

These plans have been revised for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

Rain E. L. G. S. 2/1/95
U.S. Soil Conservation Service Date

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

Approved: *Rain E. L. G. S.* 2/1/95
Howard Soil Conservation District Date

By the Engineer:

I certify that this plan for pond construction, erosion and sediment control represents 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 have notified the developer that I am 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.

BRUCE D. BURTON 2/15/95
Signature of Engineer Date

By the Developer:

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

R. H. H. S. 2/15/95
Signature of Developer Date

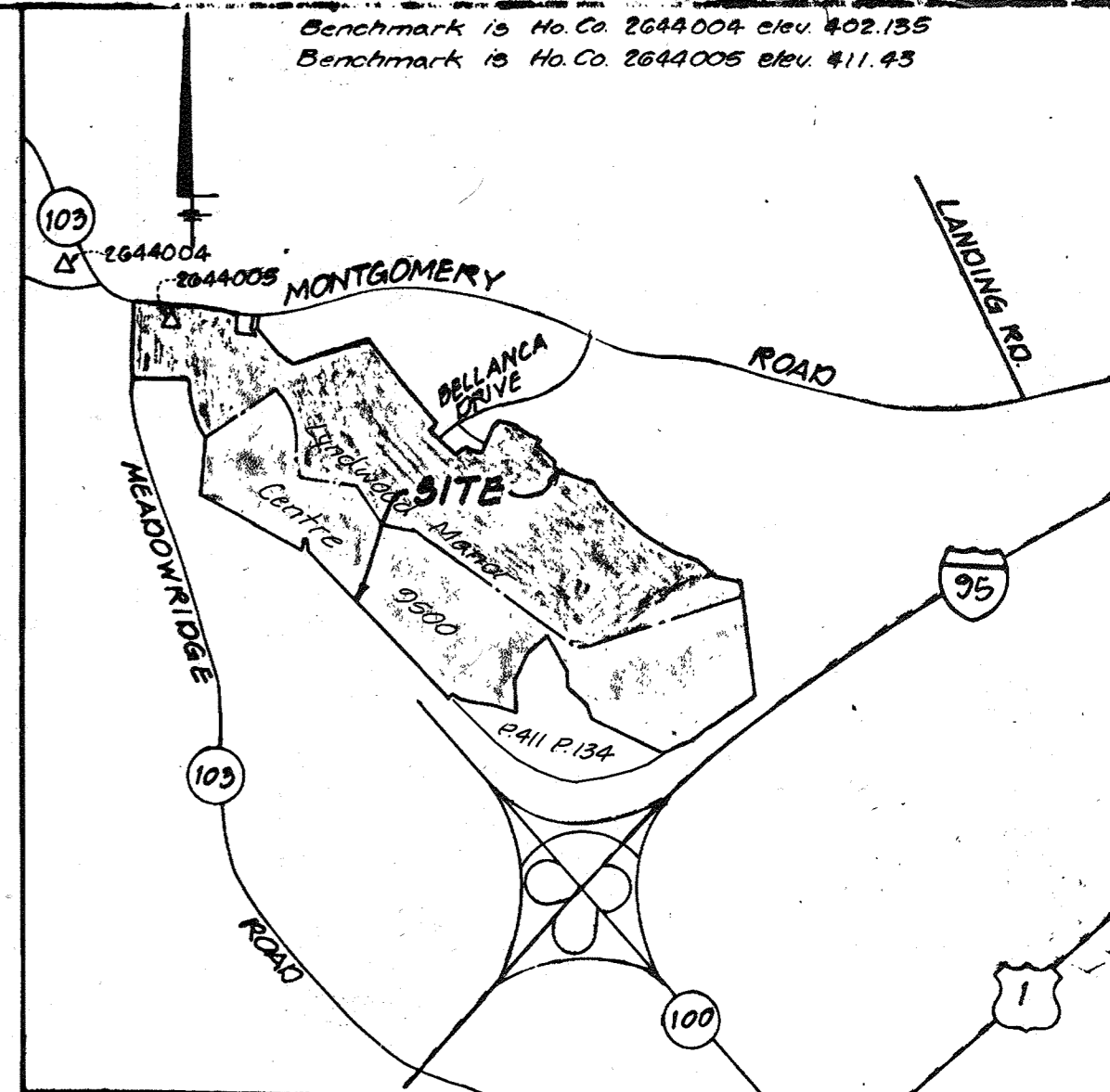
REVISION #	TITLE	DATE
1	MULTI CLARK GENERAL NOTE	5/21/93
2	SHOW GRADE DRAINS, IRRIGATION CLUBHOUSE	2/11/94
3	PER HO. CO. COMMENTS, REVISED PER IR POND	5/15/94
4	PER HO. CO. COMMENTS	2/1/95
5	PER HO. CO. COMMENTS	2/1/95

ENVIRONMENTAL IMPACT SUMMARY

Sheet	Wetland Buffer Disturbance	Wooded Wetland Conversion
3	0.574 ACRES	0.202 ACRES
4	0.361 ACRES	0.087 ACRES
5	0.858 ACRES	1.012 ACRES
6	0.072 ACRES	-----
7	0.397 ACRES	0.034 ACRES
8	0.609 ACRES	0.304 ACRES
9	0.736 ACRES	0.302 ACRES
10	0.048 ACRES	-----
11	0.469 ACRES	0.519 ACRES
12	0.556 ACRES	0.055 ACRES
13	0.017 ACRES	-----
28	0.340 ACRES	0.830 ACRES
Total:	5.433 ACRES	3.714 ACRES

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VICINITY MAP
SCALE: 1" = 2,000'

GENERAL NOTES

- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA Standards and Specifications, if applicable.
- The contractor shall notify the Department of Public Works/Bureau of Engineering/Construction Division at (410) 315-1800 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: Elkridge, Tax Map: 37, Parcels: 38, P/O 80, 529, 542, 640, 643, 644 and 411
Zoning: RSC (Residential: Single Cluster), PEC, R-20
ZB/BA Ref: ZB 877 R & M, PB 284, RES 188
Election District: 1st
Total Tract Area: 206.5582 Ac. plus/minus
Previous Submittals: WP91-33, F91-125, S93-02, P93-11, SDP93-75, SDP93-105, F-94-26, F-94-27, F-94-28, F-94-29
- Storm drain trenches shall be backfilled and compacted in accordance with the Standard Specifications and Details - Design Manual Volume IV.
- 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 photogrammetric aerial survey, compiled by Dewberry & Davis (March 16, 1986).
- Horizontal and vertical datums are related to the Maryland State Plane Coordinate System as projected from Howard county control stations No. 2644004 and No. 2644005 (NAD 27).
- Temporary stormwater management is by detention. Permanent stormwater management is by attenuation. Maintenance is the responsibility of the Developer.
- Wetlands delineation by Exploration Research, Inc. dated 1992, approved by U.S.A.C.E. June, 1992.
- Floodplain analyzed by Land Design Engineering, Inc. December 1992 based on field run data from 1992 and 1993 (P93-11), approved 12/31/92
- Water quality is provided in stormwater management facilities.
- 401 Permit #RP91-00469-7, exp. August 1, 1994.
- 404 Permit #92-WQ-0313, exp. July 20, 1994.
- Waiver petition WP93-29 for roads to exceed 1200' Section 16.113(c)(10) approved December 23, 1992. Waiver petition WP93-86 to waive Section 16.115(b)(2) to provide 20' minimum frontage for lots areas under 40,000 square feet; waive Section 16.115 to front lots on a public or private road not exceeding 200' Section 16.115c, that no more than two pipestem lots may have adjoining driveways; Section 16.116c, grading adjacent to wetlands shall not be permitted, approved March 18, 1993.
- All hydraulic data is for the 10-year storm unless otherwise noted.
- See sheet for construction sequence and special mitigation notes.
- See plot #s 11501 - 11531 for lot, wetland and floodplain information.
- All temporary pipes to maintain minimum cover and meet ASTM F667 for corrugated polyethylene tubing.
- Construction of all golf course elements such as tee, greens, traps, etc. shall be as shown on the drawings (size, location, etc.) unless preapproved by Howard County via the Redline procedure or by the County's Construction/Project Manager as field needs dictate.
- Contractor shall notify Colonial Pipeline Co. at least five (5) working days prior to start of work. (410) 795-1390
- Three underpasses serving the golf course will be constructed at a future date when Marshlake Drive is built.

GOLF COURSE ACREAGE

Parcel	Area
CENTRE 9500, F-94-26	36.116 Acres
Parcel F	1.7095
Parcel G	19.2798
Parcel H	7.1742
Parcel I	9.1293
Parcel K	9.0660
Parcel L	8.7289
Parcel M	26.0022
Parcel N	9.9408
Parcel O	5.7711
Subtotal	96.8018 Acres

RSC ZONED LAND (Open Space)

Lot	Area
Lot 167	9.3254
Lot 168	11.2315
Lot 169	7.9388
Lot 170	1.7669
Lot 171	1.7777
Lot 172	16.9781
Lot 173	6.2439
Lot 174	10.5150
Lot 175	3.2218
Lot 176	3.8384
Lot 177	0.8029
Subtotal	73.6404 Acres

TOTAL 206.5582 Acres

LEGEND

- ZONING LINE
- 25' BUFFER AND JURISDICTIONAL NON-TIDAL WETLAND
- 75' STREAM BUFFER
- STREAM
- LIMIT OF PEC POD
- POSSIBLE ACCESS POINT
- SWM
- STORMWATER MANAGEMENT FACILITY
- WRF
- WATER QUALITY FACILITY
- LIMIT OF SUBMISSION

26 Bridges, boardwalks and cart paths are to be adjusted in the field to minimize environmental impact. The Golf Course Architect shall have final determination of the location, subject to applicable regulations.

27 Refer to the specifications for demolition information.

SITE ACCESS
(IF MARSHLAKE DRIVE IS NOT CONSTRUCTED BY OTHERS)

LYNDWOOD MANOR
SHADY OAKS

TOP SOIL BORROW AREA
(SEDIMENT CONTROL BY OTHERS)

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

James R. Smith 3/3/95
DIRECTOR DATE

China Annumanni 3/8/95
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Ray J. Shaw 2/21/95
DIRECTOR DATE

Paul J. Shaw 2/21/95
CHIEF, BUREAU OF ENGINEERING AND DESIGN DATE

KINGS MEADE LTD PARTNERSHIP
1578/318
1579/318
RSC

SECTION/AREA	SEE CHART SHEET	PARCELS
CENTRE 9500 / LYNDWOOD MANOR	SEE CHART SHEET 1	SEE CHART SHT 1
PLAT NO. 11501-11531	ZONE PEC/RSC	TAX MAP NO. 37
SECTION DISTRICT 1	CENSUS TRACT 6011.01	
WATER CODE N/A	SEWER CODE N/A	

LDE	Added Sheet 28 & Revised Envir. Impact	6-30-95
BY No	REVISION	Date

BRUCE D. BURTON 2/15/95
Professional Engineer

Owner: Howard County, Maryland
3430 Courthouse Drive
Ellicott City, Maryland 21043
Developer: Rainmaker/Killian L.L.C.
5111 Avoca Avenue
Ellicott City, Maryland 21043

LDE, INC.
8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045
(410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

**SITE DEVELOPMENT PLAN
COVER SHEET - WEST**
HOWARD COUNTY
GOLF COURSE
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SDP-93-75

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.

BY THE DEVELOPER:
 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 NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN AS-BUILT PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

BY THE ENGINEER:
 I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL, REPRESENTS 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 HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN AS-BUILT PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Director: *[Signature]* DATE: 2/18/95

APPROVED: *[Signature]* DATE: 2/18/95
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

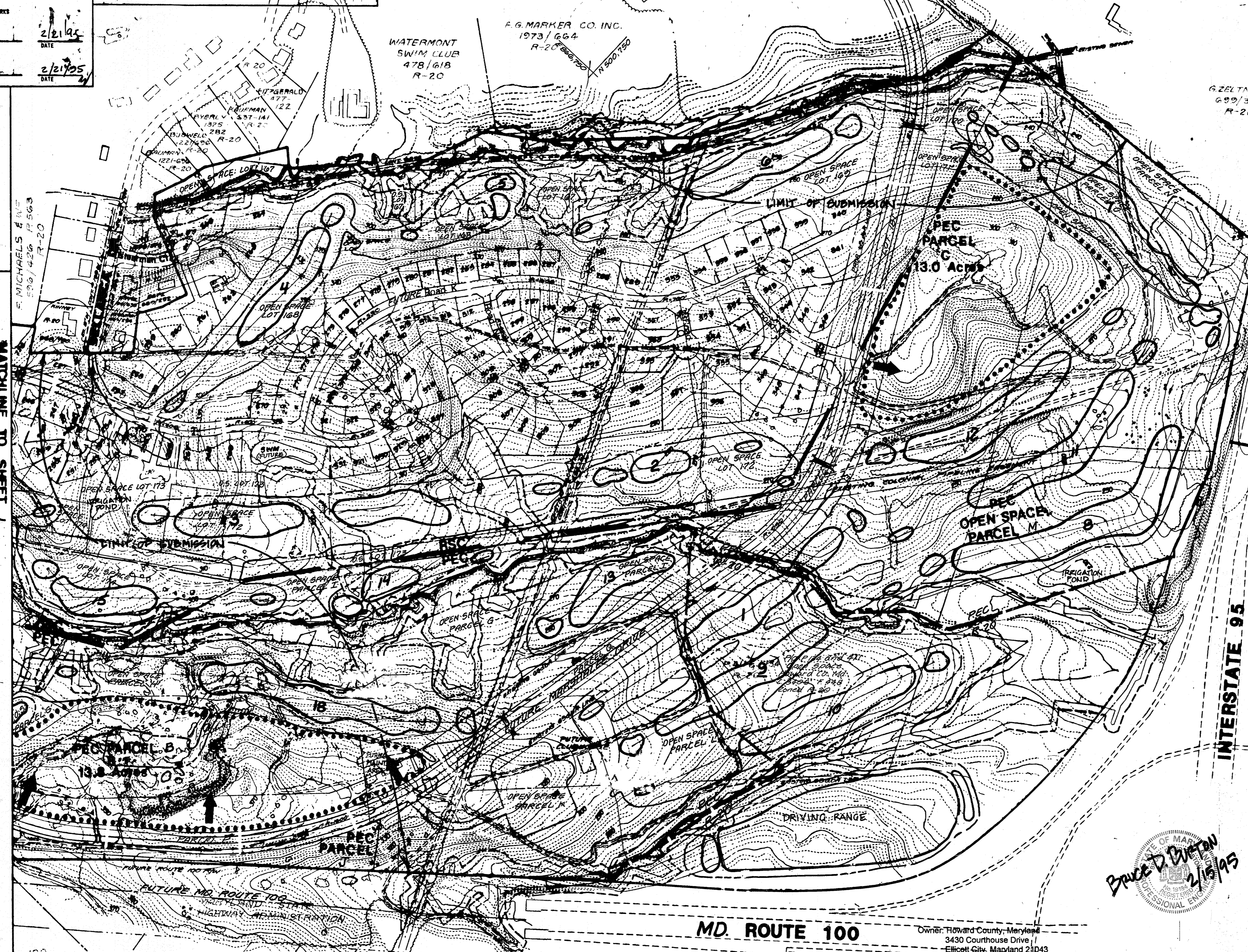
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Director: *[Signature]* DATE: 2/16/95

Chief, Bureau of Engineering: *[Signature]* DATE: 2/17/95

APPROVED: *[Signature]* DATE: 2/18/95
 U.S. SOIL CONSERVATION SERVICE

APPROVED: *[Signature]* DATE: 2/18/95
 HOWARD S.C.D.



ENVIRONMENTAL IMPACT SUMMARY

Sheet	Wetland Buffer Disturbance	Wooded Wetland Conversion
3	0.574 ACRES	0.302 ACRES
4	0.361 ACRES	0.087 ACRES
5	0.858 ACRES	1.012 ACRES
6	0.071 ACRES	-----
7	0.979 ACRES	0.994 ACRES
8	0.609 ACRES	0.304 ACRES
9	0.736 ACRES	0.902 ACRES
10	0.048 ACRES	-----
11	0.405 ACRES	0.518 ACRES
12	0.656 ACRES	0.055 ACRES
13	0.017 ACRES	-----
28	0.340 ACRES	0.830 ACRES
Total:	5.633 ACRES	3.714 ACRES

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LEGEND

	TOWNSHIP LINE
	25' BUFFER AND JURISDICTIONAL NON-TIDAL WETLAND
	75' STREAM BUFFER
	FUTURE GOLF COURSE UNDERPASS
	STREAM
	LIMIT OF PEC POOL
	POSSIBLE ACCESS POINT
	STORMWATER MANAGEMENT FACILITY
	WATER QUALITY FACILITY
	LIMIT OF SUBMISSION

SUBDIVISION NAME	CENTRE 9500/LYNDWOOD MANOR	SECTION/AREA	SEE SHEET 1	PARCELS	SEE SHEET 1
PLAT NO.	11801-11501	BLOCK NO.	10,11	ZONE	PEC/RSC
TAX MAP NO.	37	ELECTION DISTRICT	1	CENSUS TRACT	6011.01
WATER CODE	N/A	SEWER CODE	N/A		

LDE, INC.
 8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045
 (410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

OWNER: Howard County, Maryland
 3430 Courthouse Drive
 Ellicott City, Maryland 21043

Developer: Rainmaker Millen C.L.C.
 5111 Avoca Avenue
 Ellicott City, Maryland 21043

DATE: 1/95

SCALE: 1"=200'

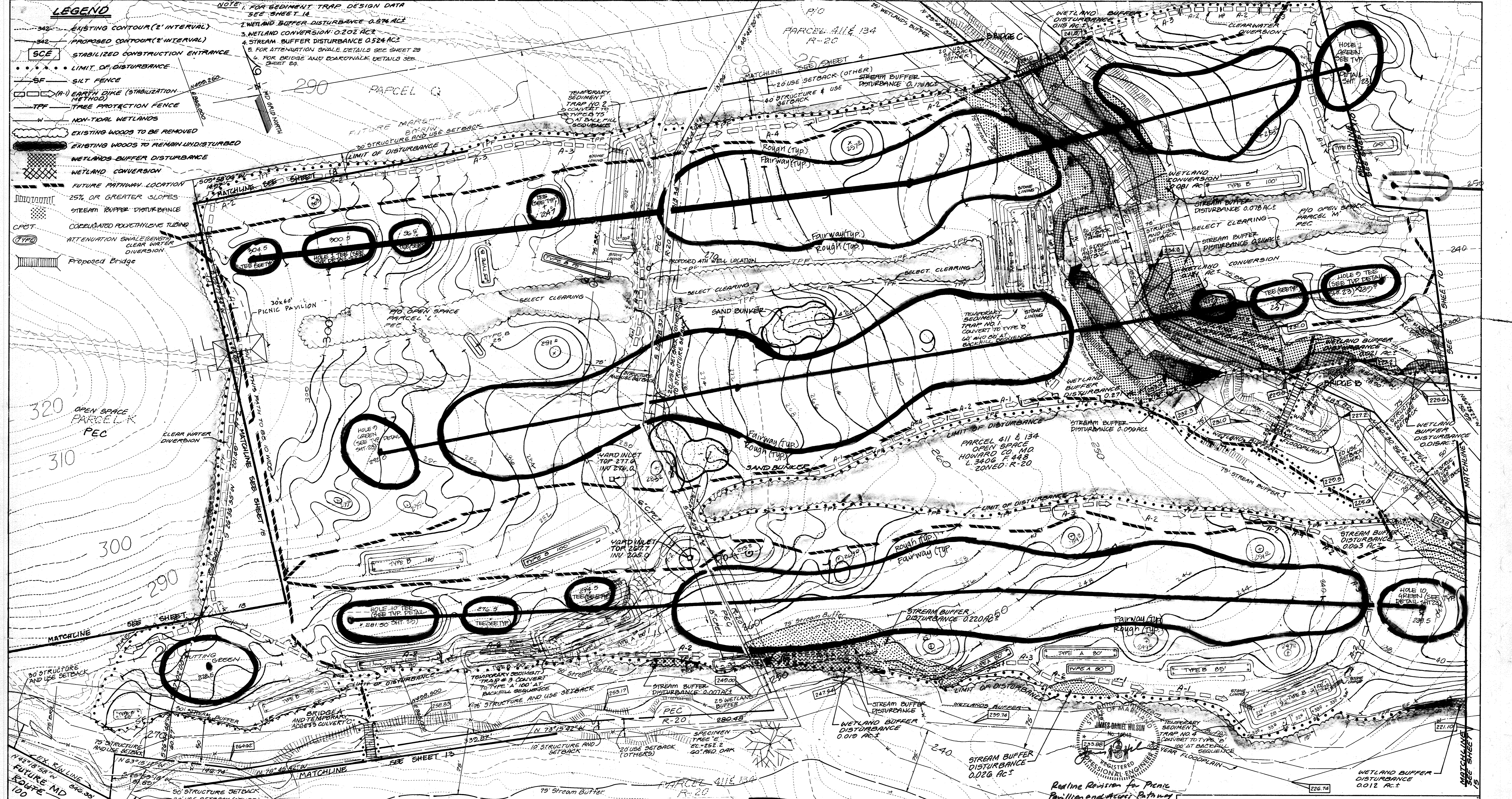
DRAWING: 2 OF 28

JOB NO.: 94-110
 96-006

FILE NO.: SDP 93-75

L.O.E.	BY	No.	REVISION	DATE
			Added Sheet 28 & Revised Envir. Impact	6-30-95

[Signature]
 PROFESSIONAL ENGINEER
 2/15/95



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 DIRECTOR: *[Signature]* 3/3/95
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH: *[Signature]* 3/1/95
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DIRECTOR: *[Signature]* 2/21/95
 CHIEF, BUREAU OF ENGINEERING: *[Signature]* 2/21/95

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
 U.S. SOIL CONSERVATION SERVICE: *[Signature]* 2/21/95
 THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED: *[Signature]* 2/21/95
 HOWARD S.C.D. DATE

Owner: Howard County, Maryland
 3430 Courthouse Drive
 Elliott City, Maryland 21043
 Developer: Rainmaker/Killian L.L.C.
 5111 Avoca Avenue
 Elliott City, Maryland 21043
 By the Developer: *[Signature]* 2/15/95

SUBDIVISION NAME CENTRE 9500/LINDWOOD MANOR		SECTION/AREA SEE SHEET 1	PARCELS SEE SHEET 1
PLAT NO. 11501-11591	BLOCK NO. 10, 11	ZONE PEC/R-20	TAX MAP NO. 37
WATER CODE N/A		ELECTION DISTRICT 1	SEWER CODE N/A
CENSUS TRACT 6011.01		DATE 1-18-91	

By the Engineer:
 I certify that this plan for pond construction, erosion and sediment control represents 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 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 an "as-built" plan of the pond within 30 days of completion. I also authorize periodic inspections by the Howard Soil Conservation District.
 BRUCE D. BARTON 2/14/95
 Signature of Engineer Date

REVISIONS		DATE
NO.	DESCRIPTION	DATE
1	ADDED 30' X 60' PAVILION	1-18-91

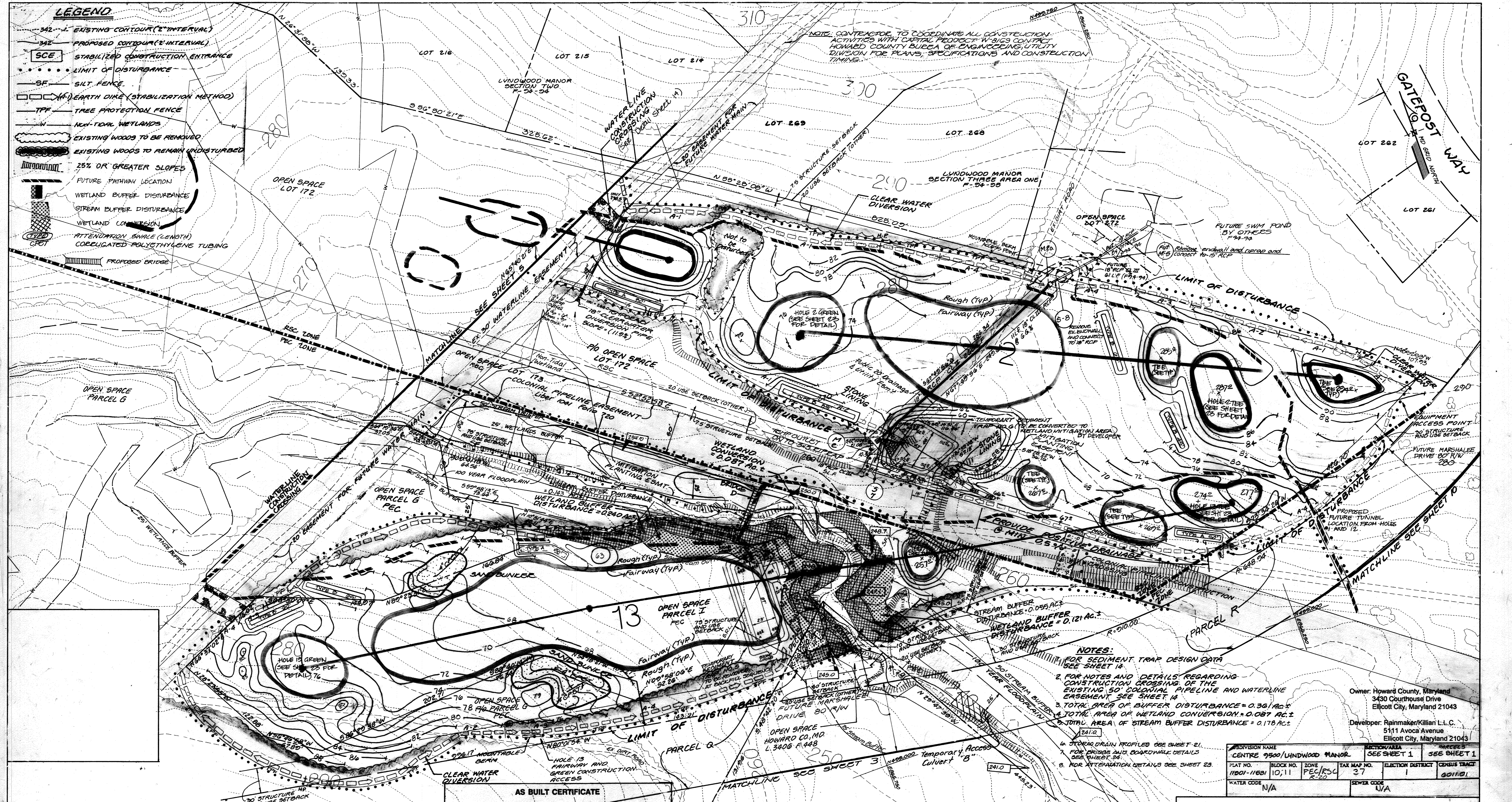
Redline Revision for Picnic Pavilion and Access Pathway 2/10/91

[Signature] 2/14/95

LDE, INC.
 9835 Columbia 100 Parkway, Unit N, Columbia, MD 21045
 (410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

**SITE DEVELOPMENT PLAN
 HOLES 1, 9, 10
 HOWARD COUNTY
 GOLF COURSE
 1ST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND**

SCALE: 1" = 50'
 DRAWING: 3 OF 26
 JOB NO.: 95-006
 94-110
 FILE NO.: SDP-93-75



- LEGEND**
- 342 --- EXISTING CONTOUR (2' INTERVAL)
 - 342 --- PROPOSED CONTOUR (2' INTERVAL)
 - SCE --- STABILIZED CONSTRUCTION ENTRANCE
 - LIMIT OF DISTURBANCE
 - SF SILT FENCE
 - (H) --- EARTH DIKE (STABILIZATION METHOD)
 - TPF --- TREE PROTECTION FENCE
 - N --- NON-TIDAL WETLANDS
 - EX --- EXISTING WOODS TO BE REMOVED
 - RW --- EXISTING WOODS TO REMAIN UNDISTURBED
 - 25% --- 25% OR GREATER SLOPES
 - FPL --- FUTURE PATHWAY LOCATION
 - WBD --- WETLAND BUFFER DISTURBANCE
 - SBD --- STREAM BUFFER DISTURBANCE
 - WC --- WETLAND CONVERSION
 - AB --- ATTENUATION BASIN (LENGTH)
 - CPT --- CORRUGATED POLYETHYLENE TUBING
 - BR --- PROPOSED BRIDGE

NOTES:

1. FOR SEDIMENT TRAP DESIGN DATA SEE SHEET 1A.
2. FOR NOTES AND DETAILS REGARDING CONSTRUCTION CROSSING OF THE EXISTING 50' COLONIAL PIPELINE AND WATERLINE EASEMENT SEE SHEET 1A.
3. TOTAL AREA OF BUFFER DISTURBANCE = 0.361 AC ±
4. TOTAL AREA OF WETLAND CONVERSION = 0.087 AC ±
5. TOTAL AREA OF STREAM BUFFER DISTURBANCE = 0.178 AC ±
6. STREAM DRAIN PROFILED SEE SHEET 21.
7. FOR BRIDGE AND BOARDWALK DETAILS SEE SHEET 24.
8. FOR ATTENUATION DETAILS SEE SHEET 23.

Owner: Howard County, Maryland
 3430 Courthouse Drive
 Ellicott City, Maryland 21043

Developer: Rainmaker/Killian L.L.C.
 5111 Avoca Avenue
 Ellicott City, Maryland 21043

PROVISION NAME	SECTION/VARIATION	PARTS
CENTRE 9500/LYNDWOOD MANOR	SEE SHEET 1	SEE SHEET 1
PLAT NO.	BLOCK NO.	ZONE
11801-11801	10,11	PEL/RSC
TAX MAP NO.	ELECTION DISTRICT	CENSUS TRACT
37	1	001101
WATER CODE	SEWER CODE	
N/A	N/A	

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Howard S. Butler 3/8/95
 DIRECTOR DATE

John A. Williams 3/10/95
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

John W. Elum 2/21/95
 DIRECTOR DATE

Paul W. Zich 2/21/95
 CHIEF, BUREAU OF ENGINEERING 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

Philip E. Kulas 2/6/95
 U.S. SOIL CONSERVATION SERVICE DATE

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

Paul W. Zich 2/21/95
 APPROVED: HOWARD S.C.D. DATE

AS BUILT CERTIFICATE

By the Developer:

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

TAAC 2/19/95
 Signature of Developer Date

By the Engineer:

I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. The plans were prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that the development of 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.

Bruce D. Burton 2/14/95
 Signature of Engineer Date

OPEN SPACE PARCEL 411E 13A R-20
 HOWARD CO., MD
 L. 3406 F. 448

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

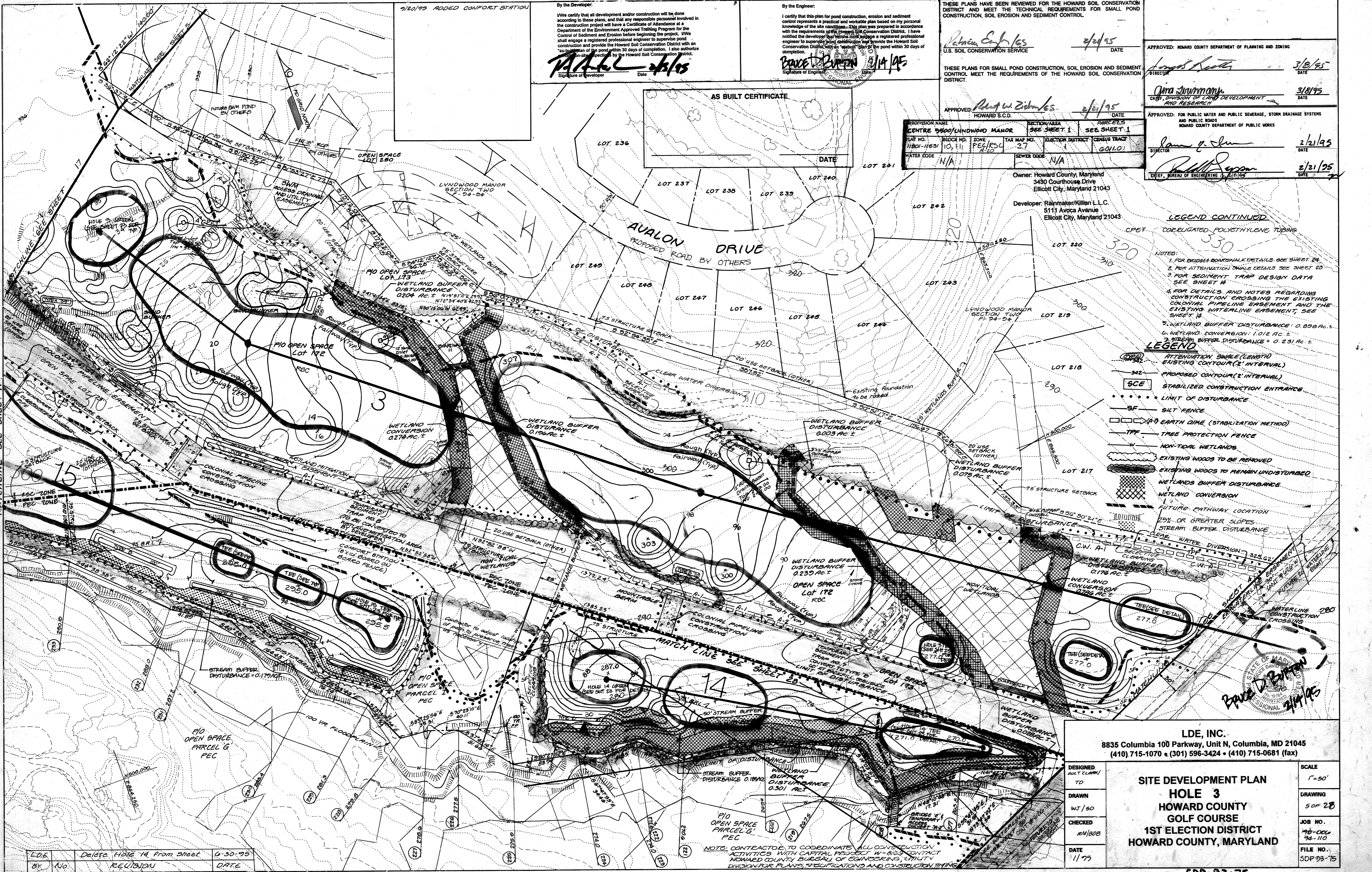
Bruce D. Burton 2/14/95
 CHIEF, BUREAU OF ENGINEERING DATE

LDE, INC.
 8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045
 (410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

DESIGNED MKT-CLARY TD	SCALE 1" = 50'
DRAWN WJ/SO	DRAWING 4 OF 28
CHECKED BB/RM	JOB NO. 95-006 95-110
DATE 1/95	FILE NO. SDP 93-75

SITE DEVELOPMENT PLAN
HOLES 2, 13
HOWARD COUNTY
GOLF COURSE
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SDP-93-75



7/20/95 ADDED COMFORT STATION

By the Developer:
 I/we certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I/we 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 this plan to be used for the Howard Soil Conservation District.

Patricia E. Gyles
 Signature of Developer Date 2/21/95

By the Engineer:
 I certify that this plan for pond construction, erosion and sediment control represents 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 have notified the developer that this plan requires 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.

David D. Burton
 Signature of Engineer Date 2/14/95

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.

Patricia E. Gyles
 U.S. SOIL CONSERVATION SERVICE Date 2/21/95

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Joseph R. Smith
 DIRECTOR Date 3/8/95

Anna J. Johnson
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH Date 3/8/95

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS

James G. Clark
 DIRECTOR Date 2/21/95

David D. Burton
 CHIEF, BUREAU OF ENGINEERING Date 2/21/95

AS BUILT CERTIFICATE

DATE

DIVISION NAME		SECTION/AREA		PARCELS	
CENTRE 0500/LYNDWOOD MANOR		SEE SHEET 1		SEE SHEET 1	
PLAT NO.	BLOCK NO.	ZONE	TAX MAP NO.	ELECTION DISTRICT	GENUS TRACT
11801-11803	10, 111	PEC/RSC	27		60101
WATER CODE		SEWER CODE			
N/A		N/A			

Owner: Howard County, Maryland
 3430 Courthouse Drive
 Ellicott City, Maryland 21043

Developer: Rainmaker/Killian L.L.C.
 5111 Avoca Avenue
 Ellicott City, Maryland 21043

- LEGEND CONTINUED
- CPET - CORRUGATED POLYETHYLENE TUBING
- NOTES:
- FOR BRIDGE BOARDWALK DETAILS SEE SHEET 24
 - FOR ATTENUATION SWALE DETAILS SEE SHEET 20
 - FOR SEDIMENT TRAP DESIGN DATA SEE SHEET 14
 - FOR DETAILS AND NOTES REGARDING CONSTRUCTION CROSSING THE EXISTING COLONIAL PIPELINE EASEMENT AND THE EXISTING WATERLINE EASEMENT, SEE SHEET 14
 - WETLAND BUFFER DISTURBANCE = 0.838 AC ±
 - WETLAND CONVERSION = 1.012 AC ±
 - STREAM BUFFER DISTURBANCE = 0.291 AC ±

- LEGEND
- ATTENUATION SWALE (LENGTH) EXISTING CONTOUR (2' INTERVAL)
 - PROPOSED CONTOUR (2' INTERVAL)
 - STABILIZED CONSTRUCTION ENTRANCE
 - LIMIT OF DISTURBANCE
 - SILT FENCE
 - EARTH DIKE (STABILIZATION METHOD)
 - TREE PROTECTION FENCE
 - NON-TIDAL WETLANDS
 - EXISTING WOODS TO BE REMOVED
 - EXISTING WOODS TO REMAIN UNDISTURBED
 - WETLAND BUFFER DISTURBANCE
 - WETLAND CONVERSION
 - FUTURE PATHWAY LOCATION
 - 20% OR GREATER SLOPES
 - STREAM BUFFER DISTURBANCE
 - CLEAR WATER DIVERSION
 - WETLAND BUFFER DISTURBANCE
 - WETLAND CONVERSION
 - WATERLINE CONSTRUCTION CROSSING

LDE, INC.
 8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045
 (410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

DESIGNED: [Blank]
 TD

DRAWN: WJ/BD
 CHECKED: RM/BOB
 DATE: 11/95

SCALE: 1"=50'

DRAWING: 50P 28

JOB NO.: 198-006 94-110

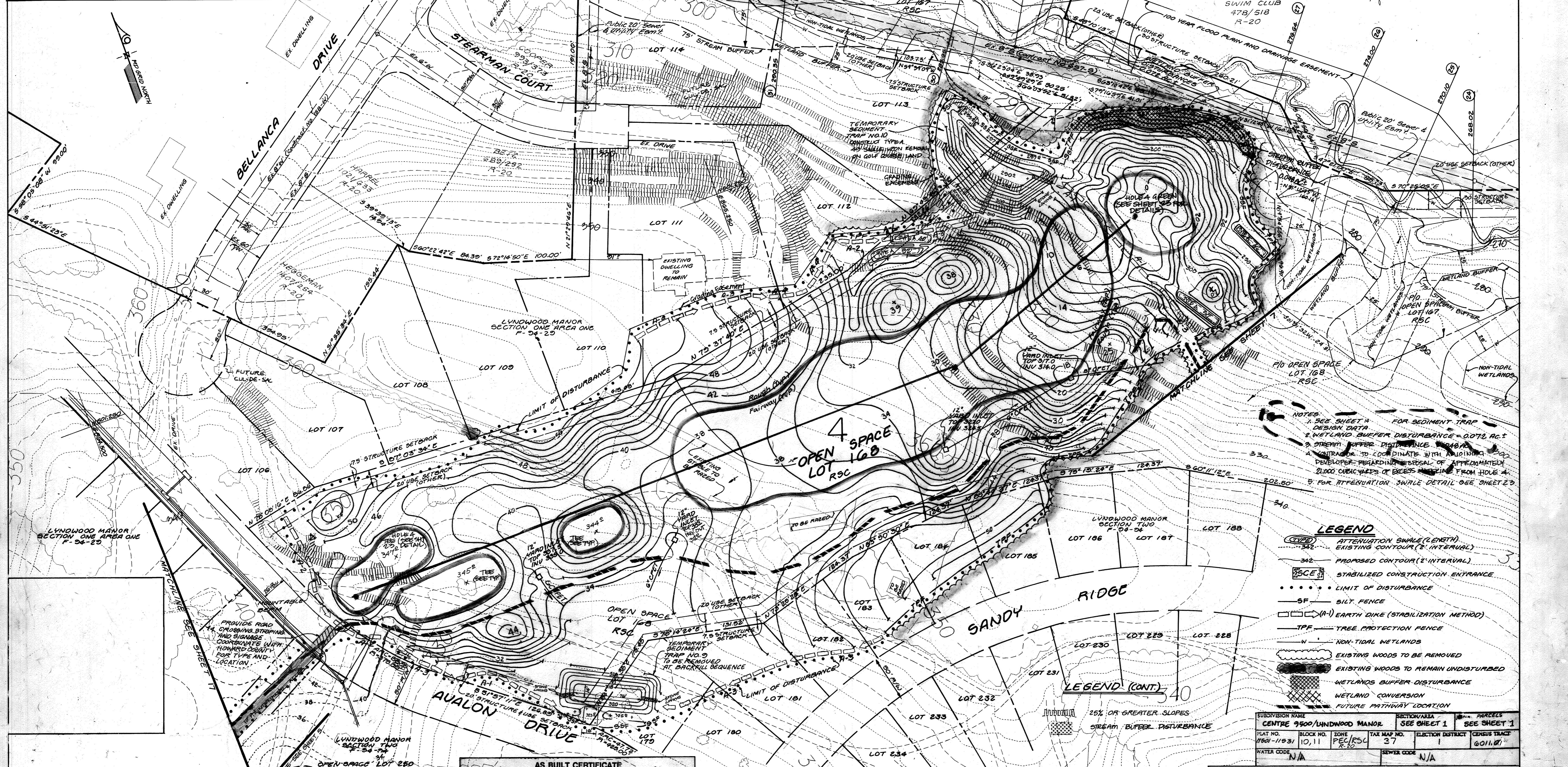
FILE NO.: SDP 93-75

SITE DEVELOPMENT PLAN
HOLE 3
HOWARD COUNTY
GOLF COURSE
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

LDE	Delise Hole 14 from sheet	6-30-95
By No.	Revision	DATE

NOTE: CONTRACTOR TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH CAPITAL PROJECT W-6163 CONTACT HOWARD COUNTY BUREAU OF ENGINEERING, UTILITY DIVISION FOR PLANS, SPECIFICATIONS AND CONSTRUCTION TIMING

REVISIONS		
BY	DATE	DESCRIPTION
LDE	3-97	ADD CART PATH GRADING



NOTES:
 1. SEE SHEET 4 FOR SEDIMENT TRAP DESIGN DATA.
 2. WETLAND BUFFER DISTURBANCE = 0.075 AC ±
 3. STREAM BUFFER DISTURBANCE = 0.04 AC ±
 4. CONTRACTOR TO COORDINATE WITH ADJACENT DEVELOPER REGARDING REMOVAL OF APPROXIMATELY 2,000 CUBIC YARDS OF EXCESS FILL FROM HOLE 4.
 5. FOR ATTENUATION SWALE DETAIL SEE SHEET 2.3.

LEGEND

- ATTENUATION SWALE (LENGTH)
- EXISTING CONTOUR (2' INTERVAL)
- PROPOSED CONTOUR (2' INTERVAL)
- STABILIZED CONSTRUCTION ENTRANCE
- LIMIT OF DISTURBANCE
- SILT FENCE
- (A-1) EARTH DIKE (STABILIZATION METHOD)
- TREE PROTECTION FENCE
- NON-TIDAL WETLANDS
- EXISTING WOODS TO BE REMOVED
- EXISTING WOODS TO REMAIN UNDISTURBED
- WETLANDS BUFFER DISTURBANCE
- WETLAND CONVERSION
- FUTURE PATHWAY LOCATION

LEGEND (CONT)

- 25% OR GREATER SLOPES
- STREAM BUFFER DISTURBANCE

SUBDIVISION NAME		SECTION/VARIA	SEE SHEET 1	SEE SHEET 1
CENTRE 9500/LYNDWOOD MANOR				
PLAT NO.	BLOCK NO.	ZONE	TAX MAP NO.	ELECTION DISTRICT
1761-11931	10, 11	PEC/RSC	37	1
WATER CODE			SEWER CODE	
N/A			N/A	

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

James R. Kuth 3/6/95
DIRECTOR

Ann Simmans 3/6/95
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James M. Schum 2/21/95
DIRECTOR

Robert U. Zichay 2/21/95
CHIEF, BUREAU OF ENGINEERING

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.

Robert U. Zichay 2/21/95
U.S. SOIL CONSERVATION SERVICE

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

Robert U. Zichay 2/21/95
APPROVED: HOWARD S.C.D.

AS BUILT CERTIFICATE

DATE

By the Engineer:

I certify that this plan for pond construction, erosion and sediment control represents a true and accurate plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she 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 submitted the site to the Howard Soil Conservation District.

James P. Burton 2/14/95
Signature of Engineer Date

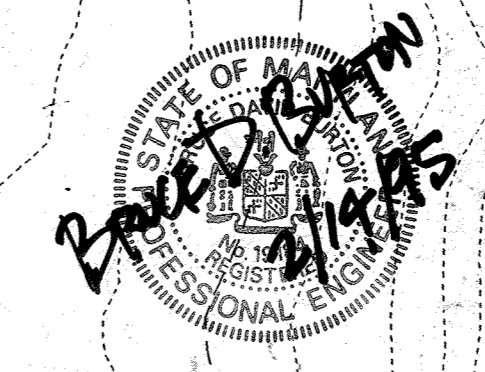
By the Developer:

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. We 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 submitted the site to the Howard Soil Conservation District.

T.A. Ahal 2/14/95
Signature of Developer Date

Owner: Howard County, Maryland
3430 Courthouse Drive
Ellicott City, Maryland 21043

Developer: Rainmaker/Killian L.L.C.
5111 Avoca Avenue
Ellicott City, Maryland 21043



LDE, INC.
 8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045
 (410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

DESIGNED BY: LDE, INC.
 DRAWN BY: WJ
 CHECKED BY: RM/BOB
 DATE: 1/95

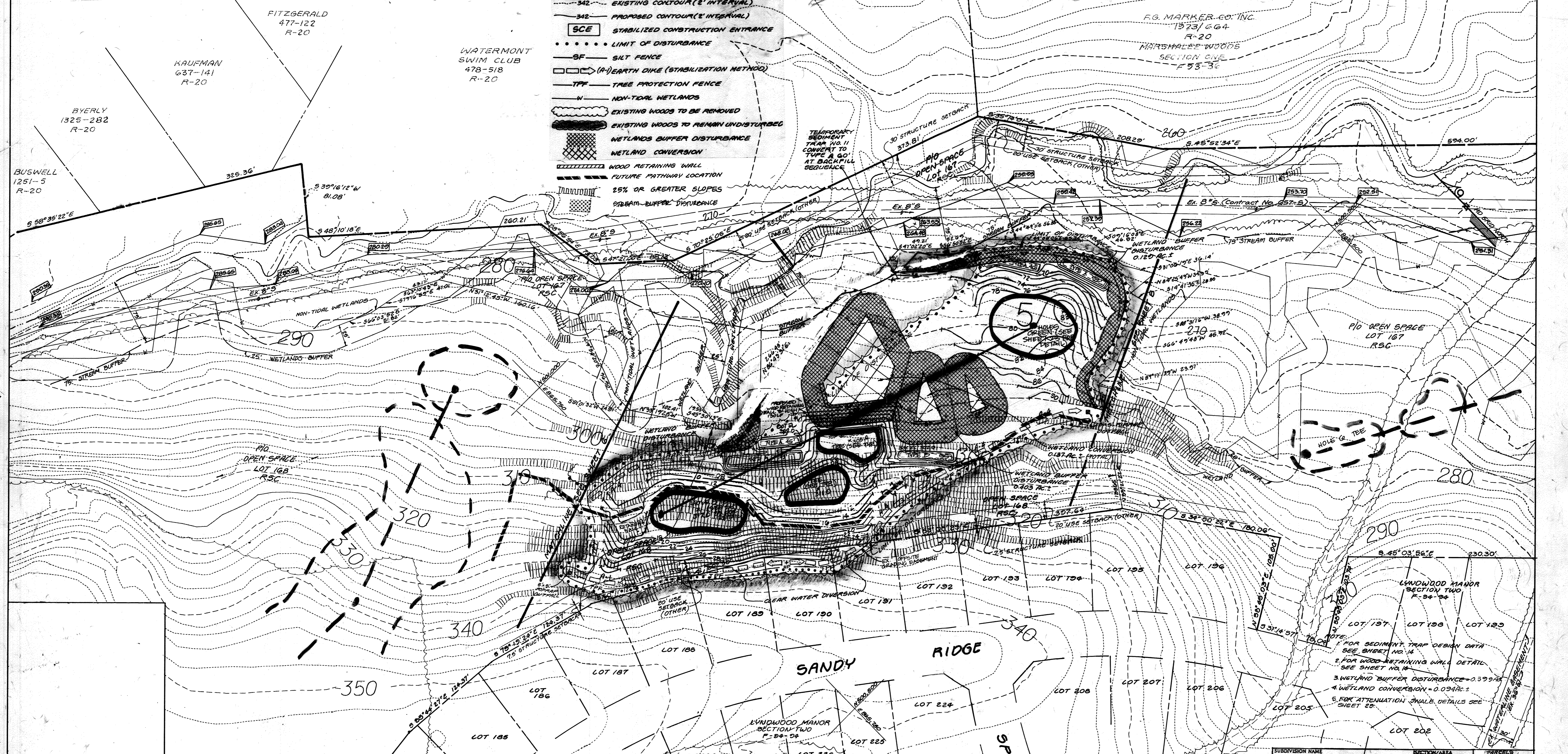
SITE DEVELOPMENT PLAN
HOLE 4
HOWARD COUNTY
GOLF COURSE
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE: 1"=50'
 DRAWING: 6 OF 28
 JOB NO.: 94-110
 95-006
 FILE NO.: SDP 93-75

LOE	Relocate Limit of Disturbance	0-30-95
BY	No	REVISION
		DATE

LEGEND

- ATTENUATION SHALE (LENGTH)
- EXISTING CONTOUR (2' INTERVAL)
- PROPOSED CONTOUR (2' INTERVAL)
- STABILIZED CONSTRUCTION ENTRANCE
- LIMIT OF DISTURBANCE
- SILT FENCE
- (A) EARTH DIKE (STABILIZATION METHOD)
- TREE PROTECTION FENCE
- NON-TIDAL WETLANDS
- EXISTING WOODS TO BE REMOVED
- EXISTING WOODS TO REMAIN UNDISTURBED
- WETLANDS BUFFER DISTURBANCE
- WETLAND CONVERSION
- WOOD RETAINING WALL
- FUTURE PATHWAY LOCATION
- 25% OR GREATER SLOPES
- STREAM-BUFFER DISTURBANCE



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 3/8/95
DIRECTOR

[Signature] 3/8/95
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

[Signature] 2/21/95
DIRECTOR

[Signature] 2/21/95
CHIEF, BUREAU OF ENGINEERING

Owner: Howard County, Maryland
3430 Courthouse Drive
Ellicott City, Maryland 21043

Developer: Rainmaker/Killian L.L.C.
5111 Avoca Avenue
Ellicott City, Maryland 21043

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] 2/21/95
U.S. SOIL CONSERVATION SERVICE

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

APPROVED: *[Signature]* 2/21/95
HOWARD S.C.D.

AS BUILT CERTIFICATE

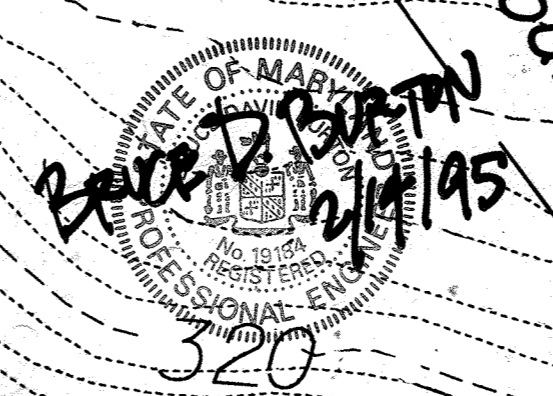
DATE

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

[Signature] 2/14/95
Signature of Engineer

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

[Signature] 2/14/95
Signature of Developer



SUBDIVISION NAME		SECTION/AREA		PARCELS	
CENTRE 9500/LINDWOOD MANOR		SEE SHEET 1		SEE SHEET 1	
PLAT NO.	BLOCK NO.	ZONE	TAX MAP NO.	ELECTION DISTRICT	CENSUS TRACT
11501-11581	10, 11	PEE/RSC	37	1	6011.01
WATER CODE		SEWER CODE			
N/A		N/A			

LDE, INC.
8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045
(410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

DESIGNED	JD	SCALE	1" = 50'
DRAWN	WJ	DRAWING	7 OF 20
CHECKED	RM/DOB	JOB NO.	94-110
DATE	11/95	75-000	
		FILE NO.	SDP-93-75

SITE DEVELOPMENT PLAN
HOLE 5
HOWARD COUNTY
GOLF COURSE
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

LEGEND

- 342 EXISTING CONTOUR (2' INTERVAL)
- 342 PROPOSED CONTOUR (2' INTERVAL)
- SCE STABILIZED CONSTRUCTION ENTRANCE
- LIMIT OF DISTURBANCE
- SF SILT FENCE
- (B-1) EARTH DIKE (STABILIZATION METHOD)
- TFF TREE PROTECTION FENCE
- W NON-TIDAL WETLANDS
- EXISTING WOODS TO BE REMOVED
- EXISTING WOODS TO REMAIN UNDISTURBED
- WETLAND BUFFER DISTURBANCE
- WETLAND CONVERSION
- FUTURE PATHWAY LOCATION
- 2% OR GREATER SLOPES
- STREAM BUFFER DISTURBANCE
- COLOCATED POLYETHYLENE TUBING
- ATTENUATION SWALE (LENGTH)

AS BUILT CERTIFICATE

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

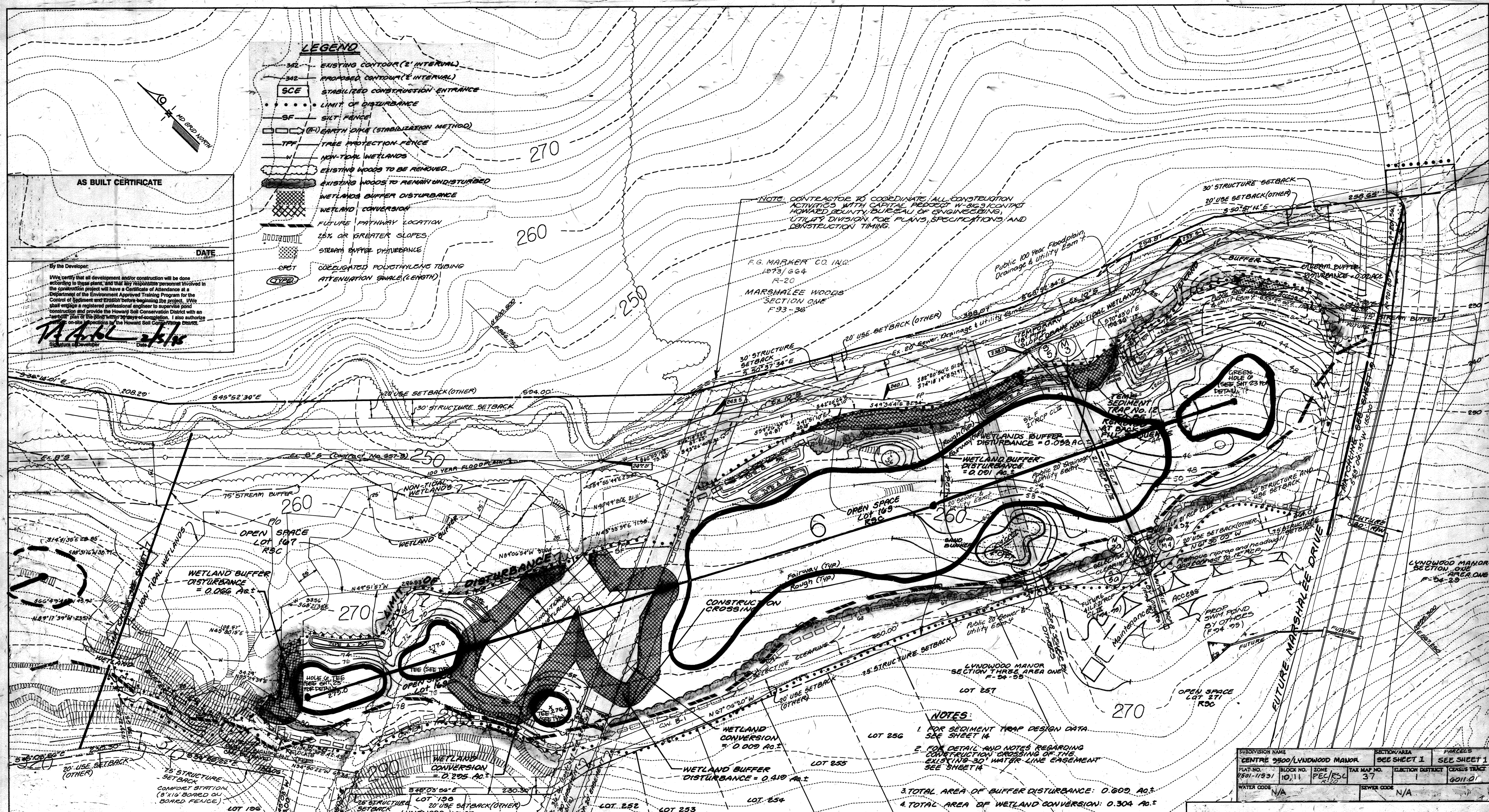
Signature of Developer *Date*

DATE

NOTE: CONTRACTOR TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH CAPITAL PROJECT WITH CONTACT HOWARD COUNTY BUREAU OF ENGINEERING, UTILITY DIVISION FOR PLANS, SPECIFICATIONS AND CONSTRUCTION TIMING.

FG MARKER CO. INC.
 1873/864
 R-20
 MARSHLEE WOODS
 SECTION ONE
 F-93-38

Public 100 Year Floodplain
 Drainage & Utility Easement



NOTES:

1. FOR SEDIMENT TRAP DESIGN DATA SEE SHEET 14
2. FOR DETAIL AND NOTES REGARDING CONSTRUCTION CROSSINGS OF THE EXISTING 30' WATER LINE EASEMENT SEE SHEET 14
3. TOTAL AREA OF BUFFER DISTURBANCE: 0.600 AC.
4. TOTAL AREA OF WETLAND CONVERSION: 0.304 AC.
5. STREAM BUFFER DISTURBANCE: 0.02 AC.
6. FOR ATTENUATION SWALE DETAIL SEE SHEET 23
7. FOR STORM DRAIN PROFILES SEE SHEET 21

SUBDIVISION NAME CENTRE 9900/LYNDWOOD MANOR		SECTION/AREA SEE SHEET 1	PARCELS SEE SHEET 1
PLAT NO. 1501-11831	BLOCK NO. 10, 11	ZONE REC/RS	TAX MAP NO. 37
WATER CODE N/A		ELECTION DISTRICT 1	CENSUS TRACT 6011-01
SEWER CODE N/A			

LDE, INC.
 8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045
 (410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

DESIGNED RKT-CLARK TD	SCALE 1"=50'
DRAWN WJ	DRAWING 8 OF 28
CHECKED BB	JOB NO. 24-110 95-006
DATE 1/95	FILE NO. SDP-93-75

SITE DEVELOPMENT PLAN
HOLE 6
HOWARD COUNTY
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Signature 3/8/95 DATE

Signature 3/8/95 DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Signature 2/21/95 DATE

Signature 2/21/95 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 2/1/95 DATE

U.S. SOIL CONSERVATION SERVICE

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

Signature 2/1/95 DATE

HOWARD S.C.D.

By the Engineer:
 I certify that this plan for pond construction, erosion and sediment control represents 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 have notified the developer that failure to employ a registered professional engineer to supervise pond construction will provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

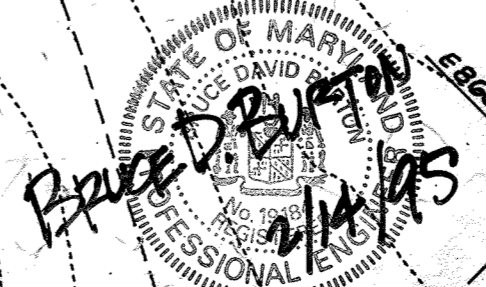
Signature 2/14/95 DATE

Signature of Engineer

Owner: Howard County, Maryland
 3430 Courthouse Drive
 Ellicott City, Maryland 21043

Developer: Rainmaker/Kilian L.L.C.
 5111 Avoca Avenue
 Ellicott City, Maryland 21043

7. FOR STORM DRAIN PROFILES SEE SHEET 21



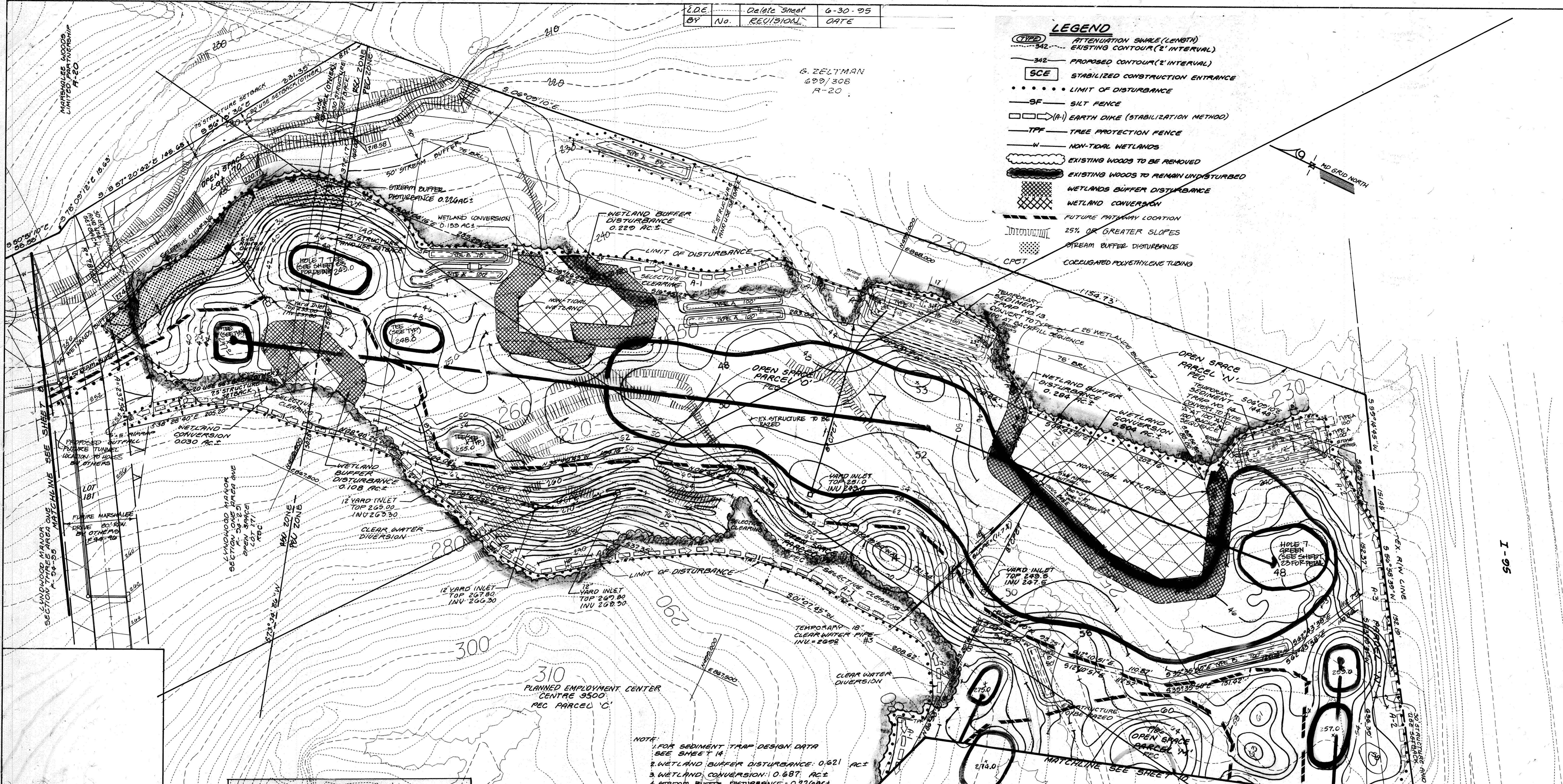
SANDY RIDGE

DATE	Delete Sheet	6-30-95
BY	No. REVISION	DATE

G. ZELTMAN
699/308
R-20

LEGEND

- ATTENUATION SWALE (LENGTH)
- EXISTING CONTOUR (2' INTERVAL)
- PROPOSED CONTOUR (2' INTERVAL)
- STABILIZED CONSTRUCTION ENTRANCE
- LIMIT OF DISTURBANCE
- SILT FENCE
- EARTH DIKE (STABILIZATION METHOD)
- TREE PROTECTION FENCE
- NON-TIDAL WETLANDS
- EXISTING WOODS TO BE REMOVED
- EXISTING WOODS TO REMAIN UNDISTURBED
- WETLANDS BUFFER DISTURBANCE
- WETLAND CONVERSION
- FUTURE PATHWAY LOCATION
- 25% OR GREATER SLOPES
- STREAM BUFFER DISTURBANCE
- COULGATED POLYETHYLENE TUBING



- NOTE:
- FOR SEDIMENT TRAP DESIGN DATA SEE SHEET 1A
 - WETLAND BUFFER DISTURBANCE: 0.621 AC±
 - WETLAND CONVERSION: 0.687 AC±
 - STREAM BUFFER DISTURBANCE: 0.226 AC±
 - FOR ATTENUATION SWALE DETAILS SEE SHEET 23

AS BUILT CERTIFICATE

APPROVED: <i>[Signature]</i> DIRECTOR	DATE: 3/8/95
APPROVED: <i>[Signature]</i> CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH	DATE: 3/8/95
APPROVED: <i>[Signature]</i> DIRECTOR	DATE: 2/1/95
APPROVED: <i>[Signature]</i> CHIEF, BUREAU OF ENGINEERING AND DESIGN	DATE: 2/1/95

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.

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

By the Developer:

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

[Signature] Date: 2/1/95

By the Engineer:

I certify that this plan for pond construction, erosion and sediment control represents a proposed site development plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that this plan requires 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] Date: 2/1/95

Owner: Howard County, Maryland
3430 Courthouse Drive
Elicott City, Maryland 21043

Developer: Rainmaker/Kilian L.L.C.
5111 Avoca Avenue
Elicott City, Maryland 21043

SUBDIVISION NAME		SECTION/AREA		PARCELS	
CENTRE 9500/LYNDWOOD MANOR		SEE SHEET 1		SEE SHEET 1	
PLAT NO.	BLOCK NO.	ZONE	TAX MAP NO.	ELECTION DISTRICT	CENSUS TRACT
W501-1180	10, 11	PEC/RSC	37	1	G011.01
WATER CODE		SEWER CODE			
N/A		N/A			

LDE, INC.
8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045
(410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

DESIGNED
MULT-CLARK
TD

DRAWN
WJ/SO

CHECKED
RM/EOB

DATE
1/95

SITE DEVELOPMENT PLAN
HOLE 7
HOWARD COUNTY
GOLF COURSE
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE
1" = 50'

DRAWING
9 OF 28

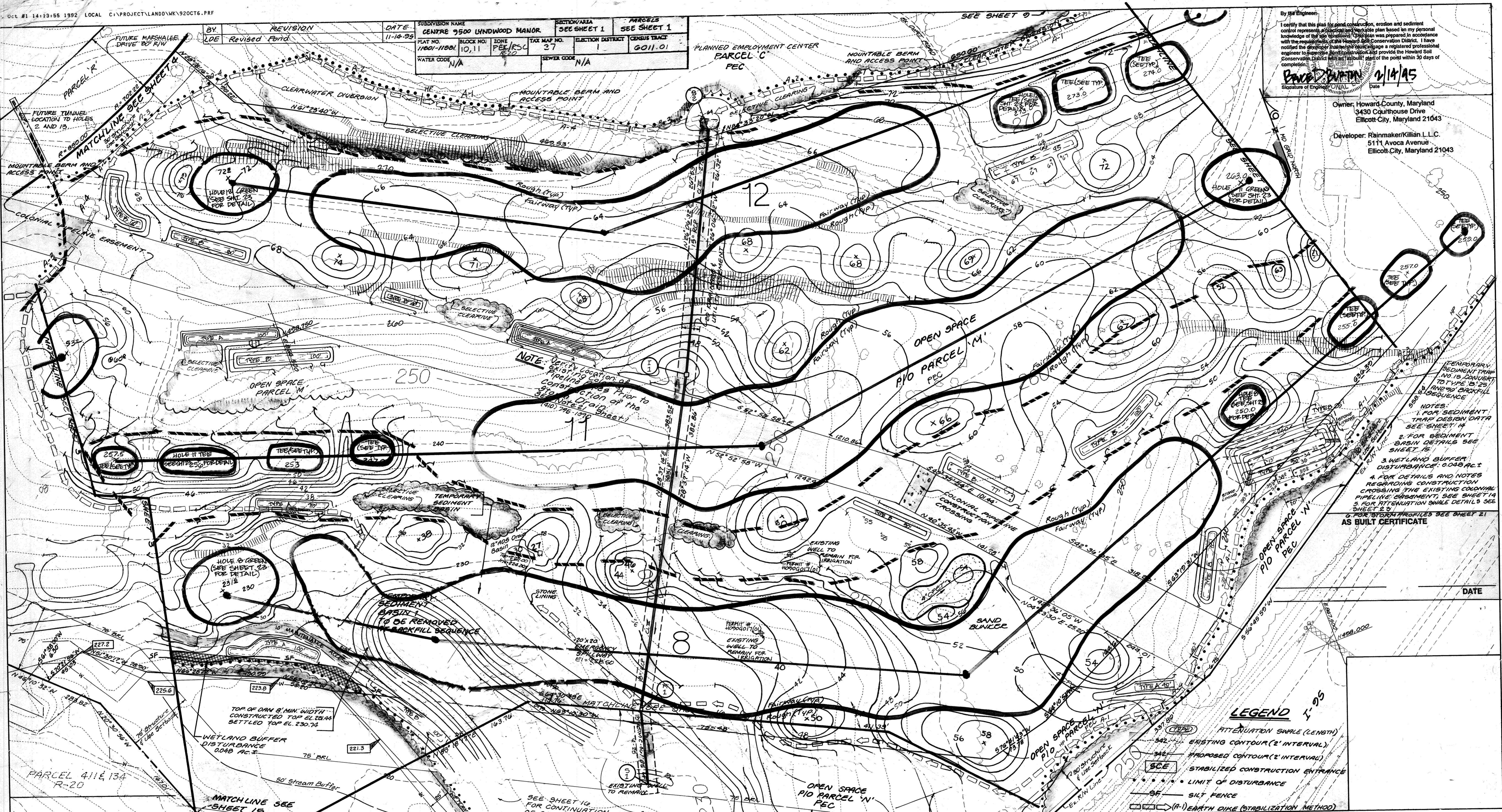
JOB NO.
94-110
95-006

FILE NO.
SDP-93-75

BY: LDE Revised Pond	REVISION	DATE: 11-14-95	SUBDIVISION NAME: CENTRE 9500 LYNDWOOD MANOR	SECTION/AREA: SEE SHEET 1	PARCELS: SEE SHEET 1
			PLAT NO: 11601-11801	BLOCK NO: 10,11	ZONE: PEE/RSC
			TAX MAP NO: 37	ELECTION DISTRICT: 1	CENSUS TRACT: 6011.01
			WATER CODE: N/A	SEWER CODE: N/A	

By the Engineer:
I certify that this plan for pond 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 requirements of the Howard Soil Conservation District. I have notified the developer of the requirements of a registered professional engineer to supervise construction and provide the Howard Soil Conservation District with an as-built plan of the pond within 30 days of completion.
BRUCE D. BARTON 11/14/95
Signature of Engineer Date

Owner: Howard County, Maryland
3430 Courthouse Drive
Ellicott City, Maryland 21043
Developer: Rainmaker/Kilian L.L.C.
5111 Avoca Avenue
Ellicott City, Maryland 21043



NOTE: Verify location of existing 30" diameter drain at the location of the 1410' x 1050' sheet.

- NOTES:
1. FOR SEDIMENT TRAP DESIGN DATA SEE SHEET 14
 2. FOR SEDIMENT BASIN DETAILS SEE SHEET 15
 3. WETLAND BUFFER DISTURBANCE: 0.048 AC ±
 4. FOR DETAILS AND NOTES REGARDING CONSTRUCTION CROSSING THE EXISTING COLONIAL PIPELINE EASEMENT, SEE SHEET 14
 5. FOR ATTENUATION SWALE DETAILS SEE SHEET 12
 6. FOR STORM PROFILES SEE SHEET 21 AS BUILT CERTIFICATE

LEGEND

ATTENUATION SWALE (LENGTH)	---
EXISTING CONTOUR (2' INTERVAL)	---
PROPOSED CONTOUR (2' INTERVAL)	---
STABILIZED CONSTRUCTION ENTRANCE	---
LIMIT OF DISTURBANCE	---
SILT FENCE	---
EARTH DIKE (STABILIZATION METHOD)	---

LEGEND (CONT)

25% OR GREATER SLOPES	---
FUTURE PATHWAY LOCATION	---
TREE PROTECTION FENCE	---
NON-TIDAL WETLANDS	---
EXISTING WOODS TO BE REMOVED	---
EXISTING WOODS TO REMAIN UNDISTURBED	---
WETLANDS BUFFER DISTURBANCE	---
WETLAND CONVERSION	---

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Jim Stumm 3/8/95
DIRECTOR DATE

Jim Stumm 3/8/95
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James P. Law 2/21/95
DIRECTOR DATE

Paul S. Brown 2/21/95
CHIEF, BUREAU OF ENGINEERING 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.

Patricia Engle 2/21/95
U.S. SOIL CONSERVATION SERVICE DATE

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

Robert W. Zichys 2/21/95
HOWARD S.C.D. DATE

LEGEND (CONT)

CPET CORRUGATED POLYETHYLENE TUBING

BRUCE D. BARTON 11/14/95
REGISTERED PROFESSIONAL ENGINEER

By the Developer:

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

T. A. H. H. 2/21/95
Signature of Developer Date

LDE, INC.
8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045
(410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

DESIGNED MULT-CLARK/TD	SCALE 1" = 50'
DRAWN WJ/SO	DRAWING 10 OF 28
CHECKED BB	JOB NO. 94-110 93-006
DATE 1/95	FILE NO. SDP-93-75

SITE DEVELOPMENT PLAN
HOLES 8,11,12
HOWARD COUNTY
GOLF COURSE
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SDP-93-75

APPROVED: BOARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 DATE: 3/18/95
 DIRECTOR: [Signature]

APPROVED: DIVISION OF LAND DEVELOPMENT AND RESEARCH
 DATE: 3/18/95
 CHIEF: [Signature]

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC DEPARTMENT OF PUBLIC WORKS
 DATE: 2/12/95
 DIRECTOR: [Signature]

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 DATE: 2/12/95
 APPROVER: HOWARD S.C.T. [Signature]

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.
 DATE: 2/14/95
 U.S. SOIL CONSERVATION SERVICE
 DATE: 2/14/95

By the Engineer:
 [Signature]
 DATE: 2/14/95

By the Developer:
 [Signature]
 DATE: 2/14/95

I certify that the plan for pond construction, erosion and sediment control represents a professional engineering plan based on my personal knowledge and experience. I have reviewed the plans and specifications and find them to be in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer of the requirements of the Howard Soil Conservation District and the requirements of the Howard County Department of Public Works. I have notified the developer of the requirements of the Howard County Department of Public Works and the requirements of the Howard County Department of Planning and Zoning. I have notified the developer of the requirements of the Howard County Department of Planning and Zoning and the requirements of the Howard County Department of Public Works. I have notified the developer of the requirements of the Howard County Department of Planning and Zoning, the Howard County Department of Public Works, and the Howard County Department of Land Development and Research.

FILE NO. SPT 93-75
 JOB NO. 93-00
 DRAWING NO. 12 OF 28
 SCALE: 1"=50'

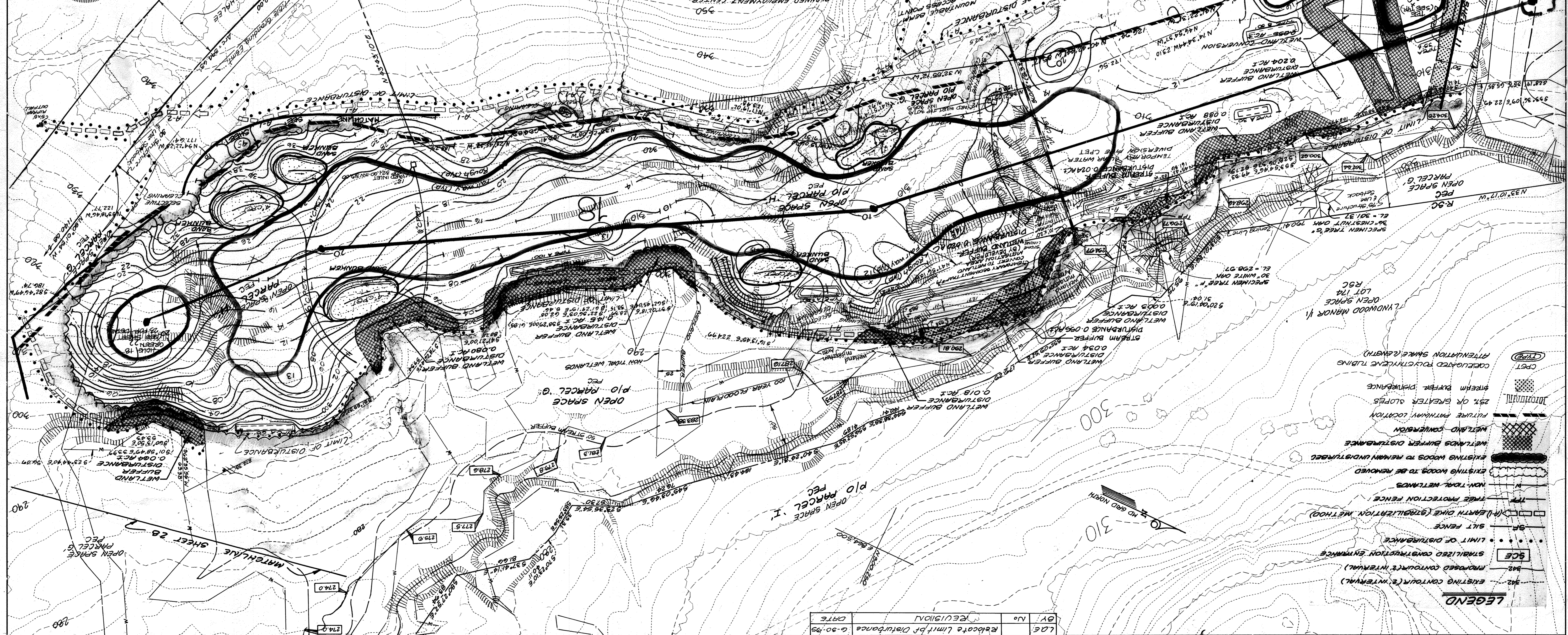
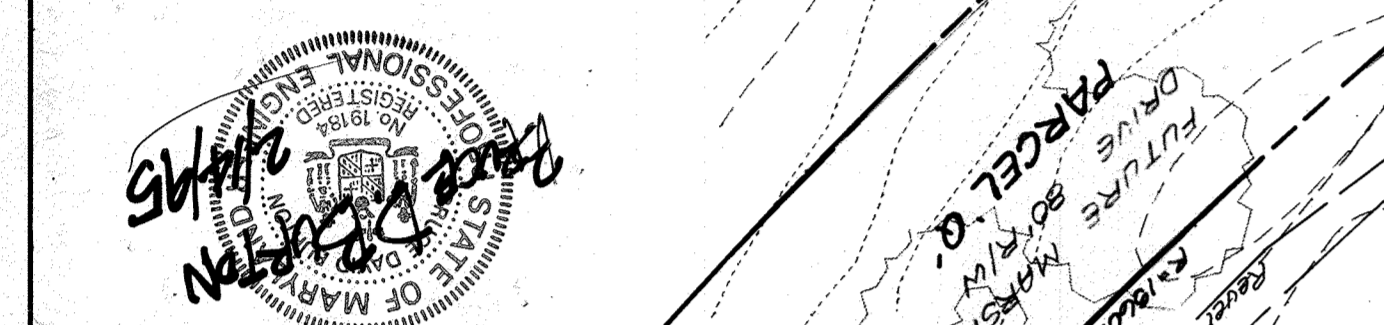
DESIGNED: [Signature]
 DRAWN: [Signature]
 CHECKED: [Signature]
 DATE: 1/95

8335 Columbia 100 Parkway, Unit N, Columbia, MD 21045
 (410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)
 LDE, INC.

SECTION NAME: CENTRE 9500/LANDWOOD MANOR SEC SHEET 1
 SECTION NO.: 27
 BLOCK NO.: 10, 11
 PLAT NO.: 11501-11504
 TAX MAP NO.: 27
 ZONE: R-9C
 SUBDIVISION NAME: CENTRE 9500/LANDWOOD MANOR SEC SHEET 1

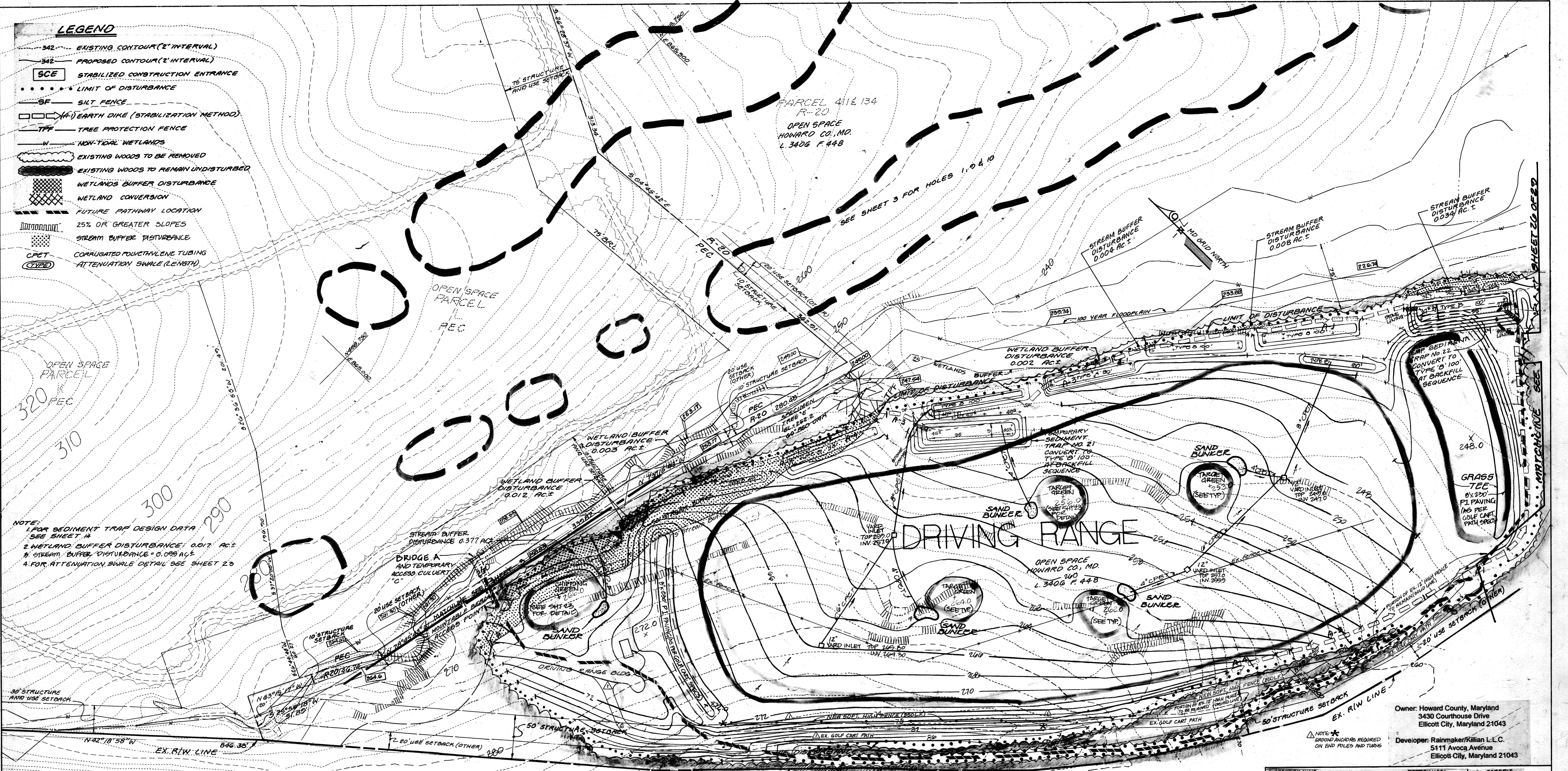
OWNER: Howard County, Maryland
 3430 Courthouse Drive
 Ellicott City, Maryland 21043

DEVELOPER: Rainmaker/Killian L.L.C.
 5111 Avoxa Avenue
 Ellicott City, Maryland 21043



- LEGEND**
- 412 EXISTING CONTOUR (INTERNAL)
 - 402 PROPOSED CONTOUR (INTERNAL)
 - 302 STABILIZED CONSTRUCTION ENTRANCE
 - 301 LIMIT OF DISTURBANCE
 - 201 (H) EARTH DIKE (GRAVELLATION METHOD)
 - 101 TREE PROTECTION FENCE
 - 001 NON-TYPICAL WETLANDS
 - 002 EXISTING WOODS TO BE REMOVED
 - 003 EXISTING WOODS TO REMAIN UNDISTURBED
 - 004 WETLANDS BUFFER DISTURBANCE
 - 005 FUTURE PATHWAY LOCATION
 - 006 25% OR GREATER SLOPES
 - 007 STREAM BUFFER DISTURBANCE
 - 008 CALCULATED POLYCHLORINATED TUBING
 - 009 CPOT

REV	NO.	REVISION	DATE
LDE	1	Rebate Limit of Disturbance	6-30-95



- LEGEND**
- 342 --- EXISTING CONTOUR (2' INTERVAL)
 - - - 342 - - - PROPOSED CONTOUR (2' INTERVAL)
 - SCE** STABILIZED CONSTRUCTION ENTRANCE
 - LIMIT OF DISTURBANCE
 - SF --- SILT FENCE
 - (H) --- EARTH DIKE (STABILIZATION METHOD)
 - TFF --- TREE PROTECTION FENCE
 - W --- NON-TIDAL WETLANDS
 - (X) --- EXISTING WOODS TO BE REMOVED
 - (X) --- EXISTING WOODS TO REMAIN UNDISTURBED
 - (X) --- WETLANDS BUFFER DISTURBANCE
 - (X) --- WETLAND CONVERSION
 - (X) --- FUTURE PATHWAY LOCATION
 - (X) --- 25% OR GREATER SLOPES
 - (X) --- STREAM BUFFER DISTURBANCE
 - (X) --- CORRUGATED POLYETHYLENE TUBING
 - (X) --- ATTENUATION SWALE (LENGTH)

NOTE:

1. FOR SEDIMENT TRAP DESIGN DATA SEE SHEET 1A
2. WETLAND BUFFER DISTURBANCE = 0.017 AC±
3. STREAM BUFFER DISTURBANCE = 0.099 AC±
4. FOR ATTENUATION SWALE DETAIL SEE SHEET 2B

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 3/8/95
DIRECTOR DATE

[Signature] 3/8/95
CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

[Signature] 2/21/95
DIRECTOR DATE

[Signature] 2/21/95
CHIEF BUREAU OF ENGINEERING 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] 2/21/95
U.S. SOIL CONSERVATION SERVICE DATE

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

[Signature] 2/21/95
APPROVED HOWARD S.C.D. DATE

By the Developer:

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

[Signature] 2/1/95
Signature of Developer Date

FOR REVISION No. 1

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF MARYLAND, LICENSE NO. 12975, EXPIRATION DATE: MAY 24, 2012.

[Signature] 3/18/95
PROFESSIONAL ENGINEER

By the Engineer:

I certify that this plan for pond construction, erosion and sediment control represents a practical and feasible plan based on my personal knowledge of the site conditions. I/We have 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 an "as-built" plan of the pond within 30 days of completion.

[Signature] 2/14/95
Signature of Engineer

NOTE: THE EX. GOLF CART PATH ADDS 3.711 SF TO THE IMPERVIOUS AREA.

2/12/96 ADDED DRIVING RANGE BUILDING

MD ROUTE 100

WEST BOUND LANE

EAST BOUND LANE

SUBDIVISION NAME CENTRE 9500/LINDWOOD MANOR		SECTION/AREA SEE SHEET 1		PARCELS SEE SHEET 1	
PLAT NO. 11501-11551	BLOCK NO. 10, 11	ZONE REC/ES	TAX MAP NO. 37	ELECTION DISTRICT 1	CENSUS TRACT 6011.01
WATER CODE N/A		SEWER CODE N/A			

LDE, INC.
8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045
(410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

DESIGNED BY: CLARY TO

DRAWN BY: WJ/50

CHECKED BY: R.M./008

DATE: 11/95

**SITE DEVELOPMENT PLAN
DRIVING RANGE
HOWARD COUNTY
GOLF COURSE
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND**

SCALE: 1" = 50'

DRAWING: 13 OF 28

JOB NO.: 94-110
95-000

FILE NO.: SDP-93-75

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.

Soil 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:

- Preferential:** Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq. ft.) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq. ft.).
- Acceptable:** Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq. ft.) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil.

Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq. ft.) of weeping lovegrass. During the period of October 16 thru February 29, 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/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 gallons per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 340 gallons per acre (8 gal/1000 sq. 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 re-disturbed where a short-term vegetative cover is needed.

Soil 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/1000 sq. ft.).

Seeding: For periods March 1 thru April 30 and from August 15 thru October 15, seed with 1/2 bushel per acre of annual rye (3.2 lbs/1000 sq. ft.). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.87 lbs/1000 sq. ft.). For the period November 16 thru February 29, 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/1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 gal per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slopes 8 ft. or higher, use 340 gal per acre (8 gal/1000 sq. ft.) for anchoring.

Refer to the 1993 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for additional rates and methods not covered.

REV 1/91

HOWARD SOIL CONSERVATION DISTRICT
STANDARD SEDIMENT CONTROL NOTES

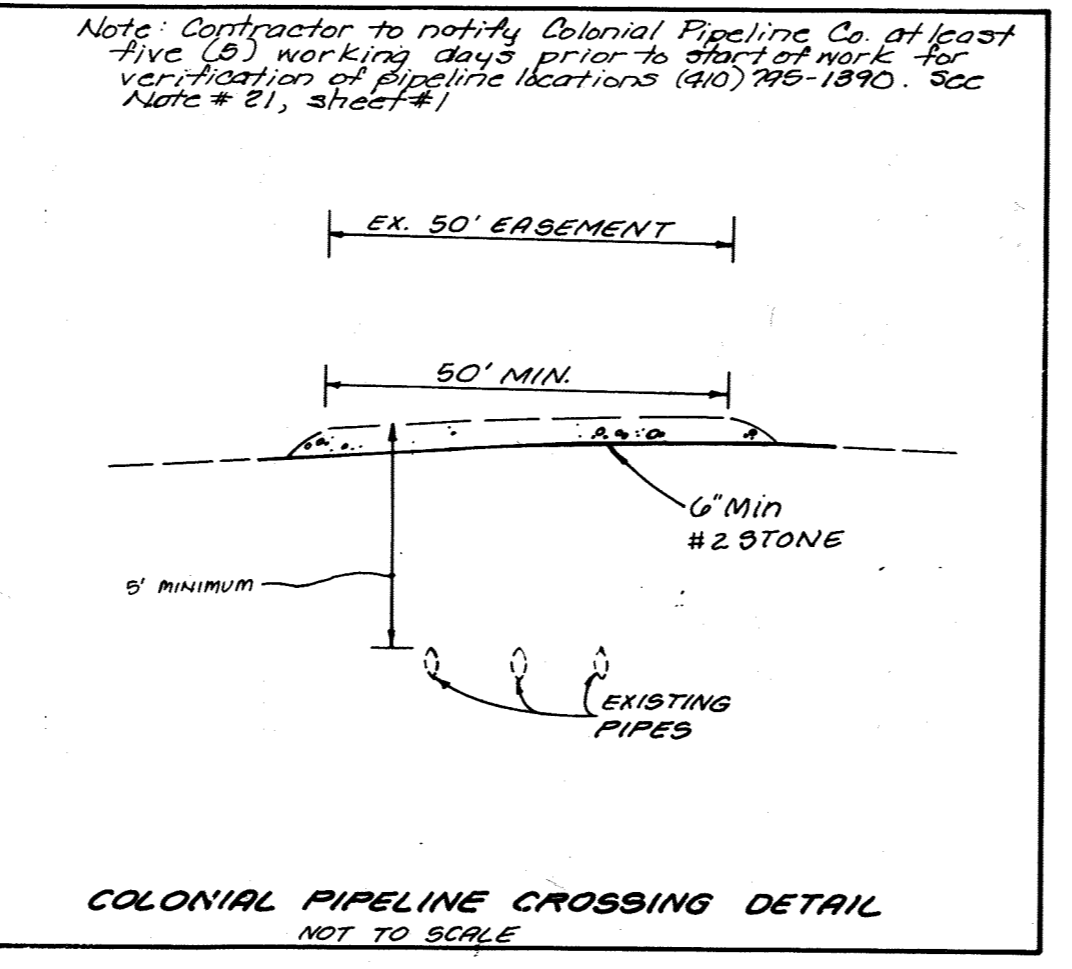
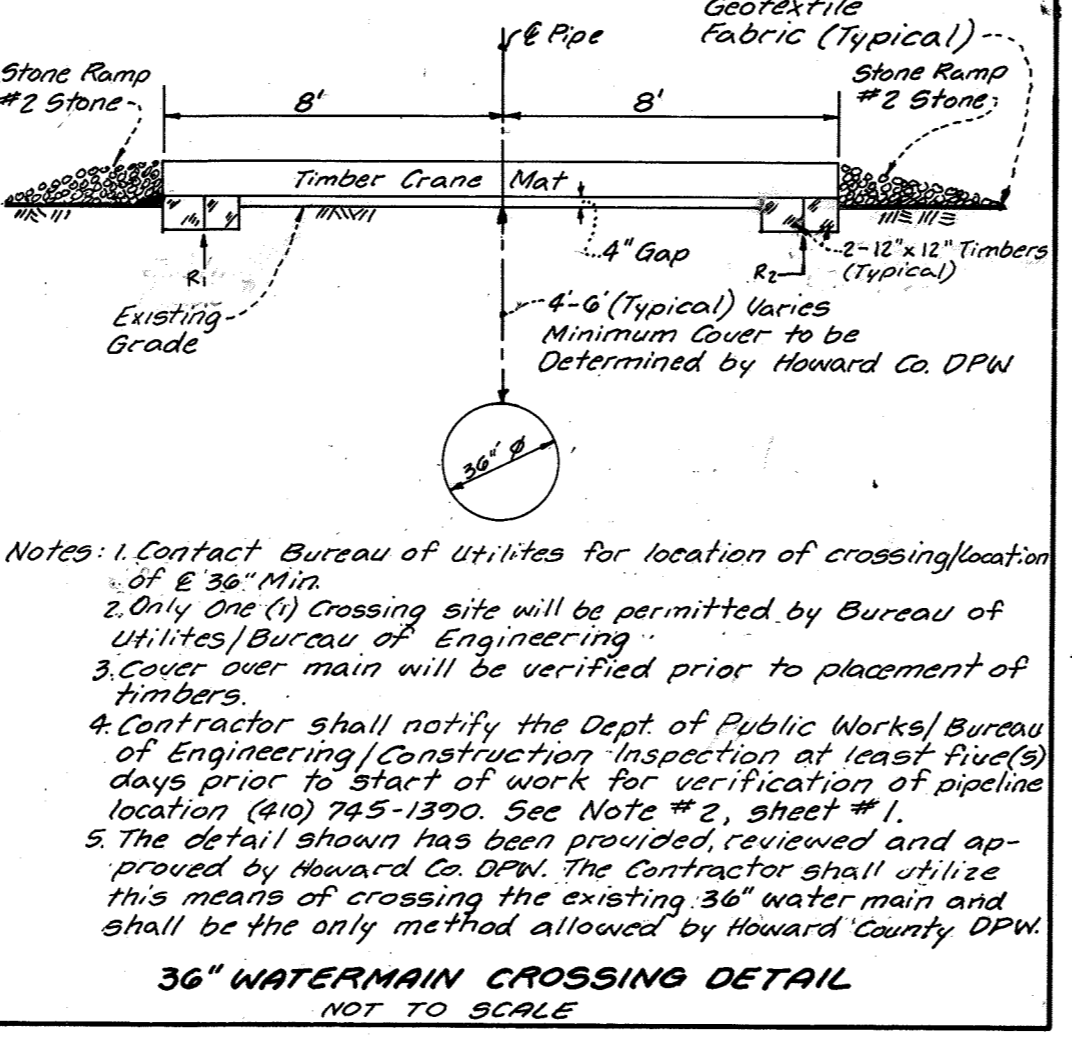
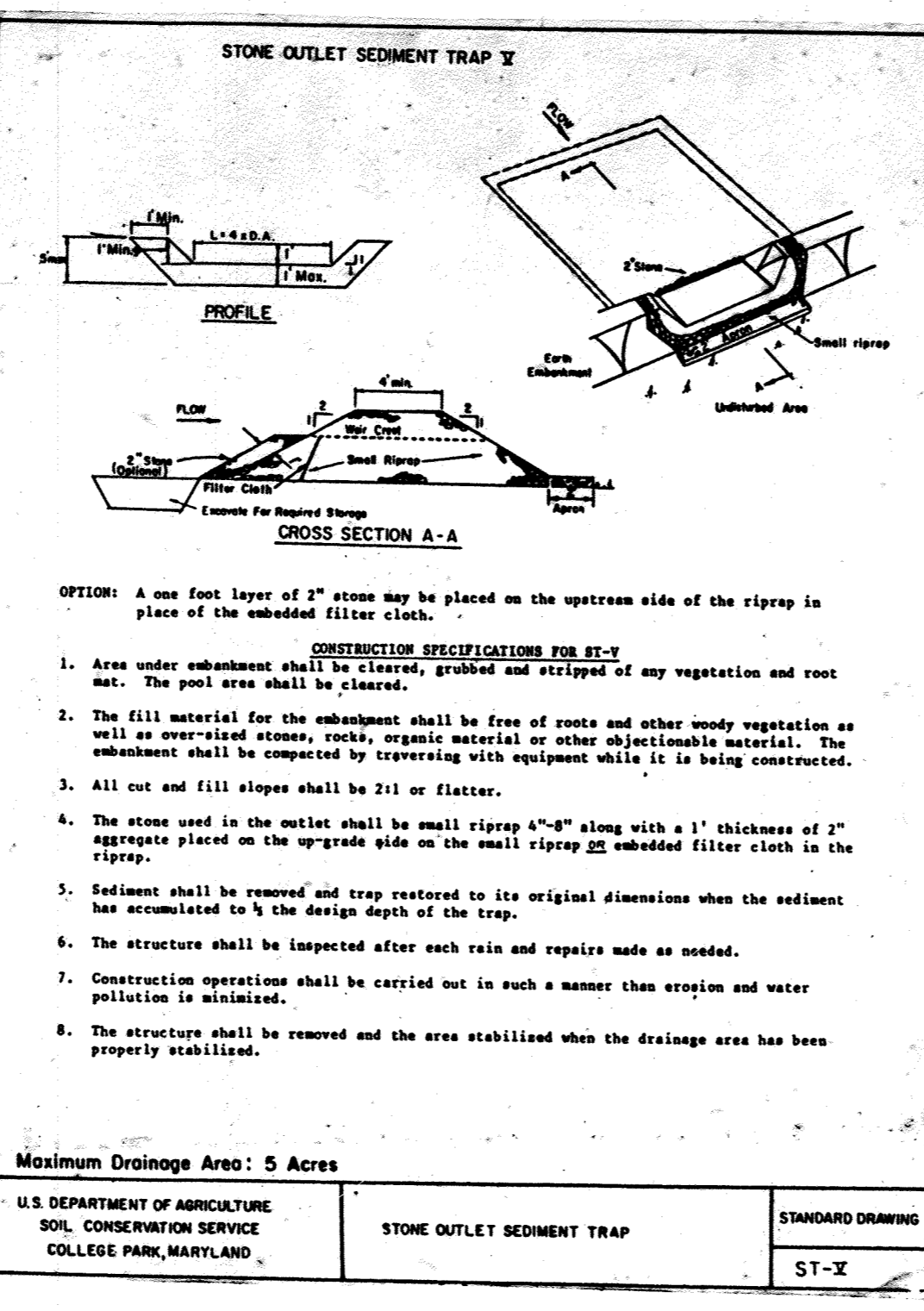
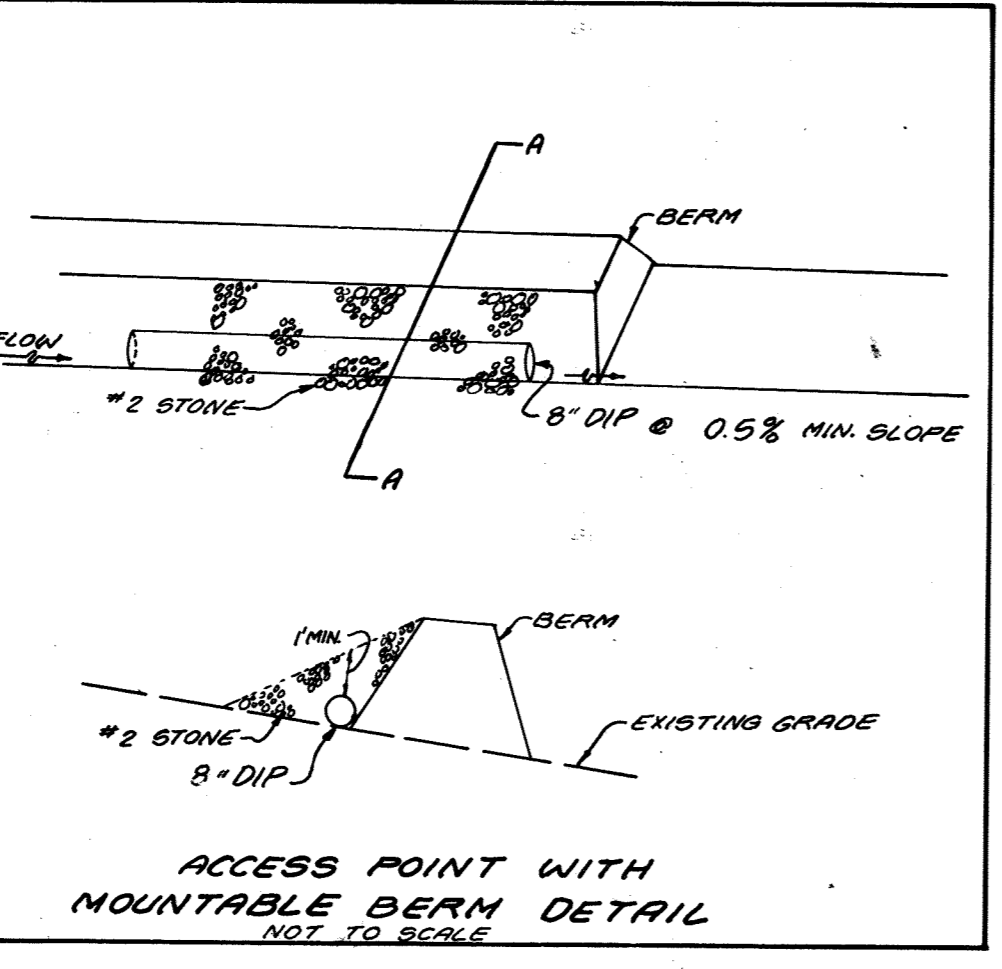
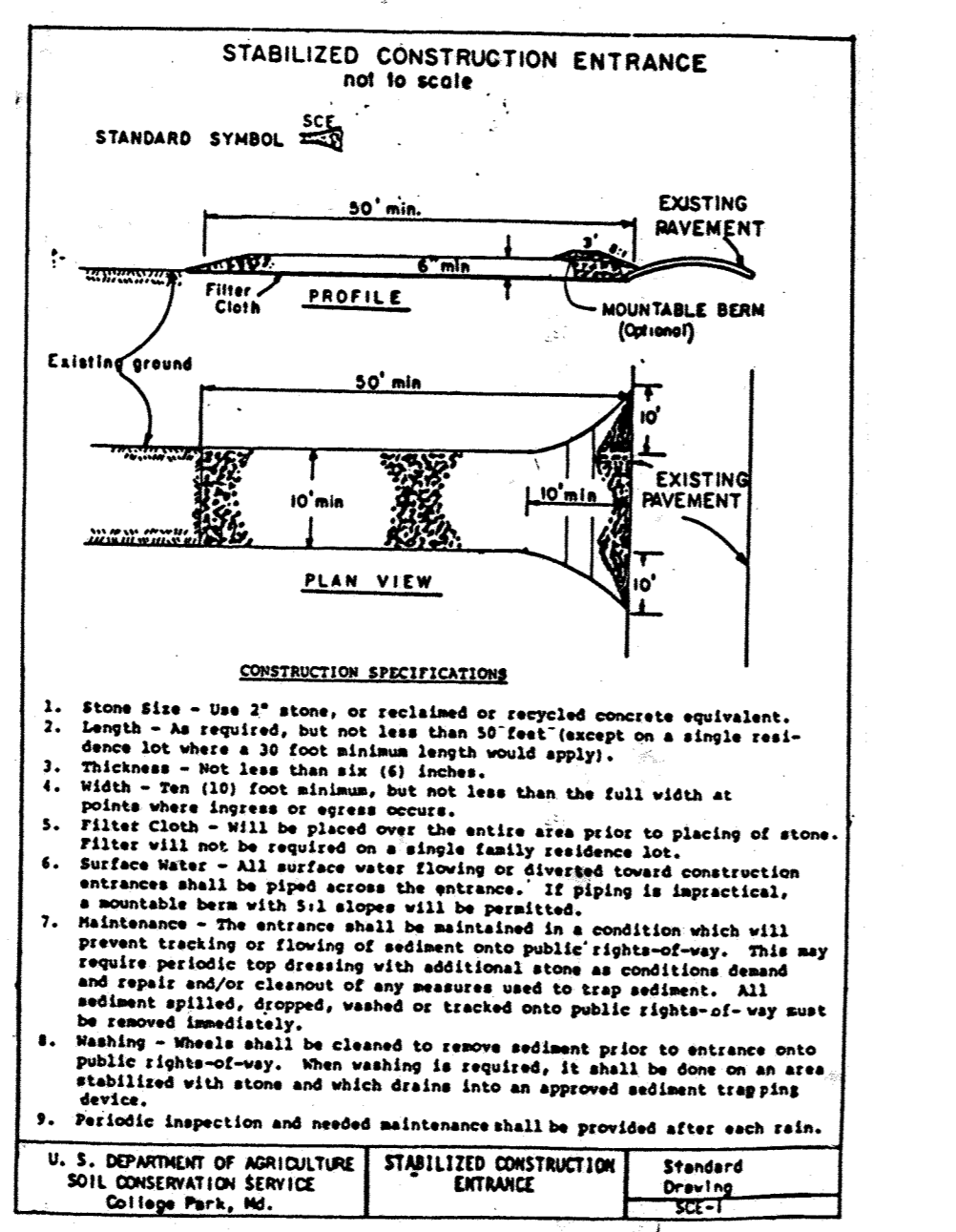
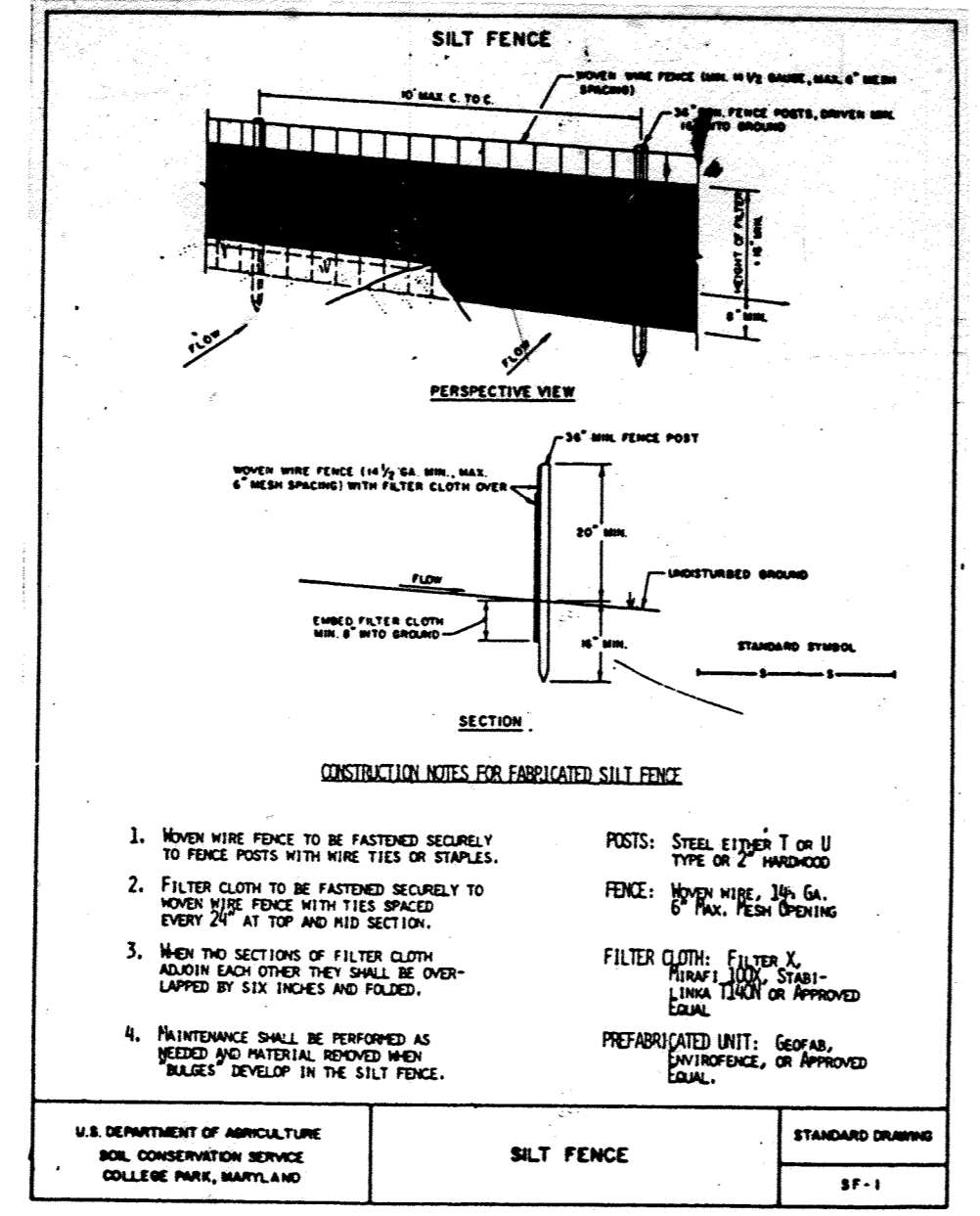
- A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction. (890-3450).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the most current "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", and revisions thereto.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1993 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, for permanent seeding (Sec. 51), sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). 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: 170.5 Acres
Area Disturbed: 122.8 Acres
Area to be roofed or paved: 2.6 Acres
Area to be vegetatively stabilized: 120.2 Acres
Total Cut: 221,992 Cu. Yds.
Total Fill: 17,288 Cu. Yds.
Offsite waste/borrow area location: Nulla Material to be stockpiled onsite for use at clubhouse location.
- 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.

REV 1/91

SUBDIVISION NAME CENTRE 9500 LINDWOOD MANOR		SECTION/AREA SEE SHEET 1		PLOTS SEE SHEET 1	
PLAT NO. 1150-116.31	BLOCK NO. 10, 11	ZONE RES	TAX MAP NO. 37	ELECTION DISTRICT 1	CENSUS TRACT 0011.01
WATER CODE N/A		SEWER CODE N/A			

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
Date: 3/8/95
Director: Diana Stummans
Chief, Division of LAND DEVELOPMENT AND RESEARCH

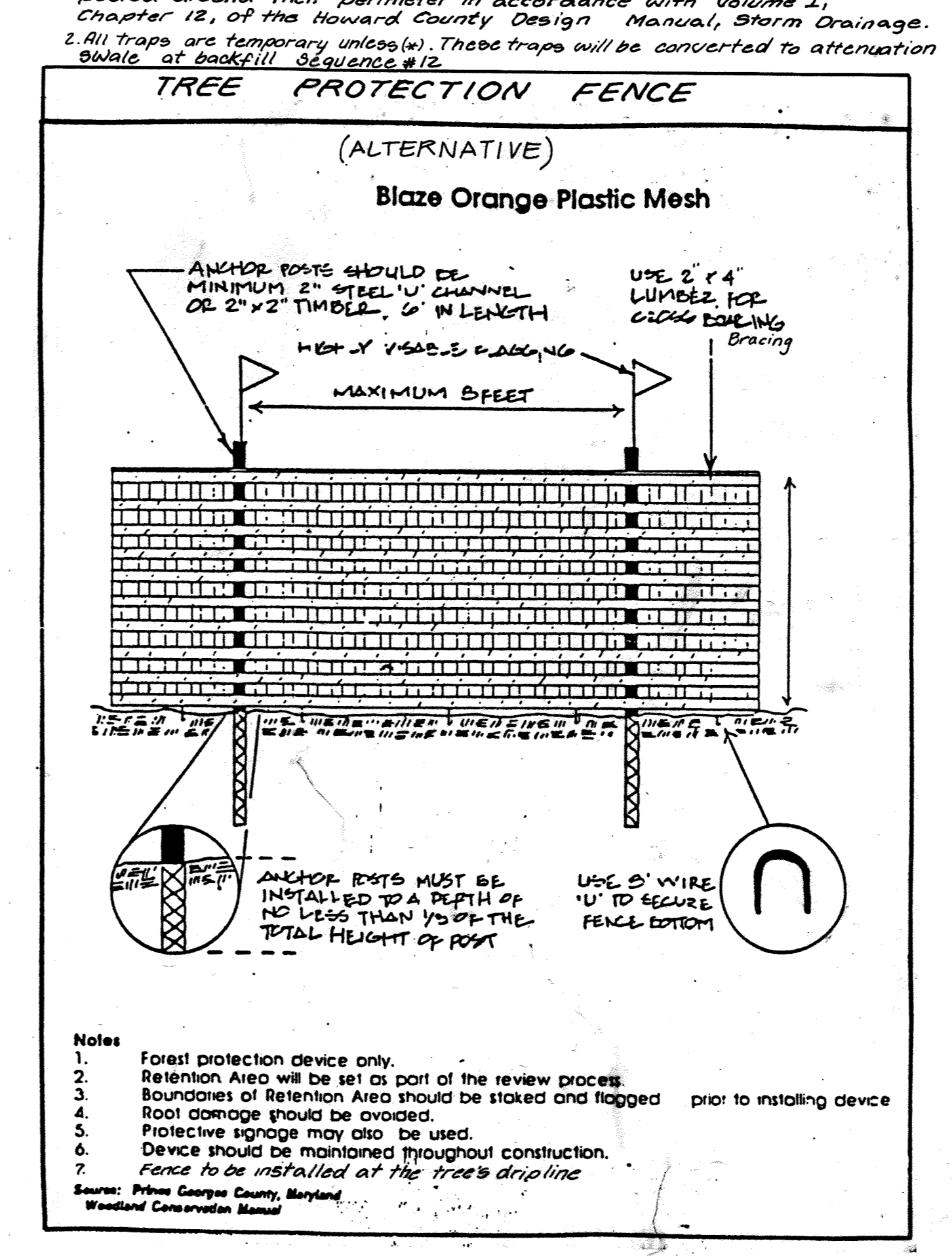
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Date: 2/21/95
Director: James J. Lee
Chief, Bureau of Engineering



NOTE: Traps No. G.8,17,19 to be converted to permanent wetland mitigation areas.

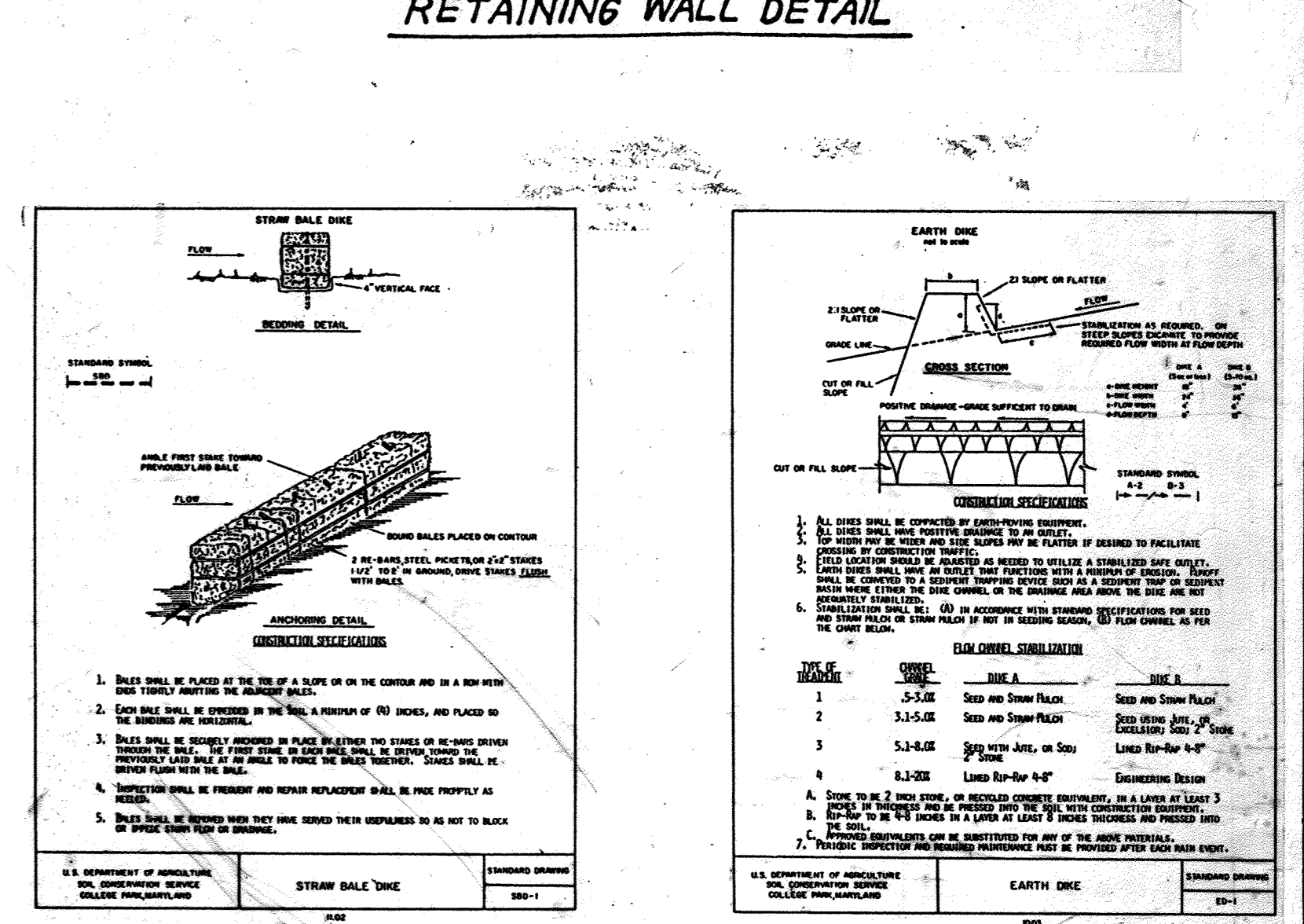
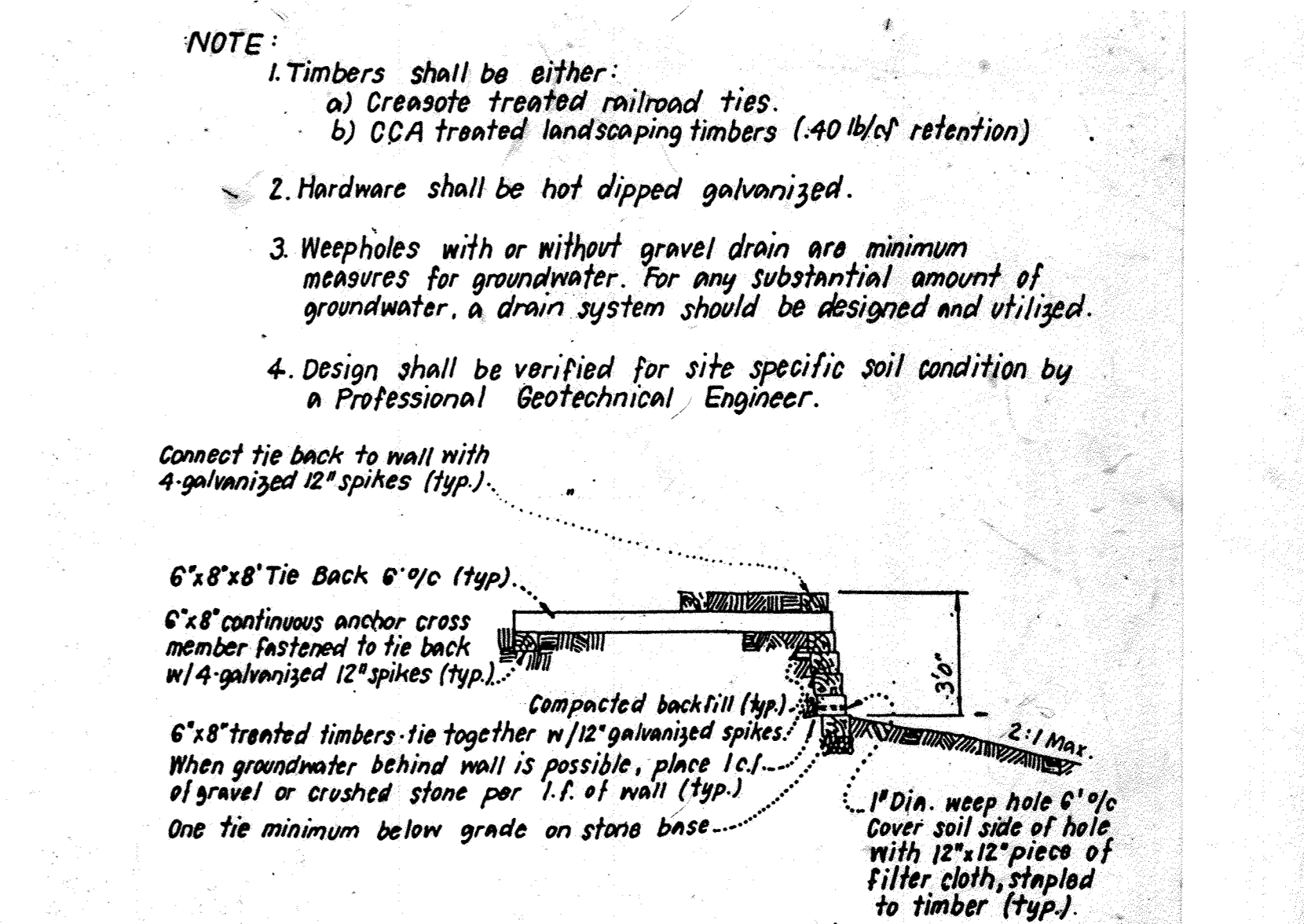
Trap No.	Max. D.A.	Stor. Req'd	Stor. Prov.	Stor. Elev.	Stor. Depth	Weir Length	Bottom Elev.	Cleanout Elev.	Crest Elev.	Top Elev.	Trap Size	Type
1*	4.09	7362	8,800	237.0	4.0'	17.0'	233.0	234.5	238.0	239.0	22x92	ST-V
2*	3.0	5400	8,000	273.0	4.0'	13.0'	269.0	270.4	274.0	275.0	17x91	ST-V
3*	3.0	5400	8,800	263.0	4.0'	13.0'	259.0	260.7	264.0	265.0	13x93	ST-V
4*	4.5'	8100	8,200	231.0	4.0'	19.0'	227.0	229.3	232.0	233.0	13x92	ST-V
5	3.3	5940	11,700	248.8	4.0'	15.0'	244.8	245.8	249.8	251.0	23x87	ST-V
6**	3.85	6930	10,400	256.5	4.0'	15.0'	252.5	253.7	257.5	258.5	43x68	ST-V
7**	2.53	4554	9,520	279.0	4.0'	12.0'	275.0	276.1	280.0	281.0	PLAM	ST-V
8**	3.0	5400	9,470	295.0	4.0'	14.0'	291.0	292.1	296.0	297.0	30x56	ST-V
9	3.9	7020	7,140	322.0	4.0'	16.0'	318.0	320.2	323.5	325.0	14x76	ST-V
10**	4.28	8640	8,700	294.0	4.0'	18.0'	290.0	292.0	295.0	297.0	PLAM	ST-V
11**	2.04	3672	4,500	272.0	4.0'	9.0'	268.0	270.1	273.0	275.0	7x66	ST-V
12	2.9	5220	6,700	239.0	4.0'	13.0'	235.0	236.6	240.0	241.0	19x58	ST-V
13**	3.9	7020	9,348	233.0	4.0'	17.0'	229.0	230.6	234.0	235.0	13x114	ST-V
14**	1.9	3420	6,160	231.0	4.0'	8.0'	227.0	228.5	232.0	233.0	12x65	ST-V
15	5.0	9000	11,000	237.0	5.0'	20.0'	232.0	234.4	238.0	239.0	13x90	ST-V
16**	3.5	6300	9,504	301.0	4.0'	15.0'	297.0	298.4	302.0	303.0	15x100	ST-V
17**	4.5	8100	14,400	339.0	5.0'	20.0'	334.0	335.0	340.0	342.0	PLAM	ST-V
18**	2.75	4950	5,700	325.0	4.0'	12.0'	321.0	322.6	326.0	327.0	16x67	ST-V
19**	4.98	8964	9,000	292.5	4.0'	20.0'	288.5	290.3	293.5	294.5	11x127	ST-V
20**	3.2	5760	9,360	284.0	4.0'	16.0'	280.0	281.3	285.0	286.0	10x125	ST-V
21**	4.2	7560	7,980	247.0	4.0'	17.0'	245.0	246.9	248.0	249.0	13x95	ST-V
22**	3.9	7020	8,820	233.0	4.0'	17.0'	227.0	231.0	232.0	235.0	15x95	ST-V

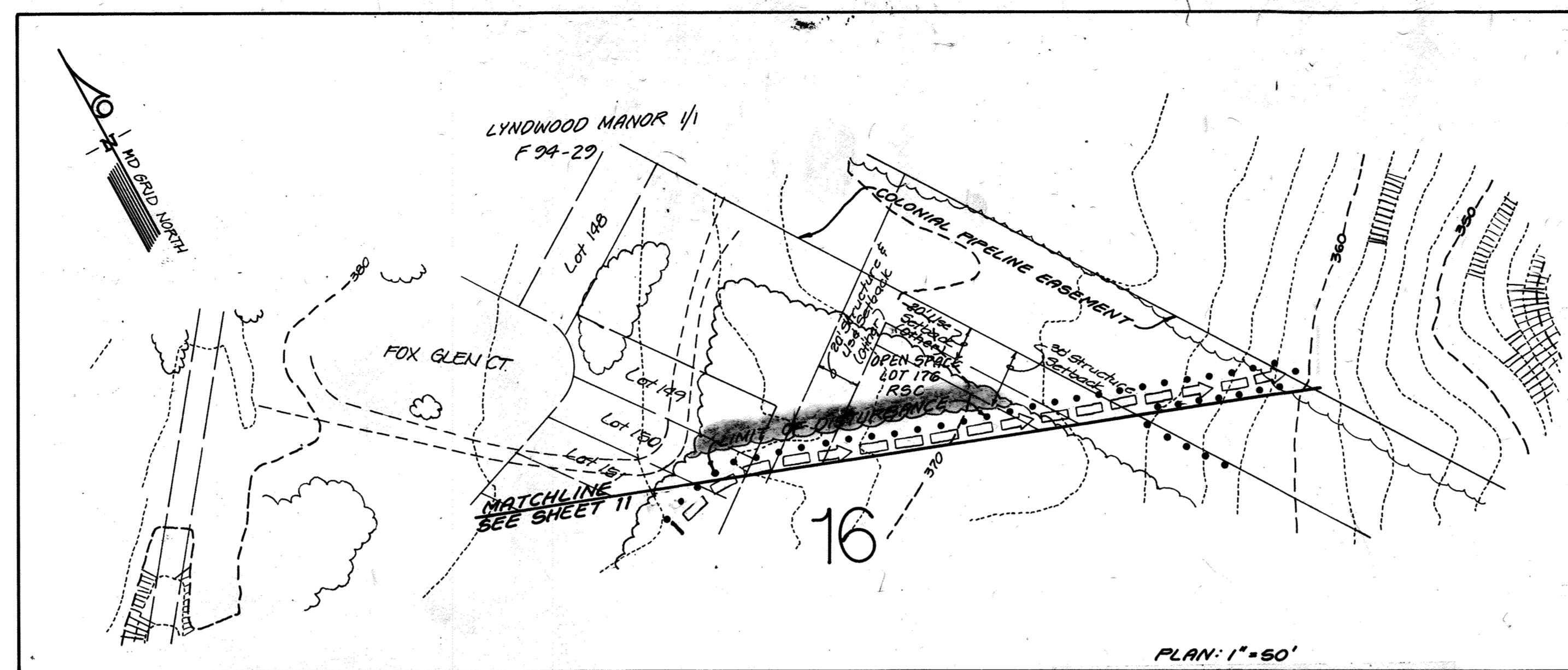
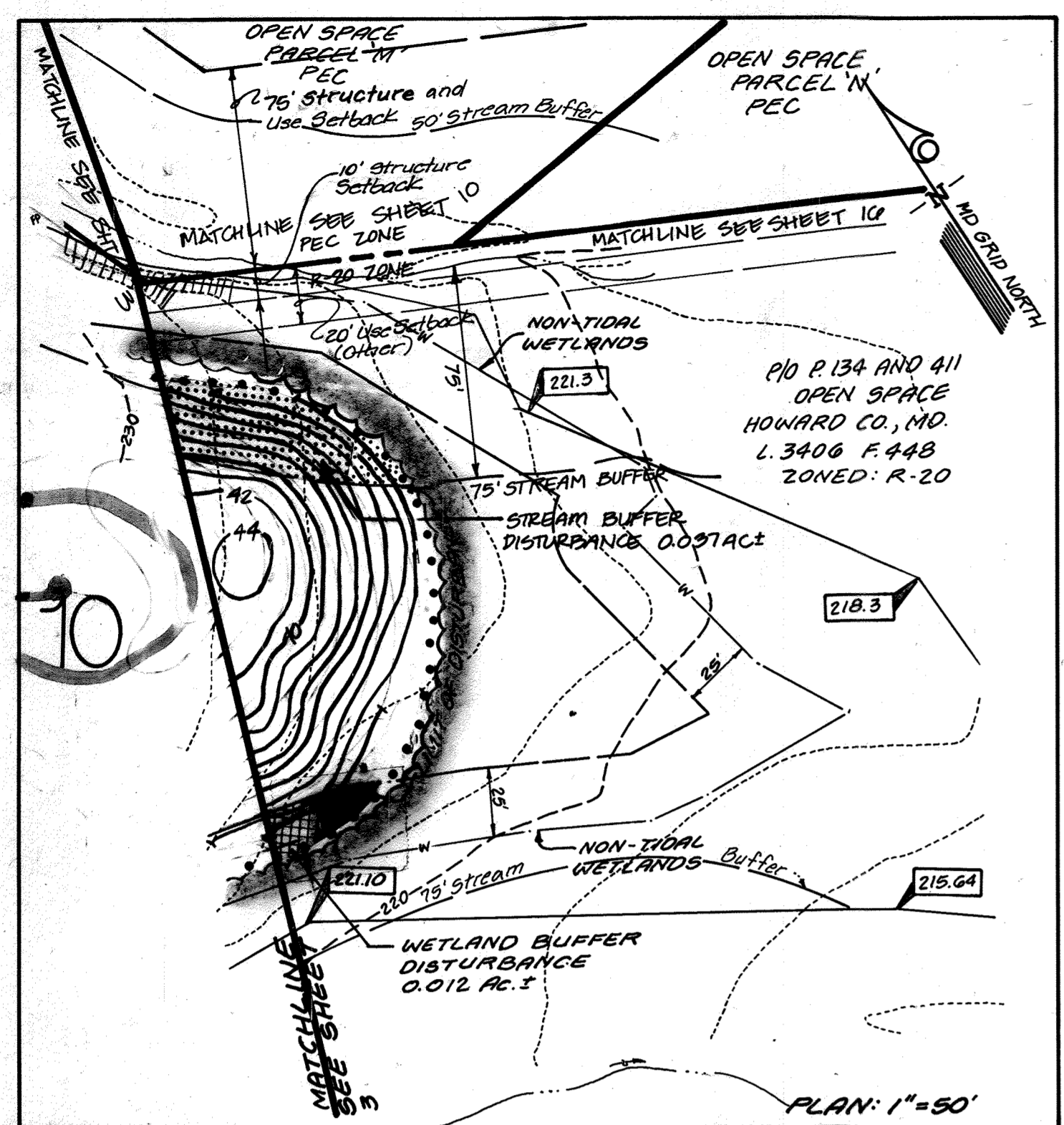
NOTE: 1. All sediment traps shown must be fenced and warning signs posted around their perimeter in accordance with Volume I, Chapter 12, of the Howard County Design Manual, Storm Drainage.
2. All traps are temporary unless (a). These traps will be converted to attenuation basins of backfill sequence #12.



CONSTRUCTION SEQUENCE

- Obtain grading permit. 1 Day
- Install stabilized construction entrances. 1 Day
- Install temporary crossings at the specified locations of the phased area, per the specifications and details on sheet 24. 1 Week
- Contractor to notify inspector and engineer of proposed phasing. No more than 25 acres may remain unutilized at any one time. Stake-out clearing limits, walk limits with project forester and golf course architect and adjust limits as required. See sheet 22 for tree protection notes. Install tree protection fence. 1 Week
- Clear and grub for dikes, silt fences, traps and/or basins, and/or temporary pipes. Install perimeter controls and pipes, ignoring location of attenuation swales if in conflict with the perimeter controls. Construct irrigation ponds. 1 Week
- Upon approval by the Sediment Control Inspector, clear and grub balance of phased area. 1 Month
- Grade applicable phase. 2 Months
- Stabilize applicable phase, using permanent seeding mixture and straw mulch, per golf course architect's specifications. 2 Weeks
- Install pathway and begin mitigation activities. 1 Month
- Repeat #3-8 until all phases are complete. 1 Year
- Contractor to allow access to mitigation areas for the duration of construction activities. Upon inspector's approval, close traps 1-5, 7, 9, 10, 11-16, 18, 20-22, and remove perimeter controls and stabilize any disturbed area using final seeding mixture and straw mulch, except in fairway areas, which shall be sodded. Construct retention attenuation swales. If area is questionable, use sod. 1 Month





TEMPORARY SEDIMENT BASIN

CONSTRUCTION SPECIFICATIONS

Site Preparation
Area under the embankment shall be cleared, grubbed, and stripped of topsoil to above trees, vegetation, roots or other objectionable material. In order to facilitate clean-out and restoration, the pool area (measured at the top of the pipe spillway) will be cleared of all brush, trees, and other objectionable materials.

Cut-off Trench
A cut-off trench shall be excavated along the centerline of earth fill embankment. The minimum depth shall be two feet. The cut-off/trench shall extend up both abutments to the riser crest elevation. The minimum width shall be four feet, but wide enough to permit operation of excavation and compaction equipment. The side slopes shall be no steeper than 1:1. Compaction requirements shall be the same as those for embankment. The trench shall be dewatered during the backfilling/compaction operations.

Embankment
The fill material shall be taken from approved areas shown on the plans. It shall be clean mineral soil free of roots, woody vegetation, oversized stones, rocks, or other objectionable material. Relatively previous materials such as sand or gravel (Unified Soil Classes SW, SP, SM & SS) shall not be placed in the embankment. Areas of which fill is to be placed shall be scarified prior to placement of fill. The fill material shall contain sufficient moisture so that it can be formed by hand into a ball without crumbling. If water can be squeezed out of the ball, it is too wet for proper compaction. Fill material shall be placed six-inch to eight-inch thick continuous layers over the entire length of the fill. Compaction shall be obtained by routing and leveling the construction equipment over the fill so that the entire surface of each layer of the fill is traversed by at least one wheel or tread track of the equipment or by the use of a compactor. The embankment shall be constructed at an elevation 10 percent higher than the design height to allow for settlement.

Pipe Spillways
The riser shall be securely attached to the barrel or barrel stub by welding the full circumference making a watertight connection. The barrel stub must be attached to the riser at the same percent (angle) of grade as the outlet conduit. The connection between the riser and the barrel base shall be watertight. All connections between barrel sections must be achieved by approved watertight band assemblies. (See page 10.22 for details.) The barrel and riser shall be placed on a firm, smooth foundation of impervious soil. Perforated materials such as sand, gravel, or crushed stone shall not be used as backfill around the pipe or anti-seep collar. The fill material around the pipe spillway shall be placed in four inch layers and compacted under and around the pipe to at least the same density as the adjacent embankment.

A minimum depth of two feet of hand compacted backfill shall be placed over the pipe spillways before crossing it with construction equipment. Steel base plates on risers shall have at least 2-1/2 feet of compacted earth, stone or gravel placed over it to prevent flotation.

Emergency Spillway
The emergency spillway shall be installed in undisturbed ground. The achievement of planned elevations, grades, design width, entrance and exit channel slopes are critical to the successful operation of the emergency spillway. In no case shall the embankment remain unstabilized for more than seven(7) days.

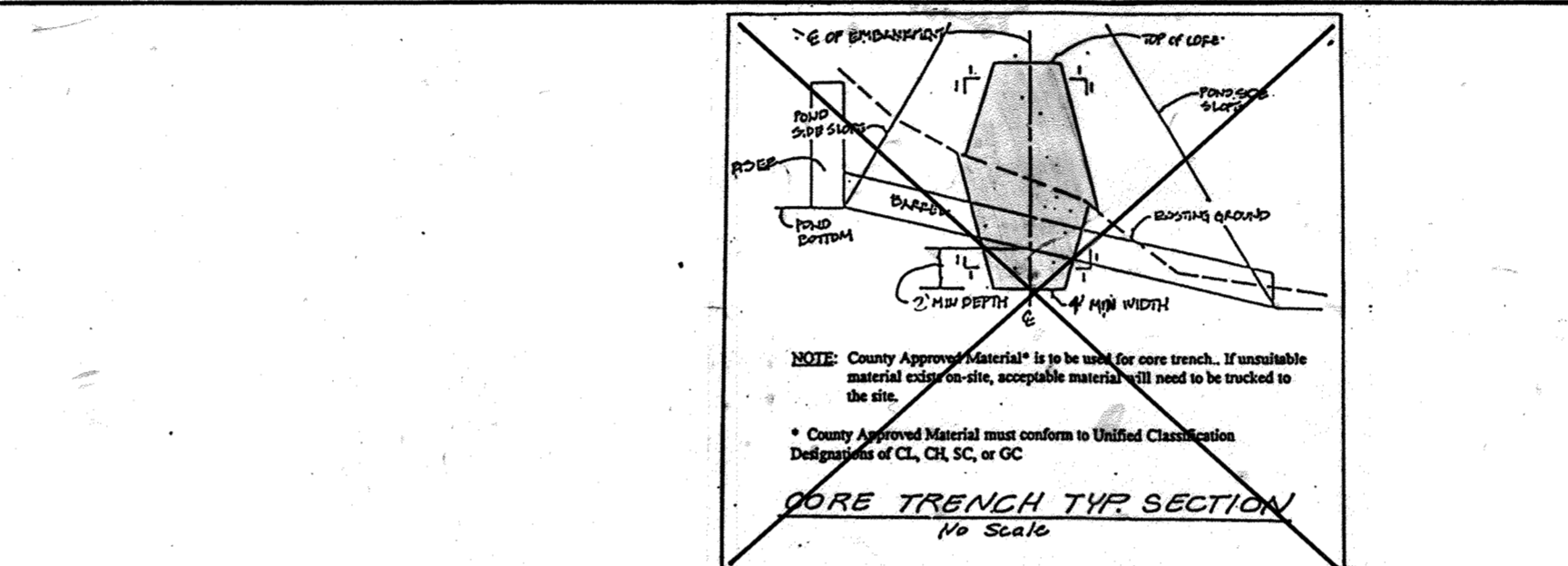
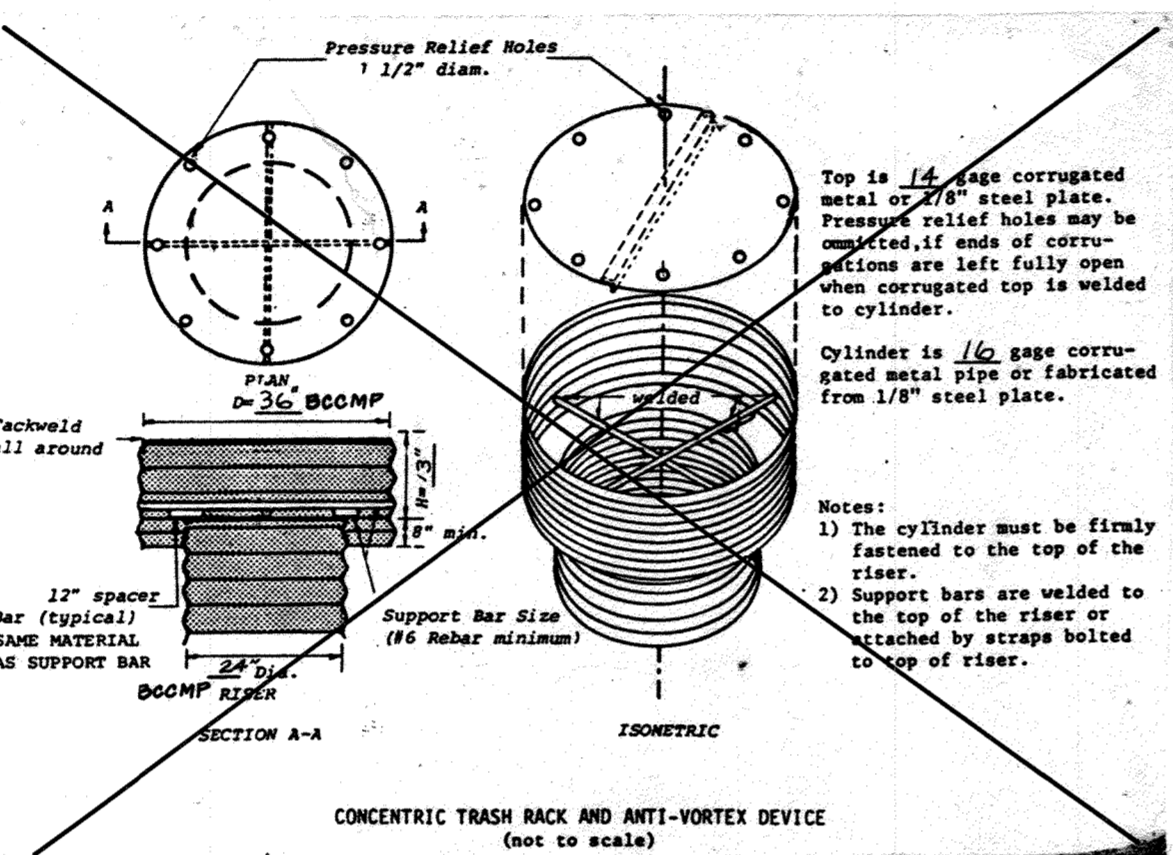
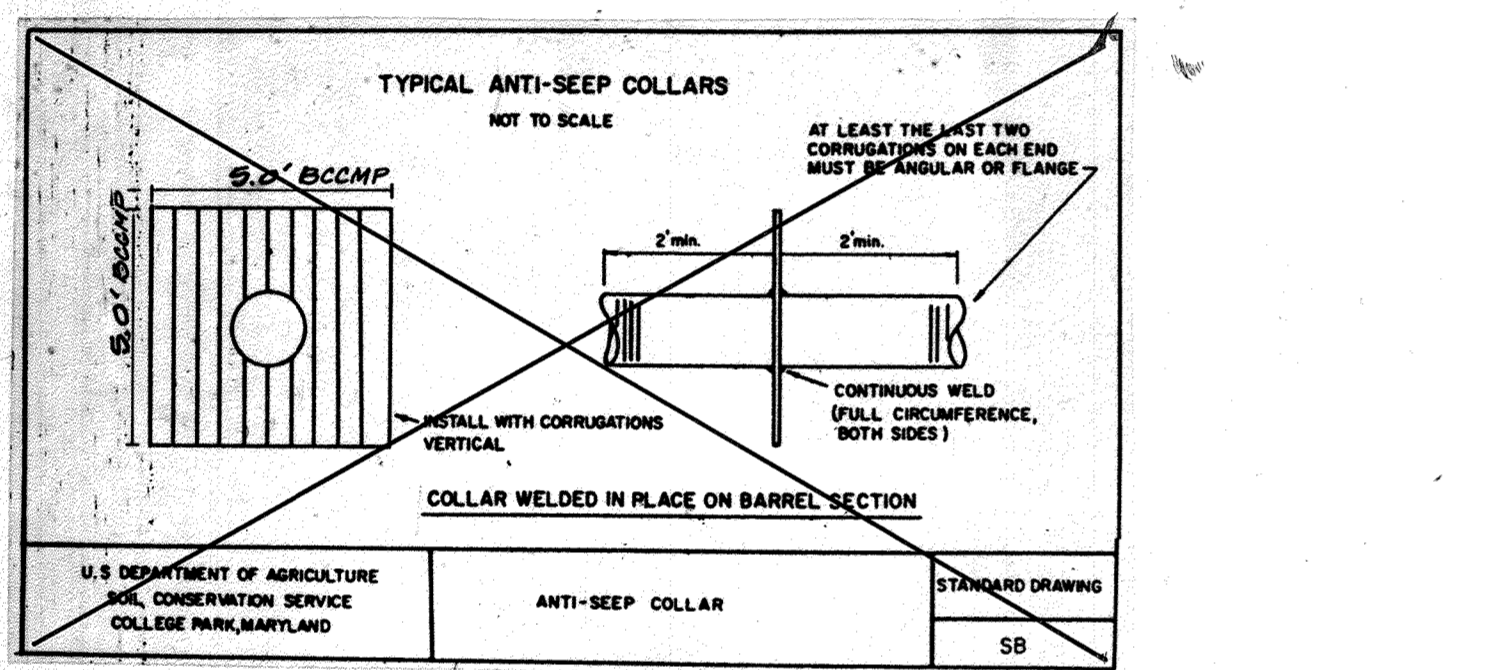
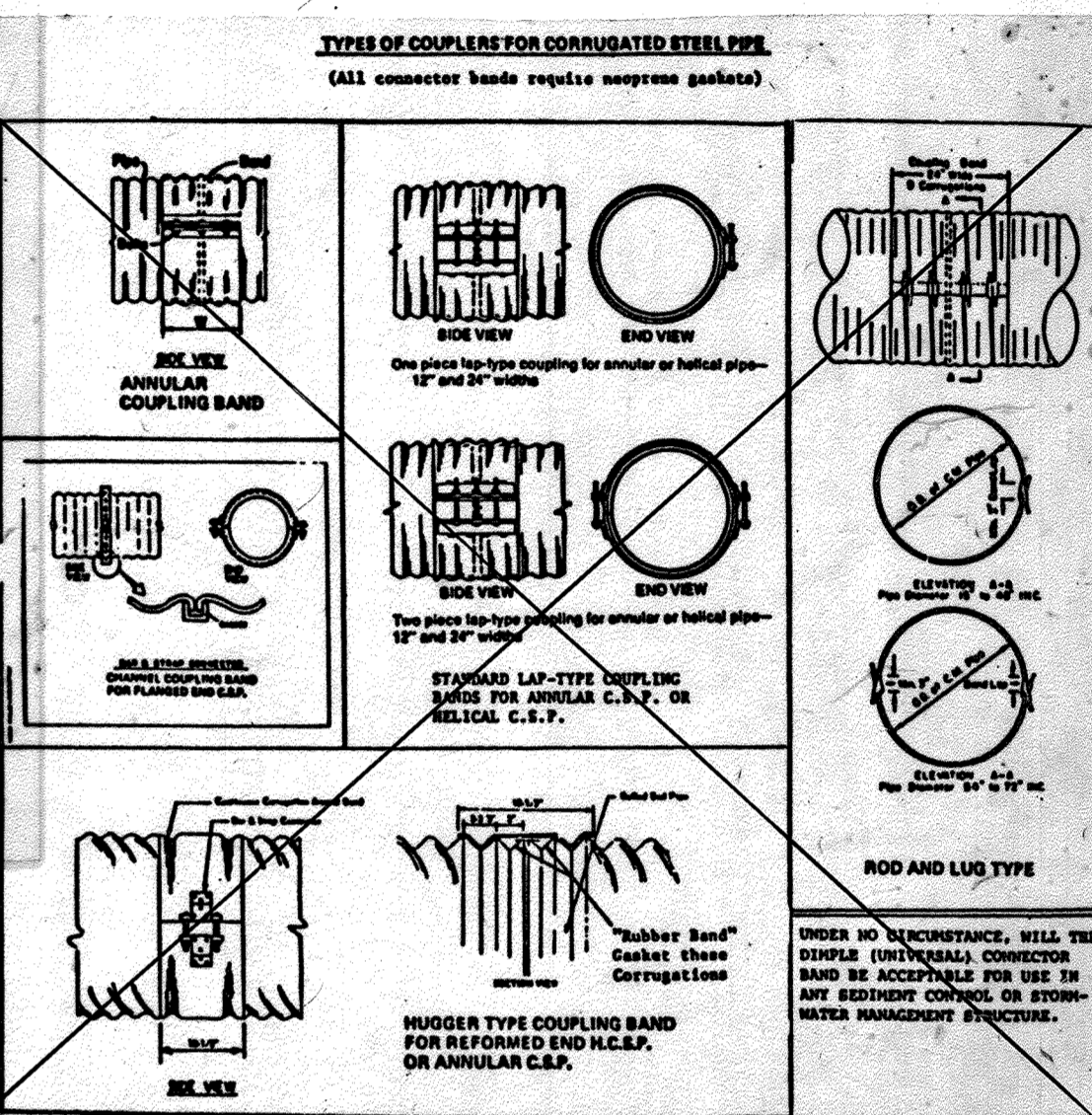
Vegetative Treatment
Stabilize the embankment and emergency spillway in accordance with the appropriate vegetative Standard and Specifications immediately following construction. In no case shall the embankment remain unstabilized for more than seven(7) days.

Erosion and Pollution Control
Construction operations shall be carried out in such a manner that erosion and water pollution will be minimized. State and local laws shall be complied with concerning pollution abatement.

Safety
State and local requirements shall be met concerning fencing and signs, warning the public of hazards of soft erosion and flood-prone.

Maintenance
1. Repair all damages caused by soil erosion and construction equipment at or before the end of each working day.
2. Sediment shall be removed from the basin when it reaches the specified distance below the top of the riser. This sediment shall be placed in such a manner that it will not erode from the site. The sediment shall not be deposited downstream from the embankment, adjacent to a stream or flood plain.

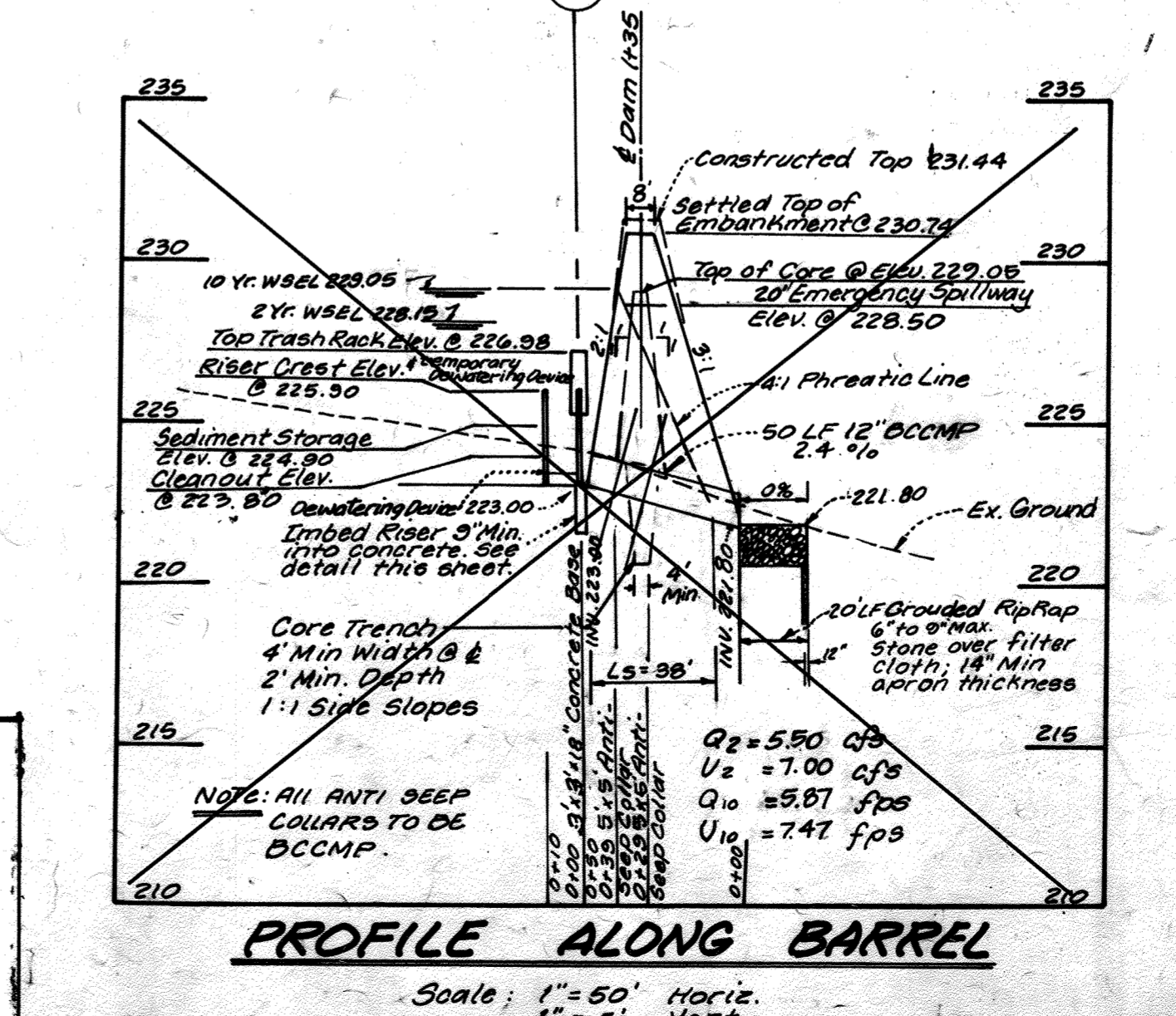
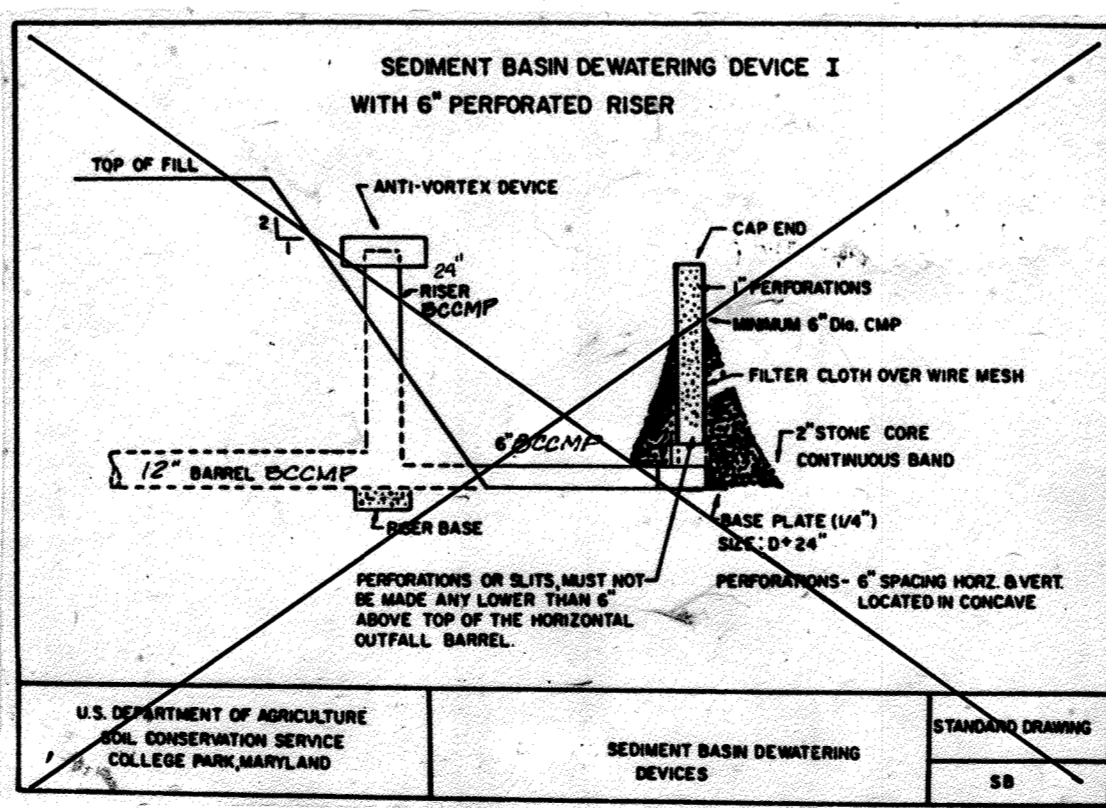
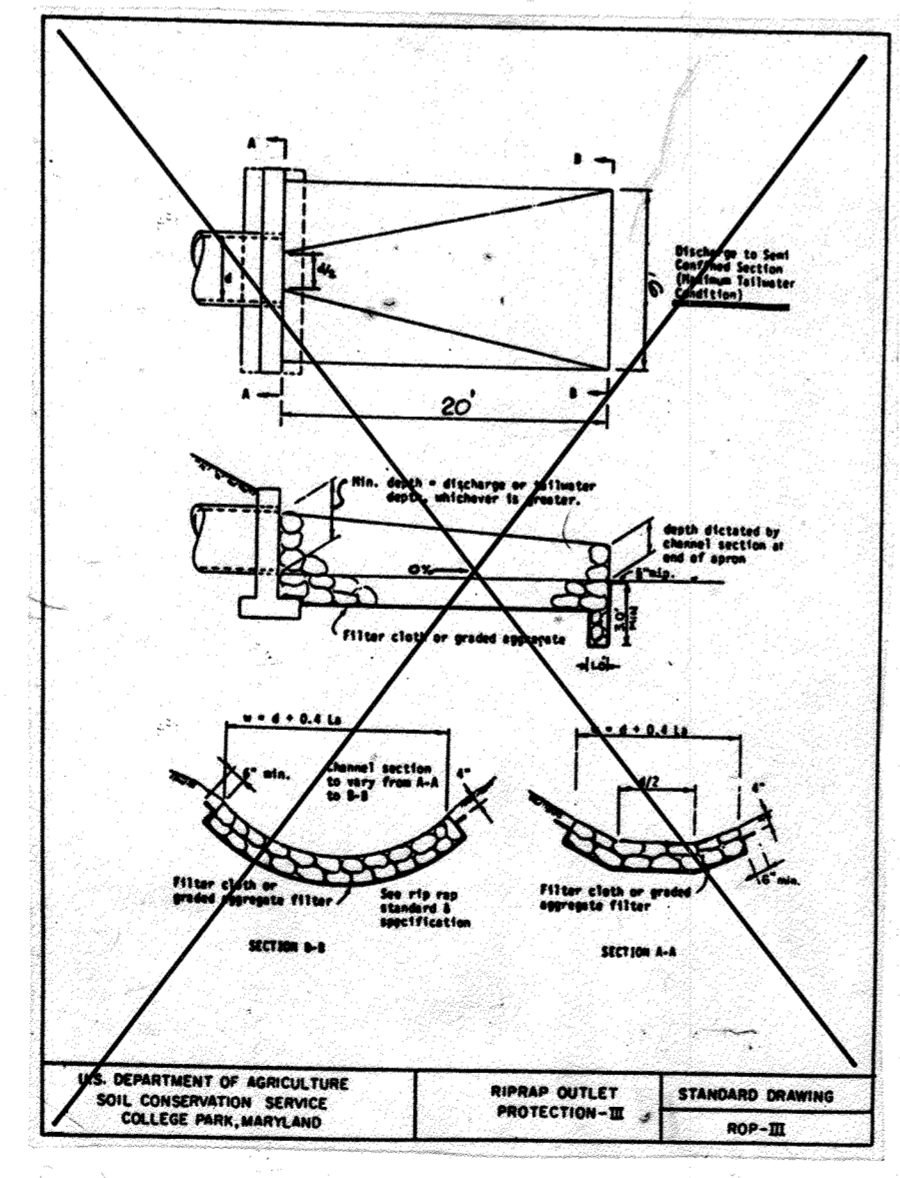
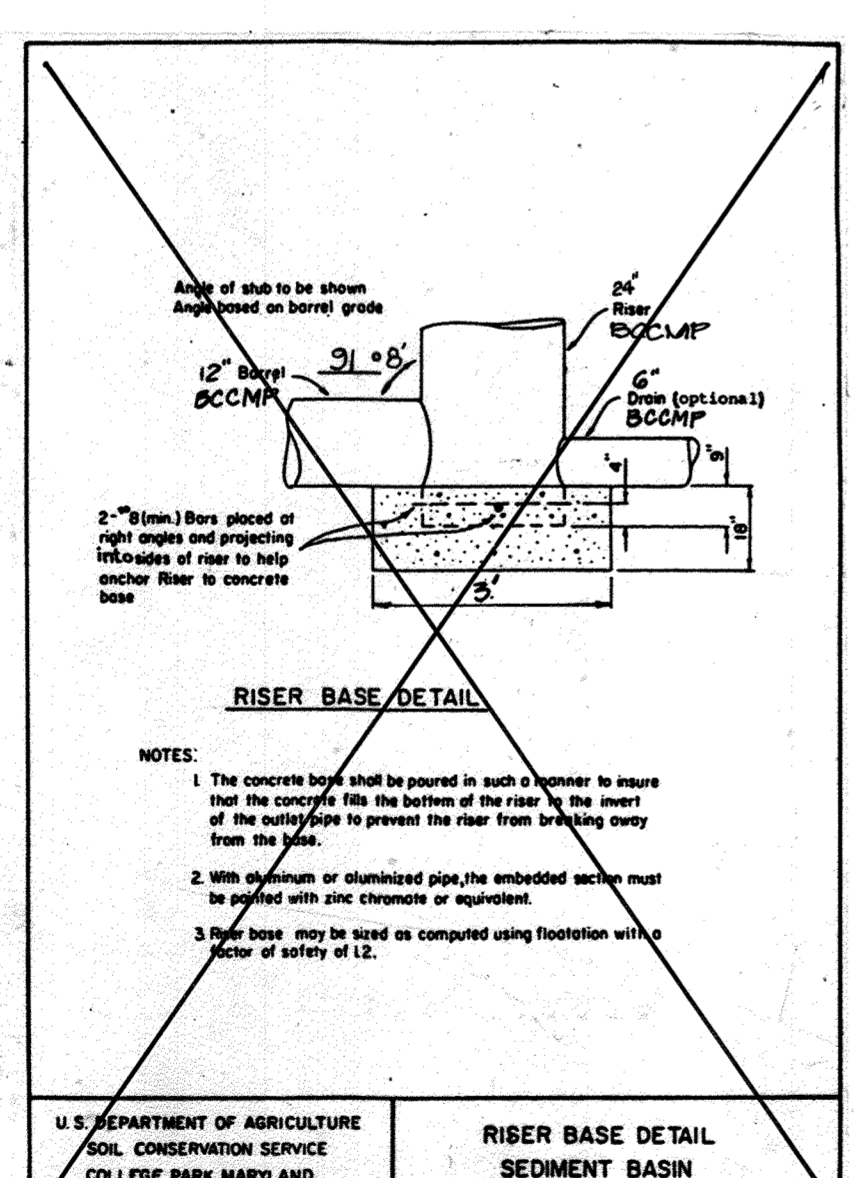
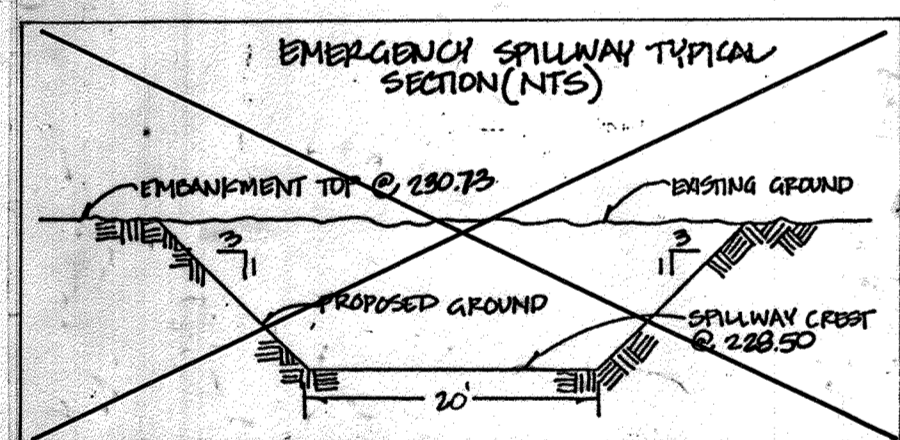
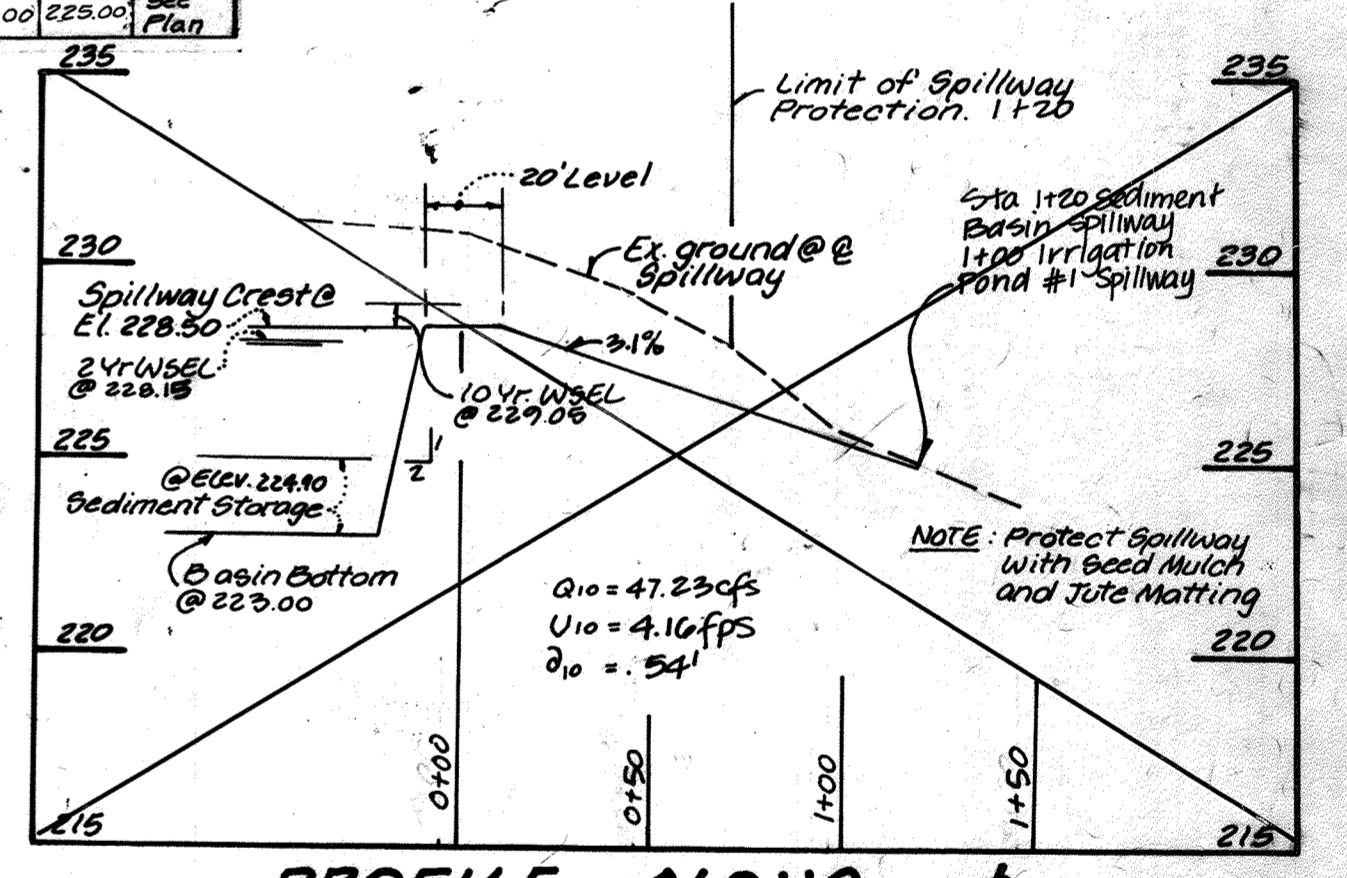
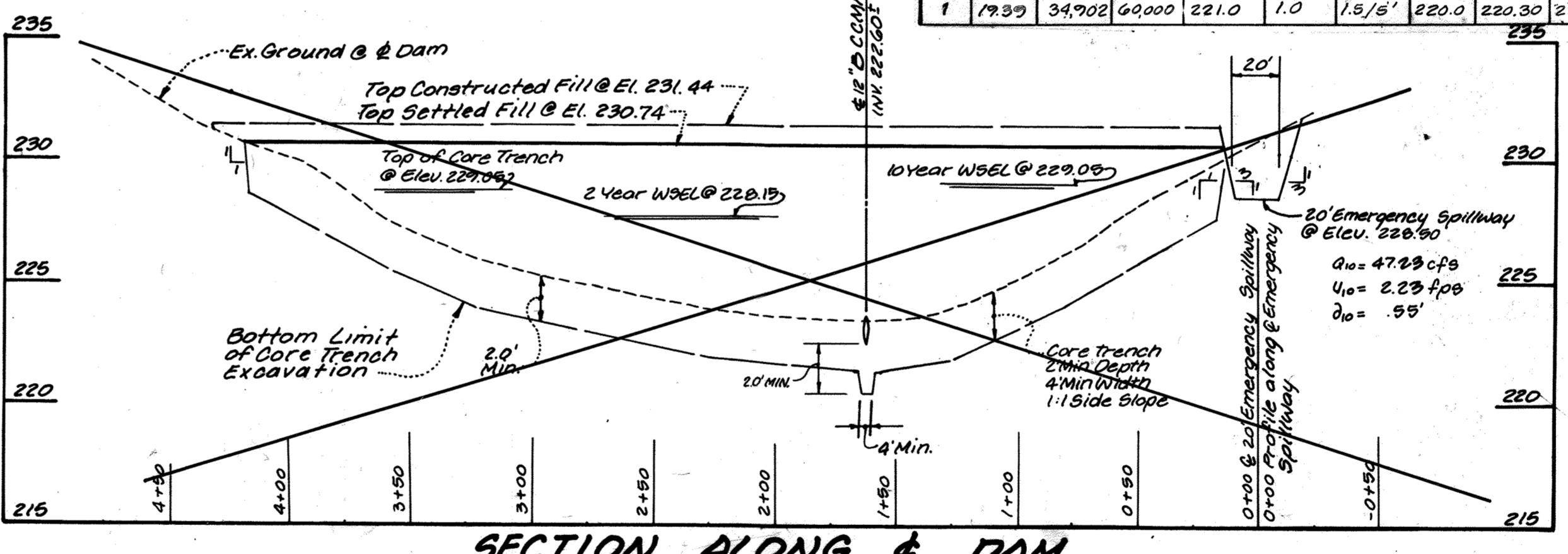
Final Disposal
When temporary structures have served their intended purpose and the contributing drainage area has been properly stabilized, the embankment and resulting sediment deposits are to be leveled or otherwise disposed of in accordance with the approved erosion control plan. The proposed use of a sediment basin site will often dictate final disposition of the basin and any sediment contained therein. If the site is scheduled for future construction, the basin material and trapped sediments must be removed, safely disposed of, and backfilled with a structural fill. When the basin area is to remain open space the pond may be pumped dry, graded and back filled.



NOTE: 1) A geotechnical engineer is to be present on site to supervise construction of the core trench. 2) Core trench shall be dewatered before placement of county approved fill material.

SEDIMENT BASIN SCHEDULE

Basin No.	Max. D.A.	Stor. Req'd.	Stor. Prov.	Stor. Elev.	Spill. Depth	Weir Length	Bottom Elev.	Cleanout Elev.	Crest Elev.	Top Elev.	Basin Size
1	19.37	34,902	60,000	221.0	1.0	1.8/5'	220.0	220.30	222.00	225.00	See Plan



PROFILE ALONG & EMERGENCY SPILLWAY
Scale: 1" = 50' Horiz. 1" = 5' Vert.

Owner: Howard County, Maryland
3430 Courthouse Drive
Ellicott City, Maryland 21043

Developer: Rainmaker/Killian L.L.C.
5111 Avoca Avenue
Ellicott City, Maryland 21043

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
3/8/95 DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
3/8/95 DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
3/21/95 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
3/21/95 DATE

APPROVED: HOWARD S.C.D.
2/21/95 DATE

APPROVED: HOWARD S.C.D.
2/21/95 DATE

APPROVED: HOWARD S.C.D.
2/21/95 DATE

By the Developer:
I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I/We 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 [Signature] as the Howard Soil Conservation District.

By the Engineer:
I certify that this plan for pond construction, erosion and sediment control represents 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 have notified the developer that this plan 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] 2/21/95

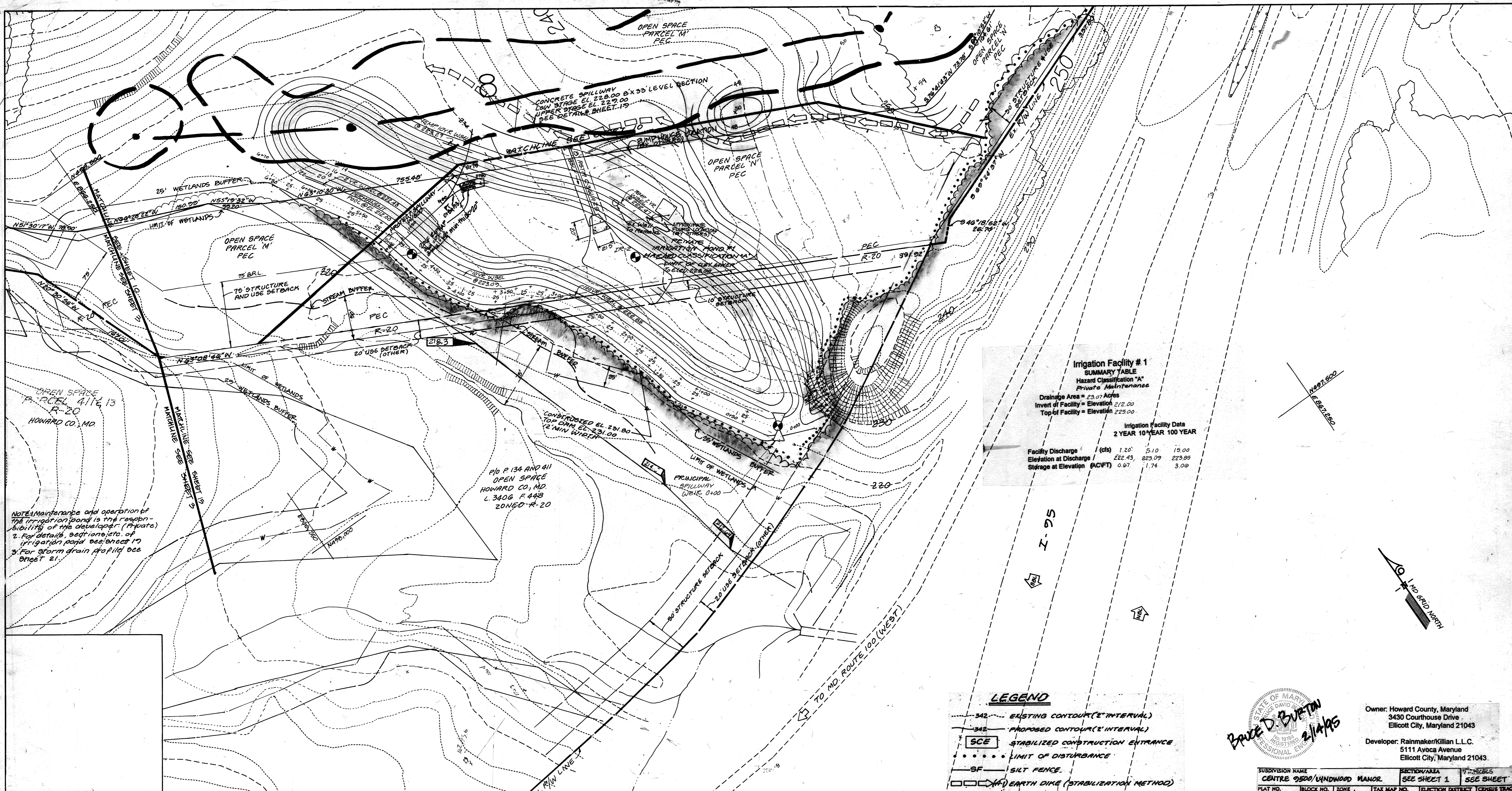
TEMPORARY SEDIMENT BASIN No. 1
(For Plan View - See Sheet 10 & 16)

LDE, INC.
8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045
(410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

SITE DEVELOPMENT PLAN
SEDIMENT BASIN DETAILS
HOWARD COUNTY
GOLF COURSE
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

DESIGNED: AULT-CLARY TO
DRAWN: WJ/SO
CHECKED: RMB/DBB
DATE: 1/95

SCALE: AS SHOWN
DRAWING: 15 OF 28
JOB NO.: 94-110
95-006
FILE NO.: SDP-93-75



Irrigation Facility #1
SUMMARY TABLE
Hazard Classification "A"
Private Maintenance

Drainage Area = 23.07 Acres
Invert of Facility = Elevation 212.00
Top of Facility = Elevation 223.00

Irrigation Facility Data
2 YEAR 10 YEAR 100 YEAR

Facility Discharge (cfs)	1.20	5.10	15.00
Elevation at Discharge	222.43	223.09	223.89
Storage at Elevation (ACFT)	0.67	1.74	3.00

NOTE: Maintenance and operation of the irrigation pond is the responsibility of the developer (Private).
1. For details see sheet 17
2. For details see sheet 17
3. For storm drain profile see sheet 21.

PLO P. 134 AND ALL
OPEN SPACE
HOWARD CO., MD.
L. 3406 F. 443
ZONED R-20

- LEGEND**
- 342 --- EXISTING CONTOUR (2' INTERVAL)
 - 342 --- PROPOSED CONTOUR (2' INTERVAL)
 - [SCE] STABILIZED CONSTRUCTION ENTRANCE
 - LIMIT OF DISTURBANCE
 - SF SILT FENCE
 - [EARTH DIKE] EARTH DIKE (STABILIZATION METHOD)
 - TPF TREE PROTECTION FENCE
 - W NON-TIDAL WETLANDS
 - [WOODS] EXISTING WOODS TO BE REMOVED
 - [WOODS] EXISTING WOODS TO REMAIN UNDISTURBED
 - [WETLANDS BUFFER] WETLANDS BUFFER DISTURBANCE
 - [WETLANDS CONVERSION] WETLAND CONVERSION
 - [FUTURE PATHWAY] FUTURE PATHWAY LOCATION
 - [SLOPES] 25% OR GREATER SLOPES

DAVID D. BURTON
2/14/95
REGISTERED PROFESSIONAL ENGINEER

Owner: Howard County, Maryland
3430 Courthouse Drive
Ellicott City, Maryland 21043

Developer: Rainmaker/Kilian L.L.C.
5111 Avoca Avenue
Ellicott City, Maryland 21043.

SUBDIVISION NAME CENTRE 9500/LINDWOOD MANOR	SECTION/AREA SEE SHEET 1	SHEET NO. SEE SHEET 1
PLAT NO. 11801-11851	BLOCK NO. 10, 11	ZONE PEC/RSC
TAX MAP NO. 37	ELECTION DISTRICT 1	CENSUS TRACT 6011.01
WATER CODE N/A	SEWER CODE N/A	

LDE, INC.
8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045
(410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Joseph Smith 3/8/95
DIRECTOR DATE

Aime Mummanti 3/8/95
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James P. Slum 2/21/95
DIRECTOR DATE

Paul D. Brown 2/21/95
CHIEF, DIVISION OF ENGINEERING 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.

Patricia Engler 2/21/95
U.S. SOIL CONSERVATION SERVICE DATE

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

Richard H. Zick 2/21/95
APPROVED HOWARD S.C.D. DATE

By the Engineer:

I certify that this plan for pond construction, erosion and sediment control represents 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 have notified the developer that he 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 the engineer to make on-site inspections by the Howard Soil Conservation District.

DAVID D. BURTON 2/14/95
Signature of Engineer DATE

AS BUILT CERTIFICATE

DATE _____

By the Developer:

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

DAVID D. BURTON 2/14/95
Signature of Developer DATE

DESIGNED TO	SCALE 1"=50'
DRAWN BY 90/WJ	DRAWING 16 OF 28
CHECKED RMB/DB	JOB NO. 94-110 95-006
DATE 1/95	FILE NO. SDP-93-75

**SITE DEVELOPMENT PLAN
IRRIGATION POND 1
HOWARD COUNTY
GOLF COURSE
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND**

SDP-93-75

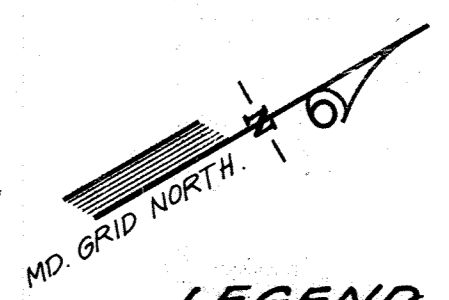
These plans have been revised for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

Robert W. Zick, Inc. 2/14/95
 U.S. Soil Conservation Service Date

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

Robert W. Zick, Inc. 2/14/95
 HOWARD SOCD Date

NOTE: 1) PUMP THE CORE TRENCH DRY BEFORE PLACEMENT OF CORE MATERIAL
 2) Maintenance and operation of the irrigation pond is the responsibility of the developer. (Private)
 3) For details, sections, etc. of irrigation pond N#2 see sheet 20



- LEGEND**
- 342 --- EXISTING CONTOUR (2' INTERVAL)
 - - - 342 - - - PROPOSED CONTOUR (2' INTERVAL)
 - [SCE] STABILIZED CONSTRUCTION ENTRANCE
 - LIMIT OF DISTURBANCE
 - SF SILT FENCE
 - [EARTH DIKE] EARTH DIKE (STABILIZATION METHOD)
 - TPF TREE PROTECTION FENCE
 - W NON-TIDAL WETLANDS
 - [WOODS] EXISTING WOODS TO BE REMOVED
 - [WOODS] EXISTING WOODS TO REMAIN UNDISTURBED
 - [WETLANDS] WETLANDS BUFFER DISTURBANCE
 - [WETLANDS] WETLAND CONVERSION
 - [FUTURE PATHWAY] FUTURE PATHWAY LOCATION
 - [SLOPES] 25% OR GREATER SLOPES



Irrigation Facility #2 SUMMARY TABLE

Hazard Classification: *Private*

Drainage Area: 2.21 Acres

Invert of Facility: Elevation 323.80

Top of Facility: Elevation 338.00

Irrigation Facility Discharge

1 YEAR TO YEAR	0.20	0.50	0.90
Facility Discharge Elevation at Discharge	330.13	330.38	330.85
Storage at Elevation	0.04	0.24	0.44

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 3/8/95
 DIRECTOR DATE

[Signature] 3/10/95
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

[Signature] 2/21/95
 DIRECTOR DATE

[Signature] 2/21/95
 CHIEF, BUREAU OF ENGINEERING DATE

By the Developer:

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

[Signature] 2/14/95
 Signature of Developer Date

By the Engineer:

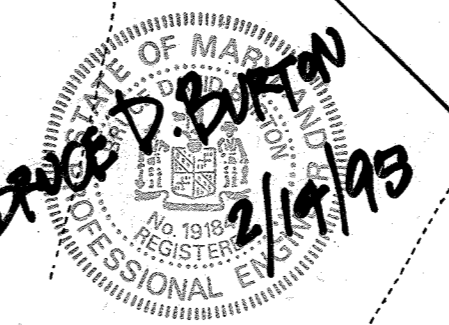
I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer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

[Signature] 2/14/95
 Signature of Engineer Date

Owner: Howard County, Maryland
 3430 Coughouse Drive
 Ellicott City, Maryland 21043

Developer: Rainmaker/Killian L.L.C.
 5111 Avoca Avenue
 Ellicott City, Maryland 21043

BY	DATE	DESCRIPTION
LDE	3-97	REDESIGNED POND #2 & GRADING
BY	DATE	DESCRIPTION
		REVISION



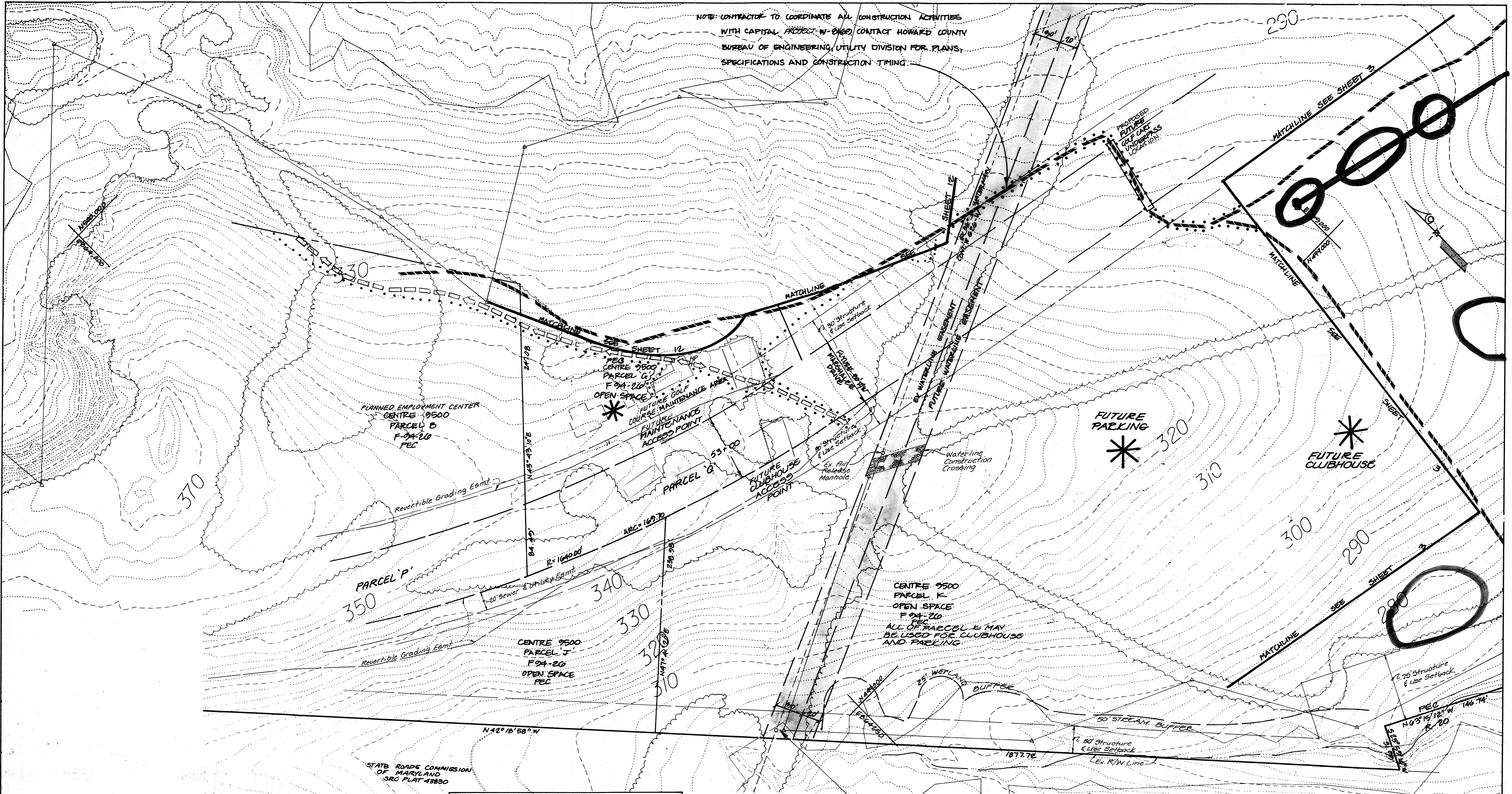
SUBDIVISION NAME	CENTRE 9500 LINDWOOD MANOR	SECTION/AREA	SEE SHEET 1	PARCELS	SEE SHEET 1
PLAT NO.	11801-11891	BLOCK NO.	10, 11	ZONE	RE-RSC 2-20
TAX MAP NO.	37	ELECTION DISTRICT	1	CENSUS TRACT	0011-01
WATER CODE	N/A	SEWER CODE	N/A		

LDE, INC.
 8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045
 (410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

DESIGNED TO	SCALE
DRAWN	DRAWING
CHECKED	JOB NO.
DATE	FILE NO.

SITE DEVELOPMENT PLAN
INFILTRATION POND #2
HOWARD COUNTY
GOLF COURSE
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SDP-93-75



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Director: *[Signature]* 2/8/95
 Chief, Division of Land Development and Research: *[Signature]* 3/1/95
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 Director: *[Signature]* 2/2/95
 Chief, Bureau of Engineering: *[Signature]* 2/21/95

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.
 U.S. SOIL CONSERVATION SERVICE: *[Signature]* 2/21/95
 THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED: *[Signature]* 2/21/95
 HOWARD S.C.D. DATE

BY THE ENGINEER:
 I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS 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 HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN AS-BUILT PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.
 Bruce D. Burton 2/14/95
 ENGINEER DATE
 BY THE DEVELOPER:
 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 NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN AS-BUILT PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.
 J.A. Adair 2/1/95
 DEVELOPER DATE

Future MD. Route 100

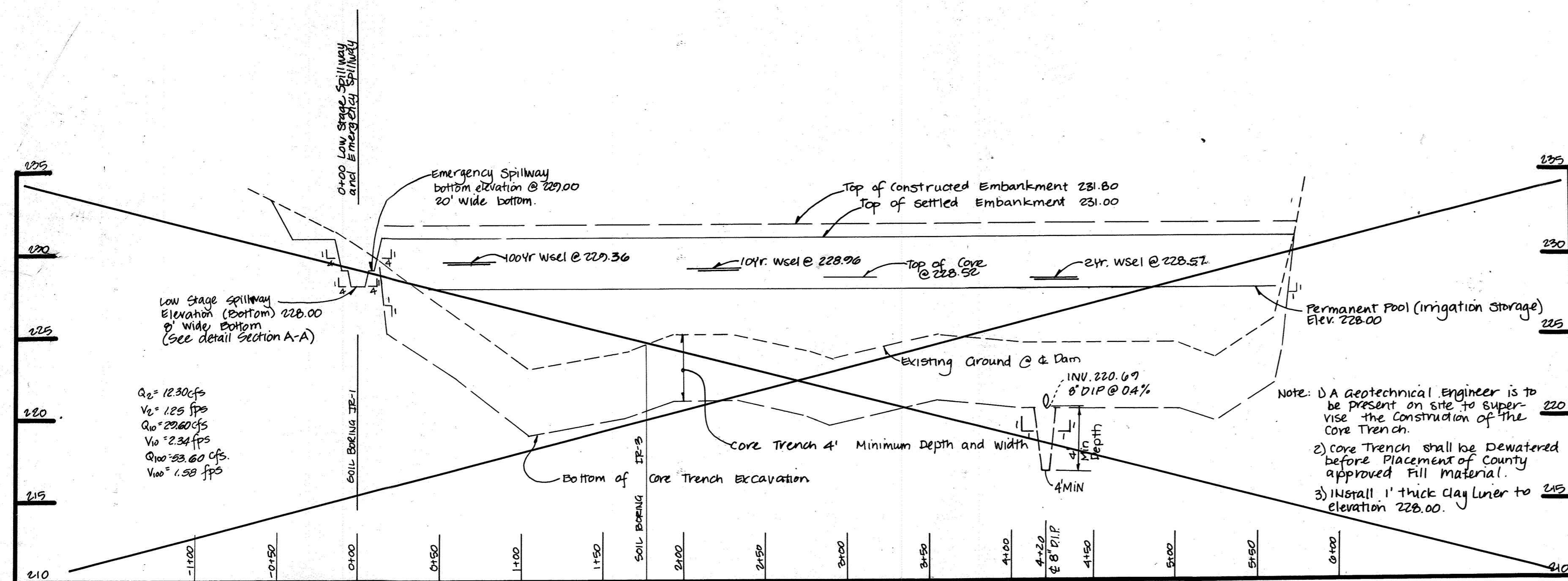
NOTE: CONTRACTOR TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH CAPITAL PROJECT W-8160 CONTACT HOWARD COUNTY BUREAU OF ENGINEERING, UTILITY DIVISION FOR PLANS, SPECIFICATIONS AND CONSTRUCTION TIMING.
 Owner: Howard County, Maryland
 3430 Courthouse Drive
 Ellicott City, Maryland 21043
 Developer: Rainmaker/Killian L.L.C.
 5111 Avoca Avenue
 Ellicott City, Maryland 21043
 SUBDIVISION NAME: CENTRE 9500 / WYNDWOOD MANOR SECTION/AREA: SEE SHEET 1 LOTS: SEE SHEET 1
 PLAN NO.: 11524-11524 BLOCK NO.: 10, 11 ZONE: PEC/RSC TAX MAP NO.: 27 ELECTION DISTRICT: 1 CENSUS TRACT: 6011.01
 WATER CODE: N/A SEWER CODE: N/A

LDE, INC.
 8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045
 (410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

DESIGNED TD	SCALE 1"=50'
DRAWN GL	DRAWING 18 OF 28
CHECKED	JOB NO. 04-110
DATE 1/95	95-000
	FILE NO. SDP 93-75

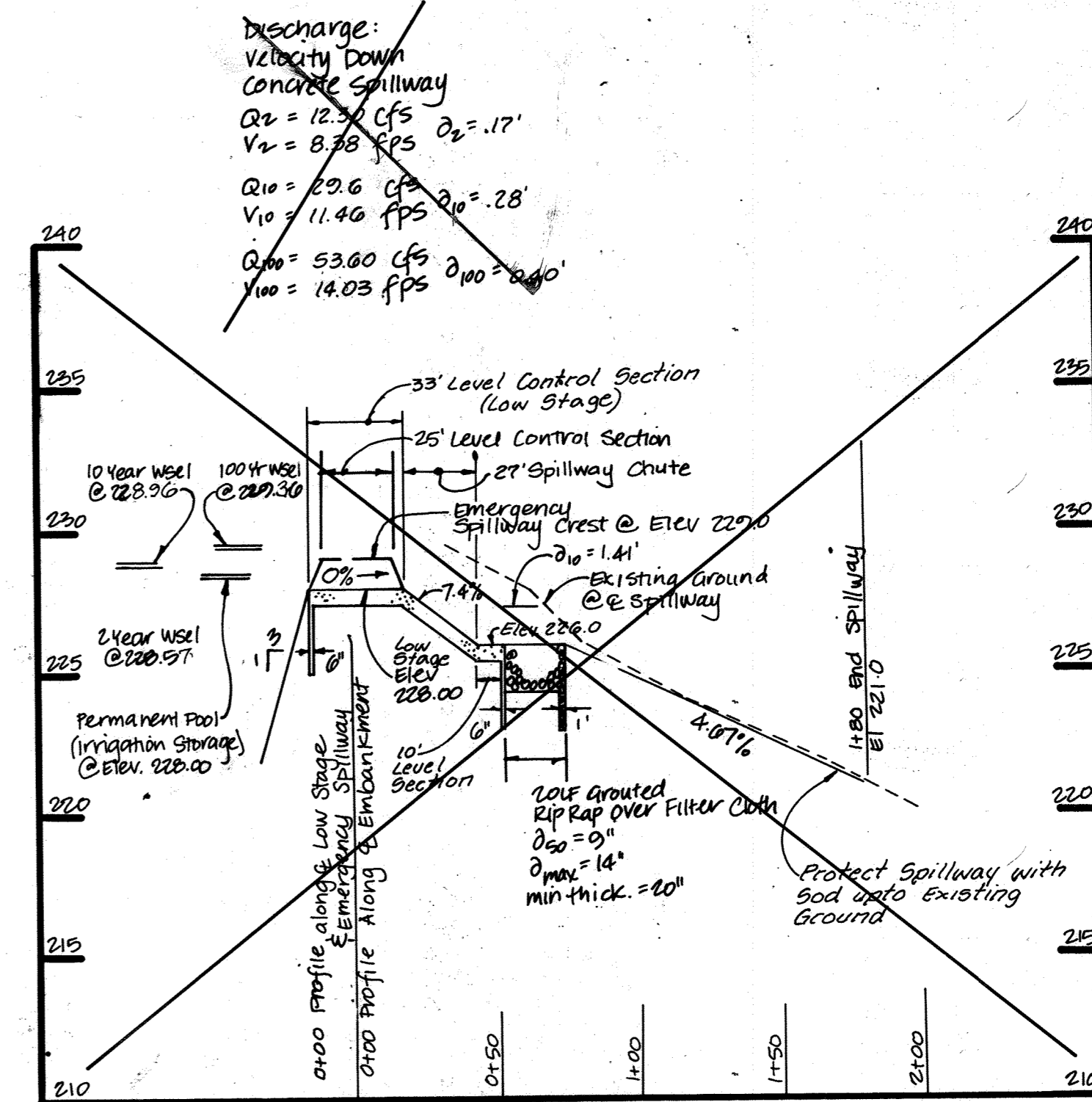
**SITE DEVELOPMENT PLAN
 CLUBHOUSE AREA
 HOWARD COUNTY
 GOLF COURSE
 1ST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND**

SDP-93-75



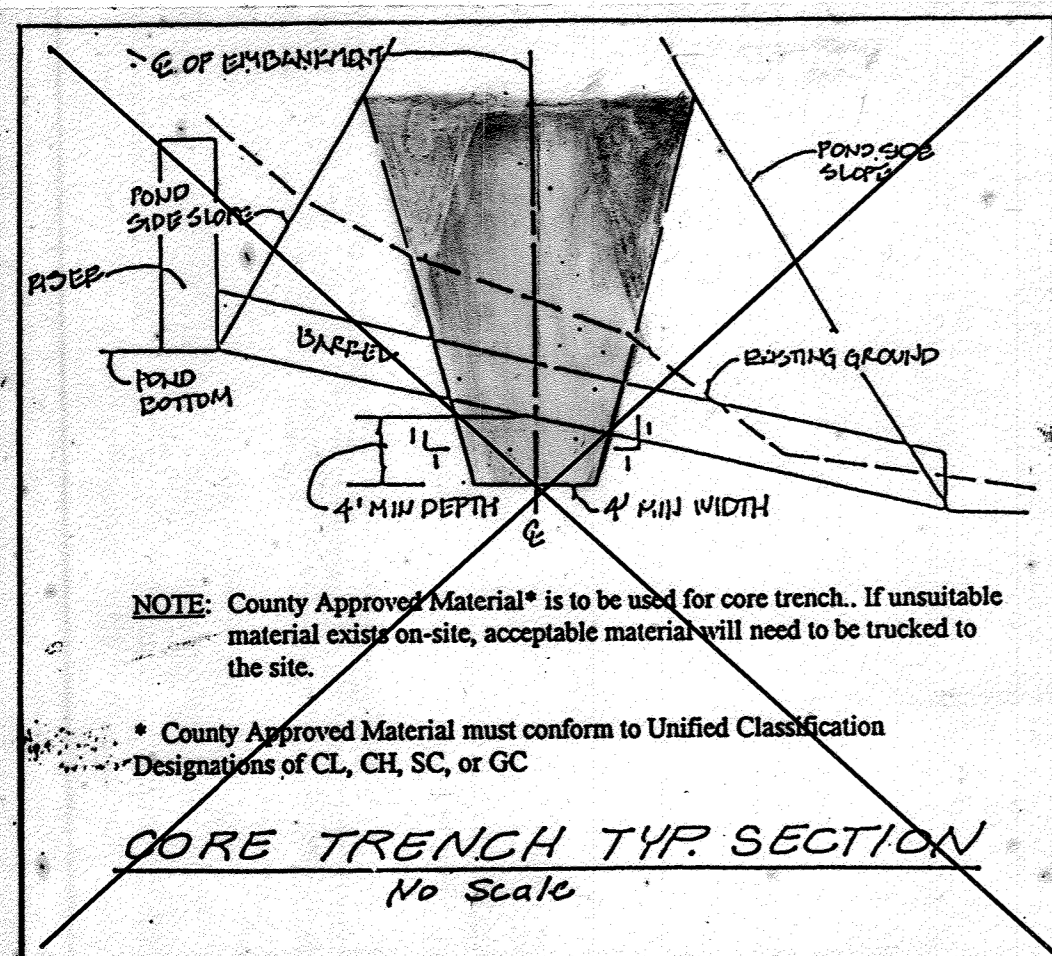
PROFILE ALONG C OF EMBANKMENT (IRRIGATION POND 1)

Scale: 1"=50' Horizontal
1"=5' Vertical

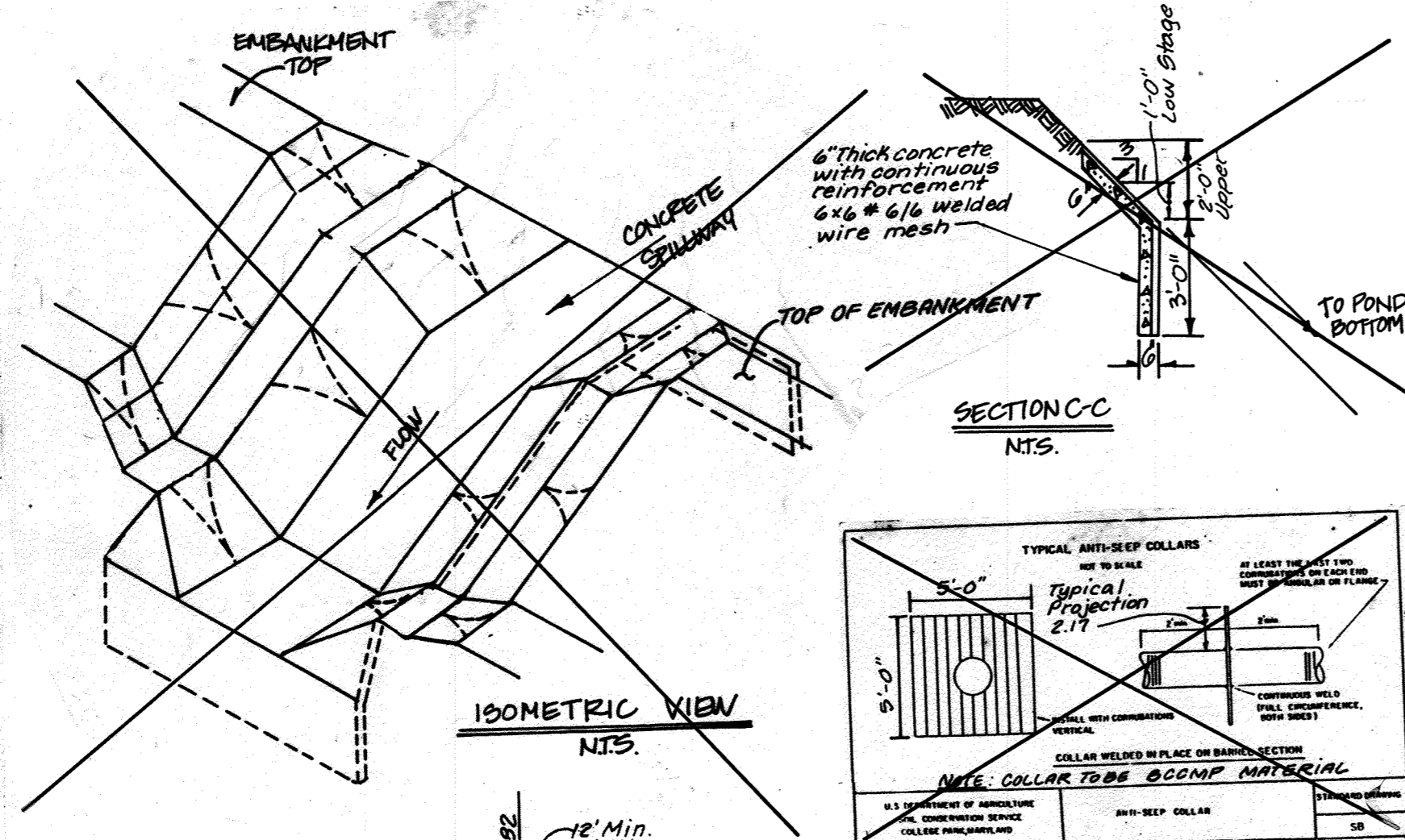


PROFILE ALONG C OF LOW STAGE # EMERGENCY SPILLWAY

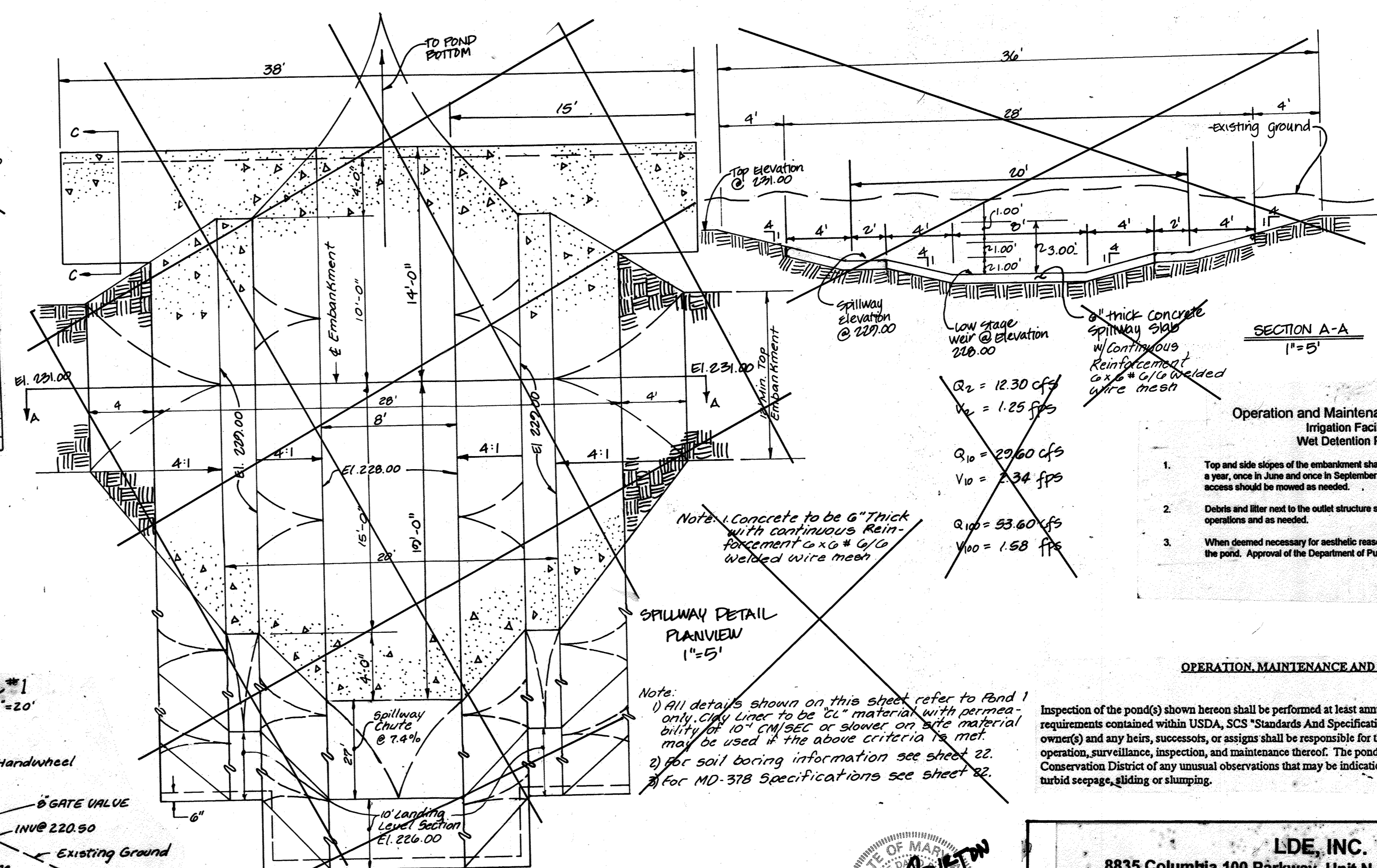
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1"=5' Vertical



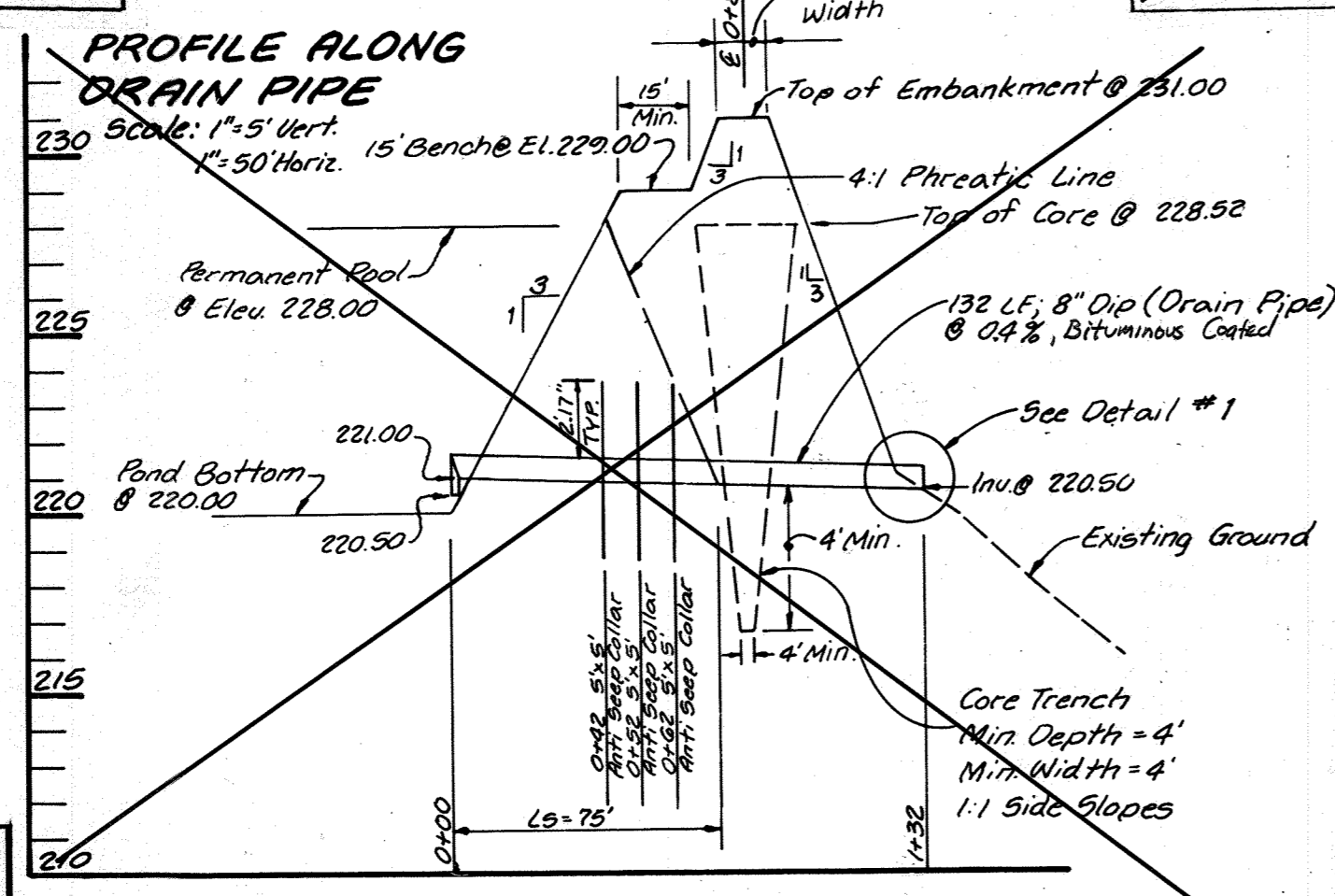
CORE TRENCH TYP. SECTION
No Scale



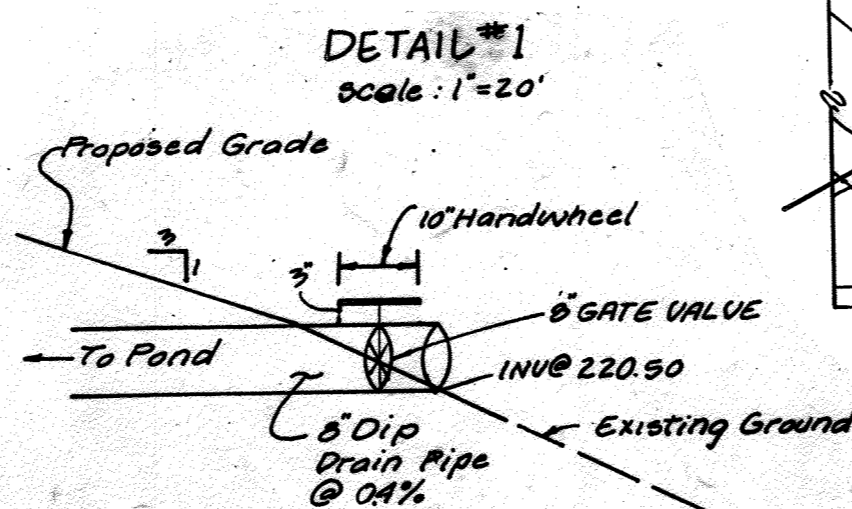
ISOMETRIC VIEW
N.T.S.



SPILLWAY DETAIL
PLANVIEW
1"=5'



PROFILE ALONG C OF DRAIN PIPE
Scale: 1"=5' Vert.
1"=50' Horiz.



DETAIL #1
Scale: 1"=20'

Operation and Maintenance Schedule
Irrigation Facility
Wet Detention Pond

1. 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.
2. Debris and litter next to the outlet structure shall be removed during regular mowing operations and as needed.
3. When deemed necessary for aesthetic reasons, sediment should be removed from the pond. Approval of the Department of Public Works is required.

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.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Director: *[Signature]* 3/8/95
 Director: *[Signature]* 3/8/95
 Director: *[Signature]* 2/21/95
 Director: *[Signature]* 2/21/95

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.
 U.S. SOIL CONSERVATION SERVICE
 APPROVED: *[Signature]* 2/21/95
 HOWARD S.C.D. DATE

DEVELOPER'S CERTIFICATE
 I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.
 Signature of Developer: *[Signature]* 2/21/95

ENGINEER'S CERTIFICATE
 I certify that this plan for pond construction, erosion and sediment control represents 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 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 an "as-built" plan of the pond within 30 days of completion.
 Signature of Engineer: *[Signature]* 2/14/95

Owner: Howard County, Maryland
 3430 Courthouse Drive
 Ellicott City, Maryland 21043
 Developer: Rainmaker/Killian L.L.C.
 5111 Avoca Avenue
 Ellicott City, Maryland 21043
 SUBDIVISION NAME: CENTRE 9500/LANDWOOD MANOR
 SECTION NUMBER: SEE SHEET I
 PARCELS: SEE SHEET I
 PLAT NO.: 1501-11531
 BLOCK NO.: 10, 11
 ZONE: PEG/RSC
 TAX MAP NO.: 37
 ELECTION DISTRICT: 6011.01
 CENSUS TRACT: 6011.01
 WATER CODE: N/A
 SEWER CODE: N/A

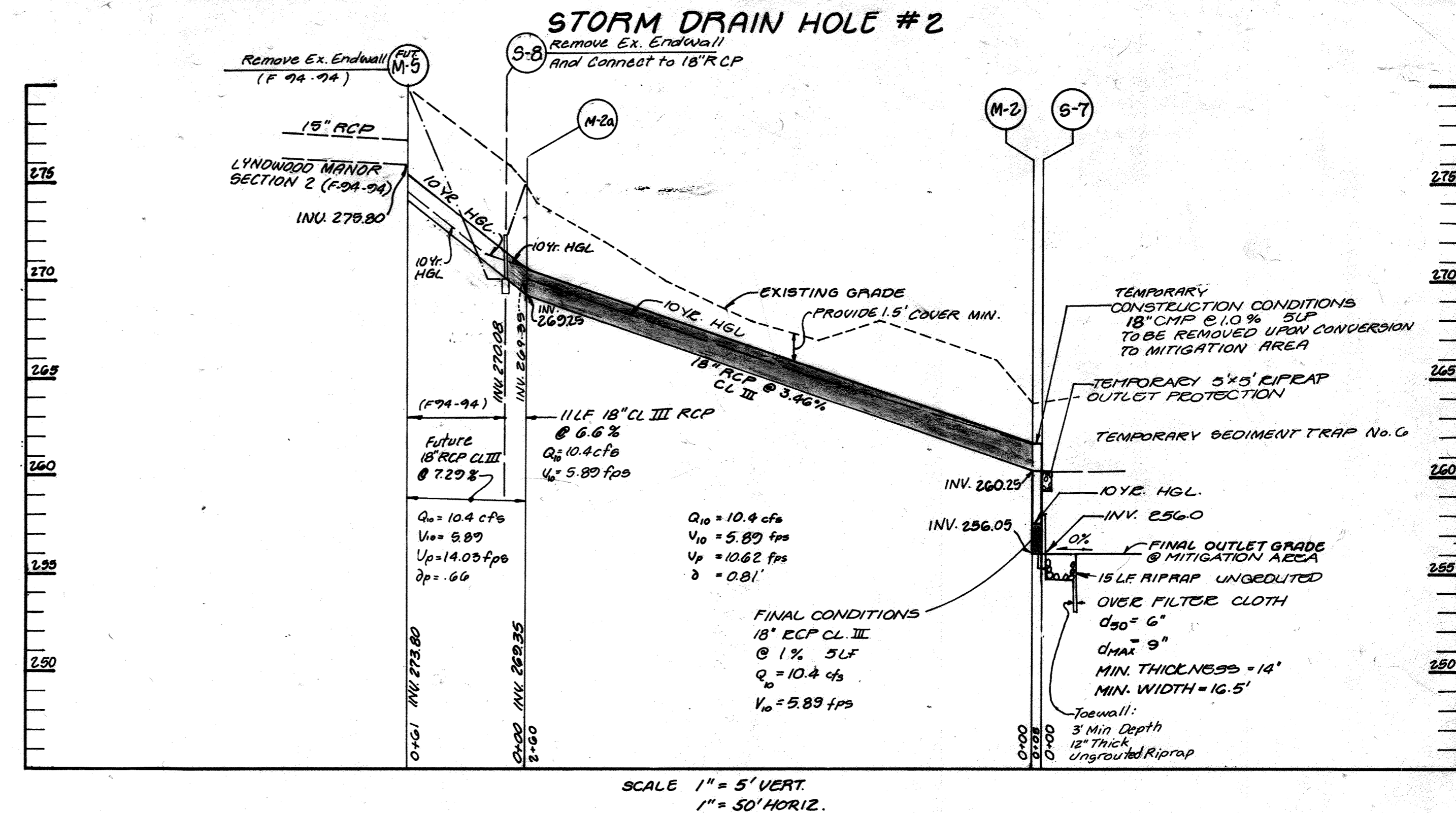
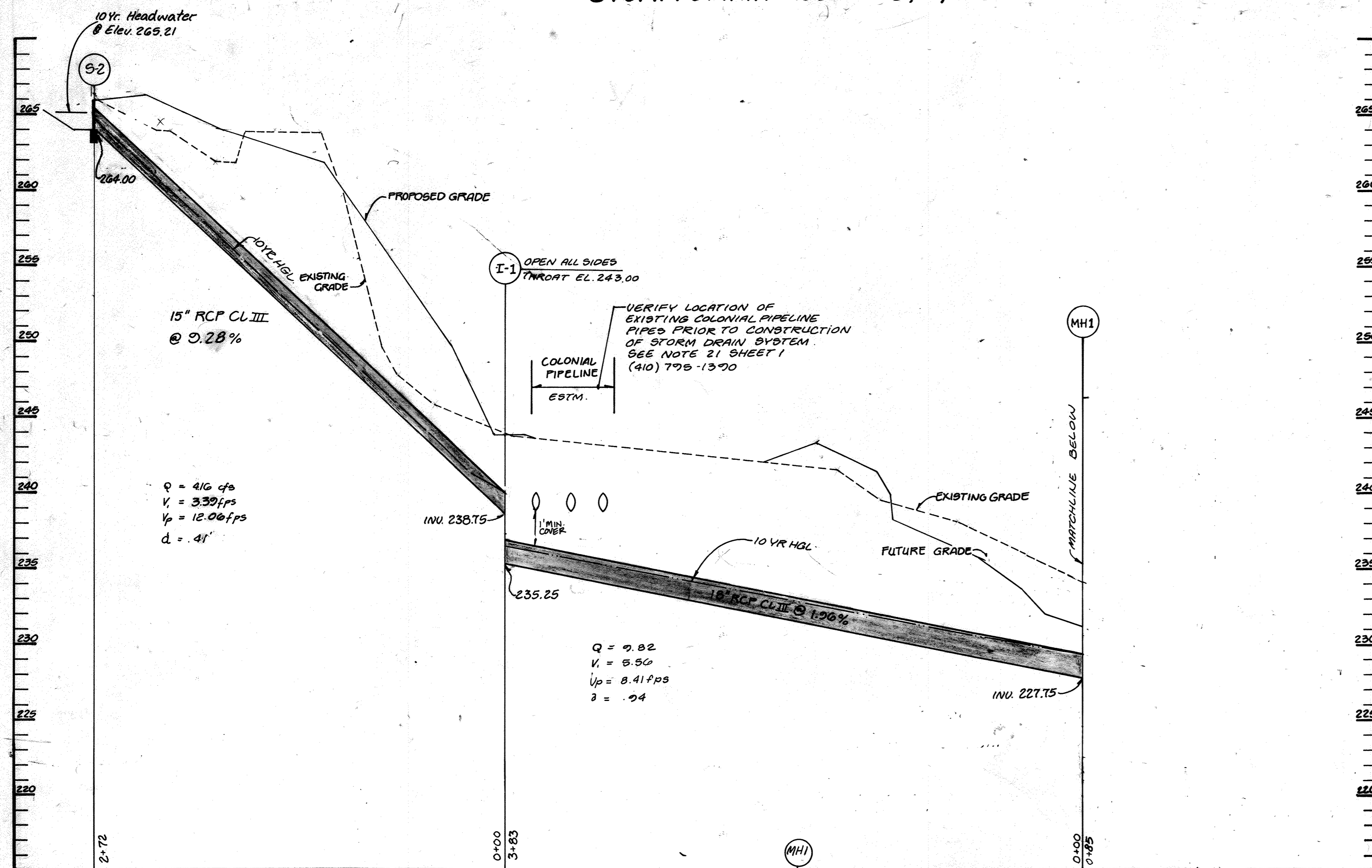
LDE, INC.
 8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045
 (410) 715-4070 • (301) 596-3424 • (410) 715-0684 (fax)

Assigned: ES	Scale: As shown
Drawn: CW/BD	Drawing: 19 of 28
Checked: RM/BB	Job No: 94-110 95-206
Date: 1/95	File No: SDP 93-75

**SITE DEVELOPMENT PLAN
 IRRIGATION POND 1 DETAILS
 HOWARD COUNTY
 GOLF COURSE
 1ST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND**

SDP-93-75

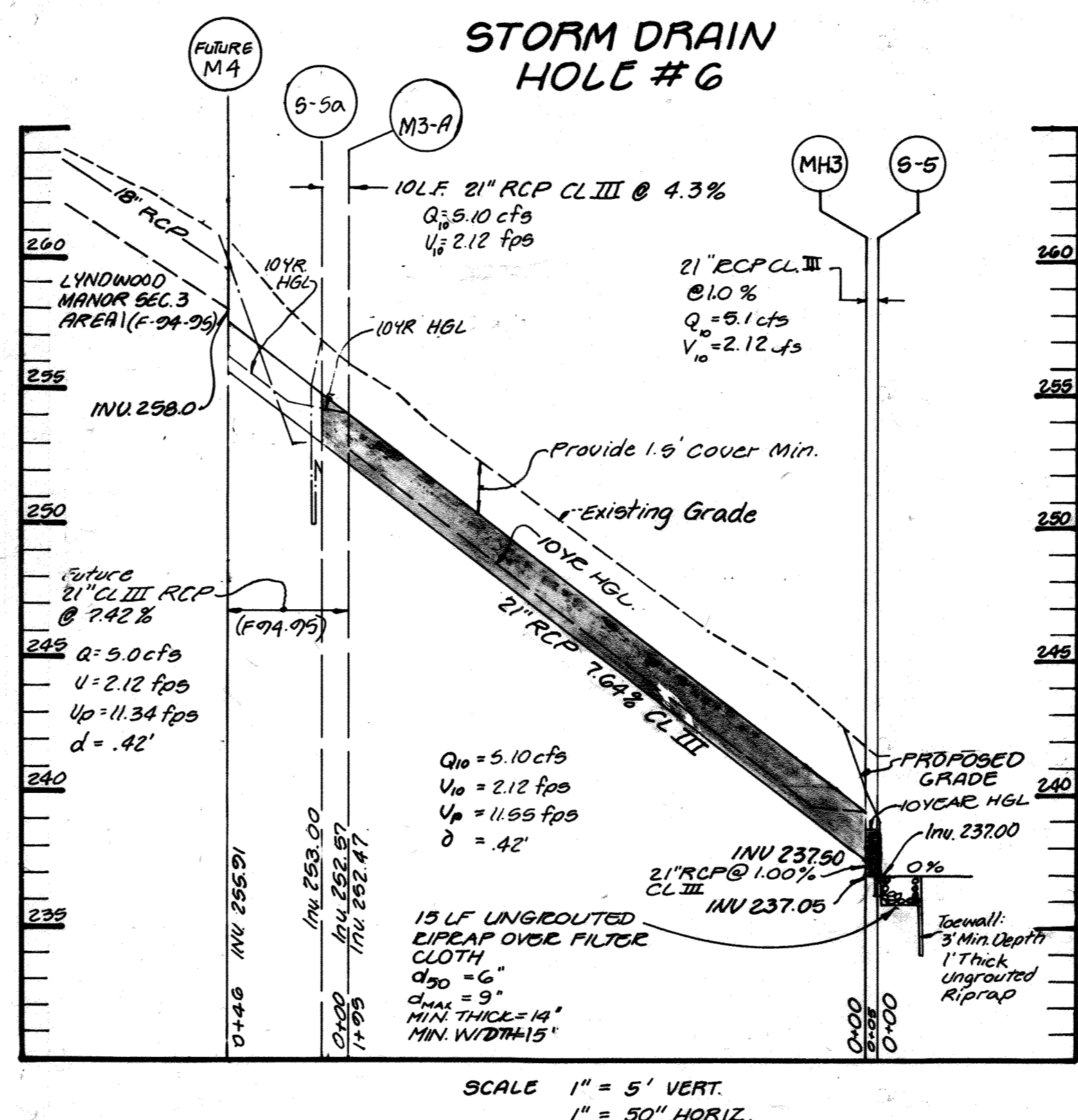
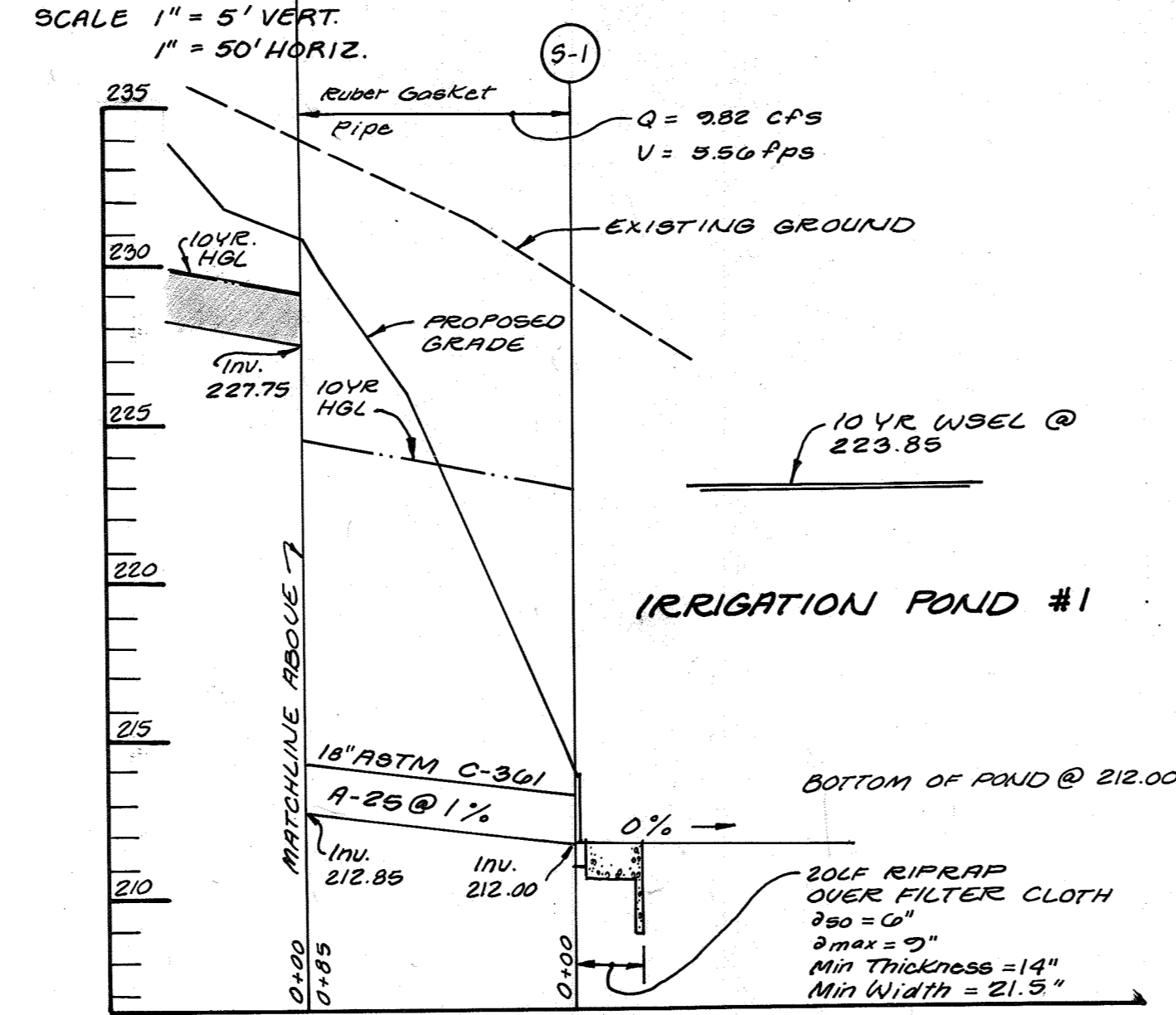
STORM DRAIN HOLE # 12, 11, & 8



STRUCTURE SCHEDULE

NUMBER	TYPE	INV. IN	INV. OUT	TOP	DETAIL	REMARK	LOCATION
I-1*	YARD INLET	238.75	235.25	243.83	SD 4.14	Sheet 10	N 498545.46 E 866914.46
M-1	STD. MANHOLE	227.75	212.85	231.50	G 5.12	Sheet 10	N 498209.09 E 866730.91
M-2	STD. MANHOLE	260.25	256.05	263.80	G 5.12	Sheet 4	N 499358.42 E 865872.11
M-3	SHALLOW MANHOLE	237.50	237.05	241.50	G 5.05	Sheet 8	N 499882.88 E 867173.02
M-4	STD. MANHOLE	258.00	259.91	261.50	G 5.12	Sheet 8	N 499759.12 E 867084.40
M-5	STD. MANHOLE	275.80	273.80	279.00	G 5.12	Sheet 4	N 499466.77 E 866173.17
S-1	TYPE 'C' ENDWALL	212.00	212.00	214.25	SD 5.21	Sheet 10	N 498125.37 E 866708.01
S-2	TYPE 'C' ENDWALL	264.00	264.00	266.00	SD 5.21	Sheet 10	N 498798.37 E 867038.90
S-5	TYPE 'A' ENDWALL	237.00	237.00	239.50	SD 5.11	Sheet 8	N 499886.13 E 867169.22
S-7	TYPE 'C' ENDWALL	256.00	256.00	258.25	SD 5.21	Sheet 4	N 499353.79 E 865873.99
S-8	TYPE 'C' ENDWALL	270.08	270.08	272.33	SD 5.21	Sheet 4	N 499458.36 E 866123.79
S-9	TYPE 'C' ENDWALL	322.00	322.00	324.75	SD 5.21	Sheet 17	N 500255.97 E 867422.21
S-10	FRISER	323.80	323.50	325.33	*	Sheet 17	N 500255.97 E 867422.21
M-3a	SHALLOW MANHOLE	252.57	252.47	256.40	G 5.05	Sheet 8	N 499801.05 E 867191.82
M-2a	STD. MANHOLE	269.35	269.25	276.00	G 5.12	Sheet 4	N 499450.52 E 866191.89
S-5a	TYPE 'A' ENDWALL	253.00	253.00	256.25	SD 5.11	Sheet 8	N 499732.30 E 867071.93

* See Detail Sheet 20
** Open all sides



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 DIRECTOR: *[Signature]* DATE: 3/6/95
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH: *[Signature]* DATE: 3/6/95
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DIRECTOR: *[Signature]* DATE: 2/21/95
 CHIEF, BUREAU OF ENGINEERING: *[Signature]* DATE: 2/21/95

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.
 U.S. SOIL CONSERVATION SERVICE: *[Signature]* DATE: 2/21/95
 THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 HOWARD S.C.D.: *[Signature]* DATE: 2/21/95

BY THE ENGINEER:
 I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS 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 HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.
 BRUCE D. BURTON 2/14/95
 ENGINEER
 BY THE DEVELOPER:
 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 NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.
 J.A. ANKEL 2/21/95
 DEVELOPER

Owner: Howard County, Maryland
 3430 Courthouse Drive
 Ellicott City, Maryland 21043
 Developer: Rainmaker/Killian L.L.C.
 5111 Avoca Avenue
 Ellicott City, Maryland 21043

SUBDIVISION NAME	CENTRE 9500/LAND WOOD MANOR	SECTION/AREA	SEE SHEET 1	PARCELS	SEE SHEET 1
PLAT NO.	11601-11831	BLOCK NO.	10, 11	ZONE	PEC/RSL
TAX MAP NO.	R-20	ELECTION DISTRICT	37	CENSUS TRACT	6011.01
WATER CODE	N/A	SEWER CODE	N/A		

[Signature]
 BRUCE D. BURTON
 2/14/95

LDE, INC.
 8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045
 (410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

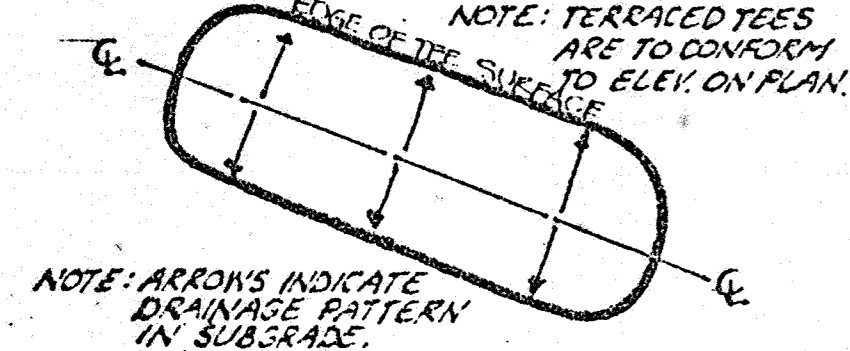
DESIGNED TO	SCALE
DRAWN BY	AS SHOWN
CHECKED BY	DRAWING
DATE	JOB NO.
	94-110
	95-000
	FILE NO.
	SDP 93-75

SITE DEVELOPMENT PLAN
 PIPE PROFILES
 HOWARD COUNTY
 GOLF COURSE
 1ST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SDP-93-75

TYPICAL PLAN OF TEE
NO SCALE

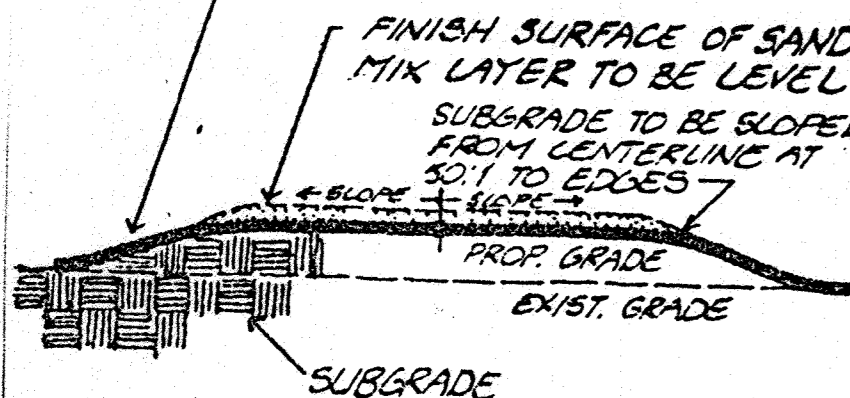
NOTE: ALL TEES TO BE CONSTRUCTED TO THE SIZE, SHAPE AND ELEVATION AS SHOWN ON THE PLAN.
NOTE: PROVIDE POSITIVE SURFACE DRAINAGE AROUND ALL TEES.



NOTE: TERRACED TEES ARE TO CONFORM TO ELEV. ON PLAN.
NOTE: ARROWS INDICATE DRAINAGE PATTERN IN SUBGRADE.
NOTE: ALL TEE SUBGRADES ARE TO BE CONSTRUCTED TO MAINTAIN THE SAME ELEVATION ALONG CENTERLINE (C). SLOPE FROM C TO EDGES AT 40:1

TYPICAL CROSS-SECTION THR. TEE
NO SCALE

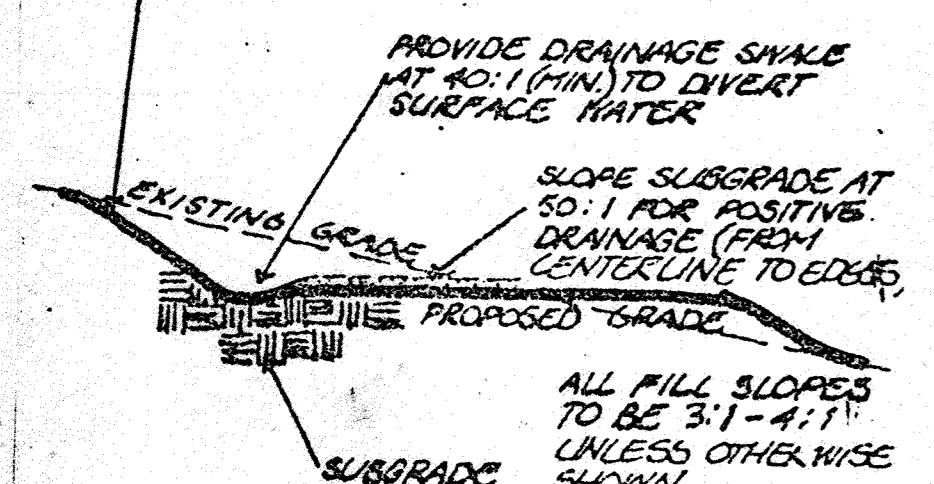
NOTE: PROVIDE POSITIVE SURFACE AROUND ALL TEES.
ALL SIDE SLOPES ARE TO BE 3:1 (MAX) UNLESS OTHERWISE SHOWN.



FINISH SURFACE OF SAND MIX LAYER TO BE LEVEL.
SUBGRADE TO BE SLOPED FROM CENTERLINE AT 50:1 TO EDGES.
NOTE: SEE SPECIFICATIONS FOR THE 4 IN. MIX LAYER.

TYPICAL SECTION THR. TEE ON SLOPE
NO SCALE

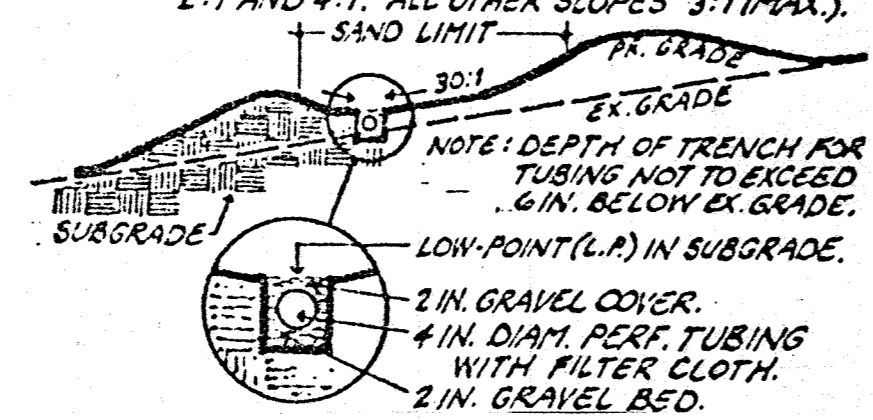
ALL CUT SLOPES TO BE 3:1-4:1 UNLESS OTHERWISE SHOWN.



PROVIDE DRAINAGE SWALE AT 40:1 (MIN.) TO DIVERT SURFACE WATER.
SLOPE SUBGRADE AT 50:1 FOR POSITIVE DRAINAGE FROM CENTERLINE TO EDGES.
ALL FILL SLOPES TO BE 3:1-4:1 UNLESS OTHERWISE SHOWN.
NOTE: ALL TEES TO HAVE MIN 4 INCHES OF TOP MIX COVER ON SUBGRADE.

TYPICAL SECTION THR. SAND BUNKER
NO SCALE

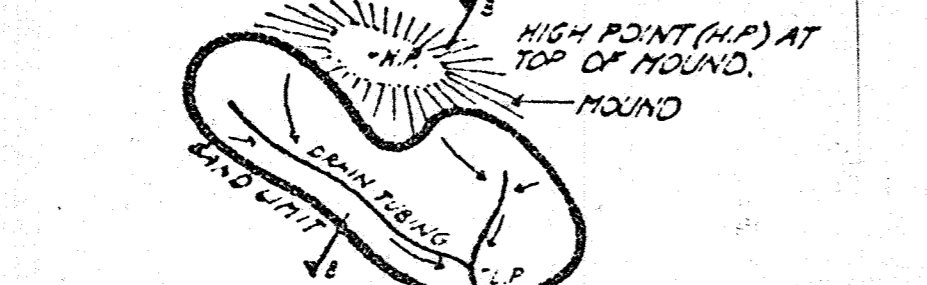
NOTE: NO WATER IS TO ENTER BUNKER FROM OUTSIDE SAND LIMIT. WATER INSIDE SAND LIMIT IS TO DRAIN INTO TUBING (INDICATED BY ARROWS ON PLAN).
NOTE: SLOPE OF DRAIN TUBING TO CONFORM TO SUBGRADE OF BUNKER. MAINTAIN POSITIVE SURFACE DRAINAGE IN ALL BUNKER SUBGRADE (MIN. 30:1 SLOPE).
NOTE: SLOPE ON FACE OF BUNKER TO BE BETWEEN 2:1 AND 4:1. ALL OTHER SLOPES 3:1 (MAX).



NOTE: DEPTH OF TRENCH FOR SUBGRADE TO EXCEED 6 IN. BELOW EX. GRADE.
NOTE: LOW POINT (L.P.) IN SUBGRADE.
NOTE: 2 IN. GRAVEL COVER.
NOTE: 4 IN. DIA. PERFORATED TUBING WITH FILTER CLOTH.
NOTE: 2 IN. GRAVEL BED.

TYPICAL PLAN OF SAND BUNKER
NO SCALE

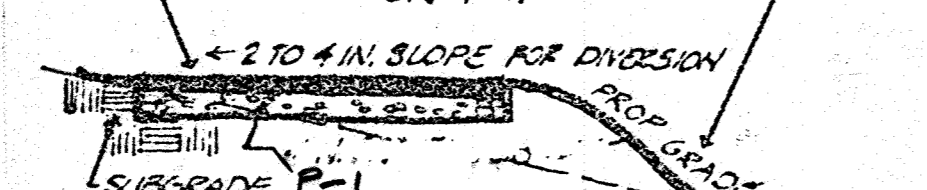
NOTE: ALL BUNKERS ARE TO BE CONSTRUCTED TO THE SIZE AND SHAPE SHOWN ON PLAN.



NOTE: LOW POINT (L.P.) INSIDE SAND LIMIT FOR SUBGRADE OF BUNKER.
NOTE: MAINTAIN POSITIVE DRAINAGE IN ALL TUBING. ALL OUTFLOWS TO BE STAKED.
NOTE: ALL DRAIN TUBING TO BE 4 IN. DIAMETER WITH FILTER CLOTH INSIDE SAND LIMIT (SEE TYP. SEC. A-1) AND 4 IN. DIA. NON-PERFORATED OUTSIDE OF SAND.

TYPICAL SECTION THR. PAVED GOLF CAR PATH
NO SCALE

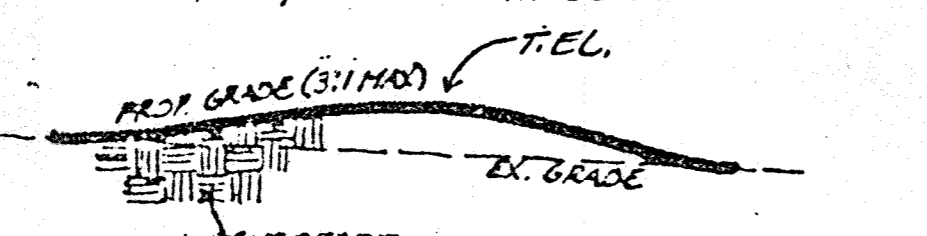
NOTE: ALL PATH TO BE 6 FT. WIDE, P-1 ASPHALTIC PAVING WITH A SURFACE SLOPE OF 4 IN. IN 6 FT. ALL FILL SLOPES FOR CAR PATHS TO BE 3:1 OR 4:1.



NOTE: GOLF CAR PATHS ARE TO BE USED AS DIVERSION BERMS ON HILLS ABOVE FAIRWAYS. USE PATH TO DIVERT SURFACE DRAINAGE FROM TEES, LANDING AREAS AND GREENS.

TYPICAL SECTION THR. MOUND.
NO SCALE

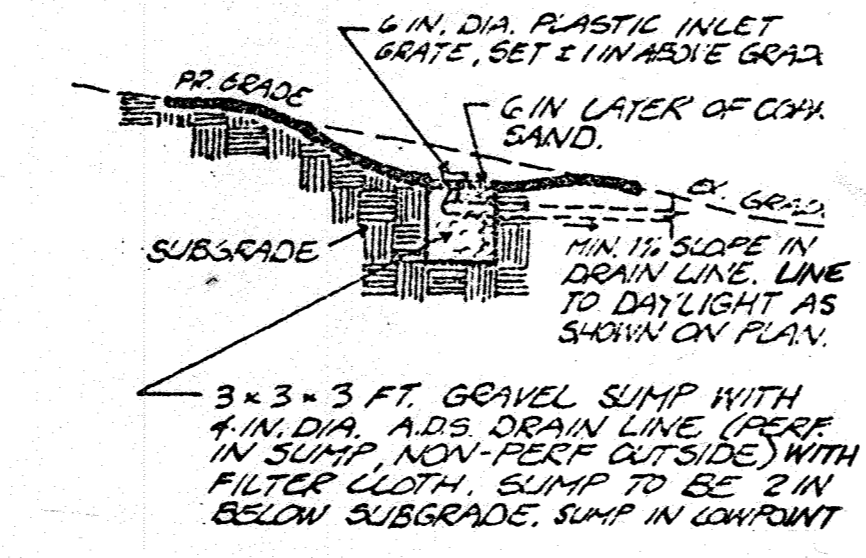
NOTE: FILL, AS SHOWN ON THE PLAN, TO ELEV. AT H.P. (TOP) OF MOUND.
NOTE: ALL SLOPES ARE TO BE BETWEEN 3:1 AND 4:1, UNLESS OTHERWISE SHOWN.



NOTE: THE EXACT LOCATION OF ALL MOUNDS TO BE CONFIRMED IN THE FIELD BY THE GOLF COURSE ARCHITECT.

TYPICAL SECTION THR. GRASS BUNKER WITH SUMP
NO SCALE

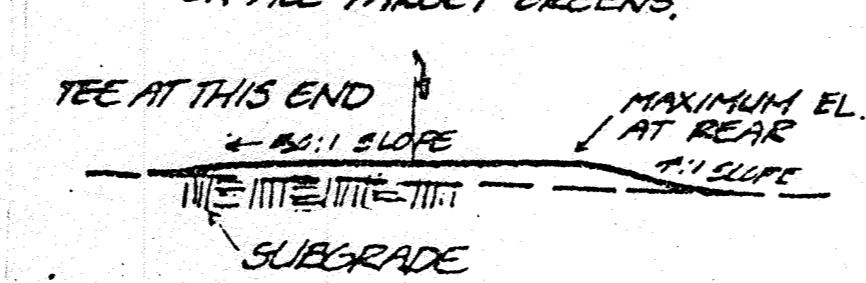
NOTE: ALL BUNKER INTERIORS TO BE SODDED. MAINTAIN POSITIVE SURFACE INTO SUMP AND DRAIN.



NOTE: 3x3 FT. GRAVEL SUMP WITH 4 IN. DIA. A.D.S. DRAIN LINE (PERF. IN SUMP, NON-PERF. OUTSIDE) WITH FILTER CLOTH. SUMP TO BE 2 IN. BELOW SUBGRADE. SUMP IN LOWPOINT

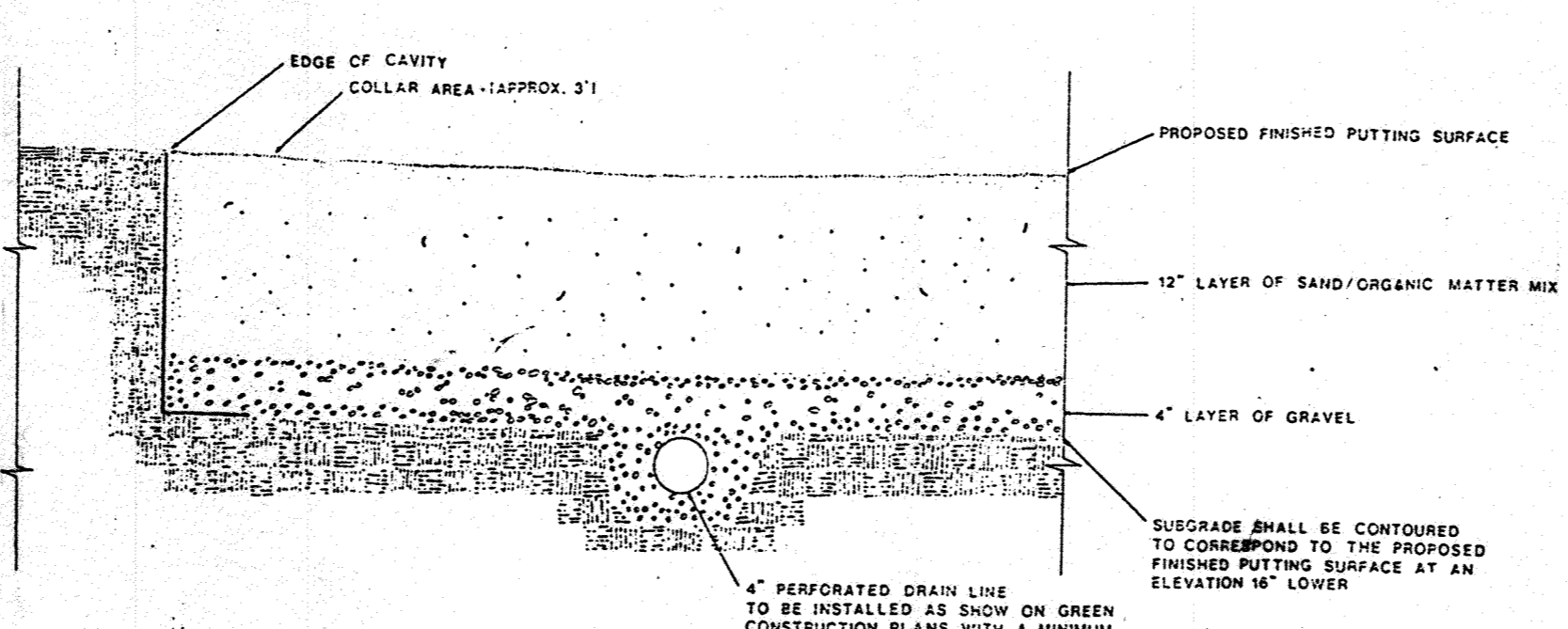
TYPICAL SECTION THR. TARGET GREEN
NO SCALE

NOTE: FILL TO ELEVATIONS SHOWN ON THE PLAN AT REAR OF GREEN.
NOTE: PROVIDE 4 INCH LAYER OF TOPSOIL ON ALL TARGET GREENS.



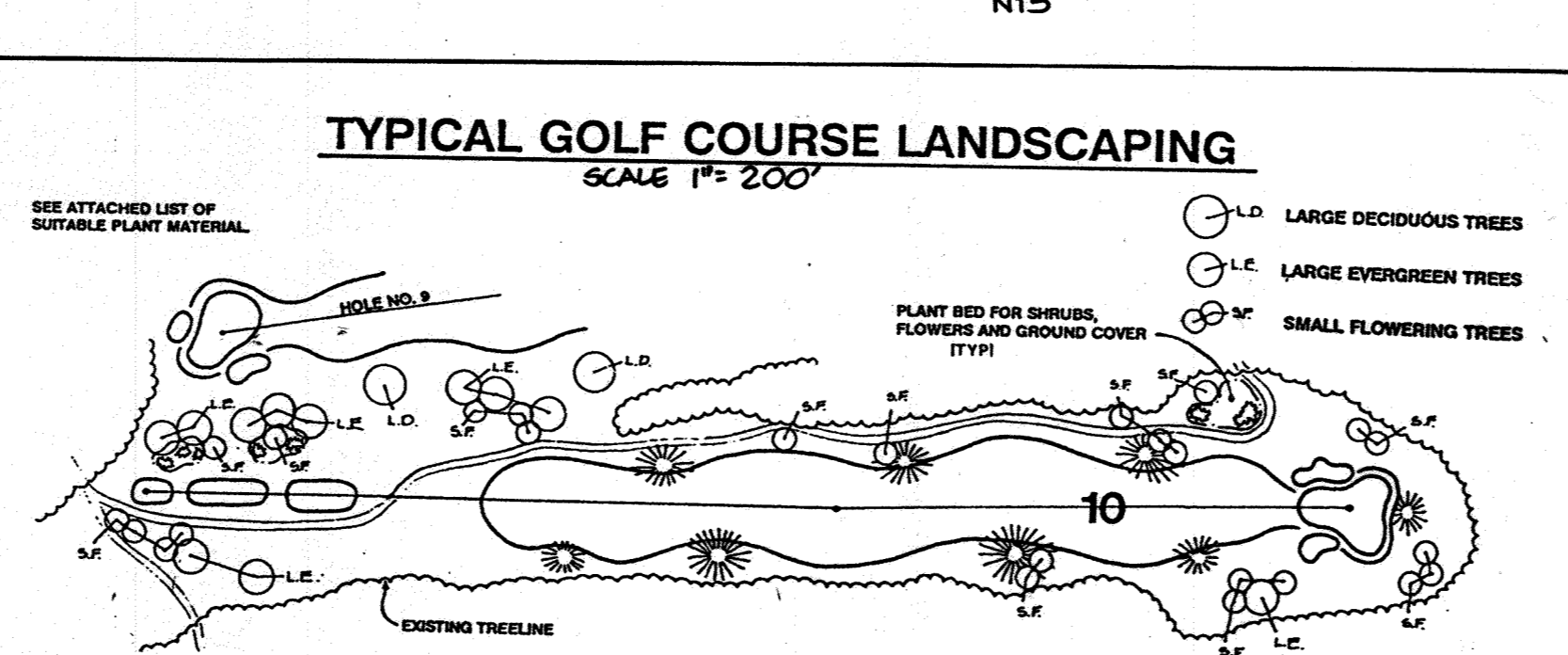
NOTE: THE EXACT LOCATIONS OF ALL TARGET GREENS WILL BE CONFIRMED IN THE FIELD.

TYPICAL GREEN CONSTRUCTION PROFILE
NTS

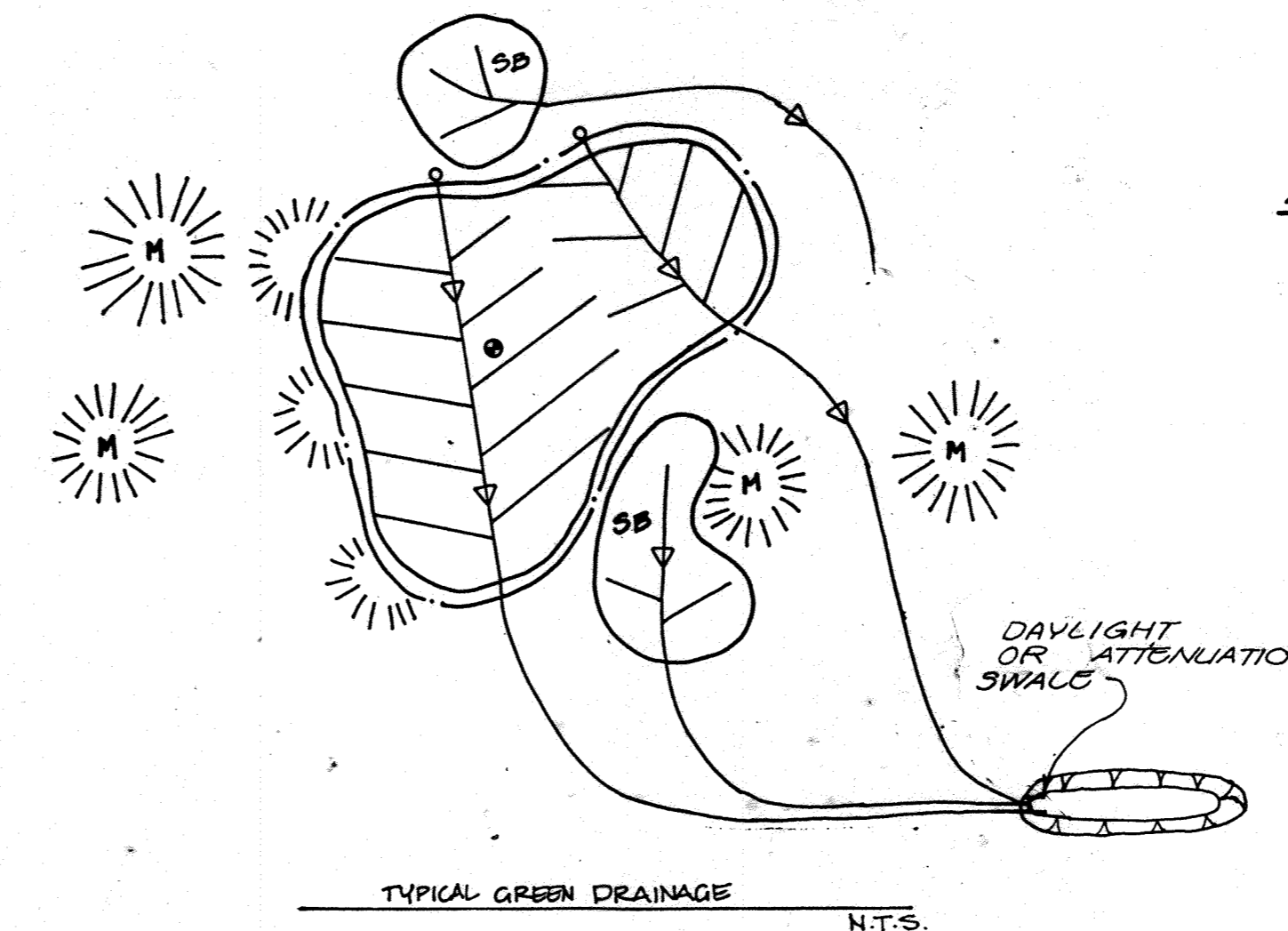


NOTE: EDGE OF CAVITY TO EXTEND TO THE OUTSIDE LIMITS OF THE COLLAR AS SHOWN ON THE GREEN CONSTRUCTION PLANS.
NOTE: SEE SPECIFICATIONS REGARDING ALL MATERIALS.
NOTE: MATERIALS WILL BE COMPATIBLE SO THAT, IN ACCORDANCE WITH U.S.O.A. SPECIFICATIONS, A BARRIER LAYER IS NOT REQUIRED.

TYPICAL GOLF COURSE LANDSCAPING
SCALE 1" = 200'

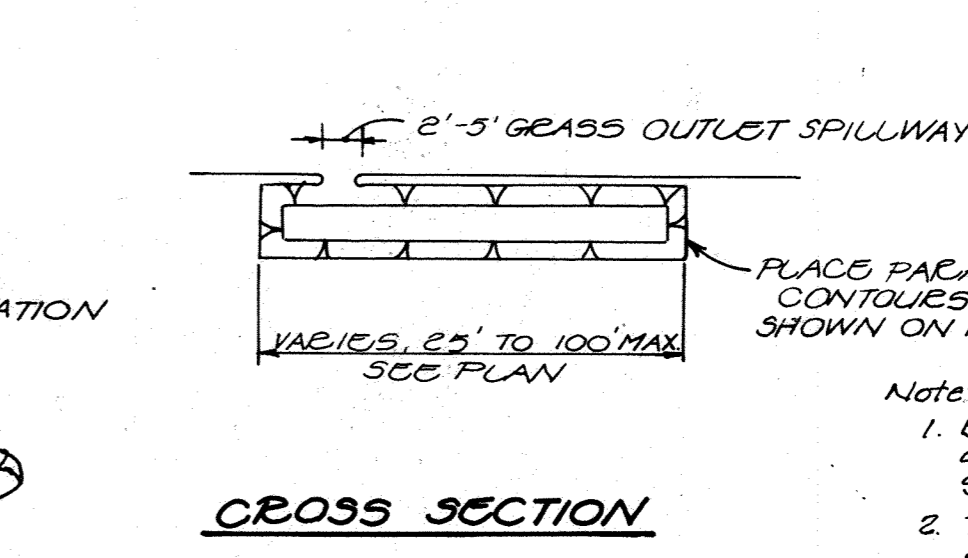
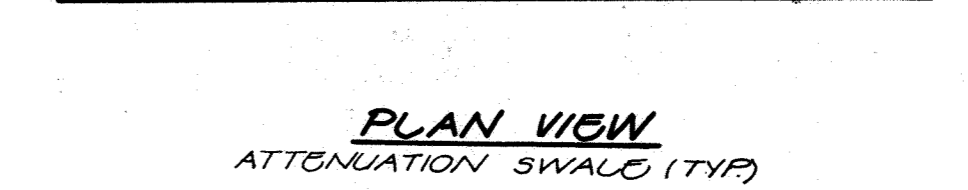


NOTE: SEE LANDSCAPE PLANS PREPARED BY THE DEVELOPER FOR LANDSCAPE PLACEMENT, QUANTITIES, SPECIFICATIONS, DETAILS, ETC.

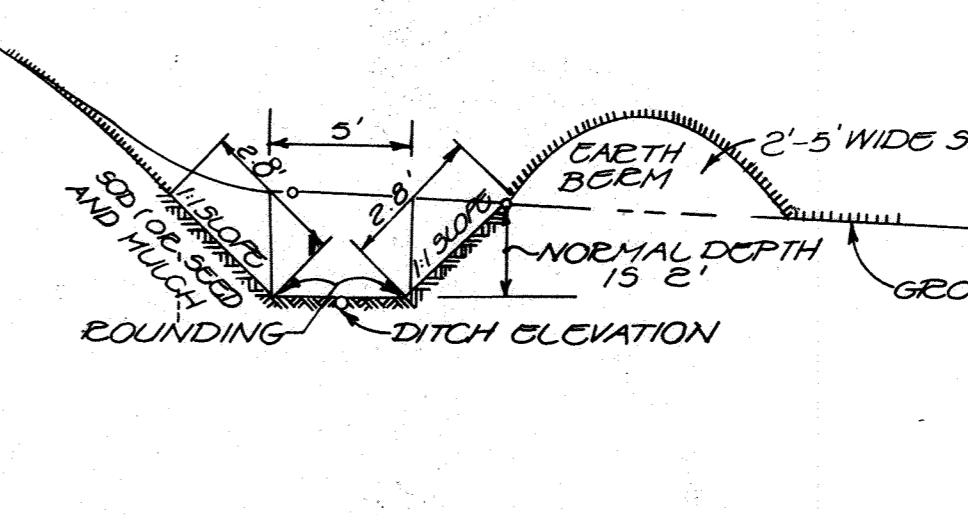


TYPICAL GREEN DRAINAGE N.T.S.

ATTENUATION SWALE DETAILS



TYPICAL ATTENUATION SWALE TYPE 'A' 1:1 SIDE SLOPES



TYPICAL ATTENUATION SWALE TYPE 'B' 2:1 SIDE SLOPES

NOTE:
1. Bottom of all attenuation swales shall be set a minimum of two (2) feet below constructed grass outlet spillway.
2. The contractor shall configure all attenuation swales as shown on plans. Subject to confirmation of note 50 (see sheet 1) for provision or modification.

SECTION NUMBER	ROW AND STREET CLASSIFICATION	PAVEMENT MATERIALS	GRANULAR BASE ALTERNATES
P-1	PARKING BAYS APARTMENTS AND COMMERCIAL-INDUSTRIAL ZONES WITH NO HEAVY TRUCKS TRAILERS FOR APARTMENTS AND COMMERCIAL INDUSTRIAL ZONES WITH NO HEAVY TRUCKS	FULL DEPTH BIT. CONC. ALTERNATE 1" BIT. CONC. SURFACE 4" BIT. CONC. BASE	1" BIT. CONC. SURFACE 20 BIT. CONC. BASE CRS 3" CRUSHER RUN BASE COURSE OR 4" CRUSHER STABILIZED ADEQUATE BASE COURSE

HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
Approved: [Signature] Date: [Date]
Chief-Exec. of Engr.

PAVING SECTION FOR ORDER CHART PATH

- NOTES:**
- The stormwater management swales should be aesthetically acceptable by being installed along the perimeter of the disturbed areas. It is expected that the swales will be located at or near the earth dikes wherever possible.
 - Only one layer of swales is to be provided at any given location.
 - Swales should follow the contours where possible.
 - Where concentrated flows are draining to swales, stability of the side slopes entering the swale must be assured. The slopes should be flattened out to insure stability.
 - Total Length of swales provided:
Type "A" = 3086 lf. * (Total Length)
Type "B" = 2727 lf. * (Total Length)
* Minimum Total Length Subject to Note "f"
Swale types may be substituted at the following ratios:
1.22 Type "A" / 1 Type "B"
or 0.78 Type "B" / 1 Type "A"

PLANT LIST

ABBREY.	SCIENTIFIC NAME	COMMON NAME
Deciduous Trees, 10' - 12'		
A.J.	Albizia julibrissin	Mimosa
A.R.	Acer rubrum	Red Maple
P.P.	Fraxinus pennsylvanica	Green Ash
C.S.	Acer saccharum	Sugar Maple
L.P.	Liriodendron tulipifera	Tulip Poplar
Q.A.	Quercus alba	White Oak
P.O.	Quercus palustris	Pin Oak
Q.P.	Quercus phellos	Willow Oak
Q.R.	Quercus rubra	Red Oak
R.I.	Robinia 'idaho'	Idaho Locust
S.J.	Sophora japonica	Japanese Pagoda Tree
Evergreen Trees, 8' - 10'		
C.L.	Cedrus libani	Cedar of Lebanon
M.G.	Magnolia grandiflora	Southern Magnolia
S.S.	Pinus oserifolia	Serbian Spruce
P.S.	Pinus strobus	Eastern White Pine
P.S.F.	Pinus strobus 'fastigiata'	Fastigate White Pine
Z.O.	Thuja occidentalis 'Voschnyi'	Thuja Arborvitae
X.L.	X Cupressocyparis leylandii	Leyland Cypress
Flowering Trees, 6' - 8'		
A.A.	Amelanchier arborea	Downy Serviceberry
C.C.	Cercis canadensis	Eastern Redbud
F.A.	Cornus florida 'alba'	White Flowering Dogwood
F.R.	Cornus florida 'rubra'	Red Flowering Dogwood
C.K.	Cornus kousa	Kousa Dogwood
H.C.	Malus carolina	Caroline Silverbell
H.S.	Malus sargentii	Sargent Crabapple
V.A.	Vitex agnus-castus	Chastetree
L.T.	Lagerstromia indica	Muskogee
K.P.	Koeleria paniculata	Golden Rain Tree
O.A.	Oxydendrum arboreum	Sourwood
Shrubs, 18" - 24"		
V.P.	Viburnum plicatum var. tomentosum	Doublefile Viburnum
A.G.	Asalea x glenn dale 'treasure'	Treasure Glenn Dale Azalea
R.C.	Rhododendron carolinum	Carolina Rhododendron

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
[Signature] 3/8/95
[Signature] 3/6/95
[Signature] 2/21/95
[Signature] 2/21/95

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] 2/21/95
[Signature] 2/21/95

BY THE DEVELOPER:
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 NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.
[Signature] 2/15/95

BY THE ENGINEER:
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL, REPRESENTS 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 HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.
[Signature] 2/14/95

Subdivision Name: Centre 9800/Lyndwood Manor
Section/Area: Sec Sheet 1
Parcels: Sec Sheet 1
Plot No: 11201-11251
Block No: 10, 11
Zone: PEC/RSC R-20
Election District: Census Tract: G011.01
Water Code: N/A
Sewer Code: 1/1A

LDE, INC.
8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045
(410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

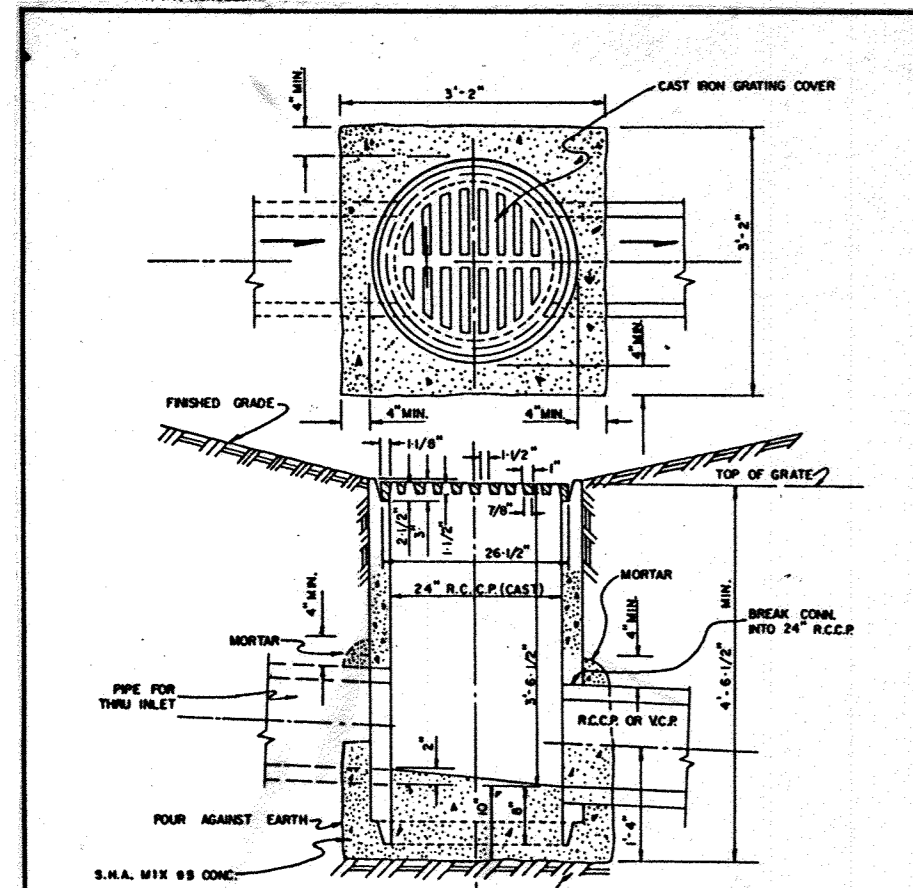
SITE DEVELOPMENT PLAN CONSTRUCTION DETAILS HOWARD COUNTY GOLF COURSE 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

Designed TP
Drawn EG/AL
Checked RMB/DB
Date 1/95

Scale AS SHOWN
Drawing 23 OF 28
Job No. 94-110 93-006
File No. SDP 93-75

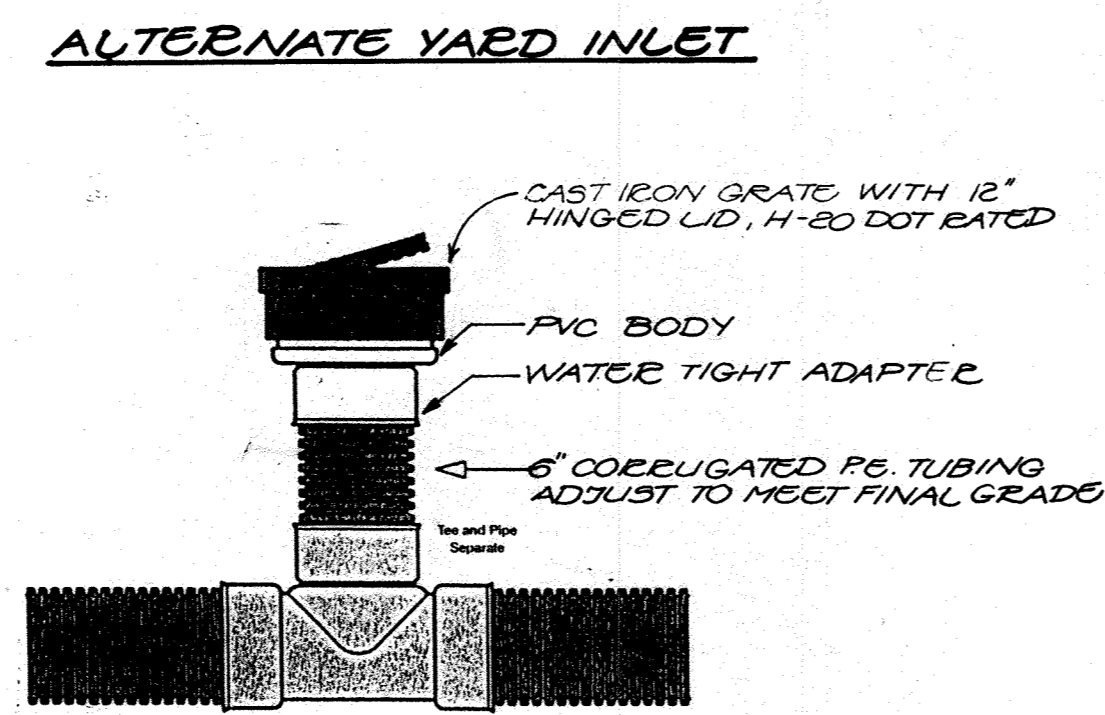
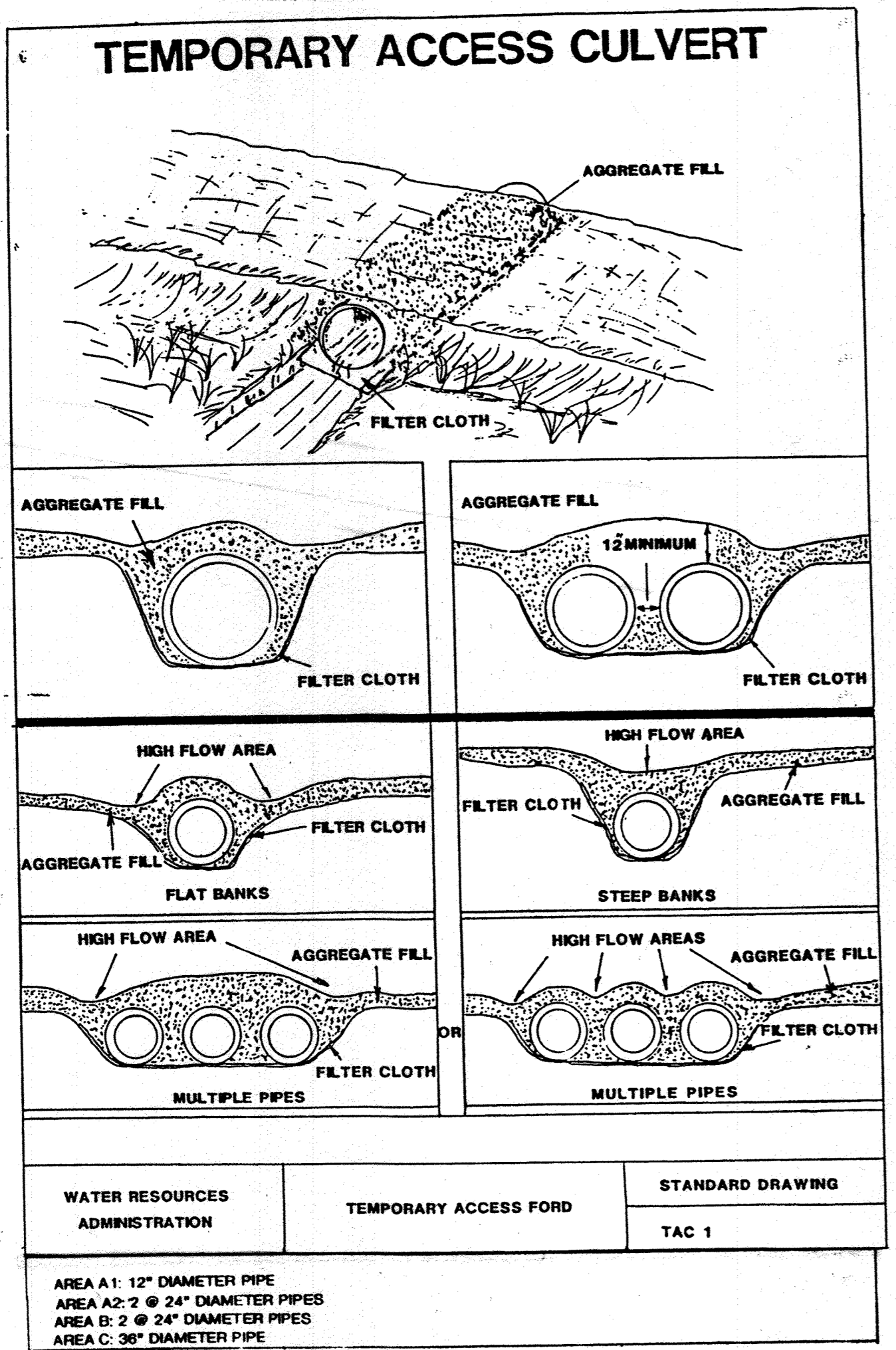
BRUCE D. BURTON
2/14/95

Owner: Howard County, Maryland
3430 Courthouse Drive
Ellicott City, Maryland 21043
Developer: Rainmaker/Kilian L.L.C.
5111 Avoca Avenue
Ellicott City, Maryland 21043



NOTE:
 INLET TO BE USED IN A TRAIL OR SHED
 MAX. CAPACITY UNDER 2" HEAD - 3 CFS.
 TO BE USED WITH 6" CORR. OR SMALLER.
 NOT TO BE USED IN ADJACENT OR PARKING AREA.

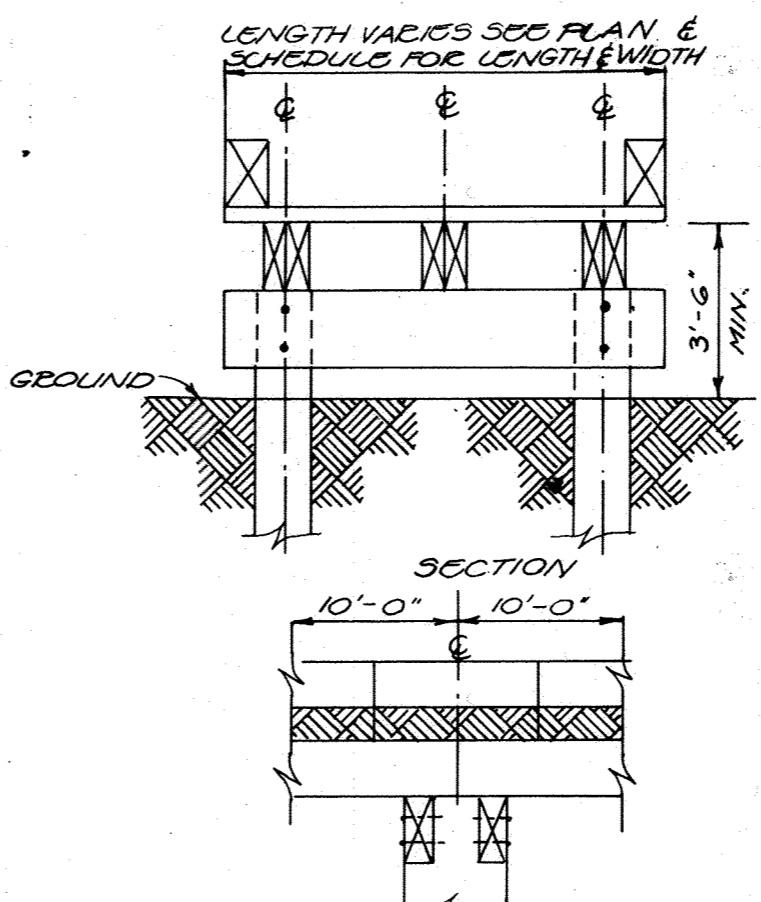
THIS INLET CANNOT BE SUBSTITUTED AT I-1 FOR HOWARD COUNTY STD. 4.14 ALL CORRUGATED POLYETHYLENE TUBING TO MEET ASTM SPEC F-405 OR F-667 AS APPLICABLE, AND UTILIZE WATER-TIGHT COUPLINGS.



NOTE:
 THIS INLET CANNOT BE SUBSTITUTED AT I-1 FOR HOWARD COUNTY STD. 4.14 ALL CORRUGATED POLYETHYLENE TUBING TO MEET ASTM SPEC F-405 OR F-667 AS APPLICABLE, AND UTILIZE WATER-TIGHT COUPLINGS.

TEMPORARY ACCESS CULVERT SPEC.

- Temporary Access Culvert - (STANDARD DRAWING TAC-1)**
 A temporary access culvert is a structure consisting of a section(s) of circular pipe, pipe arches, or oval pipes of reinforced concrete, corrugated metal, or structural plate, which is used to convey flowing water through the crossing.
 - Considerations**
 - Temporary culverts are used where (1) the channel in the side for normal bridge construction, (2) anticipated loading may prove unsafe for single span bridges, or (3) access is not needed from bank to bank.
 - This temporary waterway crossing method is normally preferred over a form type of crossing, since disturbance to the waterway is only during construction and removal of the culvert.
 - Temporary culverts can be salvaged and reused.
 - Construction Specifications**
 - Restrictions** - No construction or removal of a temporary access culvert will be permitted between October 1 through April 30 for all Class III and Class IV Trout Waters or between March 15 through June 15 for non-trout waterways.
 - Culvert Strength** - All culverts shall be strong enough to support their cross-sectional area under maximum expected loads.
 - Culvert Size** - The size of the culvert pipe shall be the largest pipe diameter that will fit into the existing channel without major excavation of the waterway channel or without major approach fills. If channel width exceeds 3 feet, additional pipe may be used until the cross-sectional area of the pipe is greater than 50 percent of the cross-sectional area of the existing channel. The minimum size culvert that may be used is a 12" diameter pipe.
 - Culvert Length** - The culvert(s) shall extend a minimum of one foot beyond the upstream and downstream toe of the aggregate placed around the culvert. In no case shall the culvert exceed 40 feet in length.
 - Filter Cloth** - Filter cloth shall be placed on the streambed and streambanks prior to placement of the pipe culvert(s) and aggregate. The filter cloth shall cover the streambed and extend a minimum six inches and a maximum one foot beyond the end of the culvert and bedding material. Filter cloth reduces settlement and improves crossing stability.
 - Culvert Placement** - The lowest elevation of the culvert shall be installed on the natural streambed grade to minimize interference with fish migration (free passage of fish).
 - Culvert Protection** - The culvert(s) shall be covered with a minimum of one foot of aggregate. If multiple culverts are used they shall be separated by at least 12" of compacted aggregate fill. At a minimum, the bedding and fill material used in the construction of the temporary access culvert crossings shall conform with the aggregate requirements cited in Section I.B. 1. above.
 - Stabilization** - All areas disturbed during culvert installation shall be stabilized within 18 calendar days of the date of release in accordance with the Standard for "Critical Area Stabilization With Permanent Seeding."
 - Culvert Maintenance Requirements**
 - Inspection** - Periodic inspection shall be performed to ensure that the culverts, streambed, and streambanks are not damaged, and that sediment is not entering the stream or blocking fish passage or migration.
 - Maintenance** - Maintenance shall be performed, as needed in a timely manner to ensure that structures are in compliance with this standard and specification. This shall include removal and disposal of any trapped sediment or debris. Sediment shall be disposed of and stabilized outside the waterway flood plain.
 - Culvert Removal and Clean-Up Requirements**
 - Removal** - When the crossing has served its purpose, all structures including culverts, bedding and filter cloth materials shall be removed within 14 calendar days. In all cases, the culvert materials shall be removed within one year of installation. No structures shall be removed during the opening season (March 15 through June 15).
 - Final Clean-up** - Final clean-up shall consist of removal of the temporary structure from the waterway, removal of all construction materials, restoration of original stream channel cross section, and protection of the stream banks from erosion. Removed material shall be stored outside of the waterway flood plain.
 - Method** - Removal of the structure and clean up of the area shall be accomplished without construction equipment working in the waterway channel.
 - Final Stabilization** - All areas disturbed during culvert removal shall be stabilized within 18 calendar days of the disturbance in accordance with the Standard for "Critical Area Stabilization With Permanent Seeding."



BOARDWALK CARTPATH
N.T.S.

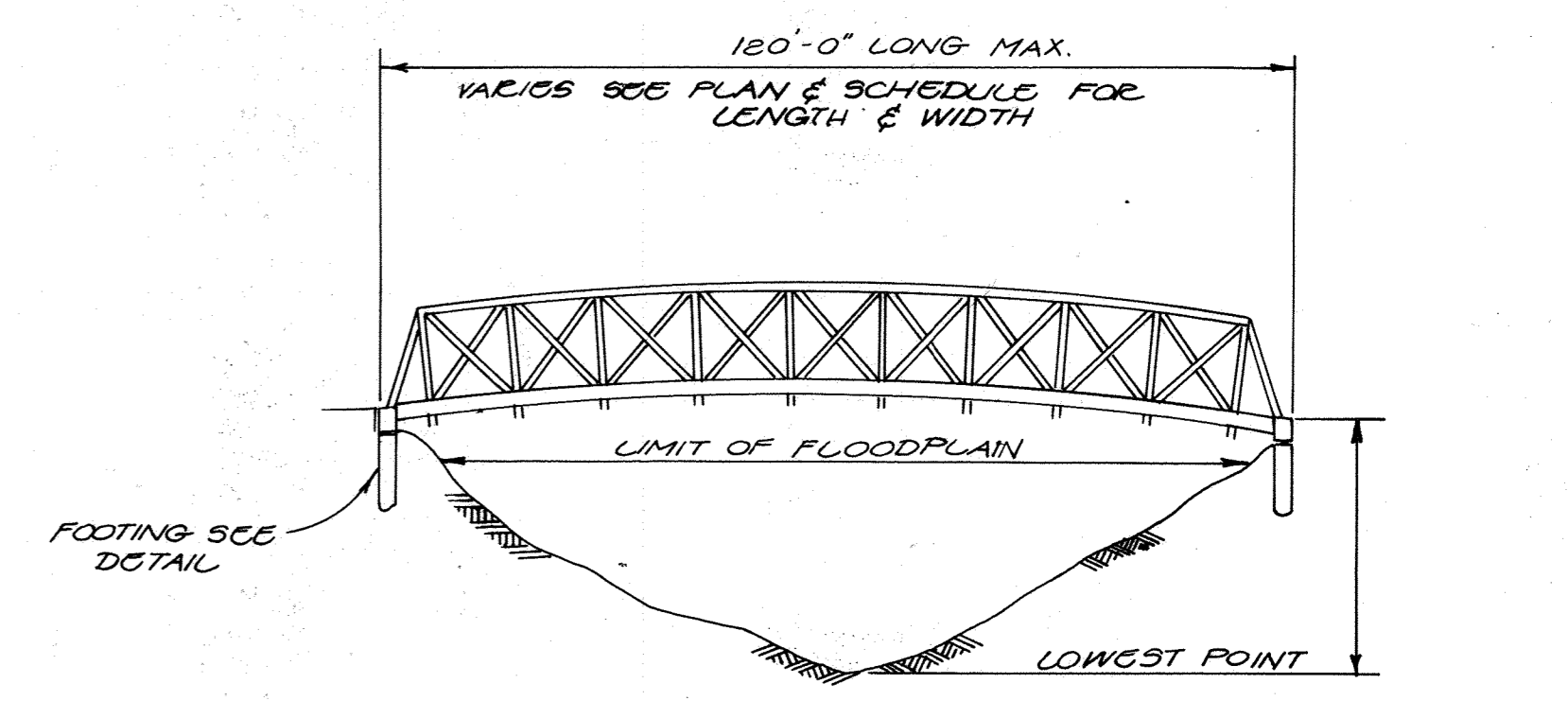
BRIDGE SCHEDULE

Bridge	Length	Width	Vehicle Load
A	43'	10'	10,000 lbs
B	85'	10'	10,000 lbs
C	62'	8'	10,000 lbs
D	52'	8'	10,000 lbs
E	104'	8'	10,000 lbs

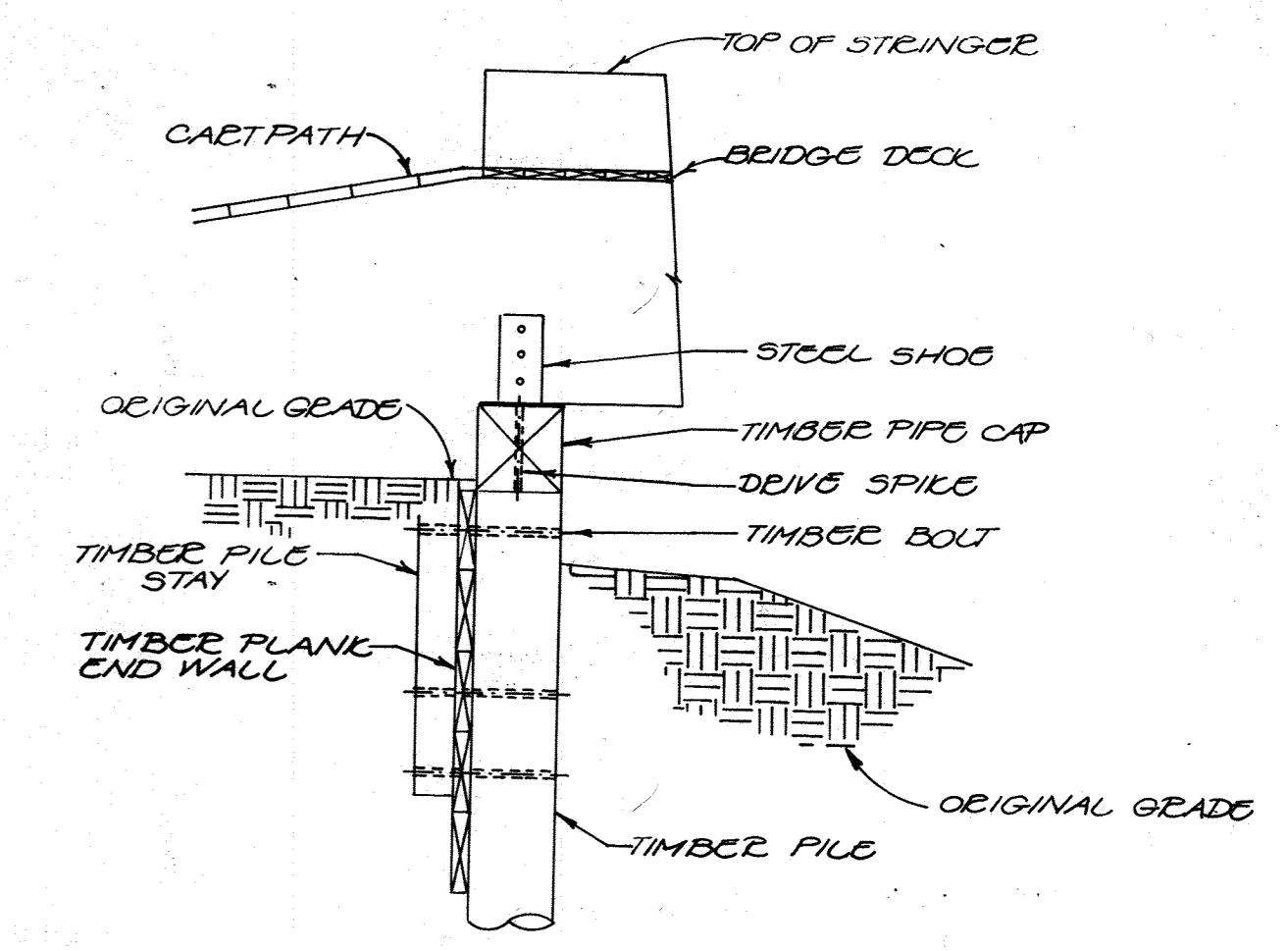
BOARDWALK SCHEDULE

Boardwalk	Length	Width	Vehicle Load
F	73'	10'	10,000 lbs
G	205'	10'	10,000 lbs
H	20'	10'	10,000 lbs

Shop drawings and structural computations must be submitted to the Department of Public Works, and must be signed and sealed by a Registered Maryland Professional Engineer for bridges and boardwalks.

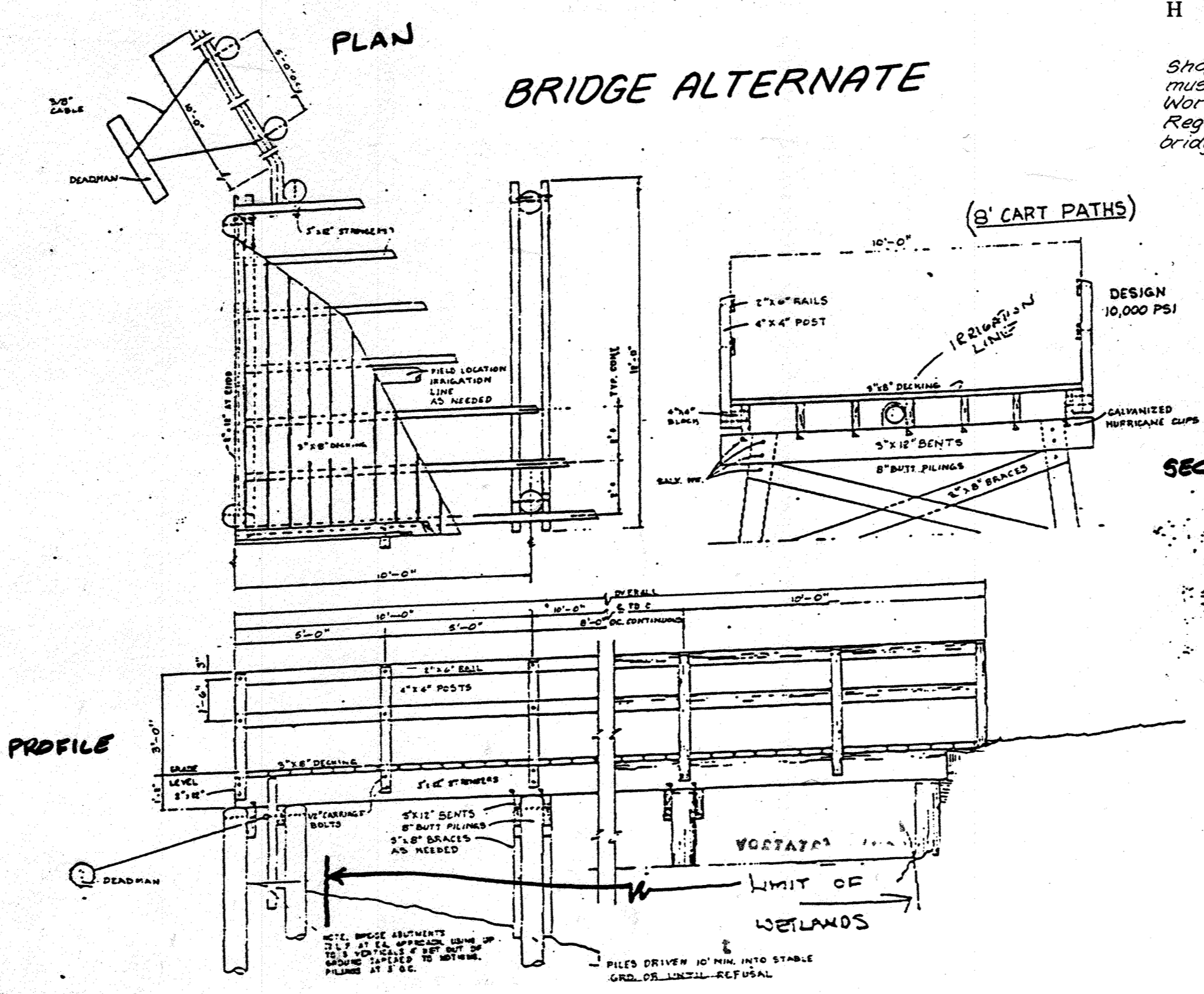


TYPICAL BRIDGE
N.T.S.



TYPICAL BRIDGE FOOTING
N.T.S.

NOTE:
 EACH FOOTING SHALL BE DESIGNED BY A MARYLAND REGISTERED PROFESSIONAL ENGINEER BASED ON SPECIFIC SOIL CONDITIONS AT EACH LOCATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR OR DEVELOPER TO SECURE FINAL BRIDGE FOOTING DESIGNS PRIOR TO CONSTRUCTION OF THE BRIDGES. ALTERNATE DESIGNS OF EQUAL OR GREATER QUALITY MAY BE SUBSTITUTED FOR THE TYPICAL FOOTING SHOWN.



Notes:

- All lumber and piles to be pressure treated in accordance with the American Wood Preservers Association Std. C-2.
- All hardware to be hot dipped galvanized.

BY THE DEVELOPER:
 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 NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

BY THE ENGINEER:
 I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS 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 HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Director: *[Signature]* 3/8/95
 Chief, Division of Land Development and Research: *[Signature]* 3/10/95
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 Director: *[Signature]* 2/21/95
 Chief, Bureau of Engineering: *[Signature]* 2/21/95

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.
 U.S. SOIL CONSERVATION SERVICE: *[Signature]* 2/21/95
 THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED: *[Signature]* 2/21/95
 HOWARD S.C.D.

Owner: Howard County, Maryland
 3430 Courthouse Drive
 Ellicott City, Maryland 21043

Developer: Rainmaker/Killian L.L.C.
 5111 Avoca Avenue
 Ellicott City, Maryland 21043

Subdivision Name: Centre 9900/Lyndwood Manor
 Section/Area: See Sheet 1
 Parcels: See Sheet 1
 Plat No: 11/01-11/01
 Block No: 10, 11
 Zone: FEO/RSC R-20
 Tax Map No: Election District: Census Tract: 37 1 601.01
 Water Code: N/A
 Sewer Code: N/A

LDE, INC.
 8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045
 (410) 715-0070 • (301) 596-3424 • (410) 715-0681 (fax)

DESIGNED TO
 DRAWN EG
 CHECKED RMB/08
 DATE 1/95

SCALE AS SHOWN
 DRAWING 24 OF 28
 JOB NO. 94-110 95-006
 FILE NO. SDP 93-75

**SITE DEVELOPMENT PLAN
 CONSTRUCTION DETAILS
 HOWARD COUNTY
 GOLF COURSE
 1ST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND**

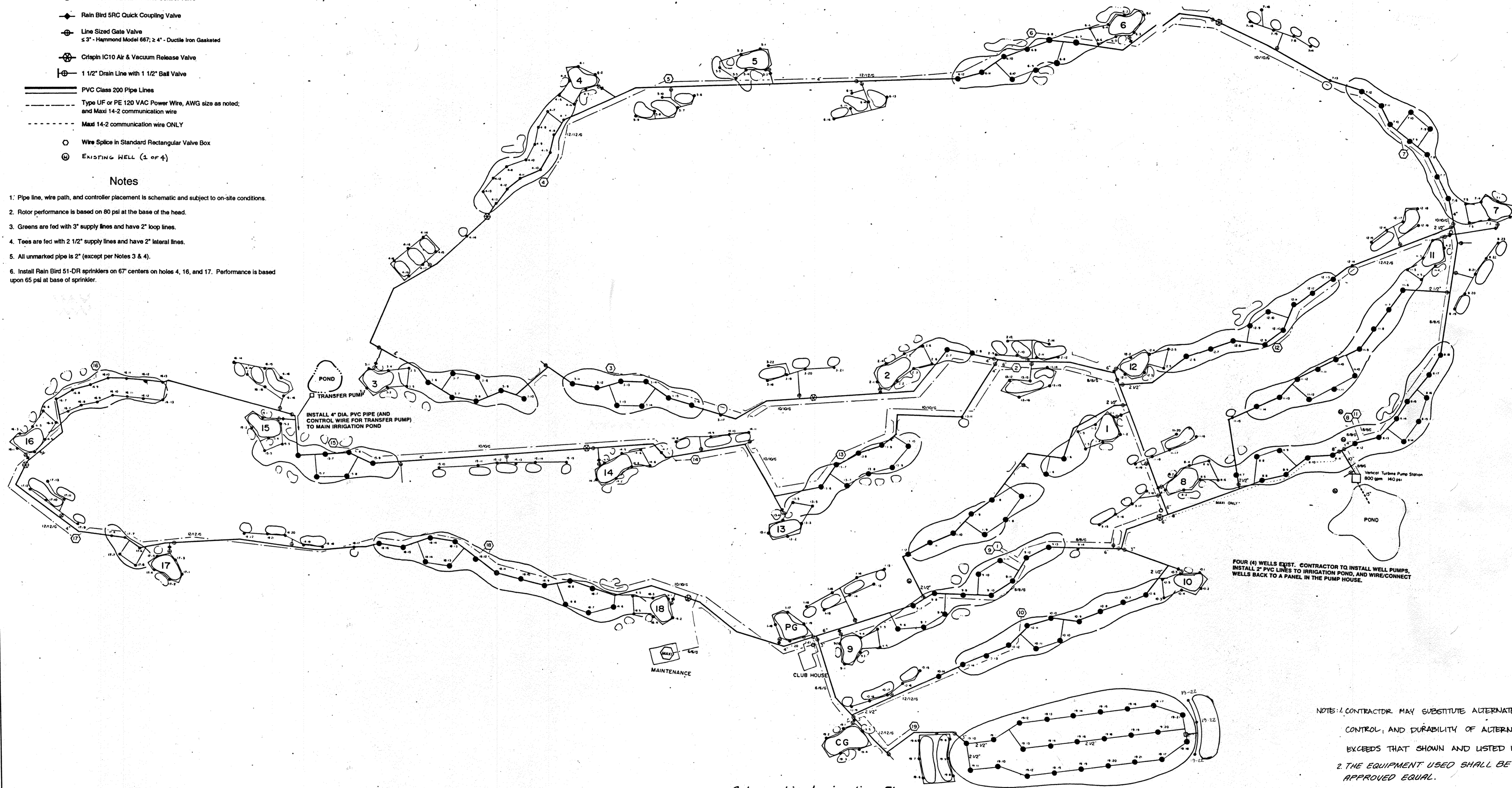
SDP-93-75

Legend

- Rain Bird MAXI 5 Computer Control System
- Rain Bird MSC 16 or 24 Station Field Satellite
- Rain Bird 91-DR Valve-In-Head Rotor #30 range nozzle, 90 foot spacing
- Rain Bird 51-DR Valve-In-Head Rotor #18 range nozzle, 70 foot spacing except as noted
- Rain Bird 47-DR Valve-In-Head Rotor #18 nozzle, 60 foot spacing
- Rain Bird 2" PES-B Remote Control Valve
- Rain Bird 5RC Quick Coupling Valve
- Line Sized Gate Valve
- 3" - Hammond Model 667; 2 1/4" - Ductile Iron Gasketed
- Crispin IC10 Air & Vacuum Release Valve
- 1 1/2" Drain Line with 1 1/2" Ball Valve
- PVC Class 200 Pipe Lines
- Type UF or PE 120 VAC Power Wire, AWG size as noted; and Maxd 14-2 communication wire
- Maxd 14-2 communication wire ONLY
- Wire Splice in Standard Rectangular Valve Box
- EXISTING WELL (3 of 4)

Notes

1. Pipe line, wire path, and controller placement is schematic and subject to on-site conditions.
2. Rotor performance is based on 90 psi at the base of the head.
3. Greens are fed with 3" supply lines and have 2" loop lines.
4. Tees are fed with 2 1/2" supply lines and have 2" lateral lines.
5. All unmarked pipe is 2" (except per Notes 3 & 4).
6. Install Rain Bird 51-DR sprinklers on 67' centers on holes 4, 16, and 17. Performance is based upon 65 psi at base of sprinkler.



FOUR (4) WELLS EXIST. CONTRACTOR TO INSTALL WELL PUMPS, INSTALL 2" PVC LINES TO IRRIGATION POND, AND WIRE/CONNECT WELLS BACK TO A PANEL IN THE PUMP HOUSE.

NOTE: 1. CONTRACTOR MAY SUBSTITUTE ALTERNATE SYSTEM IF COVERAGE, CONTROL, AND DURABILITY OF ALTERNATE SYSTEM MEETS OR EXCEEDS THAT SHOWN AND LISTED IN PROJECT SPECIFICATIONS.
2. THE EQUIPMENT USED SHALL BE "RAINBIRD" OR AN APPROVED EQUAL.

Schematic Irrigation Plan
(Not To Scale)

Irrigation System Designed By: Rainbird

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 DIRECTOR: *[Signature]* DATE: 2/8/95
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH: *[Signature]* DATE: 2/8/95
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DIRECTOR: *[Signature]* DATE: 2/21/95
 CHIEF, BUREAU OF ENGINEERING: *[Signature]* DATE: 2/21/95

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.
 U.S. SOIL CONSERVATION SERVICE DATE: _____
 THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 HOWARD S.C.D. DATE: _____

BY THE ENGINEER:
 I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS 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 HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.
 BRUCE D. BURTON ENGINEER DATE: 2/14/95

BY THE DEVELOPER:
 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 NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.
 TA A. A. DEVELOPER DATE: 2/15/95

Owner: Howard County, Maryland
 3430 Courthouse Drive
 Ellicott City, Maryland 21043
 Developer: Rainmaker/Killian L.L.C.
 5111 Avoca Avenue
 Ellicott City, Maryland 21043

SUBDIVISION NAME	CENTRE 0500/LIND WOOD MANOR	SECTION/AREA	SEE SHEET 1	PAREIC	SEE SHEET 1
PLAT NO.	11501-11931	BLOCK NO.	10, 11	ZONE	REC/RSC
TAX MAP NO.	37	ELECTION DISTRICT	1	CENSUS TRACT	6011.01
WATER CODE	N/A	SEWER CODE	N/A		

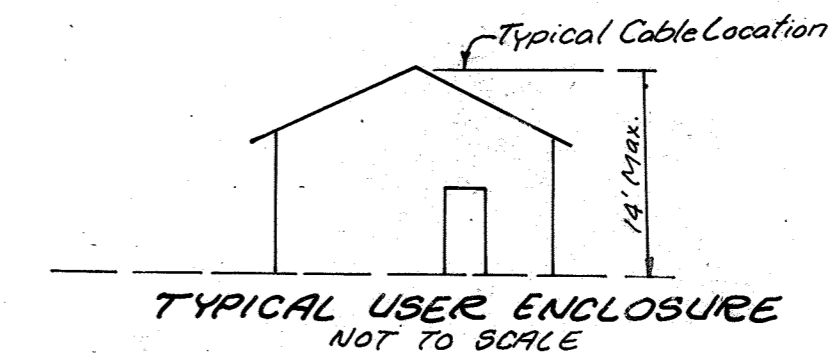
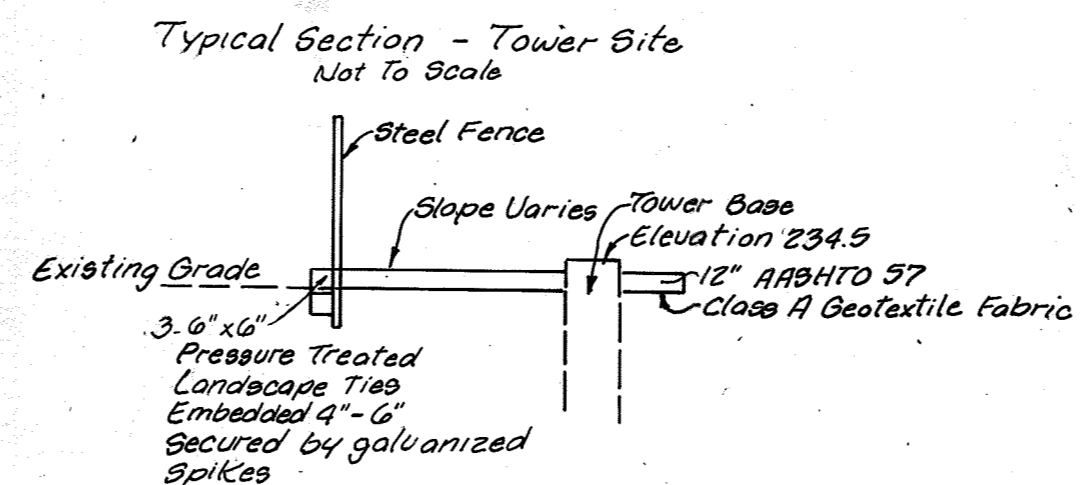
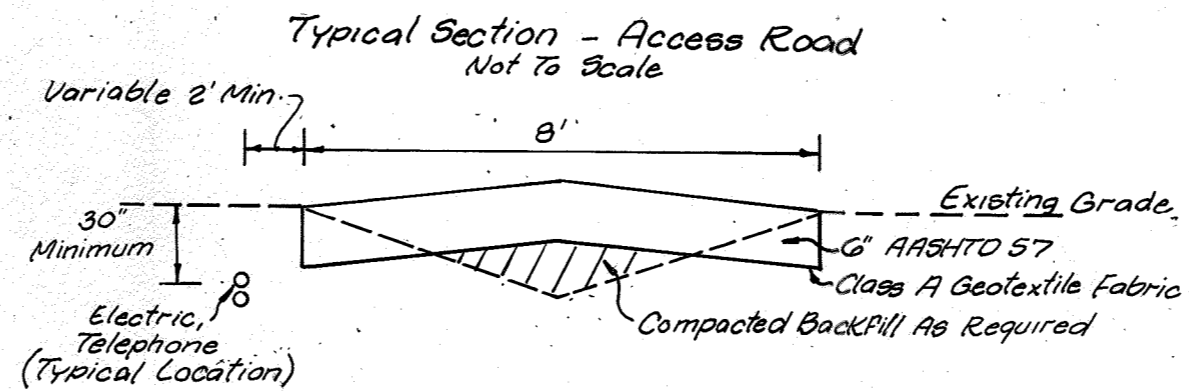
BRUCE D. BURTON
 2/14/95

LDE, INC.
 8535 Columbia 100 Parkway, Unit N, Columbia, MD 21045
 (410) 715-1070 (Balto.) (301) 596-3424 (Wash.) (410) 715-0681 (Fax)

DESIGNED TO	SCALE
DRAWN BY	AS SHOWN
CHECKED BY	DRAWING NO.
DATE	JOB NO.
	FILE NO.

**SITE DEVELOPMENT PLAN
 IRRIGATION LAYOUT
 HOWARD COUNTY
 GOLF COURSE
 1ST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND**

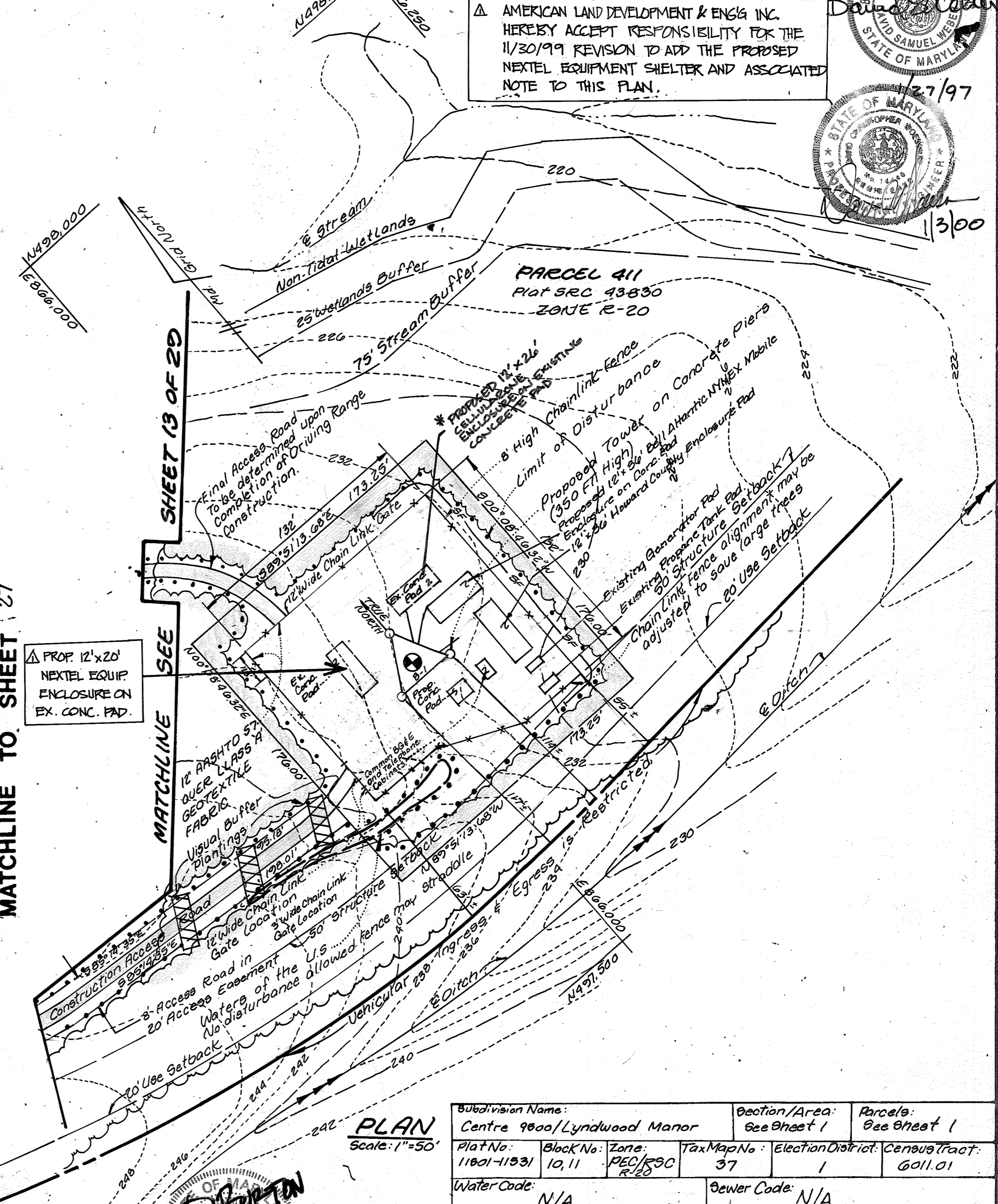
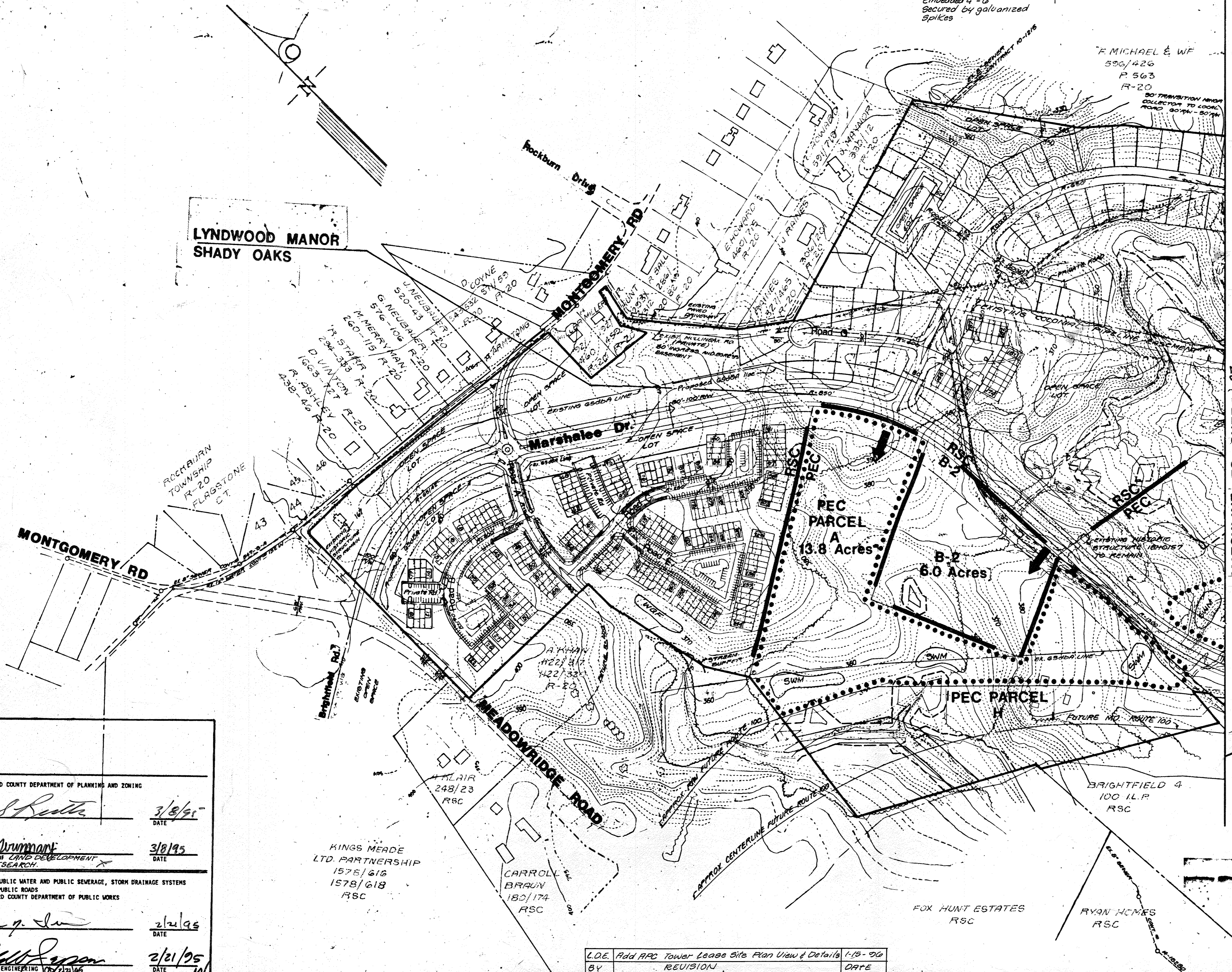
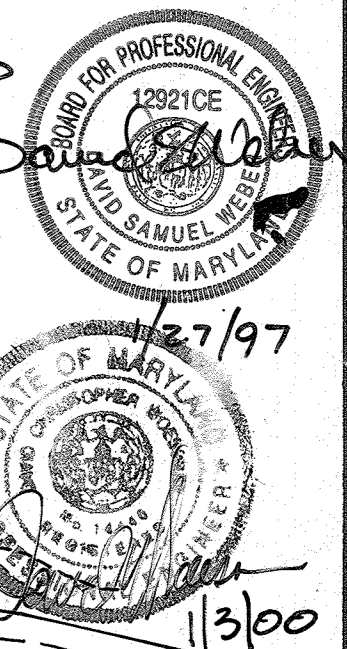
SDP-93-75



- 2/12/96 ADDED DRIVING RANGE BUILDING
- 1/27/96 ADDED CELLULARONE'S 12' X 26' EQUIPMENT SHELTER.
- 11/30/99 ADDED 12' X 20' NEXTEL'S EQUIPMENT SHELTER.

* GUTCHICK, LITTLE & WEBER, P.A. HEREBY ACCEPTS RESPONSIBILITY FOR THE JANUARY 27, 1997 REVISION TO ADD THE PROPOSED CELLULARONE BUILDING AND ASSOCIATED NOTE TO THIS PLAN.

AMERICAN LAND DEVELOPMENT & ENG'G INC. HEREBY ACCEPTS RESPONSIBILITY FOR THE 11/30/99 REVISION TO ADD THE PROPOSED NEXTEL EQUIPMENT SHELTER AND ASSOCIATED NOTE TO THIS PLAN.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 DIRECTOR: *[Signature]* DATE: 3/8/95
 CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH: *[Signature]* DATE: 3/8/95
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DIRECTOR: *[Signature]* DATE: 2/12/95
 CHIEF, BUREAU OF ENGINEERING: *[Signature]* DATE: 2/21/95

KINGS MEADE LTD. PARTNERSHIP
 1578/618
 1578/618
 RSC

CARROLL BRAUN
 180/174
 RSC

C.D.E. Field REC Tower Lease Site Plan View & Details 1-15-99
 BY: [Signature] REVISION DATE

MATCHLINE TO SHEET 17

MATCHLINE SEE SHEET 19 OF 20

PRINCE D. BROWN
 2/15/95

Subdivision Name: Centre 9000/Lyndwood Manor	Section/Area: See Sheet 1	Parcel/s: See Sheet 1
Plot No: 11801-11831	Block No: 10, 11	Tax Map No: 37
Water Code: N/A	Election District: 1	Census Tract: G011.01
		Bewer Code: N/A

LDE, INC.
 8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045
 (410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

DESIGNED TD	SITE DEVELOPMENT PLAN DRAINAGE AREA MAP HOWARD COUNTY GOLF COURSE 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE 1" = 200'
DRAWN WJ		DRAWING 26 of 28
CHECKED RMB/08		JOB NO. 94-110 95-006
DATE 1/95		FILE NO. SDP-93-75

Owner: Howard County, Maryland
 3430 Courthouse Drive
 Ellicott City, Maryland 21043
 Developer: Rainmaker/Killian L.L.C.
 5111 Avoca Avenue
 Ellicott City, Maryland 21043



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 DIRECTOR: *[Signature]* DATE: 3/15/95
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH: *[Signature]* DATE: 2/1/95
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DIRECTOR: *[Signature]* DATE: 2/21/95
 CHIEF, BUREAU OF ENGINEERING: *[Signature]* DATE: 2/21/95

LEGEND

- ZONING LINE
- 65' BUFFER AND JURISDICTIONAL NON-TIDAL WETLAND
- 75' STREAM BUFFER
- APPROXIMATE LIMITS OF 100-YEAR FLOOD PLAIN
- STREAM
- LIMIT OF PEC POD
- POSSIBLE ACCESS POINT
- SWM
- WATER QUALITY FACILITY BY OTHERS

Subdivision Name: Centre 9500/Lyndwood Manor	Section/Area: See Sheet 1	Parcel: See Sheet 1
Plot No: 1150A-11531	Block No: 10, 11	Zone: RSC
Water Code: N/A	Tax Map No: 37	Election District: 1
	Census Tract: 6011.01	Water Code: N/A

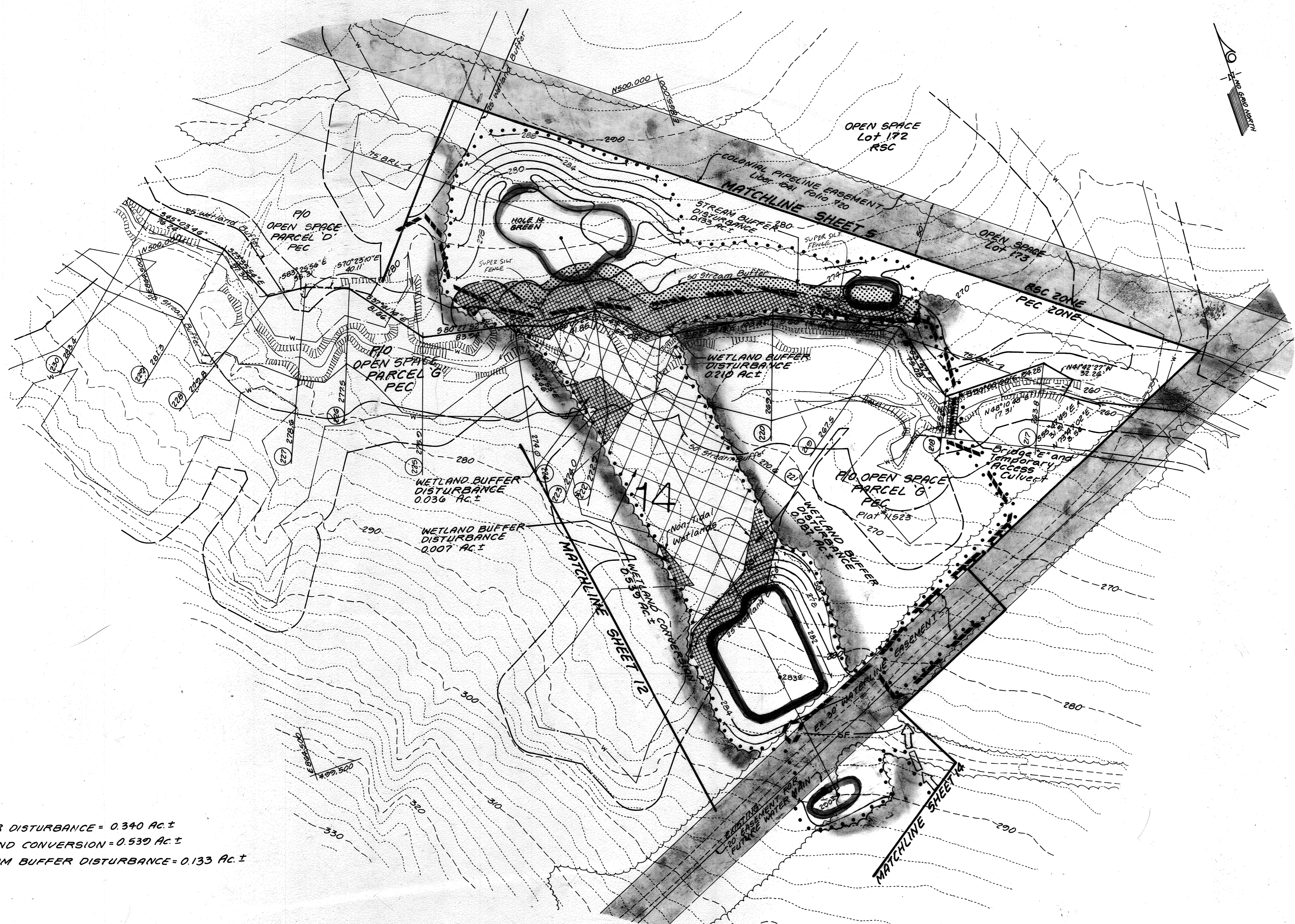
LDE, INC.
 8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045
 (410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

DESIGNED TD	<p>SITE DEVELOPMENT PLAN DRAINAGE AREA MAP HOWARD COUNTY GOLF COURSE 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND</p> <p>S&P-93-75</p>	SCALE 1" = 200'
DRAWN WJ		DRAWING 27 of 28
CHECKED AM/BOB		JOB NO. 9A-110 93-080
DATE 1-95		FILE NO. S&P 93-75

BRUCE D. BURTON
 2/15/95

Owner: Howard County, Maryland
 3430 Courthouse Drive
 Ellicott City, Maryland 21043
 Developer: *[Signature]* L.L.C.
 5111 Avoca Avenue
 Ellicott City, Maryland 21043

MATCHLINE TO SHEET 24



LEGEND

- 342 --- EXISTING CONTOUR (2' INTERVAL)
- - - 342 - - - PROPOSED CONTOUR (2' INTERVAL)
- [SCE] STABILIZED CONSTRUCTION ENTRANCE
- LIMIT OF DISTURBANCE
- SF - SILT FENCE
- [EARTH DIKE] EARTH DIKE (STABILIZATION METHOD)
- TPF - TREE PROTECTION FENCE
- W - NON-TIDAL WETLANDS
- [WOODS TO BE REMOVED] EXISTING WOODS TO BE REMOVED
- [WOODS TO REMAIN] EXISTING WOODS TO REMAIN UNDISTURBED
- [WETLANDS BUFFER] WETLANDS BUFFER DISTURBANCE
- [WETLAND CONVERSION] WETLAND CONVERSION
- [FUTURE PATHWAY] FUTURE PATHWAY LOCATION
- [25% OR GREATER SLOPES] 25% OR GREATER SLOPES
- [STREAM BUFFER] STREAM BUFFER DISTURBANCE
- [PROPOSED BRIDGE] PROPOSED BRIDGE
- SSF - SUPER SILT FENCE

NOTES

1. TOTAL AREA OF BUFFER DISTURBANCE = 0.340 AC ±
2. TOTAL AREA OF WETLAND CONVERSION = 0.539 AC ±
3. TOTAL AREA OF STREAM BUFFER DISTURBANCE = 0.133 AC ±

APPROVED: DEPARTMENT OF PLANNING AND ZONING

John Damman 9/5/95
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

Jim Murray 9/7/95
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

James Keenan 9/2/95
 DIRECTOR

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

Patricia Engler 8/21/95
 NATURAL RESOURCE CONSERVATION DISTRICT

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

Mark Ali 8/31/95
 HOWARD SOIL CONSERVATION DISTRICT

ENGINEER'S CERTIFICATE

"I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

Bruce D. Burton 8/16/95
 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 ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

Scott E. O'Neil 8/23/95
 SIGNATURE OF DEVELOPER

Bruce D. Burton 8/16/95
 PROFESSIONAL ENGINEER

Owner: Howard County, Maryland
 3430 Courthouse Drive
 Ellicott City, Maryland 21043

Developer: Rainmaker/Killian L.L.C.
 5111 Avoca Avenue
 Ellicott City, Maryland 21043

SUBDIVISION NAME		SECTION/AREA		PARCEL NO.	
CENTRE 9500 LYNDWOOD MANOR		SEE SHEET 1		SEE SHEET 1	
PLAT NO.	BLOCK NO.	ZONE	TAX MAP NO.	ELECTION DISTRICT	CENSUS TRACT
11501-11531	10,11	PEC/RSC	37	1	6011.02
WATER CODE			SEWER CODE		
N/A			N/A		

DESIGNED		SCALE
R/K		1" = 50'
DRAWN		DRAWING
W.A.J.		28 of 28
CHECKED		JOB NO.
B.D.B.		94-110
DATE		95-006
6/95		FILE NO.
		50P 93-75