

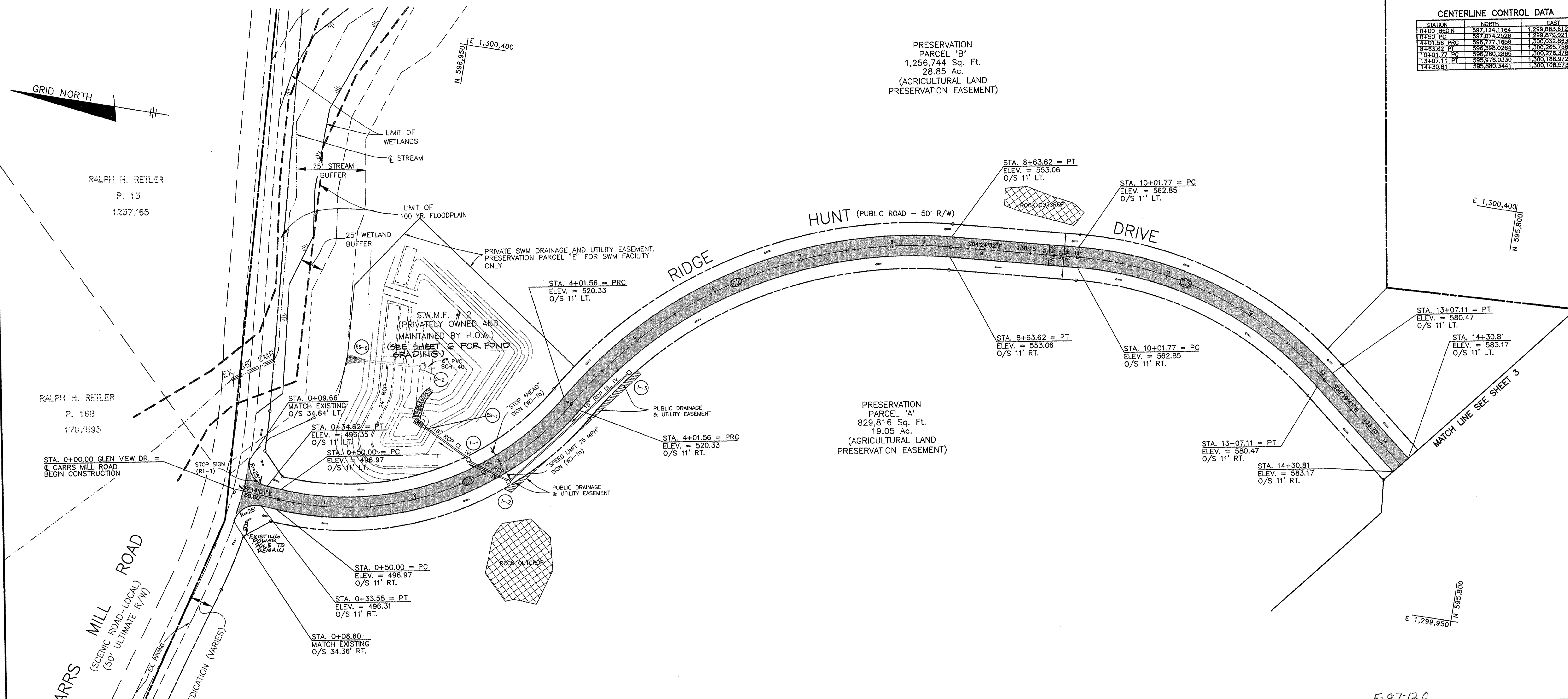


CENTERLINE CURVE DATA						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	320.00'	351.56'	195.89'	334.14'	N27°14'23" W	62°56'47"
C2	487.51'	462.05'	250.03'	444.95'	S31°33'39" E	54°18'14"
C3	400.00'	305.34'	180.54'	297.98'	S17°27'54" W	43°44'13"

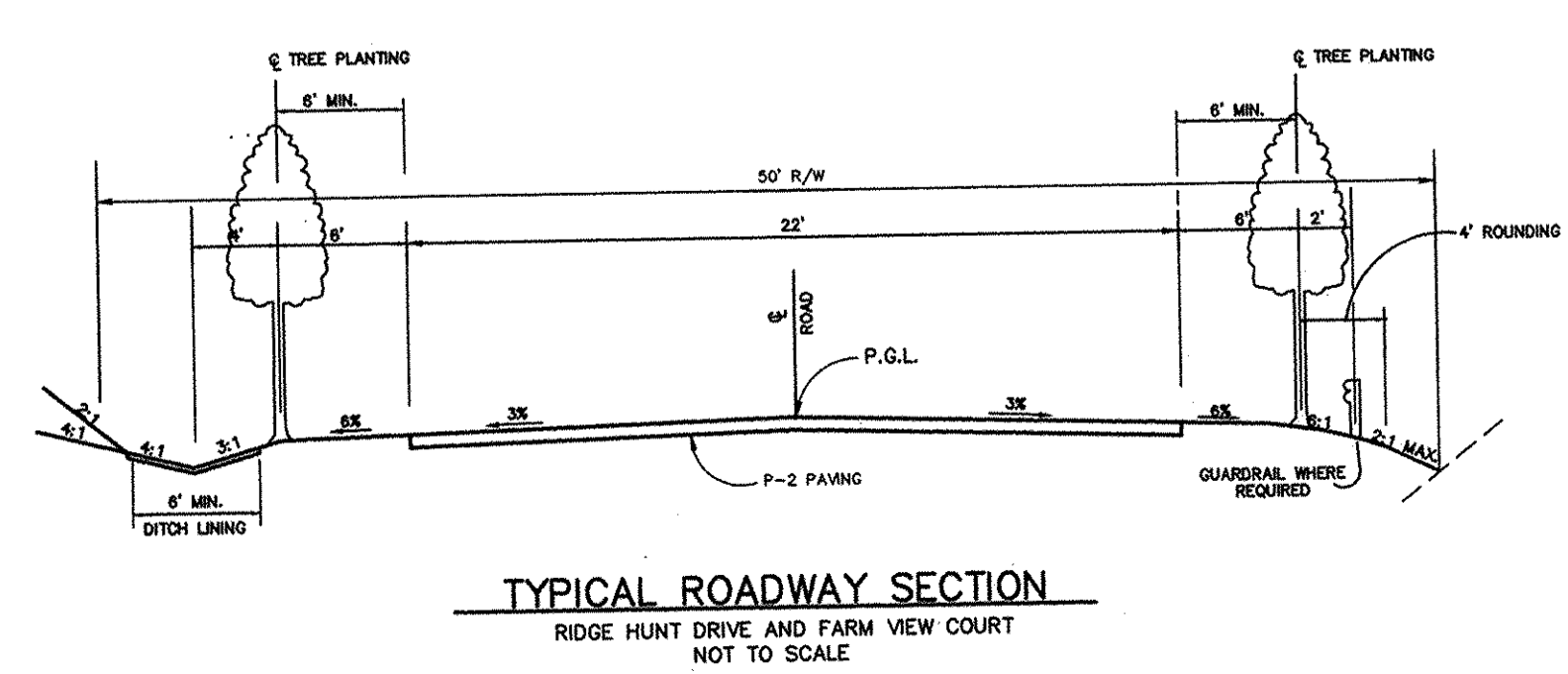
CENTERLINE CONTROL DATA		
STATION	NORTH	EAST
0+00 BEGIN	597,124.1164	1,299,883.6124
0+50 PC	597,074.2526	1,299,879.9213
8+63.62 PT	595,777.1656	1,300,032.8631
4+01.56 PRC	596,396.0284	1,300,285.7588
10+01.77 PC	596,280.2865	1,300,276.3767
13+07.11 PT	595,976.0330	1,300,186.9724
14+30.81	595,860.3441	1,300,108.5738

PRESERVATION  
PARCEL 'B'  
1,256,744 Sq. Ft.  
28.85 Ac.  
(AGRICULTURAL LAND  
PRESERVATION EASEMENT)

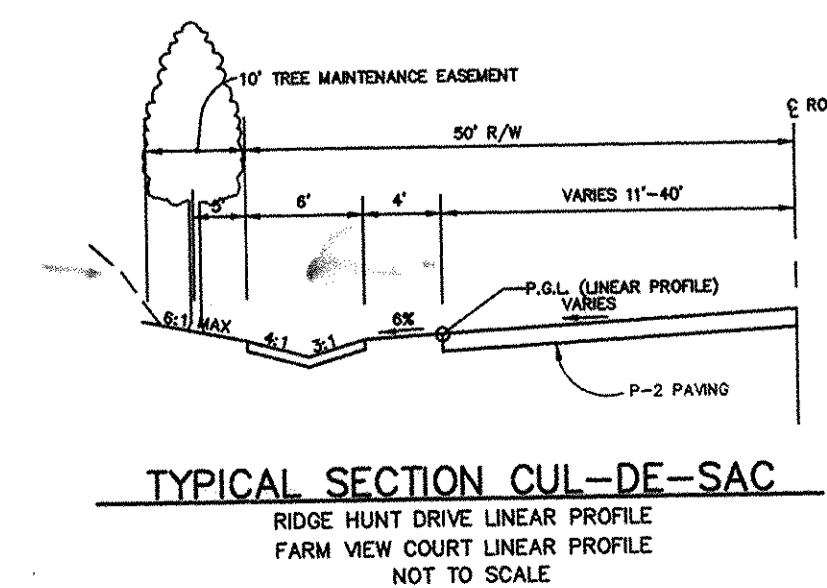
PRESERVATION  
PARCEL 'A'  
829,816 Sq. Ft.  
19.05 Ac.  
(AGRICULTURAL LAND  
PRESERVATION EASEMENT)



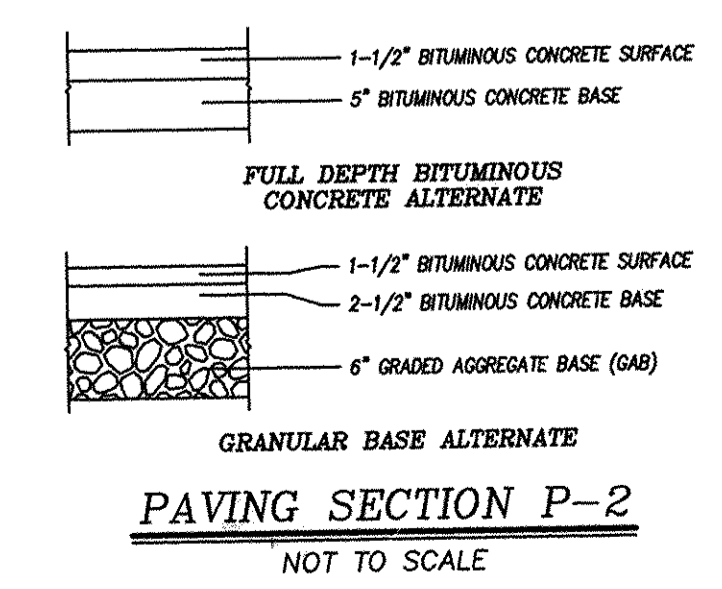
PLAN VIEW  
SCALE: 1" = 50'



TYPICAL ROADWAY SECTION  
RIDGE HUNT DRIVE AND FARM VIEW COURT  
NOT TO SCALE



TYPICAL SECTION CUL-DE-SAC  
RIDGE HUNT DRIVE LINEAR PROFILE  
FARM VIEW COURT LINEAR PROFILE  
NOT TO SCALE



PAVING SECTION P-2  
NOT TO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daniels* 8-7-97  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Linda Hammit* 8/11/97  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Chris Zimmerman* 8/11/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

F-97-120

NO	DATE	REVISION
1	4/97	REVISED PER HO. CO. ENGINEERING AND HSCD

TSA GROUP, INC.  
planning • architecture • engineering • surveying  
8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 465-6105

OWNER/DEVELOPER:  
R.H. DEVELOPMENT, L.L.C.  
8668 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MARYLAND 21043  
(410) 465-2321

PROJECT: **RIDGE VIEW HUNT**  
LOTS 1-28 & PRESERVATION PARCELS A THRU F  
(S-95-16, P-96-19, & SP-96-14)

LOCATION: TAX MAP 14, PARCEL 14  
4th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

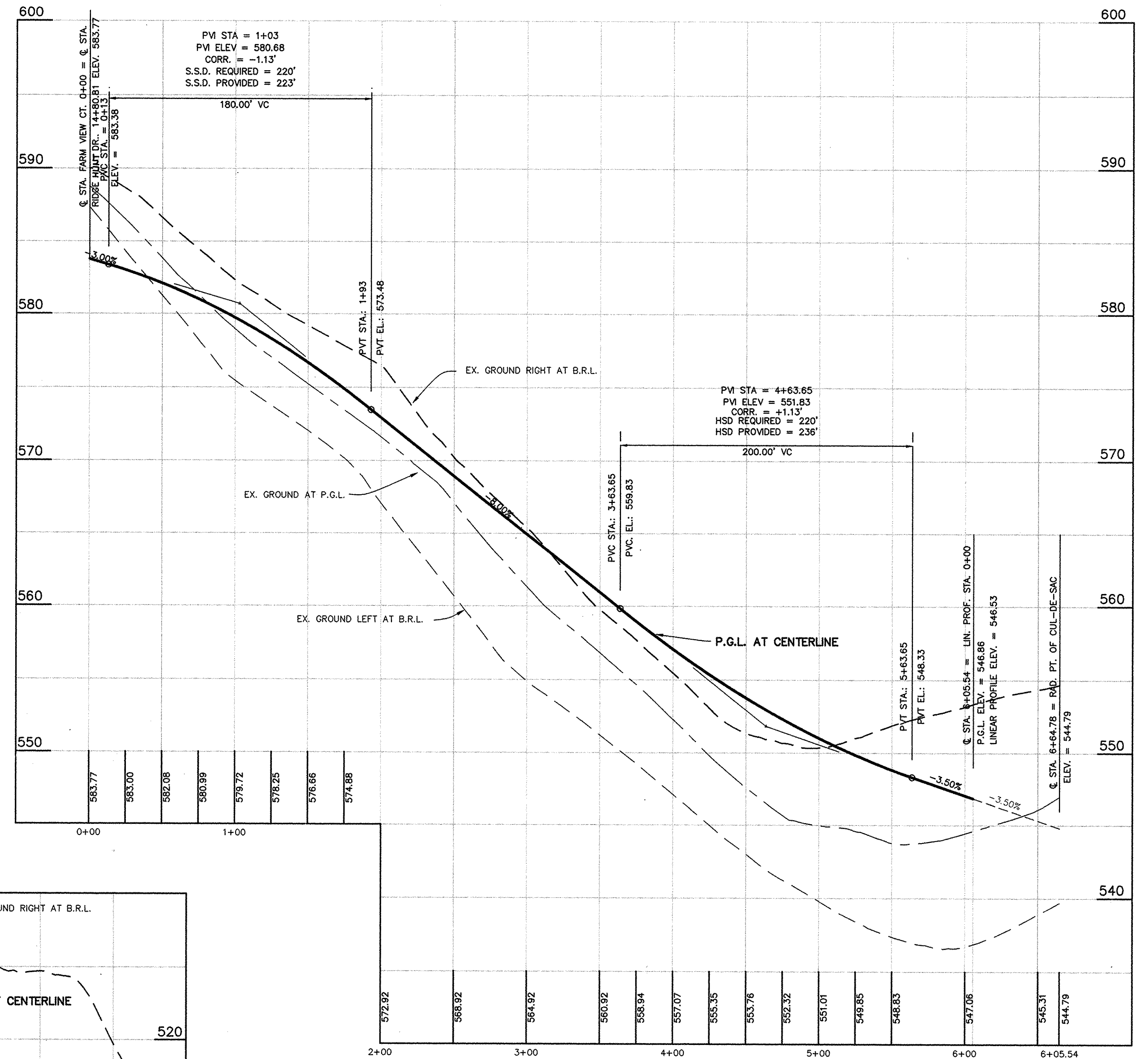
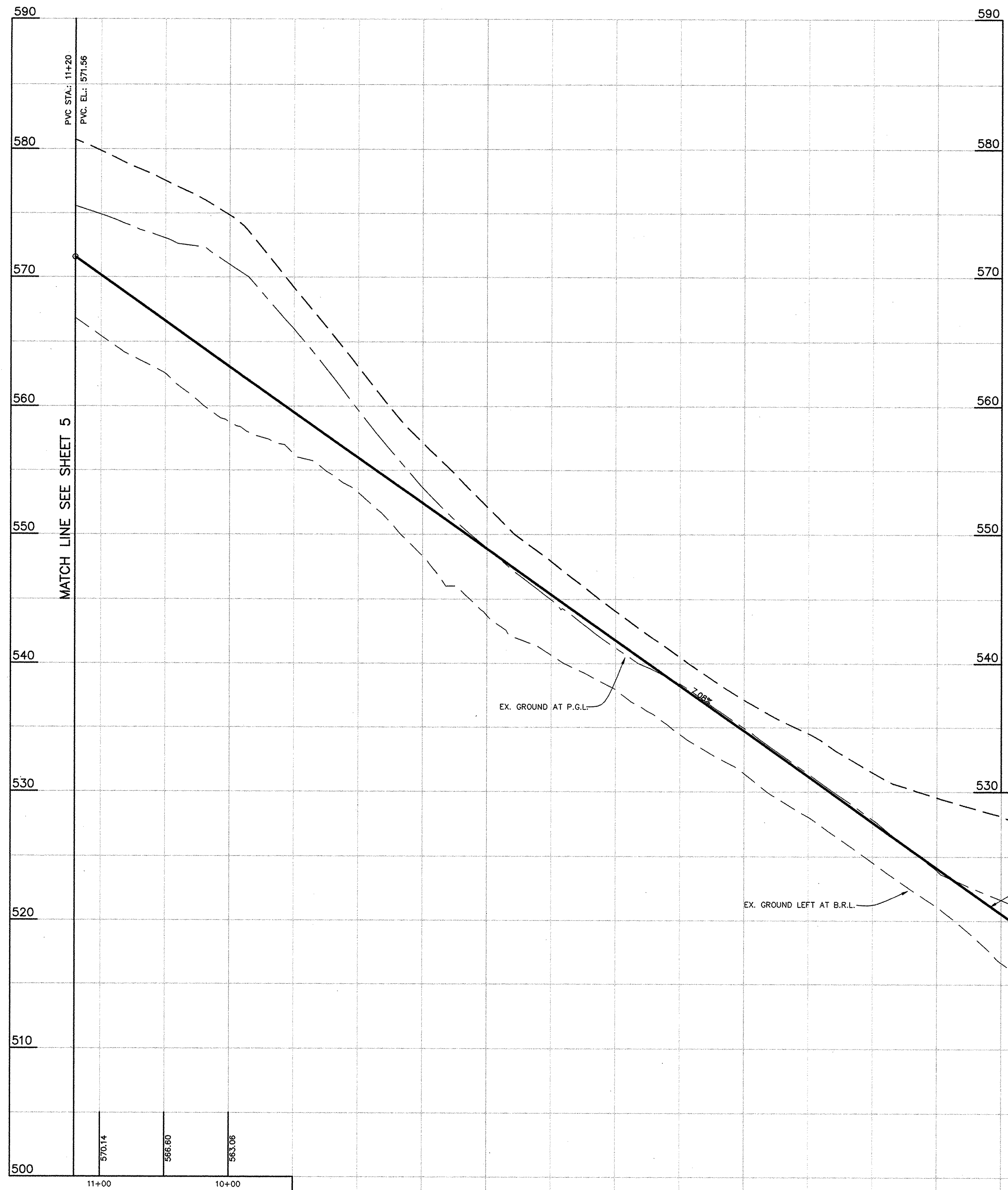
TITLE: **ROAD PLAN:  
RIDGE HUNT DRIVE**

DATE: JAN. 1997 PROJECT NO. 0971

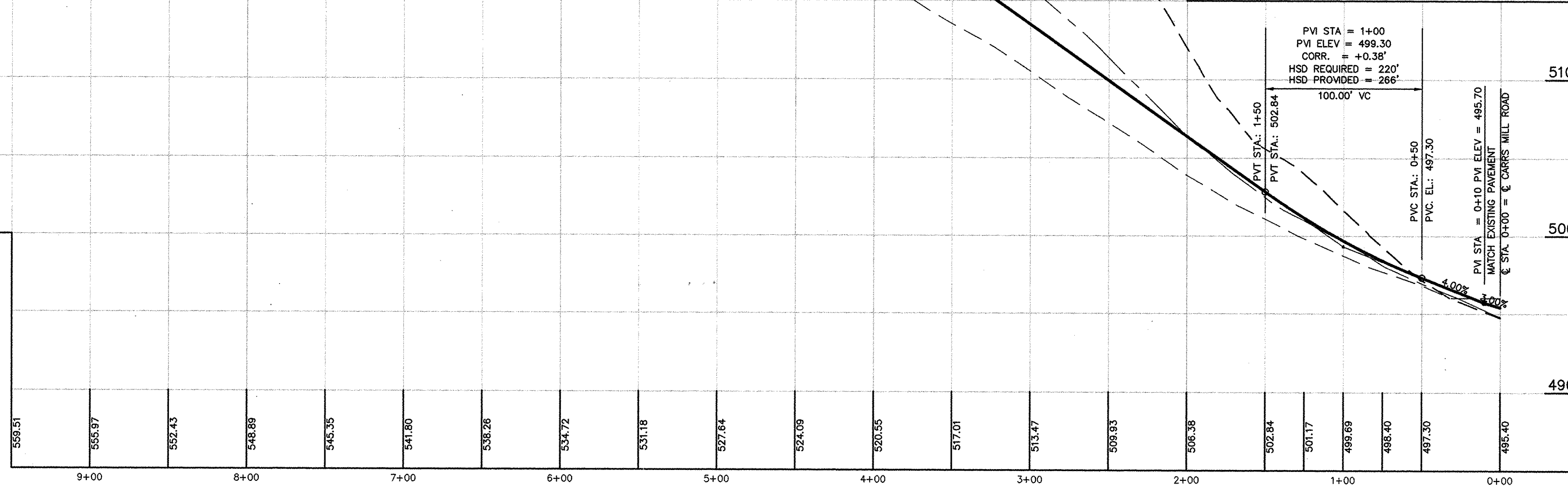
DESIGN: YSL DRAFT: YSL/JMC CHECK: CAM SCALE: AS SHOWN DRAWING 2 OF 18

F-97-120





FARM VIEW COURT - PUBLIC ROAD (50' R/W)  
 DESIGN SPEED: 30 MPH  
 SCALE: HOR.: 1" = 50'  
 VERT.: 1" = 5'



RIDGE HUNT DRIVE - PUBLIC ROAD (50' R/W)  
 DESIGN SPEED: 30 MPH  
 SCALE: HOR.: 1" = 50'  
 VERT.: 1" = 5'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Danz* 8-7-97  
 CHIEF, BUREAU OF HIGHWAYS DATE

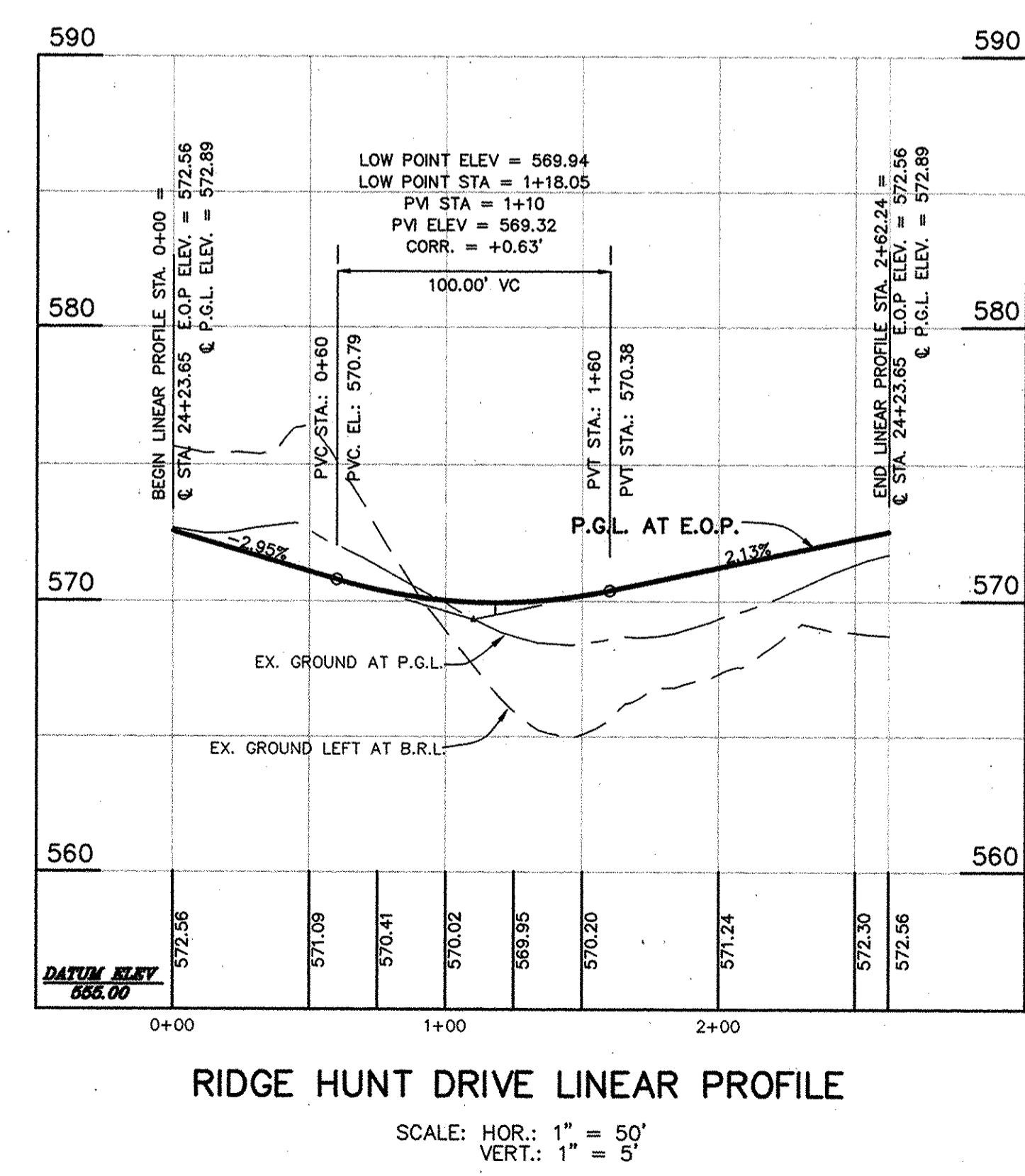
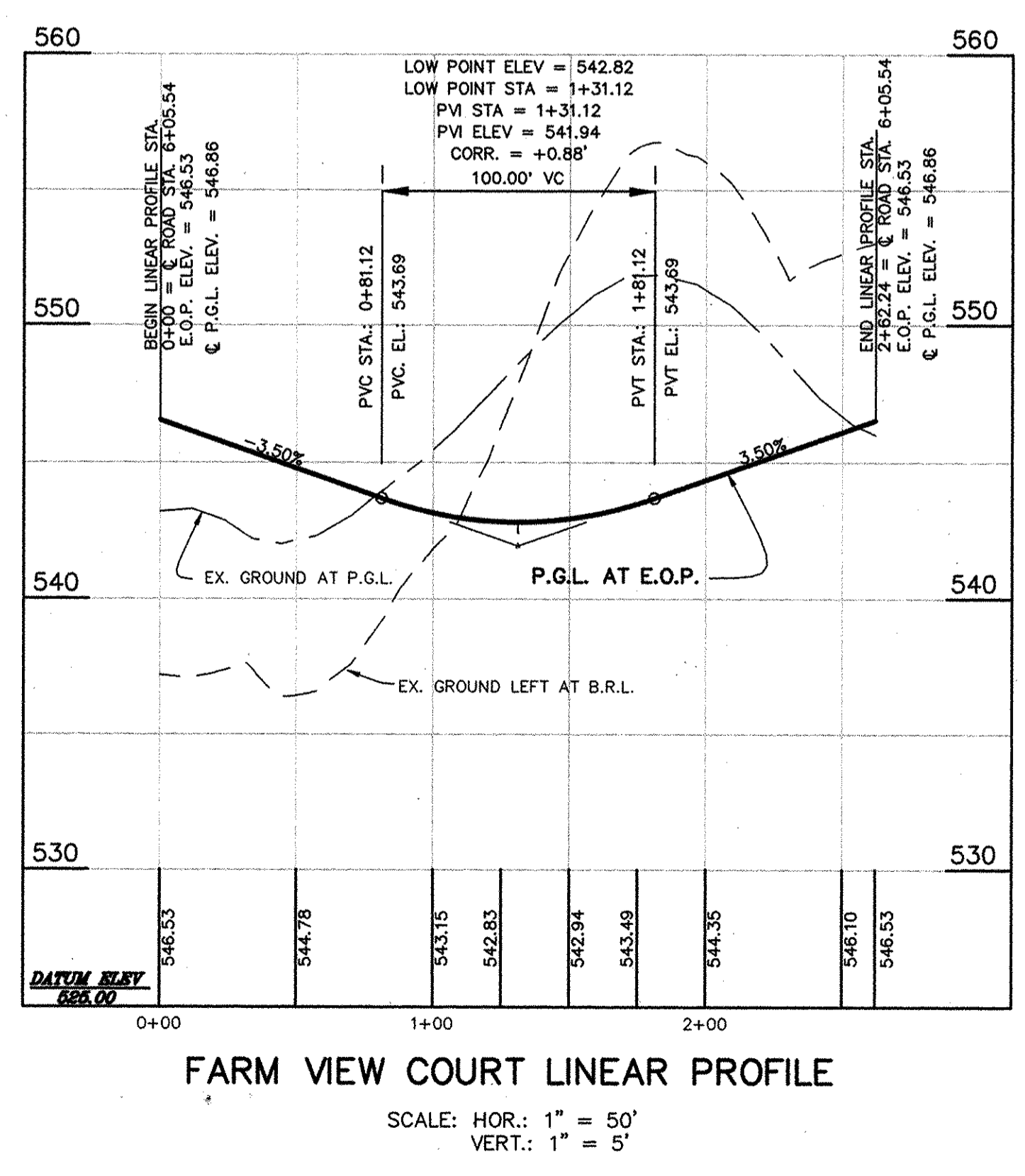
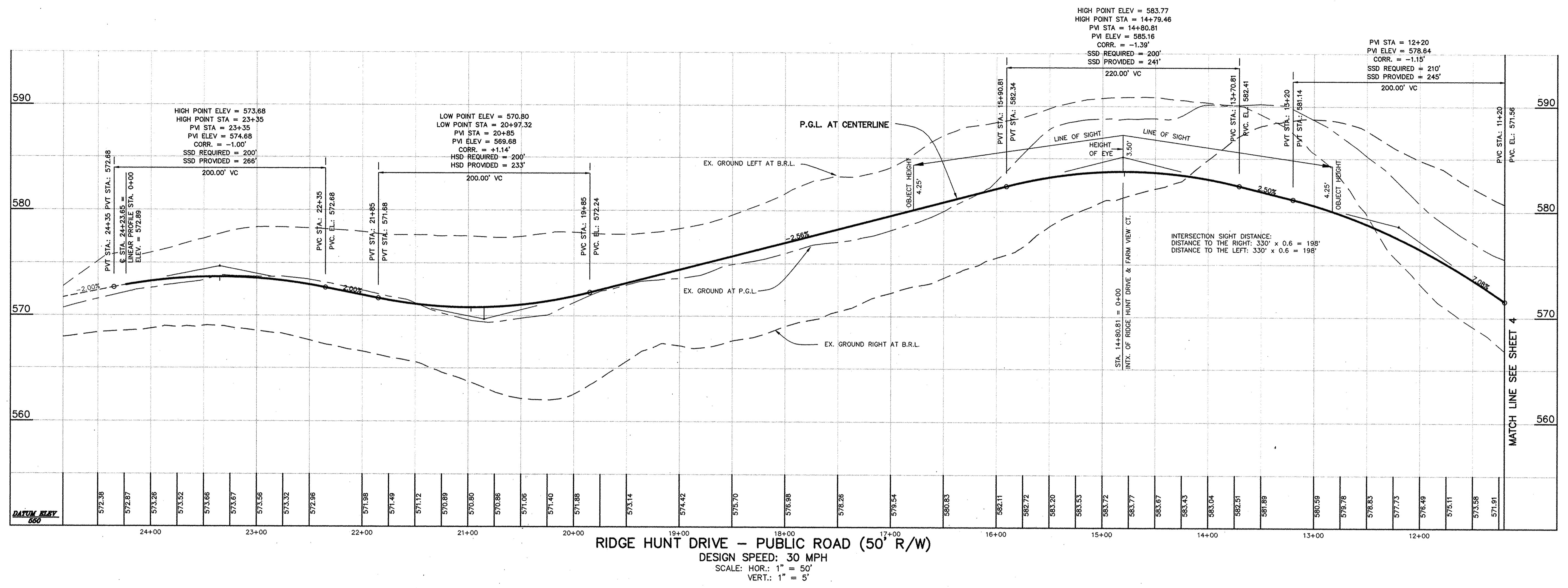
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Andy Hammit* 8/11/97  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Mike Pannone* 8/11/97  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

NO	DATE	REVISION
1	4/97	REVISED PER COMMENTS

TSA GROUP, INC.  
 planning • architecture • engineering • surveying  
 6400 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 465-6105

OWNER/DEVELOPER:	R.H. DEVELOPMENT, L.L.C. 8668 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21043 (410) 465-2321	PROJECT:	RIDGE VIEW HUNT LOTS 1-28 & PRESERVATION PARCELS A THRU F (S-95-16, P-96-19, & SP-96-14)
LOCATION:	TAX MAP 14, PARCEL 14 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	TITLE:	ROAD PROFILE
DATE:	JAN. 1997	PROJECT NO.	0971
DESIGN:	YSL	DRAFT:	JMC
CHECK:	CAM	SCALE:	AS SHOWN
DRAWING 4 OF 19		F-97-170	

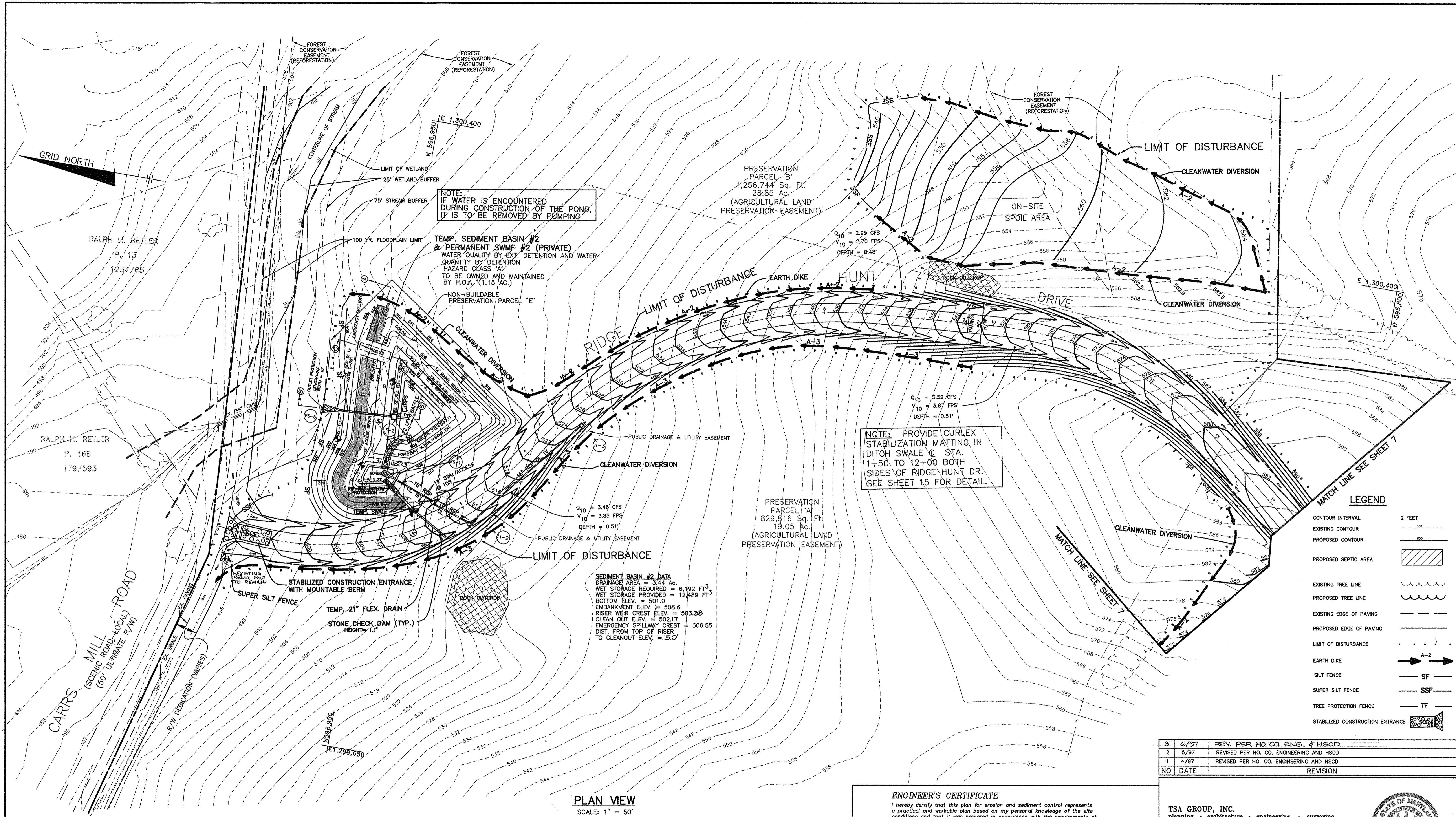


APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daveler* 8-7-97  
 CHIEF, BUREAU OF HIGHWAYS  
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Leah Hamilton* 8/11/97  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
*Chris Dammann* 8/11/97  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

NO	DATE	REVISION
1	4/97	REVISED PER COMMENTS

TSA GROUP, INC.  
 planning • architecture • engineering • surveying  
 8400 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 465-6105

PROJECT: RIDGE VIEW HUNT  
 LOTS 1-28 & PRESERVATION PARCELS A THRU F  
 (S-95-16, P-95-19, & S-95-14)  
 LOCATION: TAX MAP 14, PARCEL 14  
 4th ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 TITLE: ROAD PROFILE  
 DATE: JAN. 1997 PROJECT NO. 0971  
 DESIGN: YSL DRAFT: YSL CHECK: CAM SCALE: AS SHOWN DRAWING 5 OF 19



**LEGEND**

CONTOUR INTERVAL	2 FEET
EXISTING CONTOUR	---
PROPOSED CONTOUR	---
PROPOSED SEPTIC AREA	▨
EXISTING TREE LINE	~ ~ ~ ~
PROPOSED TREE LINE	~ ~ ~ ~
EXISTING EDGE OF PAVING	---
PROPOSED EDGE OF PAVING	---
LIMIT OF DISTURBANCE	· · · ·
EARTH DIKE	→ A-2 →
SILT FENCE	— SF —
SUPER SILT FENCE	— SSF —
TREE PROTECTION FENCE	— TF —
STABILIZED CONSTRUCTION ENTRANCE	▢

**SWMF #2: DRAINAGE AREA = 10.93 AC.**

STORM FREQUENCY	ALLOWABLE RELEASE	INFLOW TO FACILITY	ROUTED DISCHARGE	WSEL	STORAGE AT WSEL
2	2.61	5.58	0.68	503.71	0.2095 AC.-FT.
10	14.29	19.40	10.58	505.22	0.4265 AC.-FT.
100	N/A	38.18	29.50	506.99	0.6369 AC.-FT.

**NOTE:** CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL EARTH DIKES & TEMP. SWALES.

**APPROVED:** HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Danville* 8-7-97  
 CHIEF, BUREAU OF HIGHWAYS

**APPROVED:** THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*Robert W. Ziehm* 1/28/97  
 HOWARD SOIL CONSERVATION DISTRICT

**APPROVED:** HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Andy Hamilton* 8/14/97  
 CHIEF, DIVISION OF LAND DEVELOPMENT

*Tom Danner* 8/14/97  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

**APPROVED:** REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
*Cheryl K. Jimenez* 07/28/97  
 NATURAL RESOURCES CONSERVATION SERVICE

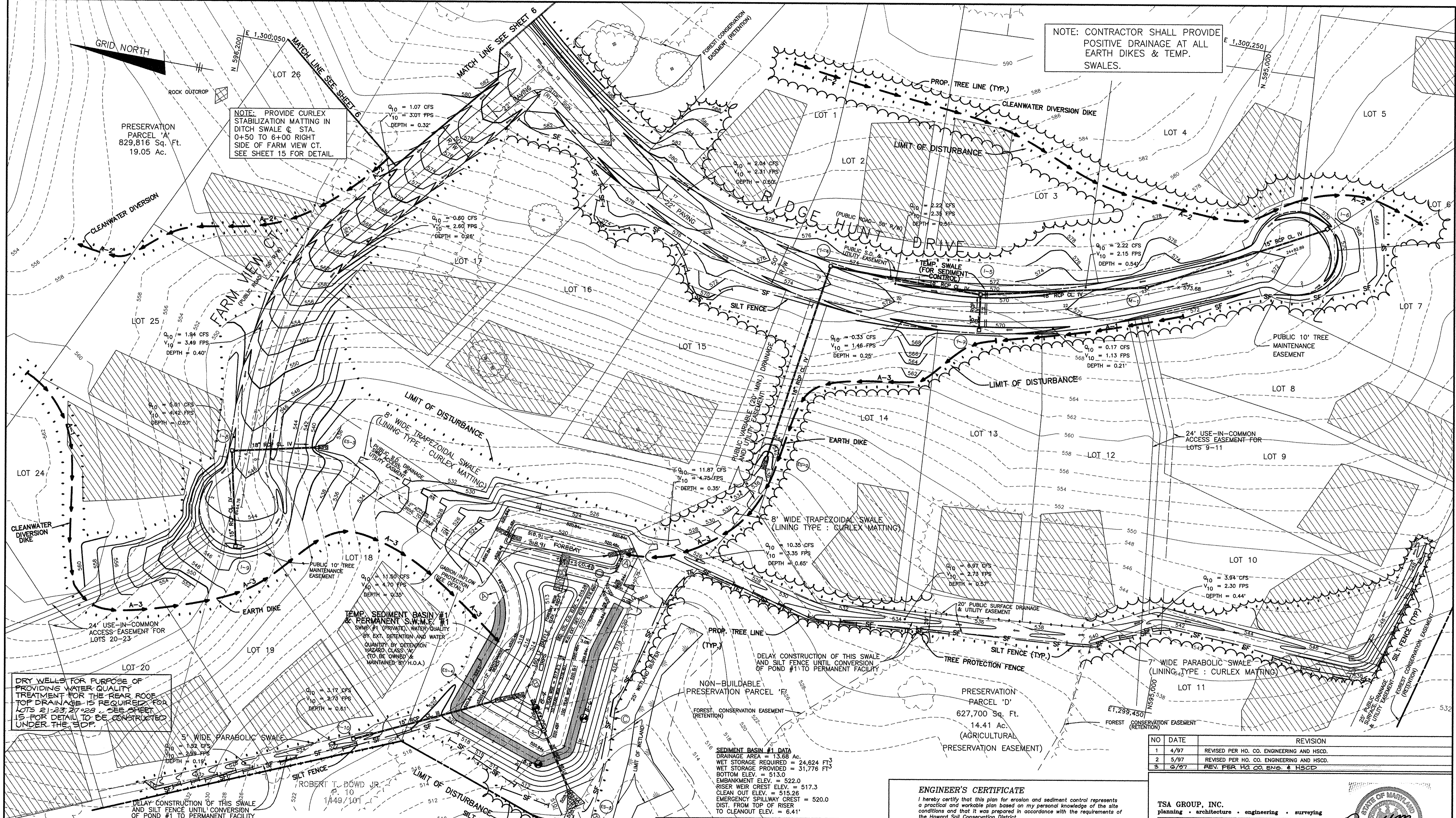
**ENGINEER'S CERTIFICATE**  
 I hereby certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.  
*Donald Moon* 5/20/97  
 Date

**DEVELOPER'S CERTIFICATE**  
 I/We certify that all development and construction will be done in accordance with this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction of this 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 onsite inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.  
*Richard Holmes* 5/20/97  
 Signature of Developer Date

3	6/97	REV. PER HO. CO. ENG. & HSCD
2	5/97	REVISED PER HO. CO. ENGINEERING AND HSCD
1	4/97	REVISED PER HO. CO. ENGINEERING AND HSCD
NO	DATE	REVISION

**TSA GROUP, INC.**  
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 8800 Baltimore National Pike • Ellicott City, Maryland 21045 • (410) 465-8100  
*Donald Moon*  
 PROFESSIONAL ENGINEER

OWNER/DEVELOPER:	R.H. DEVELOPMENT, L.L.C. 8668 BALTIMORE NATIONAL PIKE ELLCOTT CITY, MARYLAND 21045 (410) 465-2321
PROJECT:	<b>RIDGE VIEW HUNT</b> LOTS 1-28 & PRESERVATION PARCELS A THRU F (S-95-16, P-96-19, & SP-96-14)
LOCATION:	TAX MAP 14, PARCEL 14 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE:	<b>GRADING, STORM DRAIN AND SEDIMENT CONTROL PLAN</b>
DATE:	JAN. 1997
PROJECT NO.	0971
DESIGN:	YSL
DRAFT:	YSL/JMC
CHECK:	YSL
SCALE:	AS SHOWN
DRAWING	6 OF 19



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daniels* 3-7-97  
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*Robert J. Ziebar* 2/20/97  
 HOWARD SOIL CONSERVATION DISTRICT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Sandy Hamilton* 8/14/97  
 CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
*Charles K. Jinnard* 07/28/97  
 NATURAL RESOURCES CONSERVATION SERVICE

PLAN VIEW  
 SCALE: 1" = 50'

SWMF #1: DRAINAGE AREA = 24.49 AC.

STORM FREQUENCY	ALLOWABLE RELEASE	INFLOW TO FACILITY	ROUTED DISCHARGE	WSEL	STORAGE AT WSEL
2	9.84	17.43	5.53	517.27	0.7106 AC.-FT.
10	52.13	51.10	27.30	518.91	1.3597 AC.-FT.
100	N/A	94.82	78.01	520.51	2.1073 AC.-FT.

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 the requirements of the Howard Soil Conservation District.  
*Donald Mason* 5/20/97  
 Date

DEVELOPER'S CERTIFICATE  
 I/We certify that all development and construction will be done in accordance with this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction of this 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 onsite inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.  
*Richard Hoey* 5/20/97  
 Signature of Developer Date

NO	DATE	REVISION
1	4/97	REVISED PER HO. CO. ENGINEERING AND HSCD.
2	5/97	REVISED PER HO. CO. ENGINEERING AND HSCD.
3	6/97	REV. PER HO. CO. ENG. & HSCD.

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*Donald Mason*

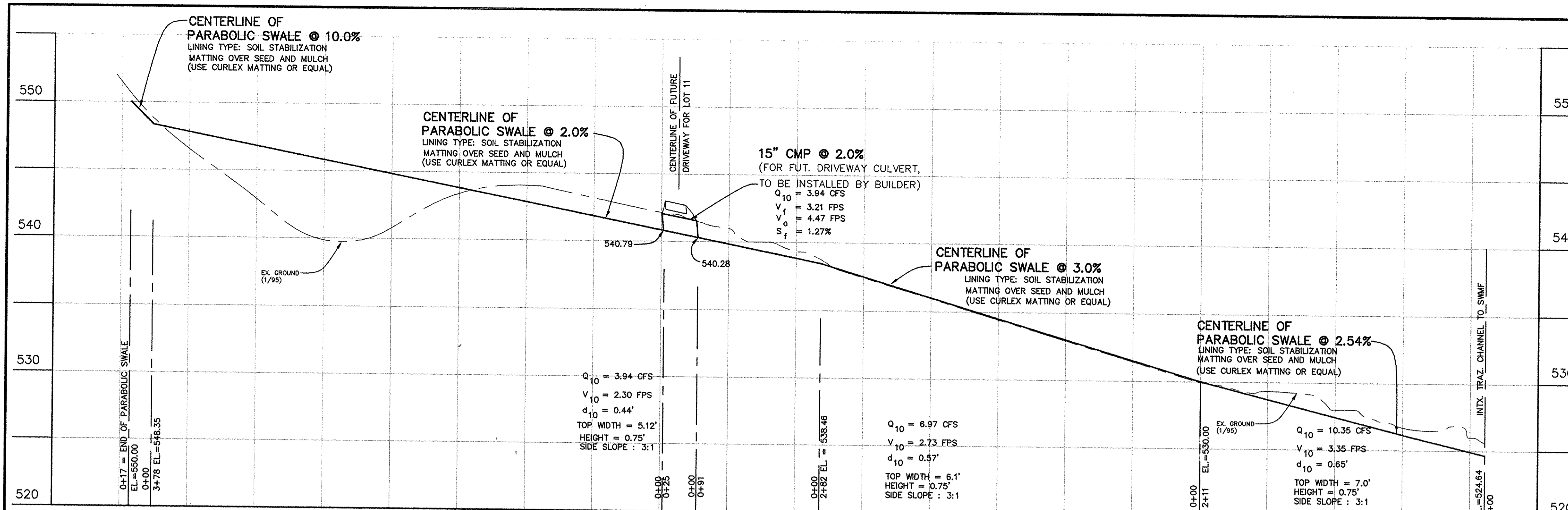
OWNER/DEVELOPER:  
 R.H. DEVELOPMENT, L.L.C.  
 8668 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MARYLAND 21043  
 (410) 465-2321

PROJECT:  
**RIDGE VIEW HUNT**  
 LOTS 1-28 & PRESERVATION PARCELS A THRU F (S-95-16, P-96-19, & SP-96-14)

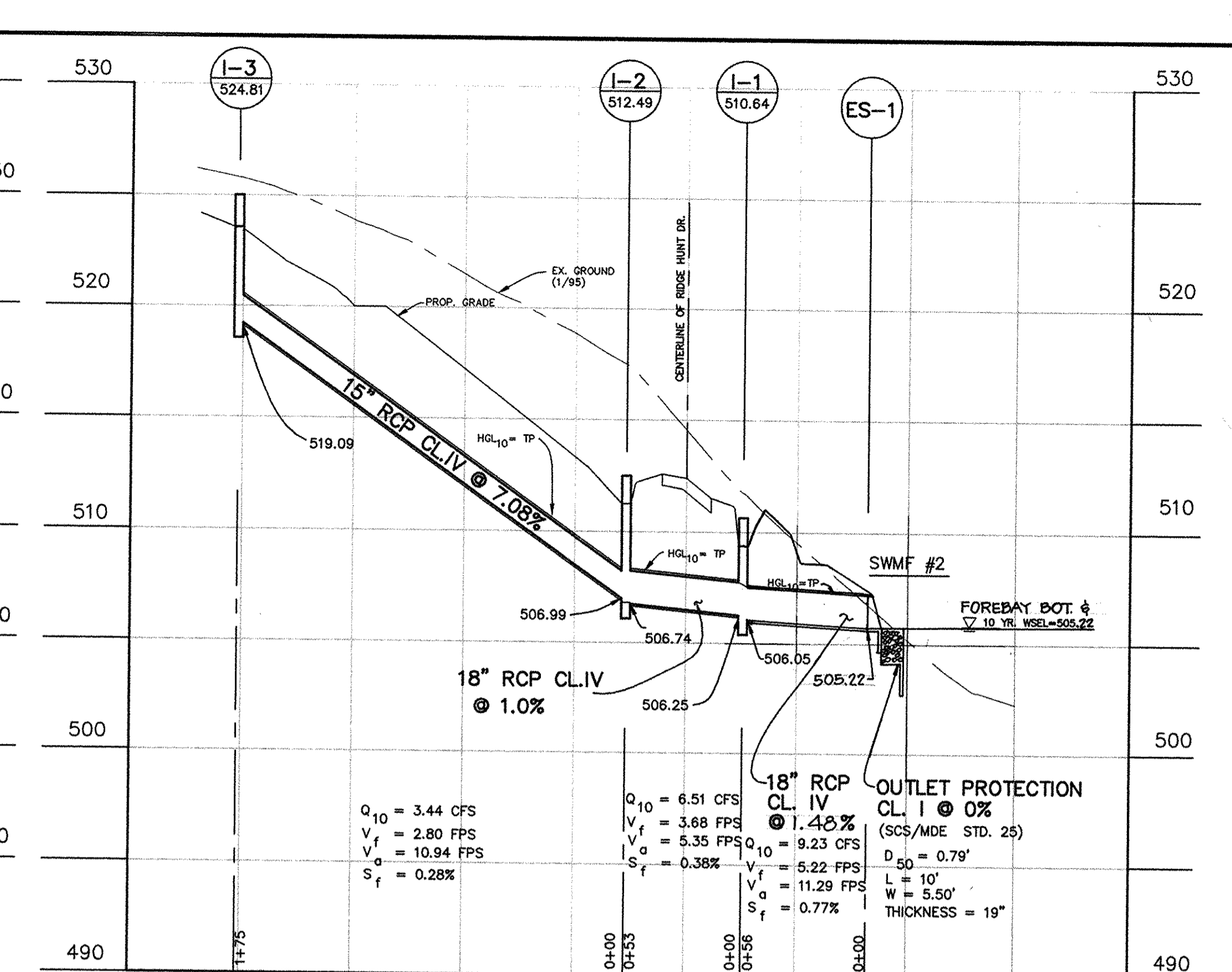
LOCATION:  
 TAX MAP 14, PARCEL 14  
 4TH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

TITLE:  
**GRADING, STORM DRAIN, AND SEDIMENT CONTROL PLAN**

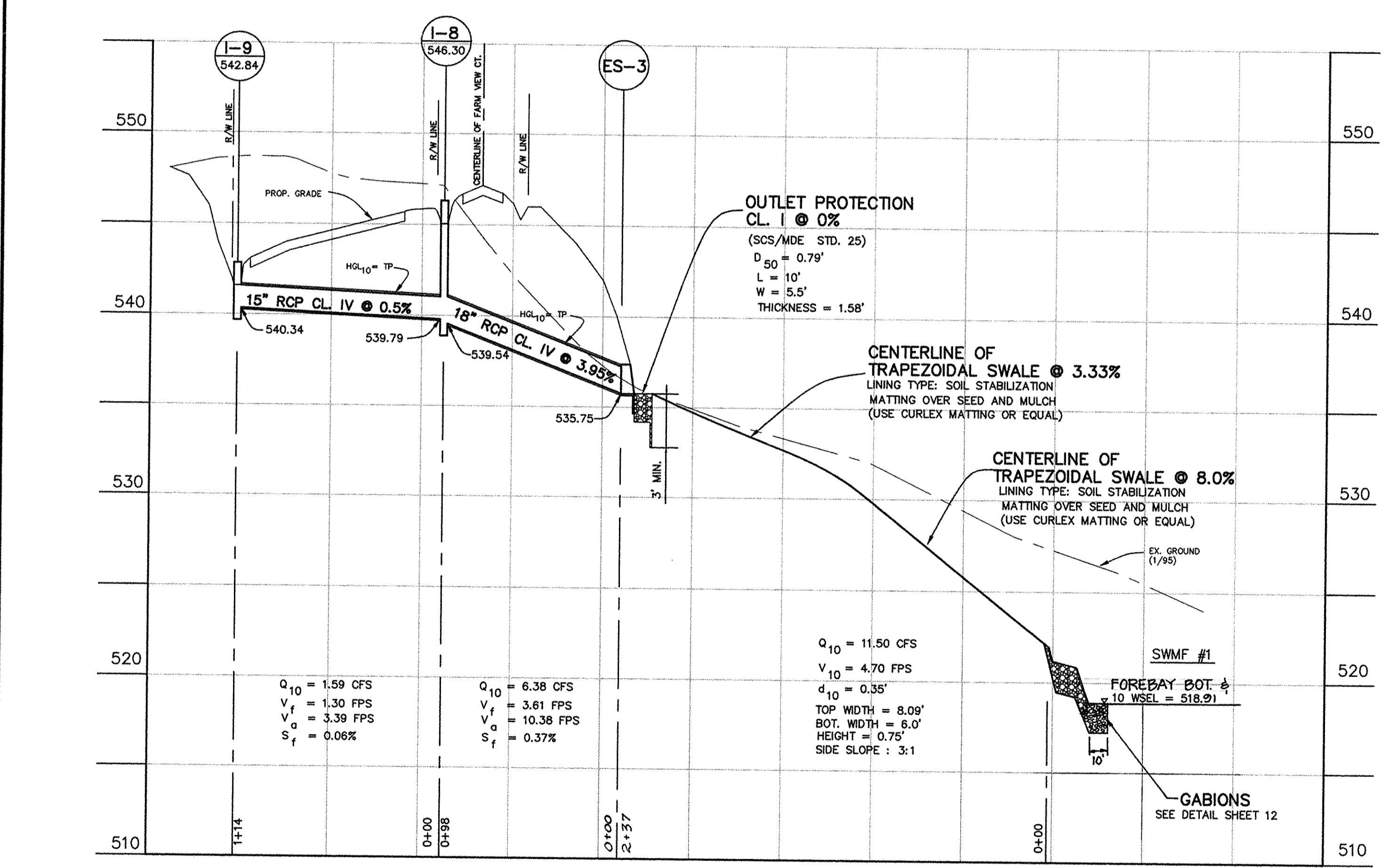
DATE: JAN. 1997 PROJECT NO. 0971  
 DESIGN: YSL DRAFT: YSL/JMC CHECK: CAM SCALE: AS SHOWN DRAWING 7 OF 18



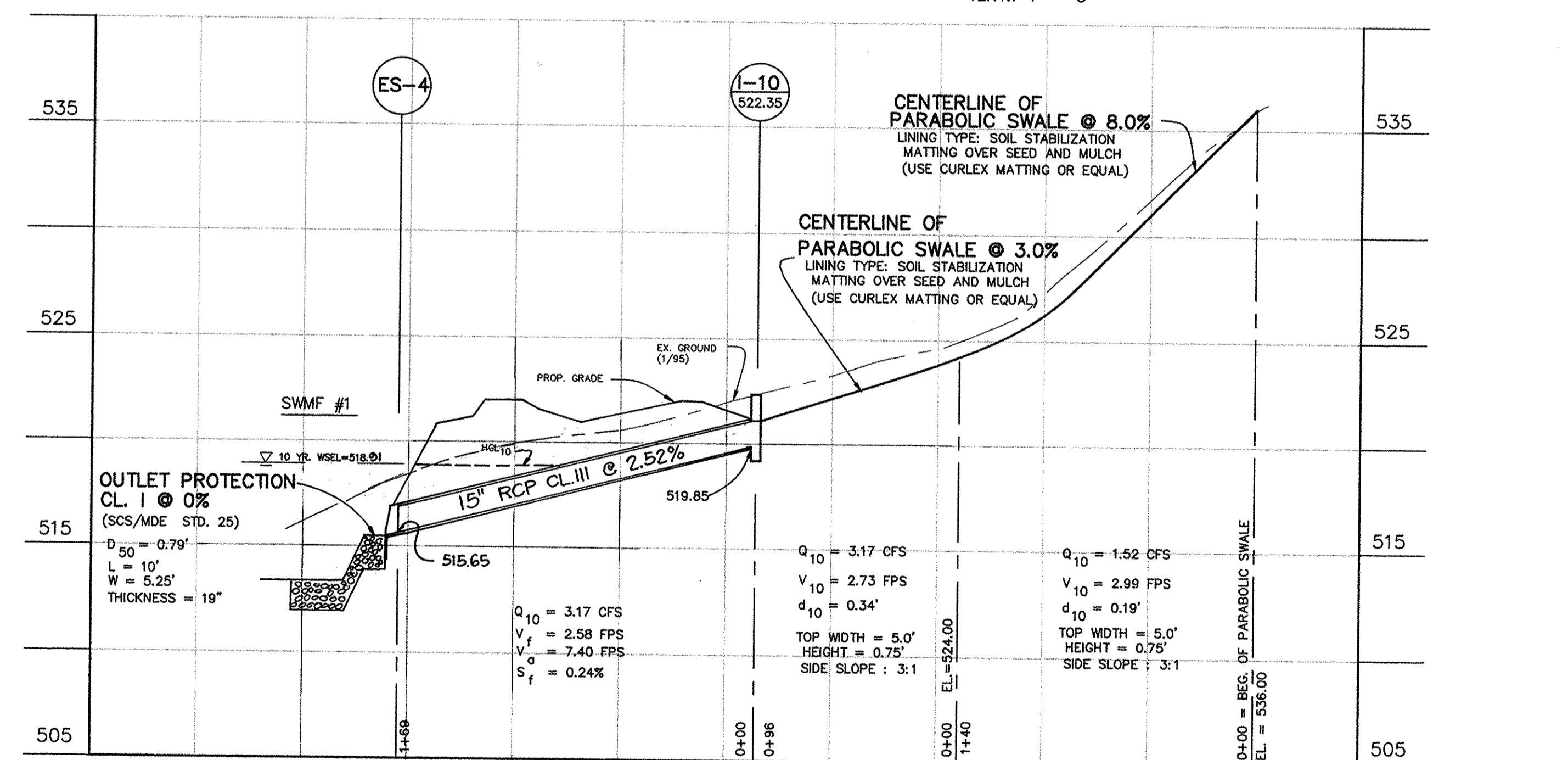
PARABOLIC SWALE PROFILE AT LOTS 9 THRU 14  
 SCALE: HOR.: 1" = 50'  
 VERT.: 1" = 5'



STORM DRAIN PROFILE AT RIDGE HUNT DRIVE  
 SCALE: HOR.: 1" = 50'  
 VERT.: 1" = 5'



STORM DRAIN AND TRAPEZOIDAL SWALE PROFILE FARM VIEW COURT  
 SCALE: HOR.: 1" = 50'  
 VERT.: 1" = 5'

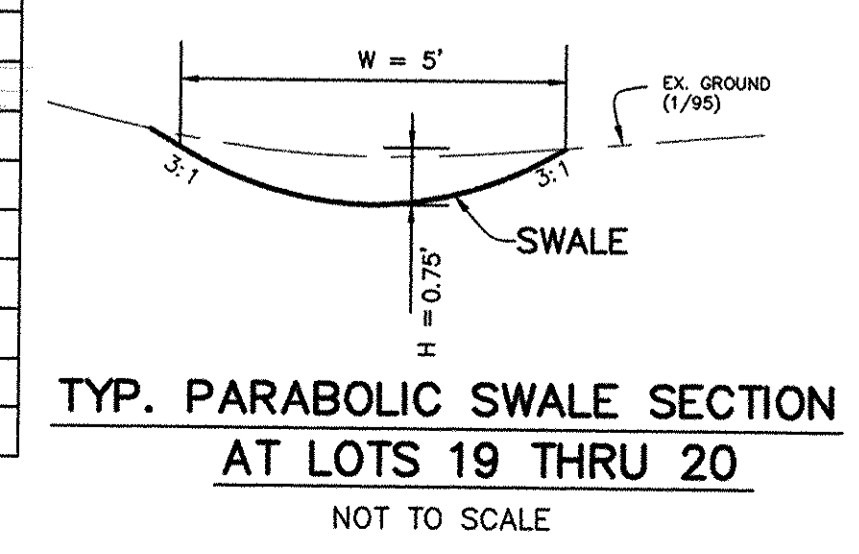
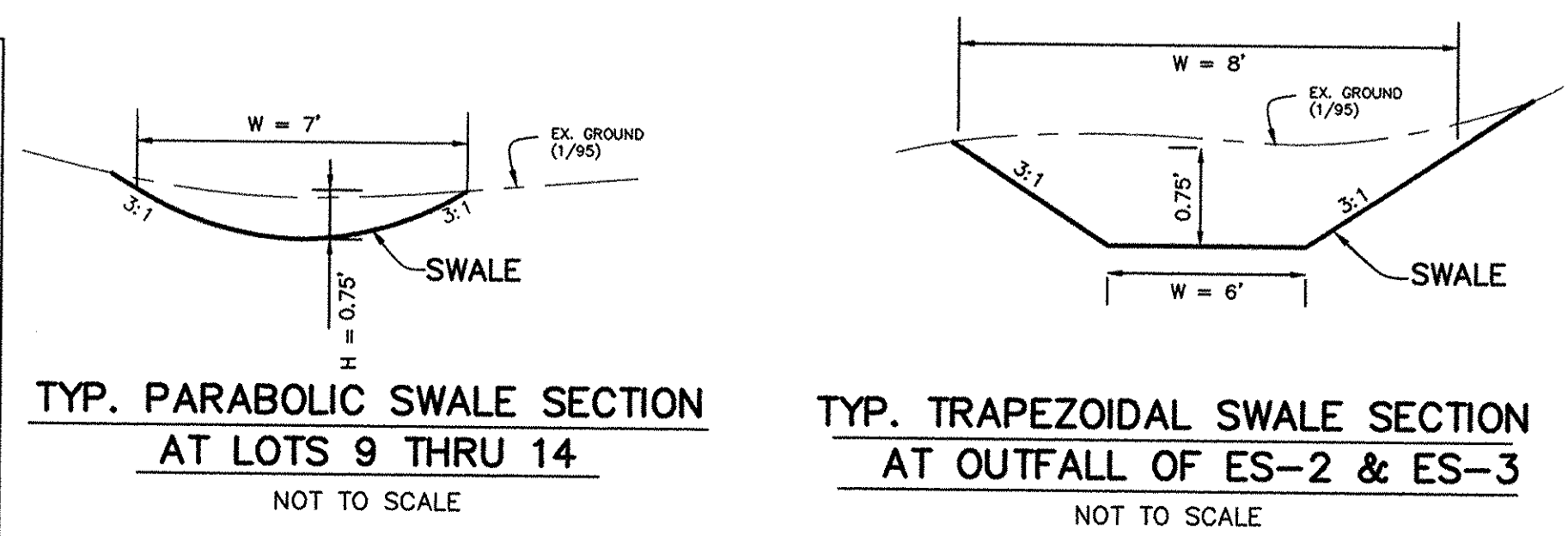


PARABOLIC SWALE PROFILE AT LOTS 19 THRU 20  
 SCALE: HOR.: 1" = 50'  
 VERT.: 1" = 5'

STRUCTURE SCHEDULE

STR. NO.	TYPE	INVERT	INVERT	INVERT	TOP ELEV.	LOCATION
I-1	"K" INLET	506.25	(18")	506.05	510.64	C. STA. 24+70.77 O/S 21' L
I-2	H.C. SD. 4.12	506.99	(15")	506.74	512.49	C. STA. 2+96.97 O/S 21' R
I-3	"K" INLET	519.09	(15")	519.09	524.81	AT RIDGE HUNT DRIVE
I-4	H.C. SD. 4.12	564.04	(18")	563.84	573.43	C. STA. 19+09.01 O/S 21' L
I-5	"K" INLET	565.13	(18")	564.93	570.04	C. STA. 20+97.32 O/S 21' L
I-6	H.C. SD. 4.12	567.46	(15")	569.96	569.96	L.P. STA. 1+18.05 O/S 7' L
I-7	"K" INLET	567.54	(18")	570.04	570.04	C. STA. 20+97.32 O/S 21' R
I-8	H.C. SD. 4.12	539.54	(18")	546.30	546.30	C. STA. 6+00 O/S 21' R
I-9	"K" INLET	540.34	(18")	542.84	542.84	L.P. STA. 1+31.12 O/S 7' L
I-10	H.C. SD. 4.12	519.85	(15")	522.35	N 595922.12	AT FARM VIEW COURT
M-1	MANHOLE	566.10	(15")	573.32	573.32	C. STA. 23+00 O/S 8' L
ES-1	END SECTION	506.22	(18")	506.22	N 596928.24	AT RIDGE HUNT DRIVE
ES-2	END SECTION	538.00	(18")	538.00	E 1299215.77	AT RIDGE HUNT DRIVE
ES-3	END SECTION	535.75	(18")	535.75	N 595497.10	AT RIDGE HUNT DRIVE
ES-4	END SECTION	515.65	(18")	515.65	F 1298669.02	AT RIDGE HUNT DRIVE
ES-5	END SECTION	509.70	(30")	509.70	N 596029.60	AT RIDGE HUNT DRIVE
ES-6	END SECTION	500.08	(24")	500.08	F 1298669.02	AT RIDGE HUNT DRIVE
S-1	RISER	513.00	(6" PVC)	512.95	521.67	N 595700.82
S-2	RISER	501.00	(6" PVC)	500.90	507.17	F 1298300.29
						N 595940.50
						F 1300047.14

NOTES: \* DENOTES ELEVATION IS AT THE TOP OF MANHOLE OR STRUCTURE  
 \*\* DENOTES STATION AT THE CENTERLINE OF MANHOLE OR STRUCTURE



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Pender* 8-7-97  
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Cindy Hamilton* 8/14/97  
 CHIEF, DIVISION OF LAND DEVELOPMENT

*W.D. Pender* 8/14/97  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

3	6/97	REV. PER HO. CO. ENG. & H&CD
2	5/97	REVISED PER COMMENTS
1	4/97	REVISED PER COMMENTS
NO	DATE	REVISION

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 8880 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 466-8105

OWNER/DEVELOPER: R.H. DEVELOPMENT, L.L.C.  
 8668 BALTIMORE NATIONAL PIKE  
 ELICOTT CITY, MARYLAND 21043  
 (410) 465-2321

PROJECT: RIDGE VIEW HUNT  
 LOTS 1-28 & PRESERVATION PARCELS A THRU F  
 (S-95-16, P-96-19, & SP-96-14)

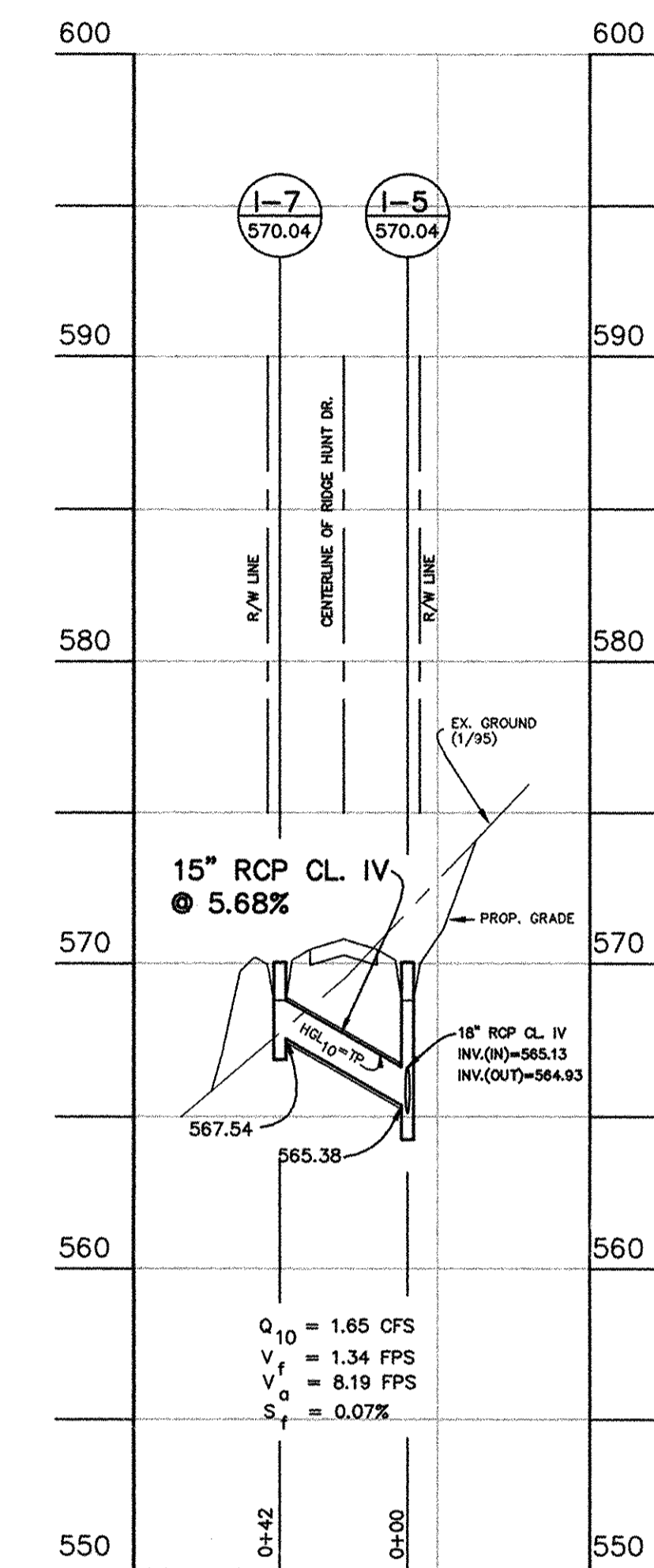
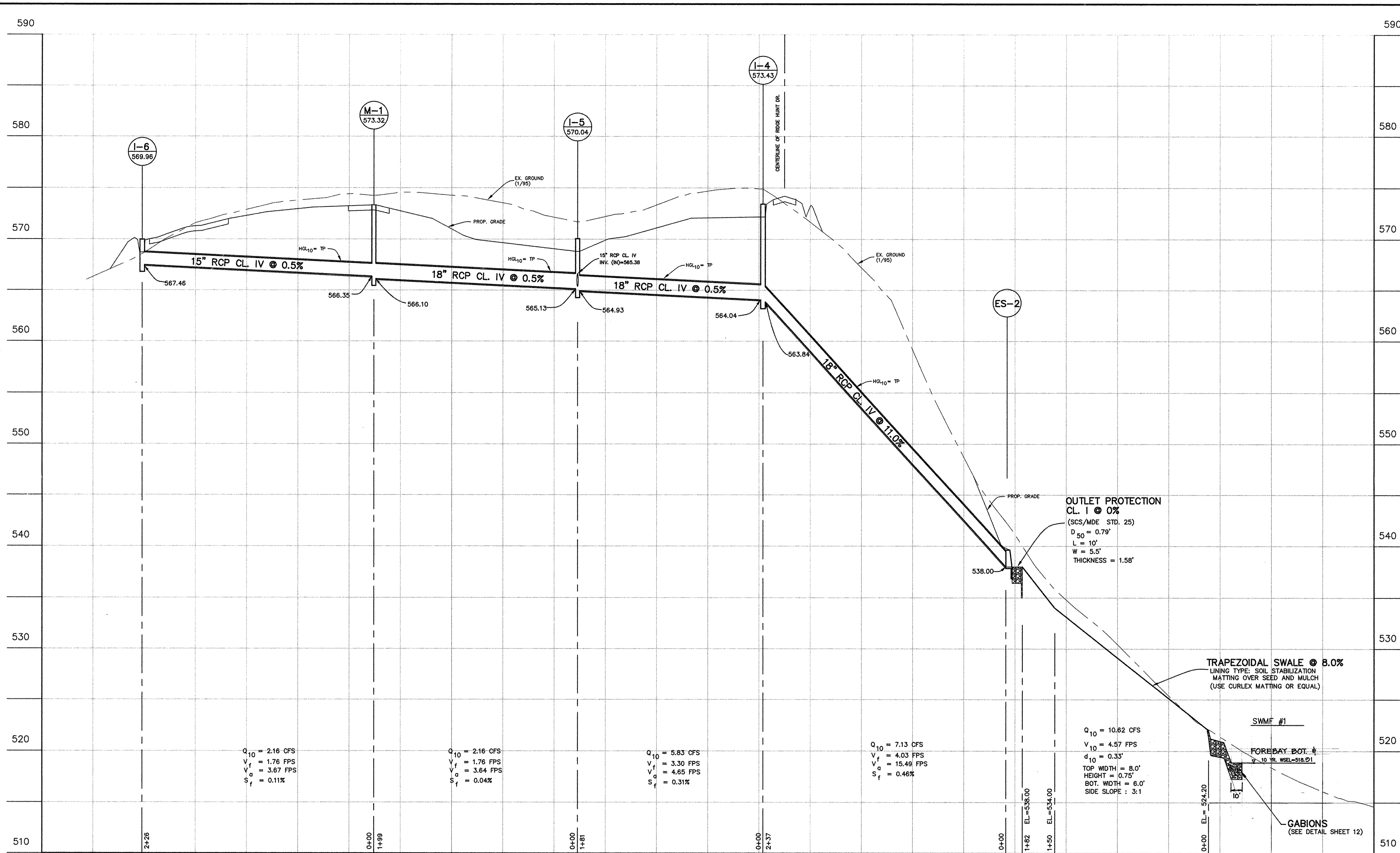
LOCATION: TAX MAP 14, PARCEL 14  
 4th ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

TITLE: STORM DRAIN PROFILE

DATE: JAN. 1997 PROJECT NO. 0971

DESIGN: YSL DRAFT: YSL/JMC CHECK: CAM SCALE: AS SHOWN DRAWING 8 OF 19





**STORM DRAIN PROFILE AT RIDGE HUNT DRIVE**  
 SCALE: HOR.: 1" = 50'  
 VERT.: 1" = 5'

$Q_{10} = 2.16$  CFS  
 $V_f = 1.76$  FPS  
 $V_a = 3.67$  FPS  
 $S_f = 0.11\%$

$Q_{10} = 2.16$  CFS  
 $V_f = 1.76$  FPS  
 $V_a = 3.64$  FPS  
 $S_f = 0.04\%$

$Q_{10} = 5.83$  CFS  
 $V_f = 3.30$  FPS  
 $V_a = 4.65$  FPS  
 $S_f = 0.31\%$

$Q_{10} = 7.13$  CFS  
 $V_f = 4.03$  FPS  
 $V_a = 15.49$  FPS  
 $S_f = 0.46\%$

$Q_{10} = 10.62$  CFS  
 $V_{10} = 4.57$  FPS  
 $d_{10} = 0.33'$   
 TOP WIDTH = 8.0'  
 HEIGHT = 0.75'  
 BOT. WIDTH = 6.0'  
 SIDE SLOPE : 3:1

$Q_{10} = 1.65$  CFS  
 $V_f = 1.34$  FPS  
 $V_a = 8.19$  FPS  
 $S_f = 0.07\%$

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Danaher* 8/7/97  
 CHIEF, BUREAU OF HIGHWAYS 1/3 DATE

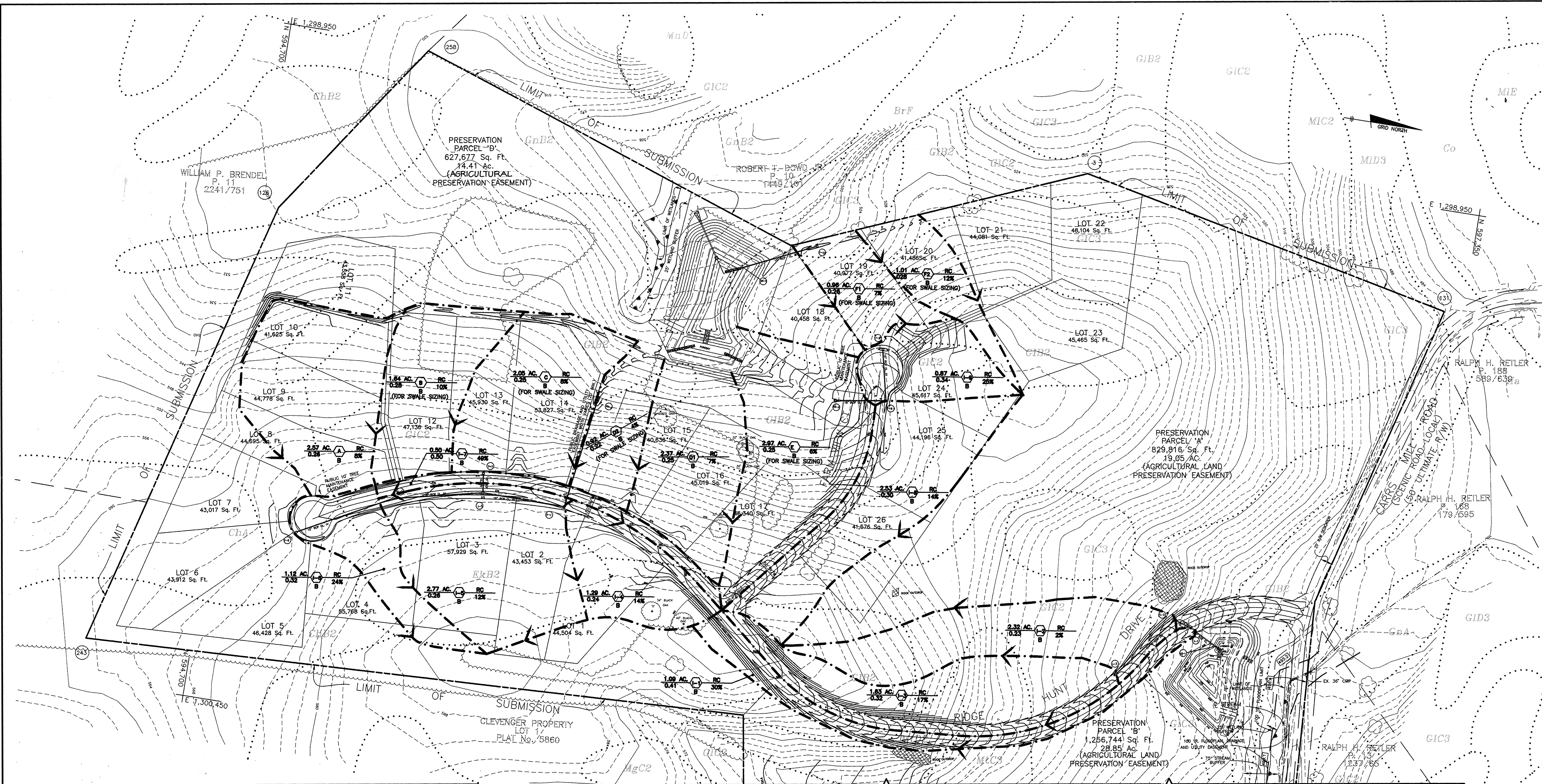
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Sandy Hamilton* 8/14/97  
 CHIEF, DIVISION OF LAND DEVELOPMENT 1/3 DATE

*Mr. Damman* 8/14/97  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

3	6/97	REV PER HO. CO. ENG. & HSCP
2	5/97	REVISED PER HO. CO. ENGINEERING AND HSCP
1	4/97	REVISED PER HO. CO. ENGINEERING AND HSCP
NO	DATE	REVISION

TSA GROUP, INC.  
 planning • architecture • engineering • surveying  
 8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 466-6100

OWNER/DEVELOPER: R.H. DEVELOPMENT, L.L.C. 8668 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21043 (410) 465-2321	PROJECT: <b>RIDGE VIEW HUNT</b> LOTS 1-28 & PRESERVATION PARCELS A THRU F (S-95-16, P-96-19, & S-96-14)
LOCATION: TAX MAP 14, PARCEL 14 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	TITLE: <b>STORM DRAIN PROFILES</b>
DATE: JAN. 1997	PROJECT NO. 0971
DESIGN: YSL	DRAFT: YSL/JMC
CHECK: CAM	SCALE: AS SHOWN
DRAWING 9 OF 19	



MAP SYMBOL	SOIL TYPE	MAPPING UNIT
Bc3	C	BRANDYWINE LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED
BrF	C	BRANDYWINE LOAM, 25 TO 60 PERCENT SLOPES
ChA	B	CHESTER SILT LOAM, 0 TO 3 PERCENT SLOPES
ChB2	B	CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
ChC2	B	CHESTER SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
Co	C	COODORUS SILT LOAM
CoB	B	COODORUS SILT LOAM, LOCAL ALLUVIUM, 3 TO 8 PERCENT SLOPES
EB2	B	ELDOAK SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
Ec2	B	ELDOAK SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
GIB2	B	GLENELG LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
GIC2	B	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
GIC3	B	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED
GID2	B	GLENELG LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED
GID3	B	GLENELG LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED
ChA	C	GLENVILLE SILT LOAM, 0 TO 3 PERCENT SLOPES
ChB2	C	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
Hs	D	HATBORO SILT LOAM
MgC2	B	MANOR GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
MC2	B	MANOR LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
MD3	B	MANOR LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED
MIE	B	MANOR LOAM, 25 TO 45 PERCENT SLOPES
MnD	B	MANOR VERY STONY LOAM, 3 TO 25 PERCENT SLOPES
MC3	B	MT. ARRY CHANNERY LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED
MD2	B	MT. ARRY CHANNERY LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED

\* INDICATES HYDRIC SOILS  
SOILS MAP NOS. 6.7, 12 & 13

LEGEND	
CONTOUR INTERVAL	2 FEET
EXISTING CONTOUR	---
PROPOSED CONTOUR	---
EXISTING TREE LINE	~~~~~
EXISTING EDGE OF PAVING	=====
PROPOSED EDGE OF PAVING	=====
SOIL BOUNDARY	.....
DRAINAGE DIVIDE	--->

PLAN VIEW  
SCALE: 1" = 100'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daniele* 5-7-97  
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Candy Hamilton* 8/1/97  
CHIEF, DIVISION OF LAND DEVELOPMENT

*Mark Dammann* 8/1/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

NO	DATE	REVISION
1	4/97	REVISED PER HO. CO. ENGINEERING AND HSCD

**TSA GROUP, INC.**  
planning • architecture • engineering • surveying  
8490 Baltimore National Pike • Ellicott City, Maryland 21045 • (410) 466-8105

OWNER/DEVELOPER: R.H. DEVELOPMENT, L.L.C.  
8668 BALTIMORE NATIONAL PIKE  
4th ELECTION DISTRICT  
ELLICOTT CITY, MARYLAND 21043  
(410) 465-2321

PROJECT: **RIDGE VIEW HUNT**  
LOTS 1-28 & PRESERVATION PARCELS A THRU F  
(S-95-16, P-96-19, & SP-96-14)

LOCATION: TAX MAP 14, PARCEL 14  
4th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE: **STORM DRAIN DRAINAGE AREA MAP**

DATE: JAN. 1997 PROJECT NO. 0971

DESIGN: YSL DRAFT: YSL/JMC CHECK: CAM SCALE: 1" = 100' DRAWING 10 OF 19





**POND CONSTRUCTION SPECIFICATIONS**

**Site Preparation**

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

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

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

**Earth Fill**

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

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

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

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

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

**Structure Backfill**

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

**Pipe Conduits**

All pipes shall be circular in cross section.

Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe:

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

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

Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

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

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

All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled on adequate number of corrugations to accommodate the band width. The following types of connections are acceptable for pipes less than 48" in diameter: flanges on both ends of the pipe, a 12" wide standard lap type band with 12" wide by 3/8" thick closed cell circular neoprene gasket; and a 12" wide hanger type band with O-ring gaskets having a minimum diameter of 1/2" greater than the corrugation depth. Pipes 48" in diameter and larger shall be connected by a 24" long annular corrugated band using rods and lugs. A 12" wide by 3/8" thick closed cell circular neoprene gasket will be installed on the end of each pipe for a total of 24". Helically corrugated pipe shall have either continuously welded seams or have lock seams.

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

- Backfilling shall conform to "Structure Backfill."
- Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Reinforced Concrete Pipe - All of the following criteria shall apply for reinforced concrete pipe:

- Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361. An approved equivalent is ANWA Specification C-302.
- Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3 inches, or as shown on the drawings.

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

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

Polyvinyl Chloride (PVC) Pipe - All of the following criteria shall apply for polyvinyl chloride (PVC) pipe:

- Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241.
- Joints and connections to anti-seep collars shall be completely watertight.
- Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
- Backfilling shall conform to "Structure Backfill."
- Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

**Concrete**

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

**Rock Riprap**

All rock shall be dense, sound, and free from cracks, seams, and other defects conducive to accelerated weathering. The rock fragments shall be angular to subrounded in shape. The least dimension of an individual rock fragment shall be not less than one third the greatest dimension of the fragment.

The rock shall have the following properties:

- Bulk specific gravity (saturated surface-dry basis) not less than 2.5.
- Absorption not more than three percent.
- Soundness: Weight loss in five cycles not more than 20 percent when sodium sulfate is used.

Bulk specific gravity and absorption shall be determined according to ASTM C 127. The test for soundness shall be performed according to ASTM C 88.

The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 919.12.

**Care of Water during Construction**

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

**Stabilization**

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

**Erosion and Sediment Control**

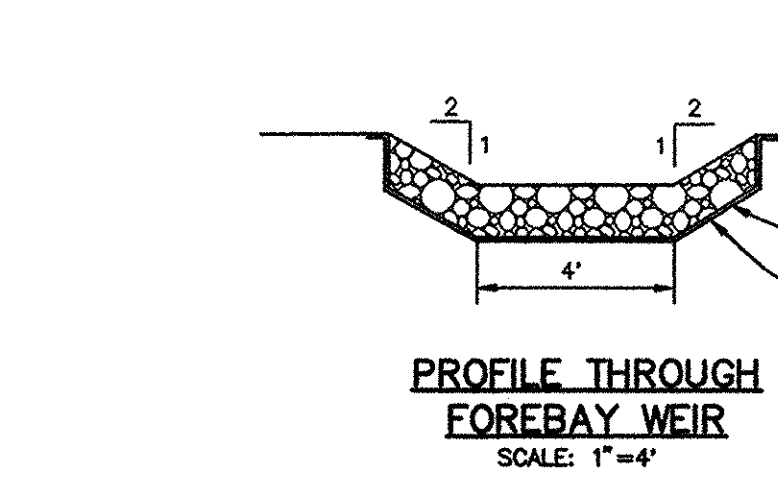
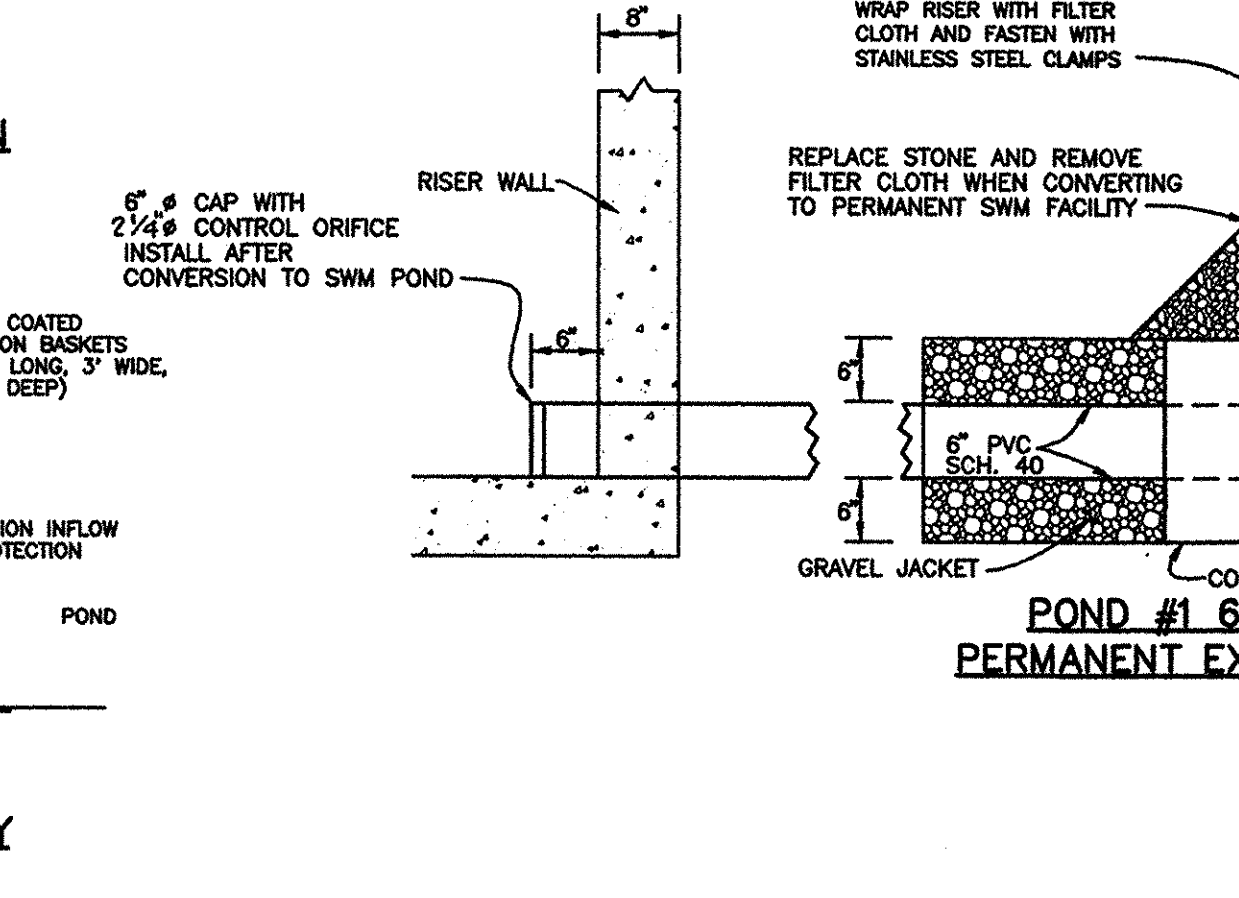
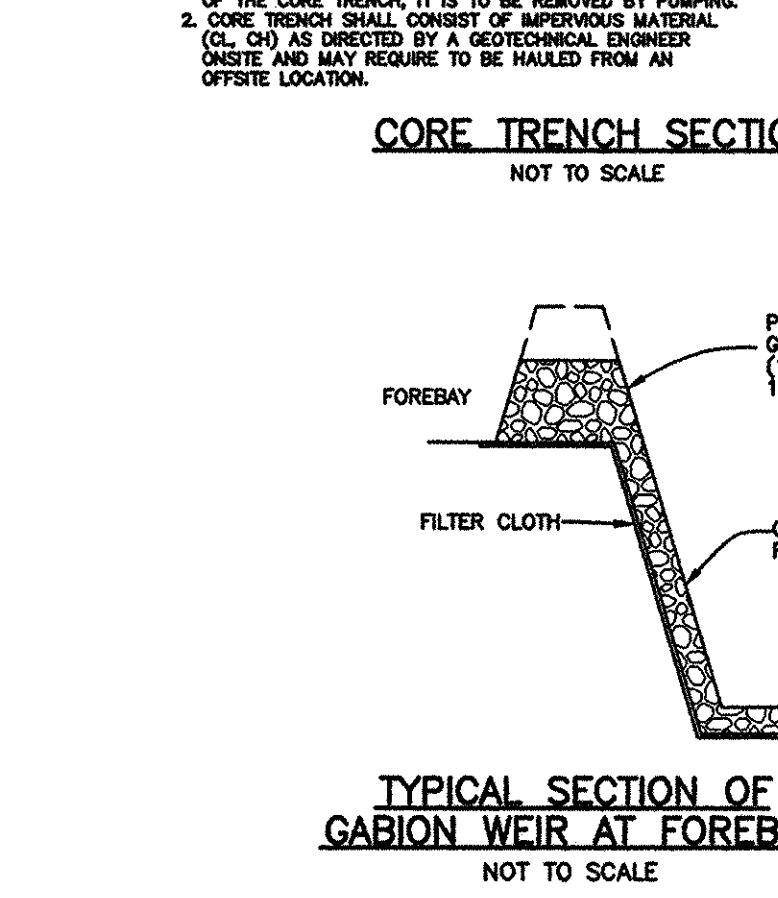
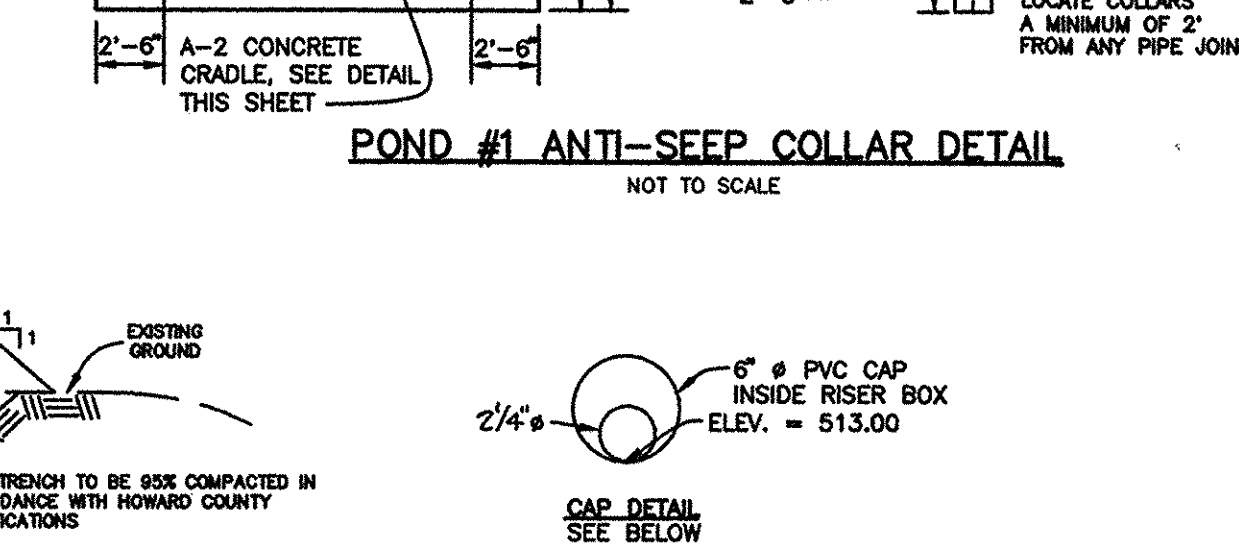
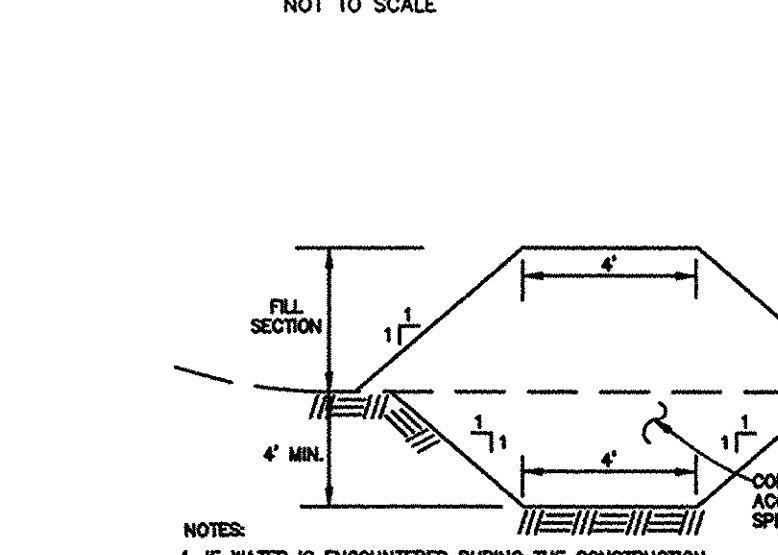
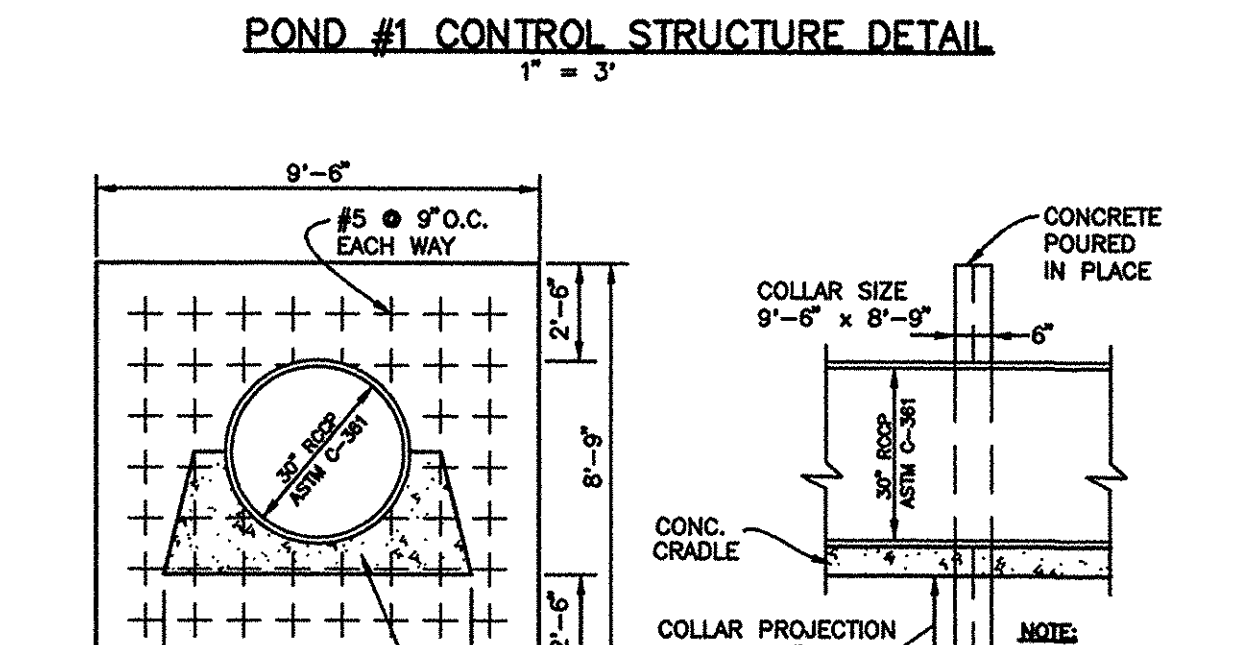
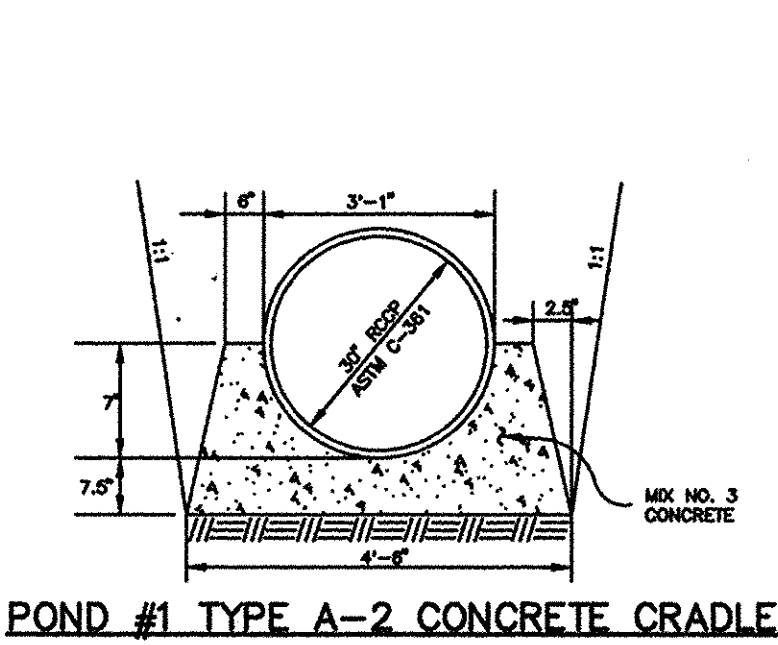
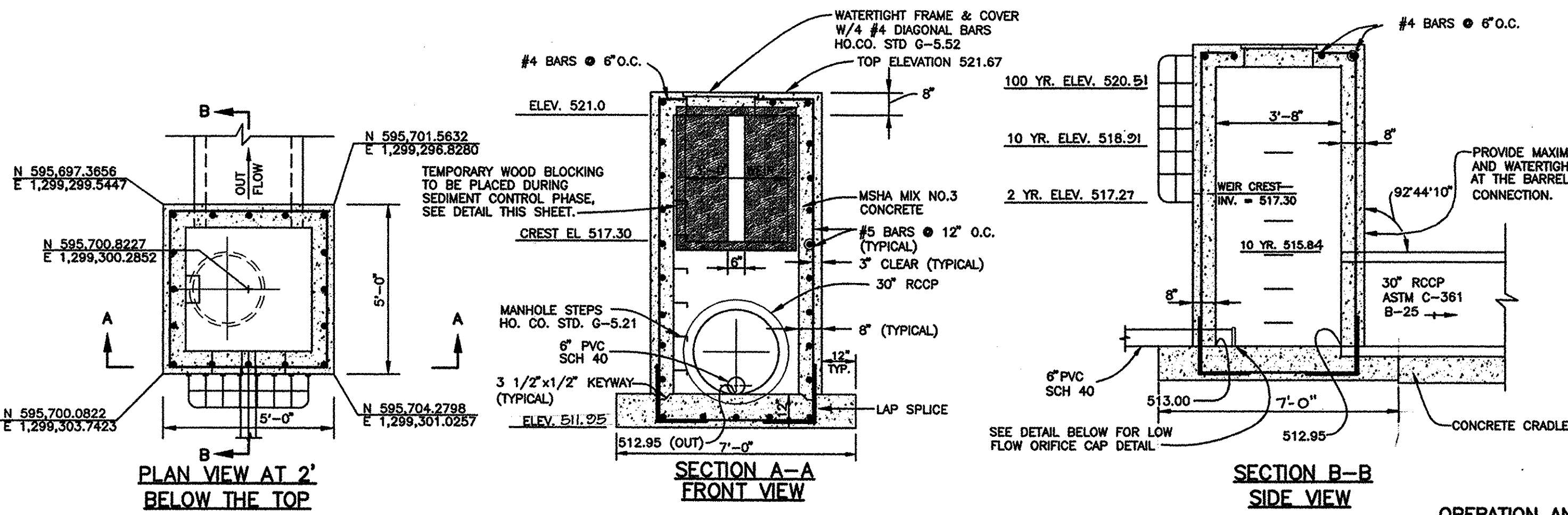
Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction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

**EMBANKMENT AND CUT-OFF TRENCH CONSTRUCTION**

The site should be stripped of topsoil and any other unsuitable materials from the embankment or structure area in accordance with Soil Conservation Guidelines. After stripping operations have been completed, the exposed subgrade material should be protected with a graded stump rack or similar equipment in the presence of a geotechnical engineer or his representative. For areas that are not accessible to a dump truck, the exposed materials should be observed and tested by a geotechnical engineer or his representative utilizing a Dynamic Cone Penetrometer. Any excessively soft or loose materials identified by proofrolling or penetrometer testing should be excavated to suitable firm soil, and then grades re-established by backfilling with suitable soil.

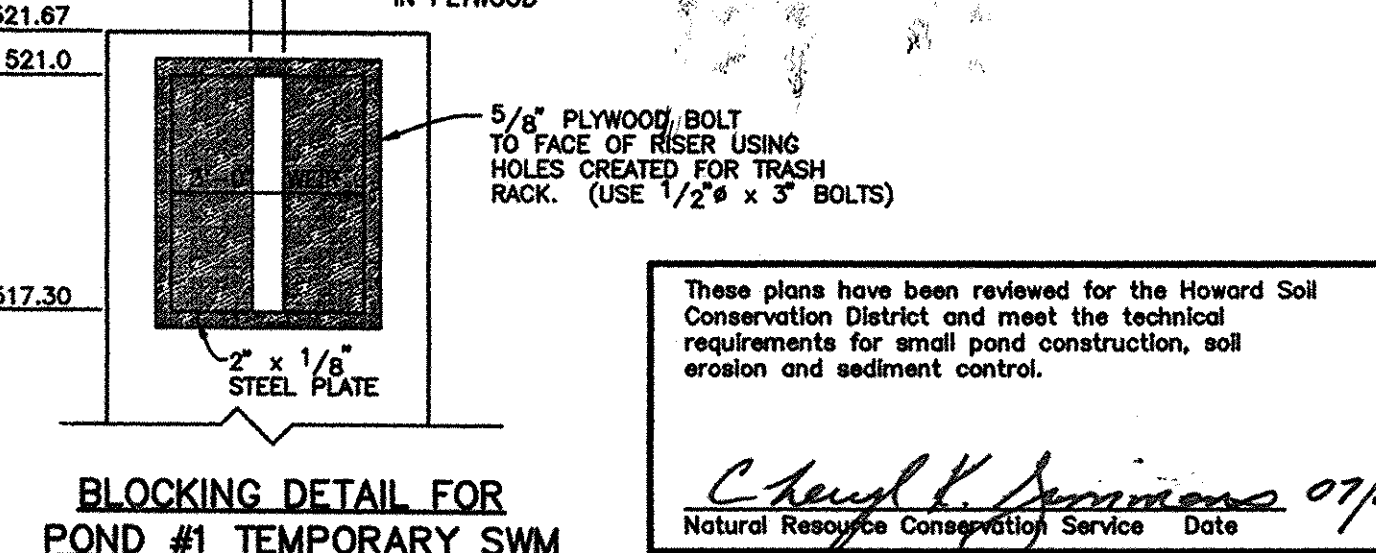
A representative of the Geotechnical Engineer should be present to monitor placement and compaction of fill for the embankment and cut off trench. In accordance with Maryland Soil Conservation Specification 378 soils considered suitable for the center of the embankment and cut off trench shall conform to Unified Soil Classification GC, SC, CL, or CH. Per SCS 378 consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer.

It is our professional opinion that in addition to the soil materials described above a fine grained soil, including Silt (ML) with a plasticity index of 10 or more can be utilized for the center of the embankment and core trench. Exploration with additional test pits and laboratory testing can be conducted prior to construction to identify and quantify potential borrow areas. All fill materials must be placed and compacted in accordance with MD 378 specifications.



**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 INDICATORS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.



OPERATION AND MAINTENANCE SCHEDULE OF HOME OWNERS ASSOCIATION OWNED AND MAINTAINED STORMWATER MANAGEMENT FACILITIES DETENTION PONDS.

HOME OWNERS ASSOCIATION'S MAINTENANCE RESPONSIBILITIES:

- TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOWED A MINIMUM OF TWO (2) TIMES A YEAR, ONCE IN JUNE AND ONCE IN SEPTEMBER. OTHER SIDE SLOPES AND MAINTENANCE ACCESS SHOULD BE MOWED AS NEEDED.
- DEBRIS AND LITTER NEXT TO THE OUTLET STRUCTURE SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.
- WHEN DEEMED NECESSARY FOR AESTHETIC REASONS, SEDIMENT SHOULD BE REMOVED FROM THE POND. APPROVAL OF THE DEPARTMENT OF PUBLIC WORKS IS REQUIRED.

By the Engineer:

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

Richard Holness 7/1/97  
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 the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Donald A. Mason 7/10/97  
Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

NO.	DATE	REVISION
3	6/97	REV. PER HO. CO. ENG. & HSCD
2	5/97	REVISED PER HO. CO. ENGINEERING AND HSCD
1	4/97	REVISED PER HO. CO. ENGINEERING AND HSCD

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OWNER/DEVELOPER: R. H. DEVELOPMENT, L.L.C.  
8668 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MD. 21043  
(410) 465-2321

PROJECT: RIDGE VIEW HUNT  
LOTS 1 - 28 & PRESERVATION PARCELS A THRU F  
(S-95-16, P-96-19, & SP-96-14)

LOCATION: TAX MAP 14, PARCEL 14  
4th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE: STORM WATER MANAGEMENT  
POND #1 NOTES AND DETAILS

DATE: JAN. 1997 PROJECT NO. 0971

Design: CAM/MLV Draft: JMC SCALE: AS SHOWN DRAWING 12 OF 19





### SEDIMENT CONTROL NOTES

- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIVE LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION, (313-1850).
- 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 SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL - REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, 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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (SEC. 51) SO (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 PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:
 

TOTAL AREA OF SITE	110.73 ACRES
AREA TO BE ROOFED OR PAVED	15.91 ACRES
AREA TO BE VEGETATIVELY STABILIZED	14.31 ACRES
TOTAL CUT	25,870 C.Y.
TOTAL FILL	15,240 C.Y.
OFFSITE WASTE/BORROW AREA LOCATION	N/A (ON-SITE)
- 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 CONTROL, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- 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.

#### PERMANENT SEEDBED PREPARATION

- SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:
- PREFERRED - 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 DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0-0 REACH-FIN FERTILIZER (8 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 DISC INTO UPPER THREE INCHES OF SOIL.
- SEEDING: FOR THE PERIODS MARCH 1 THROUGH AUGUST 1 THROUGH OCTOBER 15, SEED WITH 60 LBS PER ACRE (1.4 LBS/1000 SQ FT) OF KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (0.04 LBS/1000 SQ FT) OF WHEAT. FROM OCTOBER 15 THROUGH FEBRUARY 28, PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOU. WITH 60 LBS PER ACRE OF KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE OF 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 218 GALLONS PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING.
- MAINTENANCE: INSPECT ALL SEEDBED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

#### TEMPORARY SEEDBED PREPARATION

- APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.
- SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING 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 PERIOD MARCH 1 THROUGH AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 2-1/2 BUSHELS PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ FT) FOR THE PERIOD MAY 1 THROUGH AUGUST 15, SEED WITH 3 LBS PER ACRE OF WHEAT. FROM NOVEMBER 15 THROUGH FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOU.
- 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 218 GALLONS PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FT. OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING.
- REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

#### SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT.
- INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE, INSTALL SEDIMENT BASINS, CONC. RISER STRUCTURES, LOW FLOW DOWNS, DEVICES, AND EARTH DIKES. CAP IN RISER NOT TO BE INSTALLED DURING CONSTRUCTION. (EX: FARM POND TO BE REPAIRED BY OTHERS. SEE SEQUENCE OF CONSTRUCTION THIS SHEET).
- COMMENCE ROAD AND SITE GRADING.
- CONSTRUCT STORM DRAIN SYSTEM AND SWALES TO HELP IN CONVEYING RUNOFF TO TEMPORARY SEDIMENT BASINS. THE PROPOSED SWALE ALONG LOTS 9-14, AND LOTS 18-20 SHALL NOT BE CONSTRUCTED UNTIL POND #1 IS CONVERTED TO A PERMANENT SWM FACILITY.
- CONSTRUCT PAVING.
- FINAL GRADE SITE AND PERMANENTLY STABILIZE.
- UPGRADE TEMPORARY SEDIMENT BASINS TO PERMANENT SWM POND.
- CONSTRUCT FOREBAYS AND REMOVE/REPLACE NO. 2 STONE AND FILTER CLOTH ON LOW FLOW DEVICE. CAP AND CONTROL ORFICE IN RISER SHALL BE INSTALLED SO THAT POND CAN FUNCTION AS AN EXTENDED DETENTION POND.
- INSTALL REQUIRED LANDSCAPING AS SPECIFIED ON THE PLAN.
- UPON APPROVAL OF HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES. PERMANENTLY STABILIZE AS REQUESTED.

#### SOIL STABILIZATION MATTING



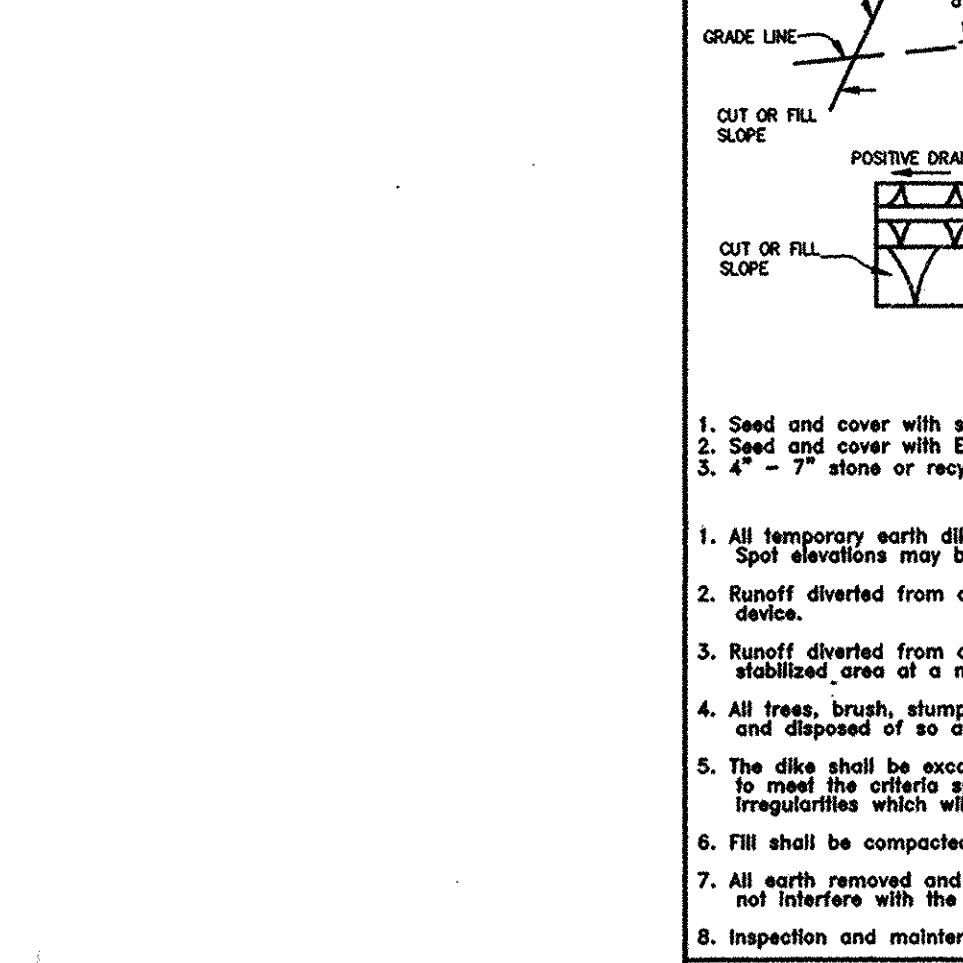
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daniels* 8/7/97  
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Andy Hamilton* 8/14/97  
 CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*Robert Ziehm* 7/28/97  
 HOWARD SOIL CONSERVATION DISTRICT

APPROVED: REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
*Charles E. Johnson* 07/28/97  
 NATURAL RESOURCES CONSERVATION SERVICE

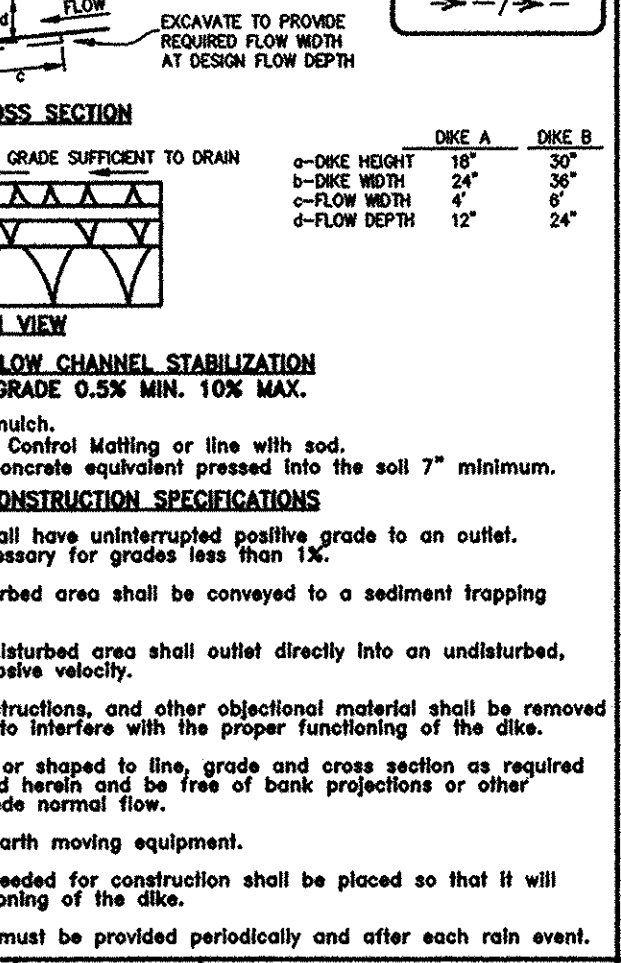
### DETAIL 1 - EARTH DIKE



### EX FARM POND REPAIR SEQUENCE OF CONSTRUCTION

- NOTE: THE REPAIR OF THE EXISTING FARM POND IS PART OF THIS PLAN APPROVAL. CONSTRUCTION WILL BE PERFORMED BY OTHERS.
- CONTRACTOR SHALL NOTIFY THE HOWARD SOIL CONSERVATION DISTRICT PRIOR TO CONSTRUCTION.
  - CONTRACTOR TO DRAIN POND AS NECESSARY TO LOCATE EXISTING PIPE.
  - CONTRACTOR TO DETERMINE IF EX. PRINCIPAL SPILLWAY PIPE CAN BE UTILIZED AND EX. PIPE OUTFALL CAN BE LOCATED. IF SO, CONTRACTOR SHALL UNCOVER EX. PIPE AND RE-WORK THE PIPE OUTFALL. THE EX. WILLOW TREE SHALL BE REMOVED FROM THE EMBANKMENT AREA. CONTRACTOR SHALL ALSO RAISE THE TOP OF DAM APPROXIMATELY 18" ALL AROUND WITH 3:1 SIDE SLOPES. STABILIZE AND SEED SIDE SLOPES.
  - IF THE EX. PIPE CANNOT BE UTILIZED AND/OR THE EX. PIPE OUTFALL CANNOT BE LOCATED, THE CONTRACTOR SHALL REMOVE OR PLUG EX. PIPE AS RECOMMENDED BY THE HSCD.
  - CONTRACTOR SHALL INSTALL A 6" ALUMINIZED CORRUGATED METAL PIPE THROUGH THE POND EMBANKMENT AND INSTALL A TYPICAL HOOD INLET AND BAFFLE (SEE FIG. 6-95, ENG. FIELD MANUAL, SCS). THE INLET OF THE 6" PIPE SHALL BE APPROXIMATELY 2' BELOW THE PROPOSED TOP OF POND AND SHALL DISCHARGE ONTO UNDISTURBED EARTH WITH A RIP-RAP OUTFALL. CONTRACTOR SHALL THEN RAISE THE TOP OF DAM APPROXIMATELY 10" ALL AROUND WITH 3:1 SIDE SLOPES. STABILIZE AND SEED SIDE SLOPES.

### DETAIL 22 - SILT FENCE



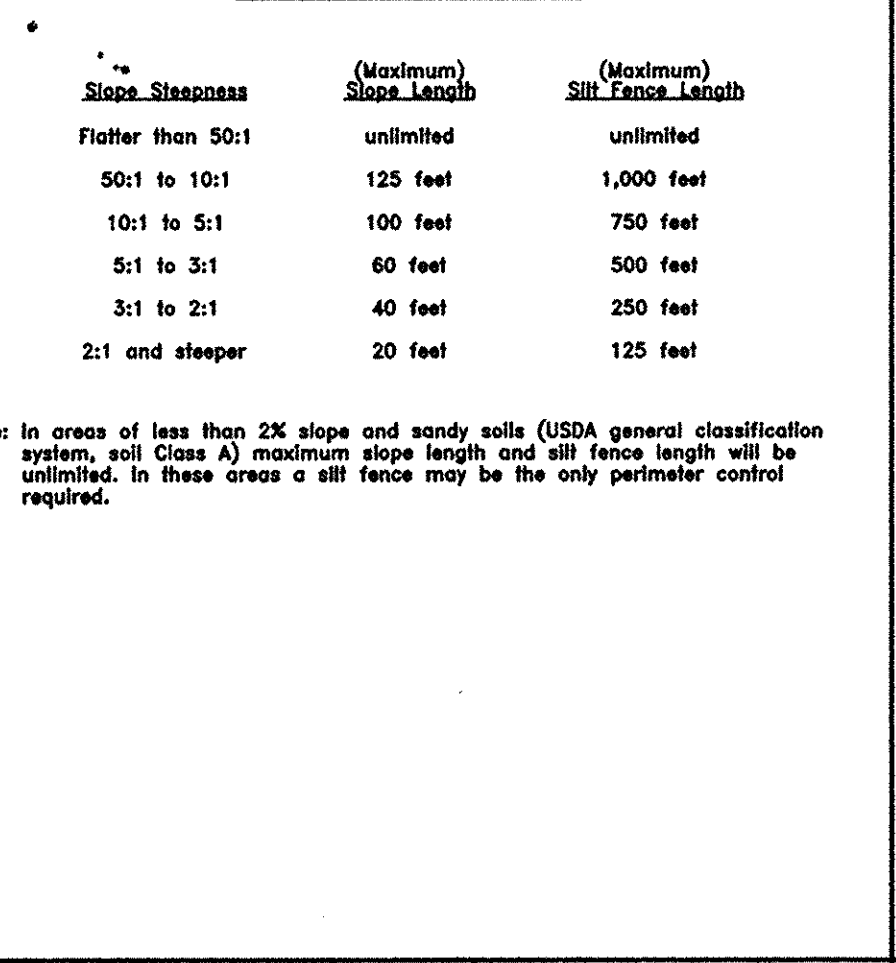
### SILT FENCE

#### SILT FENCE DESIGN CRITERIA

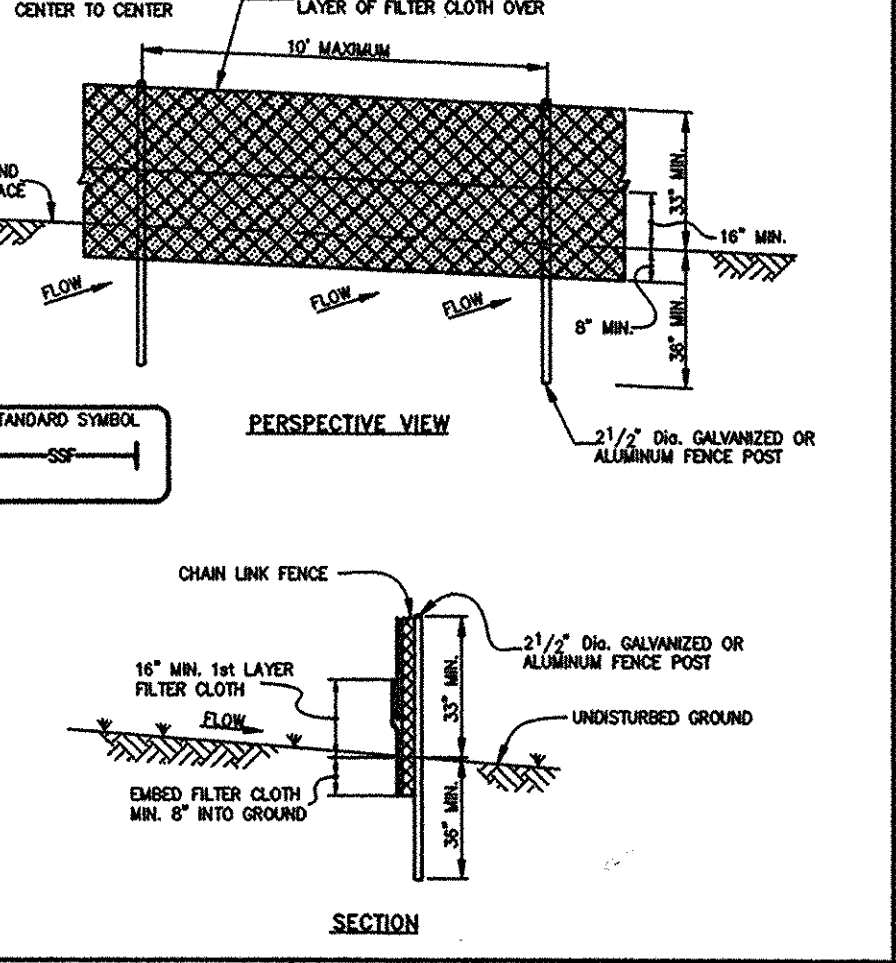
Slope	Slope Steepness	(Maximum) Slope Length	Silt Fence Length
Flatter than 50:1	unlimited	unlimited	unlimited
50:1 to 10:1	125 feet	1,000 feet	750 feet
10:1 to 5:1	100 feet	750 feet	500 feet
5:1 to 3:1	60 feet	450 feet	250 feet
3:1 to 2:1	40 feet	250 feet	125 feet
2:1 and steeper	20 feet	125 feet	

Note: In areas of less than 2% slope and sandy soils (USDA general classification system, soil Class A) maximum slope length and silt fence length will be unlimited. In these areas a silt fence may be the only perimeter control required.

### DETAIL 33 - SUPER SILT FENCE



### DETAIL 2 - TEMPORARY SWALE

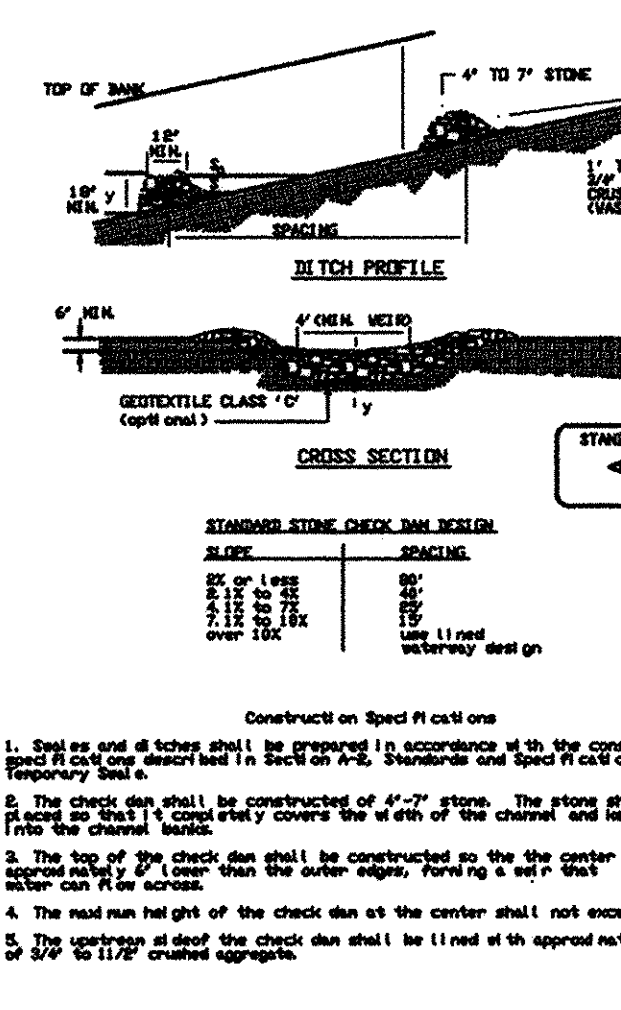


### SUPER SILT FENCE

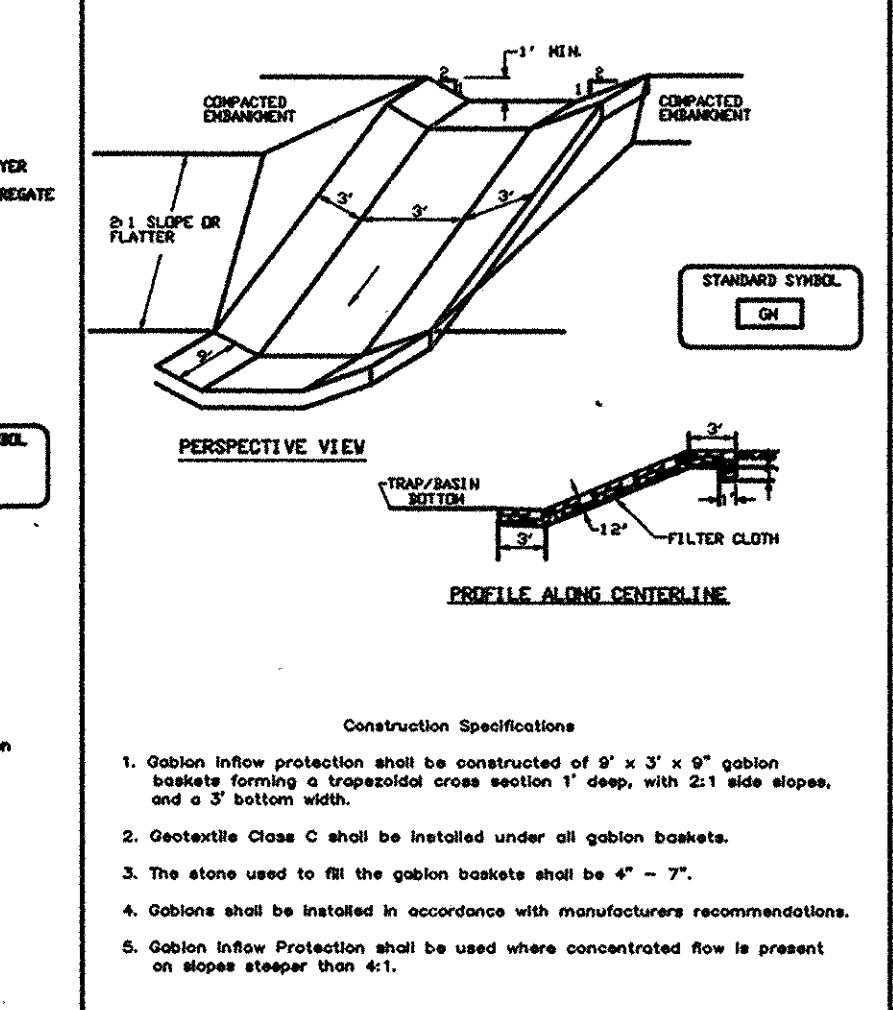
#### SUPER SILT FENCE DESIGN CRITERIA

Slope	Slope Steepness	Slope Length (Maximum)	Silt Fence Length (Maximum)
0 - 10%	0 - 10:1	Unlimited	Unlimited
10 - 20%	10:1 - 5:1	200 feet	1,500 feet
20 - 33%	5:1 - 3:1	100 feet	1,000 feet
33 - 50%	3:1 - 2:1	100 feet	500 feet
50% +	2:1 +	50 feet	250 feet

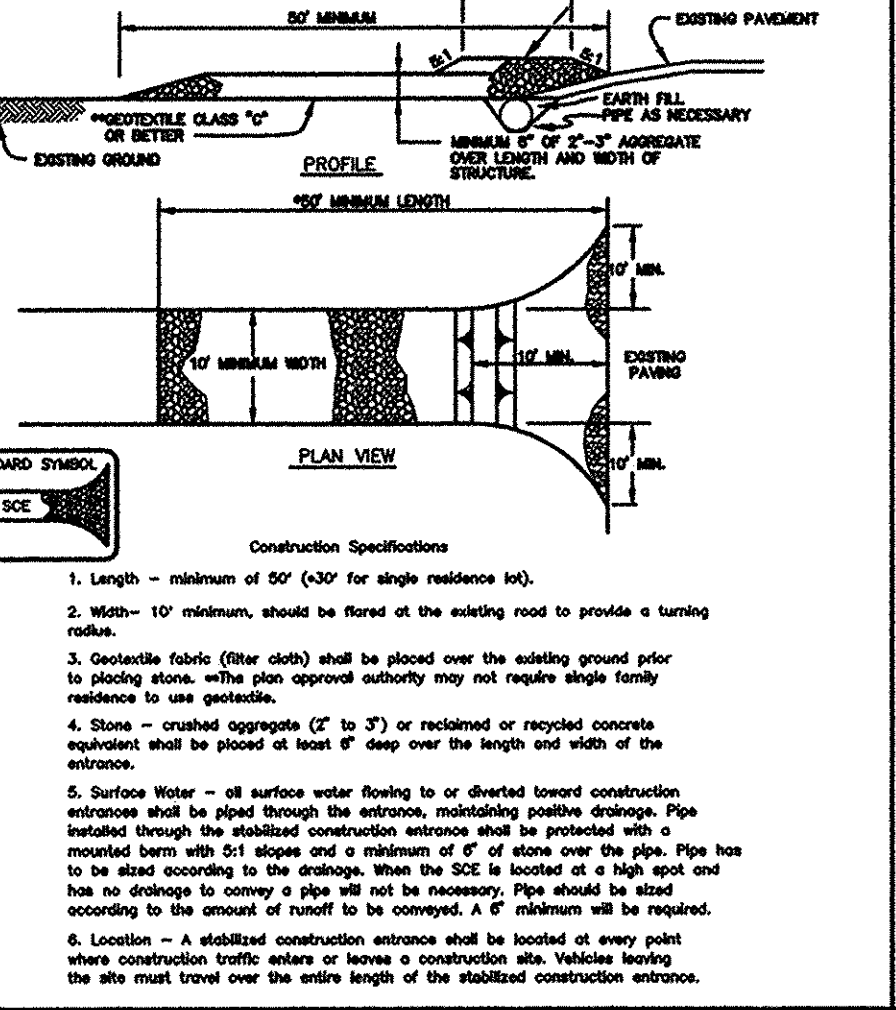
### DETAIL 7 - STONE CHECK DAM



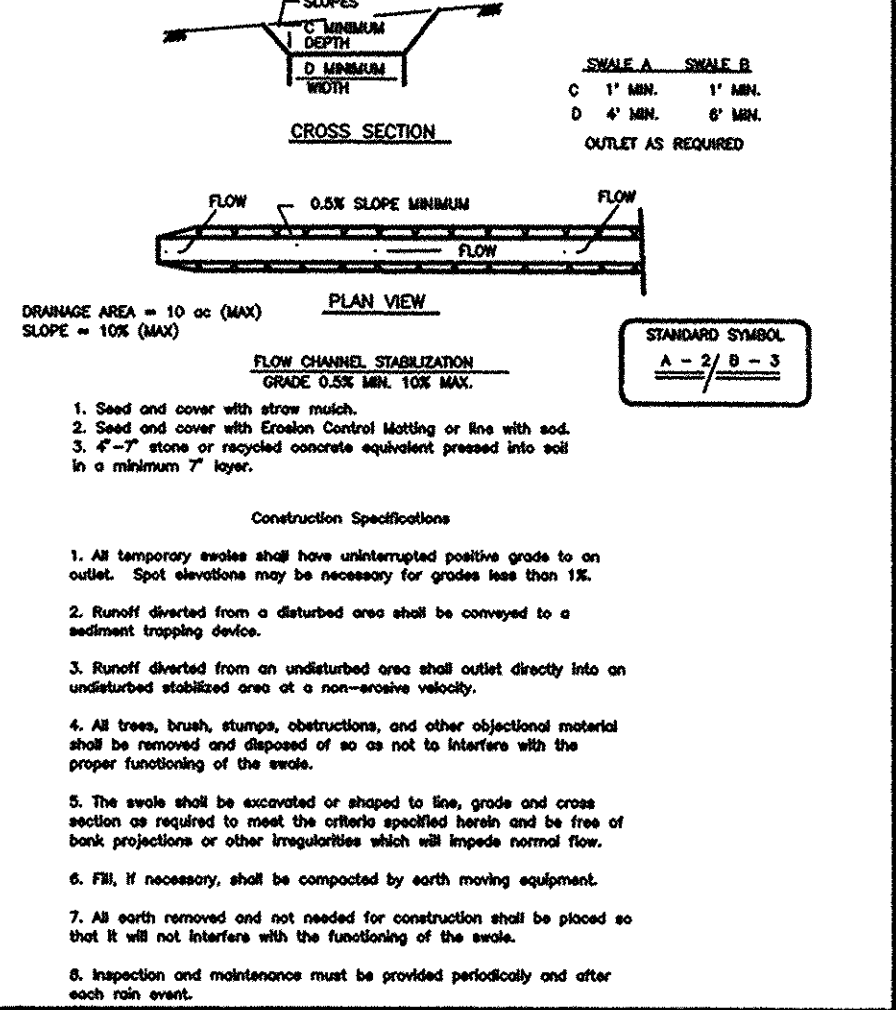
### DETAIL 6 - GABION INFLOW PROTECTION



### DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



### DETAIL 2 - TEMPORARY SWALE

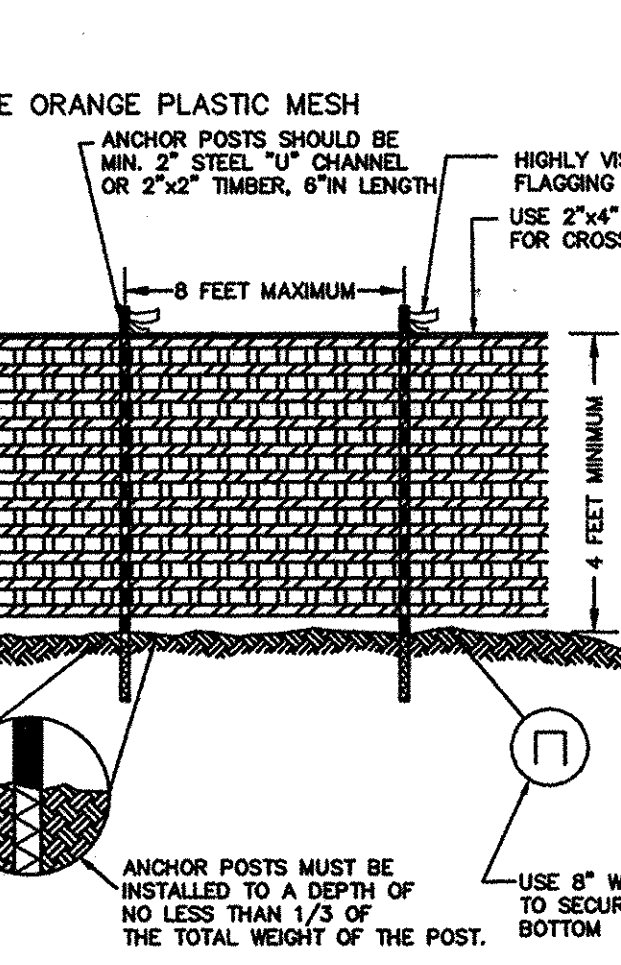


### OUTLET PROTECTION DETAIL

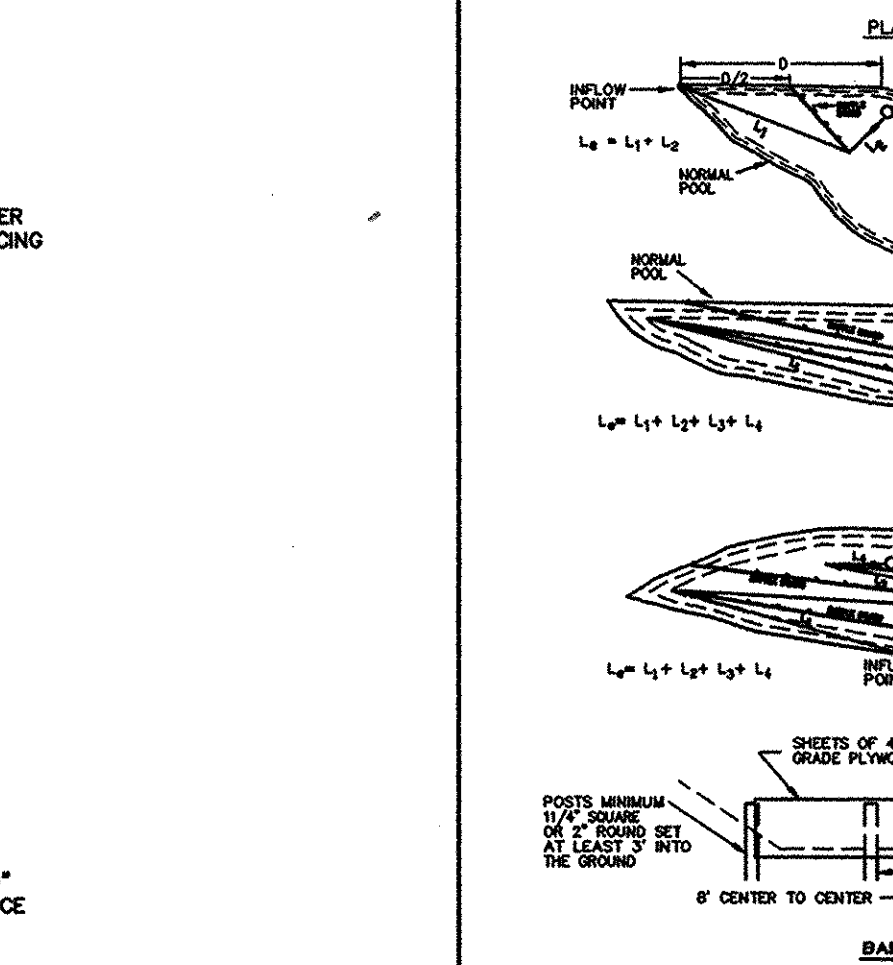
NOT TO SCALE

STRUCTURE	D-50	LENGTH (L)	WIDTH (W)	THICKNESS (T)	SHA CLASS
ES-1	9.5'	10'	5.5'	19"	I
ES-2	9.5'	10'	5.5'	19"	I
ES-3	9.5'	10'	5.5'	19"	I
ES-4	9.5'	10'	5.25'	19"	I
ES-5	9.5'	20'	22.5'	19"	I
ES-6	9.5'	20'	10'	19"	I

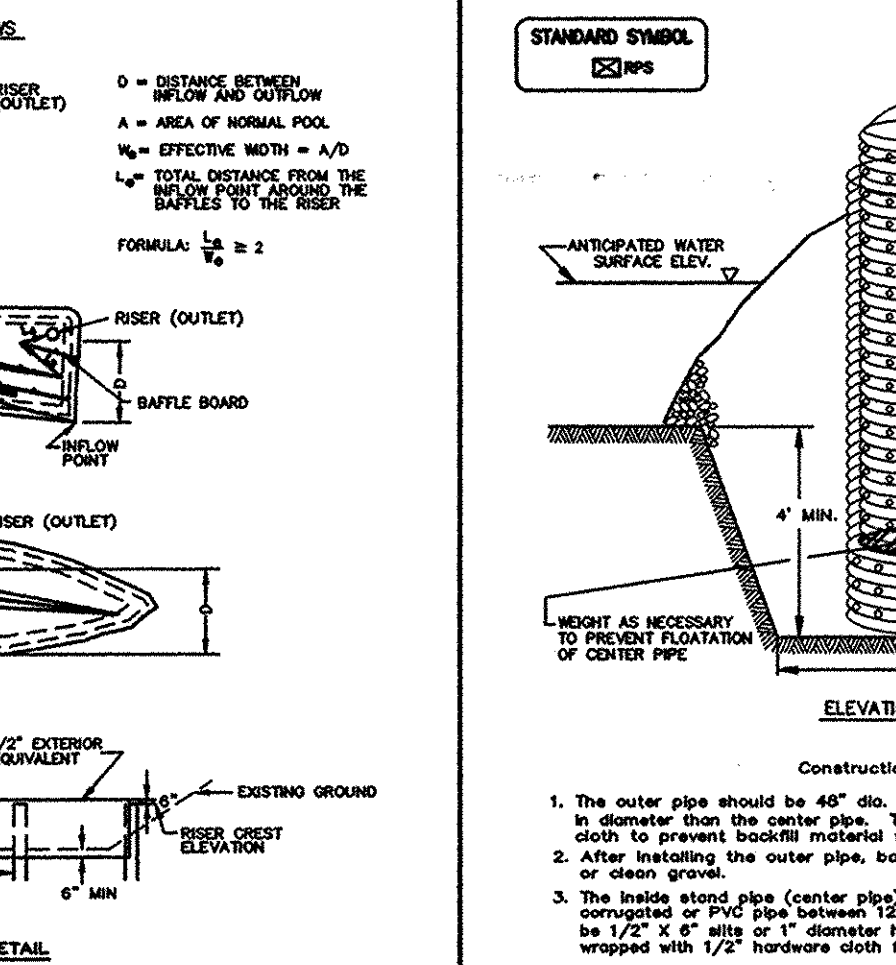
### DETAIL 18 - SEDIMENT BASIN BAFFLES



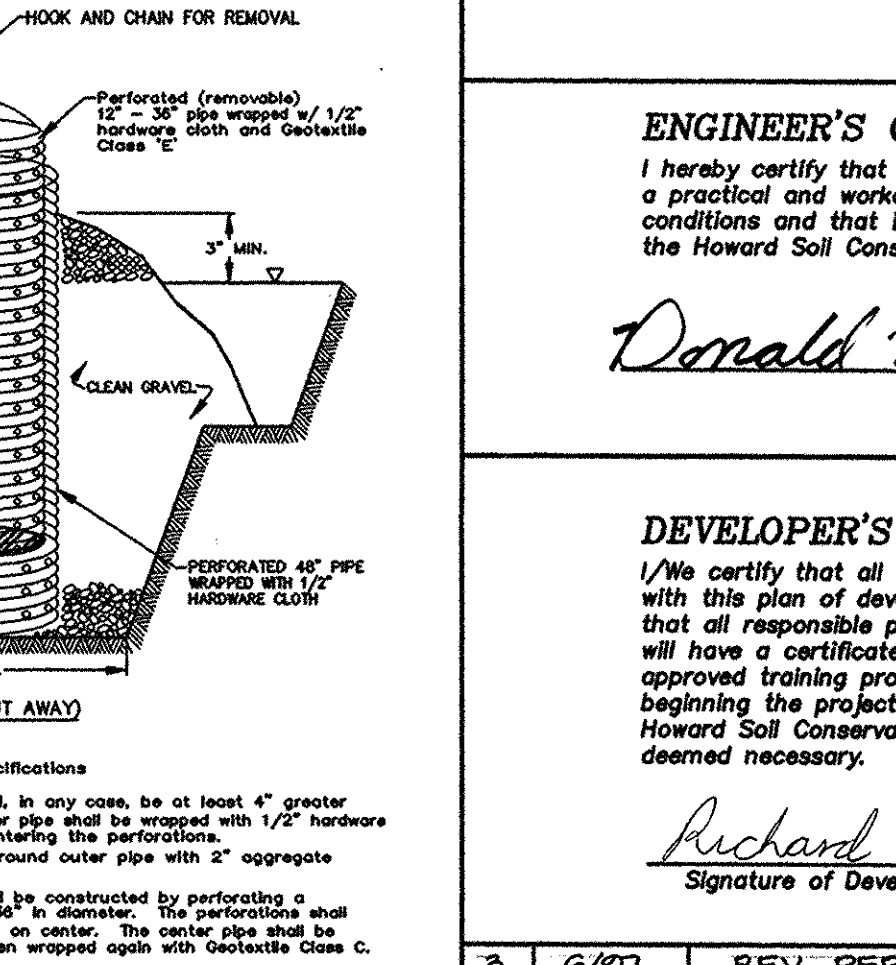
### DETAIL 20A - REMOVABLE PUMPING STATION



### DETAIL 18 - SEDIMENT BASIN BAFFLES



### DETAIL 20A - REMOVABLE PUMPING STATION



### 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 the requirements of the Howard Soil Conservation District.

*Donald Mason* 7/10/97  
 Date

### DEVELOPER'S CERTIFICATE

I/We certify that all development and construction will be done in accordance with this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction of this project will have a certificate of attendance from a Department of the Environment approved training program for the control of sediment and erosion before beginning the project. I also authorize periodic onsite inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

*Richard Holmes* 7/10/97  
 Signature of Developer Date

NO	DATE	REVISION
3	6/07	REV. PER HO. CO. ENG.
2	5/97	REVISED PER HO. CO. ENGINEERING AND HSCD COMMENTS.
1	4/97	REVISED PER HSCD
NO	DATE	REVISION

TSA GROUP, INC.  
 planning • architecture • engineering • surveying  
 8400 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 465-6105

PROJECT: RIDGE VIEW HUNT  
 LOTS 1-28 & PRESERVATION PARCELS A THRU F (S-95-16, P-96-19, & SP-96-14)

LOCATION: TAX MAP 14, PARCEL 14  
 4TH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

TITLE: SEDIMENT CONTROL NOTES AND DETAILS

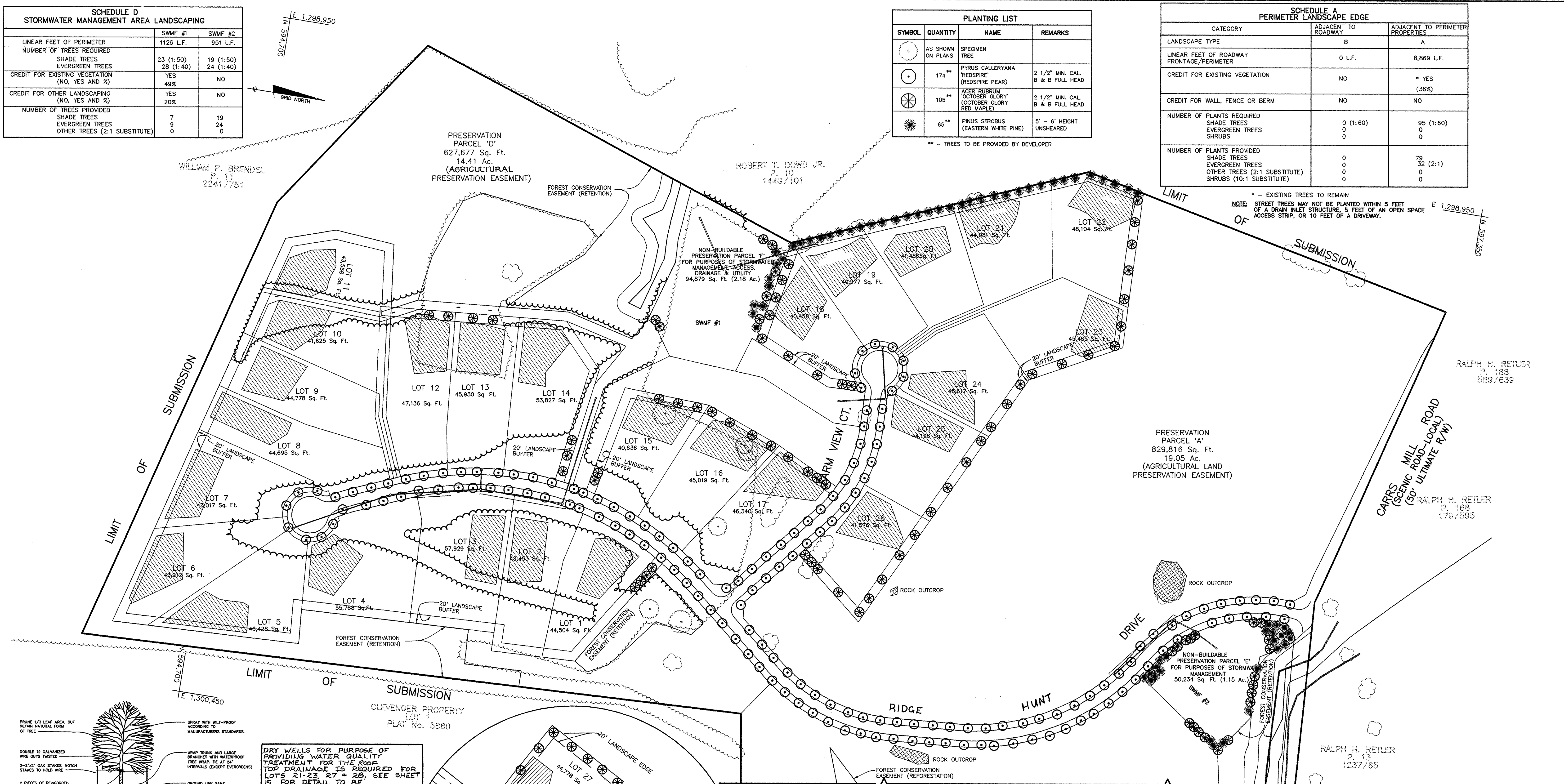
DATE: JAN 1997 PROJECT NO. 0971

DESIGN: YSL DRAFT: YSL CHECK: CAM SCALE: NO SCALE DRAWING 15 OF 19

SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING		
LINEAR FEET OF PERIMETER	SWMF #1	SWMF #2
NUMBER OF TREES REQUIRED	1126 L.F.	951 L.F.
SHADE TREES	23 (1:50)	19 (1:50)
EVERGREEN TREES	28 (1:40)	24 (1:40)
CREDIT FOR EXISTING VEGETATION (NO, YES AND %)	YES 49%	NO
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	YES 20%	NO
NUMBER OF TREES PROVIDED	7	19
SHADE TREES	9	24
EVERGREEN TREES	0	0
OTHER TREES (2:1 SUBSTITUTE)		

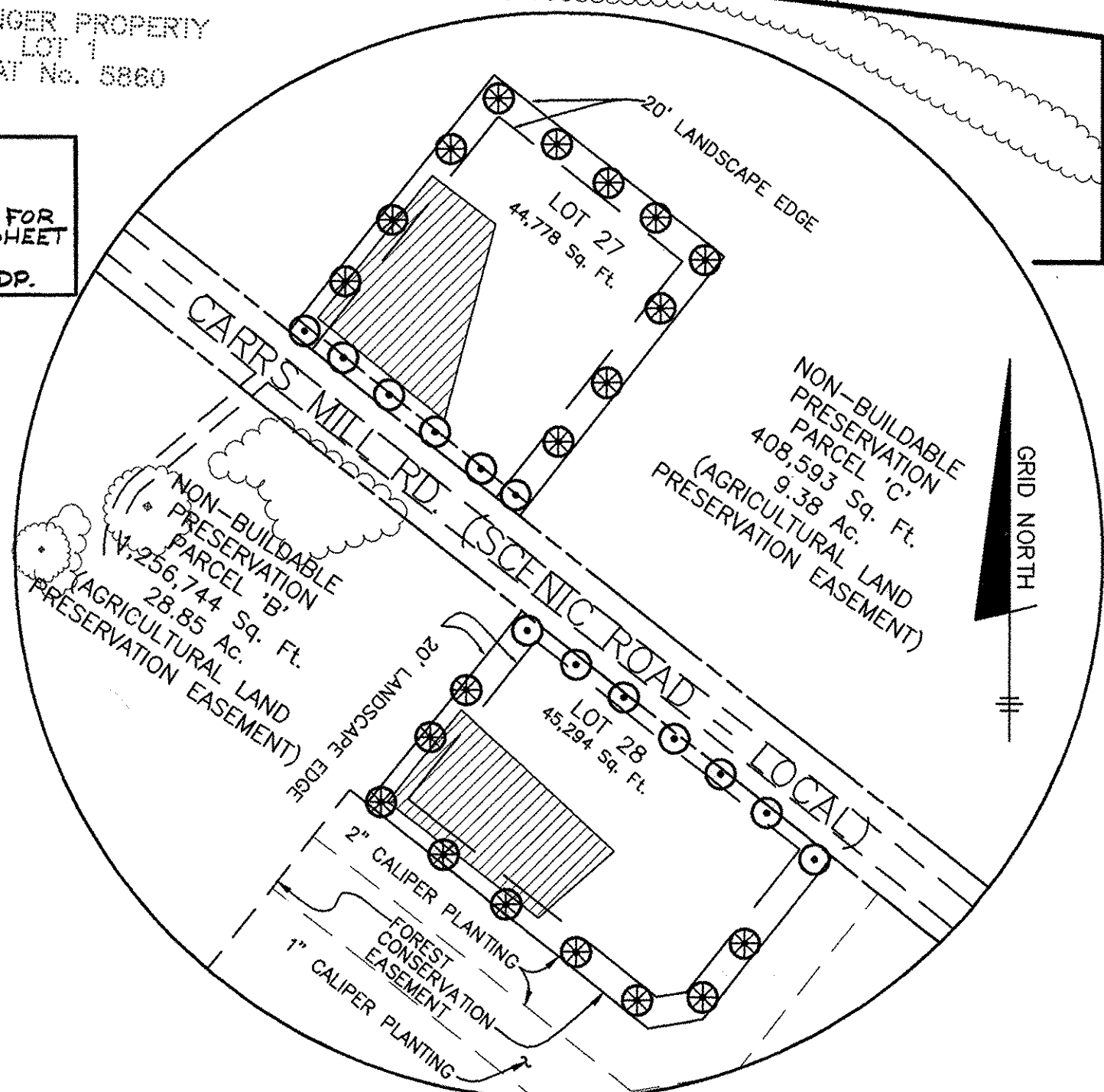
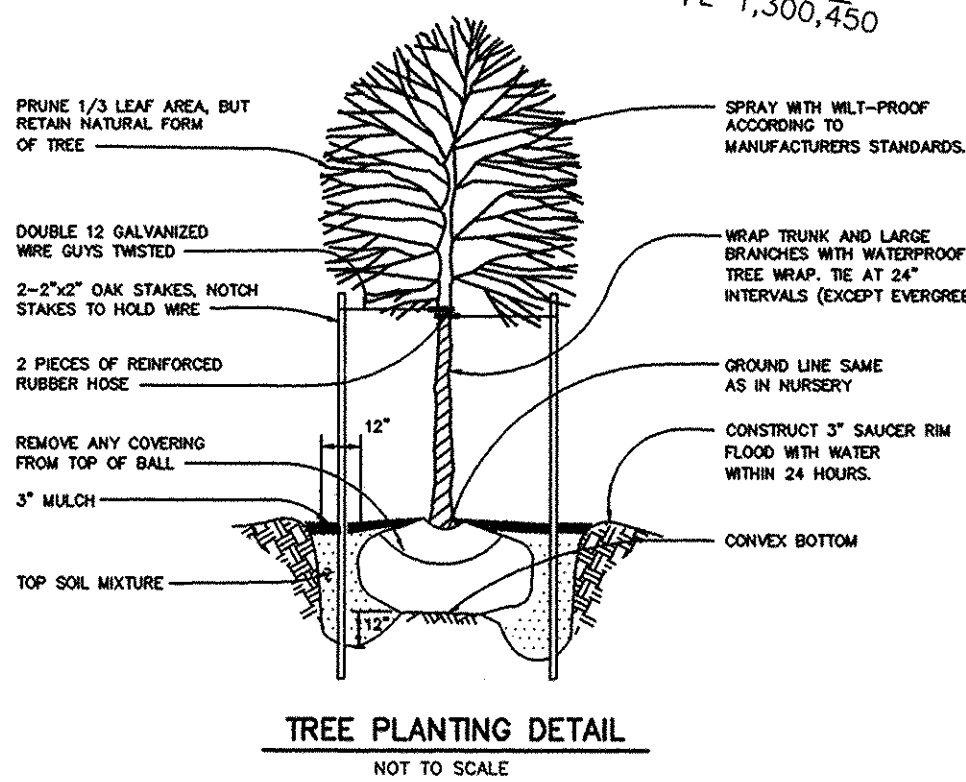
PLANTING LIST			
SYMBOL	QUANTITY	NAME	REMARKS
(Symbol: Tree with circle)	AS SHOWN ON PLANS	SPECIMEN TREE	
(Symbol: Tree with circle and dot)	174 **	PYRUS CALLERYANA 'REDSPIRE' (REDSPIRE PEAR)	2 1/2" MIN. CAL. B & B FULL HEAD
(Symbol: Tree with circle and cross)	105 **	ACER RUBRUM 'OCTOBER GLORY' (OCTOBER GLORY RED MAPLE)	2 1/2" MIN. CAL. B & B FULL HEAD
(Symbol: Tree with circle and star)	65 **	PINUS STROBUS (EASTERN WHITE PINE)	5' - 6' HEIGHT UNSHEARED

SCHEDULE A PERIMETER LANDSCAPE EDGE		
CATEGORY	ADJACENT TO ROADWAY	ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE	B	A
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	0 L.F.	8,869 L.F.
CREDIT FOR EXISTING VEGETATION	NO	* YES (36%)
CREDIT FOR WALL, FENCE OR BERM	NO	NO
NUMBER OF PLANTS REQUIRED		
SHADE TREES	0 (1:60)	95 (1:60)
EVERGREEN TREES	0	0
SHRUBS	0	0
NUMBER OF PLANTS PROVIDED		
SHADE TREES	0	79
EVERGREEN TREES	0	32 (2:1)
OTHER TREES (2:1 SUBSTITUTE)	0	0
SHRUBS (10:1 SUBSTITUTE)	0	0



\* - EXISTING TREES TO REMAIN  
NOTE: STREET TREES MAY NOT BE PLANTED WITHIN 5 FEET OF A DRAIN INLET STRUCTURE, 5 FEET OF AN OPEN SPACE ACCESS STRIP, OR 10 FEET OF A DRIVEWAY.

DRY WELLS FOR PURPOSE OF PROVIDING WATER QUALITY TREATMENT FOR THE ROOF TOP DRAINAGE IS REQUIRED FOR LOTS 21-23, 27 & 28, SEE SHEET 18 FOR DETAIL TO BE CONSTRUCTED UNDER THE SDP.



STREET TREE REQUIREMENTS	
REQUIRED	1 PER 40' O.C. (6,957 L.F.)
NUMBER OF TREES PROVIDED	174

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 18.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED 170 LANDSCAPE TREES IN THE AMOUNT OF \$ 17,000.00 IS PART OF THE DEVELOPER'S AGREEMENT.

PLAN VIEW  
SCALE: 1" = 100'

NO	DATE	REVISION
1	4/97	REVISED PER HOWARD COUNTY COMMENTS.

TSA GROUP, INC.  
planning • architecture • engineering • surveying  
8690 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 465-0105

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Dwyer* 4-7-97  
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Lesley Hamilton* 5/14/97  
CHIEF, DIVISION OF LAND DEVELOPMENT

*Chris Demmer* 5/16/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

OWNER/DEVELOPER: R.H. DEVELOPMENT, L.L.C.  
8668 BALTIMORE NATIONAL PIKE  
ELLICOTT CITY, MARYLAND 21043  
(410) 465-2321

PROJECT: RIDGE VIEW HUNT  
LOTS 1-28 & PRESERVATION PARCELS A THRU F (S-95-16, P-96-19, & P-96-14)

LOCATION: TAX MAP 14, PARCELS 14  
4th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE: LANDSCAPE PLAN

DATE: JAN. 1997 PROJECT NO. 0971  
DESIGN: YSL DRAFT: YSL/JMC CHECK: CAM SCALE: AS SHOWN DRAWING 16 OF 19





WILLIAM P. BRENDLE  
P. 11  
2241/751

PRESERVATION PARCEL "D"  
627,677 Sq. Ft.  
14.41 Ac.  
(AGRICULTURAL PRESERVATION EASEMENT)  
9.2 Ac. FOREST CON. EASEMENT (TOTAL)

NON-BUILDABLE PRESERVATION PARCEL "F"  
FOR PURPOSES OF STORMWATER  
MANAGEMENT, ACCESS,  
DRAINAGE & UTILITY  
94,879 Sq. Ft. (2.18 Ac.)

PRESERVATION PARCEL "A"  
829,917 Sq. Ft.  
19.05 Ac.  
(AGRICULTURAL LAND PRESERVATION PROGRAM)

RALPH H. REILER  
P. 188  
589/638

RALPH H. REILER  
P. 168  
178/685

NON-BUILDABLE PRESERVATION PARCEL "E"  
FOR PURPOSES OF STORMWATER  
MANAGEMENT  
50,234 Sq. Ft. (1.15 Ac.)

PRESERVATION PARCEL "B"  
1,256,744 Sq. Ft.  
28.85 Ac.  
(AGRICULTURAL LAND PRESERVATION PROGRAM)

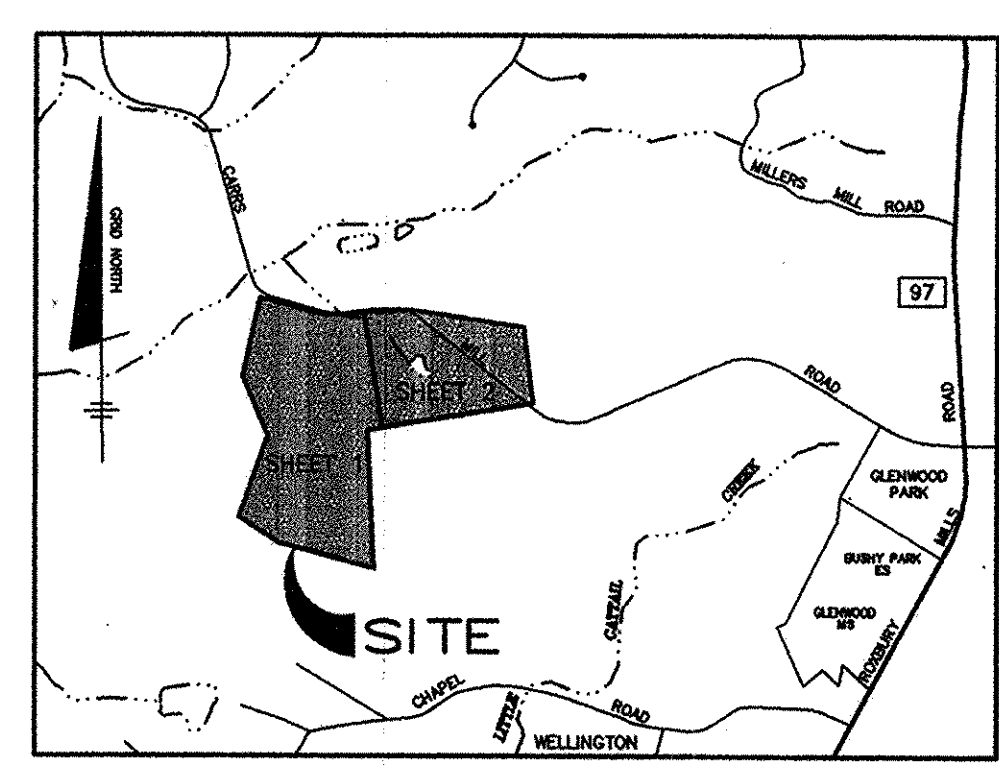
RALPH H. REILER  
P. 168  
178/685

MATCH LINE "A"-"A" SEE SHEET 2 OF 3

**LEGEND**

- EXISTING CONTOURS
- WETLAND LIMIT
- 100 YEAR FLOODPLAIN
- EXISTING WOODSLINE
- PROPOSED WOODSLINE
- CENTERLINE EXIST. STREAM
- EXISTING STRUCTURE
- PROPOSED SEPTIC FIELD
- PROPOSED HOUSE & DRIVEWAY

SPECIMEN TREE LEGEND			
TREE	DIAMETER	TYPE	CONDITION
A	38"	RED MAPLE	FAIR
B	32"	RED MAPLE	FAIR
C	44"	SILVER MAPLE	GOOD
D	34"	BLACK OAK	GOOD
E	40"	BLACK OAK	GOOD
F	32"	BLACK OAK	GOOD
G	30"	BLACK OAK	GOOD
H	36"	BLACK OAK	POOR
I	31"	BLACK OAK	GOOD
J	48"	SILVER MAPLE	GOOD
K	32"	SILVER MAPLE	GOOD



VICINITY MAP  
SCALE: 1"=2000'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*Andrew M. Decker*  
CHIEF, BUREAU OF HIGHWAYS MS 8-7-97  
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*Candy Hamilton*  
CHIEF, DIVISION OF LAND DEVELOPMENT MS 8/14/97  
DATE

*Mike Decker*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 8/16/97

NO.	DATE	REVISION
1	11/5/97	REVISED FOREST CONSERV. EASEMENT BASED ON NEW LAYOUT

**TSA GROUP, INC.**  
planning • architecture • engineering  
8400 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 465-0100

OWNER/DEVELOPER: R.H DEVELOPMENT LLC 8668 BALTIMORE NATIONAL PIKE ELLCOTT CITY, MARYLAND 21043 Phone: (410) 465-2321	PROJECT: <b>RIDGE VIEW HUNT</b> LOTS 1 THRU 28, PRESERVATION PARCEL A THRU F
DATE: _____	PROJECT NO. 0921
SCALE: 1"=100'	DRAWING 17 OF 12

SOILS LEGEND		
MAP SYMBOL	SOIL TYPE	MAPPING UNIT
BrC3	C	BRANDYWINE LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED
BrF	C	BRANDYWINE LOAM, 25 TO 60 PERCENT SLOPES
ChA	B	CHESTER SILT LOAM, 0 TO 3 PERCENT SLOPES
ChB2	B	CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
ChC2	B	CHESTER SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
* Co	C	CODORUS SILT LOAM
CuB	B	COMUS SILT LOAM, LOCAL ALLUVIUM, 3 TO 8 PERCENT SLOPES
EkB2	B	ELIOAK SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
EkC2	B	ELIOAK SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
GIB2	B	GLENELG LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
GIC2	B	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
GIC3	B	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED
GID2	B	GLENELG LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED
GID3	B	GLENELG LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED
* GrA	C	GLENVILLE SILT LOAM, 0 TO 3 PERCENT SLOPES
* GrB2	C	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
* Ha	D	HATBORO SILT LOAM
MgC2	B	MANOR GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
MIC2	B	MANOR LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
MID3	B	MANOR LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED
MIE	B	MANOR LOAM, 25 TO 45 PERCENT SLOPES
MnD	B	MANOR VERY STONY LOAM, 3 TO 25 PERCENT SLOPES
MIC3	B	MT. AIRY CHANNERY LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED
MD2	B	MT. AIRY CHANNERY LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED

\* INDICATES HYDRIC SOILS  
SOILS MAP NOS. 6,7,12 & 13

MATCH LINE "A-A" SEE SHEET 1 OF 3



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*Andrew M. Daniels* 8/2/97  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*Condy Hamilton* 8/14/97  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Mr. [Signature]* 8/14/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

NO.	DATE	REVISION
1	1/15/97	REVISED FOREST CONSERV. EASEMENT BASED ON NEW LAYOUT
2	3/14/97	REVISED FOREST CONSERVATION EASEMENT AND PLANTING PER CO. AGREEMENT

**TSA GROUP, INC.**  
planning • architecture • engineering  
8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 465-8105

OWNER/DEVELOPER:	PROJECT:
R.H. DEVELOPMENT LLC 8668 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21043 Phone: (410) 465-2321	<b>RIDGE VIEW HUNT</b> LOTS 1 THRU 28, PRESERVATION PARCEL A THRU F
LOCATION:	TAX MAP 14 - PARCEL 14 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE:	<b>FOREST CONSERVATION PLAN</b> S-95-16
DATE:	PROJECT NO. 0921
Design: CAM	Draft: CAD
SCALE: 1" = 100'	DRAWING 10 OF 10

*Mary A. Dircks*  
**M.A. DIRCKS & CO., INC.**  
Environmental Consulting Services  
15228 Old Hanover Road  
Upperco, Maryland 21155  
Phone/Fax: 410-526-7388

**FOREST PROTECTION PROCEDURES - Preconstruction Phase**

- The edge of the woods to be protected will be marked (staked or flagged) in the field per the limits of forest conservation easement shown in the approved site development plan prior to the start of construction activity. All areas within protective easement are to be considered "off limits" to any construction activities. The optional protective fencing shall be installed at the outside edge of forested areas and should be combined with sediment control devices when possible. The limit of the critical root zone and therefore the location of the protective devices is to be determined as follows:

Edge of Forested Area - 1 foot of protective radius/inch of DBH or an eight foot protective radius, whichever is greater.

Critical Root Zone for the forest on this site is an average of 15 feet from the trunk of the tree.

- Construction activities expressly prohibited within the preservation areas are:

- Placing or stockpiling backfill or top soil in protected areas
- Felling trees into protected areas
- Driving construction equipment into or through protected areas
- Burning in or in close proximity to protected areas
- Stacking or storing supplies of any kind
- Concrete wash-off areas
- Conducting trenching operations
- Grading beyond the limits of disturbance
- Parking vehicles or construction equipment
- Removal of root mat or topsoil
- Siting and construction of:
  - Utility lines
  - Access roads
  - Impervious surfaces
  - Stormwater management devices
  - Staging areas

- Protective fencing (see Figure "Protective Fencing") shall be the responsibility of the general contractor. The general contractor shall affix signs to the fencing at 25' minimum intervals indicating that these areas are "Forest Retention Area" (see Figure "Signage"). The general contractor shall take great care to assure the restricted areas are not violated and that root systems are protected from smothering, flooding, excessive wetting from de-watering operations, off-site run-off, spillage, and drainage or solutions containing materials hazardous to tree roots.

- The general contractor shall be responsible for any tree damaged or destroyed within the preservation areas whether caused by the contractor, his agents, employees, sub-contractors, or licensees.

- Foot traffic shall be kept to a minimum in the protective areas.

- All trees which are not to be preserved within fifty feet of any tree preservation areas are to be removed in a manner that will not damage those trees that are designated for preservation. It is highly recommended that tree stumps within this fifty foot area be ground out with a stump grinding machine to minimize damage.

- The general contractor shall designate a "wash out" area on-site for concrete trucks which will not drain toward a protected area.

- A pre-construction meeting shall be held with local authorities before any disturbance has taken place on site.

**FOREST PROTECTION PROCEDURES - Construction Phase**

Forest and tree conditions should be monitored during construction and corrective measures taken when appropriate.

The following shall be monitored:

- Soil compaction
- Root injury - prune and monitor; consider crown reduction
- Limb injury - prune and monitor
- Flooded conditions - drain and monitor; correct problem
- Drought conditions - water and monitor; correct problem
- Other stress signs - determine reason, correct, and monitor.

**FOREST PROTECTION PROCEDURES - Post-Construction Phase**

The following measures shall be taken:

- Corrective measures if damages were incurred due to negligence:
  - Stress reduction
  - Removal of dead or dying trees. This may be done only if trees pose an immediate safety hazard
- Removal of temporary structures:
  - No burial of discarded materials will occur on-site within the conservation area.
  - No open burning within 100 feet of a wooded area.
  - All temporary forest protection structures will be removed after construction.
  - Remove temporary roads by removing stone or broadcasting mulch; pre-construction elevation should be maintained.
  - Aerate compacted soil.
  - Replant disturbed sites with trees, shrubs and/or herbaceous plants.
  - Retain signs for retention areas or specimen trees.
  - A County official shall inspect the entire site.
- Future protection measures:
  - Howard County and the developer shall arrange for the dedication of an appropriate forest conservation easement at a later date.

**PLANTING SPECIFICATIONS AND NOTES**

**I. SITE PREPARATION AND SOILS**

- Disturbance of soils should be limited to the Planting Field for each plant. Planting hole will be a minimum 18" auger hole, dug to the depth of the root ball. As shown on the detail view, a Planting Field of 18" diameter (for whips) is recommended.
- In areas of steep slopes or erodible soils, soil disturbance will be limited to the Planting Field which is equal to the 18" diameter auger hole.
- Soil mix for all plants shall be native soil with no soil amendments, unless a soils analysis determines that soil amendments are required (disturbed sites). Natural amendments, such as organic mulch or leaf mold compost, are preferred.

**II. PLANT STORAGE AND INSPECTION**

- For container grown nursery stock, planting should occur within two weeks after delivery to site.
- Planting stock should be inspected prior to planting. Plants not conforming to standard nurseryman specifications for size, form, and vigor, roots, trunk wounds, insects and disease should be replaced.

**III. SOIL AMENDMENTS**

- Amendments are not recommended in the planting field as studies have shown that roots will be encouraged to stay within the amended soils.

**IV. PLANT INSTALLATION**

- Container grown stock should be removed from the container and roots gently loosened from the soil. If the roots encircle the root ball, substitution is required. J-shaped or kinked root systems should also be rejected. **ROOTS MAY NOT BE TRIMMED ON SITE.**
- The Planting Field should be prepared as specified (see detail). Stock must be planted in random pattern (see detail). Native dug soils should be used to backfill Planting Field. Set plant material no more than 1" above existing ground and no lower than existing ground. Gently pack native soil around plant to eliminate all air pockets. After whip and container installation, rake soils evenly over the Planting Field and cover hole with three inches of

composted hardwood mulch. Water to settle soil and provide moisture, as needed.

- Prune whips to encourage branching. Container stock will be pruned to eliminate broken and dead branches.
- Newly planted trees may need watering depending on weather conditions. During the next two years watering may be required during summer and dry months. **Any watering should consider for recent rainfall patterns.**
- Staking of stock is not required, if preferred stock type used.
- Side dressing fertilization 1 year after planting may be warranted. Fertilizer may be added to each tree or shrub at the end of the first growing season and will contain the following by weight: 5% nitrogen, 10% phosphoric acid, and 5% potash. Nitrogen shall be derived from natural organic sources or ureaform; 40-50% of the nitrogen shall be water soluble. Organic fertilizers are preferred to synthetic fertilizers. See Tree Planting and Maintenance Calendar for planting and maintenance dates.

- Integrated Pest Management (IPM) is one of the most effective and safest approaches for maintaining a healthy forest. A full IPM program can include:
  - Elimination of low vegetation before planting to help control rodents.
  - Use of tree shelters to protect the trunks of seedlings or whips from animal damage. (These trees need more water than those without tree shelters.)
  - Mulching around the trees to minimize trunk damage from mowers.
  - Pruning dead or diseased branches with a clean cut.
  - To prevent sunscald, allow small non-competitive branches, commonly pruned during or before planting, to grow on the sunny side of the trunk.

**V. MAINTENANCE SCHEDULE**

- Landscaper should conduct an inspection at the following intervals: 6 months after planting, 1 year after planting and 2 years after planting. The purpose of inspection is to evaluate survival rate with reference to the survival required at the end of the two year period (75% minimum).
  - Regular visits during the first growing season (yr 1) are to assess the success of the plantings and determine if supplemental watering or other actions are necessary. Early spring visits will determine winter kill and autumn visits will determine summer kill.
  - Assess tree mortality of planting stock, remove and replace any dead or diseased plantings for the first 2 growing seasons.
  - Volunteer seeding of native, local and endemic vegetation is to be expected. Do not discourage this effort unless it is negatively affecting the planted stock.
  - Landscaper shall remove or control aggressive, noxious, invasive species (i.e. Multiflora Rose, Japanese Honeysuckle, and all herbaceous vegetation) within a 3-foot radius surrounding the planted woody nursery stock for 2 years after planting.

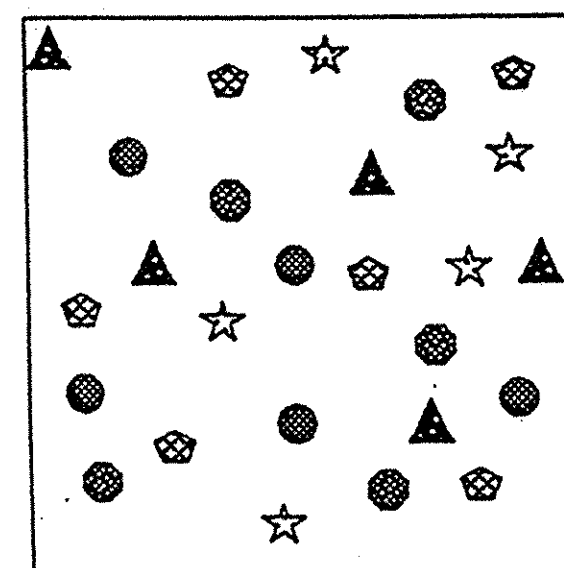
- The landscaper shall be responsible to remove down and dead material that is smothering planting stock. Naturally occurring material that is not affecting planted stock shall not be removed.
- Mowing is one of the most effective means to control exotic and/or invasive species. No mowing shall occur during the wildlife nesting period of early April through mid-July. The landscaper is responsible for mowing and/or weed wacking and/or applying herbicide around planting stock, if needed for 2 growing seasons after planting.

**PLANT LIST**

QTY	SPECIES	SIZE
253	Acer rubrum Red maple	5'-6' 1" caliper
254	Pinus strobus White pine	5'-6'
297*	Quercus alba White oak or pin oak	5'-6' *SEE NOTE BELOW
443	Prunus serotina BLACK CHERRY	3'-4' whip
443	Liquidambar styraciflua SWEET GUM	3'-4' whip
444	Juniperus virginiana RED CEDAR	18-24" BR

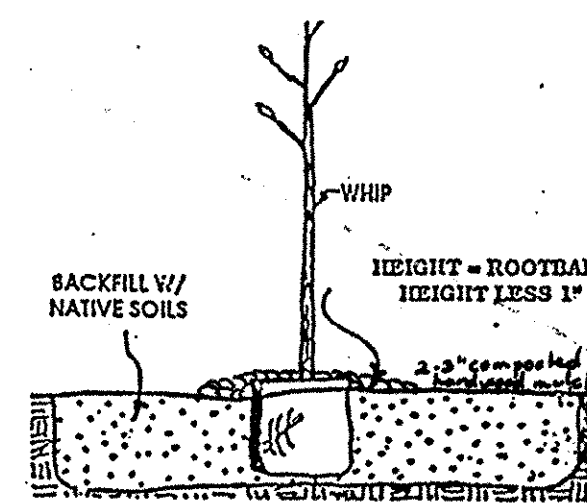
8.0 ACRES REFORESTATION REQUIRED.  
\* 44' OAKS TO BE 2" CALIPER AND PLANTED IN THE DESIGNATED AREA NEAR LOT 28.  
**PLANTING NOTES**

- Planting stock should be 3' to 4' whips and 1 1/2 to 2 gallon container stock at a minimum, with 5'-6' trees for the oaks, maple and white pine.
- Only composted mulch may be used.
- Whips should be planted an average of 11 ft on center with 5 ft trees an average of 15 ft. (see random planting detail) Pines should be planted on the outside perimeter of the planting area. White oak and Black Cherry should be planted outside of wetland limits.

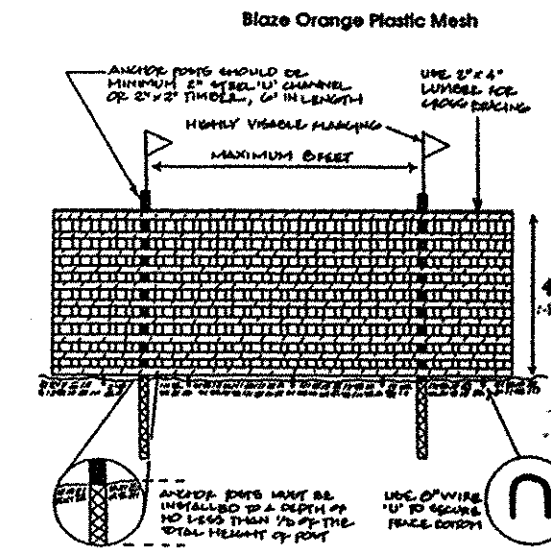


- SYCAMORE/OAK
  - TULIP POPLAR
  - RED MAPLE
  - DOGWOOD
  - GREEN ASH
- TO BE PLANTED IN RANDOM DISTRIBUTION PATTERN

**RANDOM PLANTING DETAIL**

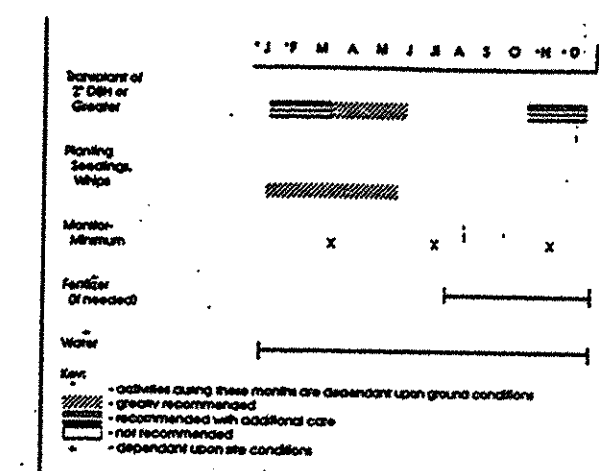


WIDTH = AUGERED HOLE 18" MINIMUM  
**PLANTING FIELD DETAIL**

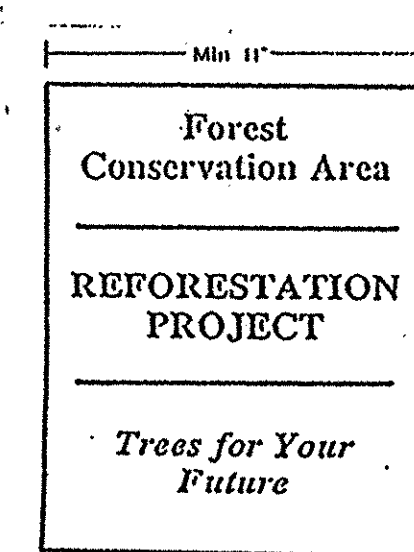


To be placed outside L.O.P.

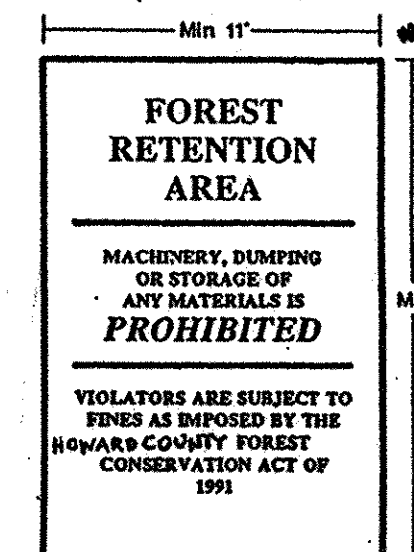
**FENCING**



Signage and care of trees is most successful when coordinated with the local control authority. The contractor assumes sole responsibility for the signage and care of trees.



for reforestation areas



**SIGNAGE**

\* Signs shall be placed just outside limits of disturbance as shown on plan.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Cawley* 8-7-97  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*Cathy Hamilton* 8/14/97  
A/CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Mark Dammann* 8/14/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

NO.	DATE	REVISION
1	8/19/96	HOWARD EGP added
2	11/19/97	REVISED FOREST CONSERVATION EASEMENT BASED ON NEW LAYOUT
3	3/17/97	REVISED PER COUNTY COMMENTS.

TSA GROUP, INC.  
planning • architecture • engineering  
8660 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 465-2321

OWNER/DEVELOPER: R.H. DEVELOPMENT LLC  
8668 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MARYLAND 21043  
Phone: (410) 465-2321

PROJECT: RIDGE VIEW HUNT  
LOTS 1 THRU 26, PRESERVATION PARCELS A-F  
LOCATION: TAX MAP 14 - PARCEL 14  
4th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE: FOREST CONSERVATION PLAN  
S-65-18

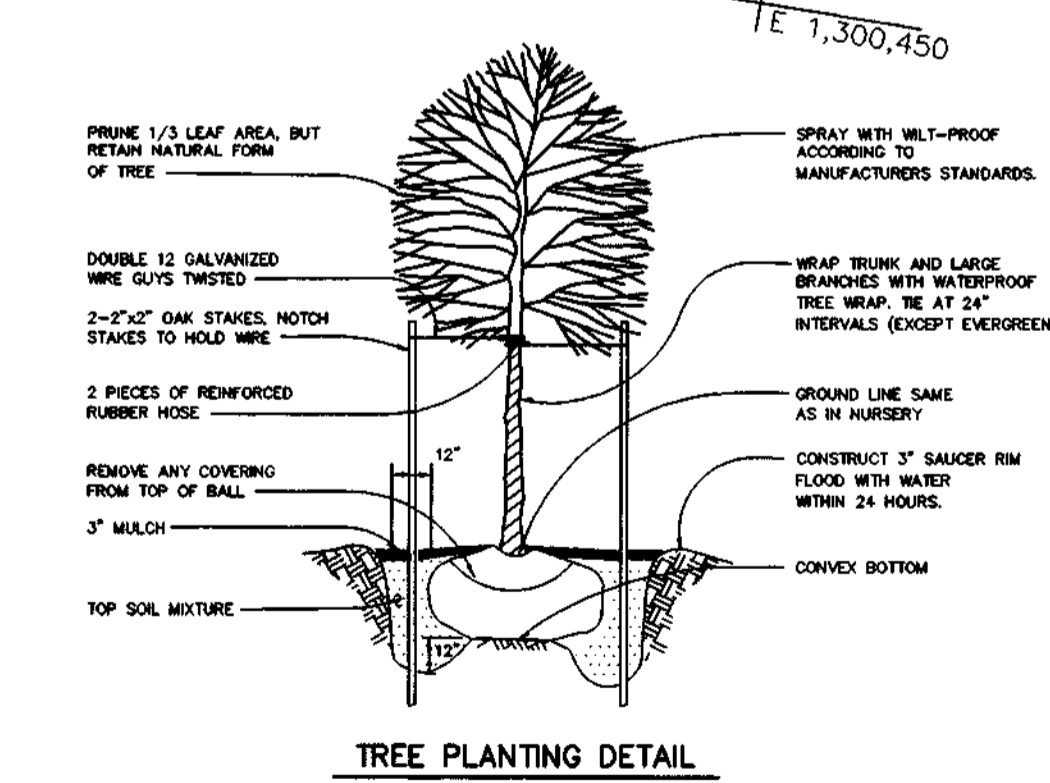
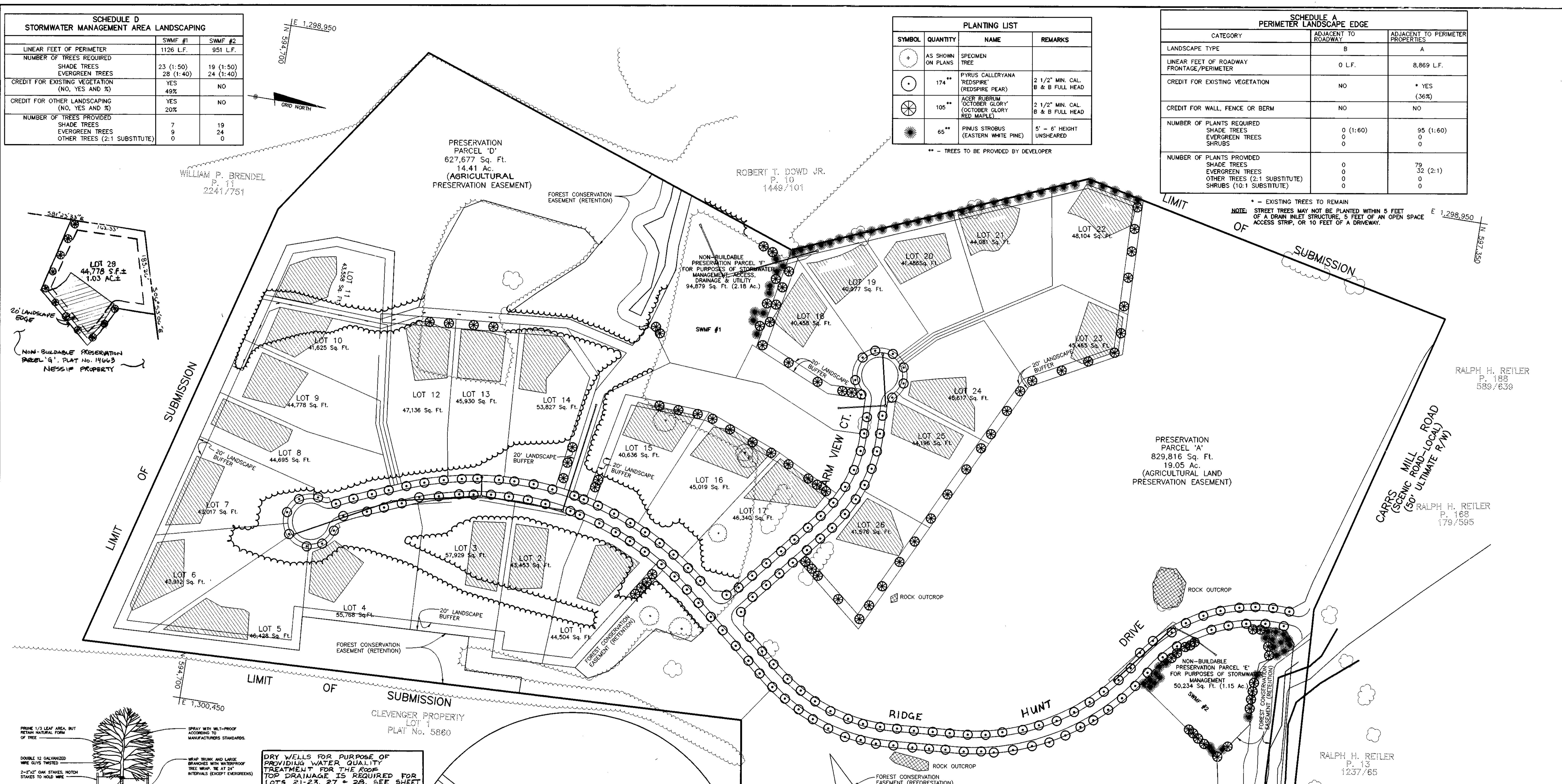
DATE: MAY 15, 1998 PROJECT NO. 0021  
DESIGN: DRAWING 19

*Mary A. Duchs*  
410-526-7388  
15228 Old Hanover Road  
Upperco, MD 21155

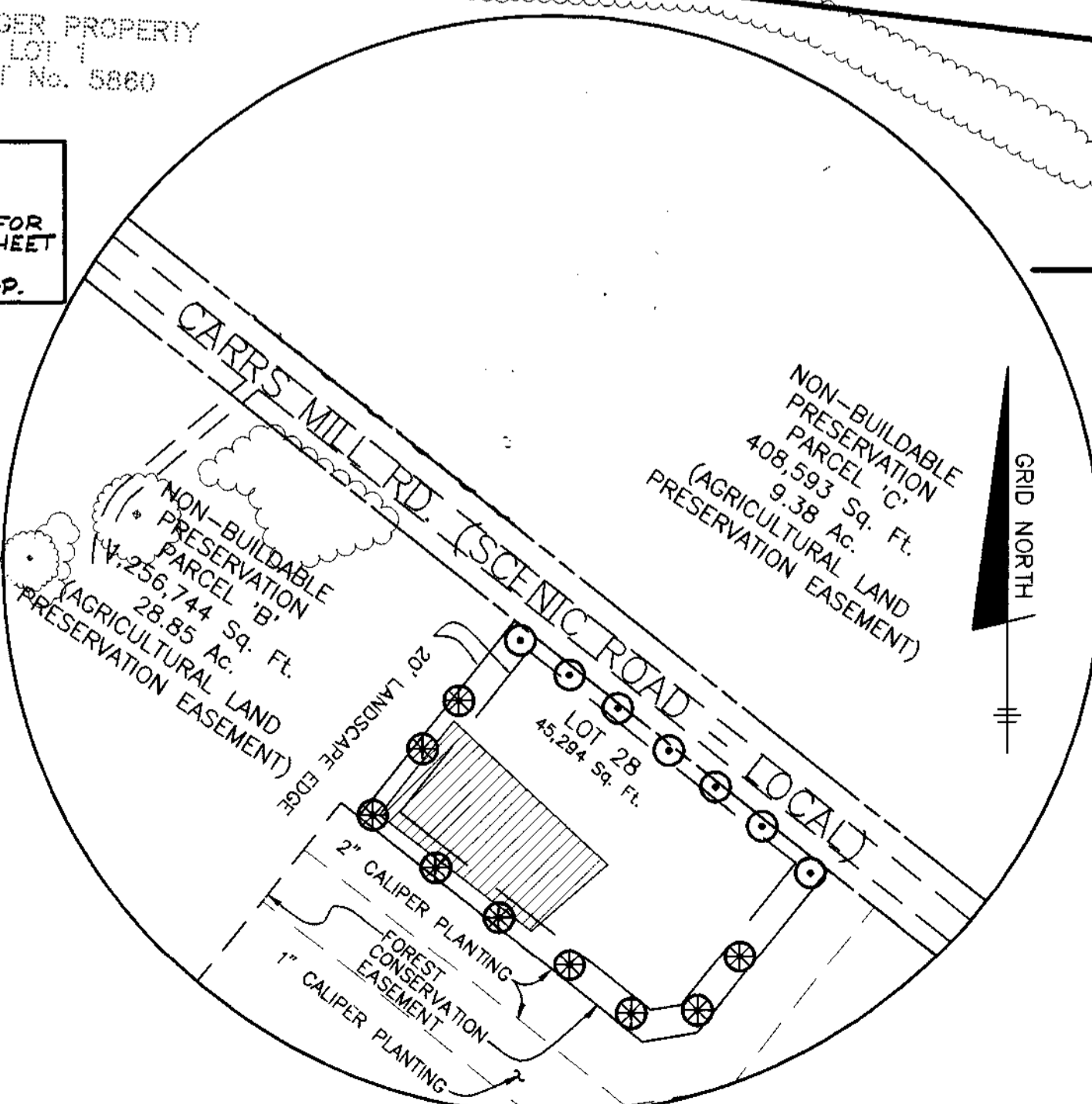
SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING		
	SWMF #1	SWMF #2
LINEAR FEET OF PERIMETER	1126 L.F.	951 L.F.
NUMBER OF TREES REQUIRED		
SHADE TREES	23 (1:50)	19 (1:50)
EVERGREEN TREES	28 (1:40)	24 (1:40)
CREDIT FOR EXISTING VEGETATION (NO, YES AND %)	YES 49%	NO
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	YES 20%	NO
NUMBER OF TREES PROVIDED		
SHADE TREES	7	19
EVERGREEN TREES	9	24
OTHER TREES (2:1 SUBSTITUTE)	0	0

PLANTING LIST			
SYMBOL	QUANTITY	NAME	REMARKS
(Symbol: Circle with dot)	AS SHOWN ON PLANS	SPECIMEN TREE	
(Symbol: Circle with dot)	174**	PYRUS CALLERYANA 'REDSPIRE' (REDSPIRE PEAR)	2 1/2" MIN. CAL. B & B FULL HEAD
(Symbol: Circle with dot)	105**	ACER RUBRUM 'OCTOBER GLORY' (OCTOBER GLORY RED MAPLE)	2 1/2" MIN. CAL. B & B FULL HEAD
(Symbol: Circle with dot)	65**	PINUS STROBUS (EASTERN WHITE PINE)	5' - 6' HEIGHT UNSHEARED

SCHEDULE A PERIMETER LANDSCAPE EDGE		
CATEGORY	ADJACENT TO ROADWAY	ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE	B	A
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	0 L.F.	8,869 L.F.
CREDIT FOR EXISTING VEGETATION	NO	* YES (36%)
CREDIT FOR WALL, FENCE OR BERM	NO	NO
NUMBER OF PLANTS REQUIRED		
SHADE TREES	0 (1:60)	95 (1:60)
EVERGREEN TREES	0	0
SHRUBS	0	0
NUMBER OF PLANTS PROVIDED		
SHADE TREES	0	79
EVERGREEN TREES	0	32 (2:1)
OTHER TREES (2:1 SUBSTITUTE)	0	0
SHRUBS (10:1 SUBSTITUTE)	0	0



DRY WELLS FOR PURPOSE OF PROVIDING WATER QUALITY TREATMENT FOR THE ROOF TOP DRAINAGE IS REQUIRED FOR LOTS 21, 23, 27 & 28, SEE SHEET 15 FOR DETAIL TO BE CONSTRUCTED UNDER THE SDP.



NOTE: PERIMETER LANDSCAPING FOR LOT 28 IS DEFERRED UNTIL SUCH A TIME AS THIS LOT IS SOLD AND BUILT UPON. THESE LANDSCAPE PLANTINGS MUST BE INSTALLED PRIOR TO THE ISSUANCE OF A FINAL "USE AND OCCUPANCY" PERMIT FOR LOT 28.

STREET TREE REQUIREMENTS	
REQUIRED	1 PER 40' O.C. (6,957 L.F.)
NUMBER OF TREES PROVIDED	174 LOT 21 WAS RELOCATED BLUMMING TO STREET TREES SHOULD BE 165

NO	DATE	REVISION
1	4/97	REVISED PER HOWARD COUNTY COMMENTS.
2	10/01	ADD LANDSCAPE NOTE FOR LOT 28

**TSA GROUP, INC.**  
planning • architecture • engineering • surveying  
8000 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 465-2321

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Danek* 8/7/97  
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Cathy Hamilton* 8/14/97  
CHIEF, DIVISION OF LAND DEVELOPMENT

*John Danek* 8/16/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

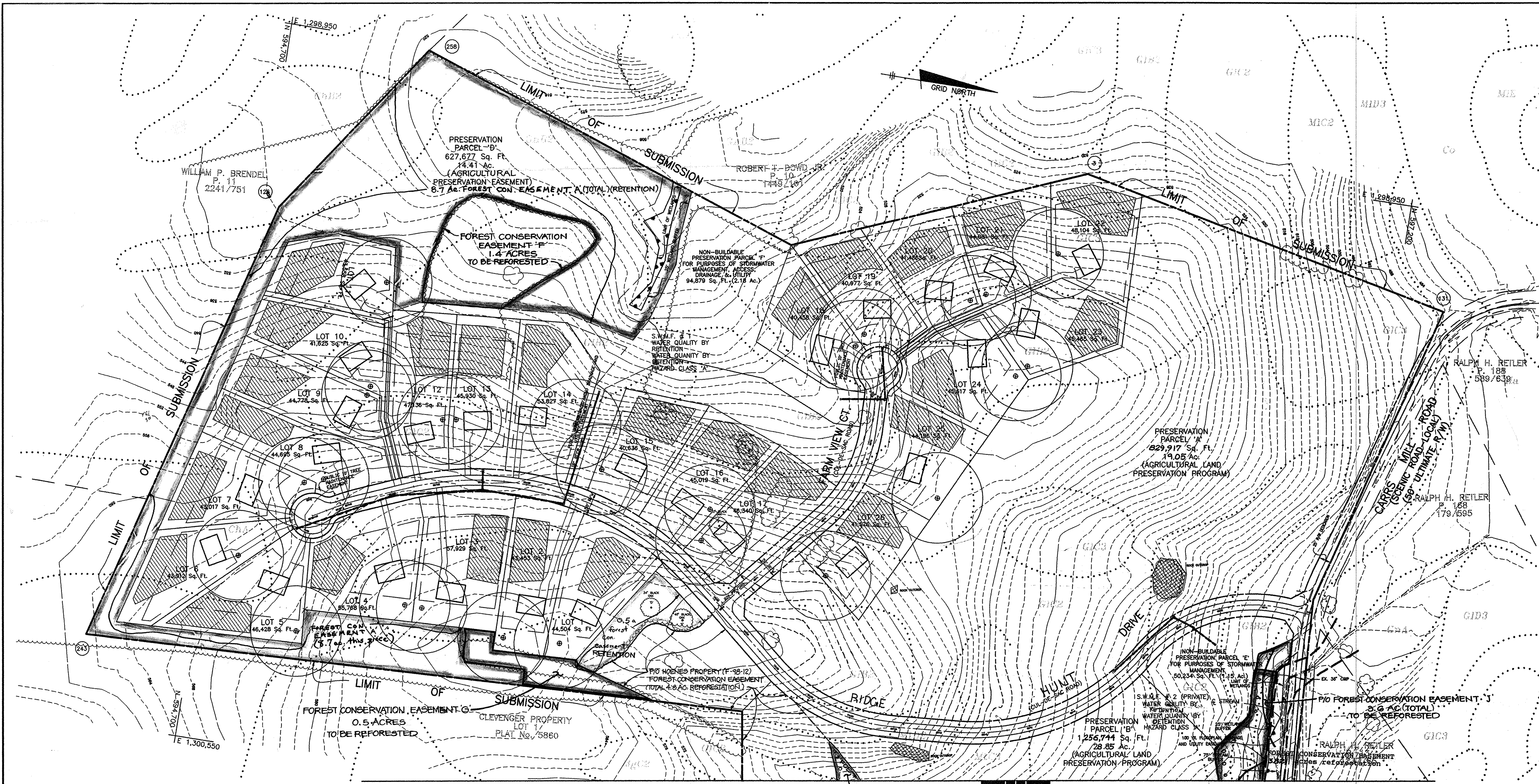
OWNER/DEVELOPER: R.H. DEVELOPMENT, L.L.C.  
8668 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MARYLAND 21043  
(410) 465-2321

PROJECT: **RIDGE VIEW BLUNT**  
LOTS 1-28 & PRESERVATION PARCELS A THRU F (S-95-16, P-96-19, & P-96-14)

LOCATION: TAX MAP 14, PARCELS 14  
4th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

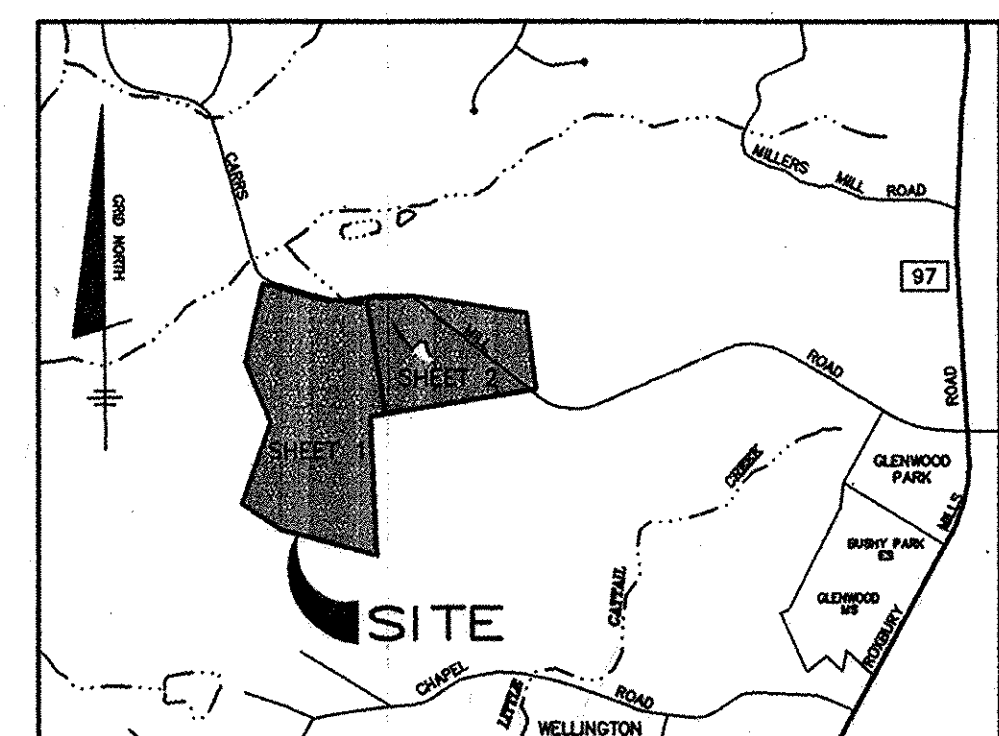
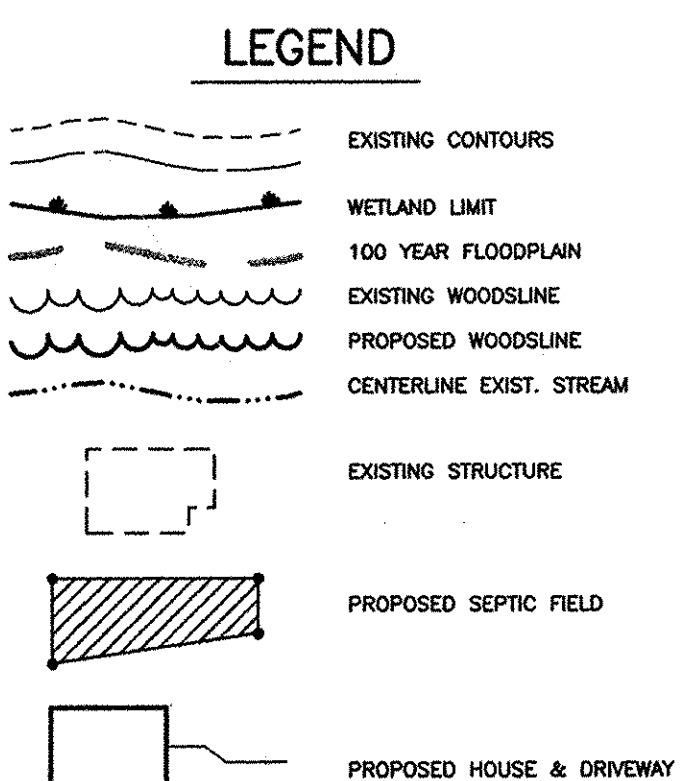
TITLE: **LANDSCAPE PLAN**

DATE: JAN. 1997 PROJECT NO. 0971  
DESIGN: YSL DRAFT: YSL/JMC CHECK: CAM SCALE: AS SHOWN DRAWING 16 OF 19



**SPECIMEN TREE LEGEND**

TREE	DIAMETER	TYPE	CONDITION
A	38"	RED MAPLE	FAIR
B	32"	RED MAPLE	FAIR
C	44"	SILVER MAPLE	GOOD
D	34"	BLACK OAK	GOOD
E	40"	BLACK OAK	GOOD
F	32"	BLACK OAK	GOOD
G	30"	BLACK OAK	GOOD
H	36"	BLACK OAK	POOR
I	31"	BLACK OAK	GOOD
J	48"	SILVER MAPLE	GOOD
K	32"	SILVER MAPLE	GOOD



MATCH LINE "A"- "A" SEE SHEET 2 OF 3  
P/O FOREST CONSERVATION EASEMENT 'J'  
3.6 AC. (TOTAL)  
TO BE REFORESTED

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Casella* 8-7-97  
CHIEF, BUREAU OF HIGHWAYS MS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Mary A. Dircks* 8/14/97  
M.A. DIRCKS & CO., INC. Environmental Consulting Services  
15228 Old Hanover Road Upperco, Maryland 21155 Phone/Fax: 410-526-7388  
1/CHIEF, DIVISION OF LAND DEVELOPMENT, DATE

*John Deamus* 8/14/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**TSA GROUP, INC.**  
planning • architecture • engineering  
8480 Baltimore National Pike • Ellicott City, Maryland 21045 • (410) 465-8108

OWNER/DEVELOPER:  
R.H. DEVELOPMENT LLC  
8668 BALTIMORE NATIONAL PIKE  
ELLICOTT CITY, MARYLAND 21043  
Phone: (410) 465-2321

PROJECT: **RIDGE VIEW HUNT**  
LOTS 1 THRU 28, PRESERVATION PARCEL A THRU F

LOCATION: TAX MAP 14 - PARCEL 14  
4th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE: **FOREST CONSERVATION PLAN**  
S-95-16

DATE: PROJECT NO. 0921  
SCALE: 1"=100' DRAWING 17 OF 19

Design: CAM Draft: CAD

NO.	DATE	REVISION
1	1/15/97	REVISED FOREST CONSERV. EASEMENT BASED ON NEW LAYOUT
2	10-26-98	REV. FCE ON PRES. PARCEL 'B', ADD ESMT. 'F'

PLANTING SCHEDULE

FCE 'J' - 2.2 ACRES

QUANTITY	SPECIES	SIZE	SPACING
8	ACER RUBRUM - RED MAPLE	2" CAL.	*
7	LIRIODENDRON TULIFIFERA - POPLAR	2" CAL.	*
12	ACER RUBRUM - RED MAPLE	1" CAL.	*
9	LIRIODENDRON TULIFIFERA - POPLAR	1" CAL.	*
5	QUERCUS PALUSTRIS - PIN OAK	1" CAL.	*
5	PINUS STROBUS - WHITE PINE	4" G b4b (natural)	*
120	ACER RUBRUM - RED MAPLE	2-3' WHIP	**
60	CORNUS FLORIDA - FLOWERING DOGWOOD	2-3' WHIP	**
70	FRAXINUS PENNSYLVANICA - GREEN ASH	2-3' WHIP	**
45	LINDERA BENZOIN - SPICEBUSH	18-24" b.t.	**
115	LIRIODENDRON TULIFIFERA - POPLAR	2-3' WHIP	**
70	PLATANUS OCCIDENTALIS - SYCAMORE	2-3' WHIP	**
100	PRUNUS SEROTINA - BLACK CHERRY	18-24" WHIP	**
52	QUERCUS PALUSTRIS - PIN OAK	2-3' WHIP	**
70	VIBERNUM DENTATUM - ARROWWOOD	18-24" b.t.	**

FCE 'C' - 1.1 ACRES

QUANTITY	SPECIES	SIZE	SPACING
3	ACER RUBRUM - RED MAPLE	2" CAL.	*
4	LIRIODENDRON TULIFIFERA - POPLAR	2" CAL.	*
6	ACER RUBRUM - RED MAPLE	1" CAL.	*
5	LIRIODENDRON TULIFIFERA - POPLAR	1" CAL.	*
3	QUERCUS PALUSTRIS - PIN OAK	1" CAL.	*
5	PINUS STROBUS - WHITE PINE	4" G b4b (natural)	*
60	ACER RUBRUM - RED MAPLE	2-3' WHIP	**
24	CERCIS CANADENSIS - REDBUD	2-3' WHIP	**
40	FRAXINUS PENNSYLVANICA - GREEN ASH	2-3' WHIP	**
25	LINDERA BENZOIN - SPICEBUSH	18-24" b.t.	**
65	LIRIODENDRON TULIFIFERA - POPLAR	2-3' WHIP	**
30	PLATANUS OCCIDENTALIS - SYCAMORE	2-3' WHIP	**
25	PRUNUS SEROTINA - BLACK CHERRY	18-24" WHIP	**
24	QUERCUS PALUSTRIS - PIN OAK	2-3' WHIP	**
25	VIBERNUM DENTATUM - ARROWWOOD	18-24" b.t.	**

FCE 'K' - 0.7 ACRES

QUANTITY	SPECIES	SIZE	SPACING
3	LIRIODENDRON TULIFIFERA - POPLAR	1" CAL.	*
8	PINUS STROBUS - WHITE PINE	4" G b4b (natural)	*
18	ACER RUBRUM - RED MAPLE	2-3' WHIP	**
15	CARYA GLABRA - PIGNUT HICKORY	2-3' WHIP	**
18	CORNUS FLORIDA - FLOWERING DOGWOOD	2-3' WHIP	**
20	JUNIPERUS VIRGINIANA - RED CEDAR	2-3' CONT.	**
30	LIRIODENDRON TULIFIFERA - POPLAR	2-3' WHIP	**
15	PRUNUS SEROTINA - BLACK CHERRY	18-24" WHIP	**
25	QUERCUS ALBA - WHITE OAK	2-3' WHIP	**
35	QUERCUS RUBRA - RED OAK	2-3' WHIP	**
14	SASSAFRAS ALBIDUM - SASSAFRAS	18-24" WHIP	**
26	VIBERNUM PRUNIFOLIUM - BLACKHAWK	18-24" b.t.	**

FCE 'F' - 1.4 ACRES

QUANTITY	SPECIES	SIZE	SPACING
25	ACER RUBRUM - RED MAPLE	2-3' WHIP	**
35	CARYA GLABRA - PIGNUT HICKORY	2-3' WHIP	**
35	CORNUS FLORIDA - FLOWERING DOGWOOD	2-3' WHIP	**
30	CORYLUS AMERICANA - HAZELNUT	18-24" b.t.	**
25	FAGUS GRANDIFLORA - AMERICAN BEECH	2-3' WHIP	**
30	JUNIPERUS VIRGINIANA - RED CEDAR	2-3' CONT.	**
45	LIRIODENDRON TULIFIFERA - POPLAR	2-3' WHIP	**
25	NYSSA SILVATICA - BLACK GUM	2-3' WHIP	**
35	PRUNUS SEROTINA - BLACK CHERRY	18-24" WHIP	**
60	QUERCUS ALBA - WHITE OAK	2-3' WHIP	**
55	QUERCUS RUBRA - RED OAK	2-3' WHIP	**
30	SASSAFRAS ALBIDUM - SASSAFRAS	18-24" WHIP	**
20	VIBERNUM ACERIFOLIUM - MAPLE-LEAVED VIBURNUM	18-24" b.t.	**
30	VIBERNUM PRUNIFOLIUM - BLACKHAWK	18-24" b.t.	**

FCE 'G' - 0.5 ACRES

QUANTITY	SPECIES	SIZE	SPACING
25	ACER RUBRUM - RED MAPLE	2-3' WHIP	**
20	CARYA GLABRA - PIGNUT HICKORY	2-3' WHIP	**
25	CORNUS FLORIDA - FLOWERING DOGWOOD	2-3' WHIP	**
30	JUNIPERUS VIRGINIANA - RED CEDAR	2-3' CONT.	**
45	LIRIODENDRON TULIFIFERA - POPLAR	2-3' WHIP	**
30	PRUNUS SEROTINA - BLACK CHERRY	18-24" WHIP	**
55	QUERCUS ALBA - WHITE OAK	2-3' WHIP	**
60	QUERCUS RUBRA - RED OAK	2-3' WHIP	**
25	SASSAFRAS ALBIDUM - SASSAFRAS	18-24" WHIP	**
35	VIBERNUM PRUNIFOLIUM - BLACKHAWK	18-24" b.t.	**

SOILS LEGEND		
MAP SYMBOL	SOIL TYPE	MAPPING UNIT
Brc3	C	BRANDYWINE LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED
Brc	C	BRANDYWINE LOAM, 25 TO 60 PERCENT SLOPES
ChA	B	CHESTER SILT LOAM, 0 TO 3 PERCENT SLOPES
ChB2	B	CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
ChC2	B	CHESTER SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
* Co	C	CODORUS SILT LOAM
CuB	B	COMUS SILT LOAM, LOCAL ALLUVIUM, 3 TO 8 PERCENT SLOPES
EkB2	B	ELIOAK SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
EkC2	B	ELIOAK SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
GiB2	B	GLENELG LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
GiC2	B	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
GiD3	B	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED
GiD2	B	GLENELG LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED
GiD3	B	GLENELG LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED
* Gna	C	GLENVILLE SILT LOAM, 0 TO 3 PERCENT SLOPES
* Gnb2	C	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
* Ho	D	HATBORO SILT LOAM
MgC2	B	MANOR GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
MIC2	B	MANOR LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
MID3	B	MANOR LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED
MIe	B	MANOR LOAM, 25 TO 45 PERCENT SLOPES
Mnd	B	MANOR VERY STONY LOAM, 3 TO 25 PERCENT SLOPES
MC3	B	MT. AIRY CHANNERY LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED
MI2	B	MT. AIRY CHANNERY LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED

\* INDICATES HYDRIC SOILS  
SOIL MAP NOS. 6,7,12 & 13

FCE 'H' - 0.7 ACRES

QUANTITY	SPECIES	SIZE	SPACING
40	ACER RUBRUM - RED MAPLE	2-3' WHIP	**
10	CORNUS FLORIDA - FLOWERING DOGWOOD	2-3' WHIP	**
20	CORNUS AMOMIUM - SILKY DOGWOOD	18-24" b.t.	**
30	FRAXINUS PENNSYLVANICA - GREEN ASH	2-3' WHIP	**
20	JUGLANS NIGRA - BLACK WALNUT	18-24" WHIP	**
40	LIRIODENDRON TULIFIFERA - POPLAR	2-3' WHIP	**
25	PLATANUS OCCIDENTALIS - SYCAMORE	2-3' WHIP	**
15	PRUNUS SEROTINA - BLACK CHERRY	18-24" WHIP	**
14	QUERCUS PALUSTRIS - PIN OAK	2-3' WHIP	**
25	VIBERNUM DENTATUM - ARROWWOOD	18-24" b.t.	**

FCE 'I' - 1.4 ACRES

QUANTITY	SPECIES	SIZE	SPACING
10	LIRIODENDRON TULIFIFERA - POPLAR	1" CAL.	*
6	QUERCUS ALBA - WHITE OAK	1" CAL.	*
13	PINUS STROBUS - WHITE PINE	4" G b4b (natural)	*
30	ACER RUBRUM - RED MAPLE	2-3' WHIP	**
35	CARYA GLABRA - PIGNUT HICKORY	2-3' WHIP	**
30	CORNUS FLORIDA - FLOWERING DOGWOOD	2-3' WHIP	**
30	JUNIPERUS VIRGINIANA - RED CEDAR	2-3' CONT.	**
50	LIRIODENDRON TULIFIFERA - POPLAR	2-3' WHIP	**
23	MACLURA POMIFERA - OSAGE ORANGE	18-24" WHIP	**
30	NYSSA SILVATICA - BLACK GUM	2-3' WHIP	**
30	PRUNUS SEROTINA - BLACK CHERRY	18-24" WHIP	**
55	QUERCUS ALBA - WHITE OAK	2-3' WHIP	**
55	QUERCUS RUBRA - RED OAK	2-3' WHIP	**
30	SASSAFRAS ALBIDUM - SASSAFRAS	18-24" WHIP	**
42	VIBERNUM PRUNIFOLIUM - BLACKHAWK	18-24" b.t.	**

\* PLANTING SITES SHOWN AS FOLLOWS  
1" STOCK ○  
2" STOCK ●  
WHITE PINE \*

SPECIES SELECTION, EXCEPT PINE, FOR EACH INDIVIDUAL PLANTING SITE SHOULD BE MADE RANDOMLY

\*\* PLANTS SHALL BE SPACED RANDOMLY ELEVEN FEET ON CENTER, NOT IN A GRID PATTERN

b.t. = branched transplant; cal. = caliper; B.R. = BARE ROOT

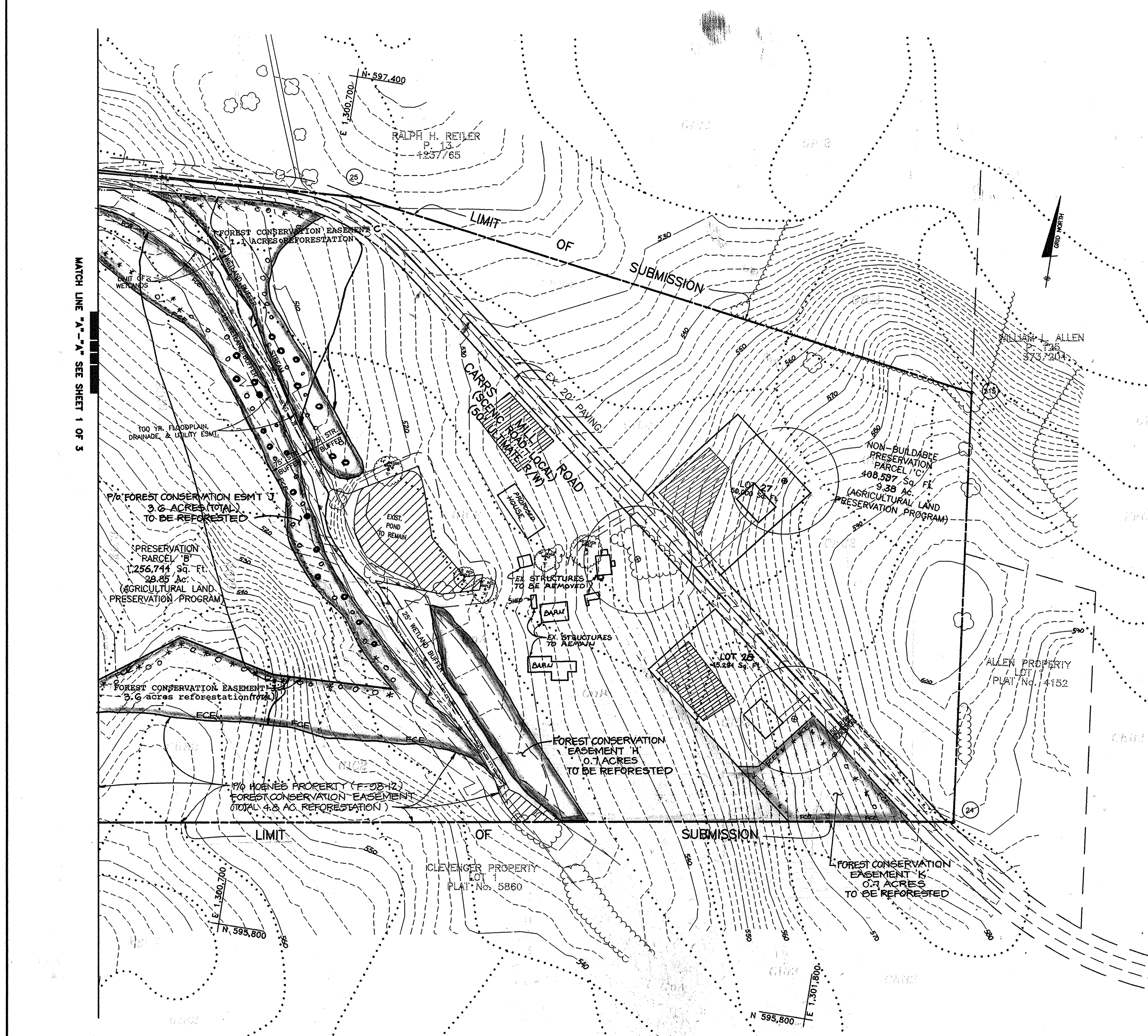
NOTE: CONTAINER GROWN PLANT STOCK IS RECOMMENDED OVER BARE ROOT.

NO.	DATE	REVISION
1	11/15/97	REVISED FOREST CONSERV. EASEMENT BASED ON NEW LAYOUT
2	3/14/97	REVISED FOREST CONSERVATION EASEMENT AND PLANTING PER CO. AGREEMENT
3	10-26-98	REV. FCE ON PRES. PARCEL 'B' AND PLANTING SCHEDULE

TSA GROUP, INC.  
planning • architecture • engineering  
8400 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 466-6106

OWNER/DEVELOPER: R.H. DEVELOPMENT LLC 8668 BALTIMORE NATIONAL PIKE ELLCOTT CITY, MARYLAND 21043 Phone: (410) 465-2321	PROJECT: <b>RIDGE VIEW HUNT</b> LOTS 1 THRU 28, PRESERVATION PARCEL A THRU F
LOCATION: TAX MAP 14 - PARCEL 14 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	TITLE: <b>FOREST CONSERVATION PLAN</b> S-95-16
DATE: PROJECT NO. 0921	SCALE: 1" = 100' DRAWING 10 OF 10

Mary A. Dircks  
M.A. DIRCKS & CO., INC.  
Environmental Consulting Services  
15228 Old Hanover Road  
Upperco, Maryland 21155  
Phone/Fax: 410-526-7388



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daniels* 8/7/97  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Condy Hamilton* 8/14/97  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Mr. [Signature]* 8/14/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION, DATE

Plotted: DEC 16, 1996  
Acad Dwg: 301452.DWG

**FOREST PROTECTION PROCEDURES - Preconstruction Phase**

1.) The edge of the woods to be protected will be marked (staked or flagged) in the field per the limits of forest conservation easement shown in the approved site development plan prior to the start of construction activity. All areas within protective easement are to be considered "off limits" to any construction activities. The optional protective fencing shall be installed at the outside edge of forested areas and should be combined with sediment control devices when possible. The limit of the critical root zone and therefore the location of the protective devices is to be determined as follows:

Edge of Forested Area - 1 foot of protective radius/inch of DBH or an eight foot protective radius, whichever ever is greater.

Critical Root Zone for the forest on this site is an average of 15 feet from the trunk of the tree.

2.) Construction activities expressly prohibited within the preservation areas are:

- Placing or stockpiling backfill or top soil in protected areas
- Felling trees into protected areas
- Driving construction equipment into or through protected areas
- Burning in or in close proximity to protected areas
- Stacking or storing supplies of any kind
- Concrete wash-off areas
- Conducting trenching operations
- Grading beyond the limits of disturbance
- Parking vehicles or construction equipment
- Removal of root mat or topsoil
- Siting and construction of:
  - Utility lines
  - Access roads
  - Impervious surfaces
  - Stormwater management devices
  - Staging areas

3.) Protective fencing (see Figure "Protective Fencing") shall be the responsibility of the general contractor. The general contractor shall affix signs to the fencing at 25' minimum intervals indicating that these areas are "Forest Retention Area" (see Figure "Signage"). The general contractor shall take great care to assure the restricted areas are not violated and that root systems are protected from smothering, flooding, excessive wetting from de-watering operations, off-site run-off, spillage, and drainage or solutions containing materials hazardous to tree roots.

4.) The general contractor shall be responsible for any tree damaged or destroyed within the preservation areas whether caused by the contractor, his agents, employees, sub-contractors, or licensees.

5.) Foot traffic shall be kept to a minimum in the protective areas.

6.) All trees which are not to be preserved within fifty feet of any tree preservation areas are to be removed in a manner that will not damage those trees that are designated for preservation. It is highly recommended that tree stumps within this fifty foot area be ground out with a stump grinding machine to minimize damage.

7.) The general contractor shall designate a "wash out" area on-site for concrete trucks which will not drain toward a protected area.

8.) A pre-construction meeting shall be held with local authorities before any disturbance has taken place on site.

**FOREST PROTECTION PROCEDURES - Construction Phase**

Forest and tree conditions should be monitored during construction and corrective measures taken when appropriate.

The following shall be monitored:

- a.) Soil compaction
- b.) Root injury - prune and monitor; consider crown reduction
- c.) Limb injury - prune and monitor
- d.) Flooded conditions - drain and monitor; correct problem
- e.) Drought conditions - water and monitor; correct problem
- f.) Other stress signs - determine reason, correct, and monitor.

**FOREST PROTECTION PROCEDURES - Post-Construction Phase**

The following measures shall be taken:

1.) Corrective measures if damages were incurred due to negligence:

- a.) Stress reduction
- b.) Removal of dead or dying trees. This may be done only if trees pose an immediate safety hazard

2.) Removal of temporary structures:

- a.) No burial of discarded materials will occur on-site within the conservation area.
- b.) No open burning within 100 feet of a wooded area.
- c.) All temporary forest protection structures will be removed after construction.
- d.) Remove temporary roads by removing stone or broadcasting mulch; pre-construction elevation should be maintained.
- e.) Aerate compacted soil.
- f.) Replant disturbed sites with trees, shrubs and/or herbaceous plants.
- g.) Retain signs for retention areas or specimen trees.
- h.) A County official shall inspect the entire site.

3.) Future protection measures:

- a.) Howard County and the developer shall arrange for the dedication of an appropriate forest conservation easement at a later date.

**PLANTING SPECIFICATIONS AND NOTES**

**I. SITE PREPARATION AND SOILS**

- 1.) Disturbance of soils should be limited to the Planting Field for each plant. Planting hole will be a minimum 18" auger hole, dug to the depth of the root ball. As shown on the detail view, a Planting Field of 18" diameter (for whips) is recommended.
- 2.) In areas of steep slopes or erodible soils, soil disturbance will be limited to the Planting Field which is equal to the 18" diameter auger hole.
- 3.) Soil mix for all plants shall be native soil with no soil amendments, unless a soils analysis determines that soil amendments are required (disturbed sites). Natural amendments, such as organic mulch or leaf mold compost, are preferred.

**II. PLANT STORAGE AND INSPECTION**

- 1.) For container grown nursery stock, planting should occur within two weeks after delivery to site.
- 2.) Planting stock should be inspected prior to planting. Plants not conforming to standard nurseryman specifications for size, form, and vigor, roots, trunk wounds, insects and disease should be replaced.

**III. SOIL AMENDMENTS**

- 1.) Amendments are not recommended in the planting field as studies have shown that roots will be encouraged to stay within the amended soils.

**IV. PLANT INSTALLATION**

- 1.) Container grown stock should be removed from the container and roots gently loosened from the soil. If the roots encircle the root ball, substitution is required. J-shaped or kinked root systems should also be rejected. **ROOTS MAY NOT BE TRIMMED ON SITE.**
- 2.) The Planting Field should be prepared as specified (see detail). Stock must be planted in random pattern (see detail). Native dug soils should be used to backfill Planting Field. Set plant material no more than 1" above existing ground and no lower than existing ground. Gently pack native soil around plant to eliminate all air pockets. After whip and container installation, rake soils evenly over the Planting Field and cover hole with three inches of

composted hardwood mulch. Water to settle soil and provide moisture, as needed.

- 3.) Prune whips to encourage branching. Container stock will be pruned to eliminate broken and dead branches.

- 4.) Newly planted trees may need watering depending on weather conditions. During the next two years watering may be required during summer and dry months. **Any watering should consider for recent rainfall patterns.**

- 5.) Staking of stock is not required, if preferred stock type used.

- 6.) Side dressing fertilization 1 year after planting may be warranted. Fertilizer may be added to each tree or shrub at the end of the first growing season and will contain the following by weight: 5% nitrogen, 10% phosphoric acid, and 5% potash. Nitrogen shall be derived from natural organic sources or ureaform; 40-50% of the nitrogen shall be water soluble. Organic fertilizers are preferred to synthetic fertilizers. See Tree Planting and Maintenance Calendar for planting and maintenance dates.

- 7.) Integrated Pest Management (IPM) is one of the most effective and safest approaches for maintaining a healthy forest. A full IPM program can include:

- a.) Elimination of low vegetation before planting to help control rodents.
- b.) Use of tree shelters to protect the trunks of seedlings or whips from animal damage. (These trees need more water than those without tree shelters.)
- c.) Mulching around the trees to minimize trunk damage from mowers.
- d.) Pruning dead or diseased branches with a clean cut.
- e.) To prevent sunscald, allow small non-competitive branches, commonly pruned during or before planting, to grow on the sunny side of the trunk.

**V. MAINTENANCE SCHEDULE**

- 1.) Landscaper should conduct an inspection at the following intervals: 6 months after planting, 1 year after planting and 2 years after planting. The purpose of inspection is to evaluate survival rate with reference to the survival required at the end of the two year period (75% minimum).

Regular visits during the first growing season (yr 1) are to assess the success of the plantings and determine if supplemental watering or other actions are necessary. Early spring visits will determine winter kill and autumn visits will determine summer kill.

- 2.) Assess tree mortality of planting stock, remove and replace any dead or diseased plantings for the first 2 growing seasons.
- 3.) Volunteer seeding of native, local and endemic vegetation is to be expected. Do not discourage this effort unless it is negatively effecting the planted stock.
- 4.) Landscaper shall remove or control aggressive, noxious, invasive species (i.e. Multiflora Rose, Japanese Honeysuckle, and all herbaceous vegetation) within a 3-foot radius surrounding the planted woody nursery stock for 2 years after planting.

5.) The landscaper shall be responsible to remove down and dead material that is smothering planting stock. Naturally occurring material that is not affecting planted stock shall not be removed.

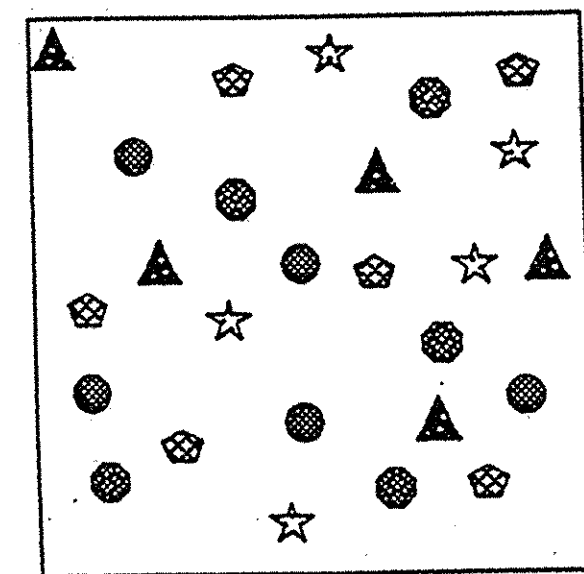
6.) Mowing is one of the most effective means to control exotic and/or invasive species. No mowing shall occur during the wildlife nesting period of early April through mid-July. The landscaper is responsible for mowing and/or weed wacking and/or applying herbicide around planting stock, if needed for 2 growing seasons after planting.

QTY	SPECIES	SIZE
253	Acer rubrum Red maple	5'-6" 1" caliper
254	Pinus strobus White pine	5'-6"
297*	Quercus alba White oak or pin oak	5'-6" *SEE NOTE BELOW
443	PRUNUS SEROTINA BLACK CHERRY	3'-4" whip
443	LIQUIDAMBAR STYRACIFLUA SWIFT OAK	3'-4" whip
444	JUNIPERUS VIRGINIANA RED CEDAR	18-24" BR

**8.0 ACRES REFORESTATION REQUIRED.**  
\* 44 OAKS TO BE 2" CALIPER AND PLANTED IN THE DESIGNATED AREA NEAR LOT 28.

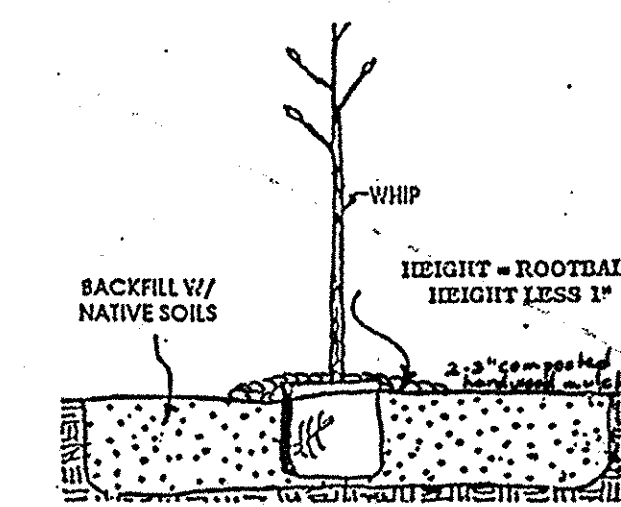
**PLANTING NOTES**

- 1.) Planting stock should be 3' to 4' whips and 1 1/2 to 2 gallon container stock at a minimum, with 5'-6' trees for the oaks, maple and white pine.
- 2.) Only composted mulch may be used.
- 3.) Whips should be planted an average of 11 ft on center with 5 ft trees an average of 15 ft. (see random planting detail) Pines should be planted on the outside perimeter of the planting area. White oak and Black Cherry should be planted outside of wetland limits.

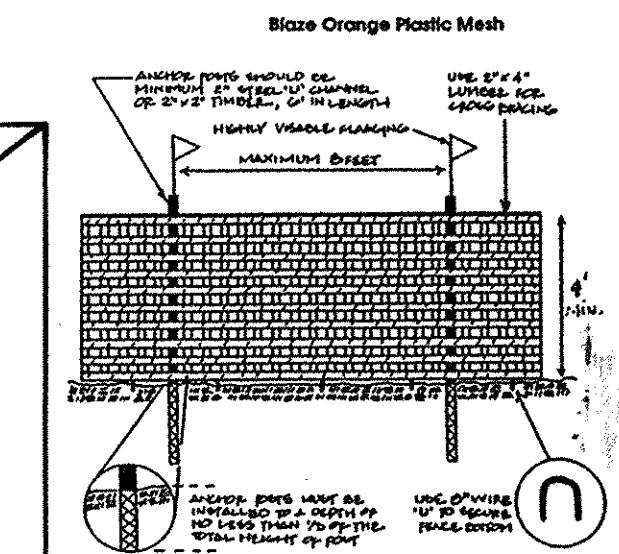


- SYCAMORE/OAK
  - ★ TULIP POPLAR
  - RED MAPLE
  - ▲ DOGWOOD
  - ⊗ GREEN ASH
- TO BE PLANTED IN RANDOM DISTRIBUTION PATTERN

**RANDOM PLANTING DETAIL**

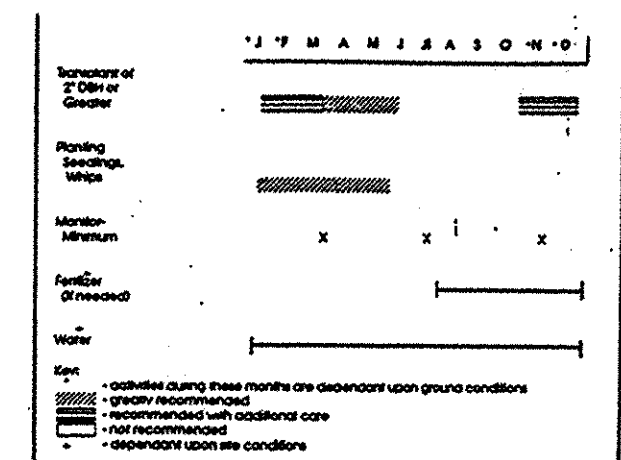


WIDTH = AUGERED HOLE 18" MINIMUM  
PLANTING FIELD DETAIL

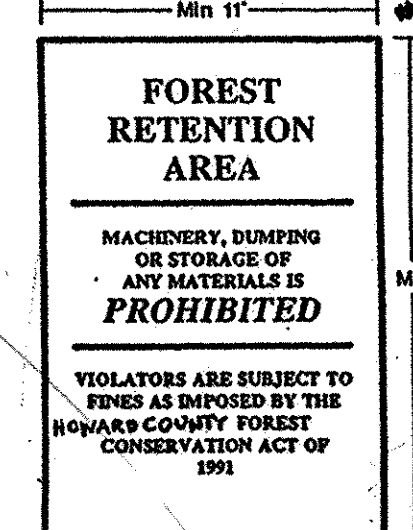
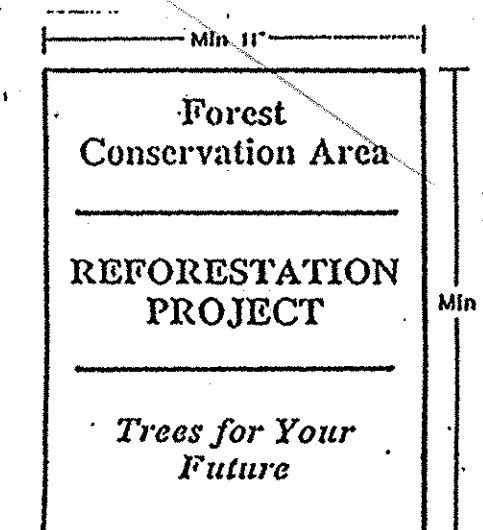


To be placed outside L.O.D.

**FENCING**



The drawing and care of trees is most successful when coordinated with the local climatic conditions. The contractor shall note the recommended tree spacing for each species and shall adhere to these conditions.



**SIGNAGE**

\* Signs shall be placed just outside limits of disturbance as shown on plan.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Stephen M. Chaele* 8-7-97  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Cindy Hamilton* 8/14/97  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*John Danvers* 8/14/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

NO.	DATE	REVISION
1	8/19/96	Issues Exp added
2	11/9/97	REVISED FOREST CONSERVATION EASEMENT BASED ON NEW LAYOUT
3	3/17/97	REVISED PER COUNTY COMMENTS.
4	10-26-98	REV. FCE

TSA GROUP, INC.  
planning • architecture • engineering  
5480 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 466-8100

OWNER/DEVELOPER: R.H. DEVELOPMENT LLC  
8668 BALTIMORE NATIONAL PIKE  
ELLICOTT CITY, MARYLAND 21043  
Phone: (410) 465-2321

PROJECT: RIDGE VIEW HUNT  
LOTS 1 THRU 28, PRESERVATION PARCELS A-F

LOCATION: TAX MAP 14 - PARCEL 14  
4th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE: FOREST CONSERVATION PLAN  
S-95-16

DATE: MAY 15, 1996 PROJECT NO. 0021  
DRAWING 10 OF 10

SCALE: Design: Draft

*Mary A. Duha*  
410-526-7388  
15228 Old Hanover Road  
Upperco, MD 21155





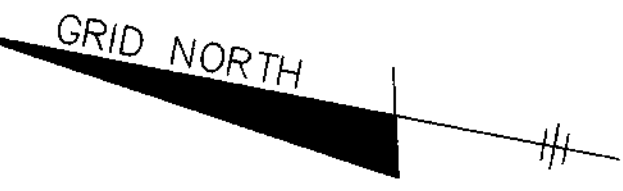
CENTERLINE CURVE DATA						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	320.00'	351.56'	195.89'	334.14'	N27°14'25"W	62°56'47"
C2	487.51'	482.05'	250.03'	444.95'	S31°33'39"E	54°19'14"
C3	400.00'	305.34'	160.54'	287.98'	S17°27'34"W	43°44'13"

CENTERLINE CONTROL DATA			
STATION	NORTH	EAST	
0+00 BEGIN	597,124.1164	1,299,863.6124	
0+50 PC	597,072.2828	1,299,879.9213	
4+01.56 PRC	596,777.1855	1,300,032.8631	
8+63.62 PT	596,495.0284	1,300,265.7466	
10+01.77 PC	596,280.2885	1,300,276.3767	
13+07.11 PT	595,976.0330	1,300,186.9724	
14+30.81	595,860.3441	1,300,106.5738	

PRESERVATION  
PARCEL 'B'  
1,256,744 Sq. Ft.  
28.85 Ac.  
(AGRICULTURAL LAND  
PRESERVATION EASEMENT)

HUNT (PUBLIC ROAD - 50' R/W)  
DRIVE

PRESERVATION  
PARCEL 'A'  
829,816 Sq. Ft.  
19.05 Ac.  
(AGRICULTURAL LAND  
PRESERVATION EASEMENT)

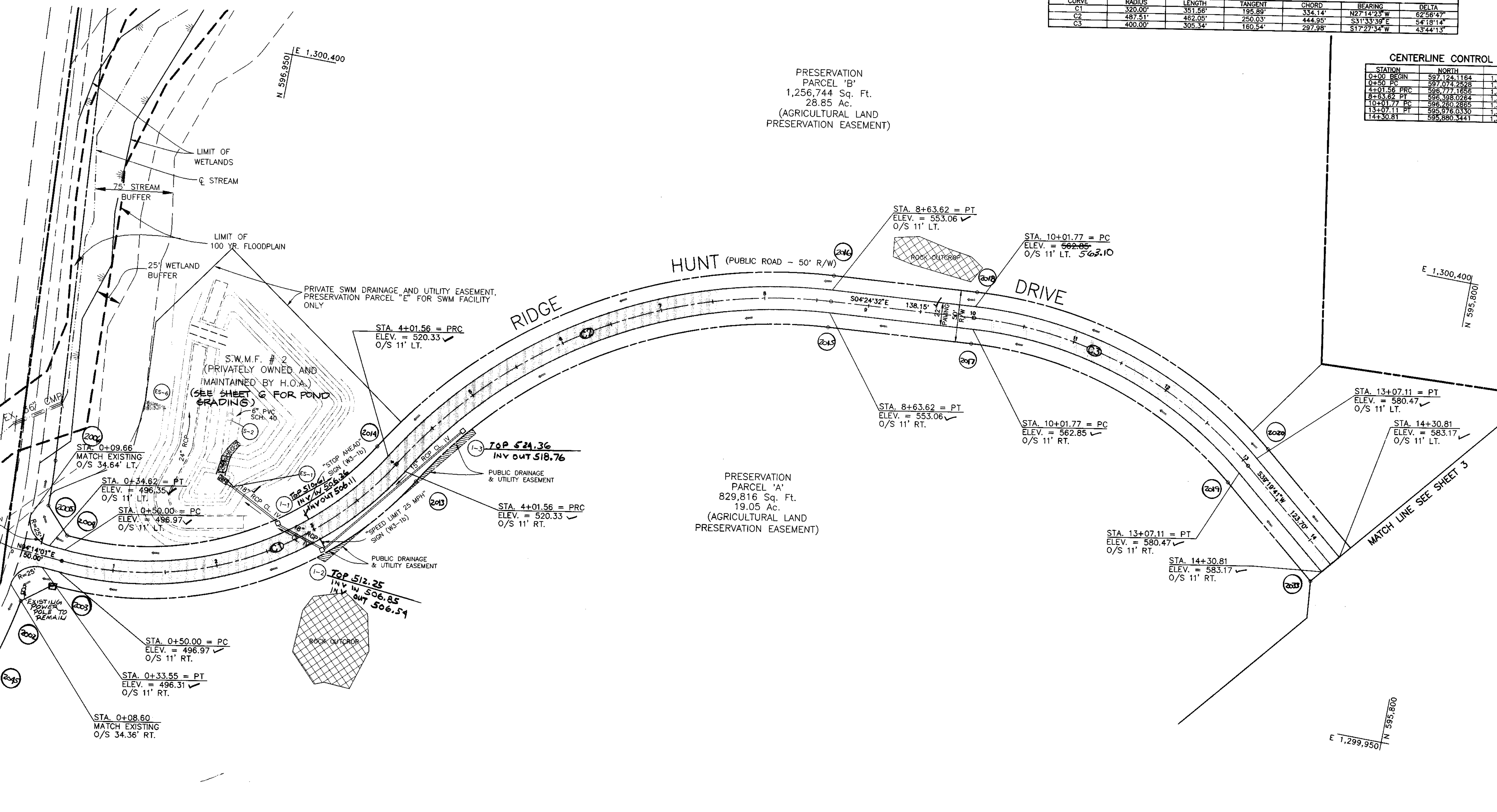


RALPH H. REITLER  
P. 13  
1237/65

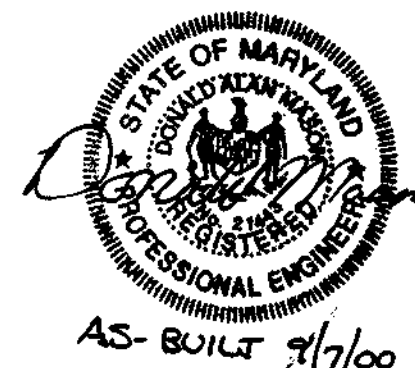
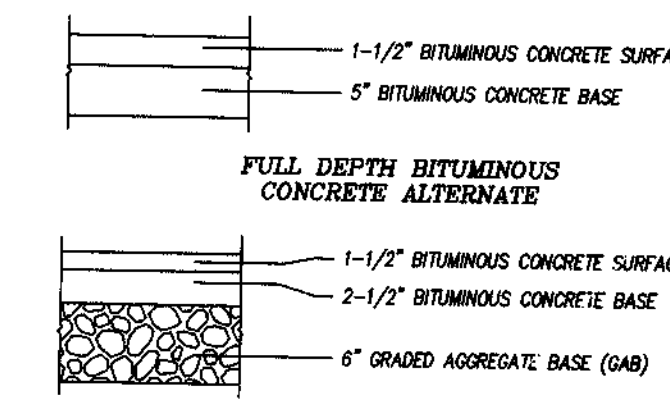
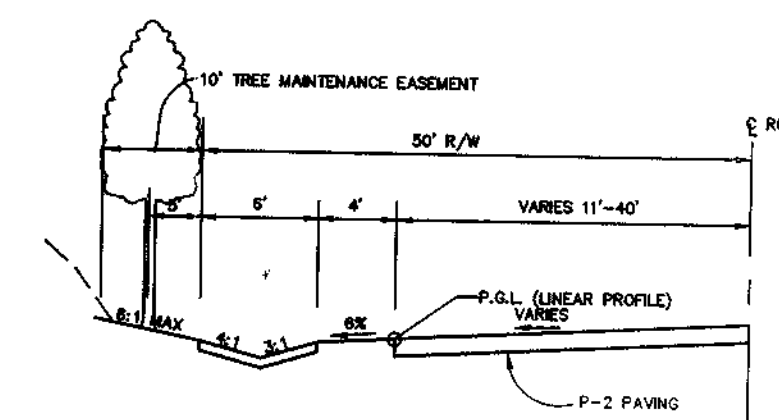
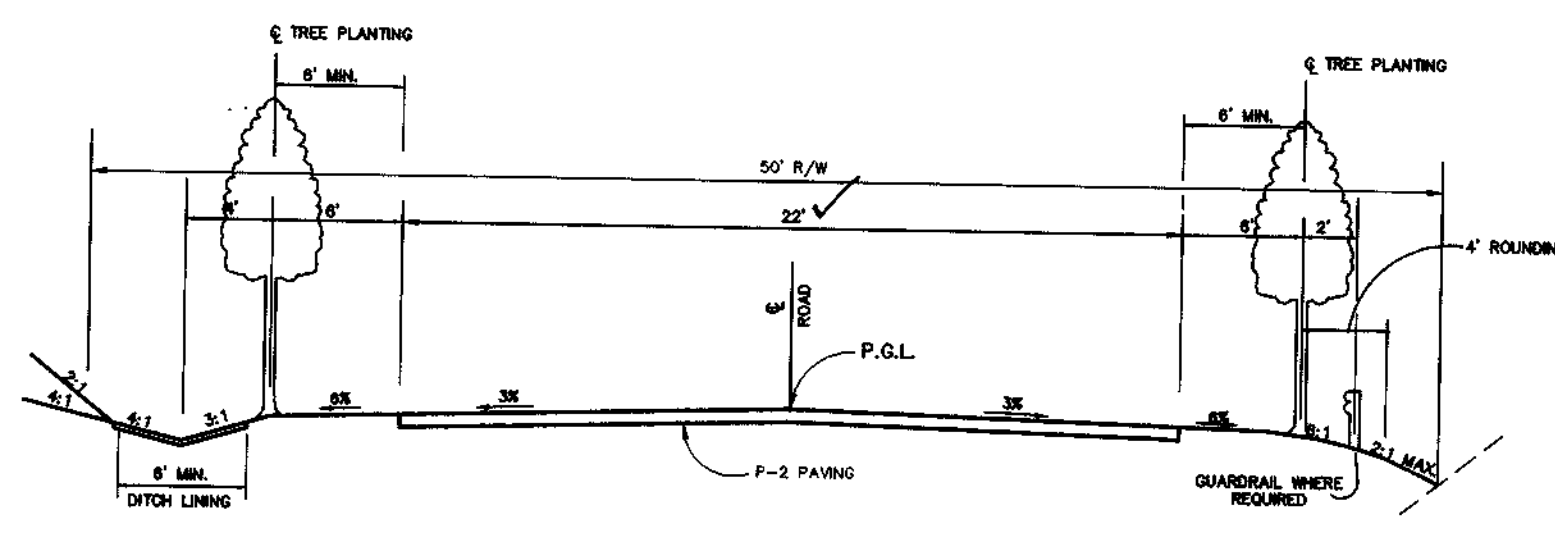
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179/685

STA. 0+00.00 GLEN VIEW DR. =  
CARRS MILL ROAD  
BEGIN CONSTRUCTION

CARRS MILL ROAD  
(SCENIC ROAD-LOCAL)  
(50' ULTIMATE R/W)  
R/W DEDICATION (VARIES)



PLAN VIEW  
SCALE: 1" = 50'



NO	DATE	REVISION
1	4/97	REVISED PER HO. CO. ENGINEERING AND HSCD

TSA GROUP, INC.  
planning • architecture • engineering • surveying  
6400 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 466-8100

OWNER/DEVELOPER: R.H. DEVELOPMENT, L.L.C.  
8668 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MARYLAND 21043  
(410) 465-2321

PROJECT: RIDGE VIEW HUNT  
LOTS 1-28 & PRESERVATION PARCELS A THRU F  
(S-95-16, P-96-19, & SP-96-14)

LOCATION: TAX MAP 14, PARCEL 14  
4TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE: ROAD PLAN:  
RIDGE HUNT DRIVE

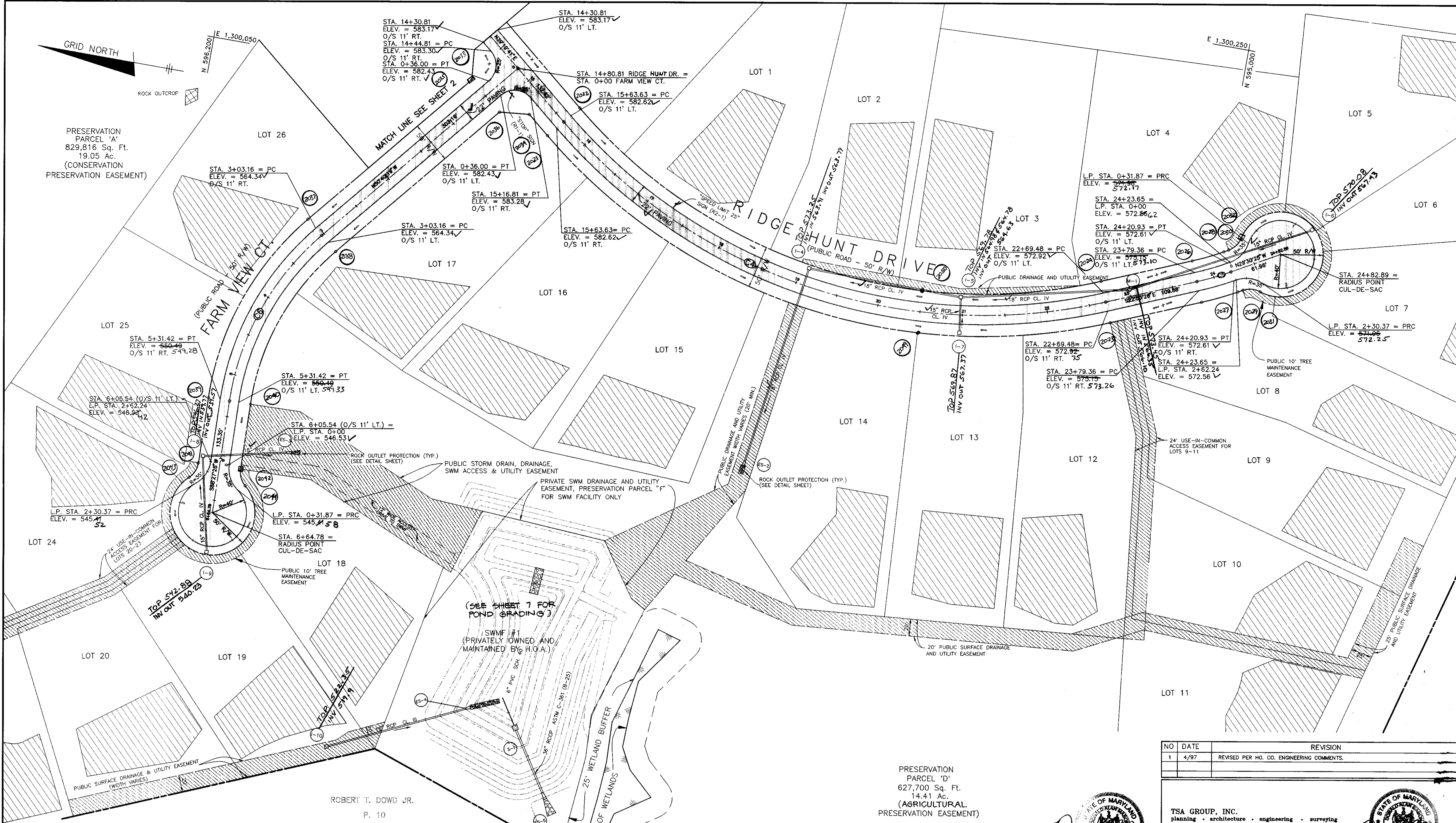
DATE: JAN. 1997 PROJECT NO. 0971

DESIGN: YSL DRAFT: YSL/JMC CHECK: CAM SCALE: AS SHOWN DRAWING 2 OF 19

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Richard M. DePue* 8-7-97  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Cindy Hamilton* 8/14/97  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*John Roman* 8/14/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daniels* 8-7-97  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Conda Hamilton* 8/11/97  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Chad Dammann* 8/11/97  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

STREET NAME	STATION	NORTHING	EASTING
RIDGE HUNT DRIVE	14+30.81 PC	585.880,344.1	1,300,108.5738
	15+63.63 PT	585.777,603.7	1,300,024.3977
	22+69.48 PRC	585.112,826.9	1,299,928.3807
	23+79.36 PC	585.011,587.8	1,299,971.1221
	24+20.93 PT	584.874,317.8	1,299,889.4652
FARM VIEW COURT	24+82.89 RAD. PT.	584.920,397.4	1,300,019.8868
	0+00 INT.	585.841,687.6	1,300,076.8859
	3+03.16 PC	586.033,795.5	1,299,842.3856
	5+31.42 PT	586.106,1498	1,299,630.8668
	6+64.78 RAD. PT.	586.102,552.2	1,299,487.6600

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C4	650.00'	703.85'	392.25'	671.88'	S06°13'07" W	67°13'07"
C5	360.00'	41.57'	20.81'	41.55'	N26°11'56" W	06°36'59"
C6	320.00'	228.27'	119.23'	223.46'	S71°08'27" E	40°52'15"

PRESERVATION PARCEL 'D'  
 627,700 Sq. Ft.  
 14.41 Ac.  
 (AGRICULTURAL PRESERVATION EASEMENT)

PLAN VIEW  
 SCALE: 1" = 50'

NO	DATE	REVISION
1	4/97	REVISED PER HG. CO. ENGINEERING COMMENTS.

TSA GROUP, INC.  
 planning • architecture • engineering • surveying  
 8400 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 466-8100

OWNER/DEVELOPER:  
 R.H. DEVELOPMENT, L.L.C.  
 8668 BALTIMORE NATIONAL PIKE  
 ELICOTT CITY, MARYLAND 21043  
 (410) 465-2321

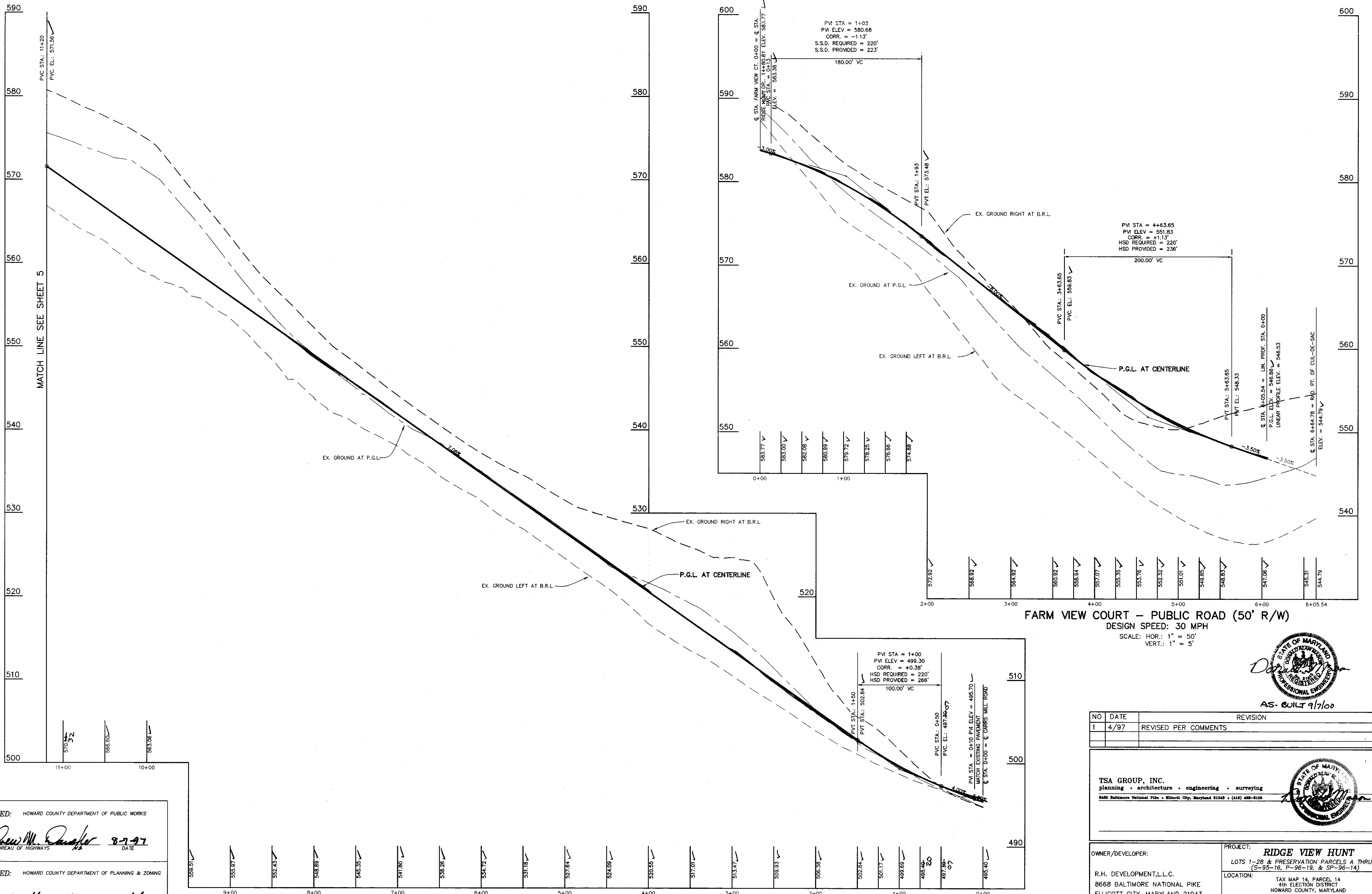
PROJECT:  
 RIDGE VIEW HUNT  
 LOTS 1-28 & PRESERVATION PARCELS A THRU F  
 (S-95-16, P-96-19, & P-96-14)

LOCATION:  
 TAX MAP 14, PAGES 14  
 4th ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

TITLE:  
 ROAD PLAN  
 RIDGE HUNT DRIVE & FARM VIEW COURT

DATE: JAN. 1997 PROJECT NO. 0971

DESIGN: YSL DRAFT: YSL/JMC CHECK: CAM SCALE: AS SHOWN DRAWING NO. OF 12



MATCH LINE SEE SHEET 5

FARM VIEW COURT - PUBLIC ROAD (50' R/W)  
 DESIGN SPEED: 30 MPH  
 SCALE: HOR.: 1" = 50'  
 VERT.: 1" = 5'

RIDGE HUNT DRIVE - PUBLIC ROAD (50' R/W)  
 DESIGN SPEED: 30 MPH  
 SCALE: HOR.: 1" = 50'  
 VERT.: 1" = 5'



NO	DATE	REVISION
1	4/97	REVISED PER COMMENTS

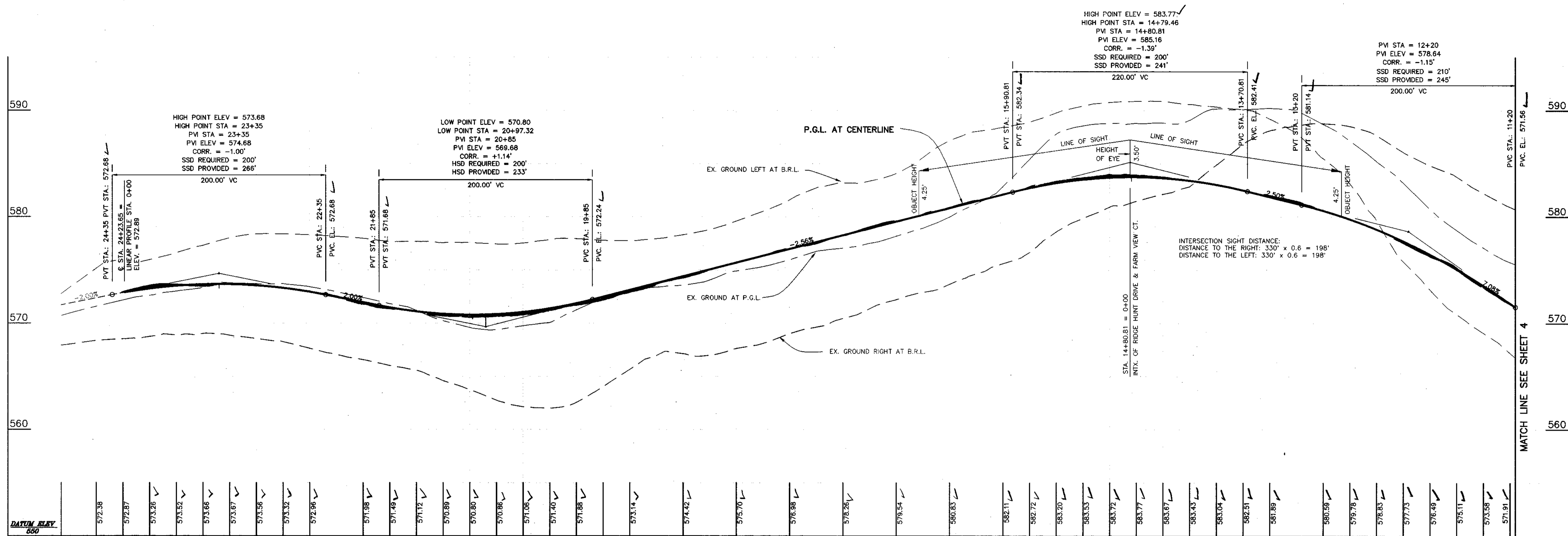
**TSA GROUP, INC.**  
 planning • architecture • engineering • surveying  
 6400 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 466-6106

OWNER/DEVELOPER: R.H. DEVELOPMENT, L.L.C. 8668 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21043 (410) 465-2321		PROJECT: <b>RIDGE VIEW HUNT</b> LOTS 1-28 & PRESERVATION PARCELS A THRU F (S-95-16, P-96-19, & SP-96-14)	
LOCATION: TAX MAP 14, PARCEL 14 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND		TITLE: <b>ROAD PROFILE</b>	
DATE: JAN. 1997	PROJECT NO. 0971	DESIGN: YSL	DRAFT: JMC
SCALE: AS SHOWN	DRAWING 4 OF 19	CHECK: CAM	

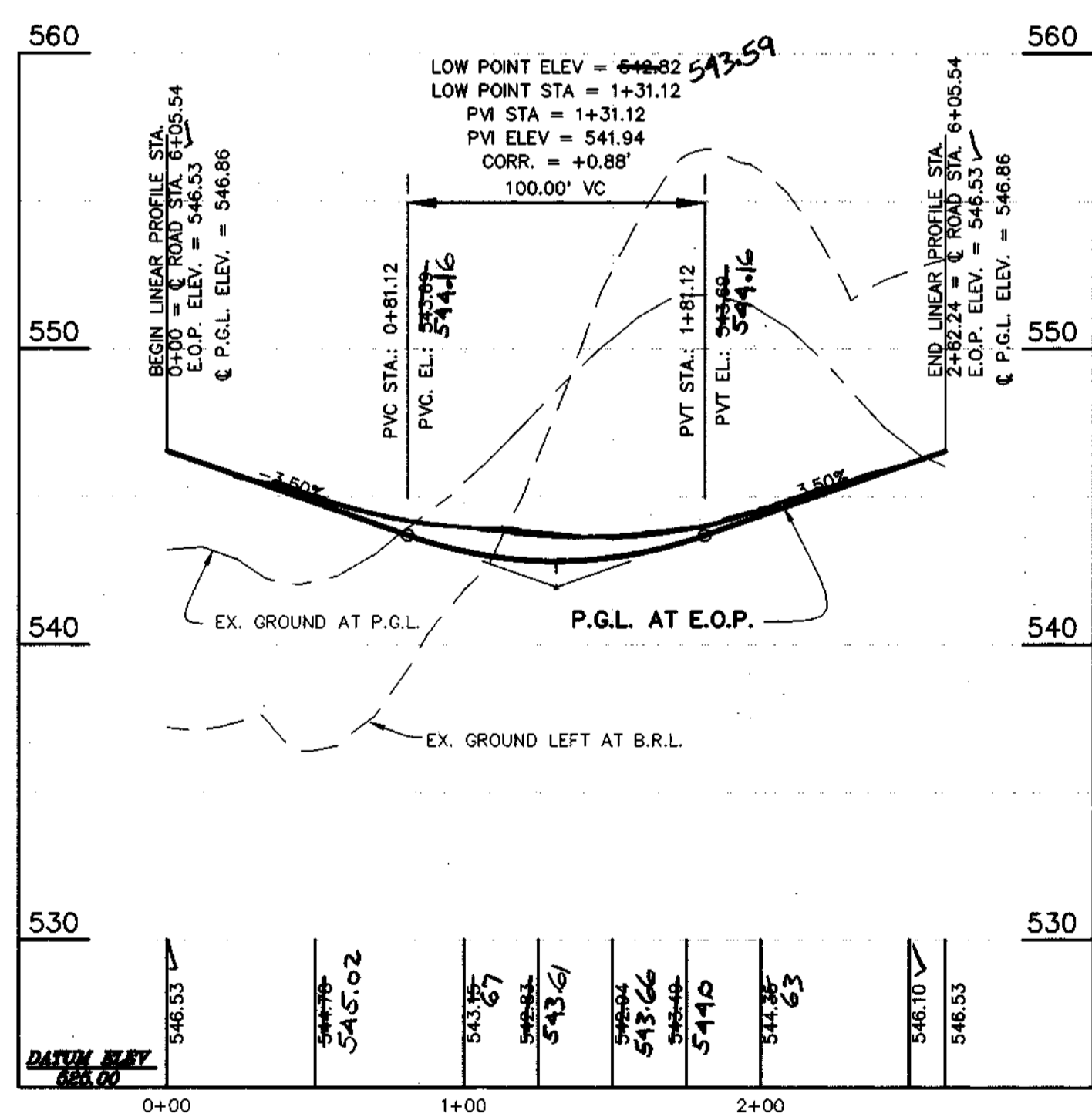
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Rando* 8-7-97  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Sandy Hammit* 8/11/97  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

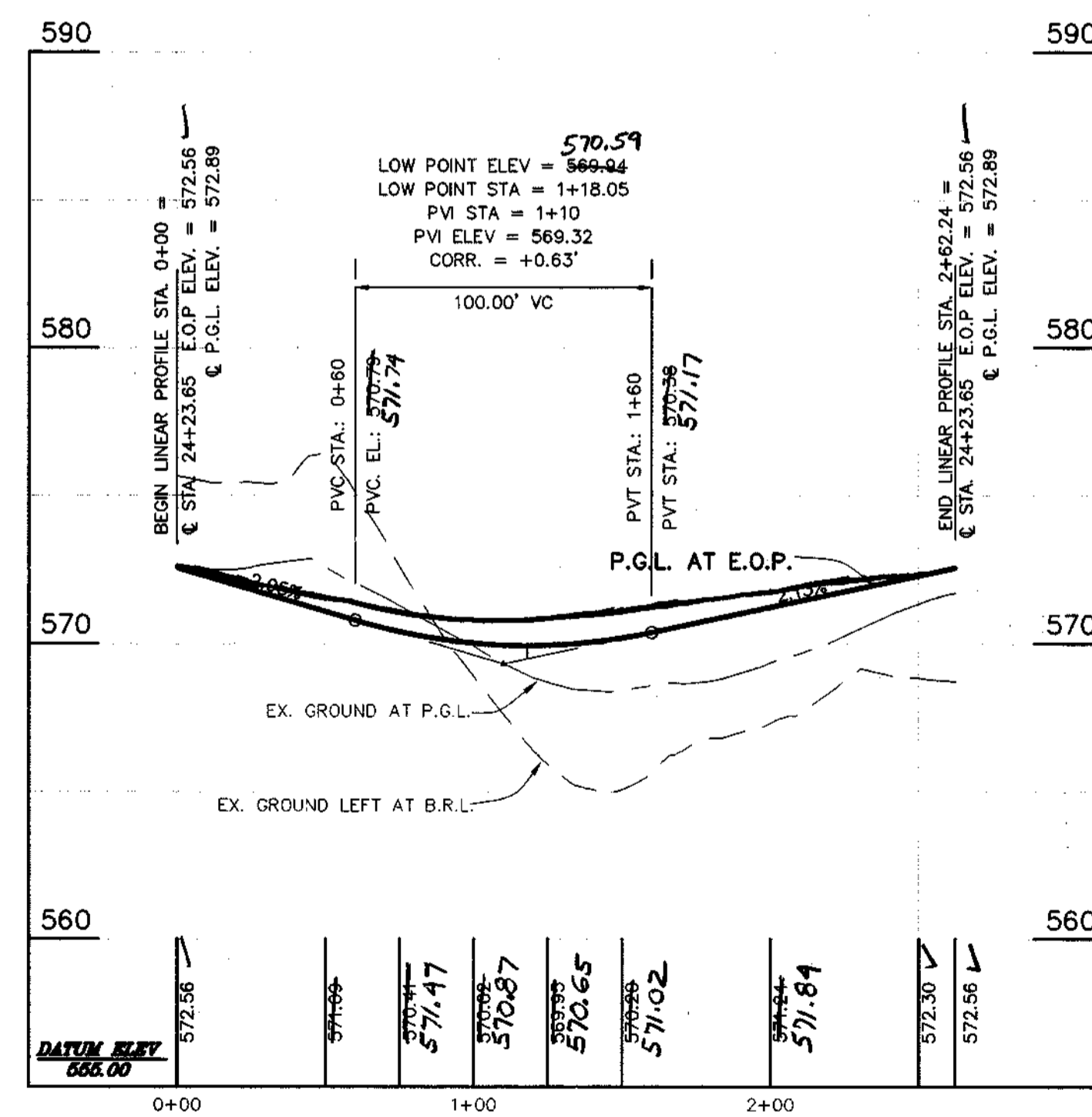
*William D. ...* 8/11/97  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



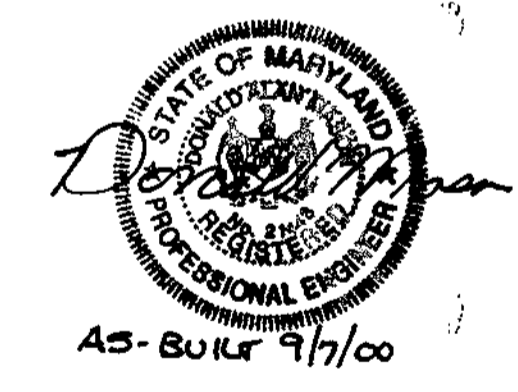
RIDGE HUNT DRIVE - PUBLIC ROAD (50' R/W)  
 DESIGN SPEED: 30 MPH  
 SCALE: HOR.: 1" = 50'  
 VERT.: 1" = 5'



FARM VIEW COURT LINEAR PROFILE  
 SCALE: HOR.: 1" = 50'  
 VERT.: 1" = 5'



RIDGE HUNT DRIVE LINEAR PROFILE  
 SCALE: HOR.: 1" = 50'  
 VERT.: 1" = 5'



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daneker* 8-7-97  
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Leah Hamilton* 8/11/97  
 CHIEF, DIVISION OF LAND DEVELOPMENT

*Chad...* 8/11/97  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

NO	DATE	REVISION
1	4/97	REVISED PER COMMENTS

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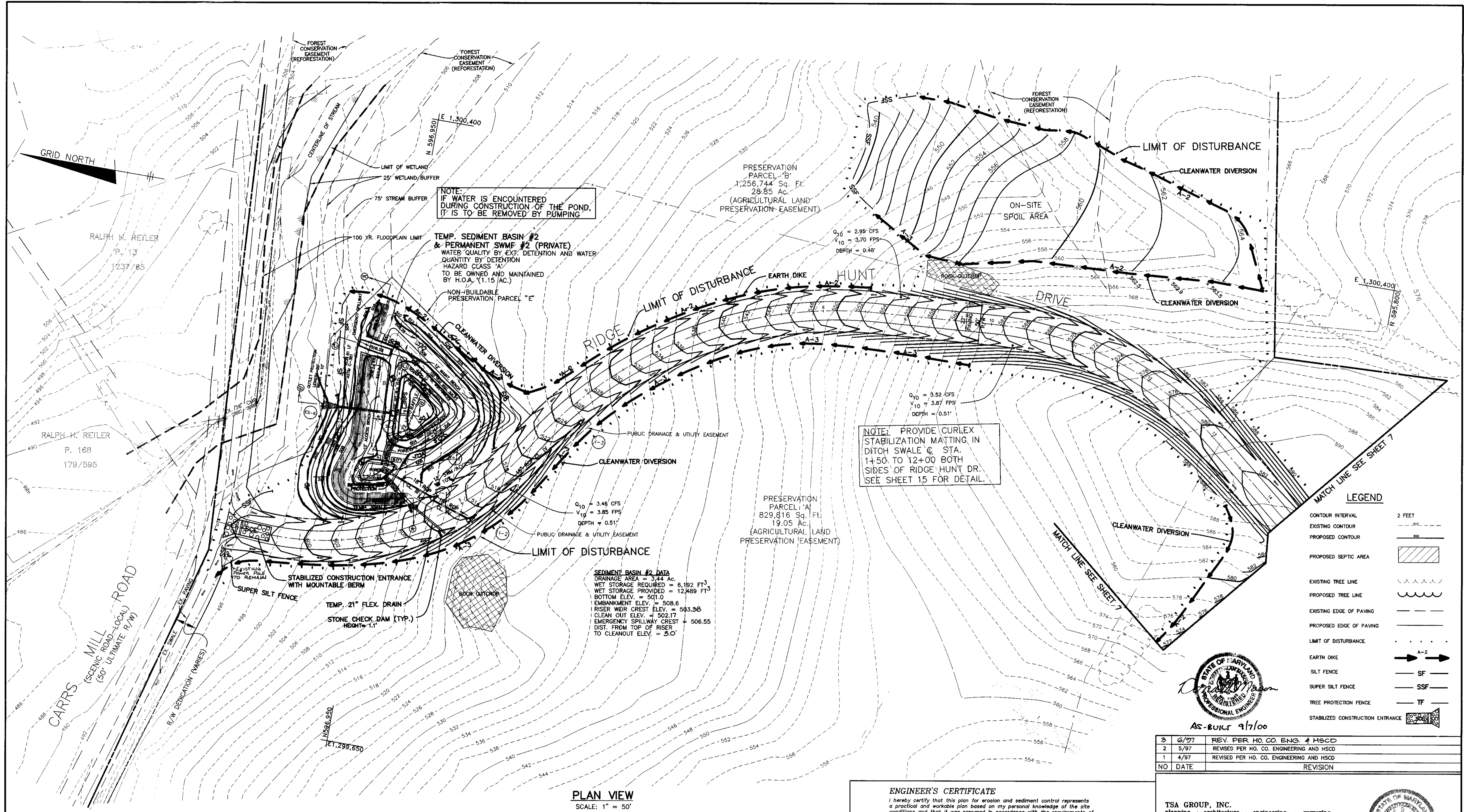
PROJECT: RIDGE VIEW HUNT  
 LOTS 1-28 & PRESERVATION PARCELS A THRU F  
 (S-95-16, P-96-19, & S-96-14)

LOCATION: TAX MAP 14, PARCELS 14  
 8668 BALTIMORE NATIONAL PIKE  
 4th ELECTION  
 HOWARD COUNTY, MARYLAND

TITLE: ROAD PROFILE

DATE: JAN. 1997 PROJECT NO. 0971

DESIGN: YSL DRAFT: YSL CHECK: CAM SCALE: AS SHOWN DRAWING 5 OF 19



**LEGEND**

- CONTOUR INTERVAL 2 FEET
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SEPTIC AREA
- EXISTING TREE LINE
- PROPOSED TREE LINE
- EXISTING EDGE OF PAVING
- PROPOSED EDGE OF PAVING
- LIMIT OF DISTURBANCE
- EARTH DIKE
- SILT FENCE
- SUPER SILT FENCE
- TREE PROTECTION FENCE
- STABILIZED CONSTRUCTION ENTRANCE

**AS-BUILT 9/7/00**

*Donald Moon*  
 PROFESSIONAL ENGINEER  
 STATE OF MARYLAND

3	6/97	REV. PER HO. CO. ENG. # HSCD
2	5/97	REVISED PER HO. CO. ENGINEERING AND HSCD
1	4/97	REVISED PER HO. CO. ENGINEERING AND HSCD
NO	DATE	REVISION

**SWMF #2: DRAINAGE AREA = 10.93 AC.**

STORM FREQUENCY	ALLOWABLE RELEASE	INFLOW TO FACILITY	ROUTED DISCHARGE	WSEL	STORAGE AT WSEL
2	2.61	5.58	0.68	503.71	0.2095 AC.-FT.
10	14.29	19.40	10.58	505.22	0.4265 AC.-FT.
100	N/A	38.18	29.50	506.39	0.6369 AC.-FT.

**NOTE:** CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL EARTH DIKES & TEMP. SWALES.

**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 the requirements of the Howard Soil Conservation District.

*Donald Moon* 5/20/97  
 Date

**DEVELOPER'S CERTIFICATE**  
 I/We certify that all development and construction will be done in accordance with this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction of this 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 onsite inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

*Richard Holmes* 5/20/97  
 Signature of Developer Date

**APPROVED:** HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*Andrew M. Cawley* 8-7-97  
 CHIEF, BUREAU OF HIGHWAYS DATE

**APPROVED:** HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*Andy Hamilton* 8/14/97  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Chris Damman* 8/11/97  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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

*Robert W. Ziehn* 7/29/97  
 HOWARD SOIL CONSERVATION DISTRICT DATE

**APPROVED:** REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

*Cheryl K. Jimmerson* 07/29/97  
 NATURAL RESOURCES CONSERVATION SERVICE DATE

**TSA GROUP, INC.**  
 planning • architecture • engineering • surveying  
 8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 466-8106

**OWNER/DEVELOPER:**  
 R.H. DEVELOPMENT, L.L.C.  
 8668 BALTIMORE NATIONAL PIKE  
 EL LICOTT CITY, MARYLAND 21043  
 (410) 465-2321

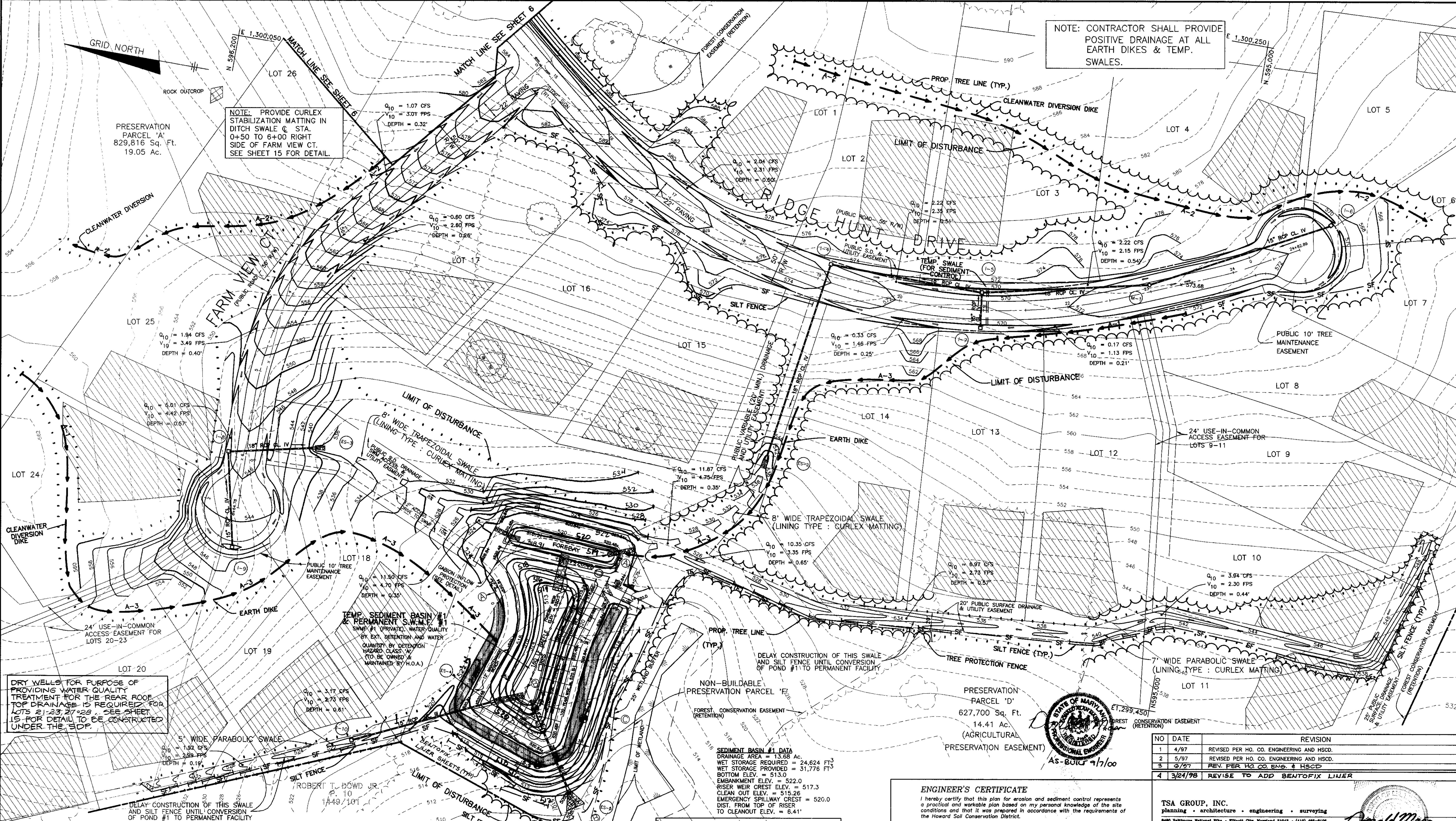
**PROJECT:** RIDGE VIEW HUNT  
 LOTS 1-28 & PRESERVATION PARCELS A THRU F (S-95-16, P-96-19, & SP-96-14)

**LOCATION:** TAX MAP 14, PARCEL 14  
 4TH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

**TITLE:** GRADING, STORM DRAIN AND SEDIMENT CONTROL PLAN

**DATE:** JAN. 1997  
**PROJECT NO.:** 0971

**DESIGN:** YSL **DRAFT:** YSL/MC **CHECK:** CAH **SCALE:** AS SHOWN **DRAWING NO.:** 5 OF 19



NOTE: CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL EARTH DIKES & TEMP. SWALES.

NOTE: PROVIDE CURLEX STABILIZATION MATTING IN DITCH SWALE @ STA. 0+50 TO 6+00 RIGHT SIDE OF FARM VIEW CT. SEE SHEET 15 FOR DETAIL.

PRESERVATION PARCEL 'A'  
829,816 Sq. Ft.  
19.05 Ac.

DRY WELLS FOR PURPOSE OF PROVIDING WATER QUALITY TREATMENT FOR THE REAR ROOF TOP DRAINAGE IS REQUIRED FOR LOTS 21-23, 27-28. SEE SHEET 15 FOR DETAIL TO BE CONSTRUCTED UNDER THE S.D.P.

TEMP. SEDIMENT BASIN #1 & PERMANENT SWALE #1 SWAMP #1 (PRIVATE). WATER QUALITY BY EXT. DETENTION AND WATER QUANTITY BY DETENTION HAZARD CLASS 'A' (TO BE OWNED & MAINTAINED BY H.O.A.)

DELAY CONSTRUCTION OF THIS SWALE AND SILT FENCE UNTIL CONVERSION OF POND #1 TO PERMANENT FACILITY

SEDIMENT BASIN #1 DATA  
DRAINAGE AREA = 13.68 AC.  
WET STORAGE REQUIRED = 24,624 FT<sup>3</sup>  
WET STORAGE PROVIDED = 31,776 FT<sup>3</sup>  
BOTTOM ELEV. = 513.0  
EMBANKMENT ELEV. = 522.0  
RISER WEIR CREST ELEV. = 517.3  
CLEAN OUT ELEV. = 515.26  
EMERGENCY SPILLWAY CREST = 520.0  
DIST. FROM TOP OF RISER TO CLEANOUT ELEV. = 6.41'

NOTE: IF WATER IS ENCOUNTERED DURING CONSTRUCTION OF POND, IT IS TO BE REMOVED BY PUMPING

PLAN VIEW  
SCALE: 1" = 50'

SWMF #1: DRAINAGE AREA = 24.49 AC.

STORM FREQUENCY	ALLOWABLE RELEASE	INFLOW TO FACILITY	ROUTED DISCHARGE	WSEL	STORAGE AT WSEL
2	9.84	17.43	5.53	517.27	0.7196 AC.-FT.
10	52.13	51.10	27.36	518.91	1.3597 AC.-FT.
100	N/A	94.82	78.01	520.51	2.1073 AC.-FT.

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 the requirements of the Howard Soil Conservation District.

*Donald Mason* 5/20/97  
Date

DEVELOPER'S CERTIFICATE  
I/We certify that all development and construction will be done in accordance with this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction of this 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 onsite inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

*Richard Haens* 5/20/97  
Signature of Developer Date

NO	DATE	REVISION
1	4/97	REVISED PER HO. CO. ENGINEERING AND HSCD.
2	5/97	REVISED PER HO. CO. ENGINEERING AND HSCD.
3	2/27	REV. PER HO. CO. ENG. & HSCD
4	3/24/98	REVISE TO ADD BENTONITE LINER

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8440 Baltimore National Pike • Elkton City, Maryland 21043 • (410) 466-8100

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daniels* 8-7-97  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*Robert J. Zilber* 7/28/97  
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Andy Hamilton* 8/14/97  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED: REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
*Charles K. Johnson* 07/28/97  
NATURAL RESOURCES CONSERVATION SERVICE DATE

OWNER/DEVELOPER:  
R.H. DEVELOPMENT, L.L.C.  
8668 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MARYLAND 21043  
(410) 465-2321

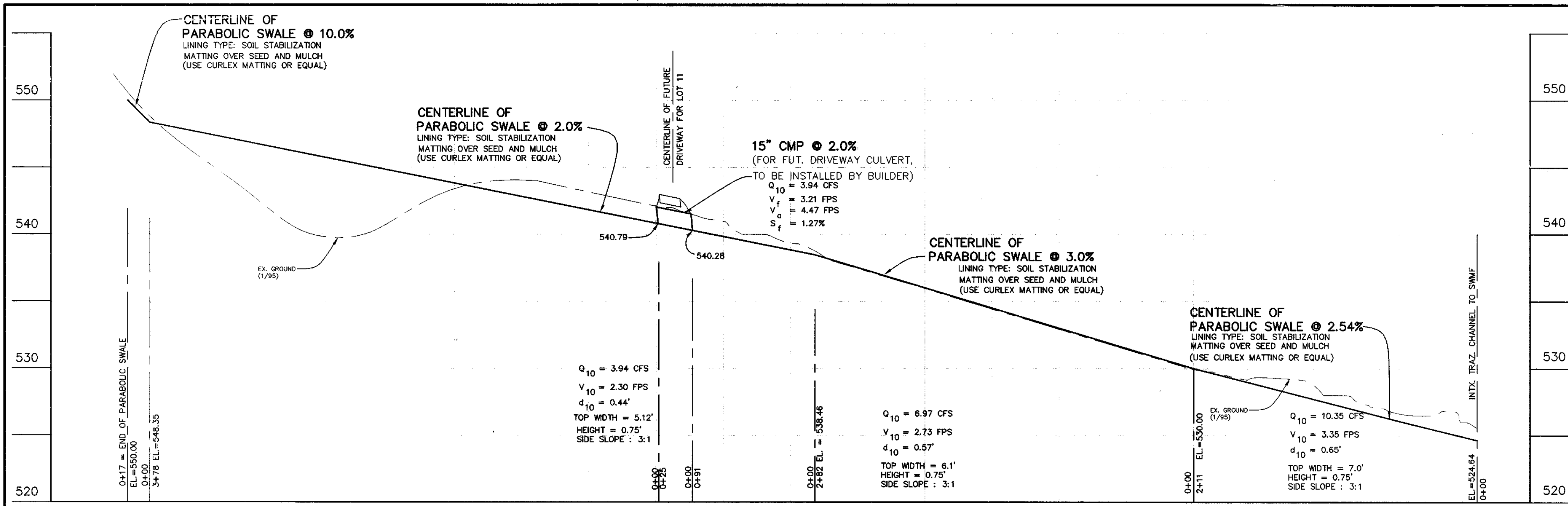
PROJECT: RIDGE VIEW HUNT  
LOTS 1-28 & PRESERVATION PARCELS A THRU F  
(S-95-16, P-96-19, & SP-96-14)

LOCATION: TAX MAP 14, PARCEL 14  
4th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

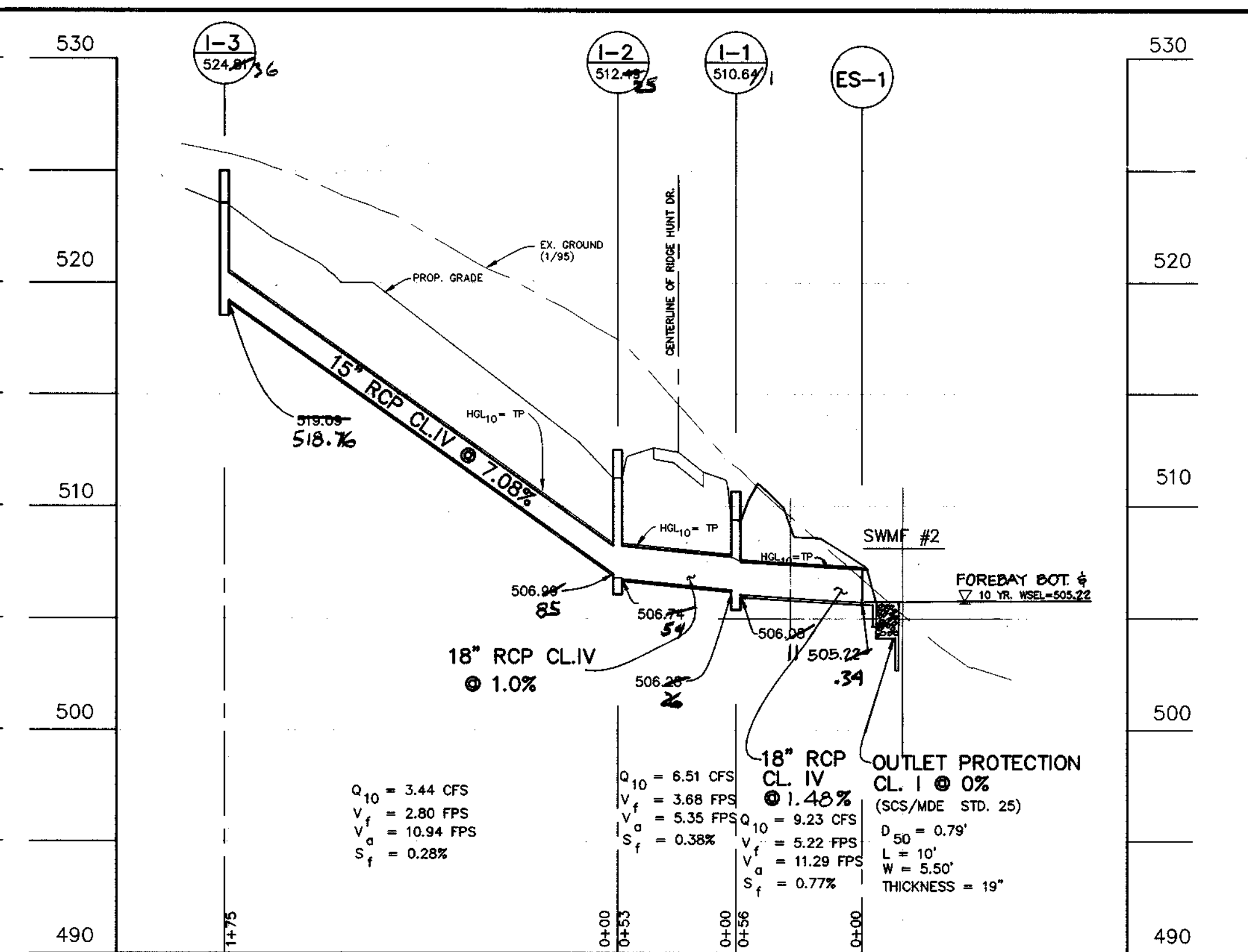
TITLE: GRADING, STORM DRAIN, AND SEDIMENT CONTROL PLAN

DATE: JAN. 1997 PROJECT NO. 0971

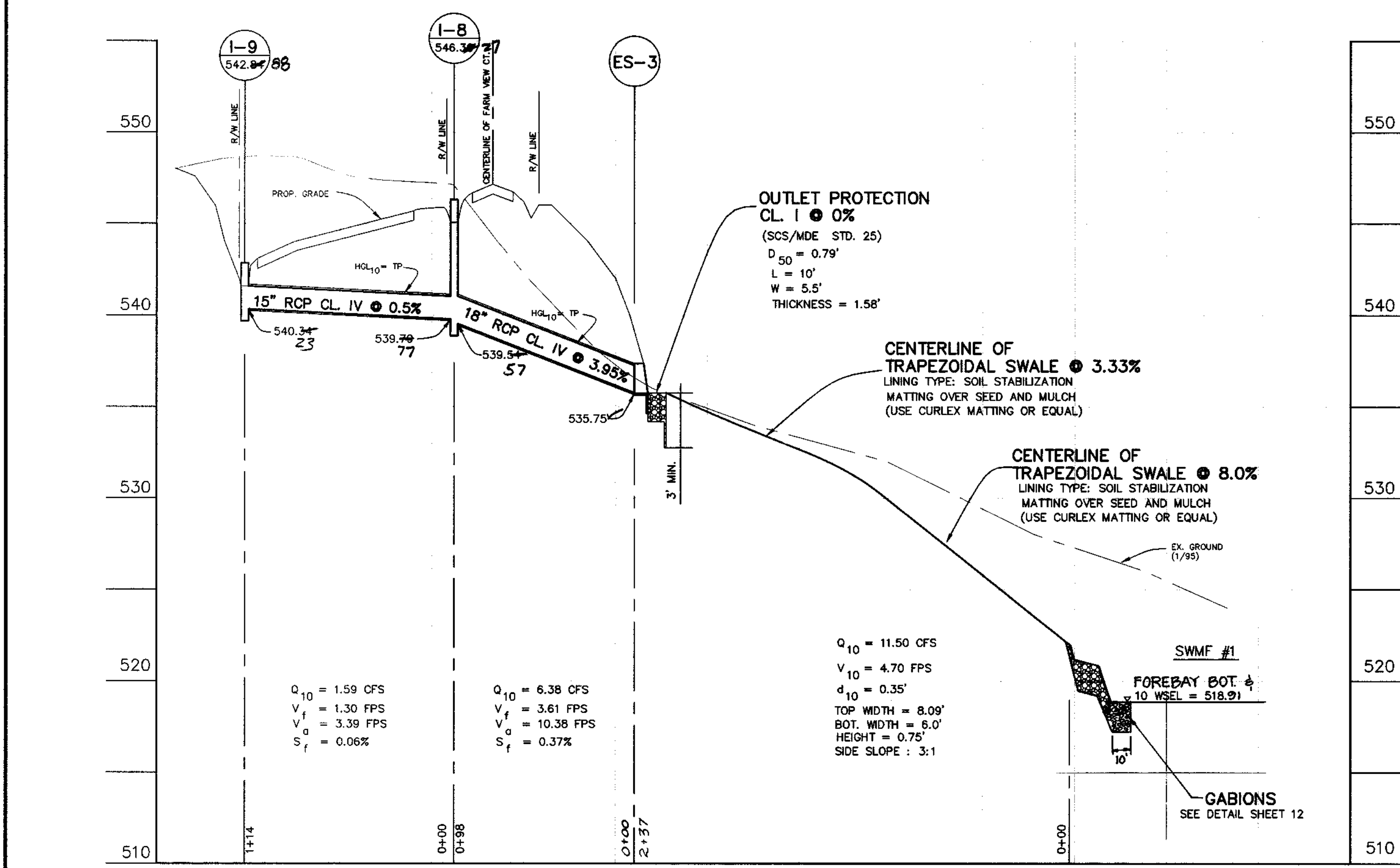
DESIGN: YSL DRAFT: YSL/JMC CHECK: CAM SCALE: AS SHOWN DRAWING 7 OF 18



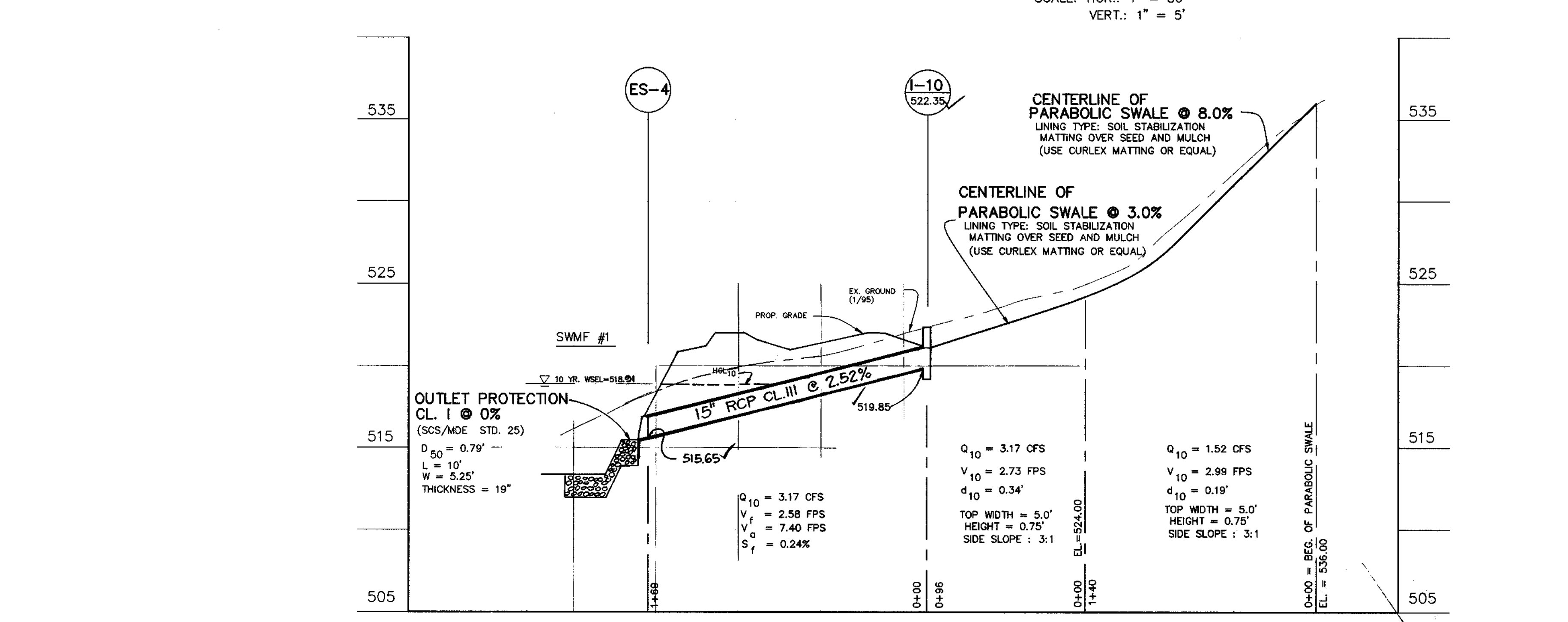
PARABOLIC SWALE PROFILE AT LOTS 9 THRU 14  
SCALE: HOR.: 1" = 50'  
VERT.: 1" = 5'



STORM DRAIN PROFILE AT RIDGE HUNT DRIVE  
SCALE: HOR.: 1" = 50'  
VERT.: 1" = 5'



STORM DRAIN AND TRAPEZOIDAL SWALE PROFILE FARM VIEW COURT  
SCALE: HOR.: 1" = 50'  
VERT.: 1" = 5'

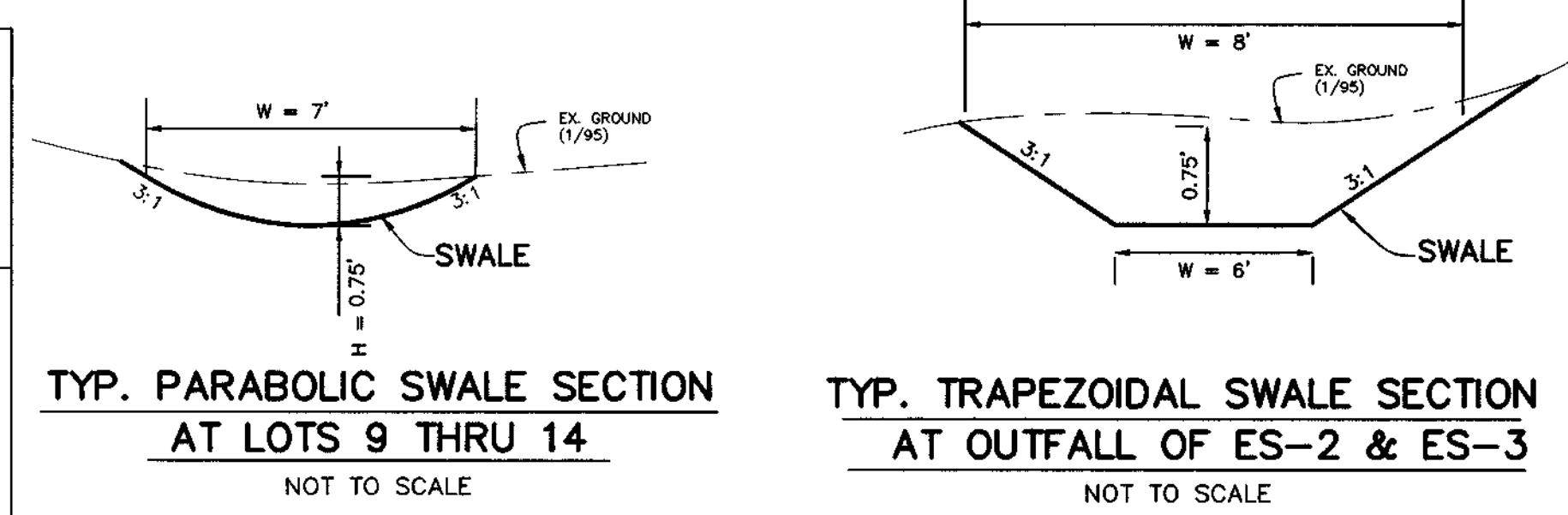


PARABOLIC SWALE PROFILE AT LOTS 19 THRU 20  
SCALE: HOR.: 1" = 50'  
VERT.: 1" = 5'

STRUCTURE SCHEDULE

STR. NO.	TYPE	INVERT IN	INVERT OUT	TOP ELEV.	LOCATION
I-1	K INLET	506.28	508.08	510.84	C. STA. 2+70.77 O/S 21' L AT RIDGE HUNT DRIVE
I-2	H.C. SD. 4.12	506.28	506.28	512.48	C. STA. 2+96.97 O/S 21' R AT RIDGE HUNT DRIVE
I-3	K INLET	506.28	524.81	524.81	C. STA. 4+70.79 O/S 21' R AT RIDGE HUNT DRIVE
I-4	K INLET	506.28	563.84	573.43	C. STA. 19+09.01 O/S 21' L AT RIDGE HUNT DRIVE
I-5	H.C. SD. 4.12	563.84	563.84	629.04	C. STA. 20+97.32 O/S 21' L AT RIDGE HUNT DRIVE
I-6	H.C. SD. 4.12	563.84	563.84	579.75	C. STA. 4+70.79 O/S 21' R AT RIDGE HUNT DRIVE
I-7	K INLET	563.84	567.54	579.75	C. STA. 20+97.32 O/S 21' R AT RIDGE HUNT DRIVE
I-8	H.C. SD. 4.12	567.54	539.54	548.20	C. STA. 6+00 O/S 21' R AT FARM VIEW COURT
I-9	K INLET	539.54	542.35	548.20	L.P. STA. 1+31.12 O/S 7' L AT FARM VIEW COURT
I-10	H.C. SD. 4.12	542.35	522.35	522.35	N 585922.12 E 1299249.76
M-1	H.C. SD. 4.12	566.35	566.35	573.35	C. STA. 23+00 O/S 8' L AT RIDGE HUNT DRIVE
ES-1	END SECTION	506.28	506.28	510.84	N 585922.12 E 1299249.76
ES-2	END SECTION	506.28	506.28	512.48	N 585497.10 E 1299249.76
ES-3	END SECTION	506.28	506.28	524.81	E 1299249.76 N 585922.12
ES-4	END SECTION	506.28	506.28	573.43	N 585769.32 E 1299249.76
ES-5	END SECTION	506.28	506.28	579.75	N 585922.12 E 1299249.76
ES-6	END SECTION	506.28	506.28	548.20	E 1289241.13 N 597004.23
S-1	RISER	513.00	512.95	521.89	E 1300043.64 N 595700.82
S-2	RISER	501.00	500.90	507.32	E 1299300.29 N 595940.50

NOTES: \* DENOTES ELEVATION IS AT THE TOP OF MANHOLE OR STRUCTURE  
\*\* DENOTES STATION AT THE CENTERLINE OF MANHOLE OR STRUCTURE



TYP. PARABOLIC SWALE SECTION AT LOTS 9 THRU 14  
NOT TO SCALE  
TYP. TRAPEZOIDAL SWALE SECTION AT OUTFALL OF ES-2 & ES-3  
NOT TO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daniels* 8-7-97  
CHIEF, BUREAU OF HIGHWAYS  
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Cindy Hamilton* 8/14/97  
CHIEF, DIVISION OF LAND DEVELOPMENT  
*Abby Pannunzi* 8/14/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
DESIGN DIVISION  
AS-BUILT 9/7/00  
TYP. PARABOLIC SWALE SECTION AT LOTS 19 THRU 20  
NOT TO SCALE

3	6/97	REV. PER HO. CO. ENG. + HBCD
2	5/97	REVISED PER COMMENTS
1	4/97	REVISED PER COMMENTS
NO	DATE	REVISION

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6800 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 465-8105

OWNER/DEVELOPER: R.H. DEVELOPMENT, L.L.C.  
8668 BALTIMORE NATIONAL PIKE  
ELLICOTT CITY, MARYLAND 21043  
(410) 465-2321

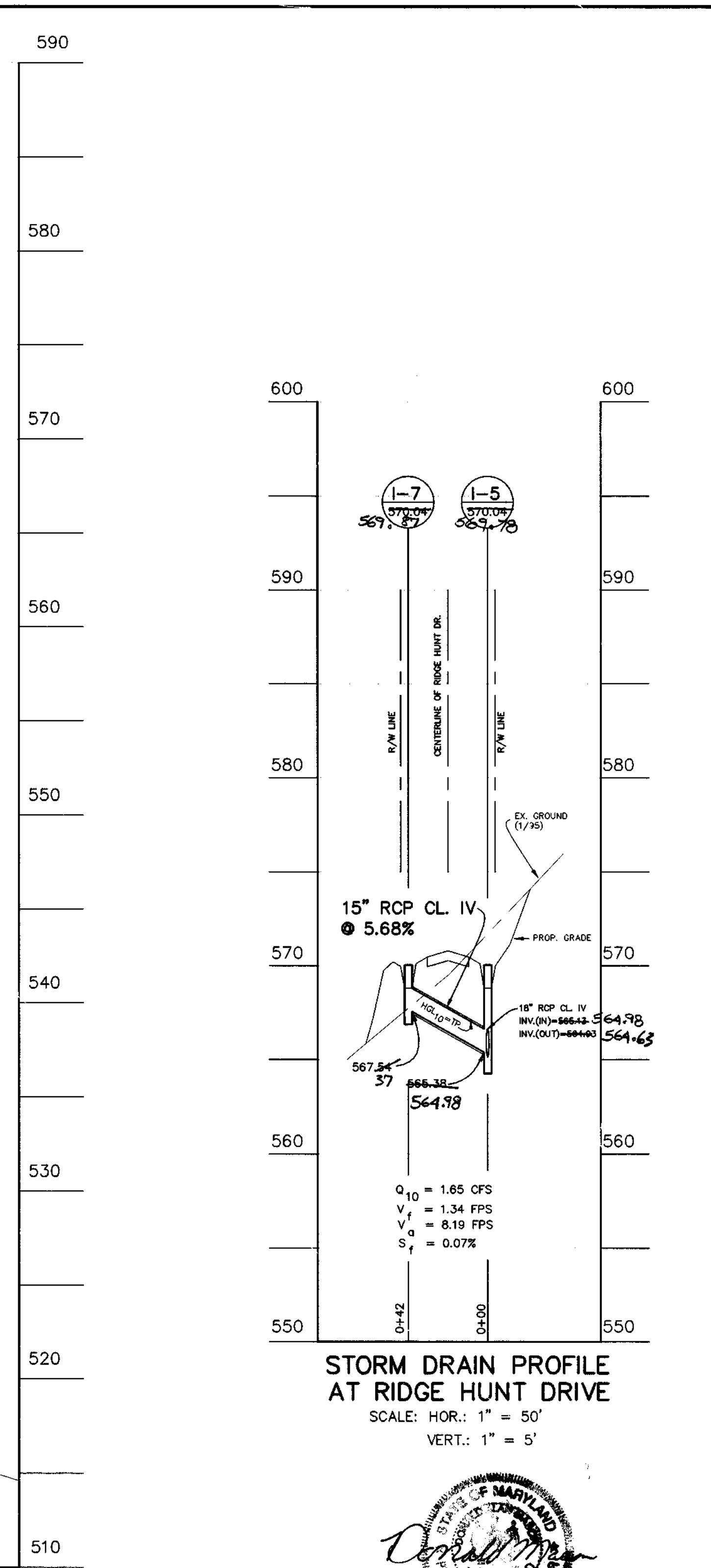
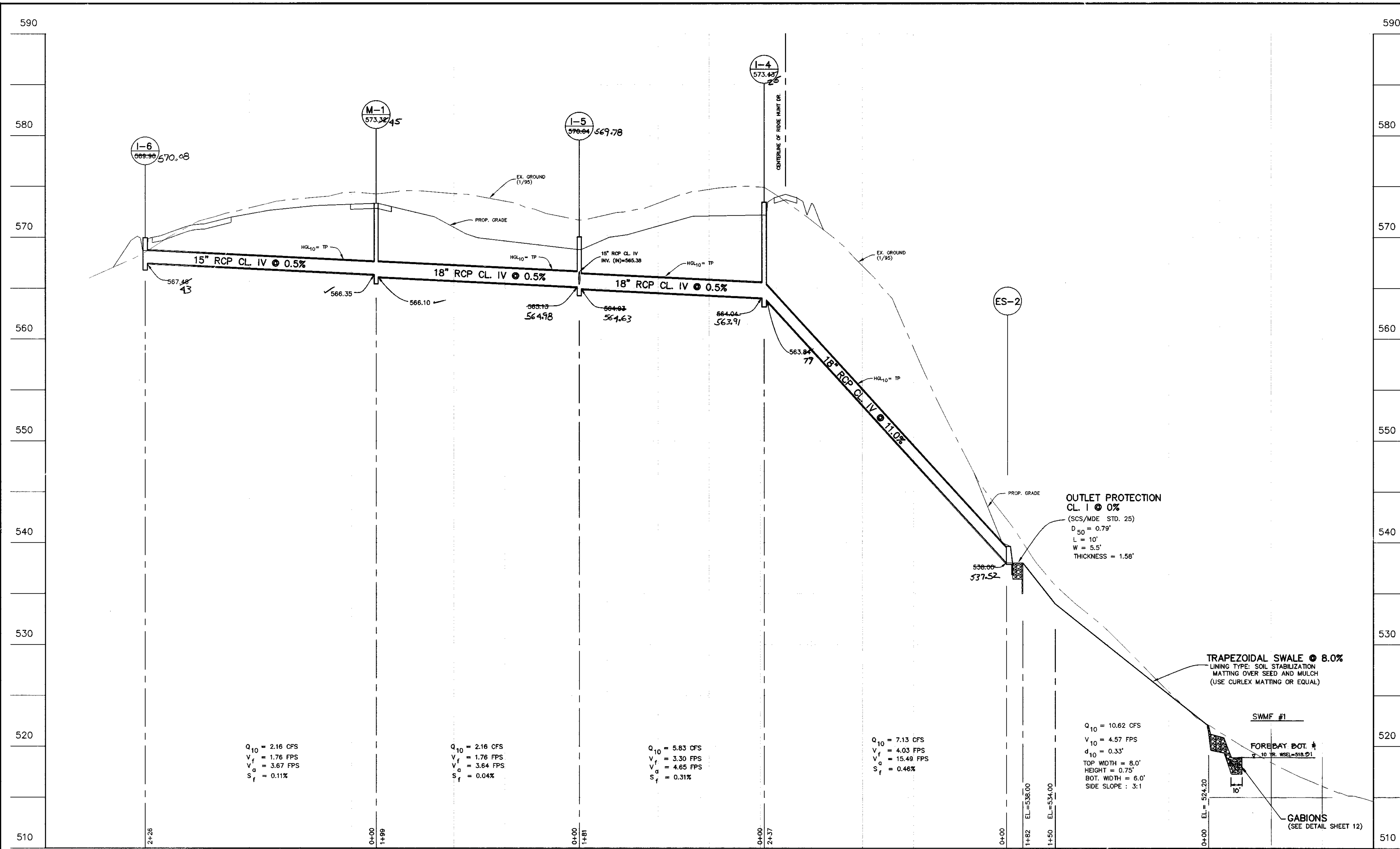
PROJECT: RIDGE VIEW HUNT  
LOTS 1-28 & PRESERVATION PARCELS A THRU F  
(S-95-16, P-96-19, & SP-96-14)

LOCATION: TAX MAP 14, PARCEL 14  
4th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE: STORM DRAIN PROFILE

DATE: JAN. 1997 PROJECT NO. 0971

DESIGN: YSL DRAFT: YSL/JMC CHECK: CAM SCALE: AS SHOWN DRAWING 8 OF 19



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Danaher* 5/7/97  
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Andy Hamilton* 8/14/97  
 CHIEF, DIVISION OF LAND DEVELOPMENT

*Mike Damman* 8/16/97  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

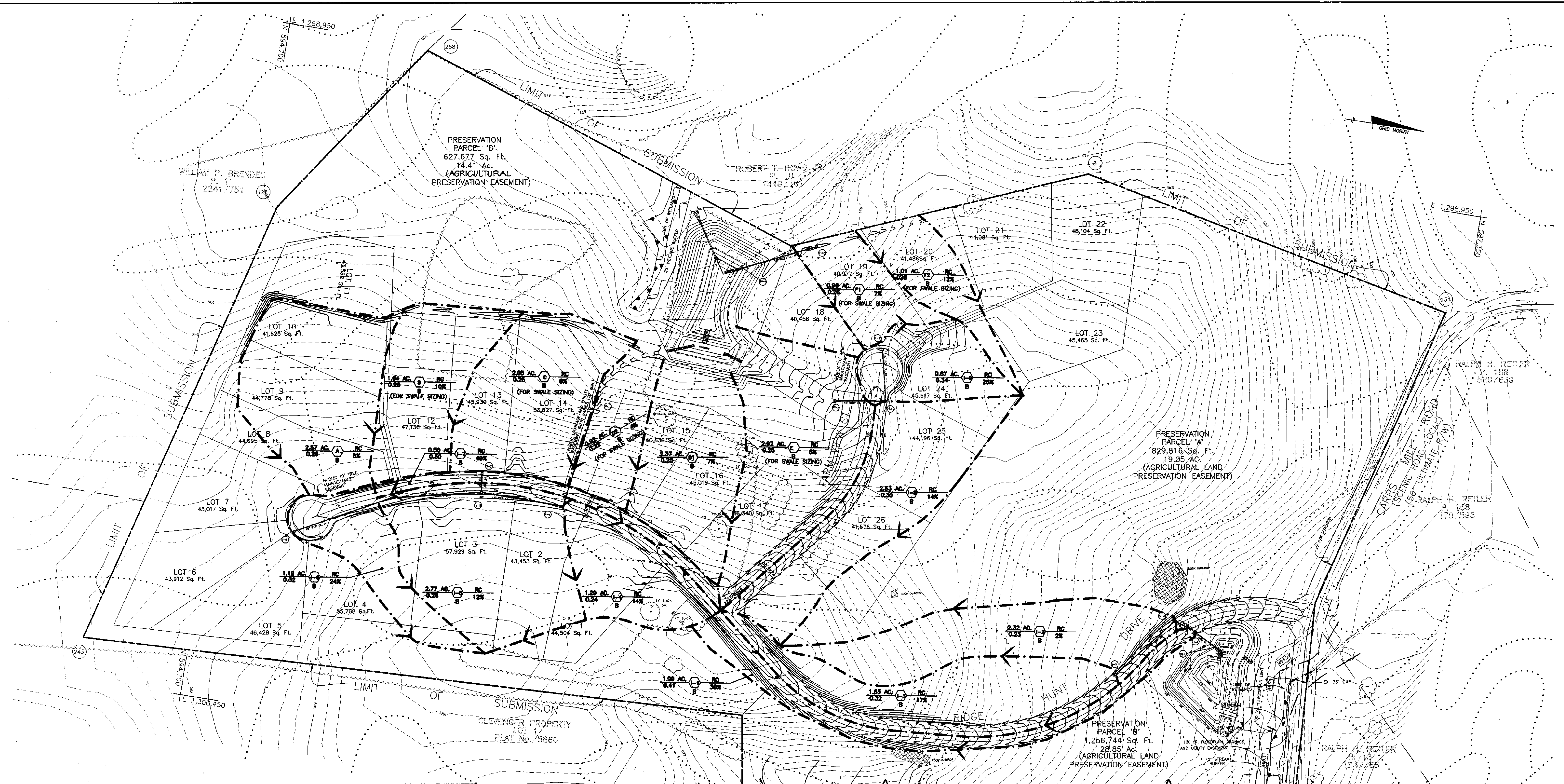
3	6/97	REV. PER HO. CO. ENG. & HSC
2	5/97	REVISED PER HO. CO. ENGINEERING AND HSC
1	4/97	REVISED PER HO. CO. ENGINEERING AND HSC
NO	DATE	REVISION

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 8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 486-6100

*Donald M. ...*  
 PROFESSIONAL ENGINEER

OWNER/DEVELOPER: R.H. DEVELOPMENT, L.L.C. 8668 BALTIMORE NATIONAL PIKE ELLCOTT CITY, MARYLAND 21043 (410) 465-2321	PROJECT: <b>RIDGE VIEW HUNT</b> LOTS 1-28 & PRESERVATION PARCELS A THRU F (S-95-16, P-96-19, & P-96-14)
LOCATION: TAX MAP 14, PARCEL 34 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	TITLE: <b>STORM DRAIN PROFILES</b>
DATE: JAN. 1997	PROJECT NO. 0971
DESIGN: YSL	DRAFT: YSL/JMC
CHECK: CAM	SCALE: AS SHOWN
DRAWING 9 OF 19	





SOILS LEGEND		
MAP SYMBOL	SOIL TYPE	MAPPING UNIT
BK1C	C	BRANDYWINE LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED
BK1F	C	BRANDYWINE LOAM, 25 TO 60 PERCENT SLOPES
CH1A	B	CHESTER SILT LOAM, 0 TO 3 PERCENT SLOPES
CH2B	B	CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
CH2C	B	CHESTER SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
Co	C	CODORUS SILT LOAM
CuB	B	COMUS SILT LOAM, LOCAL ALLUVIUM, 3 TO 8 PERCENT SLOPES
EL2B	B	ELIOAK SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
EL2C	B	ELIOAK SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
GL2B	B	GLENELG LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
GL2C	B	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
GL3C	B	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED
GLD2	B	GLENELG LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED
GLD3	B	GLENELG LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED
GMA	C	GLENMILLE SILT LOAM, 0 TO 3 PERCENT SLOPES
GMB2	C	GLENMILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
Hu	D	HATBORO SILT LOAM
Mg2C	B	MAJOR GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
MW2	B	MAJOR LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
MW3	B	MAJOR LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED
ME	B	MAJOR LOAM, 25 TO 45 PERCENT SLOPES
MWd	B	MAJOR VERY STONY LOAM, 3 TO 25 PERCENT SLOPES
MW3	B	MT. AIRY CHANNERY LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED
MW2d	B	MT. AIRY CHANNERY LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED

\* INDICATES HYBRIC SOILS  
SOILS MAP NOS. 6, 7, 12 & 13

PLAN VIEW  
SCALE: 1" = 100'

LEGEND

- CONTOUR INTERVAL 2 FEET
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING TREE LINE
- EXISTING EDGE OF PAVING
- PROPOSED EDGE OF PAVING
- SOIL BOUNDARY
- DRAINAGE DIVIDE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*Andrew M. Daniels* 5-7-97  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*Cathy Hamilton* 5/14/97  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Chris Dammann* 5/11/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

NO	DATE	REVISION
1	4/97	REVISED PER HO. CO. ENGINEERING AND HSCD

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planning • architecture • engineering • surveying  
8450 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 460-0100



OWNER/DEVELOPER:  
R.H. DEVELOPMENT, L.L.C.  
866B BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MARYLAND 21043  
(410) 465-2321

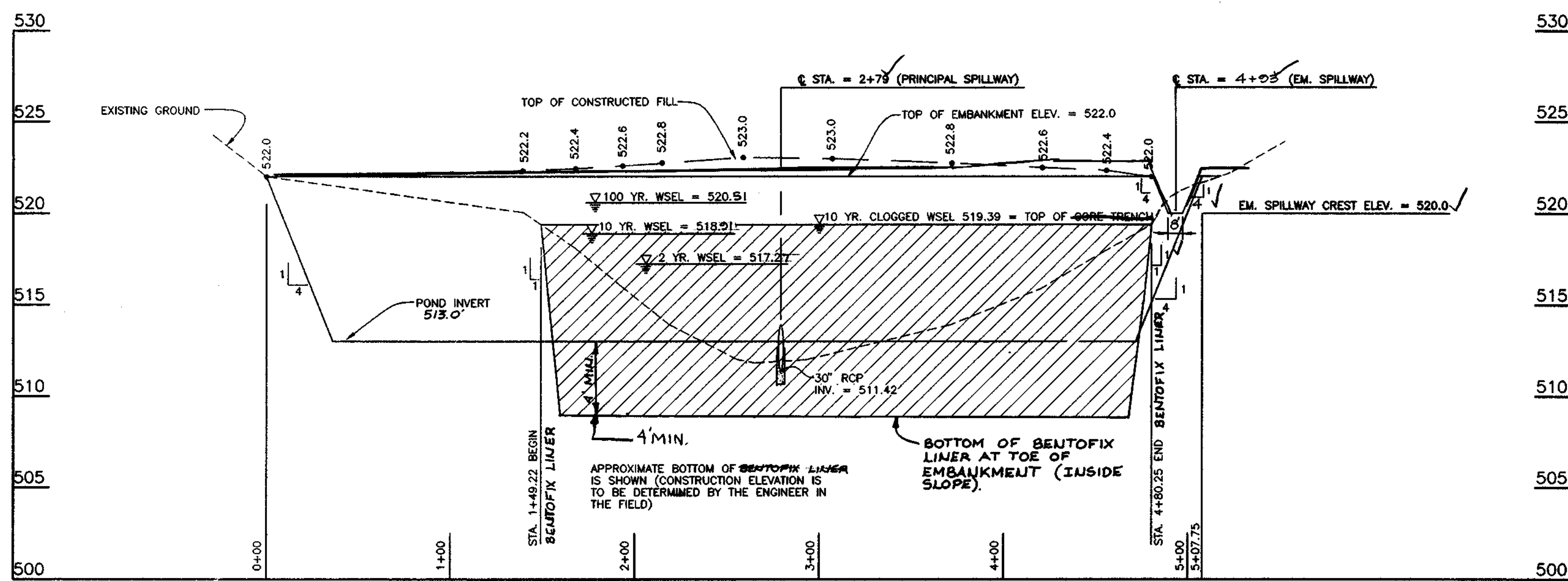
PROJECT: **RIDGE VIEW HUNT**  
LOTS 1-28 & PRESERVATION PARCELS A THRU F  
(S-95-16, P-96-19, & SP-96-14)

LOCATION: TAX MAP 14, PARCEL 14  
4th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE: **STORM DRAIN DRAINAGE AREA MAP**

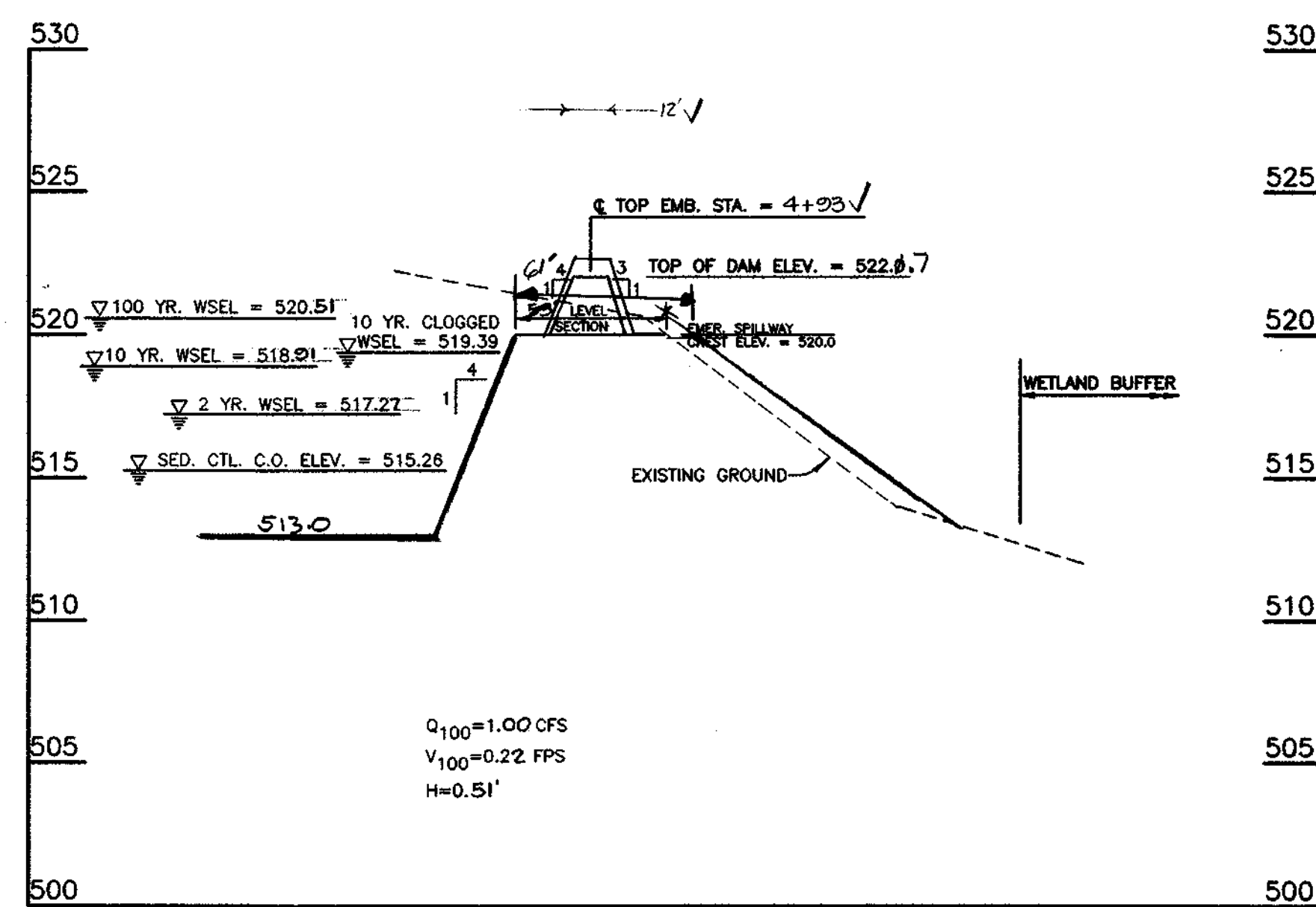
DATE: JAN. 1997 PROJECT NO. 0971

DESIGN: YSL DRAFT: YSL/JMC CHECK: CAM SCALE: 1" = 100' DRAWING 10 OF 19



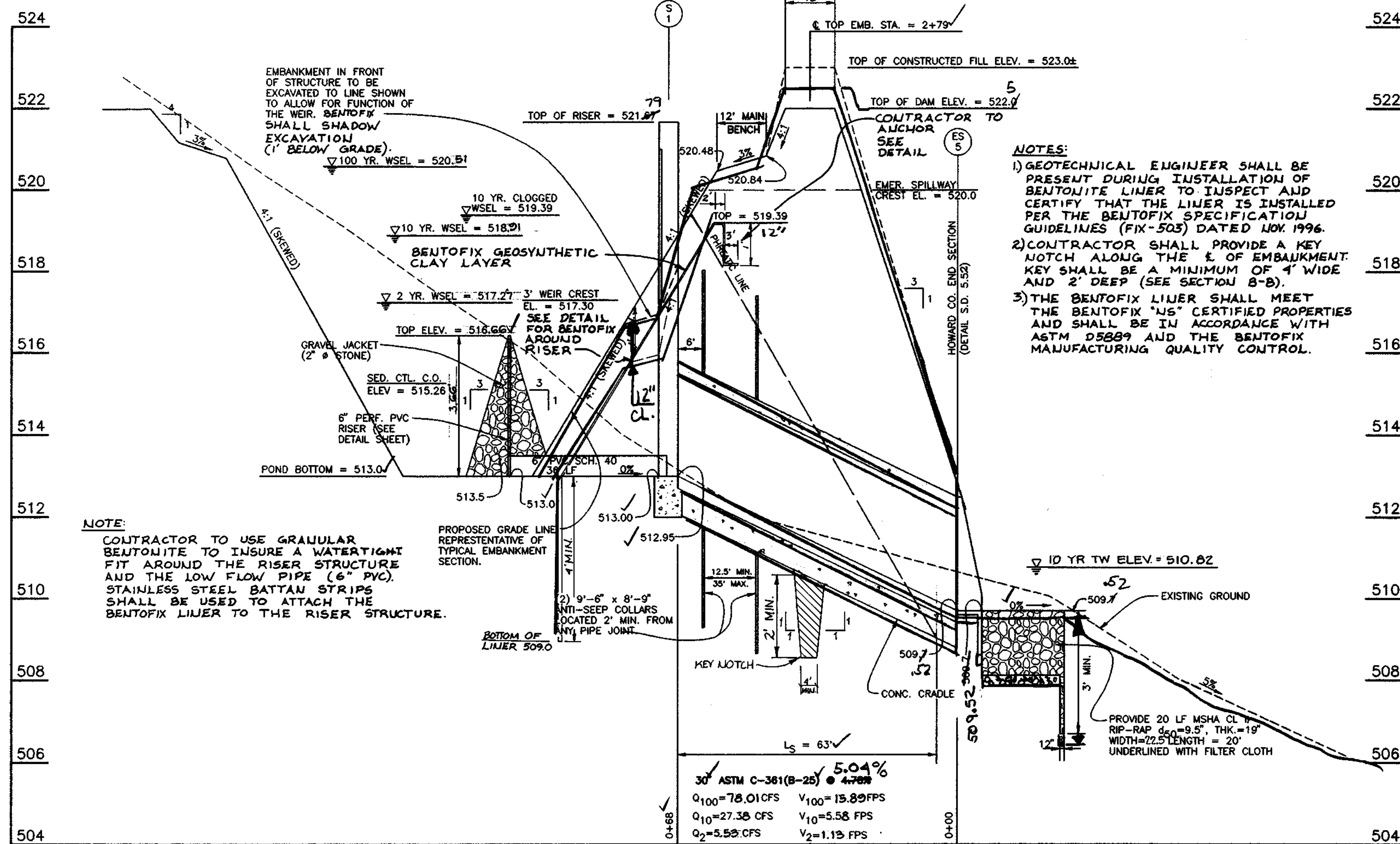
POND #1 - SECTION A-A - PROFILE ALONG C OF EMBANKMENT

SCALE: HORIZ. = 1"=50'  
VERT. = 1"=5'



POND #1 - SECTION C-C - EMERGENCY SPILLWAY PROFILE

SCALE: HORIZ. = 1"=50'  
VERT. = 1"=5'



POND #1 - SECTION B-B - SECTION THRU PRINCIPAL SPILLWAY

SCALE: HORIZ. = 1"=20'  
VERT. = 1"=2'

HILLCO - LAMPRO ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

Project Name: Howard County, Maryland Station: Howard County, Maryland Date: 7/10/97

Job # 8888A

NO.	DEPTH (FEET)	SOIL DESCRIPTION	TESTS	REMARKS
1	0.0 - 1.0	Fine sand to wet micaceous clay sand (SM)		3" Topsoil
2	1.0 - 2.0	Same as above		Groundwater encountered at 2.0 feet while penetrating
3	2.0 - 3.0	Same as above		
4	3.0 - 4.0	Same as above		
5	4.0 - 5.0	Same as above		
6	5.0 - 6.0	Same as above		
7	6.0 - 7.0	Same as above		
8	7.0 - 8.0	Same as above		
9	8.0 - 9.0	Same as above		
10	9.0 - 10.0	Same as above		
11	10.0 - 11.0	Same as above		
12	11.0 - 12.0	Same as above		
13	12.0 - 13.0	Same as above		
14	13.0 - 14.0	Same as above		
15	14.0 - 15.0	Same as above		
16	15.0 - 16.0	Same as above		
17	16.0 - 17.0	Same as above		
18	17.0 - 18.0	Same as above		
19	18.0 - 19.0	Same as above		
20	19.0 - 20.0	Same as above		
21	20.0 - 21.0	Same as above		
22	21.0 - 22.0	Same as above		
23	22.0 - 23.0	Same as above		
24	23.0 - 24.0	Same as above		
25	24.0 - 25.0	Same as above		
26	25.0 - 26.0	Same as above		
27	26.0 - 27.0	Same as above		
28	27.0 - 28.0	Same as above		
29	28.0 - 29.0	Same as above		
30	29.0 - 30.0	Same as above		

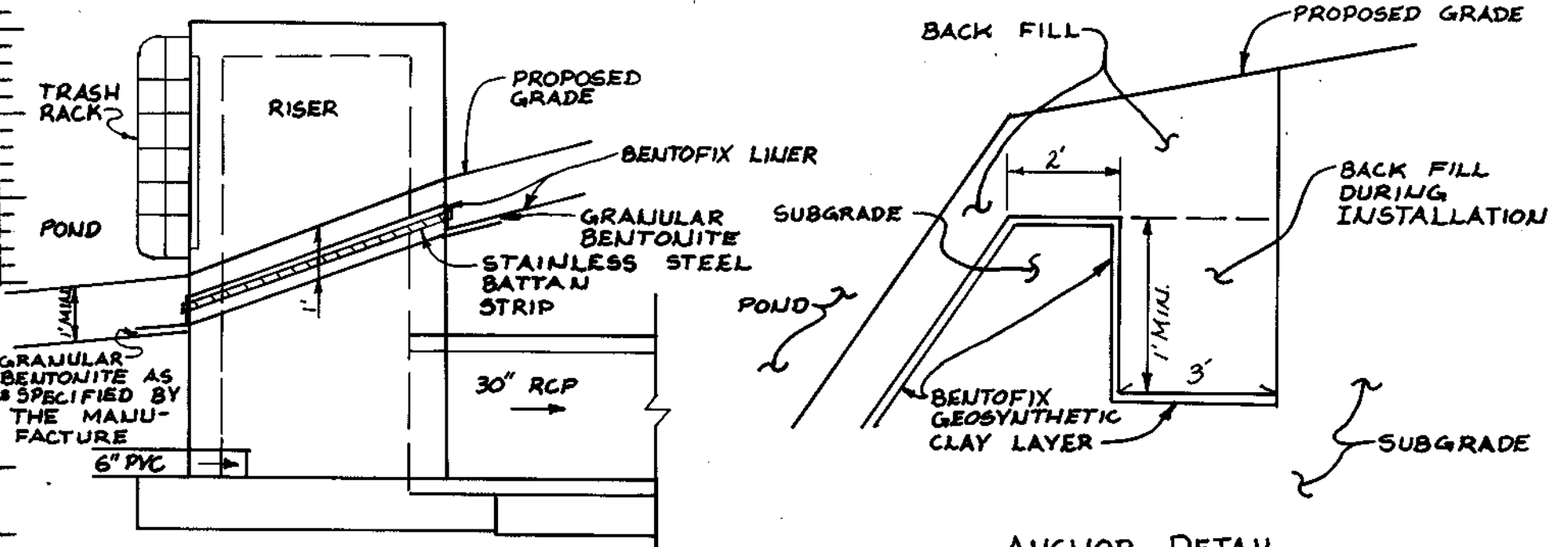
ENGINEERING ASSOCIATES, INC.



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daniels* 8-7-97  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Cindy Hamilton* 8/14/97  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*William D. ...* 2/1/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



BENTONITE @ RISER SIDE VIEW SCALE: 1/3"

NO.	DATE	REVISION
4	3/24/98	REMOVE CORE TRENCH, ADD BENTONITE LINER.
3	6/97	REV. PER HO. CO. ENG. 4TH SCO
2	5/97	REVISED PER COMMENTS
1	4/97	REVISED PER COMMENTS
NO	DATE	REVISION

TSA GROUP, INC.  
planning • architecture • engineering • surveying  
8688 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 465-2321

OWNER/DEVELOPER: R.H. DEVELOPMENT, L.L.C.  
8668 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MARYLAND 21043  
(410) 465-2321

PROJECT: RIDGE VIEW HUNT  
LOTS 1-28 & PRESERVATION PARCELS A THRU F  
(S-95-16, P-96-19, & SP-96-14)

LOCATION: TAX MAP 14, PARCEL 14  
4th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE: STORM WATER MANAGEMENT  
POND #1 SECTIONS AND PROFILES

DATE: JAN. 1997 PROJECT NO. 0971

DESIGN: MLV DRAFT: JMC CHECK: CAM SCALE: AS SHOWN DRAWING NO. OF 12

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

*Charles J. ...* 07/28/97  
Natural Resource Conservation Service Date

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

*Richard J. ...* 7/28/97  
Howard Soil Conservation District Date

By the Engineer:  
I hereby certify that the facility shown on this plan was constructed as shown on the "AS-BUILT" plans and meets the approved plans and specifications.  
*Donald A. Mason* 7/10/97  
DONALD A. MASON P.E. # 21443 Date  
ENGINEER:  
Certify means to state or declare a professional opinion based upon on-site inspections and materials tests which are conducted during construction. The on-site inspections and materials tests are those inspections and tests deemed sufficient and appropriate by commonly accepted engineering standards. Certify does not mean or imply a guarantee by the Engineer nor does an Engineer's certification relieve any other party from meeting requirements imposed by contract, employment or other means, including meeting commonly accepted industry practices.

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 of a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.  
*Richard H. Hoenes* 7/10/97  
RICHARD H. HOENES Date  
DEVELOPER: R. H. DEVELOPMENT, L.L.C.

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.  
*Donald A. Mason* 7/10/97  
DONALD A. MASON P.E. # 21443 Date  
ENGINEER:

**POND CONSTRUCTION SPECIFICATIONS**

**Site Preparation**

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

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

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

**Earth Fill**

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

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

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

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

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

**Structure Backfill**

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

**Pipe Conduits**

All pipes shall be circular in cross section.

**Corrugated Metal Pipe** - All of the following criteria shall apply for corrugated metal pipe:

- Materials - (Steel Pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) minimum on the pipe. The coating shall be applied in accordance with the manufacturer's instructions. Coatings or an approved equal may be used: Nexon, Plast-Cote, Blac-Klad, and Bath-Cu-Loy. Coated corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246.

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

Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

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

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

All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled on adequate number of corrugations to accommodate the gasket. The following type connections are acceptable for pipes less than 48" in diameter: flanges on both ends of the pipe, a 12" wide standard lap type band with 12" wide by 3/8" thick closed cell circular neoprene gasket; and a 12" wide huggar type band with O-ring gaskets having a minimum diameter of 1/2" greater than the corrugation depth. Pipes 48" in diameter and larger shall be connected by a 24" long annular corrugated band using rods and nuts. A 12" wide by 3/8" thick closed cell circular neoprene gasket will be installed on the end of each pipe for a total of 24". Helically corrugated pipe shall have either continuously welded seams or have lock seams.

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

- Backfilling shall conform to "Structure Backfill."
- Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

**Reinforced Concrete Pipe** - All of the following criteria shall apply for reinforced concrete pipe:

- Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361. An approved equivalent is AWWA Specification C-302.
- Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3 inches, or as shown on the drawings.
- Laying pipe - Bell and spigot pipe shall be placed with the bell and upstream, joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 2 feet from the riser.
- Backfilling shall conform to "Structure Backfill."
- Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

**Polyvinyl Chloride (PVC) Pipe** - All of the following criteria shall apply for polyvinyl chloride (PVC) pipe:

- Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241.
- Joints and connections to anti-seep collars shall be completely watertight.
- Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
- Backfilling shall conform to "Structure Backfill."
- Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

**Concrete**

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 606, Mix No. 3.

**Rock Riprap**

All rock shall be dense, sound, and free from cracks, seams, and other defects conducive to accelerated weathering. The rock fragments shall be angular to subangular in shape. The least dimension on an individual rock fragment shall be not less than one third the greatest dimension of the fragment.

The rock shall have the following properties:

- Bulk specific gravity (saturated surface-dry basis) not less than 2.5.
- Absorption not more than three percent.
- Soundness: Weight loss in five cycles not more than 20 percent when sodium sulfate is used.

Bulk specific gravity and absorption shall be determined according to ASTM C 86. The test for soundness shall be performed according to ASTM C 86.

The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 919.12.

**Care of Water during Construction**

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

**Stabilization**

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

**Erosion and Sediment Control**

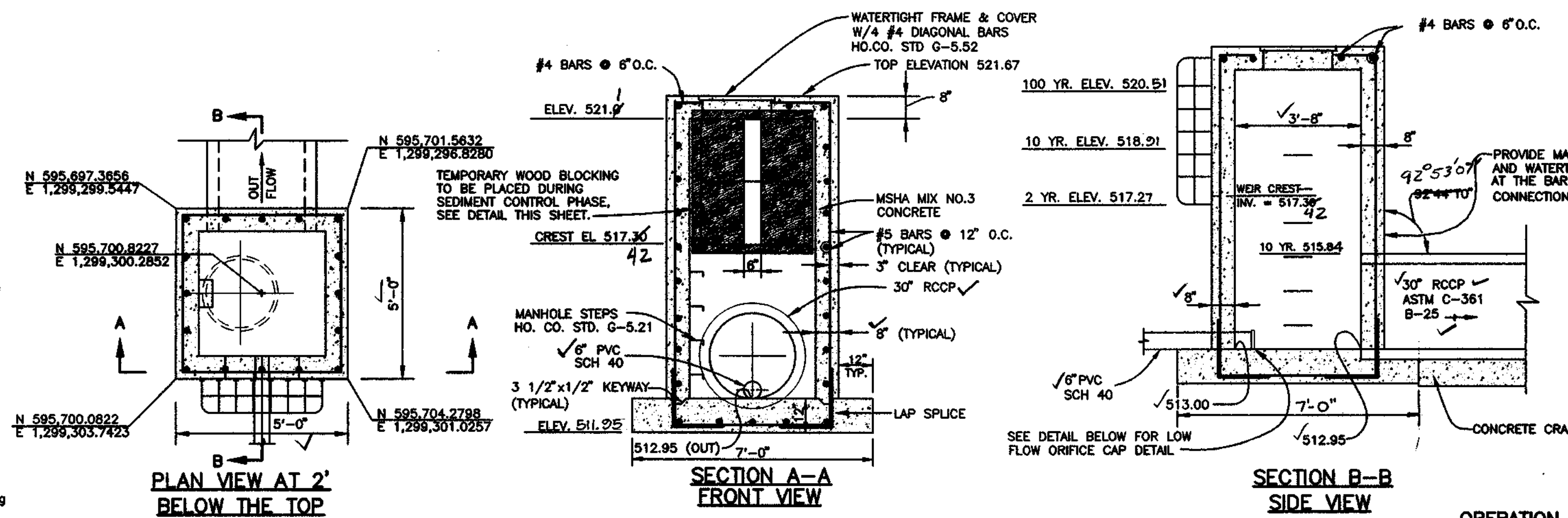
Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. The following type construction and sediment control measures to be employed during the construction process.

**EMBANKMENT AND CUT-OFF TRENCH CONSTRUCTION**

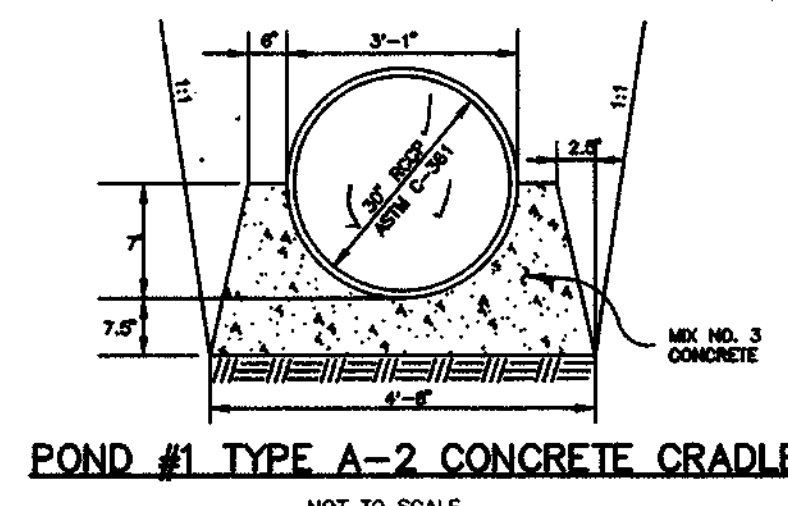
The site should be stripped of topsoil and any other unsuitable materials from the embankment or structure area in accordance with Soil Conservation Guidelines. After stripping operations have been completed, the exposed subgrade material shall be stabilized with a leached lime or other stabilizing agent in the presence of a geotechnical engineer or his representative. For areas that are not accessible to a dump truck, the exposed materials should be observed and tested by a geotechnical engineer or his representative utilizing a Dynamic Cone Penetrometer. Any excessively soft or loose materials identified by proofrolling or penetrometer testing should be excavated to suitable firm soil, and then grades established by backfilling with suitable soil.

A representative of the Geotechnical Engineer should be present to monitor placement and compaction of fill for the embankment and cut off trench. In accordance with Maryland Soil Conservation Specification 378 soils considered suitable for the center of the embankment and cut off trench shall conform to Unified Soil Classification GC, SC, CL, or CH. Per SCS 378 consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer.

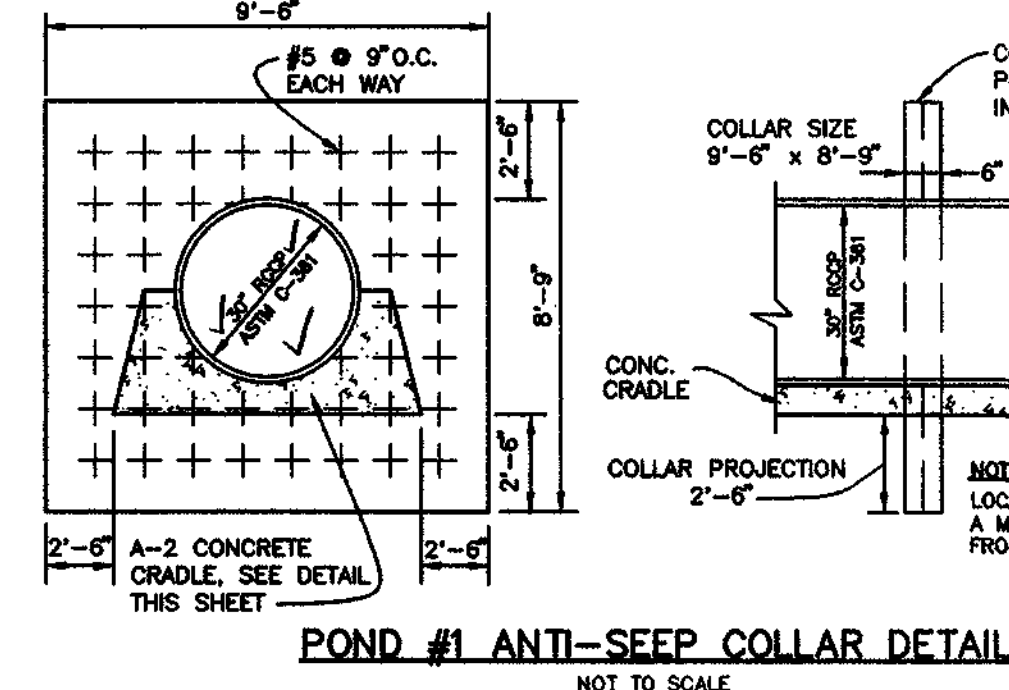
It is our professional opinion that in addition to the soil materials described above a fine grained soil, including fill (ML) with a plasticity index of 10 or more can be utilized for the center of the embankment and core trench. Erosion with additional test pits and laboratory testing can be conducted prior to construction to identify and quantify potential borrow areas. All fill materials must be placed and compacted in accordance with MD 378 specifications.



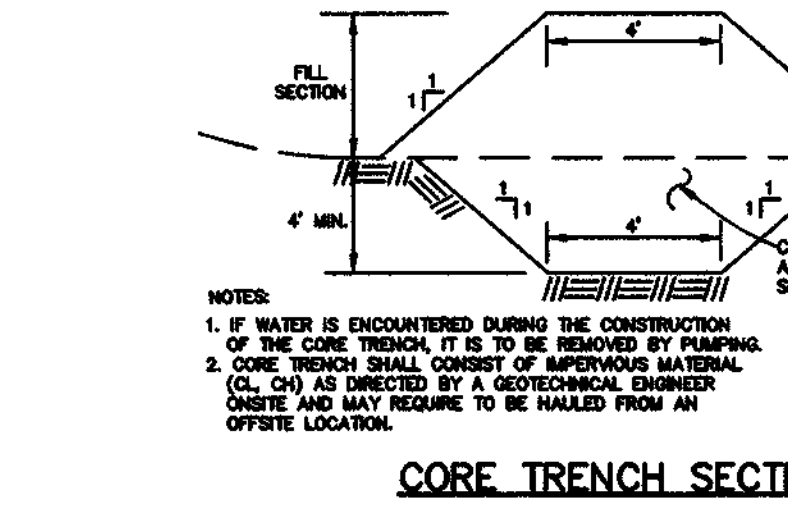
**POND #1 CONTROL STRUCTURE DETAIL**



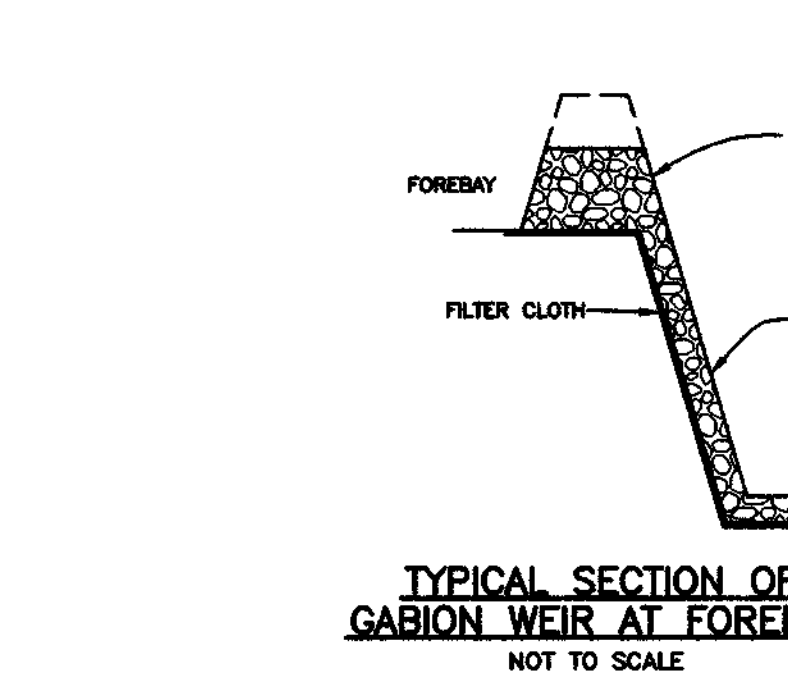
**POND #1 TYPE A-2 CONCRETE CRADLE**



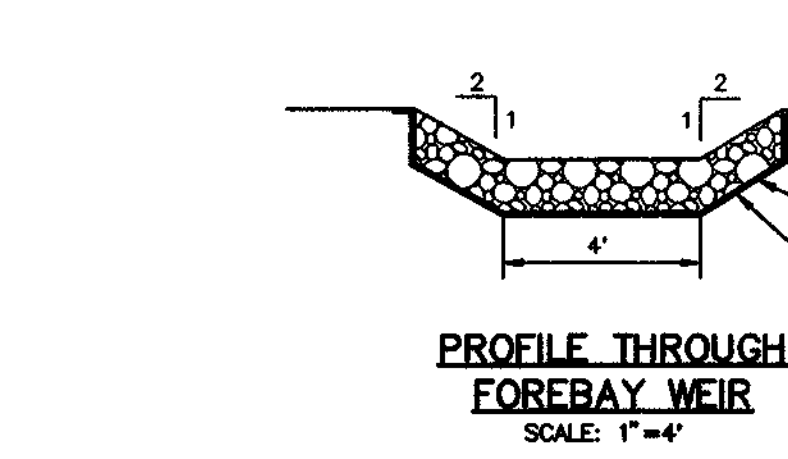
**POND #1 ANTI-SEEP COLLAR DETAIL**



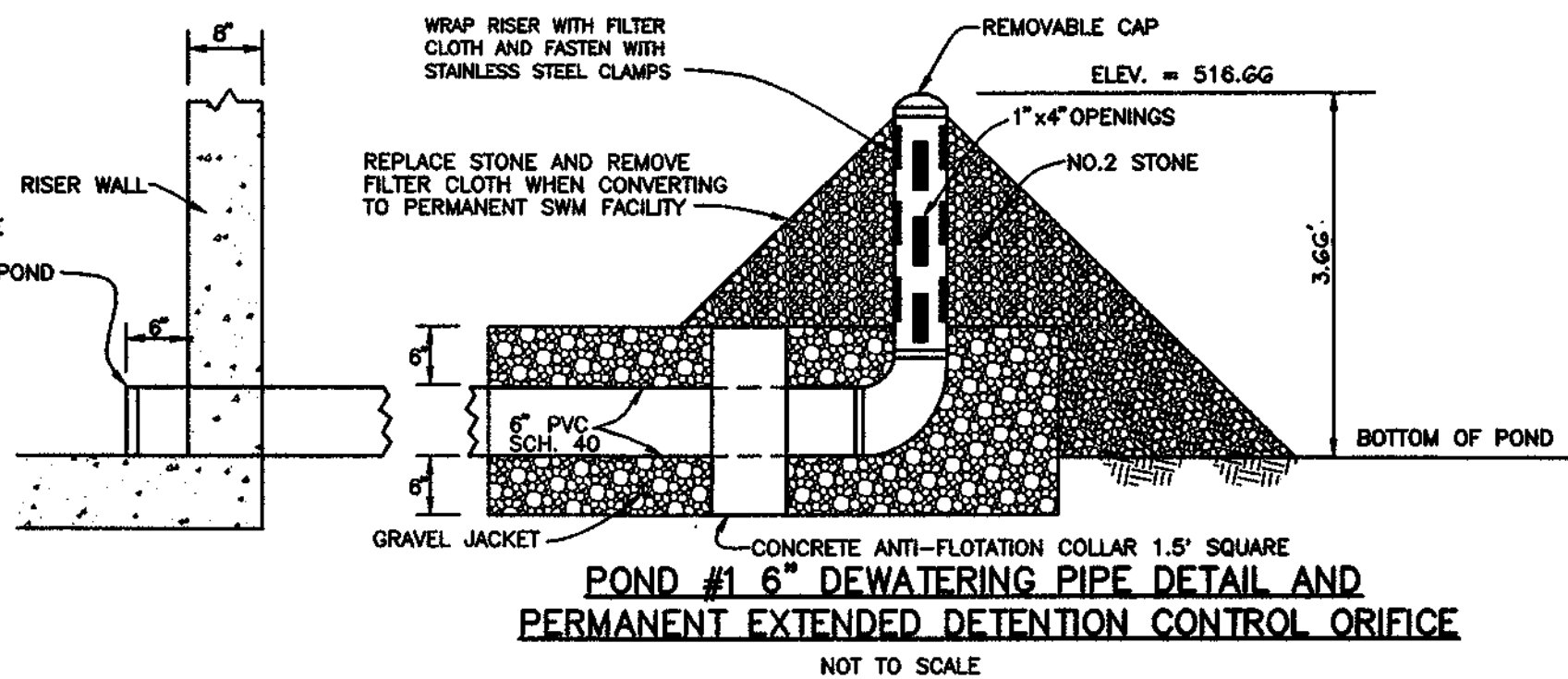
**CORE TRENCH SECTION**



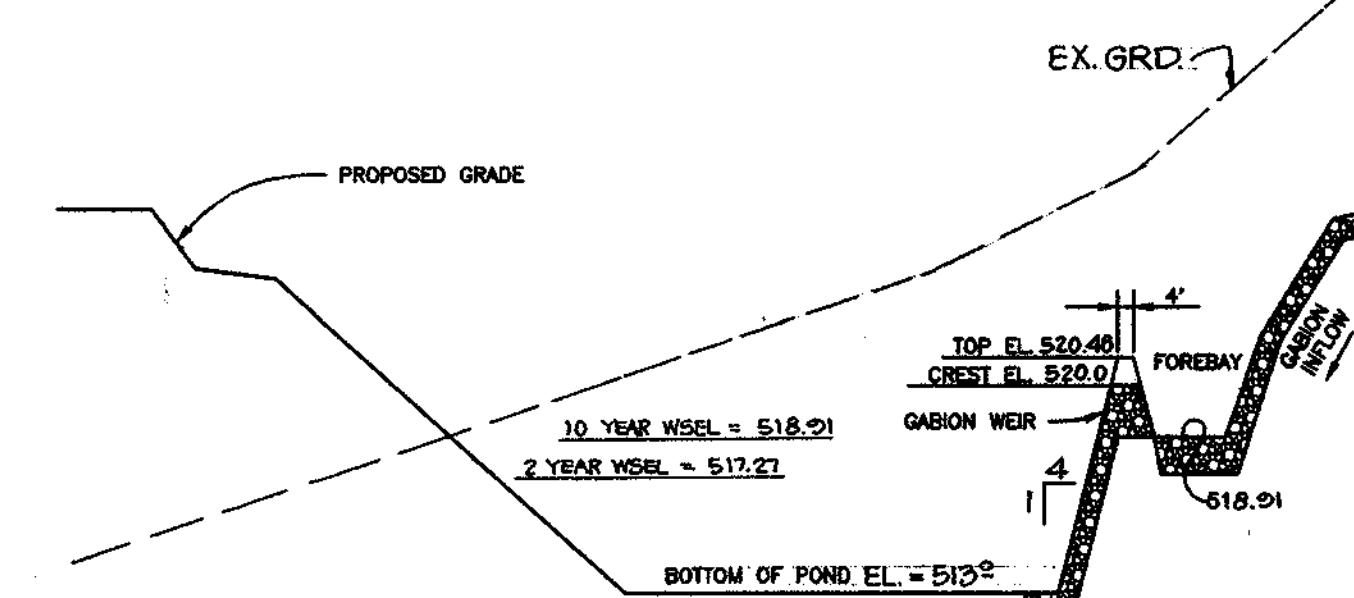
**TYPICAL SECTION OF GABION WEIR AT FOREBAY**



**PROFILE THROUGH FOREBAY WEIR**



**POND #1 6\"/>**



**POND #1 SECTION THROUGH FOREBAY**

**OPERATION, MAINTENANCE AND INSPECTION**

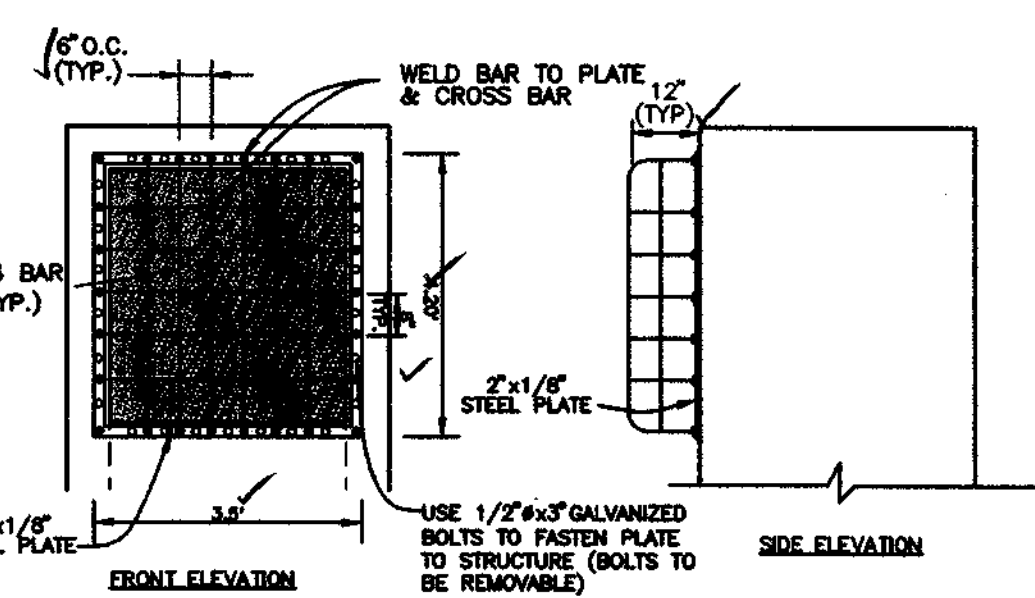
INSPECTION OF THE POND(S) SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, SCS STANDARDS AND SPECIFICATIONS FOR PONDS (MD-378). THE POND OWNER(S) AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE 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.

**BLOCKING DETAIL FOR POND #1 TEMPORARY SWM DURING CONSTRUCTION**

**FRONT VIEW OF RISER NOT TO SCALE**

**OPERATION AND MAINTENANCE SCHEDULE OF HOME OWNERS ASSOCIATION OWNED AND MAINTAINED STORMWATER MANAGEMENT FACILITIES**

- DETENTION PONDS:**
- HOME OWNERS ASSOCIATION'S MAINTENANCE RESPONSIBILITIES:
- TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOWED A MINIMUM OF TWO (2) TIMES A YEAR, ONCE IN JUNE AND ONCE IN SEPTEMBER. OTHER SIDE SLOPES AND MAINTENANCE ACCESS SHOULD BE MOWED AS NEEDED.
  - DEBRIS AND LITTER NEXT TO THE OUTLET STRUCTURE SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.
  - WHEN DEEMED NECESSARY FOR AESTHETIC REASONS, SEDIMENT SHOULD BE REMOVED FROM THE POND. APPROVAL OF THE DEPARTMENT OF PUBLIC WORKS IS REQUIRED.



**POND #1 TRASH RACK DETAIL**



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

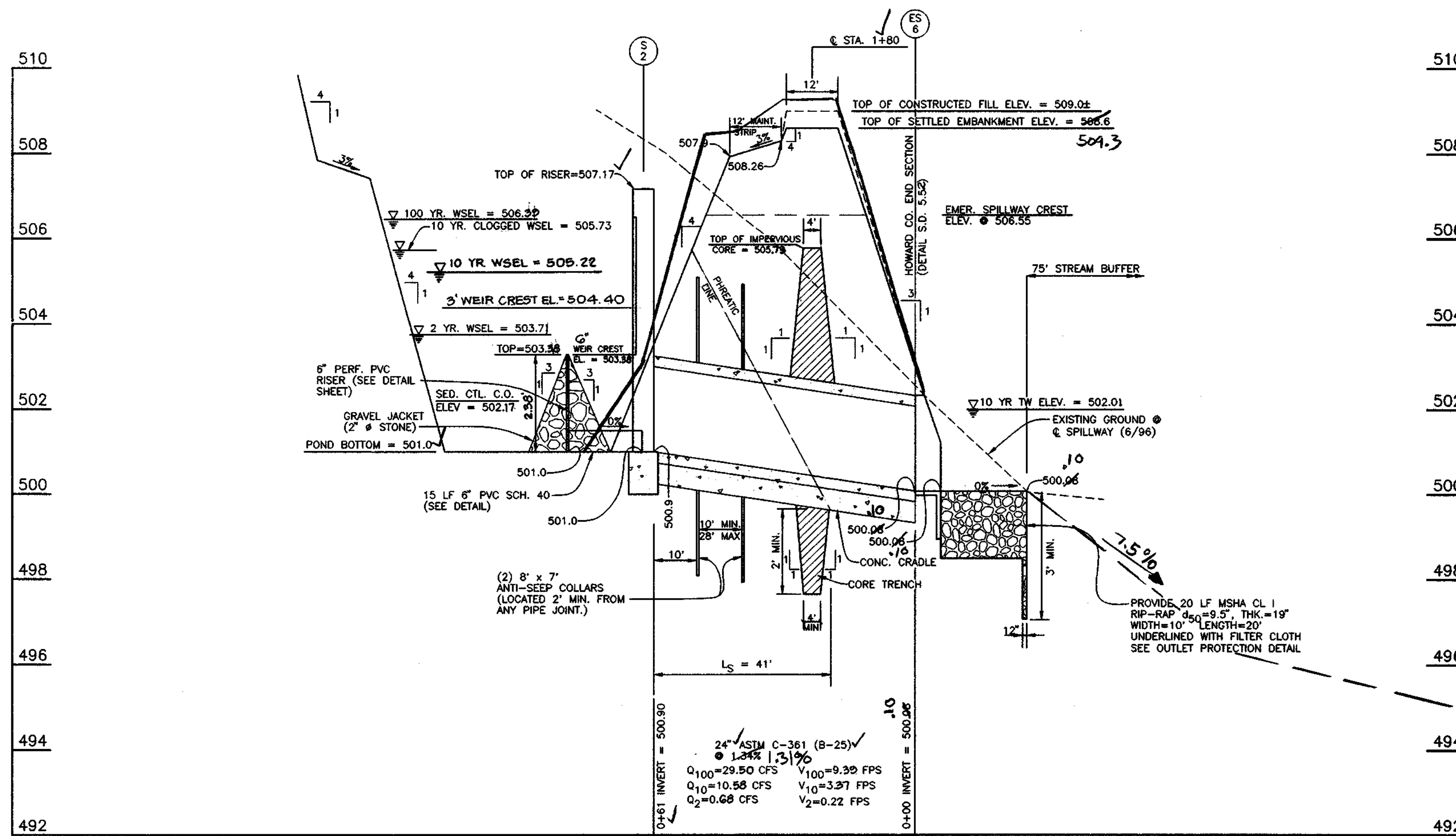
APPROVED: CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: CHIEF, DEVELOPMENT ENGINEERING DIVISION

NO.	DATE	REVISION
3	6/97	REV. PER HO. CO. ENG. & HSCD.
2	5/97	REVISED PER HO. CO. ENGINEERING AND HSCD
1	4/97	REVISED PER HO. CO. ENGINEERING AND HSCD

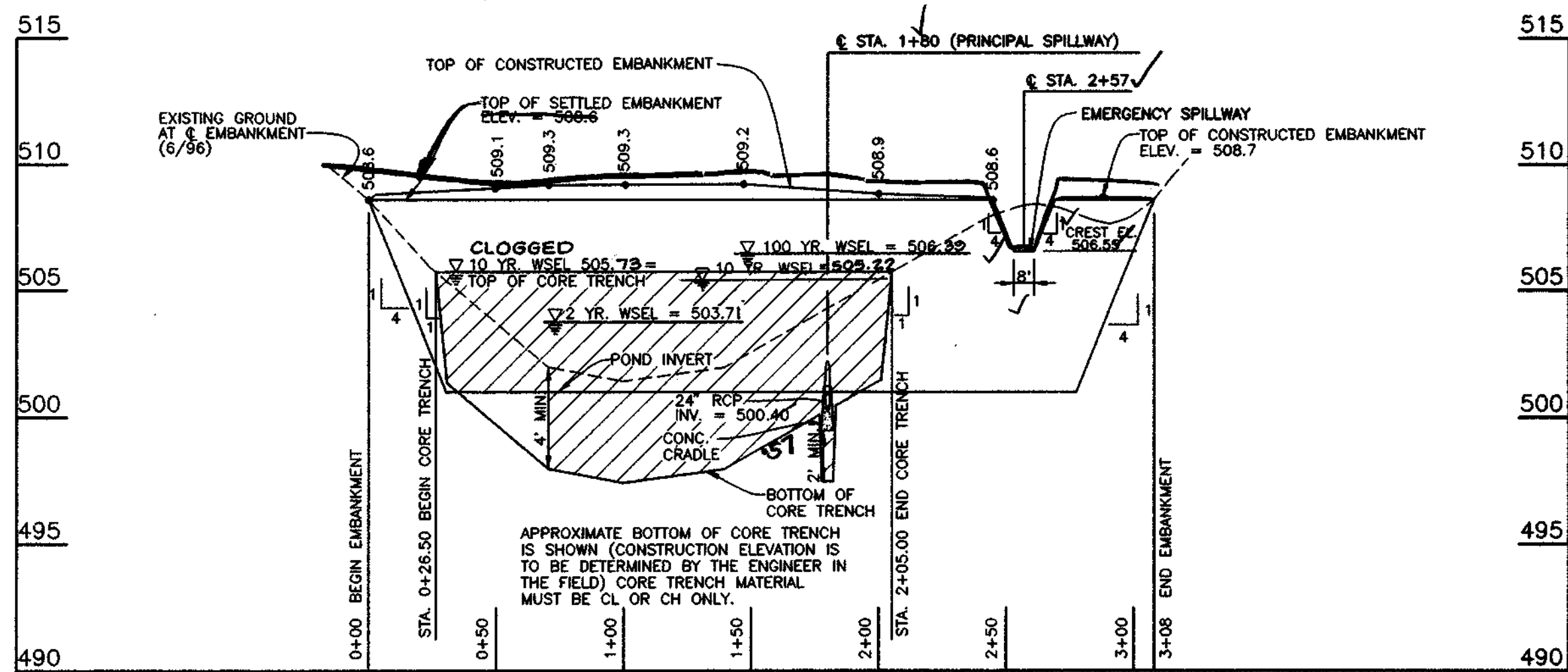
**TSA GROUP, INC.**  
 planning • architecture • engineering • surveying  
 6480 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 466-2106

OWNER/DEVELOPER:	<b>RIDGE VIEW HUNT</b>		
PROJECT:	LOTS 1 - 28 & PRESERVATION PARCELS A THRU F (S-95-16, P-96-19, & SP-96-14)		
LOCATION:	TAX MAP 14, PARCEL 14	4th ELECTION DISTRICT	
	HOWARD COUNTY, MARYLAND		
TITLE:	<b>STORM WATER MANAGEMENT POND #1 NOTES AND DETAILS</b>		
DATE:	JAN1997	PROJECT NO.	0871
Design:	CMV/MLV	Draft:	JMC
SCALE:	AS SHOWN	DRAWING	12 OF 19



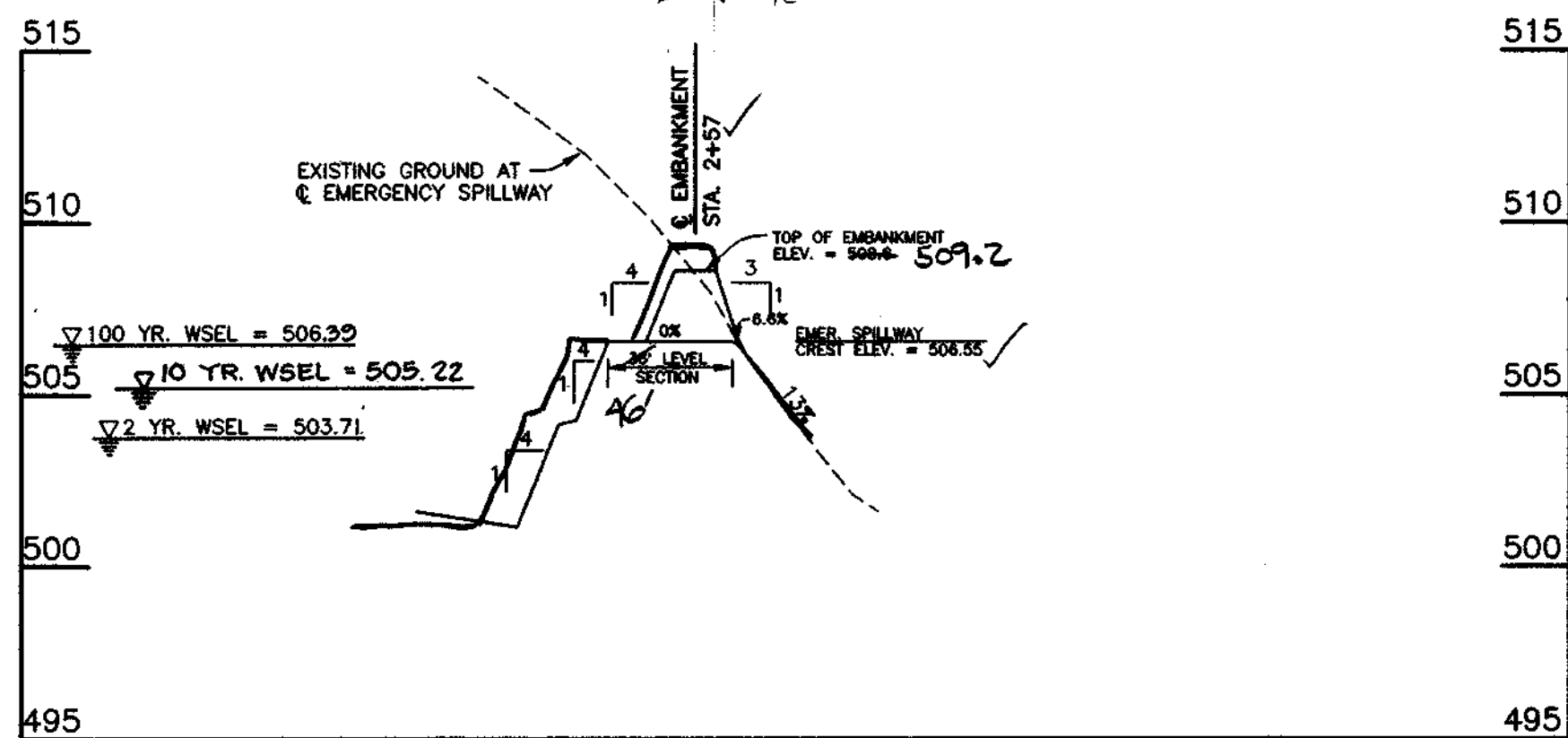
POND #2 - SECTION B-B - SECTION THRU PRINCIPAL SPILLWAY

SCALE: HORIZ. = 1"=20'  
VERT. = 1"=2'



POND #2 - SECTION A-A - PROFILE ALONG EMBANKMENT

SCALE: HORIZ. = 1"=50'  
VERT. = 1"=5'



POND #2 - SECTION C-C - EMERGENCY SPILLWAY PROFILE

SCALE: HORIZ. = 1"=50'  
VERT. = 1"=5'

ENGINEERING ASSOCIATES, INC. Page 1 of 1

Soil Name: Blank View Station: Howard Co., MD. Boring # TP-12 Job # 9902A

ELEV.	SOIL DESCRIPTION	DEPTH SCALE	SAMPLE NO.	DEPTH	NO.	REMARKS
5.0	Subsurface					4" Topsoil
5.5	Brown, orange brown moist silty clay with some rock fragments (SM)					No groundwater encountered while drilling
5.8	Orange brown moist silty clay with some rock fragments (SM)					No groundwater encountered while drilling
6.0	Brown wet sandy silty clay with some rock fragments (SM)					No groundwater encountered while drilling
6.5	Bottom of Hole at 6' 0"					Backfilled at completion

WATER TYPE: None (Dry) UNLESS OTHERWISE NOTED  
SAMPLE CONDITIONS: D-CORRECTION AT COMPLETION  
GROUND WATER DEPTH: AT COMPLETION  
BORING METHOD: HAND-DRIVEN STEEL AUGERS  
CORRECTION METHOD: NONE

HILLS - CARNES ENGINEERING ASSOCIATES, INC. Page 1 of 1

Soil Name: Blank View Station: Howard Co., MD. Boring # TP-6 Job # 9902A

ELEV.	SOIL DESCRIPTION	DEPTH SCALE	SAMPLE NO.	DEPTH	NO.	REMARKS
0.0	Subsurface					4" Topsoil
2.0	Tan and gray wet fine sandy silty clay (SM)					No groundwater encountered while drilling
2.5	Dark gray, blue wet silty fine sand, trace mica (SM)					No groundwater encountered while drilling
2.8	Brown moist silty sand, trace rock fragments (SM)					Water was ponded on the ground surface at the time of excavation
3.0	Bottom of Hole at 3' 0"					Backfilled at completion

WATER TYPE: None (Dry) UNLESS OTHERWISE NOTED  
SAMPLE CONDITIONS: D-CORRECTION AT COMPLETION  
GROUND WATER DEPTH: AT COMPLETION  
BORING METHOD: HAND-DRIVEN STEEL AUGERS  
CORRECTION METHOD: NONE

HILLS - CARNES ENGINEERING ASSOCIATES, INC. Page 1 of 1

Soil Name: Blank View Station: Howard Co., MD. Boring # TP-12 Job # 9902A

ELEV.	SOIL DESCRIPTION	DEPTH SCALE	SAMPLE NO.	DEPTH	NO.	REMARKS
0.0	Subsurface					4" Topsoil
3.0	Tan, green, brown moist silty fine sand					Groundwater encountered at 3' 0" while drilling
5.0	Tan, green, brown moist silty fine sand					Groundwater encountered at 5' 0" while drilling
6.0	Tan, brown moist to dry silty fine sand and decomposing rock fragments, trace mica (SM)					Groundwater encountered at 6' 0" while drilling
6.5	Bottom of Hole at 6' 5"					Backfilled at completion

WATER TYPE: None (Dry) UNLESS OTHERWISE NOTED  
SAMPLE CONDITIONS: D-CORRECTION AT COMPLETION  
GROUND WATER DEPTH: AT COMPLETION  
BORING METHOD: HAND-DRIVEN STEEL AUGERS  
CORRECTION METHOD: NONE

ENGINEERING ASSOCIATES, INC. Page 1 of 1

Soil Name: Blank View Station: Howard Co., MD. Boring # TP-11 Job # 9902A

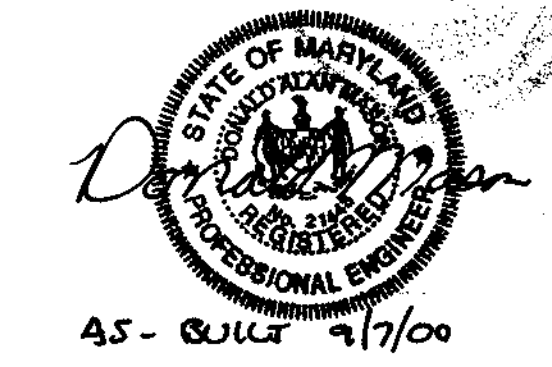
ELEV.	SOIL DESCRIPTION	DEPTH SCALE	SAMPLE NO.	DEPTH	NO.	REMARKS
0.0	Subsurface					4" Topsoil
6.0	Tan, green, brown moist silty fine sand					No groundwater encountered while drilling
6.5	Bottom of Hole at 6' 5"					Backfilled at completion

WATER TYPE: None (Dry) UNLESS OTHERWISE NOTED  
SAMPLE CONDITIONS: D-CORRECTION AT COMPLETION  
GROUND WATER DEPTH: AT COMPLETION  
BORING METHOD: HAND-DRIVEN STEEL AUGERS  
CORRECTION METHOD: NONE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daniels* 8-7-97  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Andy Hamilton* 8/10/97  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Donald Maen* 8/10/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



3	2/97	REV. PER HO. CO. ENR. & HSCD
2	5/97	REVISED PER HO. CO. ENGINEERING AND HSCD
1	4/97	REVISED PER HO. CO. ENGINEERING AND HSCD
NO	DATE	REVISION

TSA GROUP, INC.  
planning • architecture • engineering • surveying  
4800 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 480-5100

OWNER/DEVELOPER: R.H. DEVELOPMENT, L.L.C.  
8668 BALTIMORE NATIONAL PIKE  
ELLICOTT CITY, MARYLAND 21043  
(410) 465-2321

PROJECT: RIDGE VIEW HUNT  
LOTS 1-28 & PRESERVATION PARCELS A THRU F  
(S-95-16, P-96-19, & SP-96-14)

LOCATION: TAX MAP 14, PARCEL 14  
4th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

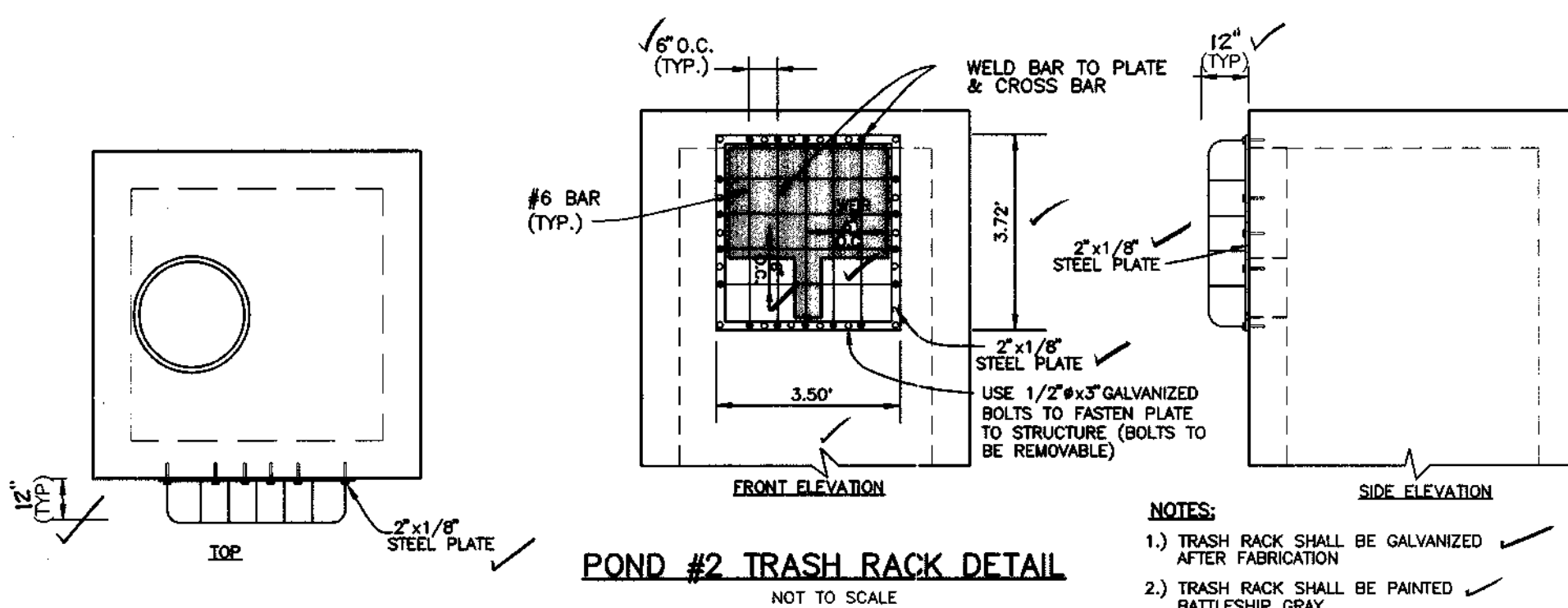
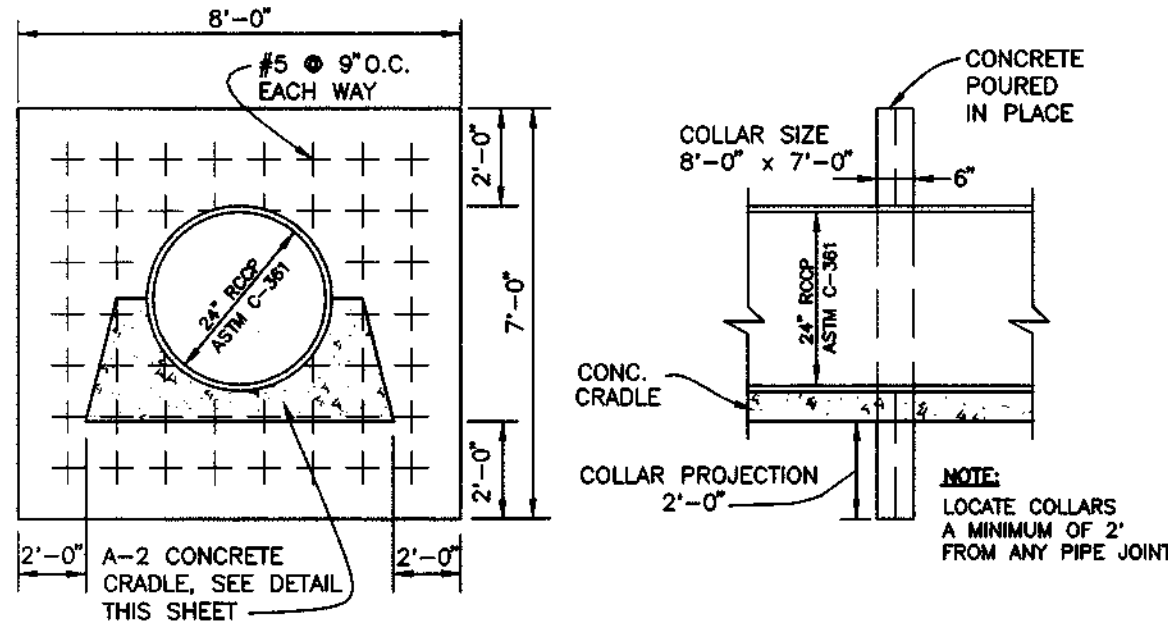
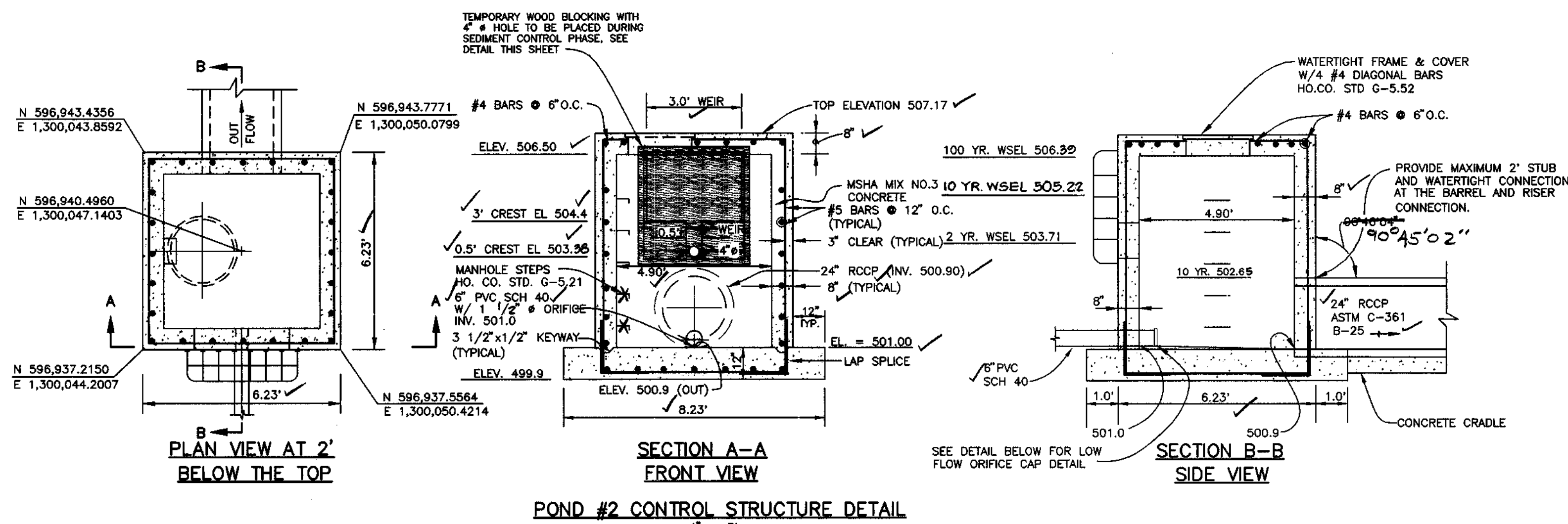
TITLE: STORM WATER MANAGEMENT  
POND #2 SECTIONS AND PROFILES

DATE: JAN. 1997 PROJECT NO. 0971

DESIGN: CAM/MLV DRAFT: JMC CHECK: CAM/MLV SCALE: AS SHOWN DRAWING 13 OF 18

**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.



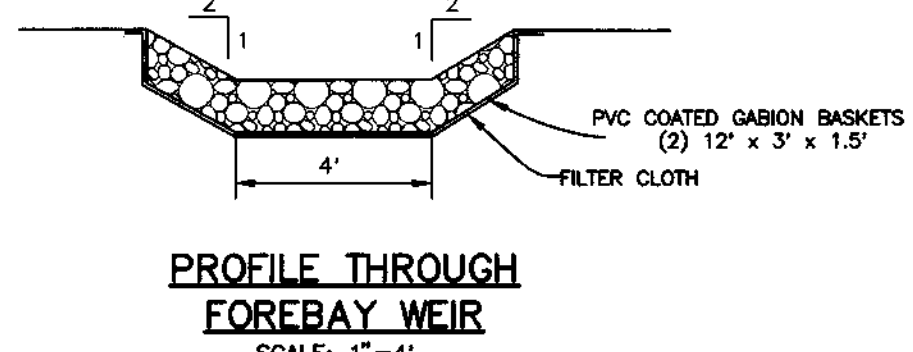
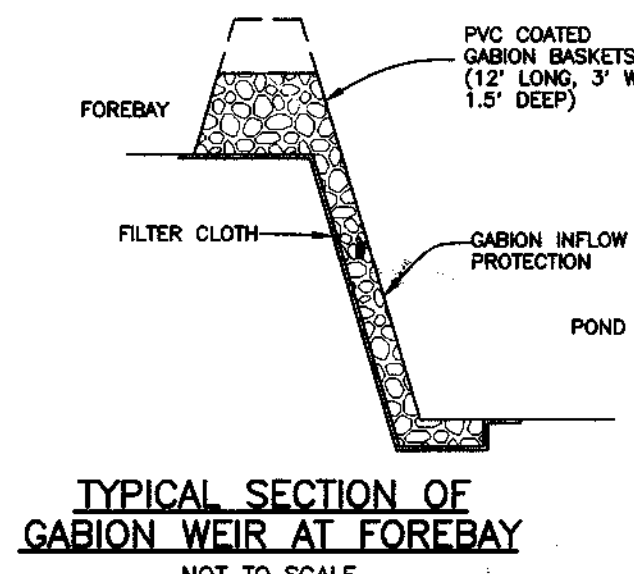
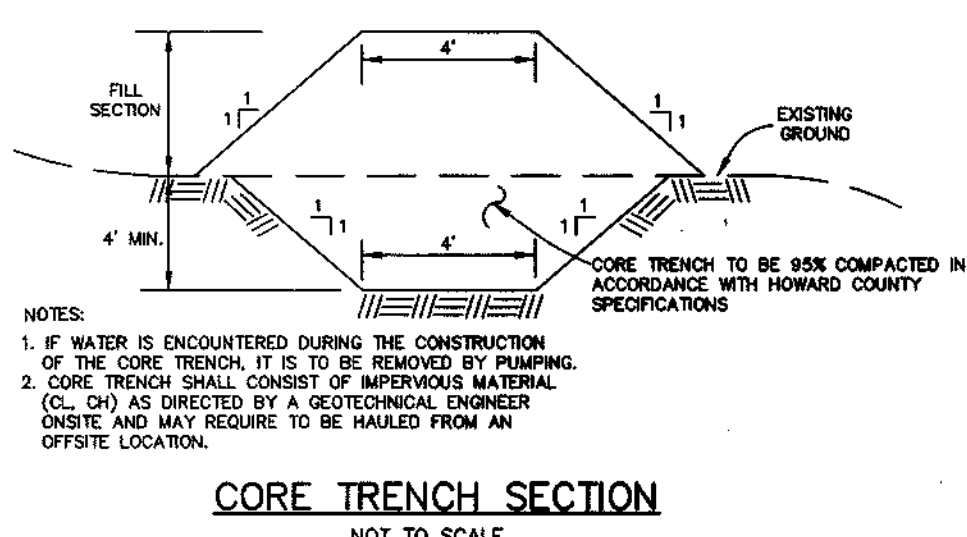
**POND #2 ANTI-SEEP COLLAR DETAIL**  
NOT TO SCALE

**POND #2 TRASH RACK DETAIL**  
NOT TO SCALE

**POND #2 TYPE A-2 CONCRETE CRADLE**  
NOT TO SCALE

**BLOCKING DETAIL FOR POND #2 TEMPORARY SWM DURING CONSTRUCTION**  
FRONT VIEW OF RISER  
NOT TO SCALE

**POND #2 6" DEWATERING PIPE DETAIL AND PERMANENT EXTENDED DETENTION CONTROL ORIFICE**  
NOT TO SCALE



**POND #2 SECTION THROUGH FOREBAY**  
NOT TO SCALE

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.

*Richard H. Hoenes* 07/20/97  
Natural Resource Conservation Service Date

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

*Richard H. Hoenes* 7/20/97  
Howard Soil Conservation District Date

By the Engineer:

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

*Donald A. Mason* 9/1/00  
DONALD A. MASON P.E.# 21443 Date  
ENGINEER:

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

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

*Richard H. Hoenes* 9/20/97  
RICHARD H. HOENES Date  
DEVELOPER: R. H. DEVELOPMENT, L.L.C.

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.

*Donald A. Mason* 5/20/97  
DONALD A. MASON P.E.# 21443 Date  
ENGINEER:

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*Andrew M. Daniels* 8-7-97  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

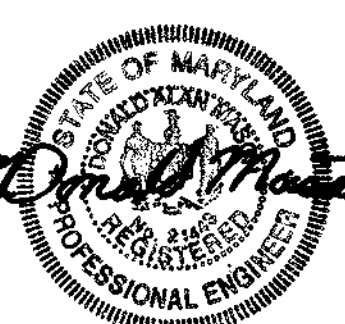
*Cynthia Hamilton* 8/14/97  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Mr. [Signature]* 8/14/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



NO.	DATE	REVISION
3	6/97	REV. PER HO. CO. ENG. & HSCD
2	5/97	REVISED PER HO. CO. ENGINEERING AND HSCD.
1	4/97	REVISED PER HO. CO. ENGINEERING AND HSCD.

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planning • architecture • engineering • surveying  
8680 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 465-8105



OWNER/DEVELOPER:  
R. H. DEVELOPMENT, L.L.C.  
8668 BALTIMORE NATIONAL PIKE  
ELLICOTT CITY, MD. 21043  
(410) 465-2321

PROJECT: **RIDGE VIEW HUNT**  
LOTS 1 - 28 & PRESERVATION PARCELS A THRU F  
(S-95-16, P-96-19, & SP-96-14)  
LOCATION: TAX MAP 14, PARCEL 14  
4TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
TITLE: **STORM WATER MANAGEMENT  
POND #2 NOTES AND DETAILS**

DATE: JAN. 1997 PROJECT NO. 0971  
Design: CAM/MLV Draft: JMC SCALE: AS SHOWN DRAWING 14 OF 19

SEDIMENT CONTROL NOTES

- 1. A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION...

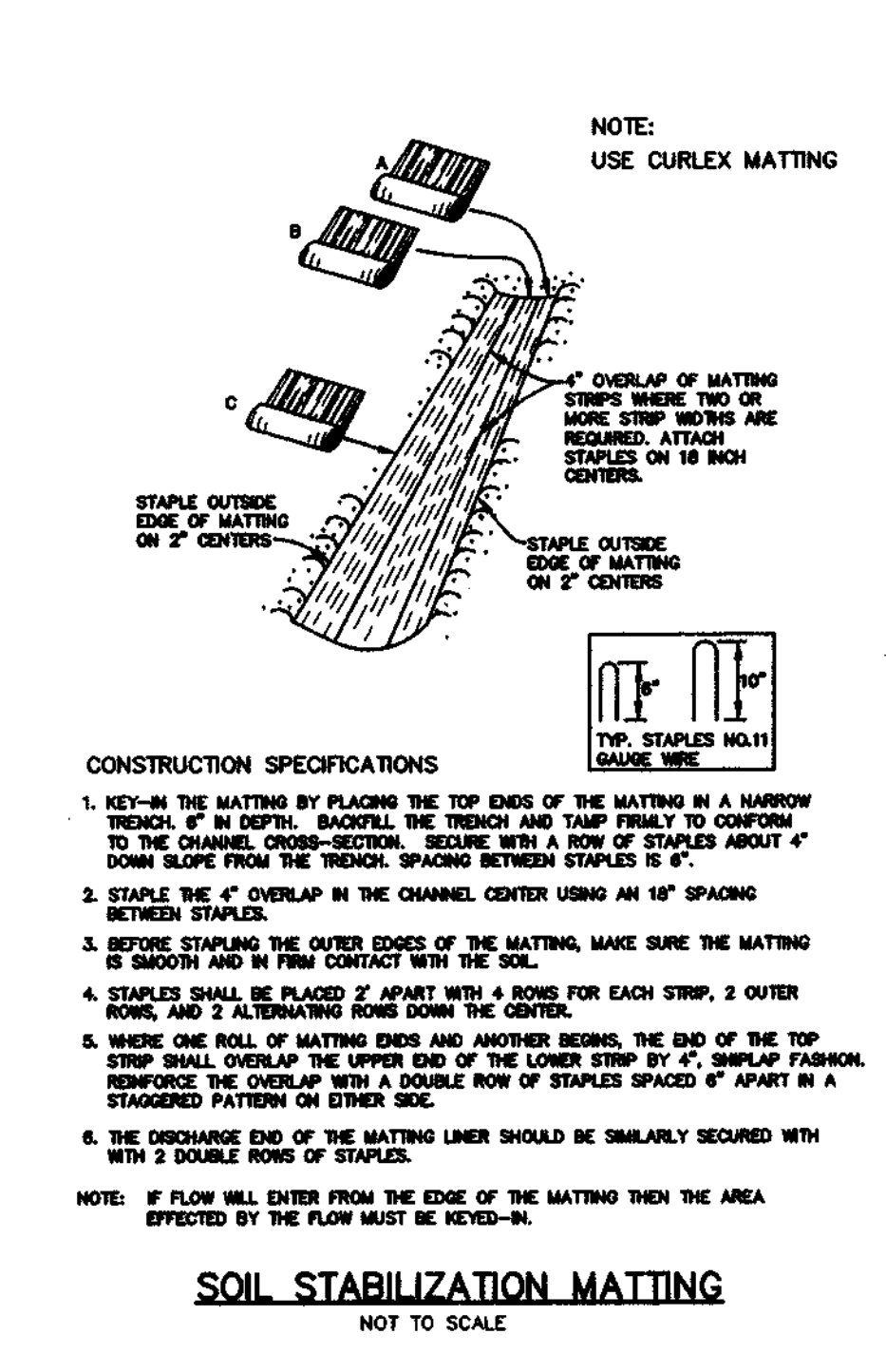
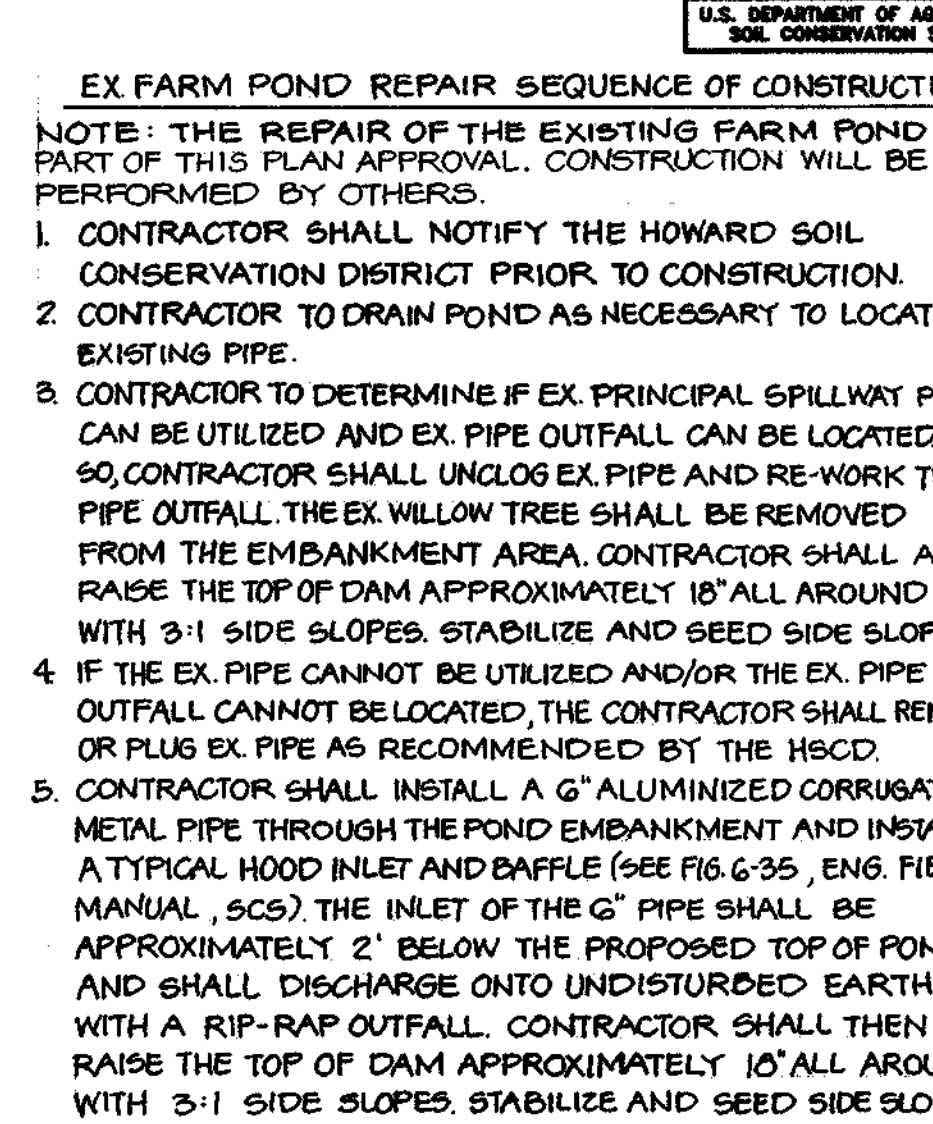
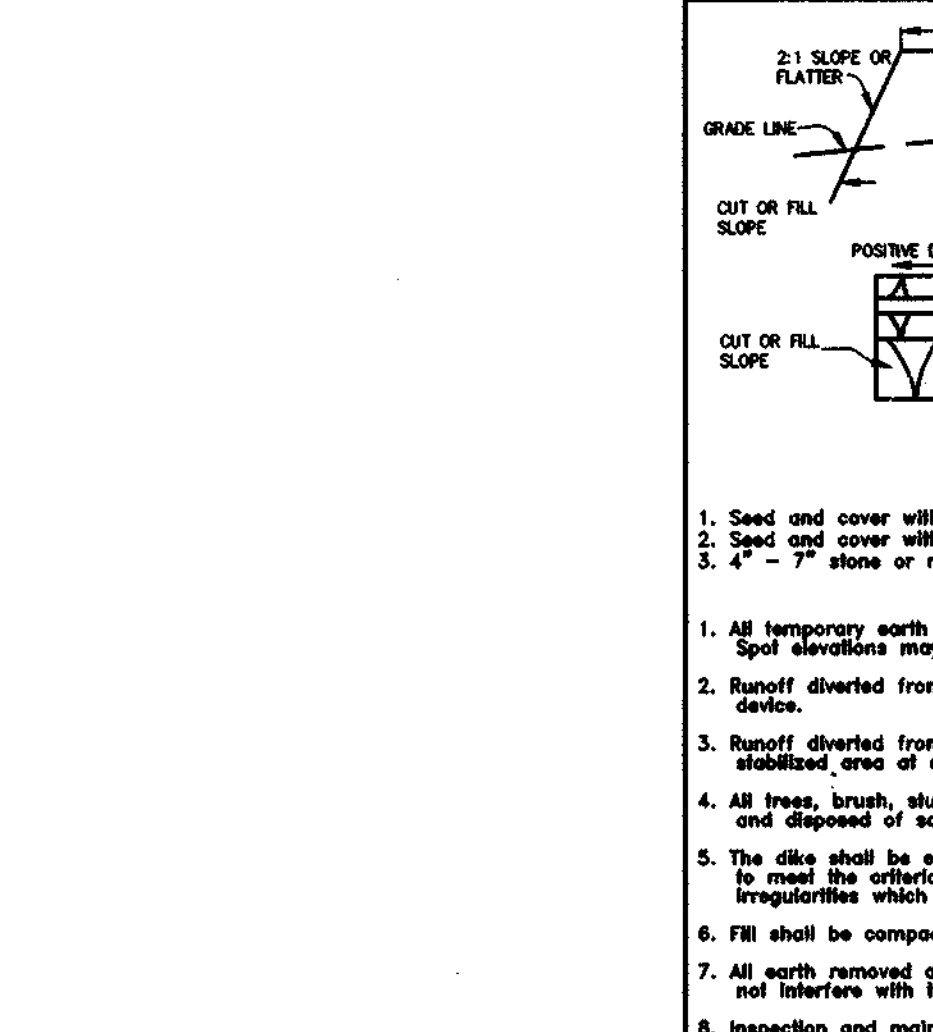
Table with 2 columns: Item, Value. Includes: TOTAL AREA OF SITE (110.73 ACRES), AREA DISTURBED (15.91 ACRES), etc.

PERMANENT SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING...

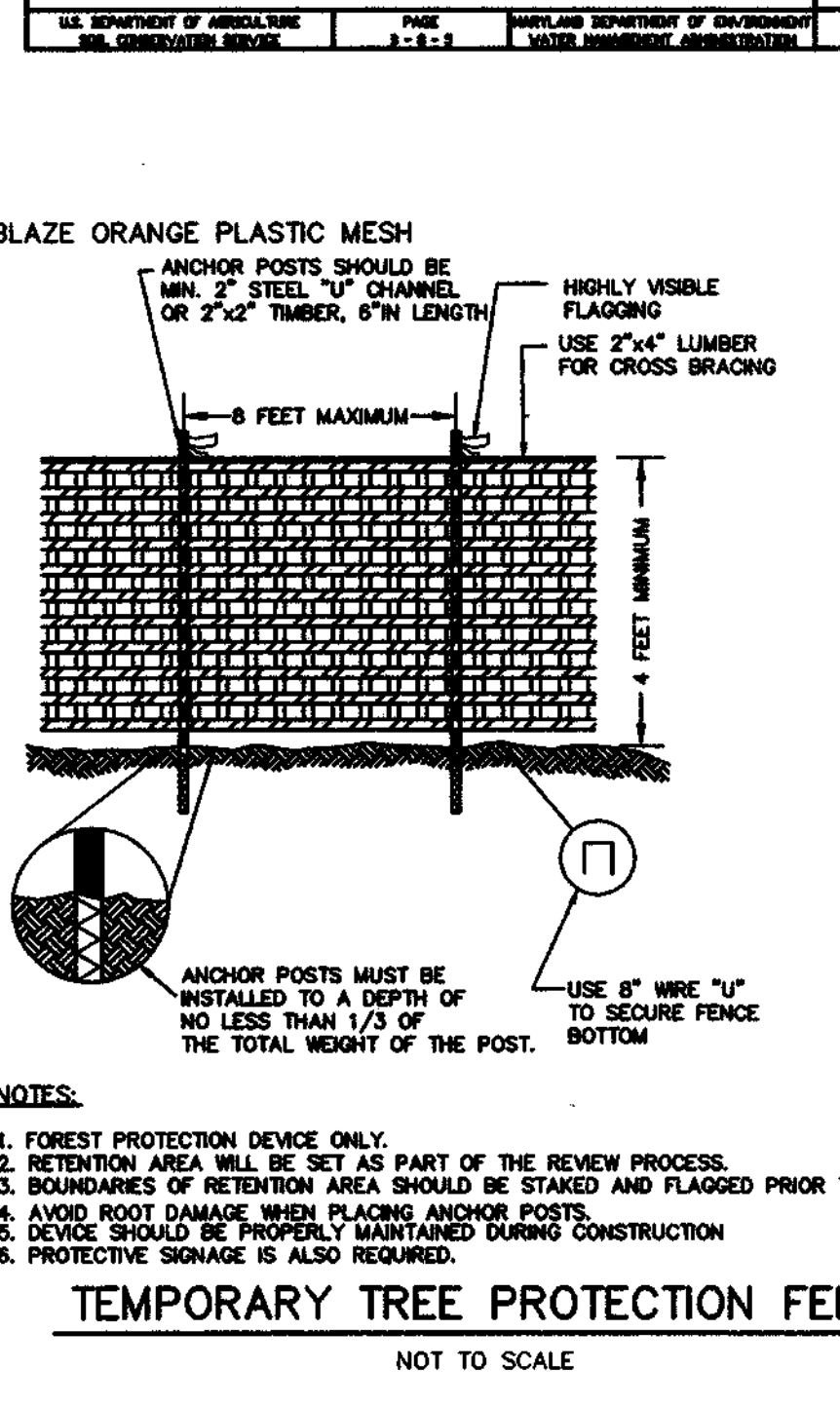
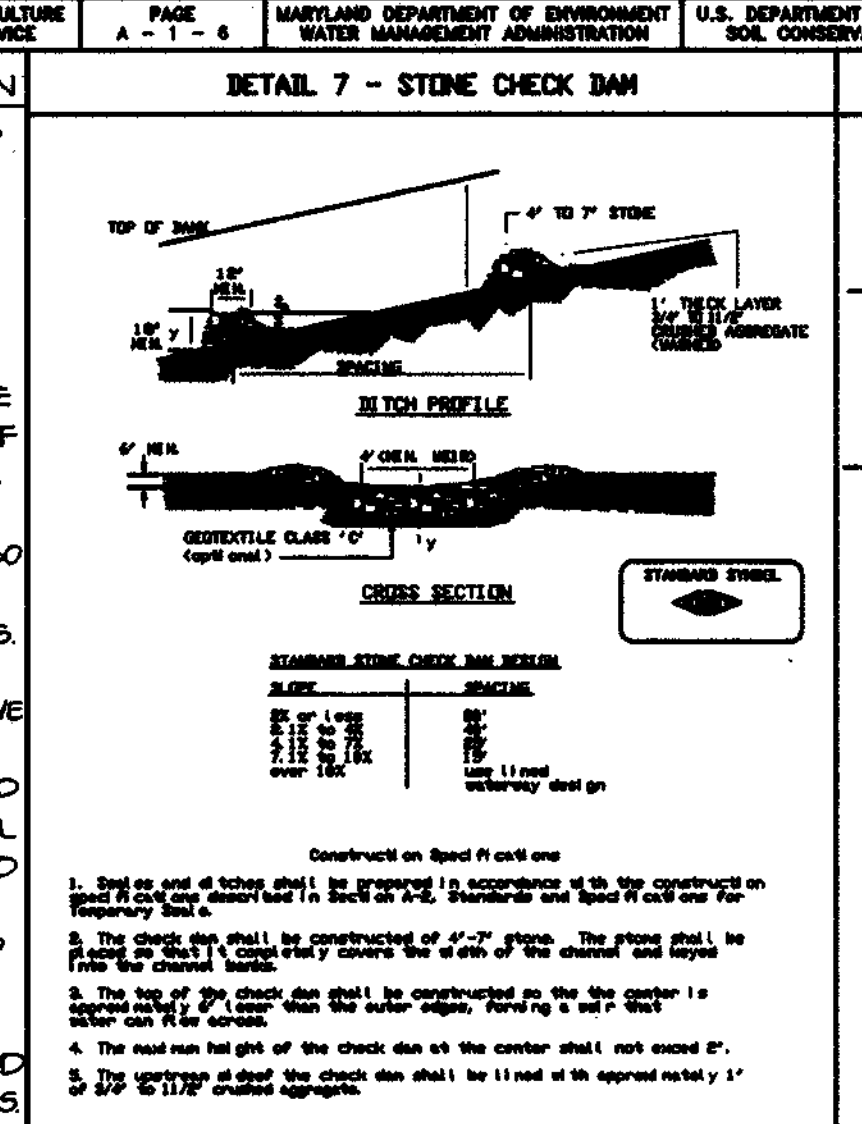
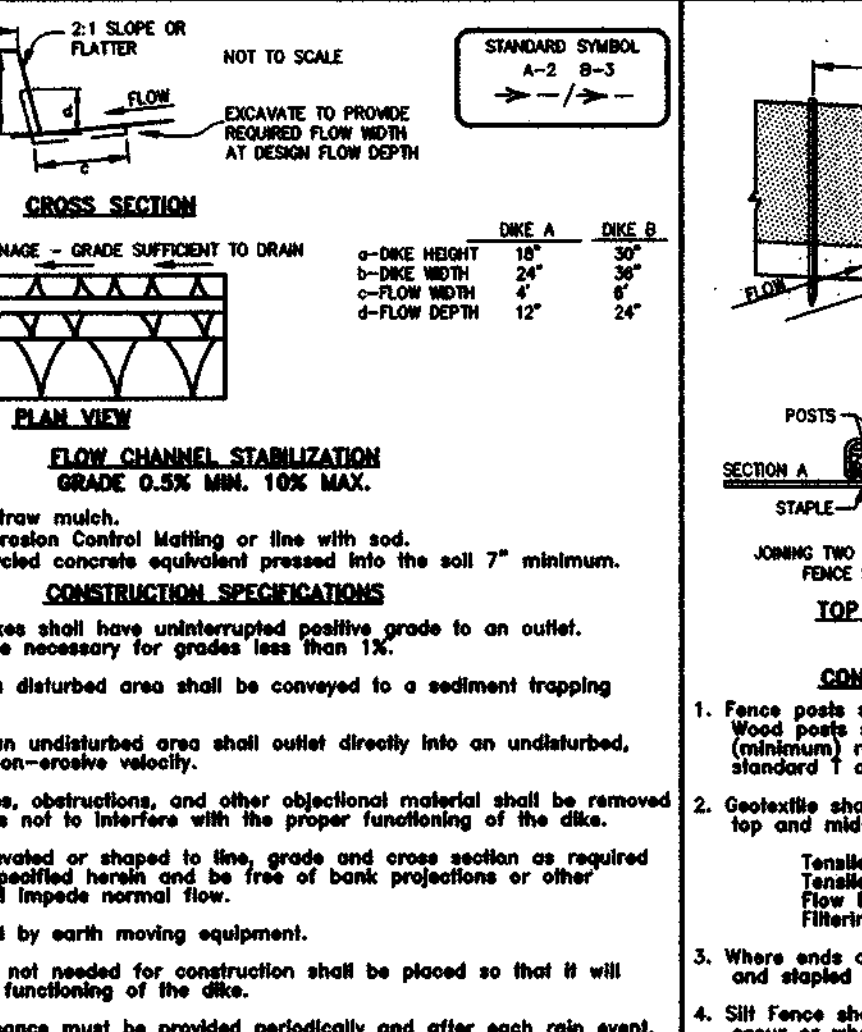
TEMPORARY SEEDING PREPARATION: APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS REQUIRED...

- SEQUENCE OF CONSTRUCTION: DAY 1 OBTAIN GRADING PERMIT. DAY 2-20 INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE, INSTALL SEDIMENT BASINS...

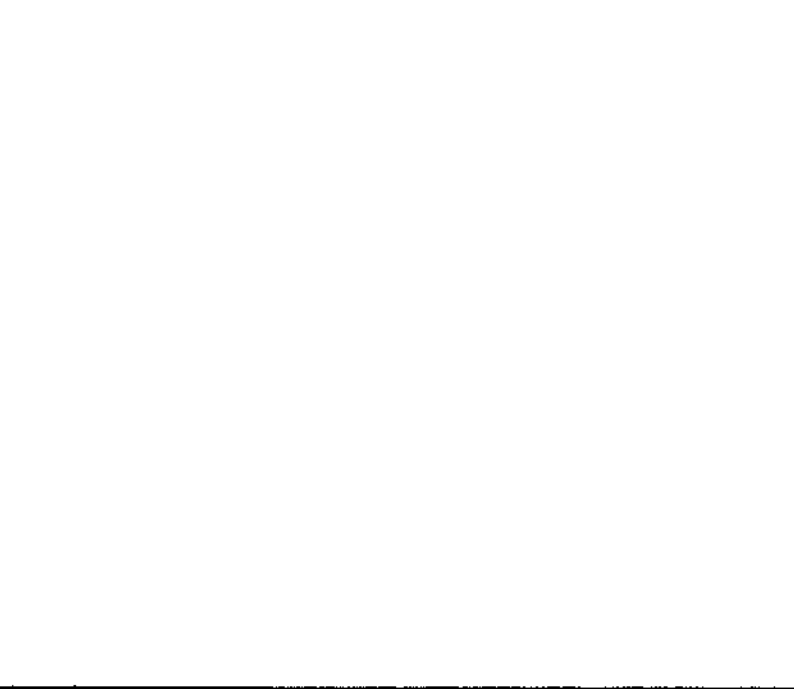
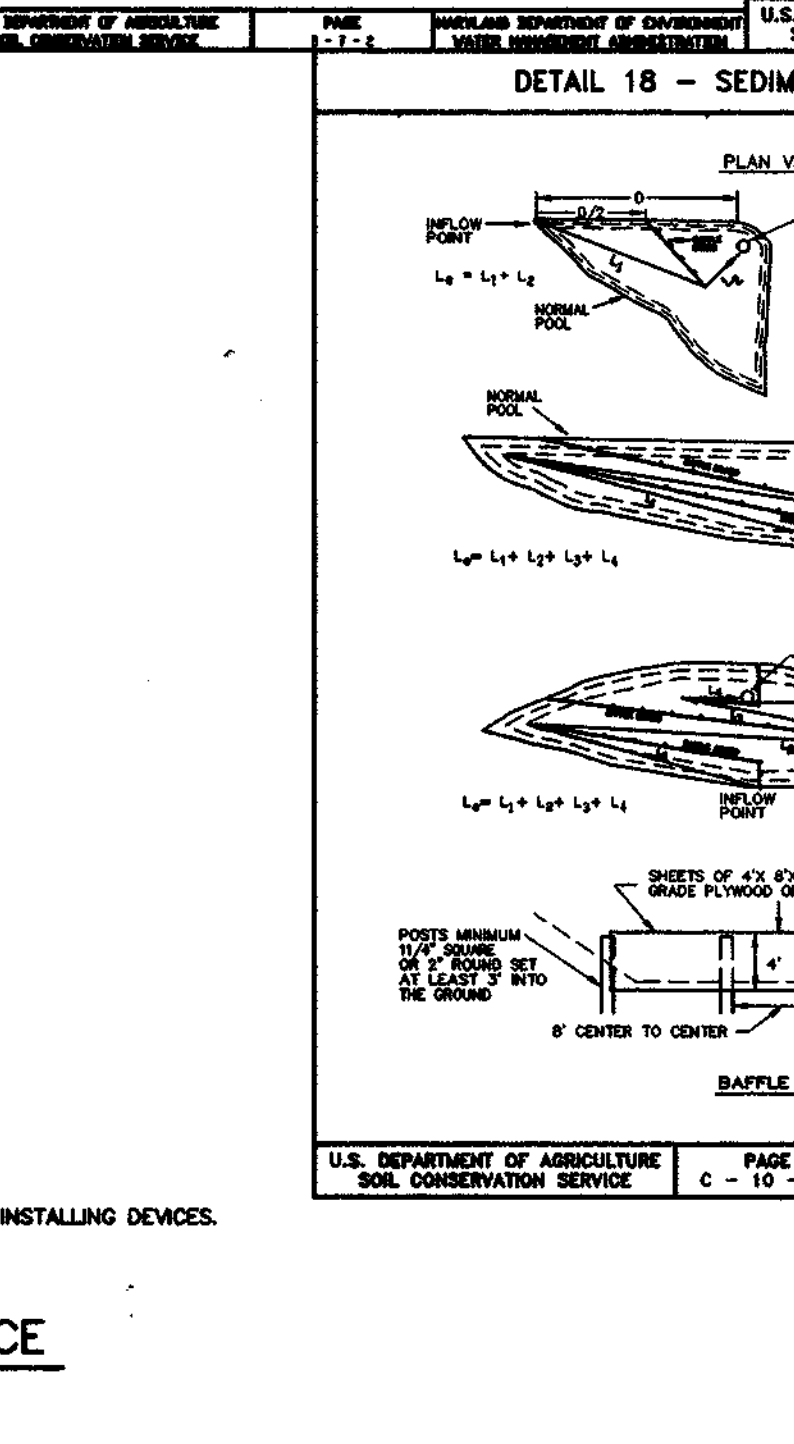
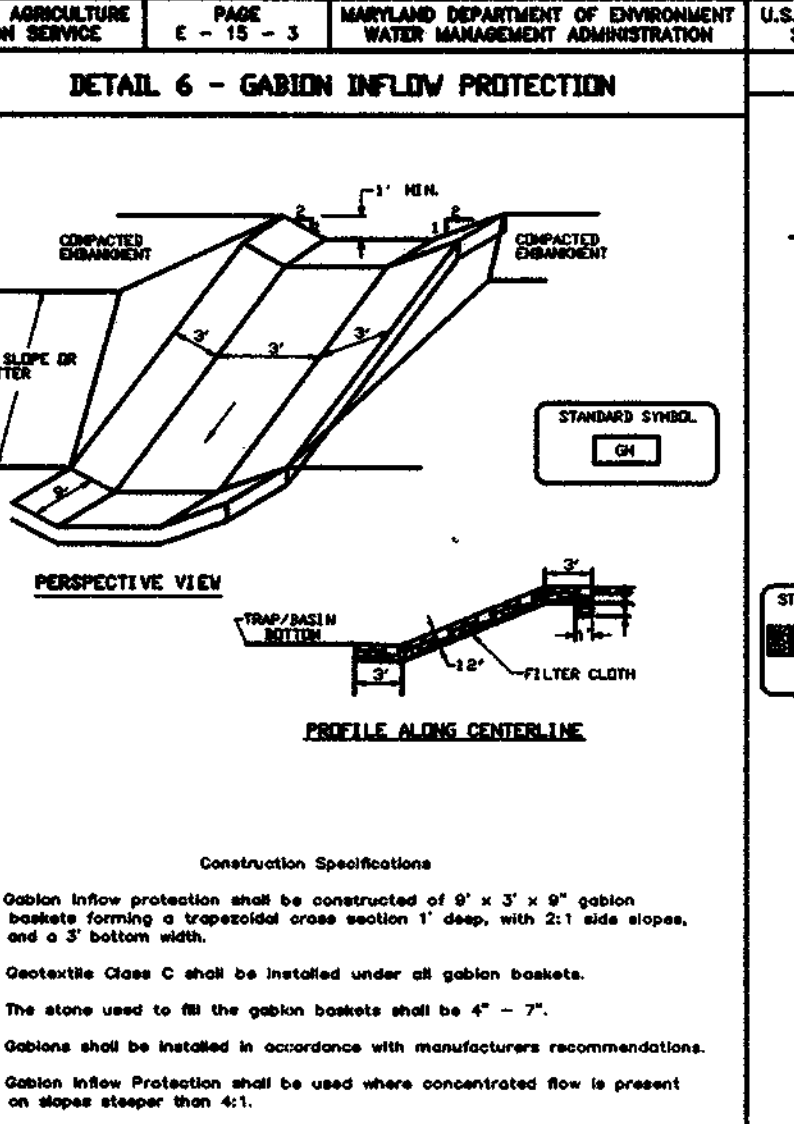
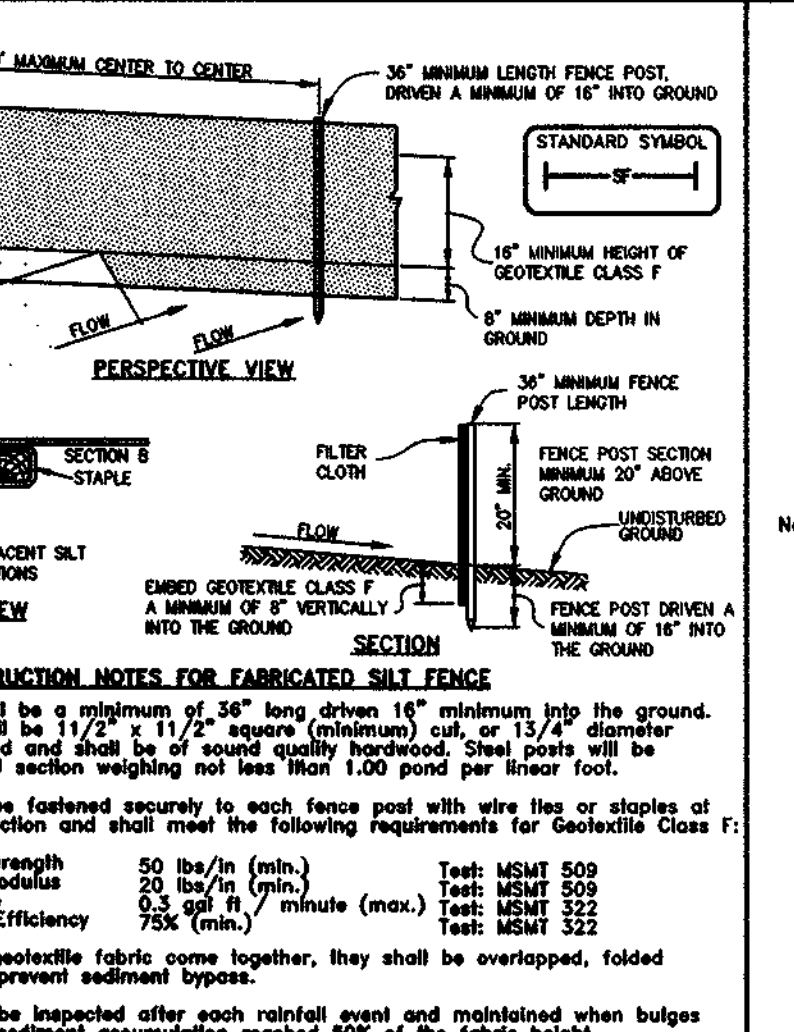
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. Signature: [Redacted] DATE: 9/7/97



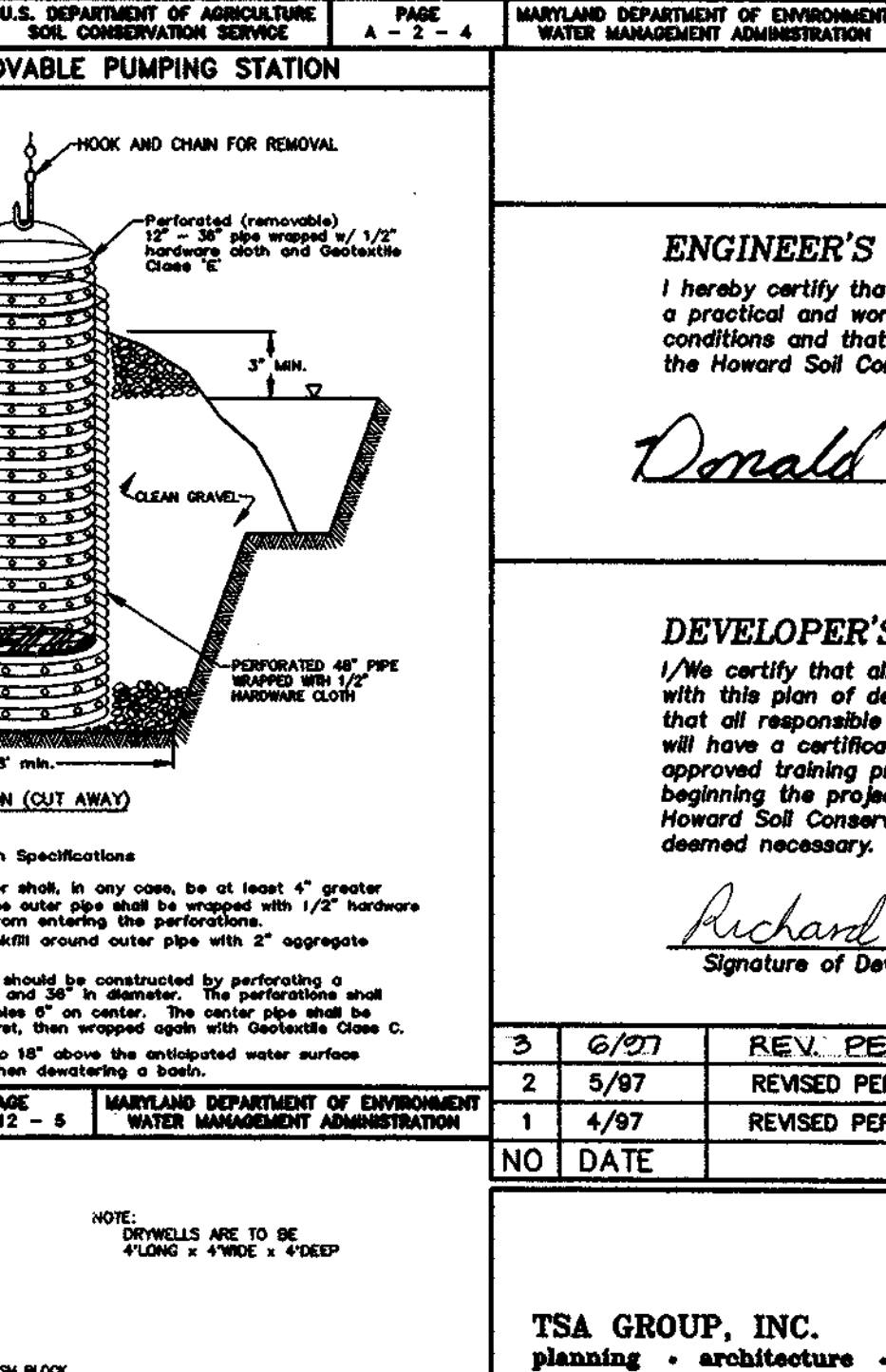
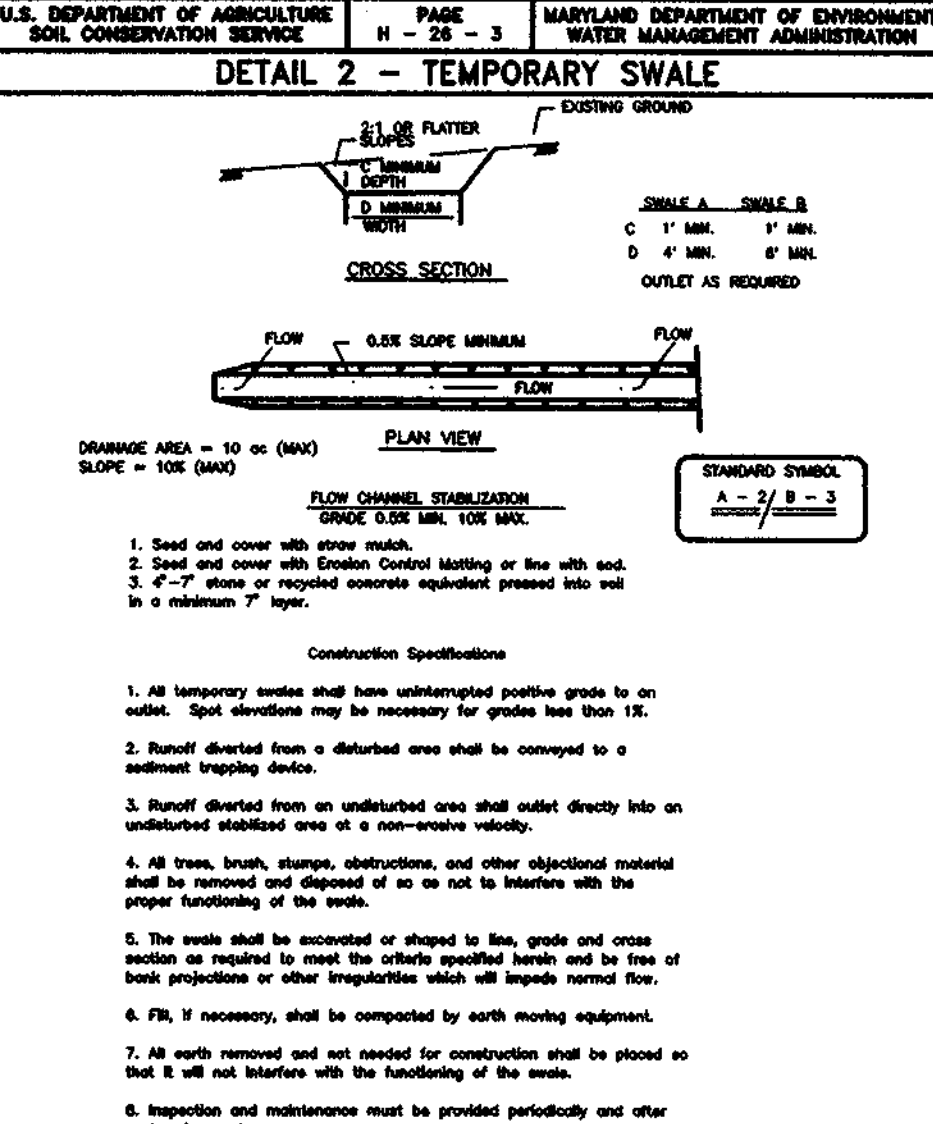
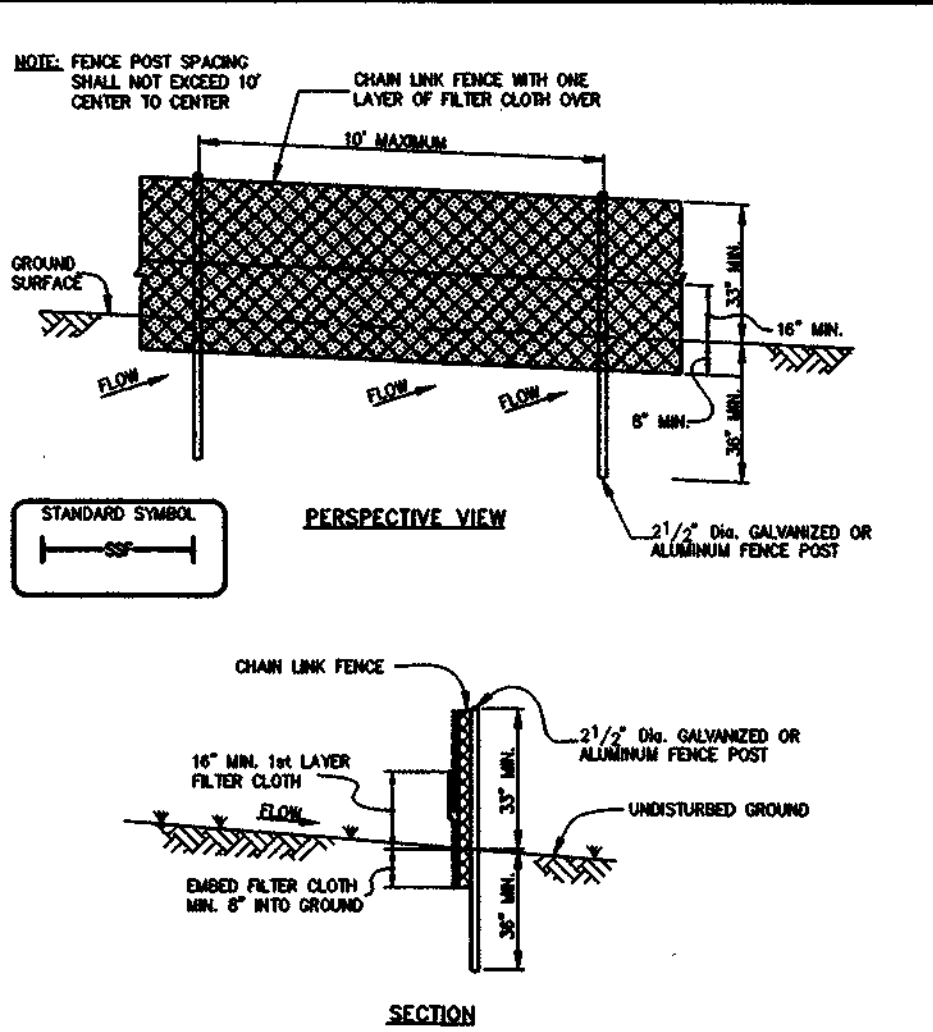
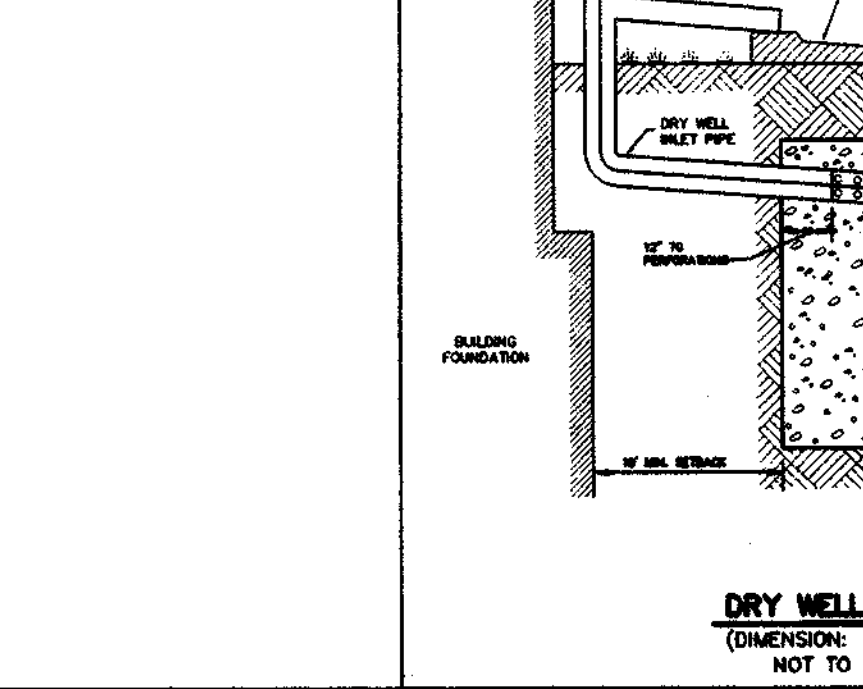
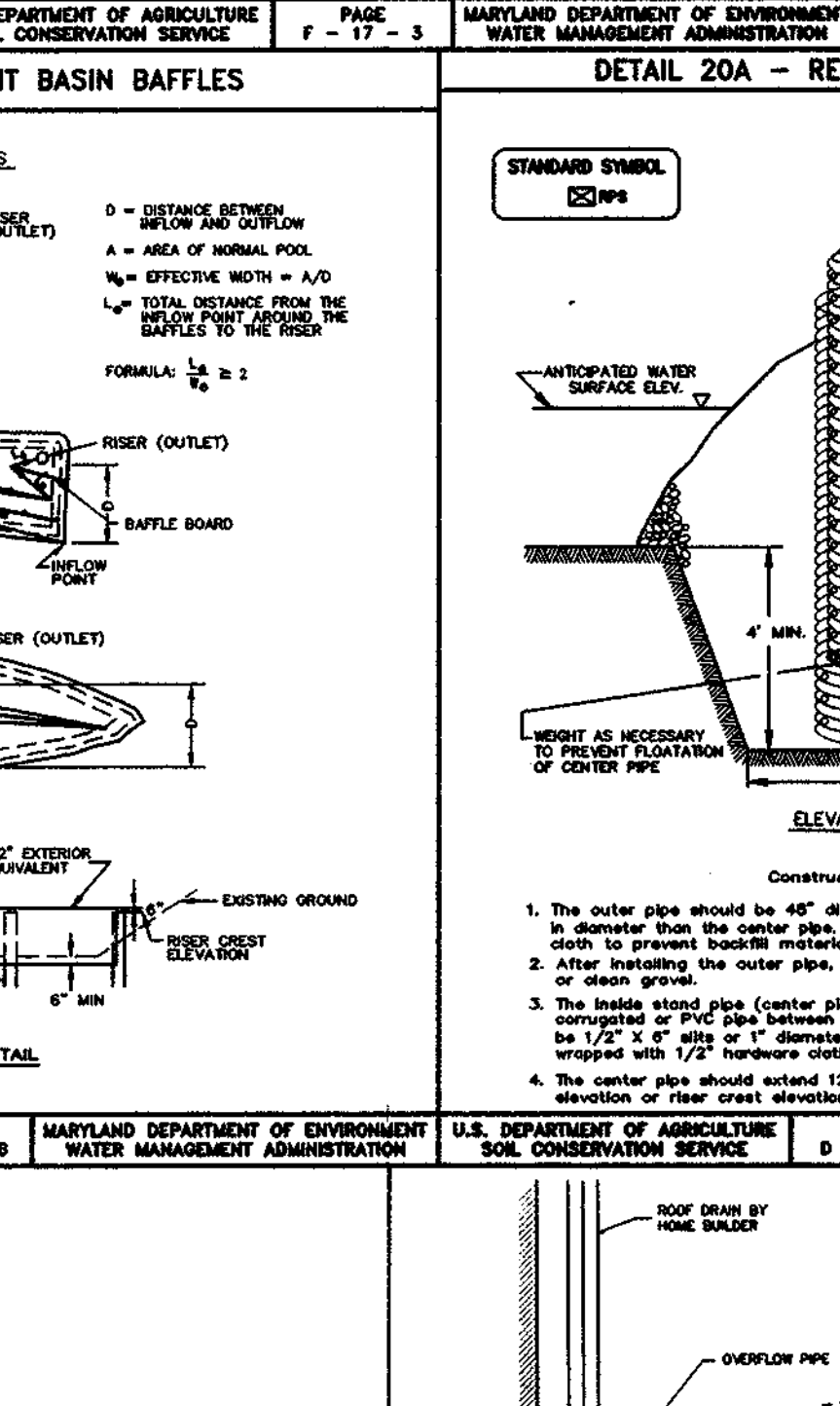
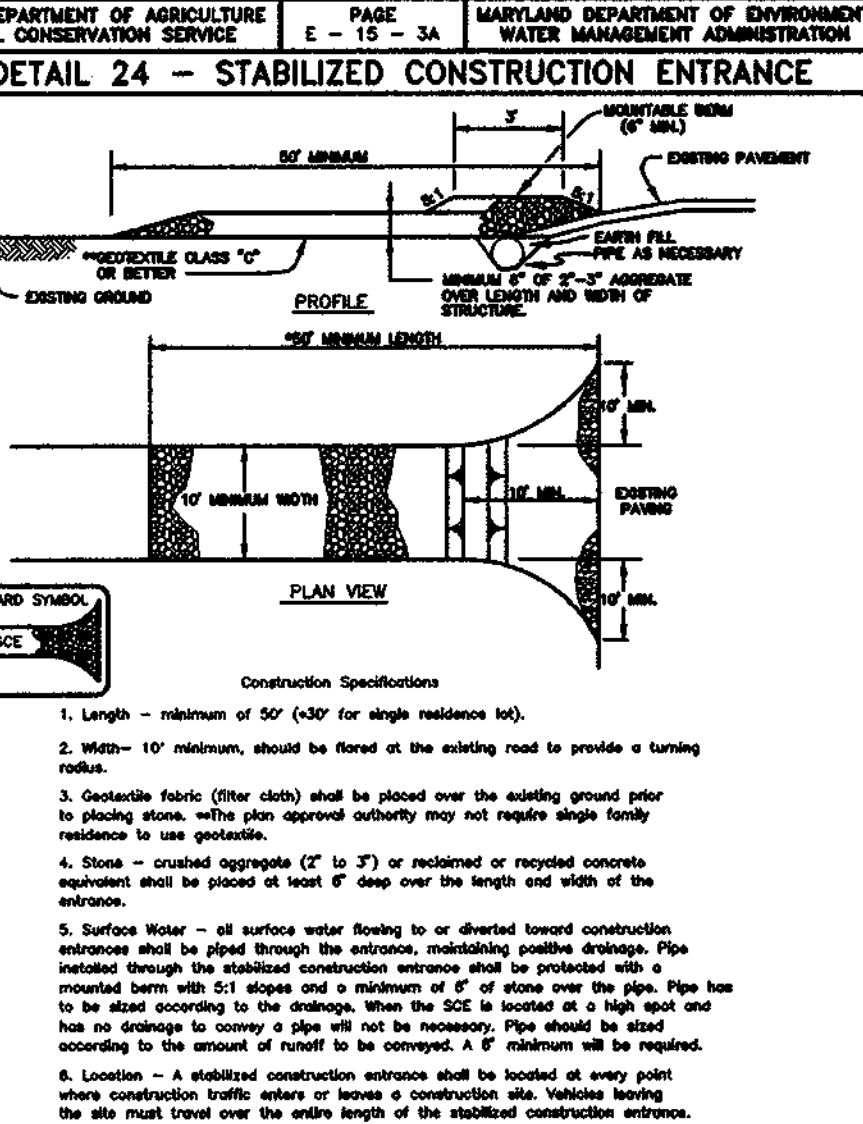
APPROVED: THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT. Signature: [Redacted] DATE: 7/28/97



APPROVED: REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS. Signature: [Redacted] DATE: 07/28/97



SILT FENCE DESIGN CRITERIA: Table with columns for Slope Steadiness, (Maximum) Silt Fence Length, and (Maximum) Silt Fence Length. Includes design notes.

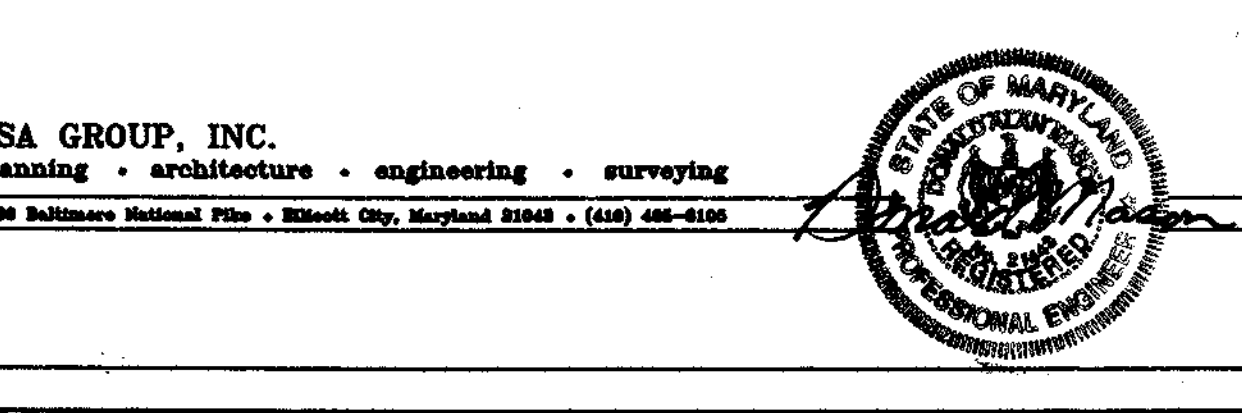


APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING. Signature: [Redacted] DATE: 8/14/97

SUPER SILT FENCE CONSTRUCTION SPECIFICATIONS: Table with columns for Structure, Length (L), Width (W), Thickness (T), and Slope Class. Includes design criteria table below.

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 the requirements of the Howard Soil Conservation District.

DEVELOPER'S CERTIFICATE: I/We certify that all development and construction will be done in accordance with this plan of development and plan for erosion and sediment control...

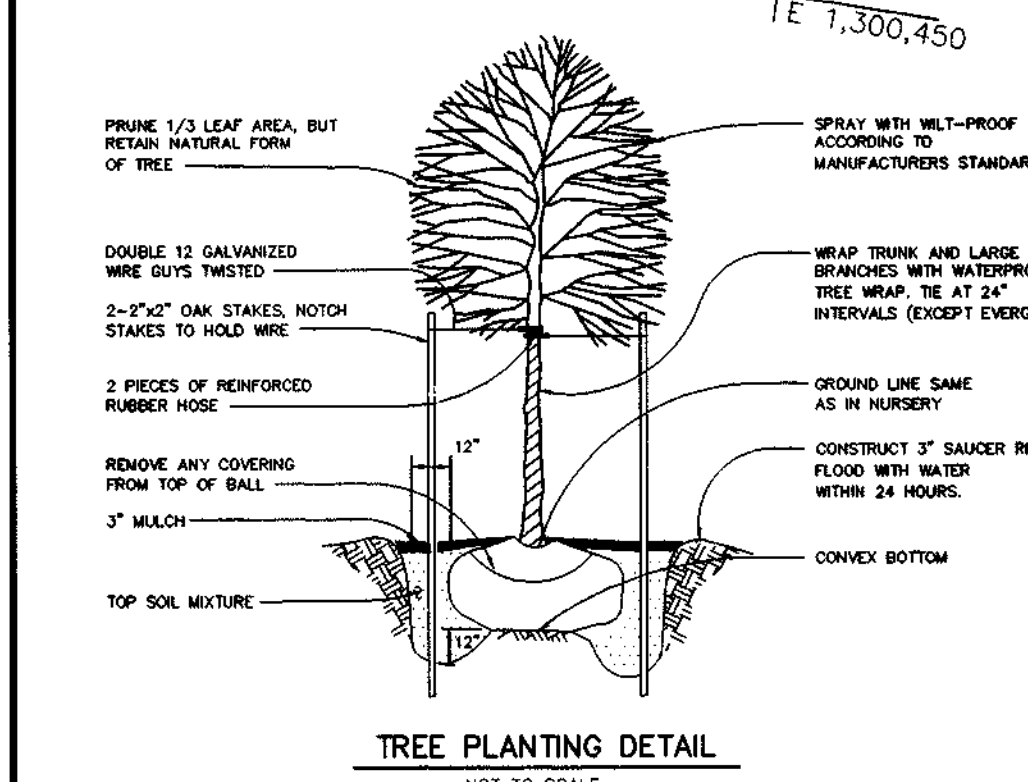
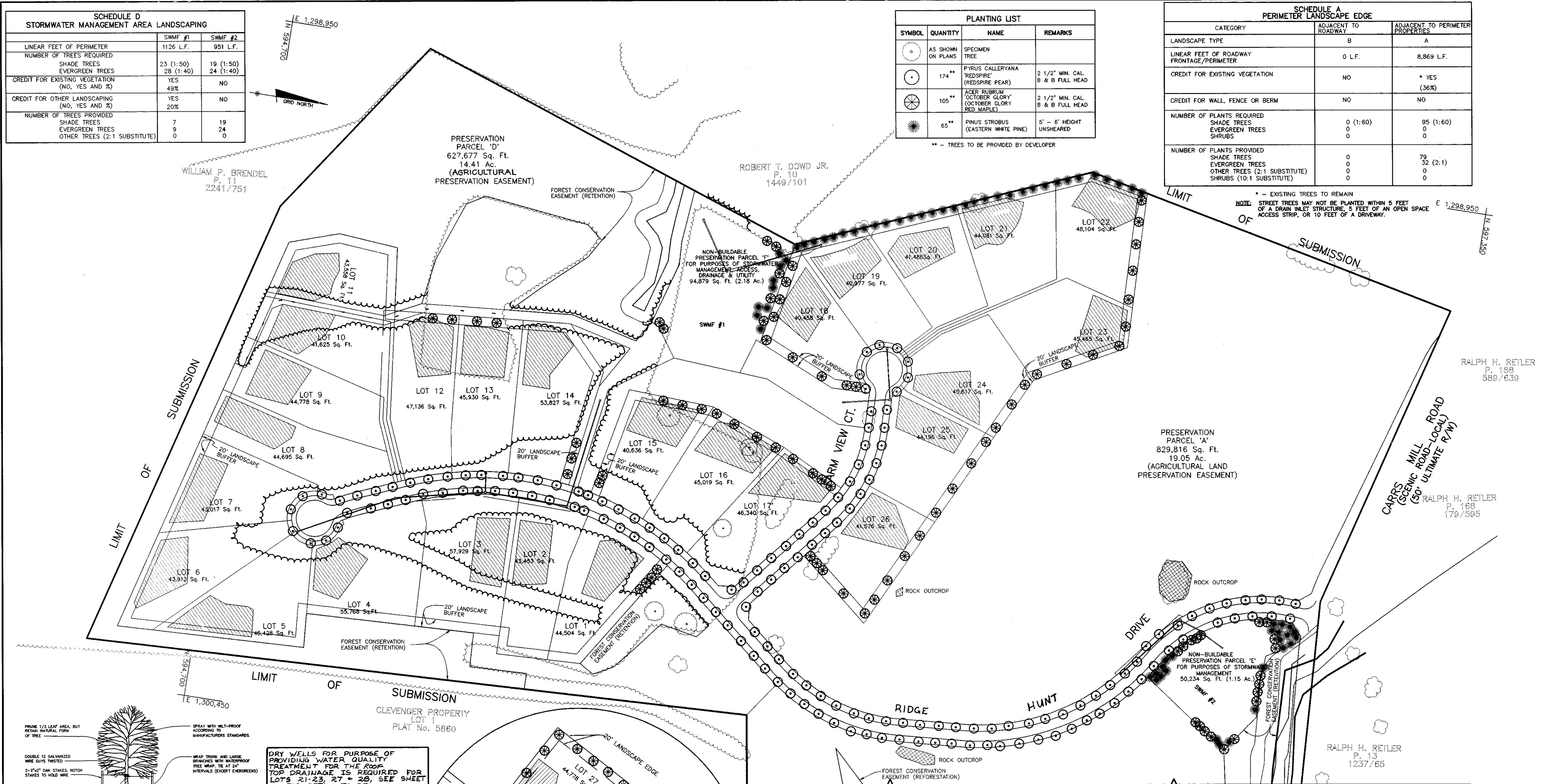


TSA GROUP, INC. planning • architecture • engineering • surveying. PROJECT: RIDGE VIEW HUNT. OWNER/DEVELOPER: R.H. DEVELOPMENT, L.L.C.

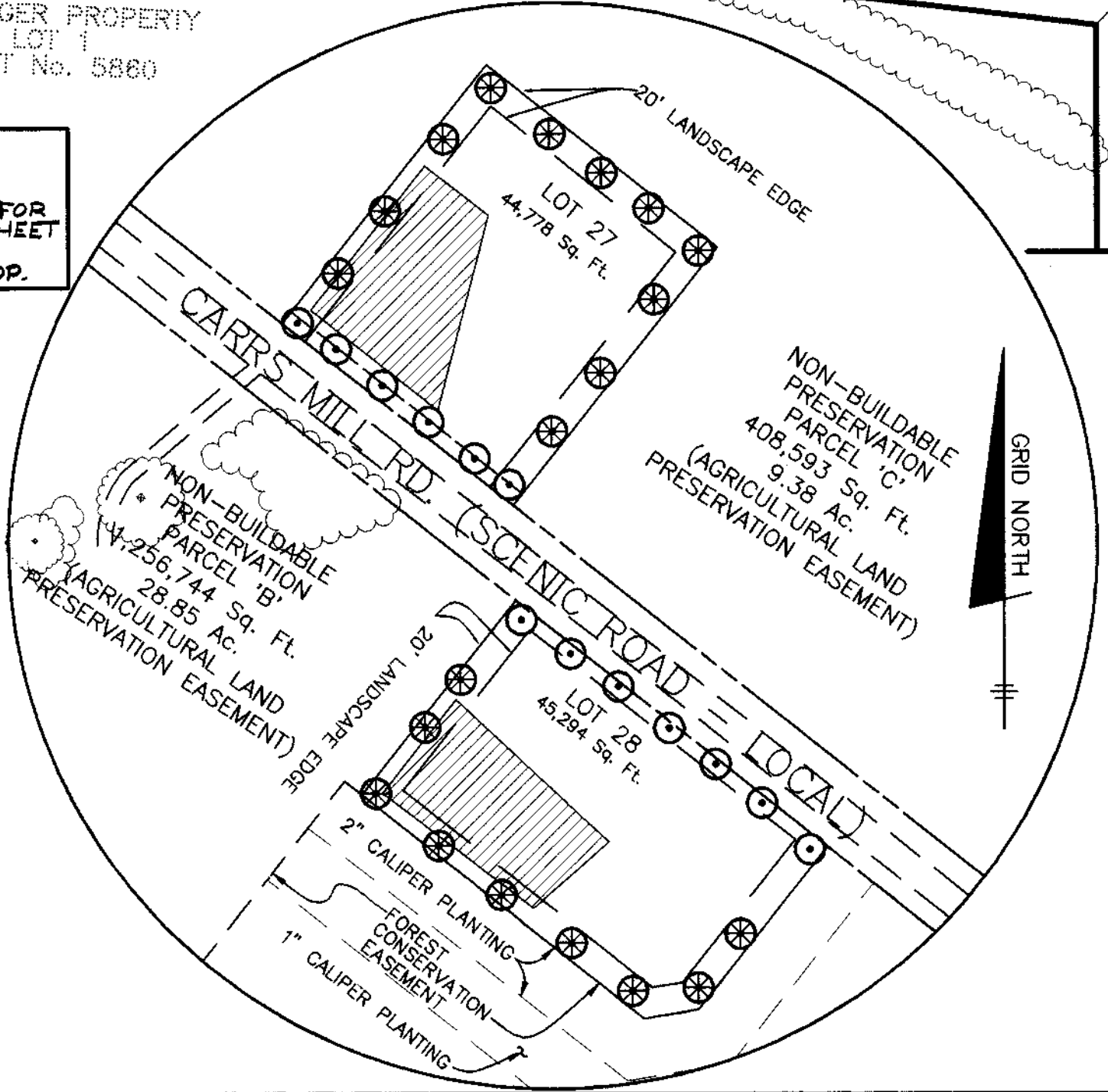
SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING		
	SWMF #1	SWMF #2
LINEAR FEET OF PERIMETER	1126 L.F.	951 L.F.
NUMBER OF TREES REQUIRED		
SHADE TREES	23 (1:50)	19 (1:50)
EVERGREEN TREES	28 (1:40)	24 (1:40)
CREDIT FOR EXISTING VEGETATION (NO, YES AND %)	YES 49%	NO
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	YES 20%	NO
NUMBER OF TREES PROVIDED		
SHADE TREES	7	19
EVERGREEN TREES	9	24
OTHER TREES (2:1 SUBSTITUTE)	0	0

PLANTING LIST			
SYMBOL	QUANTITY	NAME	REMARKS
(Symbol: Circle with dot)	174**	PYRUS CALLERYANA 'REDSPIRE' (REDSPIRE PEAR)	2 1/2" MIN. CAL. B & B FULL HEAD
(Symbol: Circle with cross)	105**	ACER RUBRUM 'OCTOBER GLORY' (OCTOBER GLORY RED MAPLE)	2 1/2" MIN. CAL. B & B FULL HEAD
(Symbol: Circle with star)	65**	PIRUS STROBUS (EASTERN WHITE PINE)	5' - 6' HEIGHT UNSHEARED

SCHEDULE A PERIMETER LANDSCAPE EDGE		
CATEGORY	ADJACENT TO ROADWAY	ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE	B	A
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	0 L.F.	8,869 L.F.
CREDIT FOR EXISTING VEGETATION	NO	* YES (36%)
CREDIT FOR WALL, FENCE OR BERM	NO	NO
NUMBER OF PLANTS REQUIRED		
SHADE TREES	0 (1:60)	95 (1:60)
EVERGREEN TREES	0	0
SHRUBS	0	0
NUMBER OF PLANTS PROVIDED		
SHADE TREES	0	79
EVERGREEN TREES	0	32 (2:1)
OTHER TREES (2:1 SUBSTITUTE)	0	0
SHRUBS (10:1 SUBSTITUTE)	0	0



DRY WELLS FOR PURPOSE OF PROVIDING WATER QUALITY TREATMENT FOR THE ROOF TOP DRAINAGE IS REQUIRED FOR LOTS 21-23, 27 & 28, SEE SHEET 15 FOR DETAIL TO BE CONSTRUCTED UNDER THE SDP.



STREET TREE REQUIREMENTS	
REQUIRED	1 PER 40' O.C. (6,957 L.F.)
NUMBER OF TREES PROVIDED	174

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED 170 LANDSCAPE TREES IN THE AMOUNT OF \$ 17,000.00 IS PART OF THE DEVELOPER'S AGREEMENT.

PLAN VIEW  
SCALE: 1" = 100'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daniels* 4/7/97  
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Andy Hamilton* 5/14/97  
CHIEF, DIVISION OF LAND DEVELOPMENT

*Chris Dammann* 5/16/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

NO	DATE	REVISION
1	4/97	REVISED PER HOWARD COUNTY COMMENTS.

TSA GROUP, INC.  
planning • architecture • engineering • surveying  
8680 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 465-2321

OWNER/DEVELOPER: R.H. DEVELOPMENT, L.L.C.  
8668 BALTIMORE NATIONAL PIKE  
ELLICOTT CITY, MARYLAND 21043  
(410) 465-2321

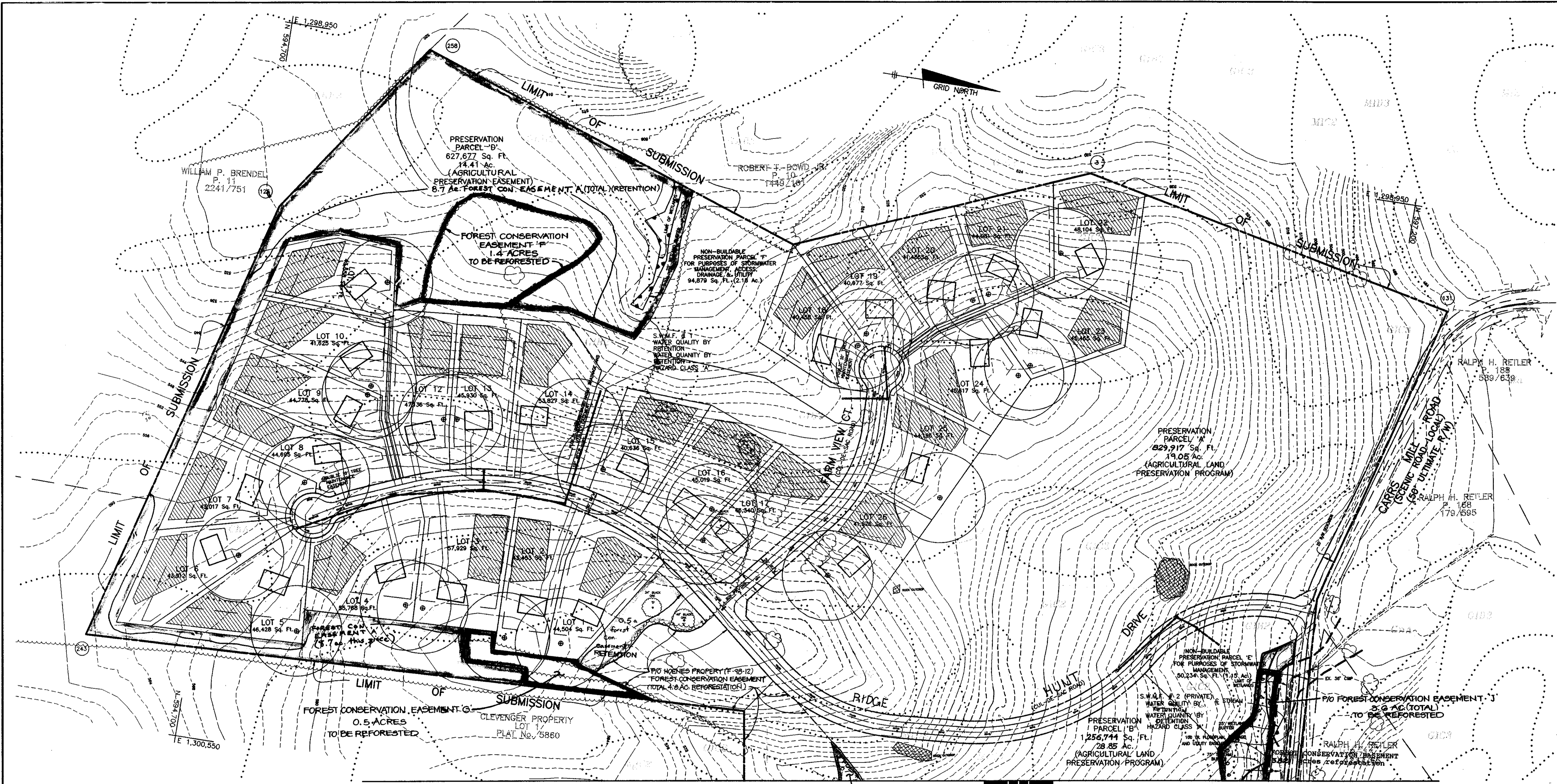
PROJECT: RIDGE VIEW HUNT  
LOTS 1-28 & PRESERVATION PARCELS A THRU F  
(S-95-16, P-96-19, & P-96-14)

LOCATION: TAX MAP 14, PARCELS 1-28  
4th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

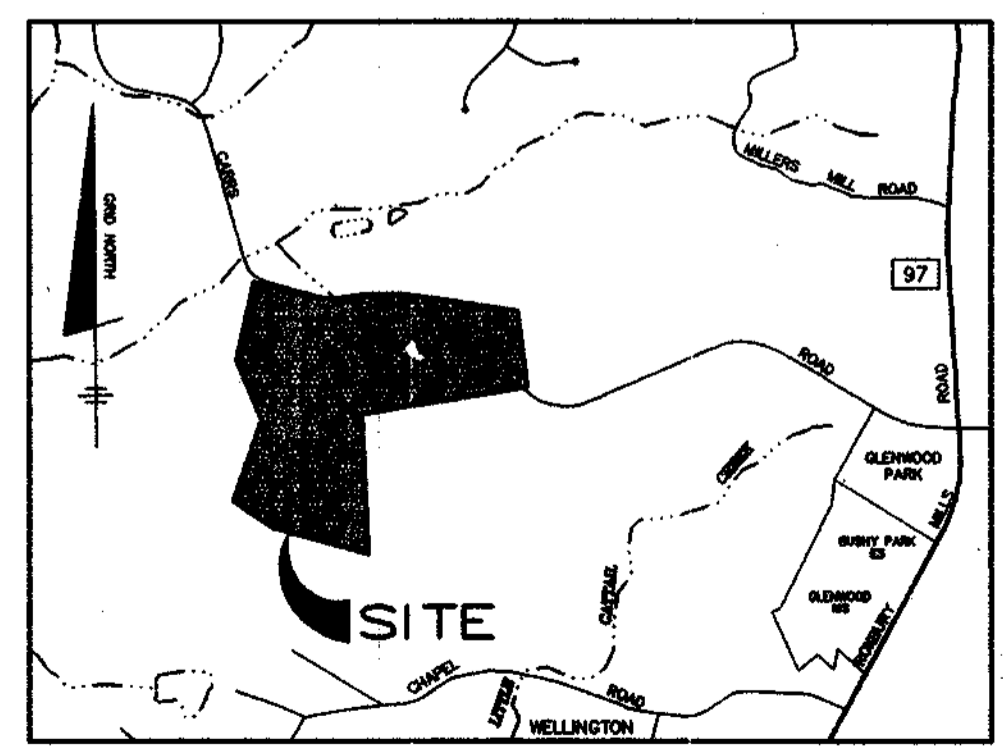
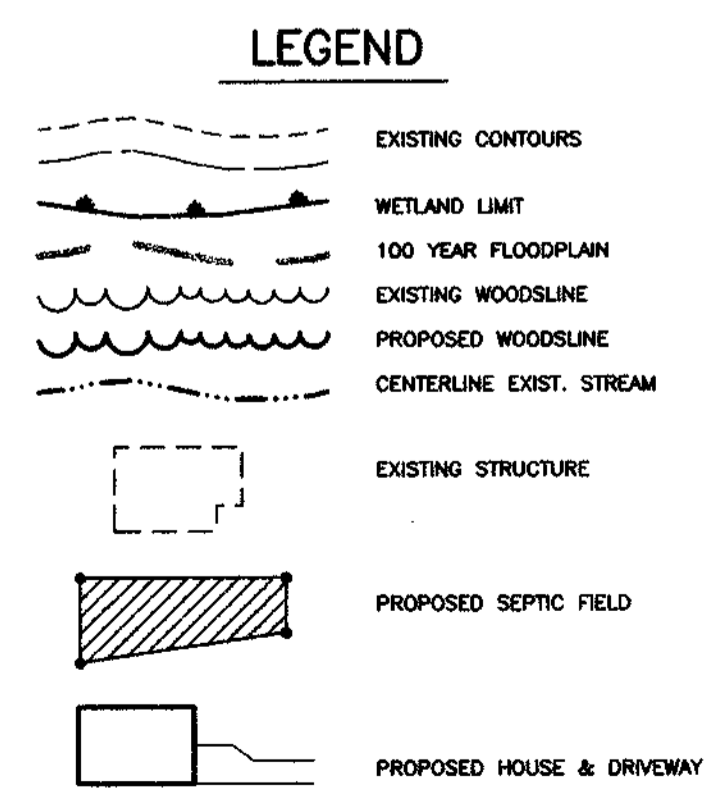
TITLE: LANDSCAPE PLAN

DATE: JAN. 1997 PROJECT NO. 0971

DESIGN: YSL DRAFT: YSL/JMC CHECK: CAM SCALE: AS SHOWN DRAWING 16 OF 19



SPECIMEN TREE LEGEND			
TREE	DIAMETER	TYPE	CONDITION
A	36"	RED MAPLE	FAIR
B	32"	RED MAPLE	FAIR
C	44"	SILVER MAPLE	GOOD
D	34"	BLACK OAK	GOOD
E	40"	BLACK OAK	GOOD
F	32"	BLACK OAK	GOOD
G	30"	BLACK OAK	GOOD
H	36"	BLACK OAK	POOR
I	31"	BLACK OAK	GOOD
J	48"	SILVER MAPLE	GOOD
K	32"	SILVER MAPLE	GOOD



MATCH LINE "A"-"A" SEE SHEET 2 OF 3

P/O FOREST CONSERVATION EASEMENT J  
3.6 AC (TOTAL)  
TO BE REFORESTED

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daniels* 8-7-97  
CHIEF, BUREAU OF HIGHWAYS MS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Mary A. Dircks*  
M.A. DIRCKS & CO., INC.  
Environmental Consulting Services  
15228 Old Hanover Road  
Upperco, Maryland 21155  
Phone/Fax: 410-516-7388

APPROVED: *Condy Hamilton* 8/14/97  
CHIEF, DIVISION OF LAND DEVELOPMENT MS DATE

APPROVED: *William D. ...* 8/16/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**TSA GROUP, INC.**  
planning • architecture • engineering  
8400 Baltimore National Pike • Ellicott City, Maryland 21045 • (410) 465-4105

OWNER/DEVELOPER: R.H. DEVELOPMENT LLC  
8668 BALTIMORE NATIONAL PIKE  
ELLICOTT CITY, MARYLAND 21043  
Phone: (410) 465-2321

PROJECT: **RIDGE VIEW HUNT**  
LOTS 1 THRU 28, PRESERVATION PARCEL A THRU F

LOCATION: TAX MAP 14 - PARCEL 14  
4th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE: **FOREST CONSERVATION PLAN**  
S-95-16

DATE: PROJECT NO. 0921

Design: CAM Draft: CAD SCALE: 1"=100' DRAWING 17 OF 19



PLANTING SCHEDULE

FCE 'J' - 2.2 ACRES

QUANTITY	SPECIES	SIZE	SPACING
8	ACER RUBRUM - RED MAPLE	2" CAL.	*
7	LIRIODENDRON TULIPIFERA - POPLAR	2" CAL.	*
12	ACER RUBRUM - RED MAPLE	1" CAL.	**
9	LIRIODENDRON TULIPIFERA - POPLAR	1" CAL.	**
5	QUERCUS PALUSTRIS - PIN OAK	1" CAL.	**
5	PINUS STROBUS - WHITE PINE	4-6" b+b (natural)	*
120	ACER RUBRUM - RED MAPLE	2-3" WHIP	**
60	CORNUS FLORIDA - FLOWERING DOGWOOD	2-3" WHIP	**
70	FRAXINUS PENNSYLVANICA - GREEN ASH	2-3" WHIP	**
45	LINDERA BENZONIN - SPICEBUSH	18-24" b.t.	**
115	LIRIODENDRON TULIPIFERA - POPLAR	2-3" WHIP	**
70	PLATANUS OCCIDENTALIS - SYCAMORE	2-3" WHIP	**
100	PRUNUS SEROTINA - BLACK CHERRY	18-24" WHIP	**
70	QUERCUS PALUSTRIS - PIN OAK	2-3" WHIP	**
52	VIBERNUM DENTATUM - ARROWWOOD	18-24" b.t.	**

FCE 'C' - 1.1 ACRES

QUANTITY	SPECIES	SIZE	SPACING
3	ACER RUBRUM - RED MAPLE	2" CAL.	*
4	LIRIODENDRON TULIPIFERA - POPLAR	2" CAL.	*
6	ACER RUBRUM - RED MAPLE	1" CAL.	**
5	LIRIODENDRON TULIPIFERA - POPLAR	1" CAL.	**
3	QUERCUS PALUSTRIS - PIN OAK	1" CAL.	**
5	PINUS STROBUS - WHITE PINE	4-6" b+b (natural)	*
60	ACER RUBRUM - RED MAPLE	2-3" WHIP	**
24	CORNUS CANADENSIS - REDBUD	2-3" WHIP	**
25	FRAXINUS PENNSYLVANICA - GREEN ASH	2-3" WHIP	**
25	LINDERA BENZONIN - SPICEBUSH	18-24" b.t.	**
45	LIRIODENDRON TULIPIFERA - POPLAR	2-3" WHIP	**
30	PLATANUS OCCIDENTALIS - SYCAMORE	2-3" WHIP	**
25	PRUNUS SEROTINA - BLACK CHERRY	18-24" WHIP	**
24	QUERCUS PALUSTRIS - PIN OAK	2-3" WHIP	**
35	VIBERNUM DENTATUM - ARROWWOOD	18-24" b.t.	**

FCE 'K' - 0.7 ACRES

QUANTITY	SPECIES	SIZE	SPACING
3	LIRIODENDRON TULIPIFERA - POPLAR	1" CAL.	*
8	PINUS STROBUS - WHITE PINE	4-6" b+b (natural)	*
18	ACER RUBRUM - RED MAPLE	2-3" WHIP	**
15	CARYA GLABRA - PIGNUT HICKORY	2-3" WHIP	**
18	CORNUS FLORIDA - FLOWERING DOGWOOD	2-3" WHIP	**
20	JUNIPERUS VIRGINIANA - RED CEDAR	2-3" CONT.	**
30	LIRIODENDRON TULIPIFERA - POPLAR	2-3" WHIP	**
15	PRUNUS SEROTINA - BLACK CHERRY	18-24" WHIP	**
35	QUERCUS ALBA - WHITE OAK	2-3" WHIP	**
35	QUERCUS RUBRA - RED OAK	2-3" WHIP	**
14	SASSAFRAS ALBIDUM - SASSAFRAS	18-24" WHIP	**
26	VIBERNUM PRUNIFOLIUM - BLACKHAWK	18-24" b.t.	**

FCE 'F' - 1.4 ACRES

QUANTITY	SPECIES	SIZE	SPACING
25	ACER RUBRUM - RED MAPLE	2-3" WHIP	**
35	CARYA GLABRA - PIGNUT HICKORY	2-3" WHIP	**
35	CORNUS FLORIDA - FLOWERING DOGWOOD	2-3" WHIP	**
30	CORYLUS AMERICANA - HAZELNUT	18-24" b.t.	**
35	FAGUS GRANDIFLORA - AMERICAN BEECH	2-3" WHIP	**
30	JUNIPERUS VIRGINIANA - RED CEDAR	2-3" CONT.	**
45	LIRIODENDRON TULIPIFERA - POPLAR	2-3" WHIP	**
25	NYSSA SYLVATICA - BLACK GUM	2-3" WHIP	**
35	PRUNUS SEROTINA - BLACK CHERRY	18-24" WHIP	**
60	QUERCUS ALBA - WHITE OAK	2-3" WHIP	**
55	QUERCUS RUBRA - RED OAK	2-3" WHIP	**
30	SASSAFRAS ALBIDUM - SASSAFRAS	18-24" WHIP	**
20	VIBERNUM ACERIFOLIUM - MAPLE-LEAVED VIBURNUM	18-24" b.t.	**
30	VIBERNUM PRUNIFOLIUM - BLACKHAWK	18-24" b.t.	**

FCE 'G' - 0.5 ACRES

QUANTITY	SPECIES	SIZE	SPACING
25	ACER RUBRUM - RED MAPLE	2-3" WHIP	**
20	CARYA GLABRA - PIGNUT HICKORY	2-3" WHIP	**
25	CORNUS FLORIDA - FLOWERING DOGWOOD	2-3" WHIP	**
30	JUNIPERUS VIRGINIANA - RED CEDAR	2-3" CONT.	**
45	LIRIODENDRON TULIPIFERA - POPLAR	2-3" WHIP	**
30	PRUNUS SEROTINA - BLACK CHERRY	18-24" WHIP	**
55	QUERCUS ALBA - WHITE OAK	2-3" WHIP	**
60	QUERCUS RUBRA - RED OAK	2-3" WHIP	**
25	SASSAFRAS ALBIDUM - SASSAFRAS	18-24" WHIP	**
35	VIBERNUM PRUNIFOLIUM - BLACKHAWK	18-24" b.t.	**

SOILS LEGEND		
MAP SYMBOL	SOIL TYPE	MAPPING UNIT
Brc3	C	BRANDYWINE LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED
Bf	C	BRANDYWINE LOAM, 25 TO 60 PERCENT SLOPES
ChA	B	CHESTER SILT LOAM, 0 TO 3 PERCENT SLOPES
ChB2	B	CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
ChC2	B	CHESTER SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
* Co	C	CODORUS SILT LOAM
CuB	B	CONUS SILT LOAM, LOCAL ALLUVIUM, 3 TO 8 PERCENT SLOPES
EkB2	B	ELDOAK SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
EkC2	B	ELDOAK SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
GIB2	B	GLENELG LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
GIC2	B	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
GIC3	B	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED
GD2	B	GLENELG LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED
GD3	B	GLENELG LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED
* GrA	C	GLENVILLE SILT LOAM, 0 TO 3 PERCENT SLOPES
* GrB2	C	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
* Ha	D	HATBORO SILT LOAM
MgC2	B	MANOR GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
MC2	B	MANOR LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
MD3	B	MANOR LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED
ME	B	MANOR LOAM, 25 TO 45 PERCENT SLOPES
MhD	B	MANOR VERY STONY LOAM, 3 TO 25 PERCENT SLOPES
MIC3	B	MT. ARY CHANNERY LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED
MD2	B	MT. ARY CHANNERY LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED

\* INDICATES HYDRIC SOILS  
SOILS MAP NOS. 6,7,12 & 13

FCE 'H' - 0.7 ACRES

QUANTITY	SPECIES	SIZE	SPACING
40	ACER RUBRUM - RED MAPLE	2-3" WHIP	**
10	CORNUS FLORIDA - FLOWERING DOGWOOD	2-3" WHIP	**
20	CORNUS AMOMIUM - SILKY DOGWOOD	18-24" b.t.	**
30	FRAXINUS PENNSYLVANICA - GREEN ASH	2-3" WHIP	**
20	JUGLANS NIGRA - BLACK WALNUT	18-24" WHIP	**
4G	LIRIODENDRON TULIPIFERA - POPLAR	2-3" WHIP	**
25	PLATANUS OCCIDENTALIS - SYCAMORE	2-3" WHIP	**
15	PRUNUS SEROTINA - BLACK CHERRY	18-24" WHIP	**
14	QUERCUS PALUSTRIS - PIN OAK	2-3" WHIP	**
25	VIBERNUM DENTATUM - ARROWWOOD	18-24" b.t.	**

FCE 'J' - 1.4 ACRES

QUANTITY	SPECIES	SIZE	SPACING
10	LIRIODENDRON TULIPIFERA - POPLAR	1" CAL.	*
6	QUERCUS ALBA - WHITE OAK	1" CAL.	*
13	PINUS STROBUS - WHITE PINE	4-6" b+b (natural)	*
30	ACER RUBRUM - RED MAPLE	2-3" WHIP	**
35	CARYA GLABRA - PIGNUT HICKORY	2-3" WHIP	**
30	CORNUS FLORIDA - FLOWERING DOGWOOD	2-3" WHIP	**
30	JUNIPERUS VIRGINIANA - RED CEDAR	2-3" CONT.	**
50	LIRIODENDRON TULIPIFERA - POPLAR	2-3" WHIP	**
23	MACLURA POMIFERA - OSAGE ORANGE	18-24" WHIP	**
30	NYSSA SYLVATICA - BLACK GUM	2-3" WHIP	**
30	PRUNUS SEROTINA - BLACK CHERRY	18-24" WHIP	**
55	QUERCUS ALBA - WHITE OAK	2-3" WHIP	**
55	QUERCUS RUBRA - RED OAK	2-3" WHIP	**
30	SASSAFRAS ALBIDUM - SASSAFRAS	18-24" WHIP	**
42	VIBERNUM PRUNIFOLIUM - BLACKHAWK	18-24" b.t.	**

\* PLANTING SITES SHOWN AS FOLLOWS

1" STOCK ○  
2" STOCK ●  
WHITE PINE \*

SPECIES SELECTION, EXCEPT PINE, FOR EACH INDIVIDUAL PLANTING SITE SHOULD BE MADE RANDOMLY

\*\* PLANTS SHALL BE SPACED RANDOMLY ELEVEN FEET ON CENTER, NOT IN A GRID PATTERN

b.t. = branched transplant; cal. = caliper; B.R. = BARE ROOT

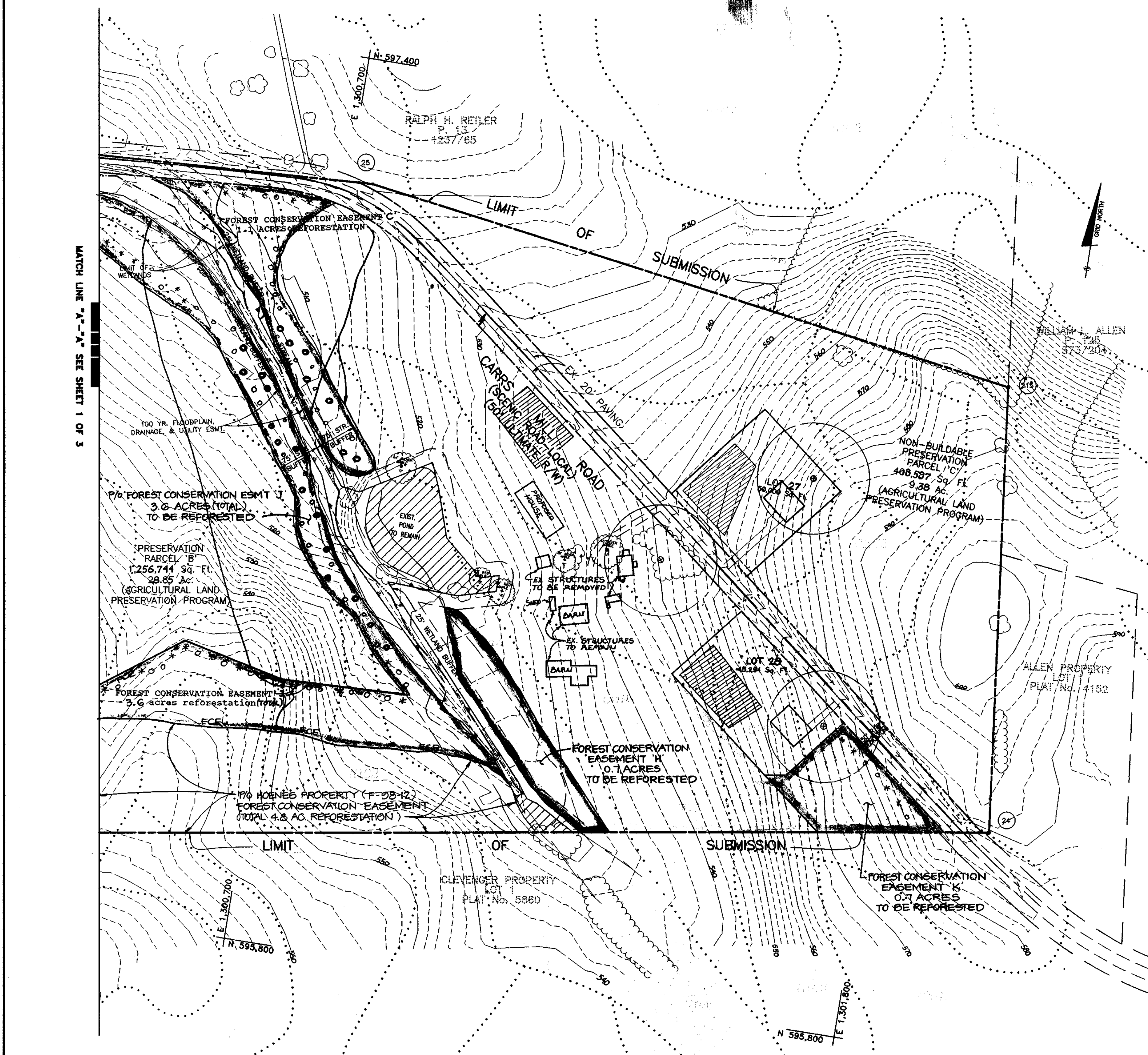
NOTE: CONTAINER GROWN PLANT STOCK IS RECOMMENDED OVER BARE ROOT.

NO.	DATE	REVISION
1	1/13/97	REVISED FOREST CONSERV. EASEMENT BASED ON NEW LAYOUT
2	3/14/97	REVISED FOREST CONSERVATION EASEMENT AND PLANTING PER CO. AGREEMENT
3	10-26-98	REV. FCE ON PRES. PARCEL 'B' AND PLANTING SCHEDULE

TSA GROUP, INC.  
planning • architecture • engineering  
8680 Baltimore National Pike • Millcott City, Maryland 21043 • (410) 465-4106

OWNER/DEVELOPER: R.H. DEVELOPMENT LLC 8668 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21043 Phone: (410) 465-2321	PROJECT: <b>RIDGE VIEW HUNT</b> LOTS 1 THRU 28, PRESERVATION PARCEL A THRU F
LOCATION: TAX MAP 14 - PARCEL 14 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	TITLE: <b>FOREST CONSERVATION PLAN</b> S-95-16
DATE:	PROJECT NO. 0921
DESIGN: CAM	DRAFT: CAD
SCALE: 1" = 100'	DRAWING 16 OF 19

Mary A. Dircks  
M.A. DIRCKS & CO., INC.  
Environmental Consulting Services  
15228 Old Hanover Road  
Upperco, Maryland 21155  
Phone/Fax: 410-526-7388



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
Andrew M. Daniels 5/7/97  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
Cindy Hamilton 5/14/97  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED: M.A. Dircks 5/14/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**FOREST PROTECTION PROCEDURES - Preconstruction Phase**

- The edge of the woods to be protected will be marked (staked or flagged) in the field per the limits of forest conservation easement shown in the approved site development plan prior to the start of construction activity. All areas within protective easement are to be considered "off limits" to any construction activities. The optional protective fencing shall be installed at the outside edge of forested areas and should be combined with sediment control devices when possible. The limit of the critical root zone and therefore the location of the protective devices is to be determined as follows:
  - Edge of Forested Area - 1 foot of protective radius/inch of DBH or an eight foot protective radius, whichever is greater.
  - Critical Root Zone for the forest on this site is an average of 15 feet from the trunk of the tree.
- Construction activities expressly prohibited within the preservation areas are:
  - Placing or stockpiling backfill or top soil in protected areas
  - Felling trees into protected areas
  - Driving construction equipment into or through protected areas
  - Burning in or in close proximity to protected areas
  - Stacking or storing supplies of any kind
  - Concrete wash-off areas.
  - Conducting trenching operations
  - Grading beyond the limits of disturbance
  - Parking vehicles or construction equipment
  - Removal of root mat or topsoil
  - Siting and construction of:
    - Utility lines
    - Access roads
    - Impervious surfaces
    - Stormwater management devices
    - Staging areas
- Protective fencing (see Figure "Protective Fencing") shall be the responsibility of the general contractor. The general contractor shall affix signs to the fencing at 25' minimum intervals indicating that these areas are "Forest Retention Area" (see Figure "Signage"). The general contractor shall take great care to assure the restricted areas are not violated and that root systems are protected from smothering, flooding, excessive wetting from de-watering operations, off-site run-off, spillage, and drainage or solutions containing materials hazardous to tree roots.
- The general contractor shall be responsible for any tree damaged or destroyed within the preservation areas whether caused by the contractor, his agents, employees, sub-contractors, or licensees.
- Foot traffic shall be kept to a minimum in the protective areas.
- All trees which are not to be preserved within fifty feet of any tree preservation areas are to be removed in a manner that will not damage those trees that are designated for preservation. It is highly recommended that tree stumps within this fifty foot area be ground out with a stump grinding machine to minimize damage.
- The general contractor shall designate a "wash out" area on-site for concrete trucks which will not drain toward a protected area.
- A pre-construction meeting shall be held with local authorities before any disturbance has taken place on site.

**FOREST PROTECTION PROCEDURES - Construction Phase**

Forest and tree conditions should be monitored during construction and corrective measures taken when appropriate.

The following shall be monitored:

- Soil compaction
- Root injury - prune and monitor; consider crown reduction
- Limb injury - prune and monitor
- Flooded conditions - drain and monitor; correct problem
- Drought conditions - water and monitor; correct problem.
- Other stress signs - determine reason, correct, and monitor.

**FOREST PROTECTION PROCEDURES - Post-Construction Phase**

The following measures shall be taken:

- Corrective measures if damages were incurred due to negligence:
  - Stress reduction
  - Removal of dead or dying trees. This may be done only if trees pose an immediate safety hazard
- Removal of temporary structures:
  - No burial of discarded materials will occur on-site within the conservation area.
  - No open burning within 100 feet of a wooded area.
  - All temporary forest protection structures will be removed after construction.
  - Remove temporary roads by removing stone or broadcasting mulch; pre-construction elevation should be maintained.
  - Aerate compacted soil.
  - Replant disturbed sites with trees, shrubs and/or herbaceous plants.
  - Retain signs for retention areas or specimen trees.
  - A County official shall inspect the entire site.
- Future protection measures:
  - Howard County and the developer shall arrange for the dedication of an appropriate forest conservation easement at a later date.

**PLANTING SPECIFICATIONS AND NOTES**

**I. SITE PREPARATION AND SOILS**

- Disturbance of soils should be limited to the Planting Field for each plant. Planting hole will be a minimum 18" auger hole, dug to the depth of the root ball. As shown on the detail view, a Planting Field of 18" diameter (for whips) is recommended.
- In areas of steep slopes or erodible soils, soil disturbance will be limited to the Planting Field which is equal to the 18" diameter auger hole.
- Soil mix for all plants shall be native soil with no soil amendments, unless a soils analysis determines that soil amendments are required (disturbed sites). Natural amendments, such as organic mulch or leaf mold compost, are preferred.

**II. PLANT STORAGE AND INSPECTION**

- For container grown nursery stock, planting should occur within two weeks after delivery to site.
- Planting stock should be inspected prior to planting. Plants not conforming to standard nurseryman specifications for size, form, and vigor, roots, trunk wounds, insects and disease should be replaced.

**III. SOIL AMENDMENTS**

- Amendments are not recommended in the planting field as studies have shown that roots will be encouraged to stay within the amended soils.

**IV. PLANT INSTALLATION**

- Container grown stock should be removed from the container and roots gently loosened from the soil. If the roots encircle the root ball, substitution is required. J-shaped or kinked root systems should also be rejected. **ROOTS MAY NOT BE TRIMMED ON SITE.**
- The Planting Field should be prepared as specified (see detail). Stock must be planted in random pattern (see detail). Native dug soils should be used to backfill Planting Field. Set plant material no more than 1" above existing ground and no lower than existing ground. Gently pack native soil around plant to eliminate all air pockets. After whip and container installation, rake soils evenly over the Planting Field and cover hole with three inches of

composted hardwood mulch. Water to settle soil and provide moisture, as needed.

- Prune whips to encourage branching. Container stock will be pruned to eliminate broken and dead branches.
- Newly planted trees may need watering depending on weather conditions. During the next two years watering may be required during summer and dry months. **Any watering should consider for recent rainfall patterns.**
- Staking of stock is not required, if preferred stock type used.
- Side dressing fertilization 1 year after planting may be warranted. Fertilizer may be added to each tree or shrub at the end of the first growing season and will contain the following by weight: 5% nitrogen, 10% phosphoric acid, and 5% potash. Nitrogen shall be derived from natural organic sources or ureaform; 40-50% of the nitrogen shall be water soluble. Organic fertilizers are preferred to synthetic fertilizers. See Tree Planting and Maintenance Calendar for planting and maintenance dates.
- Integrated Pest Management (IPM) is one of the most effective and safest approaches for maintaining a healthy forest. A full IPM program can include:
  - Elimination of low vegetation before planting to help control rodents.
  - Use of tree shelters to protect the trunks of seedlings or whips from animal damage. (These trees need more water than those without tree shelters.)
  - Mulching around the trees to minimize trunk damage from mowers.
  - Pruning dead or diseased branches with a clean cut.
  - To prevent sunscald, allow small non-competitive branches, commonly pruned during or before planting, to grow on the sunny side of the trunk.

**V. MAINTENANCE SCHEDULE**

- Landscaper should conduct an inspection at the following intervals: 6 months after planting, 1 year after planting and 2 years after planting. The purpose of inspection is to evaluate survival rate with reference to the survival required at the end of the two year period (75% minimum).
 

Regular visits during the first growing season (yr 1) are to assess the success of the plantings and determine if supplemental watering or other actions are necessary. Early spring visits will determine winter kill and autumn visits will determine summer kill.
- Assess tree mortality of planting stock, remove and replace any dead or diseased plantings for the first 2 growing seasons.
- Volunteer seeding of native, local and endemic vegetation is to be expected. Do not discourage this effort unless it is negatively effecting the planted stock.
- Landscaper shall remove or control aggressive, noxious, invasive species (i.e. Multiflora Rose, Japanese Honeysuckle, and all herbaceous vegetation) within a 3-foot radius surrounding the planted woody nursery stock for 2 years after planting.

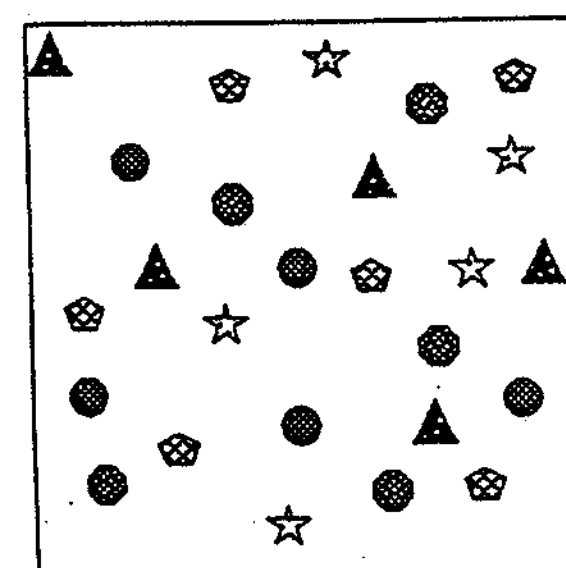
- The landscaper shall be responsible to remove down and dead material that is smothering planting stock. Naturally occurring material that is not affecting planted stock shall not be removed.
- Mowing is one of the most effective means to control exotic and/or invasive species. No mowing shall occur during the wildlife nesting period of early April through mid-July. The landscaper is responsible for mowing and/or weed wacking and/or applying herbicide around planting stock, if needed for 2 growing seasons after planting.

QTY	SPECIES	SIZE
253	ACER RUBRUM Red maple	5'-6' 1" caliper
254	PINUS STROBUS White Pine	5'-6'
297*	QUERCUS ALBA White oak or pin oak	5'-6" SEE NOTE BELOW
443	PRUNUS SEROTINA BLACK CHERRY	3'-4' whip
443	LIQUIDAMBAR STYRACIFLUM SWEEP OAK	3'-4' whip
444	JUNIPERUS VIRGINIANA RED CEDAR	18-24" BR

**0.0 ACRES REFORESTATION REQUIRED.**  
\* 44 OAKS TO BE 2" CALIPER AND PLANTED IN THE DESIGNATED AREA NEAR LOT 28

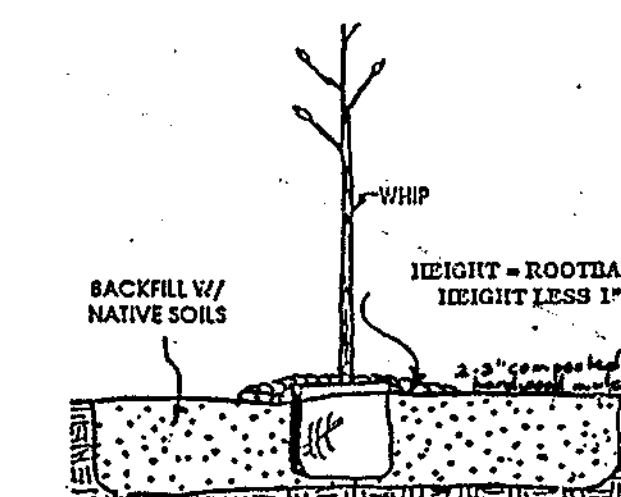
**PLANTING NOTES**

- Planting stock should be 3' to 4' whips and 1 1/2 to 2 gallon container stock at a minimum, with 5'-6' trees for the oaks, maple and white pine.
- Only composted mulch may be used.
- Whips should be planted an average of 11 ft on center with 5 ft trees an average of 15 ft. (see random planting detail) Pines should be planted on the outside perimeter of the planting area. White oak and Black Cherry should be planted outside of wetland limits.

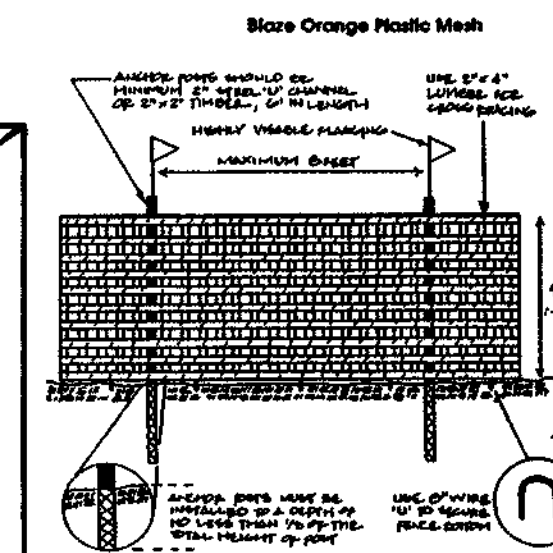


- SYCAMORE/OAK
  - ★ TULIP POPLAR
  - ▲ RED MAPLE
  - DOGWOOD
  - ◆ GREEN ASH
- TO BE PLANTED IN RANDOM DISTRIBUTION PATTERN

**RANDOM PLANTING DETAIL**

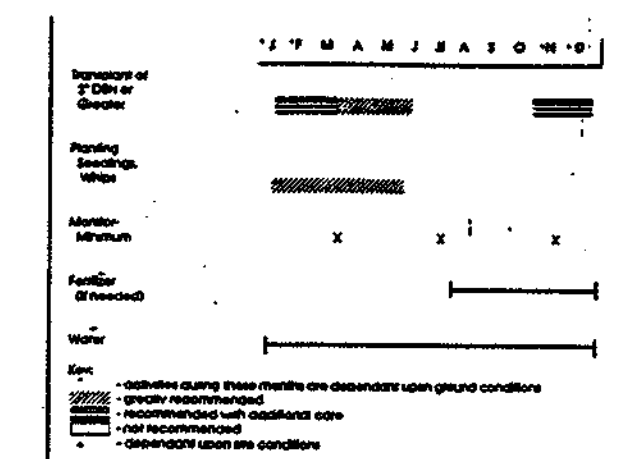


WIDTH = AUGERED HOLE 18" MINIMUM  
**PLANTING FIELD DETAIL**

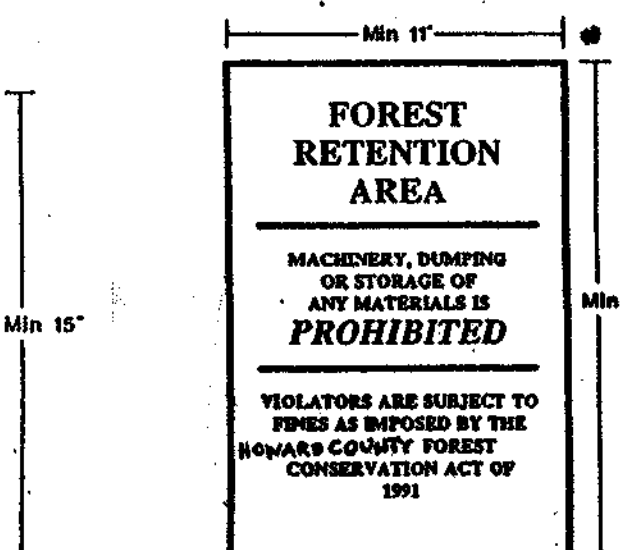
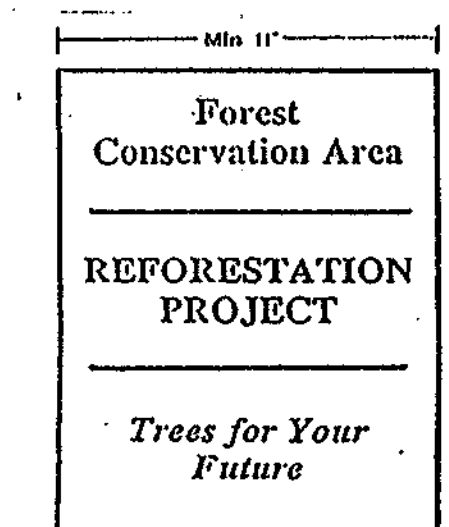


To be placed outside the L.O.D.

**FENCING**



The planting and care of trees is most successful when coordinated with the local climate conditions. The contractor shall verify some of the appropriate tree species for local weather and soil reduction conditions.



\* Signs shall be placed just outside limits of disturbance as shown on plan.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Christopher M. Conner* 8-7-97  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Cathy Hamilton* 8/17/97  
A/CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Mike Danvers* 8/17/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

NO.	DATE	REVISION
1	8/1/96	Hoanex E&P add
2	1/17/97	REVISED FOREST CONSERV. EASEMENT BASED ON NEW LAYOUT
3	3/17/97	REVISED PER COUNTY COMMENTS.
4	10-26-98	REV. FCE

TSA GROUP, INC.  
planning • architecture • engineering  
6600 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 466-8106

OWNER/DEVELOPER: R.H. DEVELOPMENT LLC  
8668 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MARYLAND 21043  
Phone: (410) 466-2321

PROJECT: RIDGE VIEW HUNT  
LOTS 1 THRU 26, PRESERVATION PARCELS A-F

LOCATION: TAX MAP 14 - PARCEL 14  
4th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE: FOREST CONSERVATION PLAN  
S-05-10

DATE: MAY 15, 1996 PROJECT NO. 0151  
SCALE: DRAWING 10 OF 10

*Mary A. Davis*  
410-526-7388  
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Upperco, MD 21155