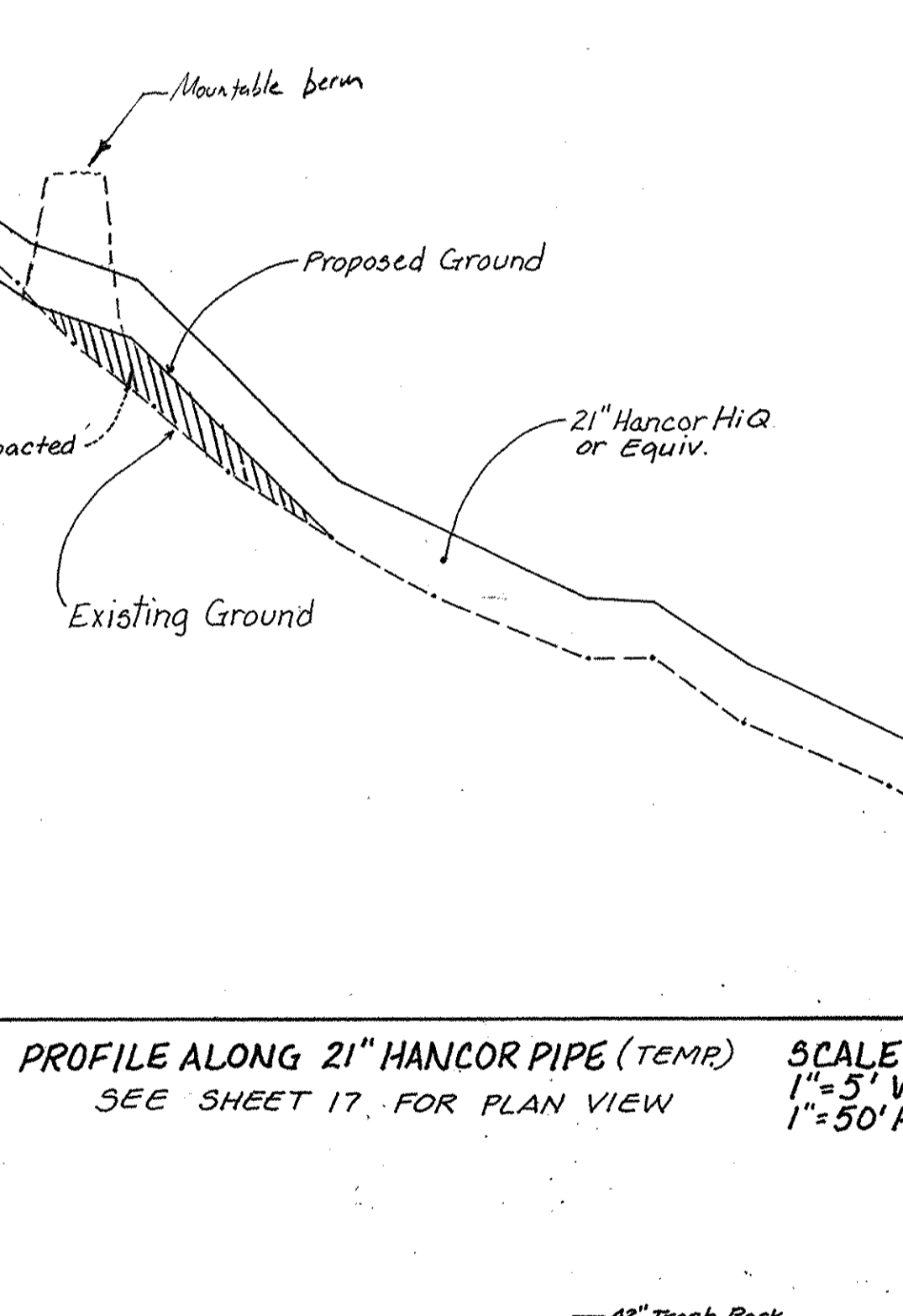
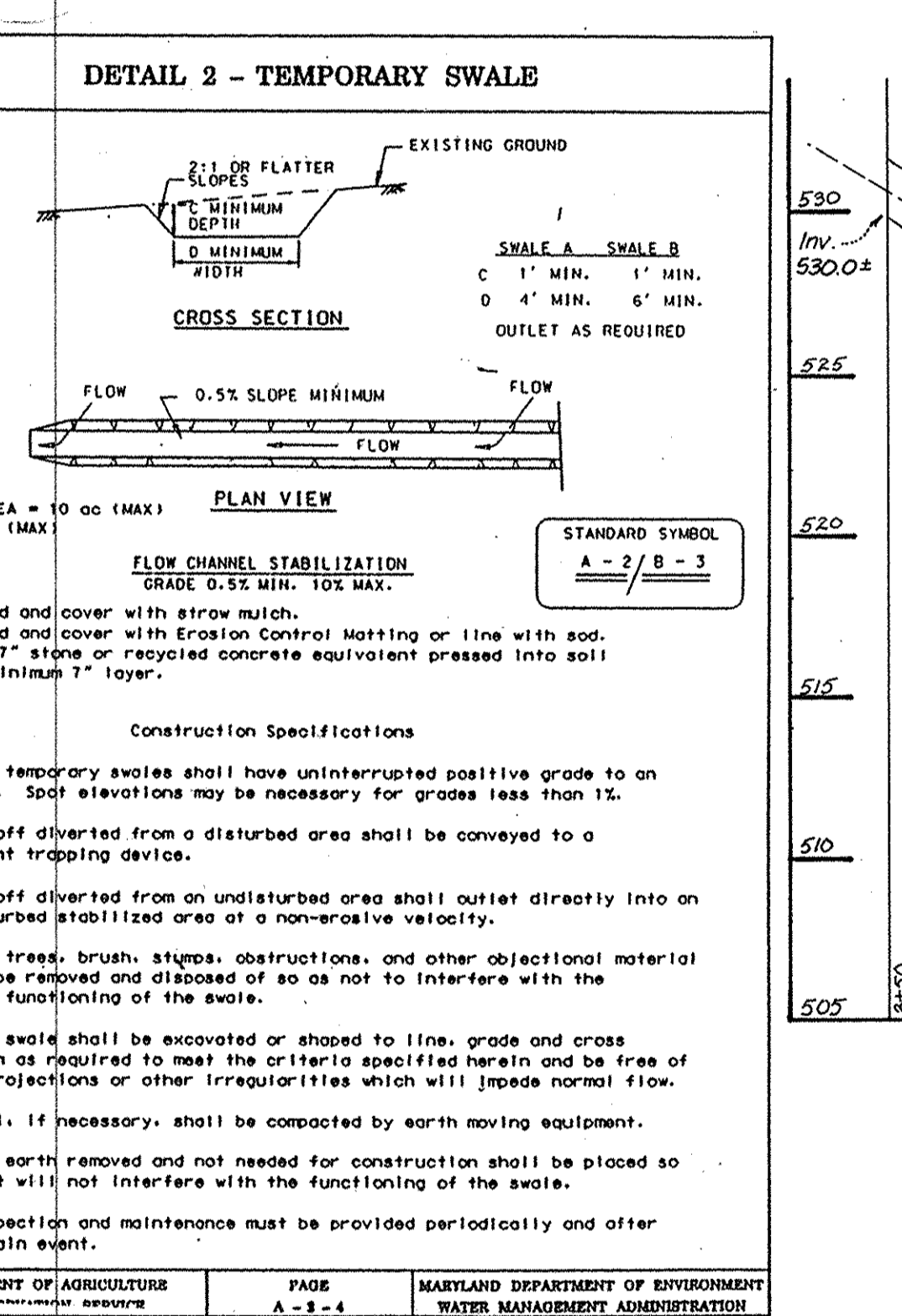
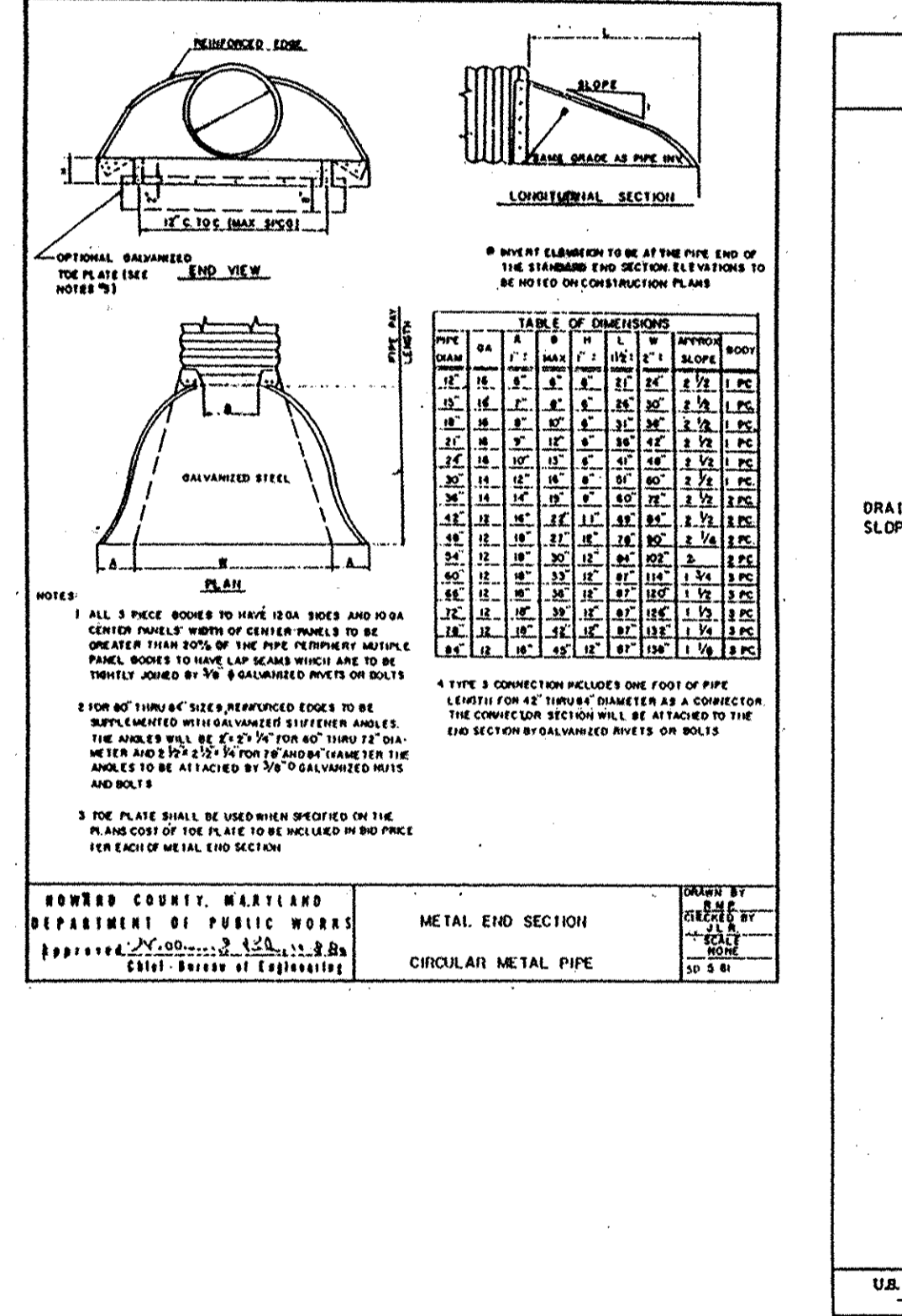
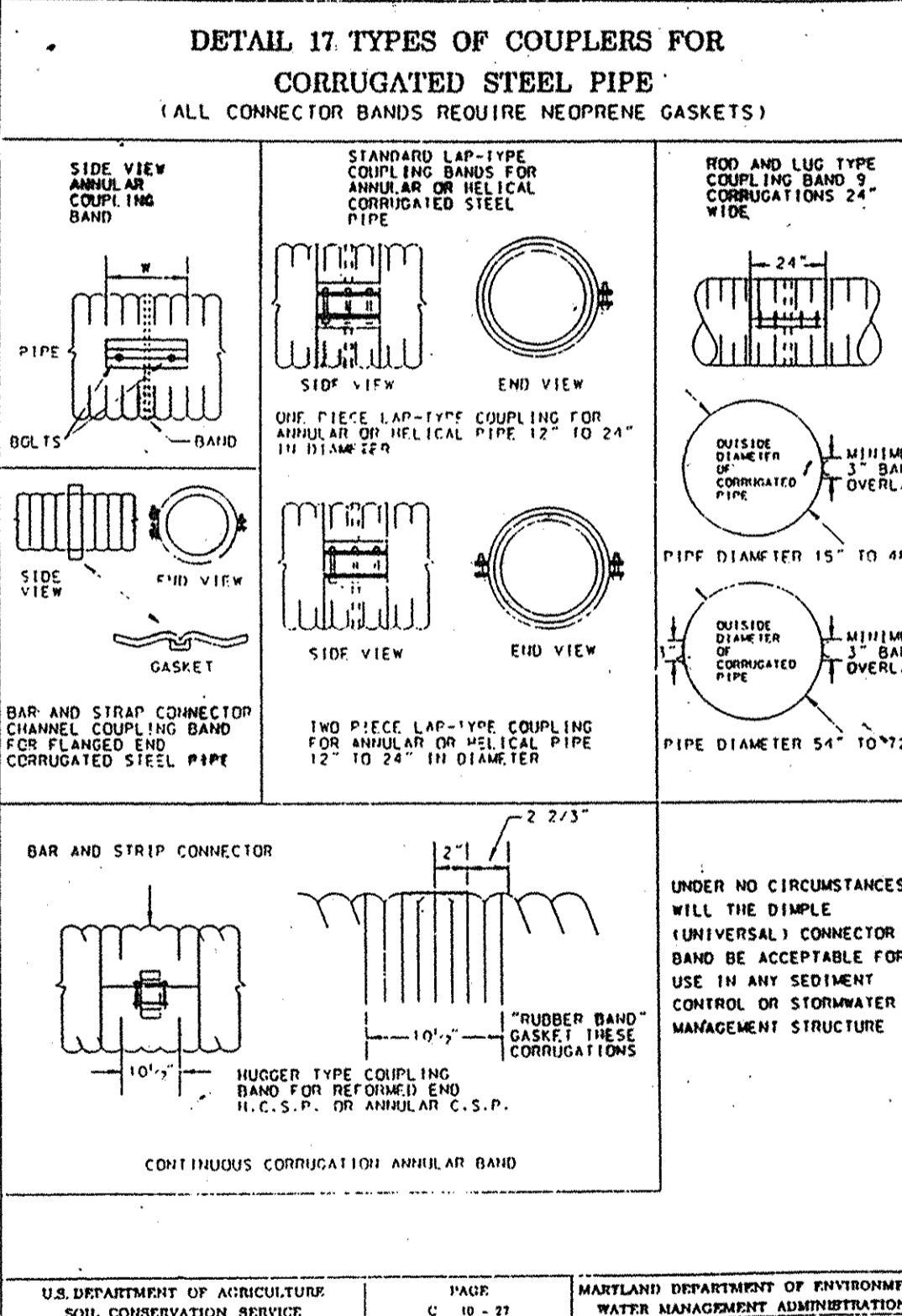
Centerline Station	Distance / Offset	Elevation	Description
4310	60' LT	480.0	Toe
4325	35' LT	480.0	Toe
4325	60' LT	481.0	Toe @ Corner
4345	35' LT	486.0	Toe
4345	60' LT	487.0	Toe @ Corner
4370	35' LT	492.0	Toe
4370	60' LT	493.0	Toe @ Corner
4395	35' LT	498.0	Toe
4395	60' LT	499.0	Toe @ Corner
4415	35' LT	500.0	Toe
4415	60' LT	501.0	Toe @ Corner
4430	35' LT	500.0	Toe
4430	60' LT	501.0	Toe @ Corner
4430	35' LT	500.0	Toe
4430	60' LT	501.0	Toe @ Corner

Noise Berm #3 Construction Data

Centerline Station	Distance / Offset	Elevation	Description
0450	45' LT	492.0	Toe @ Corner
0450	35' LT	493.0	Toe
0450	60' LT	494.0	Toe @ Corner
1400	15' LT	494.0	CL Top 20' Wide
1400	40' LT	500.0	CL Top 20' Wide
1400	60' LT	500.0	Toe @ Corner
1445	35' LT	494.0	Toe
1445	60' LT	495.0	Toe @ Corner
1487.5	35' LT	492.0	Toe
1487.5	60' LT	493.0	Toe @ Corner
1487.5	35' LT	492.0	Toe
1487.5	60' LT	493.0	Toe @ Corner
1487.5	35' LT	492.0	Toe
1487.5	60' LT	493.0	Toe @ Corner
1487.5	35' LT	492.0	Toe
1487.5	60' LT	493.0	Toe @ Corner

Noise Berm #4 Construction Data

Centerline Station	Distance / Offset	Elevation	Description
0450	45' LT	492.0	Toe @ Corner
0450	35' LT	493.0	Toe
0450	60' LT	494.0	Toe @ Corner
1400	15' LT	494.0	CL Top 20' Wide
1400	40' LT	500.0	CL Top 20' Wide
1400	60' LT	500.0	Toe @ Corner
1445	35' LT	494.0	Toe
1445	60' LT	495.0	Toe @ Corner
1487.5	35' LT	492.0	Toe
1487.5	60' LT	493.0	Toe @ Corner
1487.5	35' LT	492.0	Toe
1487.5	60' LT	493.0	Toe @ Corner
1487.5	35' LT	492.0	Toe
1487.5	60' LT	493.0	Toe @ Corner
1487.5	35' LT	492.0	Toe
1487.5	60' LT	493.0	Toe @ Corner



APPROVED: DEPARTMENT OF PLANNING AND ZONING

11/13/98
DATE

11/14/98
DATE

11/12/98
DATE

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

11/9/98
DATE

11/9/98
DATE

11/9/98
DATE

ENGINEER'S CERTIFICATE

10/12/98
DATE

10/12/98
DATE

11/15/98
DATE

DEVELOPER'S CERTIFICATE

11/15/98
DATE

SEDIMENT TRAP #5 RISER DETAIL

Scale: 1"=2'

LDE, INC.

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

DESIGNED: E.D.S. SCALE: AS SHOWN

DRAWN: K.B.W. DRAWING: 23 of 34

CHECKED: B.D.B. JOB NO.: 95-056

DATE: 10/98 DEVELOPER: BRANTWOOD, LLC
8855 P. Columbia 100 Parkway
Columbia, Maryland 21045
(410) 750-0810

FILE NO.: F 98-138

POND CONSTRUCTION SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

SITE PREPARATION

Areas designated for borrow areas, embankment and structural works shall be cleared, grubbed, and stripped of topsoil. All trees, vegetation, roots, and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish, and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level to the ground surface. For dry stormwater management ponds, a minimum of a 50 foot radius around the inlet structure shall be cleared.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

EARTH FILL

Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL. Consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer.

Placement - Areas on which fill is to be placed shall be scarified prior to the placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of fill. The most permeable material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a rubber tire roller, or equivalent roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out.

Where a minimum required density is specified, it shall not be less than 95% of maximum dry density with a moisture content within +/- 2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method 1-99.

Cut off Trench - The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the drawings. The sides of the trench shall be 1 to 1 of batter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

STRUCTURAL BACKFILL

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed one inch in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is compacted fill of 24" or greater over the structure or pipe.

PIPE CONDUITS

All pipes shall be circular in cross section.

CORRUGATED METAL PIPE - All of the following criteria shall apply for corrugated metal pipe:

1. **Materials** - (Steel Pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Steel pipes with polymeric coatings have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. The following coating or an approved equal may be used: Nevon, Plast-i-Cote, Blac-Klad, and Both-Co-Loy. Coated corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246.

Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.

Materials - (Aluminum Pipe) - This pipe and appurtenances shall conform to the requirements of AASHTO Specification M-198 or M-211 with watertight coupling bands or flanges. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer. Hot dip galvanized bolts may be used for connections. The pitch of the surrounding soils shall be between 4 and 8.

2. **Coupling bands, anti-seep collars, and sections, etc.** must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mills in thickness.

3. **Connections** - All connections with pipes must be completely watertight. The drain or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight.

All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the band width. The following pipe connections are acceptable for pipes less than 24" in diameter: Flanges on both ends of the pipe, a 12 inch wide standard lap type band with 12" wide by 3/8" thick closed cell circular neoprene gasket; and a 12 inch wide hugger type band with O-ring gaskets having a minimum diameter of 1/2 inch greater than the corrugated depth. Pipes 24" in diameter and larger shall be connected by a 24" long annular corrugated band using rods and lugs. A 12" wide by 3/8" thick closed cell circular neoprene gasket will be installed on the end of each pipe for a total of 24".

Helically corrugated pipe shall have either continuously welded seams or have lock seams with internal caulking or a neoprene bead.

4. **Bedding** - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

5. Backfilling shall conform to "Structure Backfill."

6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

REINFORCED CONCRETE PIPE - All of the following criteria shall apply for reinforced concrete pipe:

1. **Materials** - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361.

2. **Bedding** - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3 inches, or as shown on the drawings.

3. **Laying pipe** - Bell and spigot pipe shall be placed with the bell and upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 2 feet from the riser.

4. Backfilling shall conform to "Structure Backfill."

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

POLYVINYL CHLORIDE (PVC) PIPE - All of the following criteria shall apply for polyvinyl chloride (PVC) pipe:

1. **Materials** - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241.

2. **Joints and connections** to anti-seep collars shall be completely watertight.

3. **Bedding** - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

4. Backfilling shall conform to "Structure Backfill."

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

CONCRETE

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 608, Mix No. 3.

ROCK RIPRAP

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 905.

The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will ensure the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filler cloth shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 319.12.

CARE OF WATER DURING CONSTRUCTION

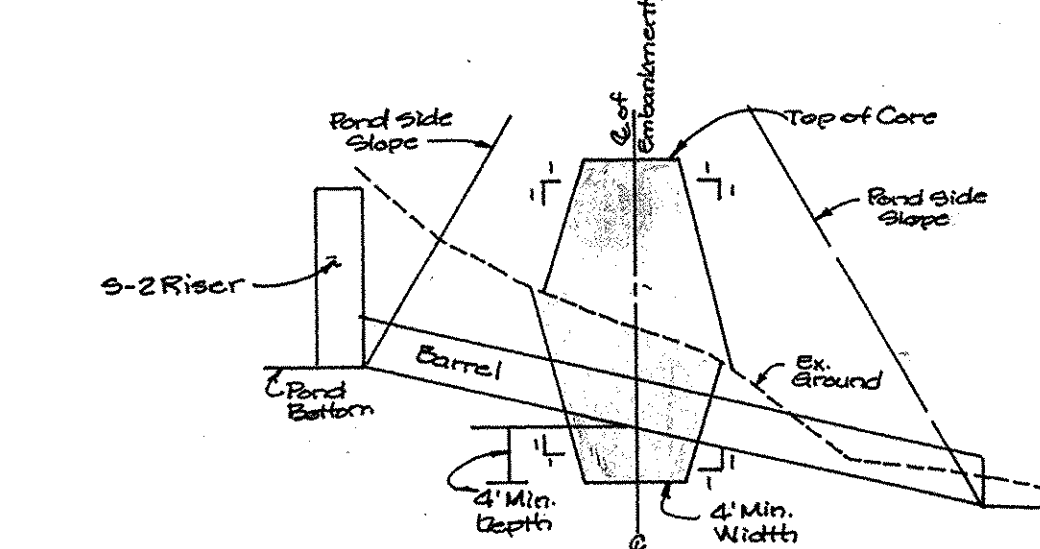
All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundations, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom and require additional excavation. The satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water to surfs from which the water shall be pumped.

STABILIZATION

All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, areas and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MS-342) or as shown on the accompanying drawings.

EROSION AND SEDIMENT CONTROL

Construction operations will be carried out in such a manner that erosion will be controlled and sedimentation minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.

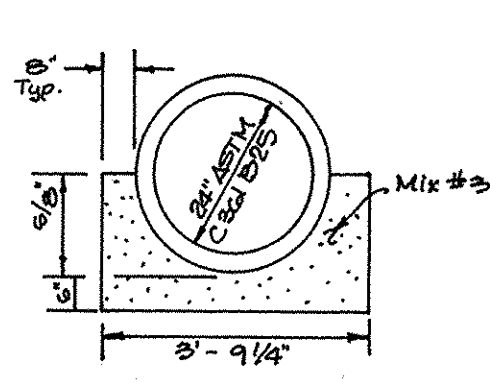


Note: County Approved Material (M) is to be used for core trench. If unsuitable material exists on-site, acceptable material will need to be trucked to the site.

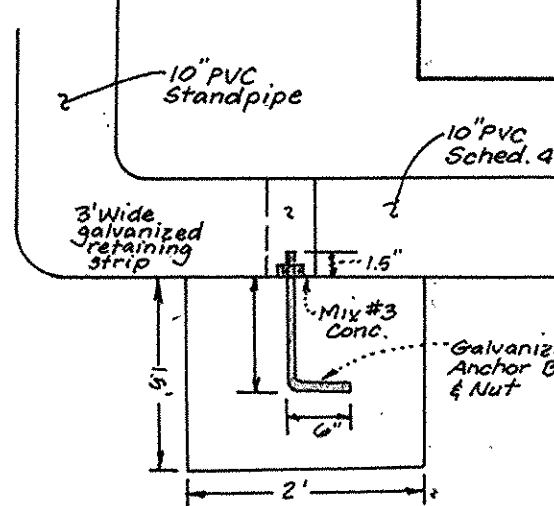
*County Approved Material must conform to Unified Classification Designations of CL, CH, SC or CC

Core Trench Top Section

Not to Scale



10" PVC Riser
4x2 Cradle
Not to Scale



CONCRETE BASE DETAIL
Not to Scale

GEOTECHNICAL RECOMMENDATIONS:

EMBANKMENT AND CUT-OFF TRENCH CONSTRUCTION

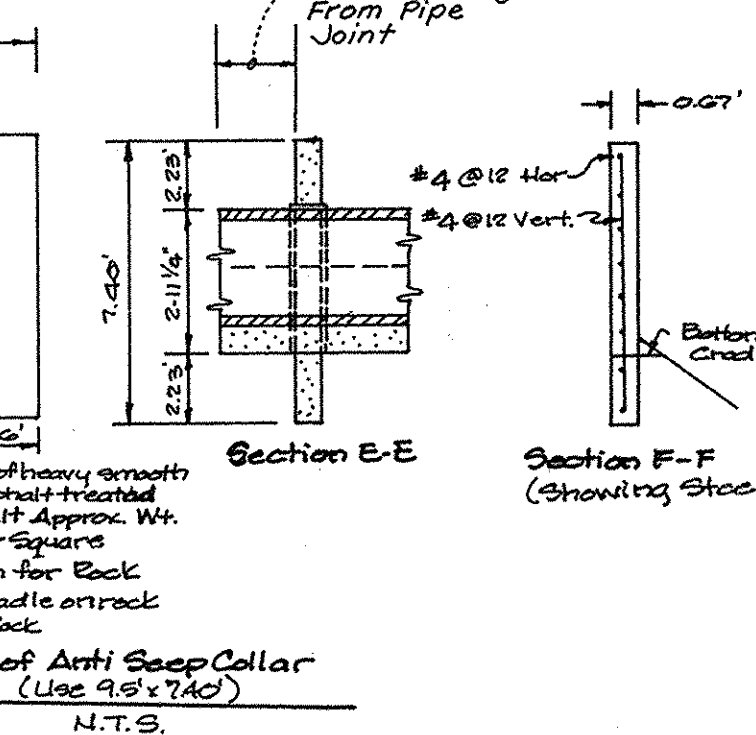
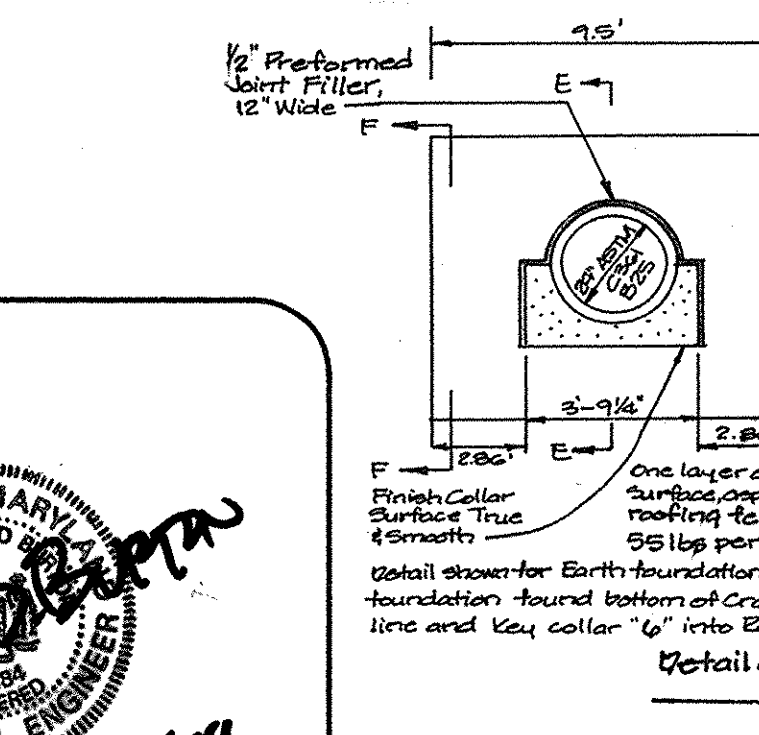
The site should be stripped of topsoil and any other unsuitable materials from the embankment of structure area in accordance with Soil Conservation Guidelines. After stripping operations have been completed, the exposed subgrade materials should be protected with a loaded dump truck or similar equipment in the presence of a geotechnical engineer or his representative, for areas that are not accessible to a dump truck, the exposed materials should be observed and tested by a geotechnical engineer or his representative using a Dynamic Cone Penetrometer. Any excessively soft or loose materials identified by proofrolling or penetrometer testing should be excavated to suitably firm soil, and then grades re-established by backfilling with suitable soil. Based on the borings de-watering of the core trench excavations are anticipated.

A representative of the Geotechnical Engineer should be present to monitor placement and compaction of fill for the embankment and cut off trench. In accordance with Maryland Soil Conservation Specification 378 soils considered suitable for the center of embankment and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL. Soil materials meeting these specifications were not identified in the borings. Based on our experience with similar projects it is our professional opinion that the plastic silt materials with a liquid limit of 40 or greater and plastic index of 10 or greater will be suitable for cut off trench and core trench to the 10 year water elevation. However, backfill material under, around and adjacent (2') to the principal spillway should be constructed with Unified Soil Classification types SC, SC, CH, or CL materials. Additional exploration and laboratory testing of the on-site soils may locate these materials if they may need to be imported from off site. Any rock larger than 6 inches should be removed from the fill materials. All fill materials must be placed and compacted in accordance with MD SC378 specifications.

CONCRETE RISER AND STRUCTURE CONSTRUCTION

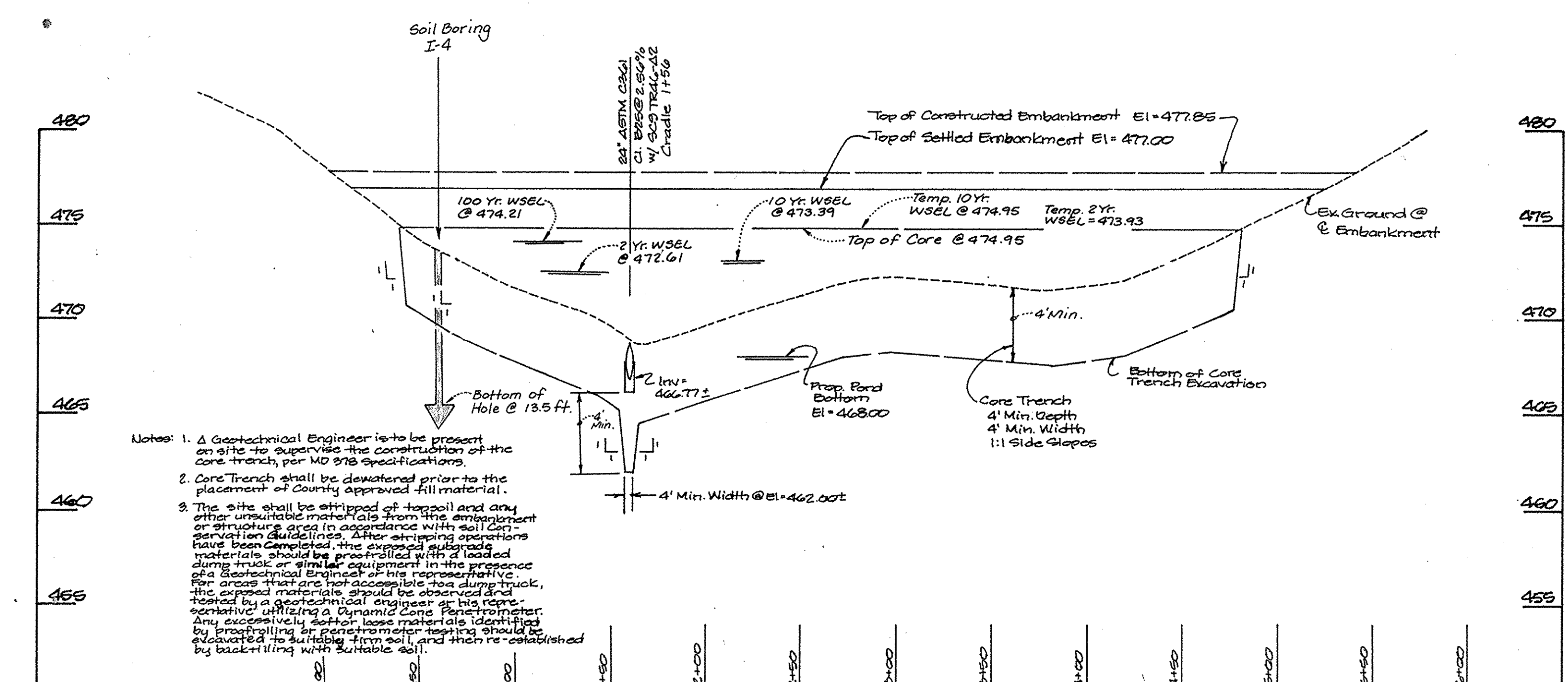
Based on the soil borings and correlation with proposed and existing grades the foundations for the proposed concrete riser structures can be supported on firm natural soils. We recommend that the concrete riser structure foundation be designed for a maximum allowable bearing pressure of 2000 lbs per square foot (psf). Water should not be allowed to pond or collect within the foundation excavations, as this can cause a reduction in the bearing capacity of the soils. A geotechnical engineer or his representative should observe foundation excavations and conduct dynamic cone penetrometer testing (DCP) of the bearing surfaces to depths of three feet.

HILLIS-CARNES ENGINEERING ASSOCIATES INC.

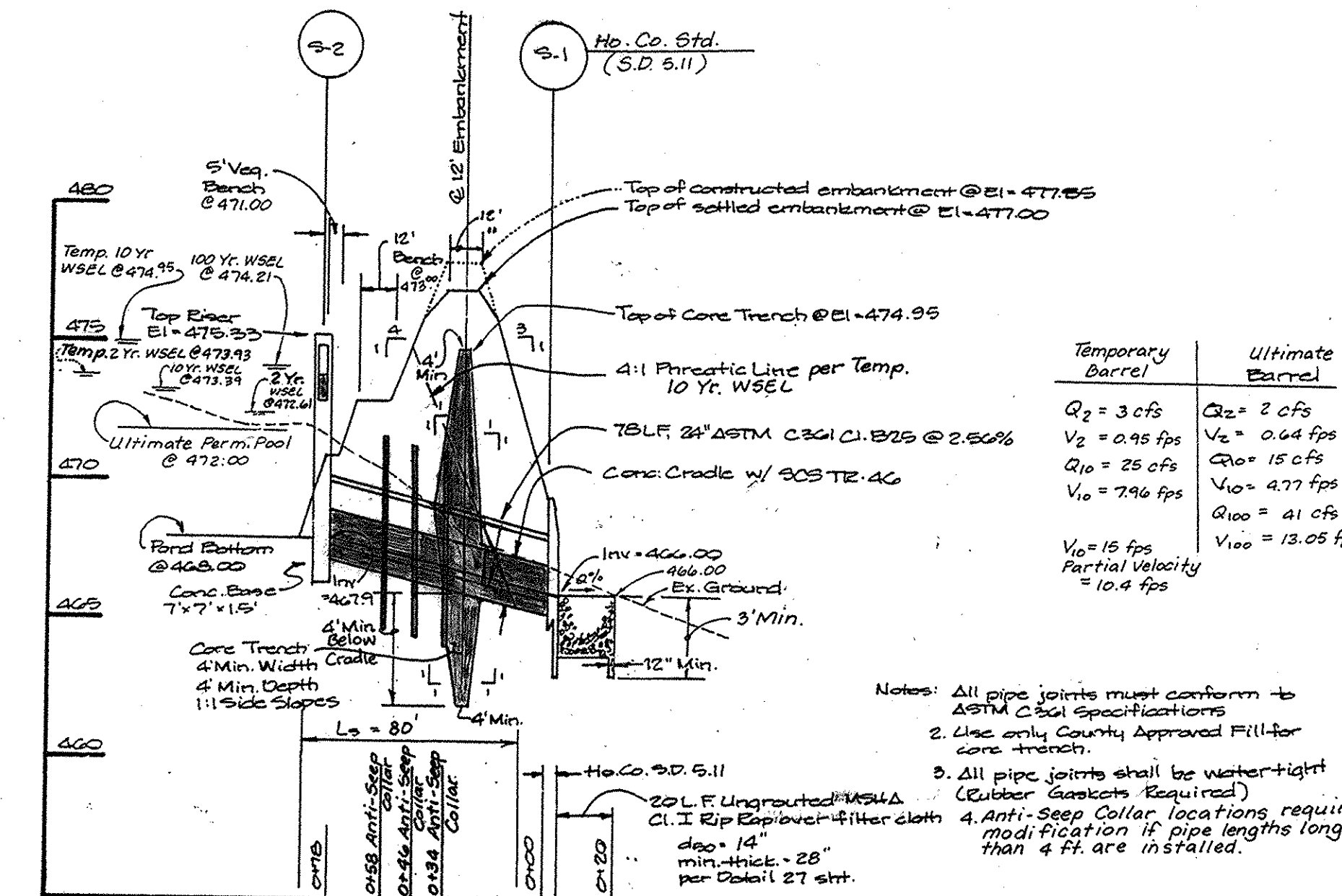


Profile Along E of Embankment

Scale: 1" = 5' Vert.
1" = 50' Hor.



Notes: 1. A Geotechnical Engineer is to be present on site to supervise the construction of the core trench, per MD 378 specifications.
2. Core trench shall be de-watered 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 or structure area in accordance with soil conservation guidelines. After stripping operations have been completed, the exposed subgrade materials should be protected with a loaded dump truck or similar equipment in the presence of a geotechnical engineer or his representative. For areas that are not accessible to a dump truck, the exposed materials should be observed and tested by a geotechnical engineer or his representative using a Dynamic Cone Penetrometer. Any excessively soft or loose materials identified by proofrolling or penetrometer testing should be excavated to suitably firm soil, and then re-established by backfilling with suitable soil.



APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signatures]
DATE: 11/13/98
DATE: 11/24/98
DATE: 11/26/98

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

[Signatures]
DATE: 11/9/98
DATE: 11/9/98
DATE: 11/9/98

ENGINEER'S CERTIFICATE

I certify that this plan for the construction, erosion and sediment control regulations, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Howard Soil Conservation District...
DATE: 11/15/98

DEVELOPER'S CERTIFICATE

I hereby certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Howard Soil Conservation District...
DATE: 11/15/98

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

DESIGNED	E.D.S.	SCALE	As Shown
DRAWN	B.E.I.	DRAWING	28 of 34
CHECKED	B.D.B.	JOB NO.	95-056
DATE	10/98	FILE NO.	F 98-138

BRANTWOOD SECTION ONE
Lots 1 - 33, Preservation Parcel "A", "B", "C", "D", Non-Buildable Bulk Parcel "E", and A Resubdivision of "Lot 1 - Feuya Property"
Tax Maps 16 & 23 Parcels 54, 62, 214, & 390
3rd Election District - Howard County, Maryland
Previous Submittals: WP 96-133, S 96-23, P 98-08, WP 98-133, WP 99-14

SOIL DESCRIPTION	DEPTH	SCALE	DOOR	BOARDS	REMARKS
Top 0" to 12" top soil with roots (S1)	0.0 - 12.0	1:1	1	12"	12" top soil with roots
Dark orange, silty clay, micaceous, silty sand (S2)	12.0 - 24.0	1:1	2	24"	
Light brown, moist, clay, silty to medium dense, micaceous silty sand (S3)	24.0 - 36.0	1:1	3	36"	
Dark brown, moist, clay, silty to medium dense, micaceous silty sand (S4)	36.0 - 48.0	1:1	4	48"	

SOIL DESCRIPTION	DEPTH	SCALE	DOOR	BOARDS	REMARKS
Top 0" to 12" top soil with roots (S1)	0.0 - 12.0	1:1	1	12"	12" top soil with roots
Dark orange, silty clay, micaceous, silty sand (S2)	12.0 - 24.0	1:1	2	24"	
Light brown, moist, clay, silty to medium dense, micaceous silty sand (S3)	24.0 - 36.0	1:1	3	36"	
Dark brown, moist, clay, silty to medium dense, micaceous silty sand (S4)	36.0 - 48.0	1:1	4	48"	

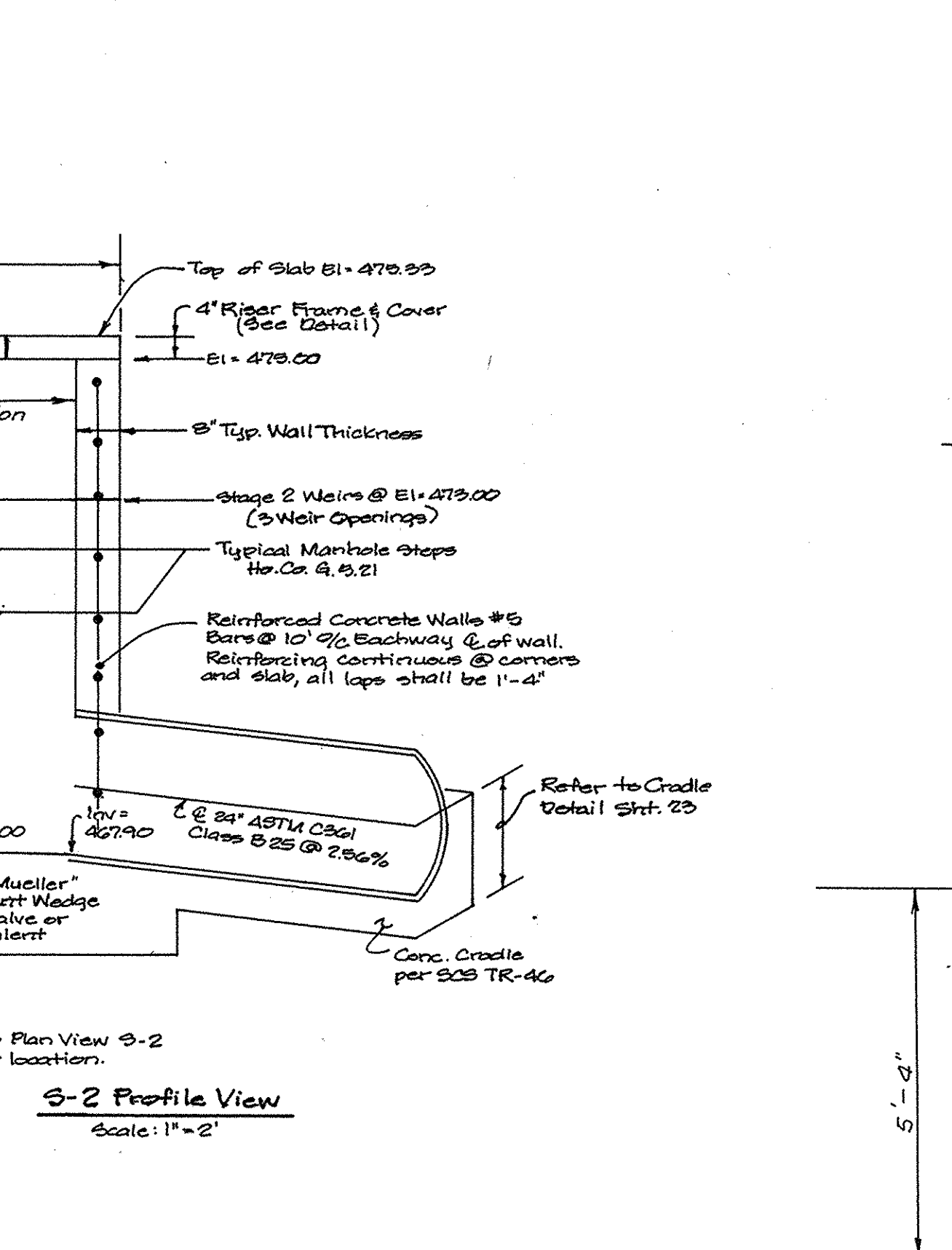
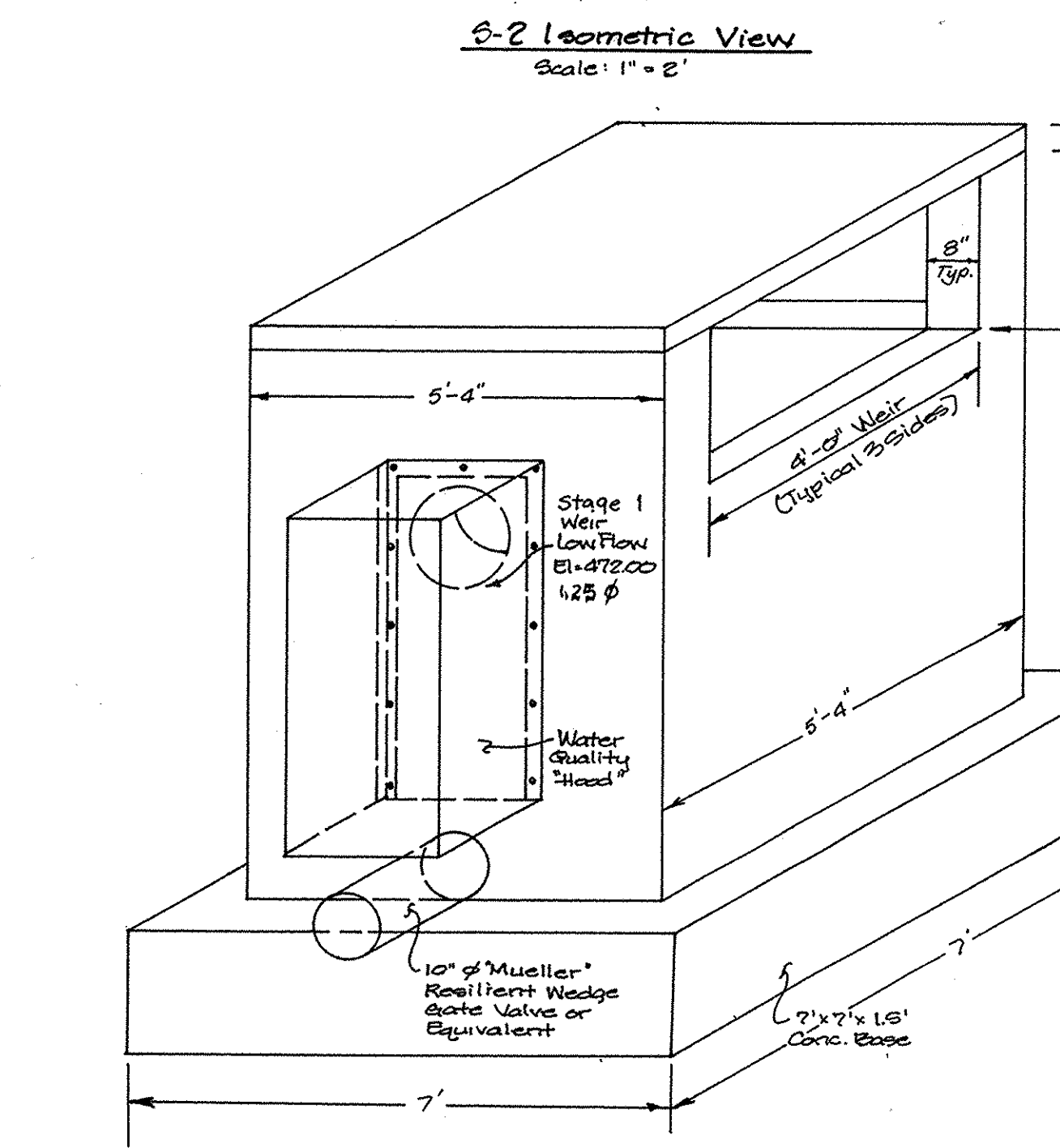
SOIL DESCRIPTION	DEPTH	SCALE	DOOR	BOARDS	REMARKS
Top 0" to 12" top soil with roots (S1)	0.0 - 12.0	1:1	1	12"	12" top soil with roots
Dark orange, silty clay, micaceous, silty sand (S2)	12.0 - 24.0	1:1	2	24"	
Light brown, moist, clay, silty to medium dense, micaceous silty sand (S3)	24.0 - 36.0	1:1	3	36"	
Dark brown, moist, clay, silty to medium dense, micaceous silty sand (S4)	36.0 - 48.0	1:1	4	48"	

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.

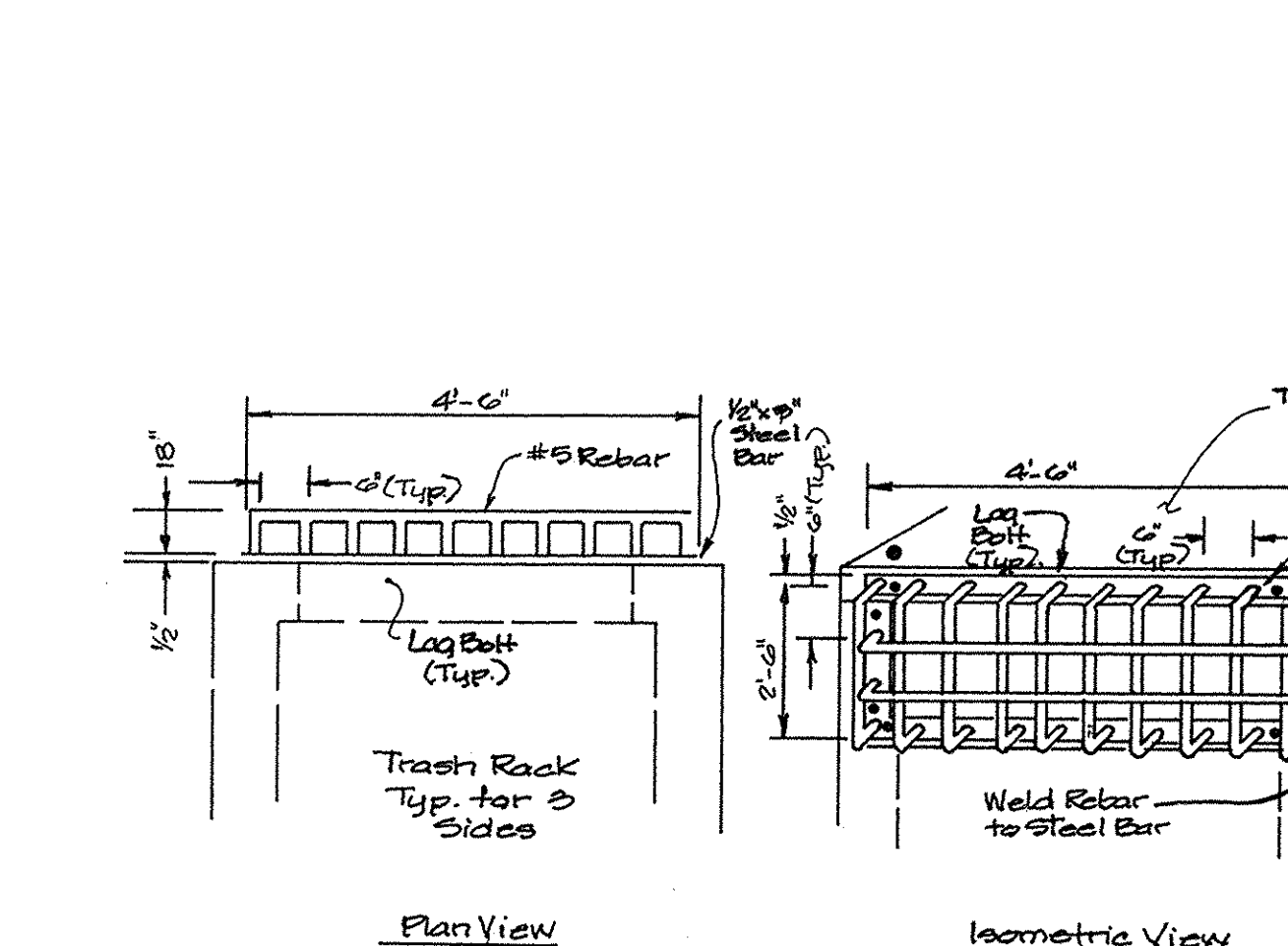
Certify means to state or declare a professional opinion based upon onsite inspections and material tests which are conducted during construction. The onsite inspections and material tests are those inspections and tests deemed sufficient and appropriate by commonly accepted engineering standards. Certify 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 contract, employment, or other means, including meeting commonly accepted industry practices.

Signature: _____ PE No. _____ Date: _____



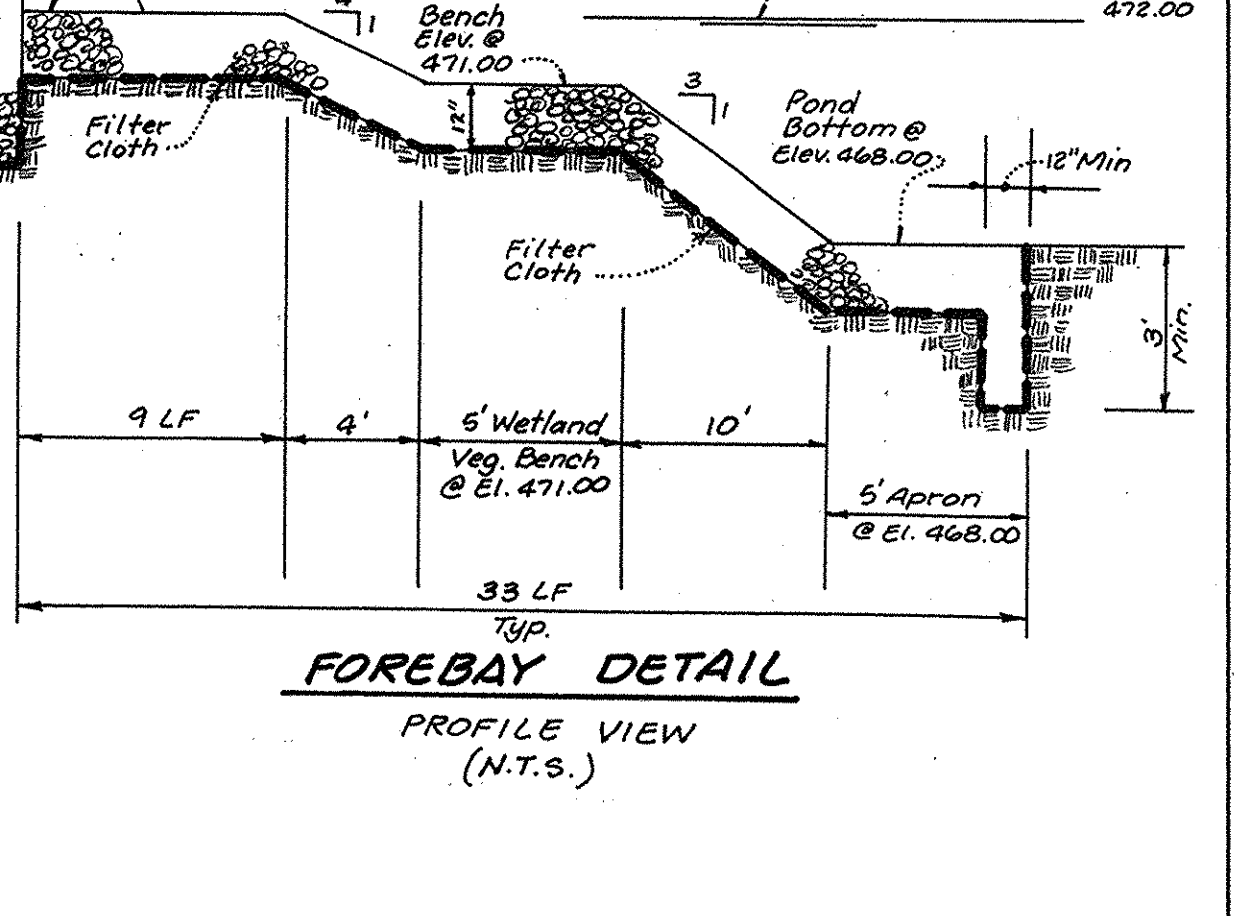
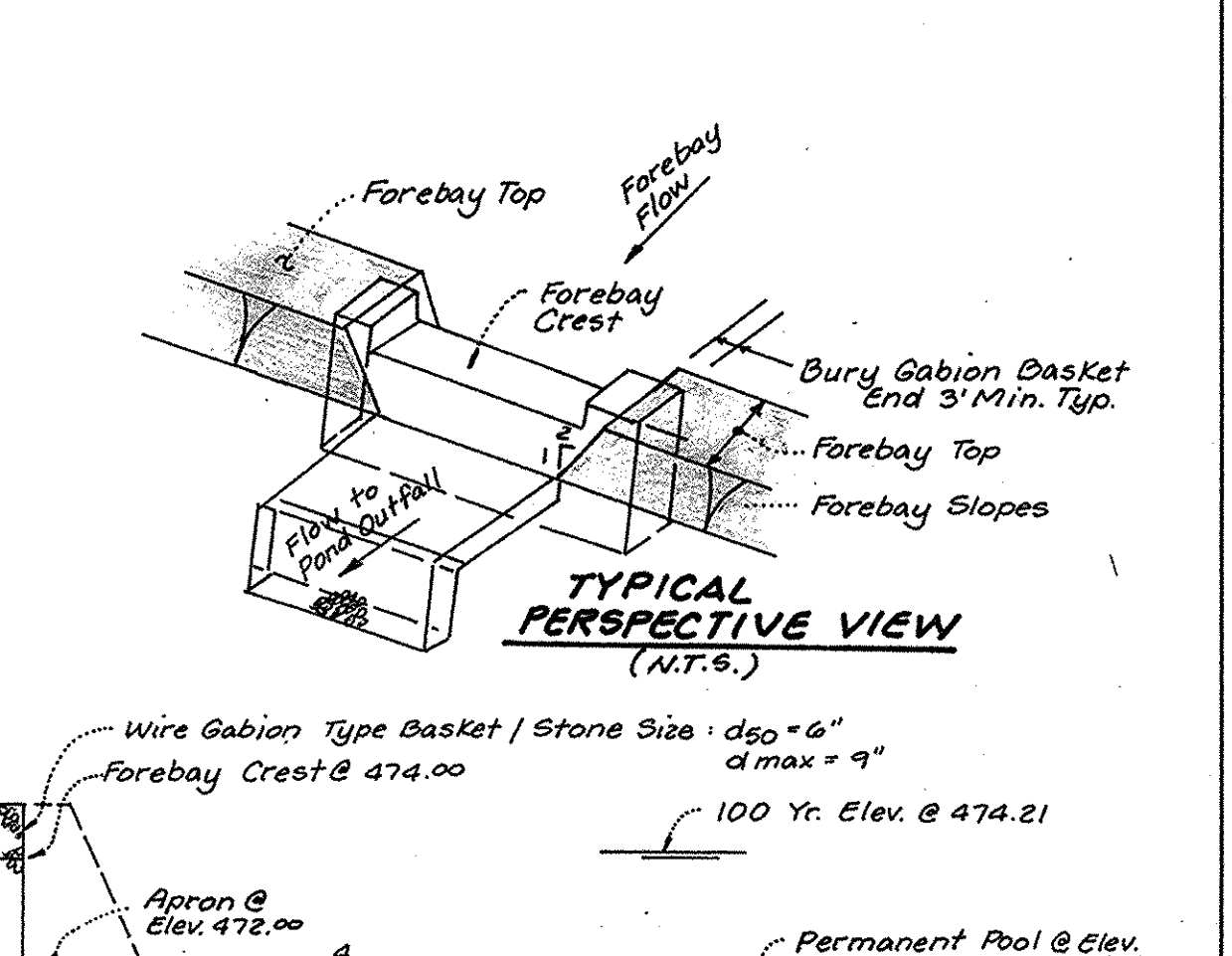
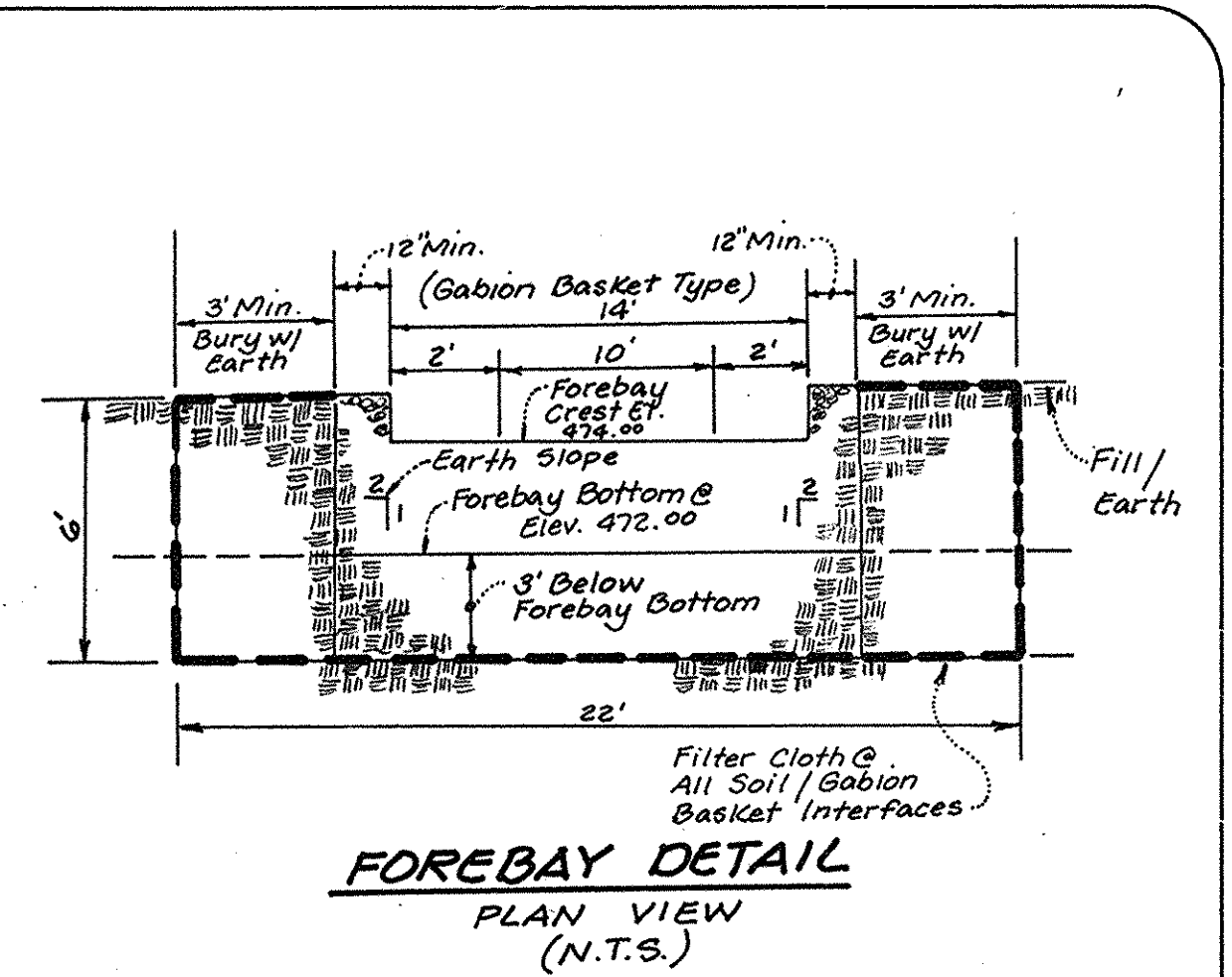
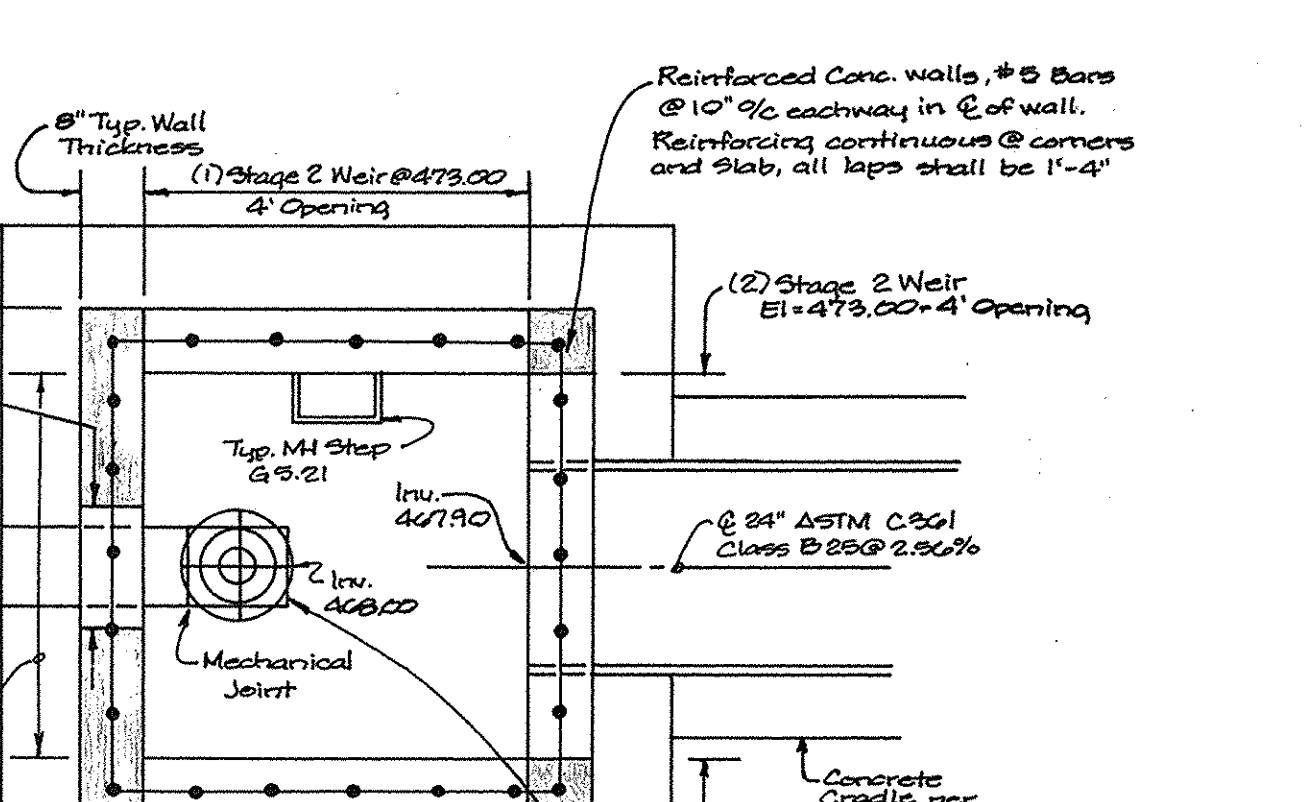
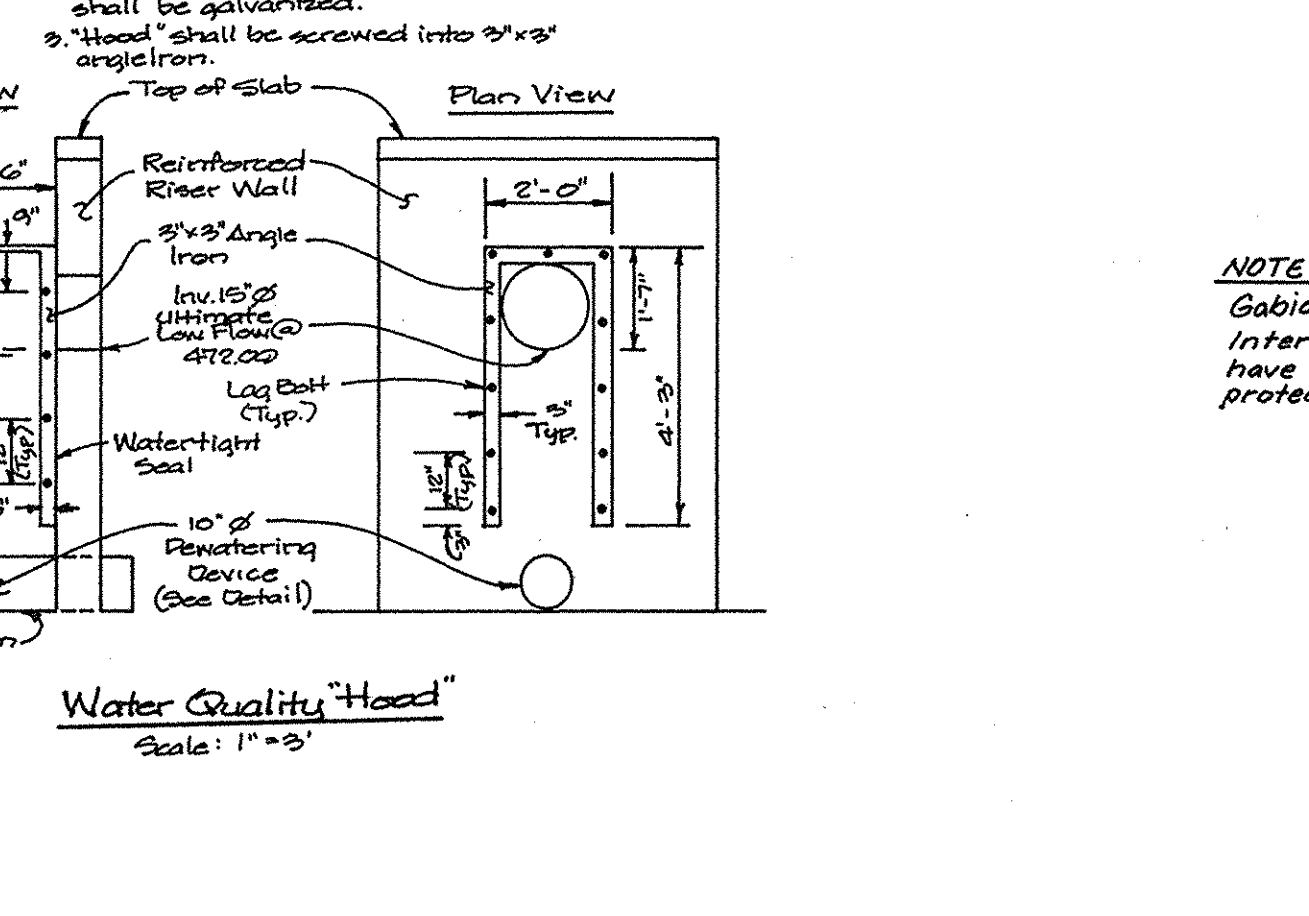
OPERATION, MAINTENANCE AND INSPECTION

Inspection of the pond(s) 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 any 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.



Notes:

- The steel used in the trash rack shall be galvanized and painted with a light gray after fabrication.
- The #5 Rebar to be welded to the 1/2" x 3" steel bar and bolted to the face of the structure.
- All bolts used to fasten trash rack to the riser structure shall be galvanized.



NOTE: All Soil / Gabion Basket Interfaces shall have filter cloth protection.

NOTE: FOR SEDIMENT BASIN RISER DETAILS, REFER TO SHEET 20

APPROVED: DEPARTMENT OF PLANNING AND ZONING

11/13/98
DATE

1/15/98
DATE

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

4/9/98
DATE

4/15/98
DATE

ENGINEER'S CERTIFICATE

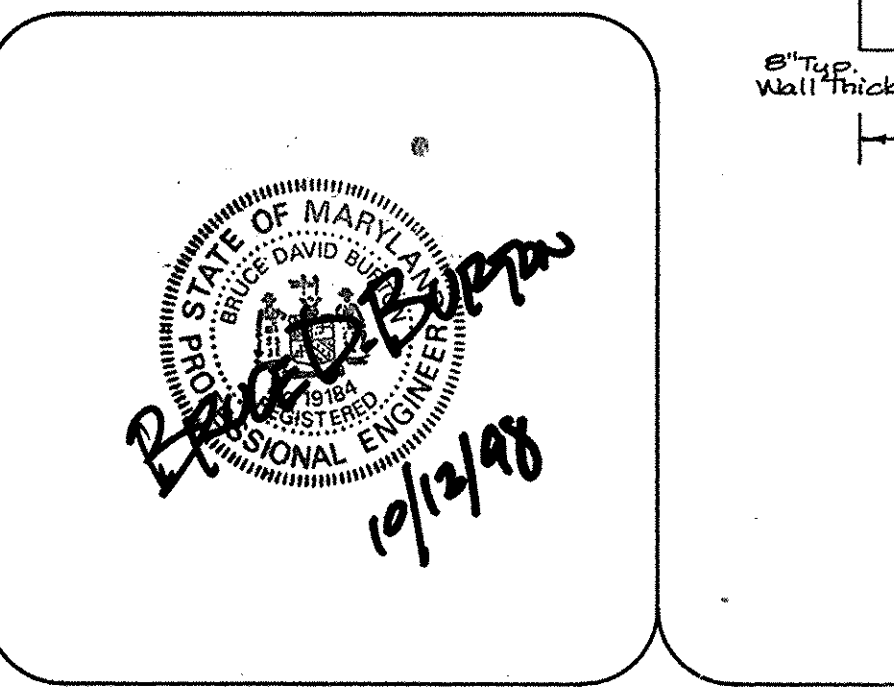
I certify that this plan, as shown, is a true and correct representation of the work done and that the same meets the requirements of the Howard Soil Conservation District. I also certify that the developer has engaged a registered professional engineer to supervise pond construction and provide the 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.

10/12/98
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 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.

4/15/98
DATE



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

BRANTWOOD SECTION ONE
Lots 1 - 33, Preservation Parcels "A", "B", "C", "D", and A Resubdivision of "Lot 1 - Peaga Property"

Tax Maps 16 & 23 Parcels 54, 62, 214, & 390
3rd Election District - Howard County, Maryland
Previous Submittals: WP 98-133, S 98-23, P 98-08, WP 98-133, WP 98-14

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

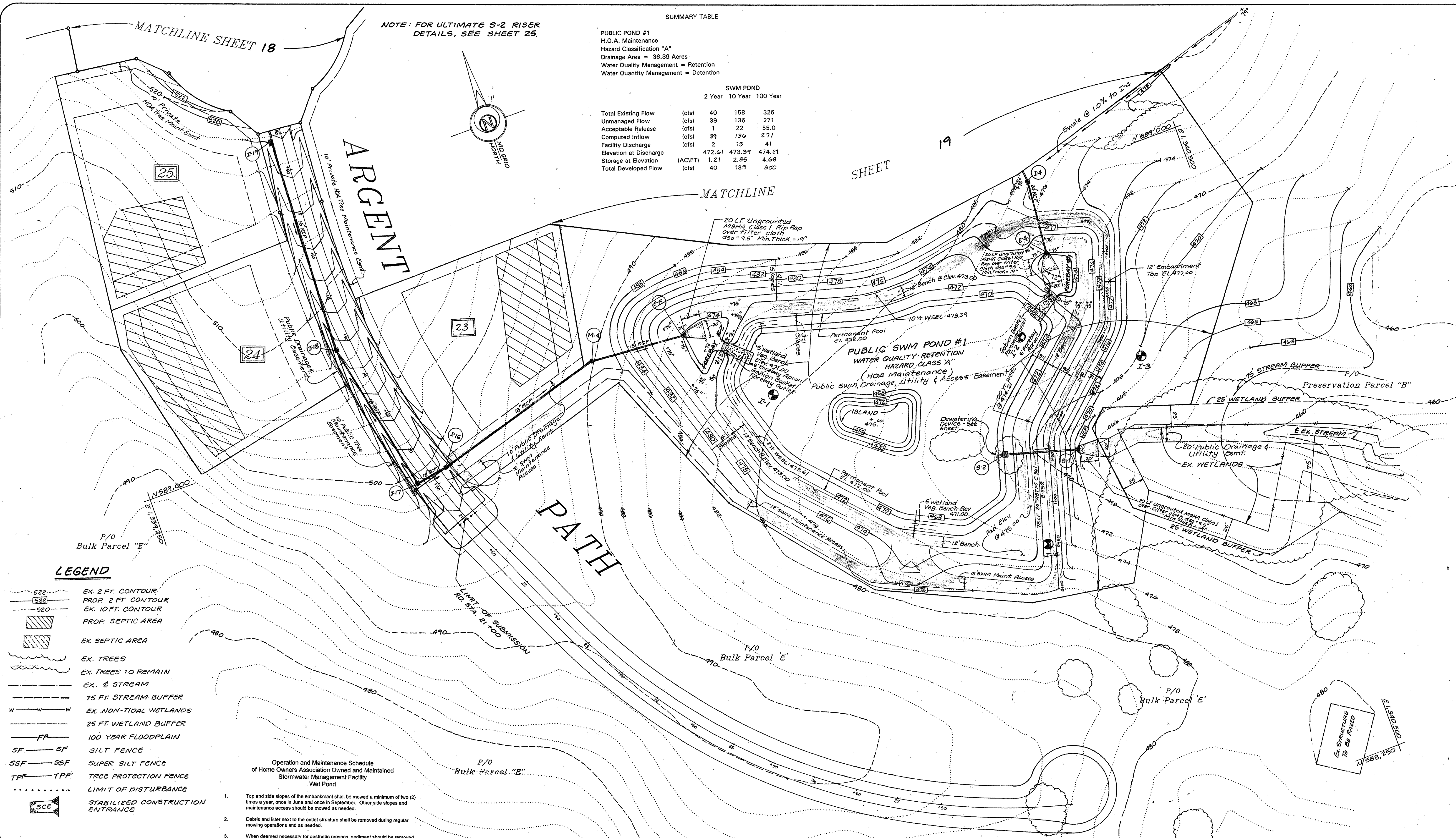
MATCHLINE SHEET 18

NOTE: FOR ULTIMATE S-2 RISER DETAILS, SEE SHEET 25.

SUMMARY TABLE

PUBLIC POND #1
 H.O.A. Maintenance
 Hazard Classification "A"
 Drainage Area = 36.39 Acres
 Water Quality Management = Retention
 Water Quantity Management = Detention

		SWM POND		
		2 Year	10 Year	100 Year
Total Existing Flow	(cfs)	40	158	326
Unmanaged Flow	(cfs)	39	136	271
Acceptable Release	(cfs)	1	22	55.0
Computed Inflow	(cfs)	39	136	271
Facility Discharge	(cfs)	2	15	41
Elevation at Discharge	(ACFT)	472.61	473.29	474.21
Storage at Elevation	(cfs)	1.21	2.85	4.68
Total Developed Flow	(cfs)	40	139	300



LEGEND

- 522 --- EX. 2 FT. CONTOUR
- 520 --- PROP. 2 FT. CONTOUR
- 520 --- EX. 10 FT. CONTOUR
- [Hatched Box] --- PROP. SEPTIC AREA
- [Hatched Box] --- EX. SEPTIC AREA
- [Wavy Line] --- EX. TREES
- [Wavy Line] --- EX. TREES TO REMAIN
- [Dashed Line] --- EX. & STREAM
- [Dashed Line] --- 75 FT. STREAM BUFFER
- [Wavy Line] --- EX. NON-TIDAL WETLANDS
- [Dashed Line] --- 25 FT. WETLAND BUFFER
- [Dashed Line] --- 100 YEAR FLOODPLAIN
- [Dashed Line] --- SILT FENCE
- [Dashed Line] --- SUPER SILT FENCE
- [Dashed Line] --- TREE PROTECTION FENCE
- [Dotted Line] --- LIMIT OF DISTURBANCE
- [Arrow] --- STABILIZED CONSTRUCTION ENTRANCE

- Operation and Maintenance Schedule of Home Owners Association Owned and Maintained Stormwater Management Facility Wet Pond
- 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.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 11/13/98
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE

[Signature] 11/17/98
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE

[Signature] 11/17/98
 Chief, Bureau of Highways
 DATE

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

[Signature] 11/9/98
 NATURAL RESOURCE CONSERVATION SERVICE
 DATE

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

[Signature] 11/9/98
 HOWARD SOIL CONSERVATION DISTRICT
 DATE

ENGINEER'S CERTIFICATE

I certify that this site plan, including pond construction, erosion and sediment control, and drainage, is a practical and workable 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 shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with a "sanitary" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

[Signature] 11/13/98
 SIGNATURE OF ENGINEER
 DATE

DEVELOPER'S CERTIFICATE

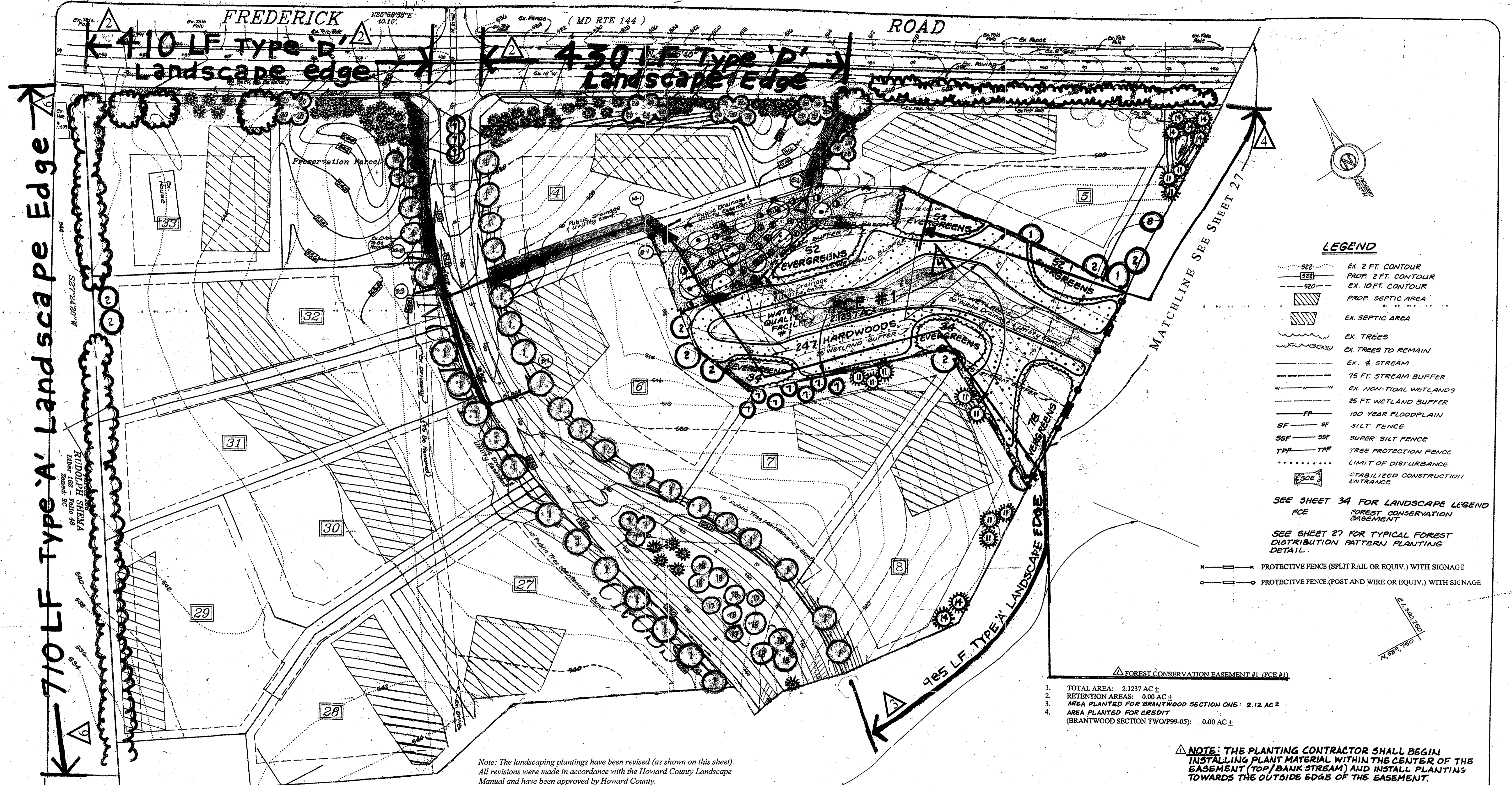
I certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with a "sanitary" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

[Signature] 11/13/98
 SIGNATURE DEVELOPER
 DATE

[Professional Seal]
 PROFESSIONAL ENGINEER
 11/14/98

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

DESIGNED E.D.S.	ULTIMATE POND CONFIGURATION	SCALE 1" = 50'
DRAWN K.B.W.	BRANTWOOD SECTION ONE	DRAWING 26 of 34
CHECKED B.D.B.	Lots 1 - 33, Preservation Parcels "A", "B", "C", "D", Non-Buildable Bulk Parcel "E", and A Resubdivision of "Lot 1 - Faaga Property" Tax Maps 16 & 23 Parcels 54, 62, 214, & 390 3rd Election District - Howard County, Maryland Previous Submittals: WP 88-133, S 98-23, P 98-08, WP 98-133, WP 99-14	JOB NO. 95-056
DATE 10/98	Developer BRANTWOOD, LLC 8835 - P Columbia 100 Parkway Columbia, Maryland 21045 (410) 790-0810	FILE NO. F 98-138



- LEGEND**
- 522 --- EX. 2 FT. CONTOUR
 - 522 --- PROP. 2 FT. CONTOUR
 - 520 --- EX. 10 FT. CONTOUR
 - [Hatched Box] PROP. SEPTIC AREA
 - [Hatched Box] EX. SEPTIC AREA
 - [Wavy Line] EX. TREES
 - [Wavy Line] EX. TREES TO REMAIN
 - [Dashed Line] EX. & STREAM
 - [Dashed Line] 75 FT. STREAM BUFFER
 - [Wavy Line] EX. NON-TIDAL WETLANDS
 - [Dashed Line] 25 FT. WETLAND BUFFER
 - [Dashed Line] 100 YEAR FLOODPLAIN
 - SF --- SF SILT FENCE
 - SSF --- SSF SUPER SILT FENCE
 - TPF --- TPF TREE PROTECTION FENCE
 - [Dotted Line] LIMIT OF DISTURBANCE
 - [Box] STABILIZED CONSTRUCTION ENTRANCE
- SEE SHEET 34 FOR LANDSCAPE LEGEND
FCE FOREST CONSERVATION EASEMENT
- SEE SHEET 27 FOR TYPICAL FOREST DISTRIBUTION PATTERN PLANTING DETAIL.
- [Line with X] PROTECTIVE FENCE (SPLIT RAIL OR EQUIV.) WITH SIGNAGE
 - [Line with O] PROTECTIVE FENCE (POST AND WIRE OR EQUIV.) WITH SIGNAGE

1. TOTAL AREA: 2.1237 AC ±
2. RETENTION AREAS: 0.00 AC ±
3. AREA PLANTED FOR BRANTWOOD SECTION ONE: 2.12 AC ±
4. AREA PLANTED FOR CREDIT (BRANTWOOD SECTION TWO/P99-05): 0.00 AC ±

NOTE: THE PLANTING CONTRACTOR SHALL BEGIN INSTALLING PLANT MATERIAL WITHIN THE CENTER OF THE EASEMENT (TOP/BANK STREAM) AND INSTALL PLANTING TOWARDS THE OUTSIDE EDGE OF THE EASEMENT.

Note: The landscaping plantings have been revised (as shown on this sheet). All revisions were made in accordance with the Howard County Landscape Manual and have been approved by Howard County.

I hereby certify that the landscaping plans were prepared or approved by me, and that I am a duly licensed professional landscape architect under the laws of the state of Maryland, License Number 906, expiration date 3.8.10

DENNIS J. LABARE, M.S., & ASSOCIATES
Environmental Consulting Services
3913 Flagstone Circle
Randallstown, MD 21133

"AS-BUILT"

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

DESIGNED	E.D.S.	REVISED FINAL PLAN - LANDSCAPE, FOREST CONSERVATION AND STREET TREE PLAN	SCALE	N/A
DRAWN	K.B.W.	BRANTWOOD SECTION ONE Lots 1 - 33, Preservation Parcels "A", "B", "C", "D", Non-Buildable Bulk Parcel "E", and A Resubdivision of "Feaga's Property"	DRAWING	28 of 34
CHECKED	B.D.B.		JOB NO.	95-056
DATE	10/98	Developer	FILE NO.	P 96-138

BRANTWOOD LLC
8835 - P Columbia 170 Parkway
Columbia, Maryland 21045
(410) 730-0810

NO.	DATE	DESCRIPTION
3	5/15/09	Revised Landscaping
4	9/99	Add New Entrances & Design Information
5	12/1/98	Rev Forest Cons. Per DPZ Letter Dated 11/17/98

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 12/16/09
CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: DEPARTMENT OF PUBLIC WORKS

[Signature] 12-14-09
CHIEF, BUREAU OF HIGHWAYS

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

NATURAL RESOURCE CONSERVATION SERVICE

DATE

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

HOWARD SOIL CONSERVATION DISTRICT

DATE

ENGINEER'S CERTIFICATE

I certify that this plan for construction, erosion, and sediment control represents a practical and feasible plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of Howard County Soil Conservation. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation with an "as-built" plan of the pond within 30 days of completion.

Signature of Engineer _____ Date _____

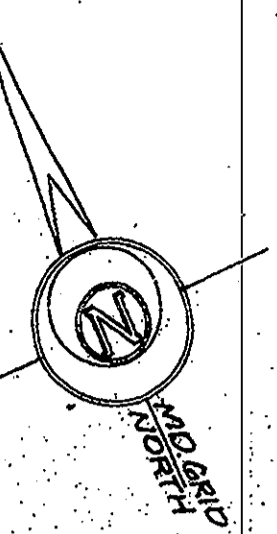
DEVELOPER'S CERTIFICATE

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 sediment and erosion control from the Department of the Environment Approved Training Program for the control 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 of Developer _____ Date 11/19/09

SHEET 29

REVISIONS		
BY	DATE	DESCRIPTION
LDE	9/99	RCP Label to HDPE



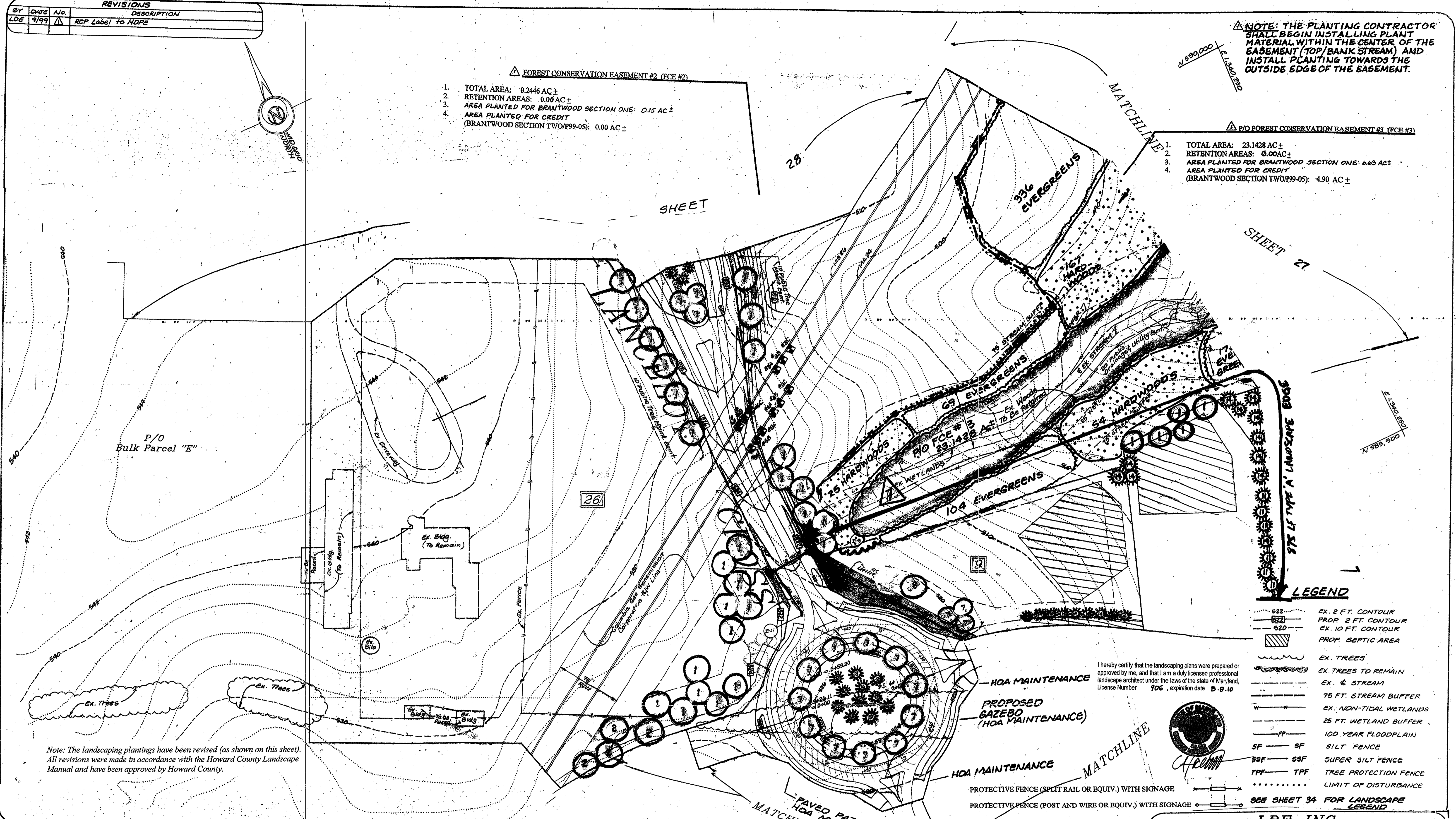
FOREST CONSERVATION EASEMENT #2 (FCE #2)

- TOTAL AREA: 0.2446 AC±
- RETENTION AREAS: 0.00 AC±
- AREA PLANTED FOR BRANTWOOD SECTION ONE: 0.15 AC±
- AREA PLANTED FOR CREDIT (BRANTWOOD SECTION TWO/P99-05): 0.00 AC±

NOTE: THE PLANTING CONTRACTOR SHALL BEGIN INSTALLING PLANT MATERIAL WITHIN THE CENTER OF THE EASEMENT (TOP/BANK STREAM) AND INSTALL PLANTING TOWARDS THE OUTSIDE EDGE OF THE EASEMENT.

P/O FOREST CONSERVATION EASEMENT #3 (FCE #3)

- TOTAL AREA: 23.1428 AC±
- RETENTION AREAS: 0.00 AC±
- AREA PLANTED FOR BRANTWOOD SECTION ONE: 6.63 AC±
- AREA PLANTED FOR CREDIT (BRANTWOOD SECTION TWO/P99-05): 4.90 AC±



LEGEND

- 622 --- EX. 2 FT. CONTOUR
- 627 --- PROP. 2 FT. CONTOUR
- 520 --- EX. 10 FT. CONTOUR
- ▨ PROP. SEPTIC AREA
- EX. TREES
- EX. TREES TO REMAIN
- EX. & STREAM
- 75 FT. STREAM BUFFER
- EX. NON-TIDAL WETLANDS
- 25 FT. WETLAND BUFFER
- 100 YEAR FLOODPLAIN
- SF --- SF SILT FENCE
- SSF --- SSF SUPER SILT FENCE
- TPF --- TPF TREE PROTECTION FENCE
- LIMIT OF DISTURBANCE
- SEE SHEET 34 FOR LANDSCAPE LEGEND

I hereby certify that the landscaping plans were prepared or approved by me, and that I am a duly licensed professional landscape architect under the laws of the state of Maryland, License Number 906, expiration date 3-9-10



Note: The landscaping plantings have been revised (as shown on this sheet). All revisions were made in accordance with the Howard County Landscape Manual and have been approved by Howard County.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 12/10/09
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
[Signature] 12/16/09
 CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: DEPARTMENT OF PUBLIC WORKS

[Signature] 12-14-09
 CHIEF, BUREAU OF HIGHWAYS

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

NATURAL RESOURCE CONSERVATION SERVICE DATE

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

HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE

I certify that this plan for construction, erosion, and sediment control represents a practical and viable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard County Soil Conservation. I have notified the engineer that shall engage a registered professional engineer to supervise construction and provide the Howard Soil Conservation with an "as-built" pond within 30 days of completion.

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 construction and provide the Howard Soil Conservation District with an "as-built" plan within 30 days of completion. I also authorize periodic on site inspections by Howard Soil Conservation District.

Signature of Developer Date

DENNIS J. LABARE, M.S., & ASSOCIATES
 Environmental Consulting Services
 5981 Hagstone Circle
 Randallstown, MD 21133

"AS-BUILT"

NO.	DATE	DESCRIPTION
2	5/15/08	Revised Landscaping
1	9/99	RCP Label to HDPE
1	12/10/09	Rev Forest Conservation DPZ Letter Dated 11/19/08
1	12/10/09	REVISIONS

NOTE: SEE SHEET 27 FOR TYPICAL FOREST DISTRIBUTION PATTERN PLANTING DETAIL.

LDE, INC.
 9250 Rumsey Road, Suite 108, Columbia, MD. 21045
 (410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED: REVISED FINAL PLAN - LANDSCAPE, FOREST CONSERVATION AND STREET TREE PLAN
 E.D.S.
 DRAWN: K.B.W.
 CHECKED: B.D.B.
 DATE: 10/98

BRANTWOOD SECTION ONE
 Lots 1 - 33, Preservation Parcels "A", "B", "C", "D", "E", "F", "G", "H", "I", "J", "K", "L", "M", "N", "O", "P", "Q", "R", "S", "T", "U", "V", "W", "X", "Y", "Z", "AA", "AB", "AC", "AD", "AE", "AF", "AG", "AH", "AI", "AJ", "AK", "AL", "AM", "AN", "AO", "AP", "AQ", "AR", "AS", "AT", "AU", "AV", "AW", "AX", "AY", "AZ", "BA", "BB", "BC", "BD", "BE", "BF", "BG", "BH", "BI", "BJ", "BK", "BL", "BM", "BN", "BO", "BP", "BQ", "BR", "BS", "BT", "BU", "BV", "BW", "BX", "BY", "BZ", "CA", "CB", "CC", "CD", "CE", "CF", "CG", "CH", "CI", "CJ", "CK", "CL", "CM", "CN", "CO", "CP", "CQ", "CR", "CS", "CT", "CU", "CV", "CW", "CX", "CY", "CZ", "DA", "DB", "DC", "DD", "DE", "DF", "DG", "DH", "DI", "DJ", "DK", "DL", "DM", "DN", "DO", "DP", "DQ", "DR", "DS", "DT", "DU", "DV", "DW", "DX", "DY", "DZ", "EA", "EB", "EC", "ED", "EE", "EF", "EG", "EH", "EI", "EJ", "EK", "EL", "EM", "EN", "EO", "EP", "EQ", "ER", "ES", "ET", "EU", "EV", "EW", "EX", "EY", "EZ", "FA", "FB", "FC", "FD", "FE", "FF", "FG", "FH", "FI", "FJ", "FK", "FL", "FM", "FN", "FO", "FP", "FQ", "FR", "FS", "FT", "FU", "FV", "FW", "FX", "FY", "FZ", "GA", "GB", "GC", "GD", "GE", "GF", "GG", "GH", "GI", "GJ", "GK", "GL", "GM", "GN", "GO", "GP", "GQ", "GR", "GS", "GT", "GU", "GV", "GW", "GX", "GY", "GZ", "HA", "HB", "HC", "HD", "HE", "HF", "HG", "HH", "HI", "HJ", "HK", "HL", "HM", "HN", "HO", "HP", "HQ", "HR", "HS", "HT", "HU", "HV", "HW", "HX", "HY", "HZ", "IA", "IB", "IC", "ID", "IE", "IF", "IG", "IH", "II", "IJ", "IK", "IL", "IM", "IN", "IO", "IP", "IQ", "IR", "IS", "IT", "IU", "IV", "IW", "IX", "IY", "IZ", "JA", "JB", "JC", "JD", "JE", "JF", "JG", "JH", "JI", "JJ", "JK", "JL", "JM", "JN", "JO", "JP", "JQ", "JR", "JS", "JT", "JU", "JV", "JW", "JX", "JY", "JZ", "KA", "KB", "KC", "KD", "KE", "KF", "KG", "KH", "KI", "KJ", "KK", "KL", "KM", "KN", "KO", "KP", "KQ", "KR", "KS", "KT", "KU", "KV", "KW", "KX", "KY", "KZ", "LA", "LB", "LC", "LD", "LE", "LF", "LG", "LH", "LI", "LJ", "LK", "LL", "LM", "LN", "LO", "LP", "LQ", "LR", "LS", "LT", "LU", "LV", "LW", "LX", "LY", "LZ", "MA", "MB", "MC", "MD", "ME", "MF", "MG", "MH", "MI", "MJ", "MK", "ML", "MM", "MN", "MO", "MP", "MQ", "MR", "MS", "MT", "MU", "MV", "MW", "MX", "MY", "MZ", "NA", "NB", "NC", "ND", "NE", "NF", "NG", "NH", "NI", "NJ", "NK", "NL", "NM", "NN", "NO", "NP", "NQ", "NR", "NS", "NT", "NU", "NV", "NW", "NX", "NY", "NZ", "OA", "OB", "OC", "OD", "OE", "OF", "OG", "OH", "OI", "OJ", "OK", "OL", "OM", "ON", "OO", "OP", "OQ", "OR", "OS", "OT", "OU", "OV", "OW", "OX", "OY", "OZ", "PA", "PB", "PC", "PD", "PE", "PF", "PG", "PH", "PI", "PJ", "PK", "PL", "PM", "PN", "PO", "PP", "PQ", "PR", "PS", "PT", "PU", "PV", "PW", "PX", "PY", "PZ", "QA", "QB", "QC", "QD", "QE", "QF", "QG", "QH", "QI", "QJ", "QK", "QL", "QM", "QN", "QO", "QP", "QQ", "QR", "QS", "QT", "QU", "QV", "QW", "QX", "QY", "QZ", "RA", "RB", "RC", "RD", "RE", "RF", "RG", "RH", "RI", "RJ", "RK", "RL", "RM", "RN", "RO", "RP", "RQ", "RR", "RS", "RT", "RU", "RV", "RW", "RX", "RY", "RZ", "SA", "SB", "SC", "SD", "SE", "SF", "SG", "SH", "SI", "SJ", "SK", "SL", "SM", "SN", "SO", "SP", "SQ", "SR", "SS", "ST", "SU", "SV", "SW", "SX", "SY", "SZ", "TA", "TB", "TC", "TD", "TE", "TF", "TG", "TH", "TI", "TJ", "TK", "TL", "TM", "TN", "TO", "TP", "TQ", "TR", "TS", "TT", "TU", "TV", "TW", "TX", "TY", "TZ", "UA", "UB", "UC", "UD", "UE", "UF", "UG", "UH", "UI", "UJ", "UK", "UL", "UM", "UN", "UO", "UP", "UQ", "UR", "US", "UT", "UU", "UV", "UW", "UX", "UY", "UZ", "VA", "VB", "VC", "VD", "VE", "VF", "VG", "VH", "VI", "VJ", "VK", "VL", "VM", "VN", "VO", "VP", "VQ", "VR", "VS", "VT", "VU", "VV", "VW", "VX", "VY", "VZ", "WA", "WB", "WC", "WD", "WE", "WF", "WG", "WH", "WI", "WJ", "WK", "WL", "WM", "WN", "WO", "WP", "WQ", "WR", "WS", "WT", "WU", "WV", "WW", "WX", "WY", "WZ", "XA", "XB", "XC", "XD", "XE", "XF", "XG", "XH", "XI", "XJ", "XK", "XL", "XM", "XN", "XO", "XP", "XQ", "XR", "XS", "XT", "XU", "XV", "XW", "XX", "XY", "XZ", "YA", "YB", "YC", "YD", "YE", "YF", "YG", "YH", "YI", "YJ", "YK", "YL", "YM", "YN", "YO", "YP", "YQ", "YR", "YS", "YT", "YU", "YV", "YW", "YX", "YZ", "ZA", "ZB", "ZC", "ZD", "ZE", "ZF", "ZG", "ZH", "ZI", "ZJ", "ZK", "ZL", "ZM", "ZN", "ZO", "ZP", "ZQ", "ZR", "ZS", "ZT", "ZU", "ZV", "ZW", "ZX", "ZY", "ZZ"

Developer: BRANTWOOD, LLC
 8835 - P Columbia 100 Parkway
 Columbia, Maryland 21045
 (410) 730-0810

FILE NO: F 98-138

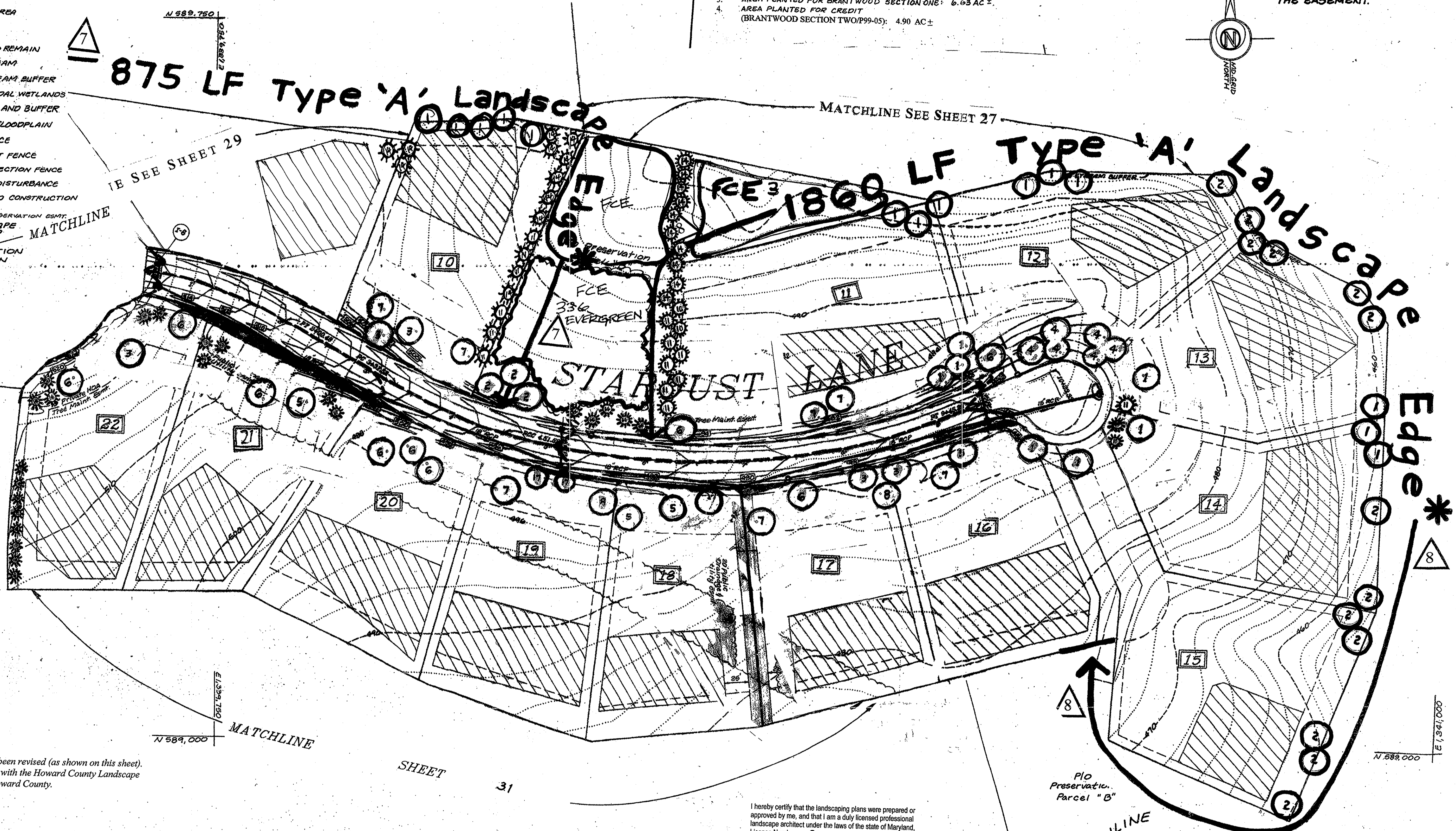
LEGEND

- 522 --- EX. 2 FT. CONTOUR
- 520 --- PROP. 2 FT. CONTOUR
- 520 --- EX. 10 FT. CONTOUR
- [Hatched Box] PROP. SEPTIC AREA
- [Hatched Box] EX. SEPTIC AREA
- [Wavy Line] EX. TREES
- [Dotted Line] EX. TREES TO REMAIN
- [Dashed Line] EX. STREAM
- [Dashed Line] 75 FT. STREAM BUFFER
- [Dashed Line] EX. NON-TIDAL WETLANDS
- [Dashed Line] 25 FT. WETLAND BUFFER
- [Dashed Line] 100 YEAR FLOODPLAIN
- [Dashed Line] SF --- SF SILT FENCE
- [Dashed Line] SSF --- SSF SUPER SILT FENCE
- [Dashed Line] TPF --- TPF TREE PROTECTION FENCE
- [Dotted Line] LIMIT OF DISTURBANCE
- [Triangle] SCE STABILIZED CONSTRUCTION ENTRANCE
- [Triangle] FCE FOREST CONSERVATION ESMT.

- [X-Line] PROTECTIVE FENCE (SPLIT RAIL OR EQUIV.) WITH SIGNAGE
- [O-Line] PROTECTIVE FENCE (POST AND WIRE OR EQUIV.) WITH SIGNAGE

- P/O FOREST CONSERVATION EASEMENT #3 (FCE #3)
1. TOTAL AREA: 23.1428 AC ±
 2. RETENTION AREAS: 0.00 AC ±
 3. AREA PLANTED FOR BRANTWOOD SECTION ONE: 6.63 AC ±
 4. AREA PLANTED FOR CREDIT (BRANTWOOD SECTION TWO/P99-05): 4.90 AC ±

NOTE: THE PLANTING CONTRACTOR SHALL BEGIN INSTALLING PLANT MATERIAL WITHIN THE CENTER OF THE EASEMENT (TOP / BANK STREAM) AND INSTALL PLANTING TOWARDS THE OUTSIDE EDGE OF THE EASEMENT.



Note: The landscaping plantings have been revised (as shown on this sheet). All revisions were made in accordance with the Howard County Landscape Manual and have been approved by Howard County.

I hereby certify that the landscaping plans were prepared or approved by me, and that I am a duly licensed professional landscape architect under the laws of the state of Maryland, License Number 906, expiration date 3.8.10

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 12/16/09
CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 12/16/09
CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: DEPARTMENT OF PUBLIC WORKS

[Signature] 12-14-09
CHIEF, BUREAU OF HIGHWAYS

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

NATURAL RESOURCE CONSERVATION SERVICE

DATE: 12/16/09

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

HOWARD SOIL CONSERVATION DISTRICT

DATE: 12/16/09

ENGINEER'S CERTIFICATE

I certify that this plan for construction, erosion, and sediment control represents practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of Howard County Soil Conservation. I have notified the owner that they must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation with an "as-built" plan of the pond within 30 days of completion.

Signature of Engineer: *[Signature]* Date: 11/19/09

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 of Developer: *[Signature]* Date: 11/19/09

CAFED

DENNIS J. LAHARE, M.S., & ASSOCIATES
Environmental Consulting Services

8903 Flagstone Circle
Randallstown, MD 21133

12/14/09
12/14/09
12/14/09
12/14/09

NO.	DATE	DESCRIPTION
3	5/15/09	Revised Landscaping
4	7/19	RCP Label to HDPE
5	12/14/09	Box Plotter Cons. Per DPZ Letter Dated 11/9/09
6	12/14/09	DESCRIPTION

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

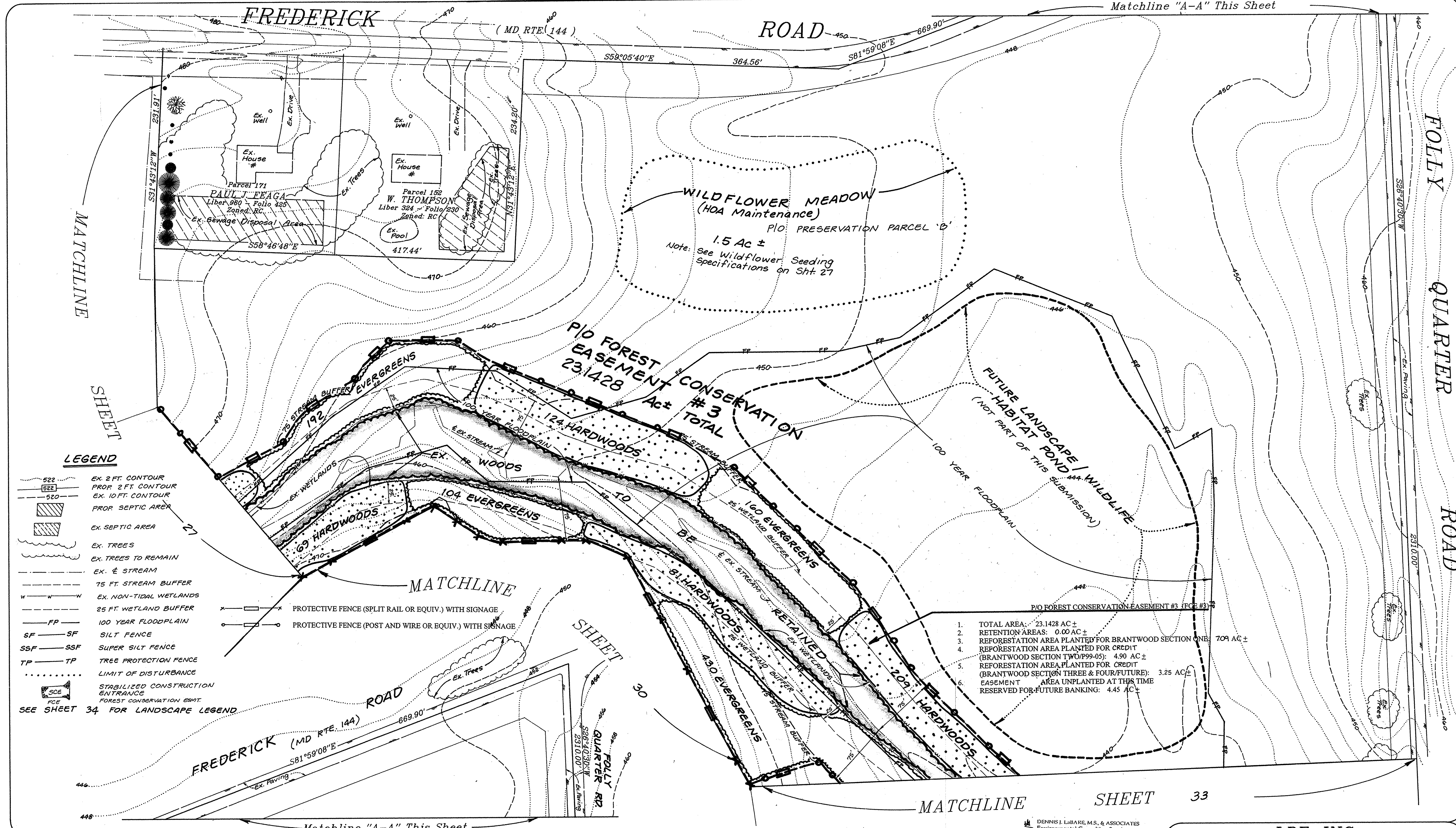
DESIGNED: E.D.S. SCALE: N/A

DRAWN: K.B.W. DRAWING: 30 of 34

CHECKED: B.D.B. JOB NO.: 95-056

DATE: 10/08 FILE NO.: F 98-138

Developer: **BRANTWOOD, LLC**
8835 - F Columbia 100 Parkway
Columbia, Maryland 21045
(410) 730-0810



LEGEND

- 522 --- EX. 2 FT. CONTOUR
 - 522 --- PROP. 2 FT. CONTOUR
 - 520 --- EX. 10 FT. CONTOUR
 - [Hatched Box] PROP. SEPTIC AREA
 - [Hatched Box] EX. SEPTIC AREA
 - [Dotted Line] EX. TREES
 - [Dotted Line] EX. TREES TO REMAIN
 - [Dashed Line] EX. & STREAM
 - [Dashed Line] 75 FT. STREAM BUFFER
 - [Wavy Line] EX. NON-TIDAL WETLANDS
 - [Dashed Line] 25 FT. WETLAND BUFFER
 - [Dashed Line] 100 YEAR FLOODPLAIN
 - [SF] SF SILT FENCE
 - [SSF] SSF SUPER SILT FENCE
 - [TP] TP TREE PROTECTION FENCE
 - [Dotted Line] LIMIT OF DISTURBANCE
 - [SCE] STABILIZED CONSTRUCTION ENTRANCE
 - [FOE] FOREST CONSERVATION EMT
- SEE SHEET 34 FOR LANDSCAPE LEGEND

1. TOTAL AREA: 23,142.8 AC ±
2. RETENTION AREAS: 0.00 AC ±
3. REFORESTATION AREA PLANTED FOR BRANTWOOD SECTION ONE: 70.9 AC ±
4. REFORESTATION AREA PLANTED FOR CREDIT (BRANTWOOD SECTION TWO/P99-05): 4.90 AC ±
5. REFORESTATION AREA PLANTED FOR CREDIT (BRANTWOOD SECTION THREE & FOUR/FUTURE): 3.25 AC ±
6. EASEMENT AREA UNPLANTED AT THIS TIME RESERVED FOR FUTURE BANKING: 4.45 AC ±

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Adam Dammann 11/13/98
 Chief, Development Engineering Division
 DATE

Cinda Hammett 11/17/98
 Chief, Division of Land Development
 DATE

Howard Shill 11/17/98
 Chief, Bureau of Highways
 DATE

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

NATURAL RESOURCE CONSERVATION SERVICE _____ DATE _____

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

HOWARD SOIL CONSERVATION DISTRICT _____ DATE _____

ENGINEER'S CERTIFICATE

I certify that this plan for construction, erosion and sediment control represents a complete and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the provisions of the Howard Soil Conservation District. I, the Engineer, certify that the developer has 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.

David B. ... 11/3/98
 SIGNATURE OF ENGINEER DATE

DEVELOPER'S CERTIFICATE

I certify that all development and/or construction will be done according to these plans, and that my 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 Howard Soil Conservation District.

Michael ... 11/15/98
 SIGNATURE OF DEVELOPER DATE



NOTE: SEE SHEET 27 FOR TYPICAL FOREST DISTRIBUTION PATTERN PLANTING DETAIL.

DENNIS I. LABARE, M.S., & ASSOCIATES
 Environmental Consulting Services

19913 Flagstone Circle
 Randallstown, MD 21133

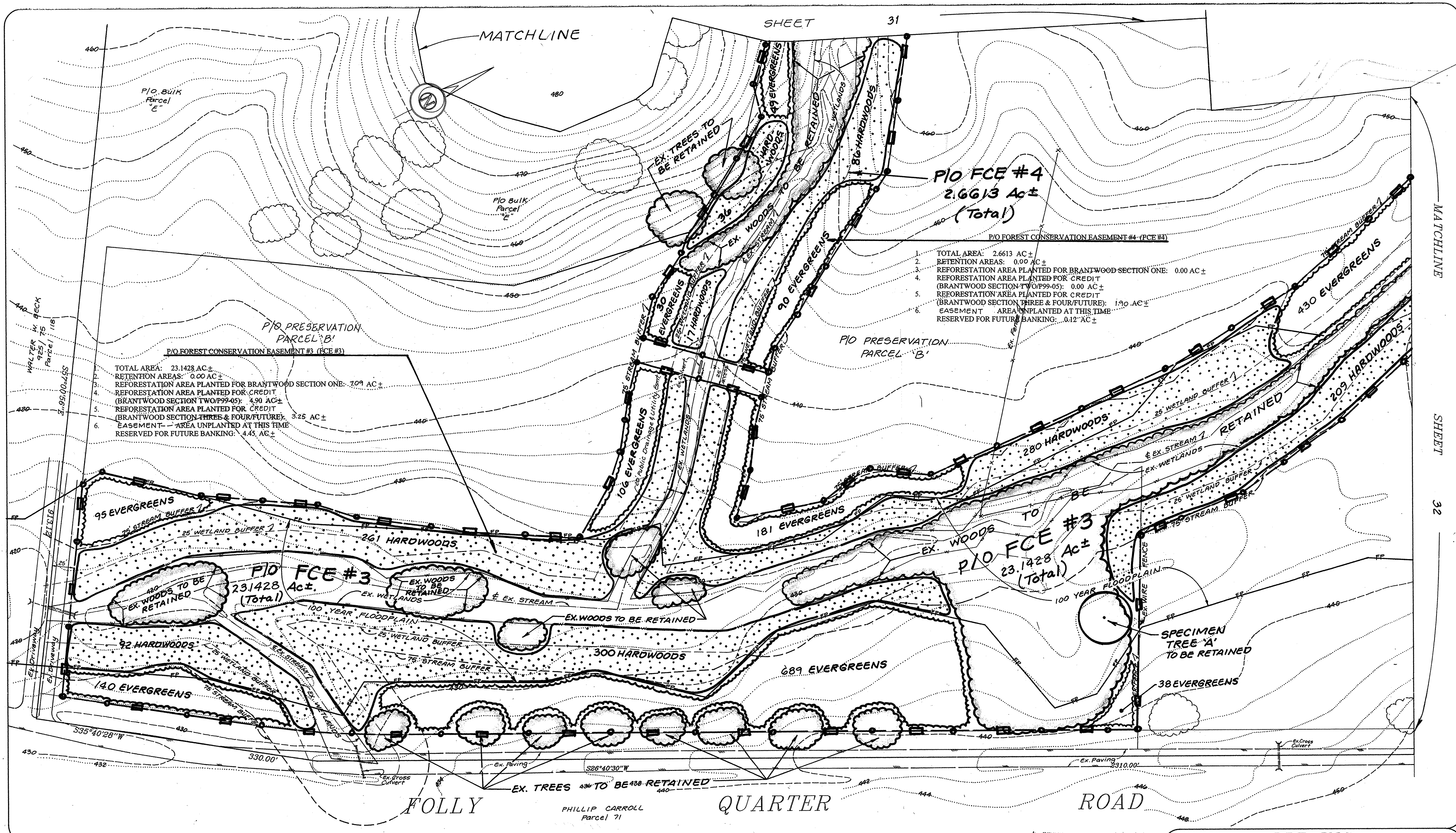
Dennis Labare
 Qualified Professional, MDTCA
 P.E. No. 4110 922-7476

- Wetland Delineations & Mitigation
- Stream Assessment & Restoration
- Water Quality Monitoring
- Macroinvertebrate Taxonomy
- Forest Stand Delineations
- Forest Conservation Plans

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

DESIGNED	LANDSCAPE, FOREST CONSERVATION & STREET TREE PLAN	SCALE	1" = 50'
DRAWN	BRANTWOOD SECTION ONE	DRAWING	32 of 34
CHECKED	Lots 1 - 33, Preservation Parcels "A", "B", "C", "D", Non-Buildable Bulk Parcel "E", and A Resubdivision of "Lot 1 - Feaga Property"	JOB NO.	95-056
DATE	Tax Maps 16 & 23 Parcels 54, 62, 214, & 390 3rd Election District - Howard County, Maryland Previous Submittals: WP 96-133, S 96-23, P 96-08, WP98-133, WP99-14	FILE NO.	F 98-138

Developer: **BRANTWOOD, LLC**
 8895 - F Columbia 100 Parkway
 Columbia, Maryland 21045
 (410) 730-0810



P/O FOREST CONSERVATION EASEMENT #3 (FCE #3)
 TOTAL AREA: 23,142.8 AC±
 1. RETENTION AREAS: 0.00 AC±
 2. REFORESTATION AREA PLANTED FOR BRANTWOOD SECTION ONE: 70.9 AC±
 3. REFORESTATION AREA PLANTED FOR CREDIT (BRANTWOOD SECTION TWO/P99-05): 4.90 AC±
 4. REFORESTATION AREA PLANTED FOR CREDIT (BRANTWOOD SECTION THREE & FOUR/FUTURE): 3.25 AC±
 5. EASEMENT AREA UNPLANTED AT THIS TIME RESERVED FOR FUTURE BANKING: 4.45 AC±

P/O FCE #4
 2,661.3 AC±
 (Total)

- P/O FOREST CONSERVATION EASEMENT #4 (FCE #4)**
- TOTAL AREA: 2,661.3 AC±
 - RETENTION AREAS: 0.00 AC±
 - REFORESTATION AREA PLANTED FOR BRANTWOOD SECTION ONE: 0.00 AC±
 - REFORESTATION AREA PLANTED FOR CREDIT (BRANTWOOD SECTION TWO/P99-05): 0.00 AC±
 - REFORESTATION AREA PLANTED FOR CREDIT (BRANTWOOD SECTION THREE & FOUR/FUTURE): 1.90 AC±
 - EASEMENT AREA UNPLANTED AT THIS TIME RESERVED FOR FUTURE BANKING: 0.12 AC±

P/O FCE #3
 23,142.8 AC±
 (Total)

P/O FCE #3
 23,142.8 AC±
 (Total)

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Walter W. Beck
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 11/13/98
 DATE

Cindy Hamstra
 CHIEF, DIVISION OF LAND DEVELOPMENT
 11/10/98
 DATE

Howard's Staff
 Chief, Bureau of Highways
 11/10/98
 DATE

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

NATURAL RESOURCE CONSERVATION SERVICE
 DATE

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

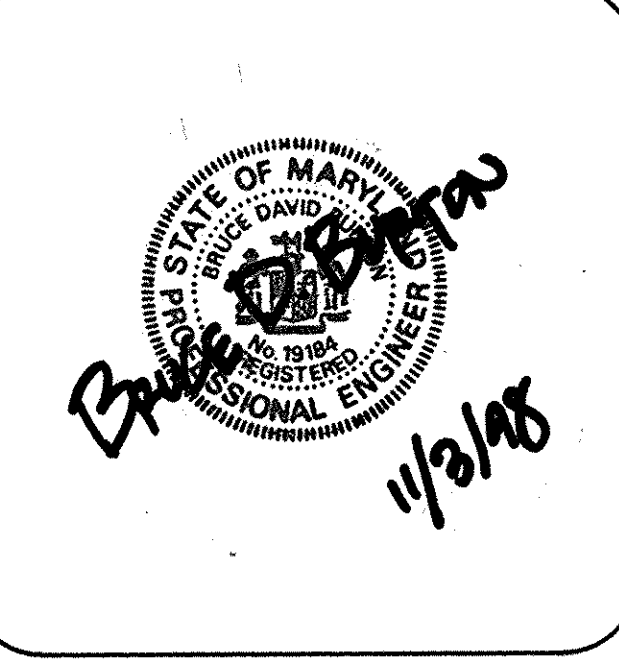
HOWARD SOIL CONSERVATION DISTRICT
 DATE

ENGINEER'S CERTIFICATE
 I certify that this plan for pond construction, erosion and sediment control represents a complete and accurate plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the provisions of the Howard Soil Conservation District. I authorize the developer to supervise pond construction and provide the necessary maintenance for the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

David D. B...
 SIGNATURE OF ENGINEER
 11/13/98
 DATE

DEVELOPER'S CERTIFICATE
 I hereby certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction of these plans will have a sufficient knowledge of the Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I, the undersigned, as a registered professional engineer, will supervise pond construction and provide the Howard Soil Conservation District with a "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

Hugh J. Lab...
 SIGNATURE OF DEVELOPER
 1/15/98
 DATE



NOTE: SEE SHEET 27 FOR FOREST DISTRIBUTION PATTERN PLANTING DETAIL.

DENNIS J. LABARE, M.S., & ASSOCIATES
 Environmental Consulting Services
 5903 Hapstone Circle
 Randallstown, MD 21133
 (410) 922-7476

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

DESIGNED: LANDSCAPE, FOREST CONSERVATION & STREET TREE PLAN
 B.D.B.

DRAWN: K.B.W.

CHECKED: B.D.B.

DATE: 10/98

BRANTWOOD SECTION ONE
 Lots 1 - 33, Preservation Parcels "A", "B", "C", "D", and A Resubdivision of "Lot 1 - Feaga" Property
 Tax Maps 16 & 23 Parcels 54, 62, 214, & 390
 3rd Election District - Howard County, Maryland
 Previous Submittals: WP 98-133, S 98-23, P 98-08, WP 98-133, WP 99-14

SCALE: 1" = 50'
 DRAWING: 33of 34
 JOB NO.: 95-056
 FILE NO.: F 98-138

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

NO.	KEY	BOTANICAL COMMON NAME	SIZE	COMMENT
ONE TO TWO GALLON CONTAINERS				
300		Acer rubrum Red Maple	2 gal. cont.	avg spacing - 11'
742		Liriodendron tulipifera Tulip Poplar	2 gal. cont.	
250		Cornus canadensis American Redbud	1 gal. cont.	
300		Ilex opaca American Holly	1 gal. cont.	
300		Liquidambar styraciflua Sweetgum	2 gal. cont.	
300		Quercus coccinea Scarlett Oak	2 gal. cont.	
300		Quercus borealis Northern Red Oak	2 gal. cont.	
250		Viburnum prunifolium Blackhaw	1 gal. cont.	

EVERGREEN SEEDLINGS				
1000		Pinus strobus White pine	6" ht. min. 1/8 - 1/4" cal.	Avg. Spacing - 8'
3223		Juniperus virginiana Eastern Red Cedar	6" ht. min. 1/8 - 1/4" cal.	

WILDFLOWER MEADOW
SEE SEEDING SPECIFICATIONS SHEET 27

NOTE: See sheet 31 for Wetland Bench Planting Plan & Table.

Forest Conservation Technique	Area / sq. ft.	Plant Density	Plants Required	Plants Shown
Afforestation w/ 1-2 gal. cont. stock	341,261	350 trees / ac.	2742 trees	2742 trees
Afforestation w/ evgn seedlings	262,791	700 trees / ac.	4223 trees	4223 trees

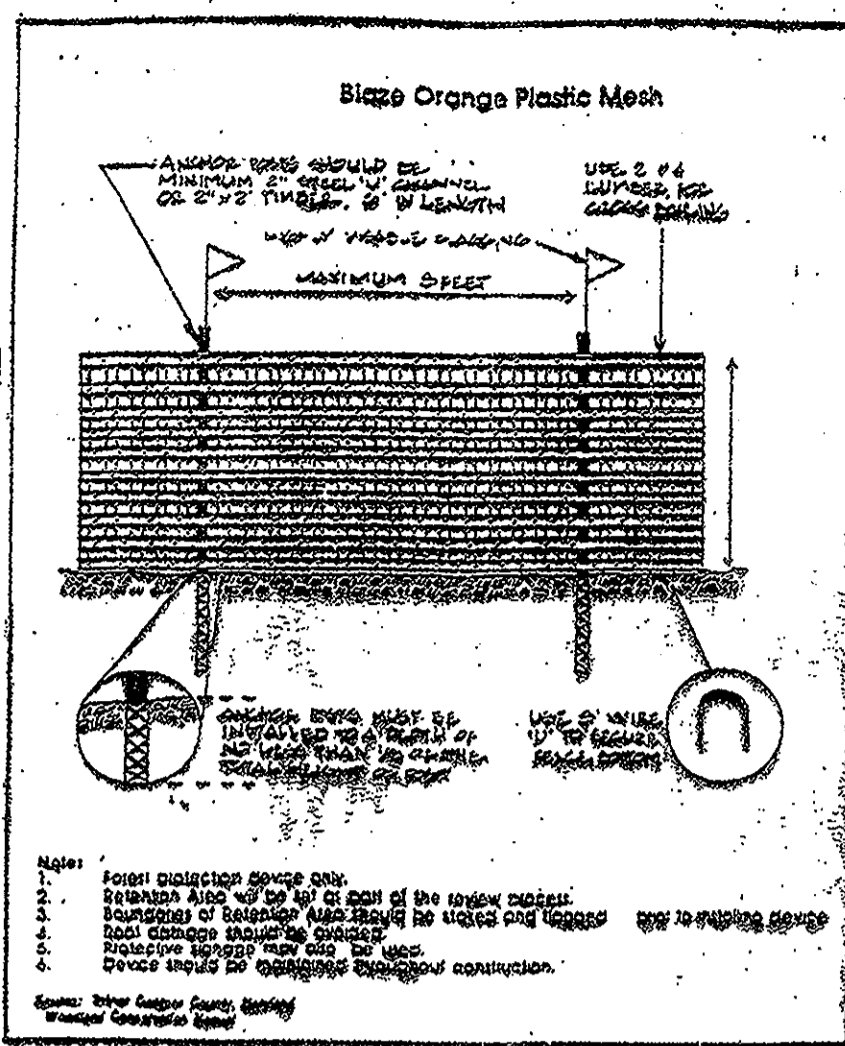
TOTAL PLANTING AREA:
NOTE: See Revised Forest Conservation Worksheet and Area Tabulation Sheet 27.

PLANTING NOTES - afforestation planting

- Forest Stand Delineation and the Preliminary Forest Conservation Plan prepared by Dennis LaBare, M.S., LLC (S 96-23)
- Written Documentation including afforestation location, construction protection and management, cost estimate, plant densities, etc. prepared by Dennis LaBare, M.S., LLC (S 96-23)
- Afforestation area 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.
- Construction Protection and Management: Upon completion of the rough grading of the afforestation areas, a protective fence and signs will be installed. Adjoint landowners will be informed about the existence and importance of these areas.
- 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.
- All planting to meet the implementation techniques and practices as described in the Howard County Forest Conservation Manual.
- There are no existing wooded sites.
- The hardwood container grown stock should be planted randomly at an average of eleven feet on center in a naturalized pattern. Species should be mixed with no less than three trees of one species in a group. Edge species should be planted on the perimeter of the afforestation area (Amenchiancher, Carols, and Viburnum).
- Evergreen seedlings should be planted randomly at an average of eight feet on center in a naturalized pattern.
- The Landscape Contractor will be responsible for general site preparation of the rough graded afforestation areas. The planting areas should be treated by incorporating natural mulch into the top twelve inches of soil. The Contractor will provide needed soil amendments as determined by a soil analysis. Amendments should be natural materials such as organic mulch or leaf mold compost.
- All disturbed areas within the afforestation area to be seeded with K-31 Tall Fescue (March 1 - April 30 and August 1 - Oct. 15, seed with 60 lbs/ac; May 1 - July 31 use 60 lbs/ac K-31 and 2 lbs/ac of weeping lovegrass; Oct. 15 - Feb. 28 use 60 lbs/ac K-31 and mulch with 2 tons/ac well anchored straw or mulch and seed in the spring.
- Seeded areas to be hand mulched with 1 1/2 to 2 tons per acre of unrotted small grain straw and non-asphaltic tackifier and left unmulched.
- The qualified professional will inspect the planting at the end of the construction period and provide to the County a certification that all plantings have been installed and that all protection devices are in place.
- The Landscape Contractor shall be responsible for management of afforestation areas for a period of two years, including needed watering, removal of dead or damaged material and control of undesirable species, fertilizing if necessary and control of pests, and replacement of plant material as described in the Howard County Forest Conservation Manual.
- All inspections as required by the Forest Conservation Manual shall be performed by the qualified professional.

PLANTING NOTES - street trees

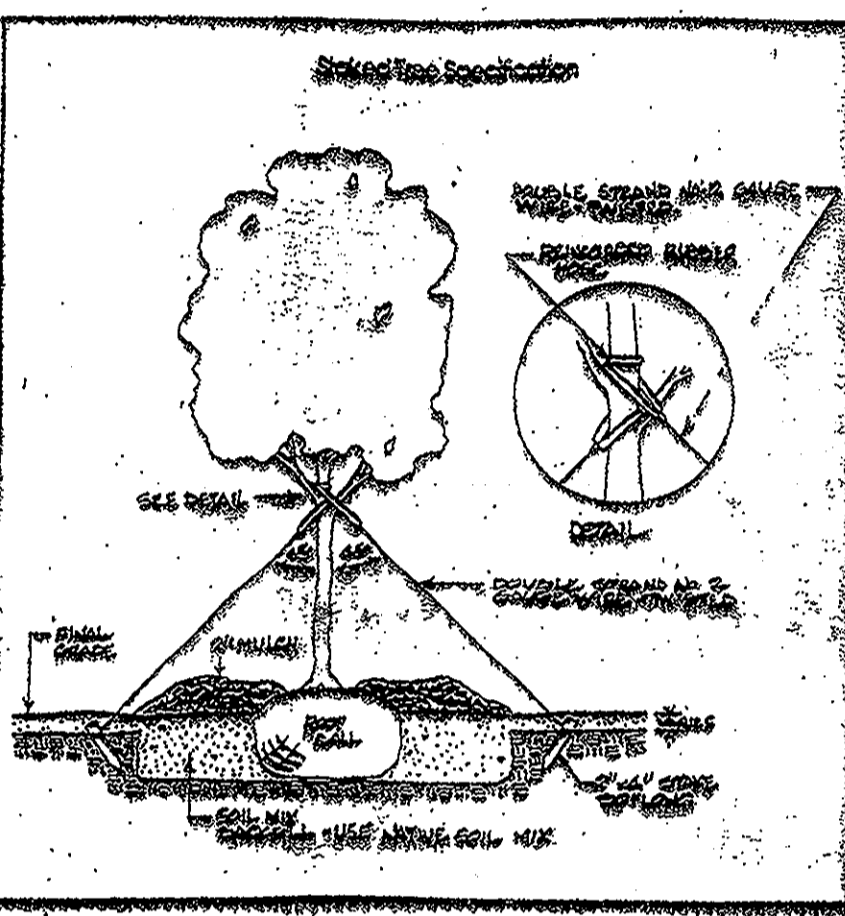
- Notify "Miss Utility" 72 hours prior to installation of all plant material.
- Plant installation must conform to the minimum standards cited in the latest edition of Landscape Specification Guidelines, published by the Landscape Contractors Association.
- Plants to be located in the field by the owner or owner's representative. Notify owner 72 hours in advance of planting.
- A Certification of Landscape Installation is required as per the Howard County Landscape Ordinance.
- The number, size, location of plants shall not be changed without the approval of the Landscape Architect. Substitutions must be included in the recommended plant list in the Howard County Landscape Ordinance.
- Street tree locations may be adjusted for final location of driveways. Trees to be located a minimum of 10 feet from driveways.
- Street trees may not be planted within 5 feet of drain inlets, 5 feet of an open space access strip and 10 feet of a driveway.
- Street Tree planting must conform to the Subdivision and Land Development Regulations and the Department of Public Works Design Manual of Howard County.
- Baled and Burlapped plant material shall not be accepted if ball is cracked or broken before or during planting. Protect all plants from drying by other sun or wind.
- Tree pits shall be backfilled with 80% topsoil, 20% 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. Post moss shall be commercial with pH 4.5 to 5.5, free of woody material or harmful minerals.
- All plants shall be watered at planting with weekly watering thereafter for the first 80 days. Watering shall continue bi-monthly or as necessary to maintain plants in a healthy condition during the guarantee period.
- Maintain the site in an orderly manner. Streets and sidewalks shall be swept clean. All rejected or dead materials shall be immediately removed from the site.
- Plant material to be alive and healthy at the time of the guarantee period (one year), as specified in the Howard County Landscape Ordinance.
- Maintenance shall begin immediately after planting and continue to the end of guarantee period.
- Maintenance consists of pruning, watering, weeding, re-mulching, resetting plants to proper grades as needed and repairing guys and stakes as needed.
- There shall be a minimum of 20 feet between street lights and street trees.
- All street trees shall be maintained by the HOA (Homeowners Association).



Provide tree stakes only if necessary.

Remove covering from top of ball & place tree so that first lateral root is flush with grade.

DECIDUOUS TREE PLANTING DETAIL



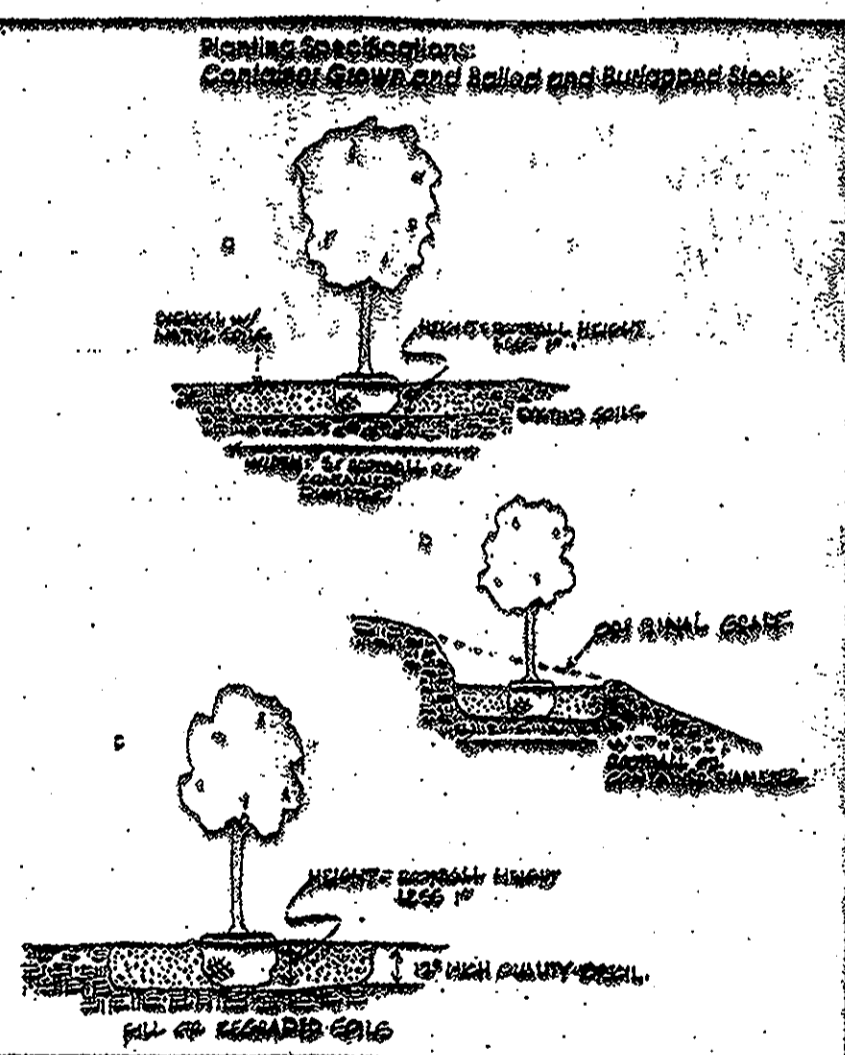
Provide tree stakes only if necessary.

Remove top 1/3 of burlap from tree ball. Place tree in hole so that first root (lateral) is flush with grade.

EVERGREEN TREE PLANTING DETAIL

Remove covering from top of ball. Cut Edge vertically 2" depth.

SHRUB PLANTING DETAIL



NOTES:
This plan has been prepared in accordance with the provisions of Section 16.06 of the Howard County Code and the Landscape Ordinance.
The Owner/Developer is responsible for the planting of all street trees and plant material required to meet the standards established by the Howard County Landscape Ordinance.
Financial Surety for the required landscaping has been posted as part of the Dept. of Public Works Development Agreement in the amount of \$74,000.00.
Financial Surety for the required street trees has been posted in the amount of \$48,200.00.

Note: The landscaping plantings have been revised (as shown on this sheet). All revisions were made in accordance with the Howard County Landscape Manual and have been approved by Howard County.

Area #	Type	Sheet #	# LF	Trees Required	Credit for Existing	Total Trees Required	Proposed Trees
1	A	27 of 34	1240	1240/60 = 21 Trees	200/60 = 3 Trees	21 - 3 = 18 Trees	13 Shade 10 Evergreen
2	D	28 of 34 (Shade)	(410 + 430) 840	840/60 = 14 Shade	315/60 = 5 Shade	14 - 5 = 9 Shade	18 Shade
2	D	28 of 34 (Evergreen)	(410 + 430) 840	840/10 = 84 Evgr.	315/10 = 31 Evgr.	84 - 53 = 31 Evgr.	54 Evergreen
3	A	28 of 34	985	985/60 = 17 Shade	0	17 - 0 = 17 Trees	10 Evergreen 12 Shade
4	A	28 of 34	540	540/60 = 9 Trees	0	9 - 0 = 9 Trees	8 Evergreen 5 Shade
5	A	31 of 34	482	482/60 = 8 Trees	0	8 - 0 = 8 Trees	6 Evergreen 5 Shade
6	A	28 of 34	710	710/60 = 12 Trees	630/60 = 10 Trees	12 - 10 = 2 Trees	2 Shade
7	A	27 of 34	875	875/60 = 15 Shade	180/60 = 3 Trees	15 - 3 = 12 Trees	18 Evergreen 5 Shade
8	A	30 of 34	1860	1860/60 = 31 Shade	3	31 - 0 = 31 Trees	18 Evergreen 22 Shade
9	B	31 of 34 (Shade)	2724	2724/60 = 45	285/50 = 6	54 - 6 = 48	48 Shade
9	B	31 of 34 (Evergreen)	2724	2724/40 = 68	285/40 = 7	68 - 7 = 61	61 Evergreen

Brantwood Section One Street Tree (Cluster Plan) Plant Schedule					
Symbol	Botanical Name	Common Name	Quantity	Size	
1	Acer r. 'October Glory'	October Glory Maple	71	2 1/2 - 3" cal. BB	
2	Acer s. 'Green Mountain'	Green Mt. Sugar Maple	8	2 1/2 - 3" cal. BB	
3	Cornus kousa	Chinese Dogwood	7	6 - 8" Ht. BB	
4	Gleditsia l. 'Skyline'	Skyline Honeylocust	6	2 1/2 - 3" cal. BB	
5	Prunus c. 'Thundercloud'	Purpleleaf Plum	4	1 1/2 - 2" cal. BB	
6	Prunus s. 'kwanzan'	Kwanzan Cherry	12	1 1/2 - 2" cal. BB	
7	Prunus yedoensis	Yoshino Cherry	36	1 1/2 - 2" cal. BB	
8	Pyrus c. 'Redspire'	Redspire Pear	3	1 1/2 - 2" cal. BB	
9	Zelkova s. 'Village Green'	Village Green Zelkova	1	2 1/2 - 3" cal. BB	
10	Cupressocyparis leylandii	Leyland Cypress	8	5 - 6" Ht. BB/cont.	
11	Picea abies	Norway Spruce	9	6 - 7" Ht. BB	
12	Picea omorika	Serbian Spruce	7	6 - 7" Ht. BB	
13	Picea pungens	Colorado Blue Spruce	10	5 - 6" Ht. BB	
14	Pinus strobus	White Pine	29	6 - 8" Ht. BB	
16	Cryptomeria j. 'Yoshino'	Japanese Cryptomeria	4	7 - 8" Ht. BB/cont.	
17	Carolea canadensis	Eastern Redbud	8	6 - 8" Ht. BB	
18	Betula n. 'Heritage'	Heritage River Birch	9	10 - 12" Ht. BB/cont.	

Type D' Landscape Edge Plant List				
Symbol	Botanical Name	Common Name	Quantity	Size
20	Prunus x yedoensis	Yoshino Cherry	24	1 1/2 - 2" cal. BB
V.	Cryptomeria japonica	Yoshino Cryptomeria	11	7 - 8" Ht. BB/cont.
W.	Cupressocyparis leylandii	Leyland Cypress	8	5 - 6" Ht. BB/cont.
Y.	Picea pungens	Colorado Blue Spruce	14	5 - 6" Ht. BB
Z.	Pinus strobus	White Pine	27	6 - 8" Ht. BB

SWM Area #1 Landscape Schedule				
Symbol	Botanical Name	Common Name	Quantity	Size
A.	Fagus grandiflora	American Beech	3	2 1/2" cal. BB
B.	Fraxinus a. 'Autumn Purple'	Autumn Purple Ash	9	2 1/2 - 3" cal. BB
C.	Misnomella soulangiana	Saucer Magnolia	7	6 - 8" Ht. BB
D.	Parrotia persica	Persian Parrotia	5	7 - 8" Ht. BB
E.	Quercus acutissima	Sawtooth Oak	5	2 1/2 - 3" cal. BB
F.	Taxodium distichum	Bald Cypress	14	8-10" Ht. BB
G.	Picea omorika	Serbian Spruce	18	6 - 7" Ht. BB
H.	Pinus strobus	White Pine	23	6 - 8" Ht. BB
I.	Thuja p. 'Green Giant'	Green Giant Western Arborvitae	20	7 - 8" Ht. BB/cont.
J.	Salix babingtonia	Weeping Willow	5	2 1/2 - 3" cal. BB

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division
DATE: 12/10/09

APPROVED: DEPARTMENT OF PUBLIC WORKS

Chief, Bureau of Highways
DATE: 12-14-09

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

NATURAL RESOURCE CONSERVATION SERVICE
DATE: 12/14/09

ENGINEER'S CERTIFICATE

I certify that this plan for construction, erosion, and sediment control meets the requirements of the Department of the Environment Approval, Training, Program, for the control of sediment and erosion before beginning the project. I shall engage a registered professional engineer to supervise the construction and provide the Howard County District with an "as-built" plan of the project within 30 days of completion. I also authorize periodic on-site inspections of the project by the Howard County District.

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 Approval, Training, Program, for the control of sediment and erosion before beginning the project. I shall engage a registered professional engineer to supervise the construction and provide the Howard County District with an "as-built" plan of the project within 30 days of completion. I also authorize periodic on-site inspections of the project by the Howard County District.

I hereby certify that the landscaping plans were prepared or approved by me, and that I am a duly licensed professional landscape architect under the laws of the state of Maryland, License Number 906, expiration date 3.8.10

MIN 11" SPECIMEN TREE

DO NOT REMOVE

MACHINERY, DUMPING OR STORAGE OF ANY MATERIALS IS PROHIBITED

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

MIN 11" FOREST RETENTION AREA

MACHINERY, DUMPING OR STORAGE OF ANY MATERIALS IS PROHIBITED

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

NO.	DATE	DESCRIPTIONS
1	5/15/09	Revised Landscaping
2	12/1/08	Rev. Forest Cons. Per DEP Letter Dated 11/19/08

Type A' Landscape Edge Plant List				
Symbol	Botanical Name	Common Name	Quantity	Size
1	Acer r. 'October Glory'	October Glory Maple	18	2 1/2 - 3" cal. BB
2	Acer s. 'Green Mountain'	Green Mt. Sugar Maple	22	2 1/2 - 3" cal. BB
7	Prunus s. yedoensis	Yoshino Cherry	19	1 1/2 - 2" cal. BB
8	Pyrus c. 'Redspire'	Redspire Pear	4	1 1/2 - 2" cal. BB
10	Cupressocyparis leylandii	Leyland Cypress	2	5 - 6" Ht. BB/cont.
11	Picea Abies	Norway Spruce	31	6 - 7" Ht. BB
13	Picea Pungens	Colorado Blue Spruce	5	5 - 6" Ht. BB
14	Pinus Strobus	Eastern White Pine	36	6 - 8" Ht. BB

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

DESIGNED: BRANTWOOD
SECTION ONE
Lots 1 - 33, Preservation Parcels "A", "B", "C", "D", "E", Non-Buildable Bulk Parcel "F", and A Resubdivision of "Lot 1 - Feaga Property"

DRAWN: K.E.W. Tax Maps 16 & 23 Parcels 54, 82, 214, & 390 3rd Election District - Howard County, Maryland

CHECKED: B.D.B. Previous Submittals: WF 88-153, S 88-23, P 88-08, W/98-133, W/98-14

DATE: 10/98
Developer: BRANTWOOD, LLC 885 - F Columbia 100 Parkway Columbia, Maryland 21045 (410) 730-0810

SCALE: N/A
DRAWING: 34 of 34
JOB NO.: 95-056
FILE NO.: F 91-138

F98-138