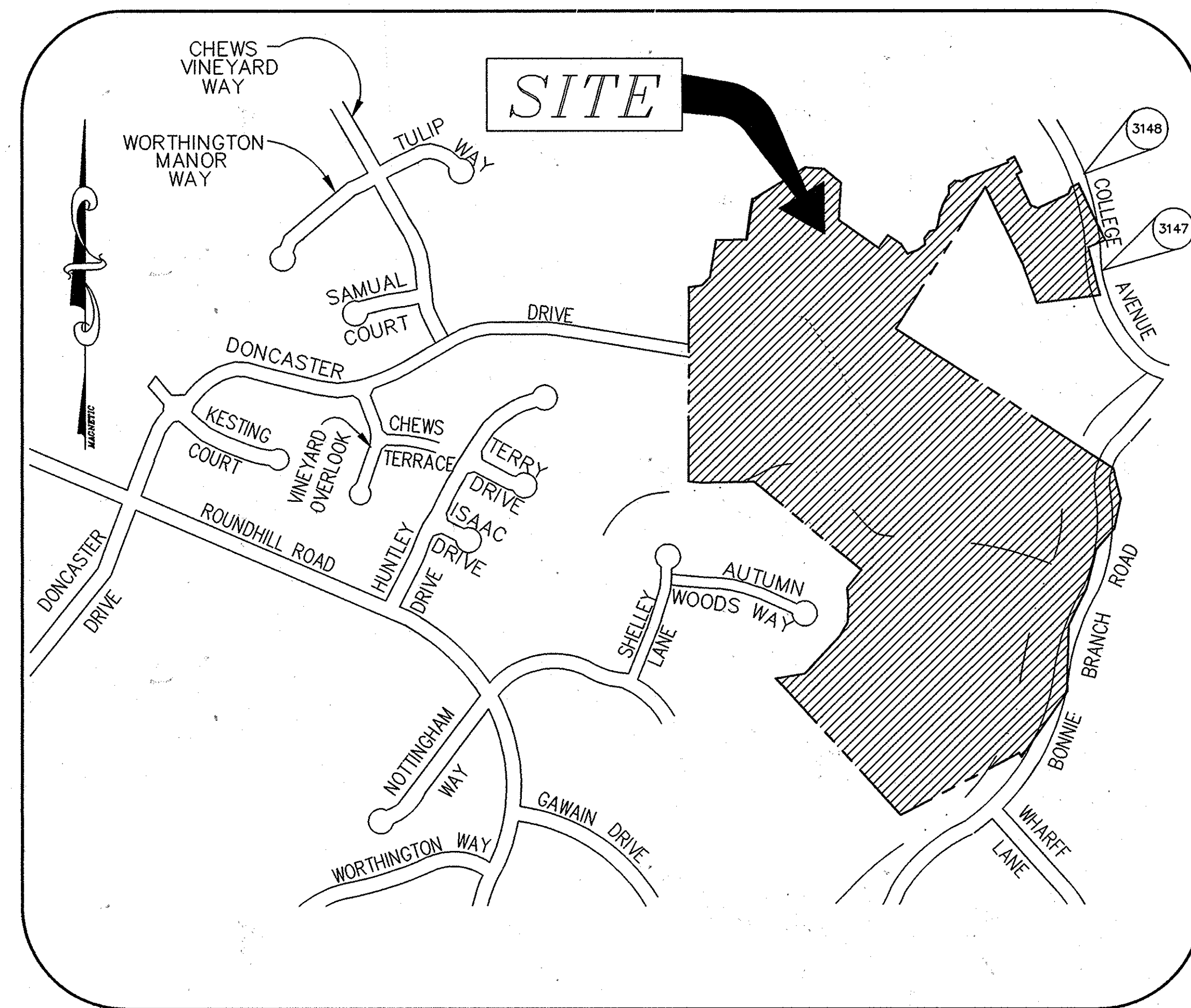


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# ROAD CONSTRUCTION PLANS AUTUMN VIEW SECTION 3 LOTS 76 THRU 151 AND BULK PARCEL "A" SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND



## VICINITY MAP

SCALE: 1"=500'

### OWNER/DEVELOPER

BONNIE BRANCH CORPORATION  
P.O. BOX 396  
ELLCOTT CITY, MD 21043

**NOTE:** 11/25/2015 - CAPITAL PROJECT D-1158 REVOKED THE GRADING ALONG BONNIE BRANCH STREAM AND ITS TRIBUTARY. ROCK AND WOODY DEBRIS STABILIZATION WERE ADDED TO THE STREAM BANKS TO REDUCE EROSION.

## GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTIONS DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS PRIOR TO ANY EXCAVATION WORK:
 

MISS UTILITY	1-800-257-7777
C&P TELEPHONE COMPANY	(410) 725-9976
HOWARD COUNTY BUREAU OF UTILITIES	(410) 313-4800
AT&T CABLE LOCATION DIVISION	(410) 393-5533
BALTIMORE GAS & ELECTRIC	(410) 685-0123
STATE HIGHWAY ADMINISTRATION	(410) 531-5533
HOWARD COUNTY DEPT. OF PUBLIC WORKS/ CONSTRUCTION INSPECTION DIVISION	(410) 313-1880
- PROJECT BACKGROUND:  
LOCATION: SECOND ELECTION DISTRICT - TAX MAP 31 - PARCELS 5, 13 & P/O 504  
ZONING: R-ED  
TOTAL TRACT AREA: 87.41 ACRES ±  
NUMBER OF PROPOSED LOTS: 77(72 BUILDABLE)  
NUMBER OF PROPOSED BULK PARCELS: 1  
ACREAGE OF PROPOSED LOTS: 16.46 ACRES ±  
ACREAGE OF PROPOSED PARCEL: 4.32 ACRES ±  
OPEN SPACE REQUIRED: 21.84 ACRES ± (25% OF GROSS AREA)  
OPEN SPACE PROVIDED: 60.51 ACRES ±\*  
RECREATIONAL OPEN SPACE REQUIRED (72 UNITS X 250 SQ. FT.): 18,000 SQ. FT. (0.41 ACRES)  
RECREATIONAL OPEN SPACE PROVIDED: 18,000 SQ. FT. (0.41 ACRES)  
PROPOSED ROAD DEDICATION: 6.12 ACRES ±  
AREA OF STEEP SLOPES: 13.20 ACRES ±  
AREA OF 100 YEAR FLOODPLAIN: 6.19 ACRES ±  
DPZ REFERENCE #:  
- S-96-15 APPROVED ON SEPTEMBER 23, 1996.  
- P-98-10 APPROVED ON MARCH 19, 1998.  
\* EXCESS OPEN SPACE IS BEING DEDICATED AS PART OF THIS SECTION AS REQUESTED BY HOWARD COUNTY. EXCESS OPEN SPACE AND ALLOWABLE LOTS ARE TO BE CREDITED TO FUTURE SECTIONS OF THE OVERALL AUTUMN VIEW DEVELOPMENT WITHIN THE R-ED DISTRICT.
- TWO FOOT CONTOUR TOPOGRAPHY AND EXISTING CONDITIONS BASED ON AERIAL TOPOGRAPHIC SURVEY BY WINGS AERIAL MAPPING CO., INC. FLOWN ON MARCH 25, 1995.
- HORIZONTAL AND VERTICAL DATUMS BASED ON (NAD'83) MARYLAND STATE COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS.
 

STA No. 3147V	N 575,798.0794	EL= 335.987
	E 1,375,801.7684	
STA No. 3148V	N 576,015.4313	EL= 379.248
	E 1,375,770.4364	
- STREET LIGHTS WILL BE REQUIRED IN THIS DEVELOPMENT IN ACCORDANCE WITH THE DESIGN MANUAL STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SELECTED SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)." THE JUNE 1993 POLICY INCLUDES GUIDELINES FOR LATERAL AND LONGITUDINAL PLACEMENT. A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- PROVIDE 100-WATT HPS VAPOR TRADITIONARE POST TOP FIXTURE MOUNTED ON A 14' BLOCK FIBERGLASS POLE AT DONCASTER DRIVE, STA. 0+87, 20' LT.; STA. 3+90, 15' LT.; STA. 6+88, 19' RT. STA. 10+35, 25' RT.; STA. 13+87, 16' RT.; STA. 16+38, 25' LT.; STA. 19+23, 16' LT.; STA. 21+84, 16' RT.; TALL MAPLE COURT STA. 1+40, 16' RT.; STA. 5+08, 16' RT.; STA. 8+73, 15' RT.; RED LEAF COURT, STA. STA. 2+88, 13' LT. 150-WATT HPS VAPOR PEDANT FIXTURE (CUTOFF) MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE USING A 12' ARM, ARM RADIAL TO FILLET AT DONCASTER DRIVE, STA. 2+23, 25' LT.
- WATER AND SEWER ARE PUBLIC, CONTRACT # 14-3729-D
- STORMWATER MANAGEMENT CONTROL WILL BE PROVIDED BY THE METHOD OF EXTENDED DETENTION. STORMWATER MANAGEMENT FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED BY H.O.A.
- GEOTECHNICAL REPORT PREPARED BY HILLIS-CARNES ENGINEERING ASSOCIATES ONC, IN JULY 11, 1997.
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- HOUSES NOT CONTROLLED BY THE SWM PONDS TO HAVE DRY WELLS AT SDP STAGE.
- COMPACTION IN FILL AREAS TO BE 95% AS DETERMINED PER AASHTO T-180.
- CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES ON SITE PRIOR TO COMMENCING CONSTRUCTION.
- FOREST CONSERVATION EASEMENT(S) HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.200 OF HOWARD COUNTY FOREST CONSERVATION ACT. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, EXCEPT AS SHOWN ON AN APPROVED ROAD CONSTRUCTION DRAWING OR SITE DEVELOPMENT PLAN. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OR CONSERVATION EASEMENT ARE ALLOWED.
- WETLAND AND STREAM DELINEATION PERFORMED BY CHESAPEAKE ENVIRONMENTAL MANAGEMENT, INC. INC. DATED DECEMBER 1995.
- PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
- OPEN SPACE LOTS WILL BE CONVEYED TO HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS AND H.O.A.
- ALL EXISTING STRUCTURES TO BE REMOVED, UNLESS OTHERWISE NOTED.
- FLOODPLAIN STUDY PERFORMED BY MILDENBERG, BOENDER AND ASSOCIATES, INC. IN SEPTEMBER 1997.
- ALL STORM DRAIN PIPES TO BE HDPE PIPES UNLESS OTHERWISE NOTED.
- NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE WETLANDS, WETLAND BUFFER, FLOODPLAIN, FOREST CONSERVATION EASEMENTS, OR STREAM BUFFER AREAS EXCEPT AS SHOWN ON APPROVED PLANS.
- PROVIDE DOUBLE YELLOW LINES ON CENTER OF DONCASTER DRIVE. IN ACCORDANCE WITH THE MUTCD. BREAK DOUBLE YELLOW LINES AT INTERSECTIONS. CONTACT HOWARD COUNTY DIV. OF TRAFFIC ENGINEERING PRIOR TO MARKING PAVEMENT TO DETERMINE BREAK POINTS.
- PRESERVE SPECIMEN TREES WITHIN THE LIMITS OF DISTURBANCE WHEREVER POSSIBLE, IN COOPERATION WITH THE GRADING INSPECTOR TREES SUBJECT TO WINDTHROW MAY BE REMOVED ALONG THE EDGES OF FOREST RETENTION AREA.
- ALL LOTS WILL HAVE A MINIMUM OF 2 ON-SITE PARKING SPACES. NO STREET PARKING SPACES ARE REQUIRED.

### 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."

*Bruce Taylor Pres.* 3/2/99  
SIGNATURE OF DEVELOPER DATE  
PRINTED NAME OF DEVELOPER

### 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 AND THE HOWARD SOIL CONSERVATION DISTRICT. 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.

*[Signature]* 2/11/99  
SIGNATURE OF ENGINEER DATE  
PRINTED NAME OF ENGINEER

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

*Cheryl Simmons* 4/6/99  
USA - NATIONAL RESOURCES CONSERVATION SERVICE DATE

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

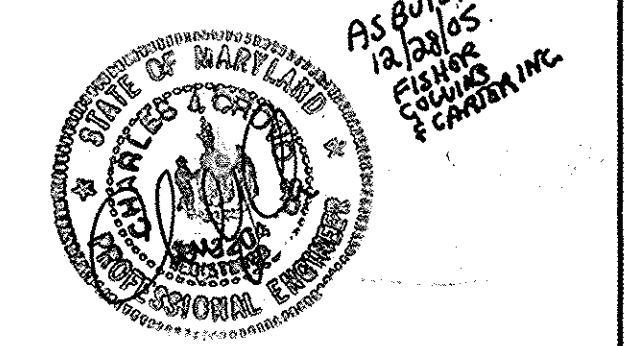
*Robert W. Ziebar* 4/6/99  
HOWARD SOIL CONSERVATION DISTRICT DATE

PRIVATE WATER SUPPLY AND SEWER SYSTEM IN ACCORDANCE WITH THE DISTRICT PLAN AND SEWERAGE IN HOWARD COUNTY (FOR LOT 103 ONLY)

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Fowler* 4-16-99  
CHIEF BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Kowalla* 4/27/99  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Mark D. Simmons* 4/21/99  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



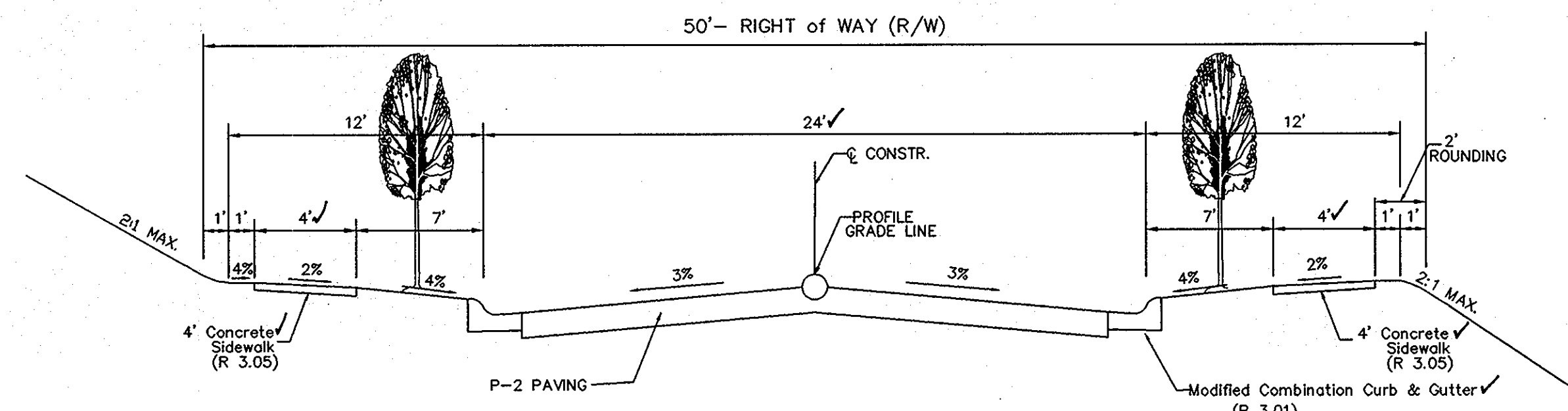
project	97015	date	FEB 1999
illustration	MMP	engineering	MMP
scale	1"=12.5'	approval	AS-BUILT

description	ADD CAPITAL PROJECT NOTE SHEET 11/25/15	date	10/21/00
revisions	1	no.	1

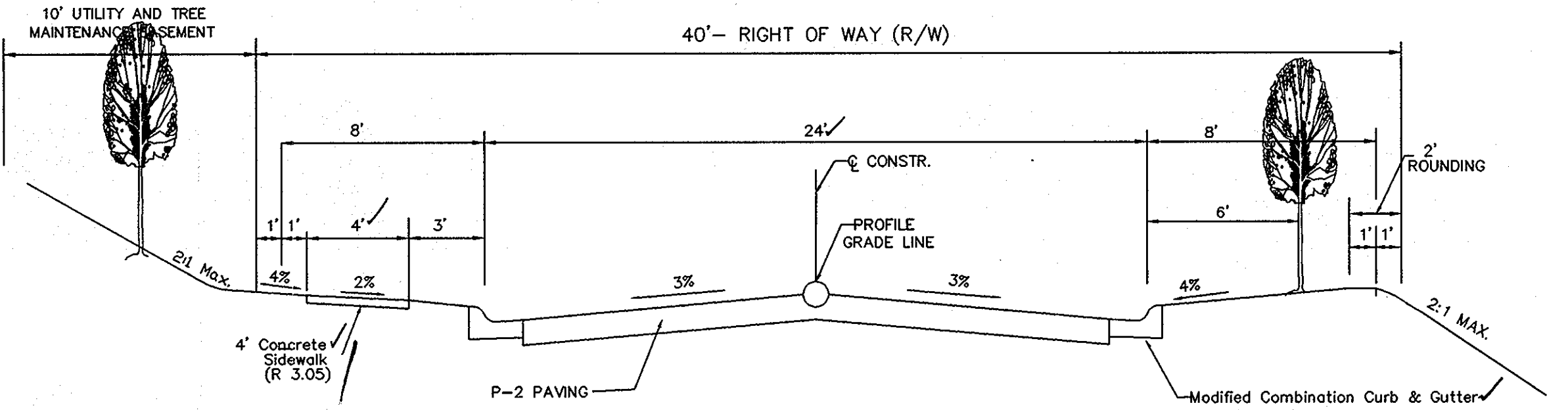
AUTUMN VIEW, SECTION 3  
 LOTS: 76 - 151 & BULK PARCEL "A"  
 TAX MAP 31, PARCELS 5, 13 AND P/O 4 & 504  
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 COVER SHEET

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Planners Surveyors  
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042  
 (410) 997-0296 Fax: (301) 821-5521 Wash. (410) 997-0298 Fax

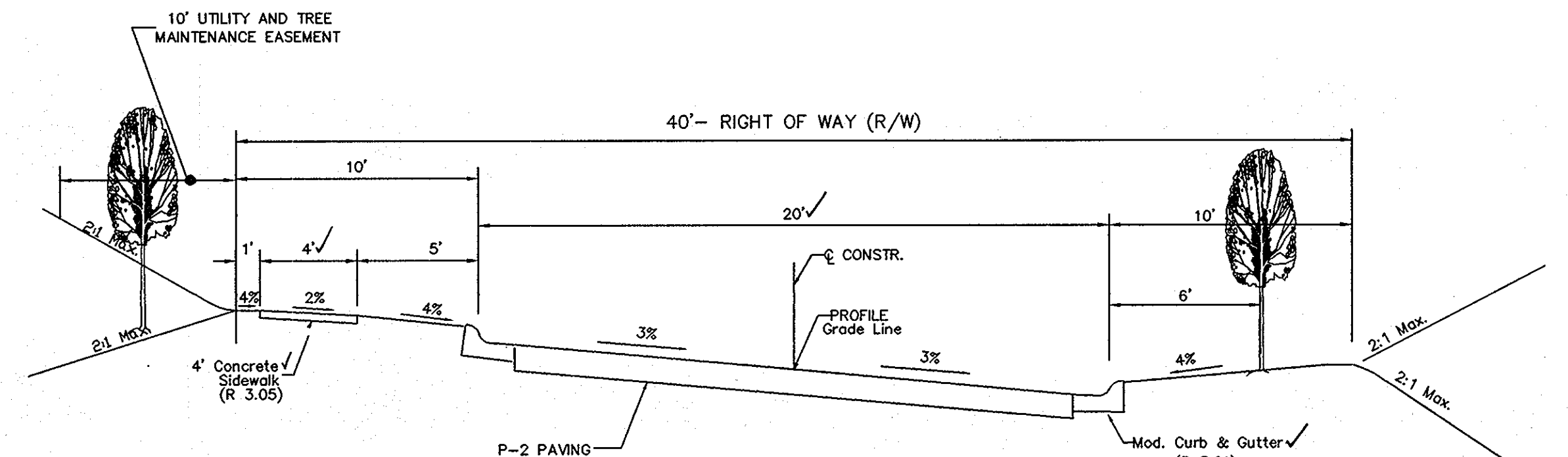




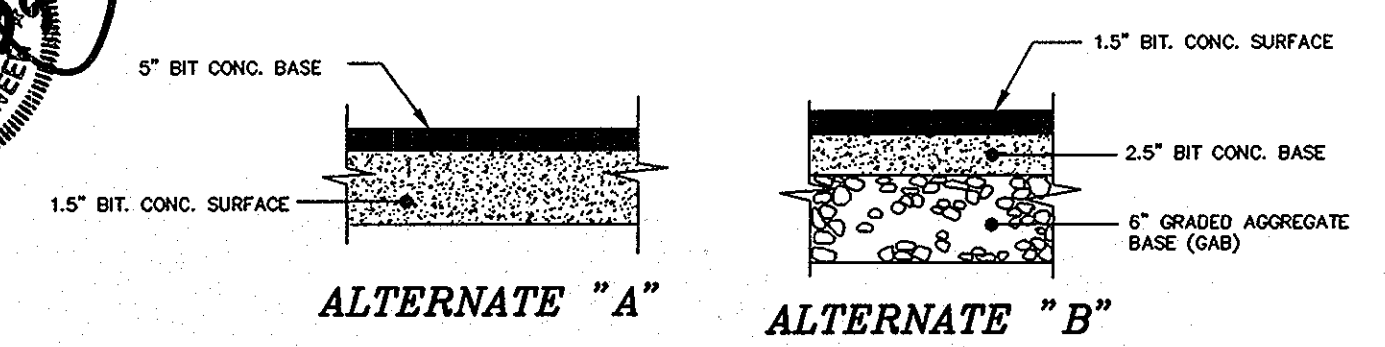
**TYPICAL ROADWAY SECTION**  
 CLASSIFICATION: MINOR COLLECTOR  
 DESIGN SPEED: 35 MPH  
 ROADS: "DONCASTER DRIVE"  
 SECTION NOT TO SCALE



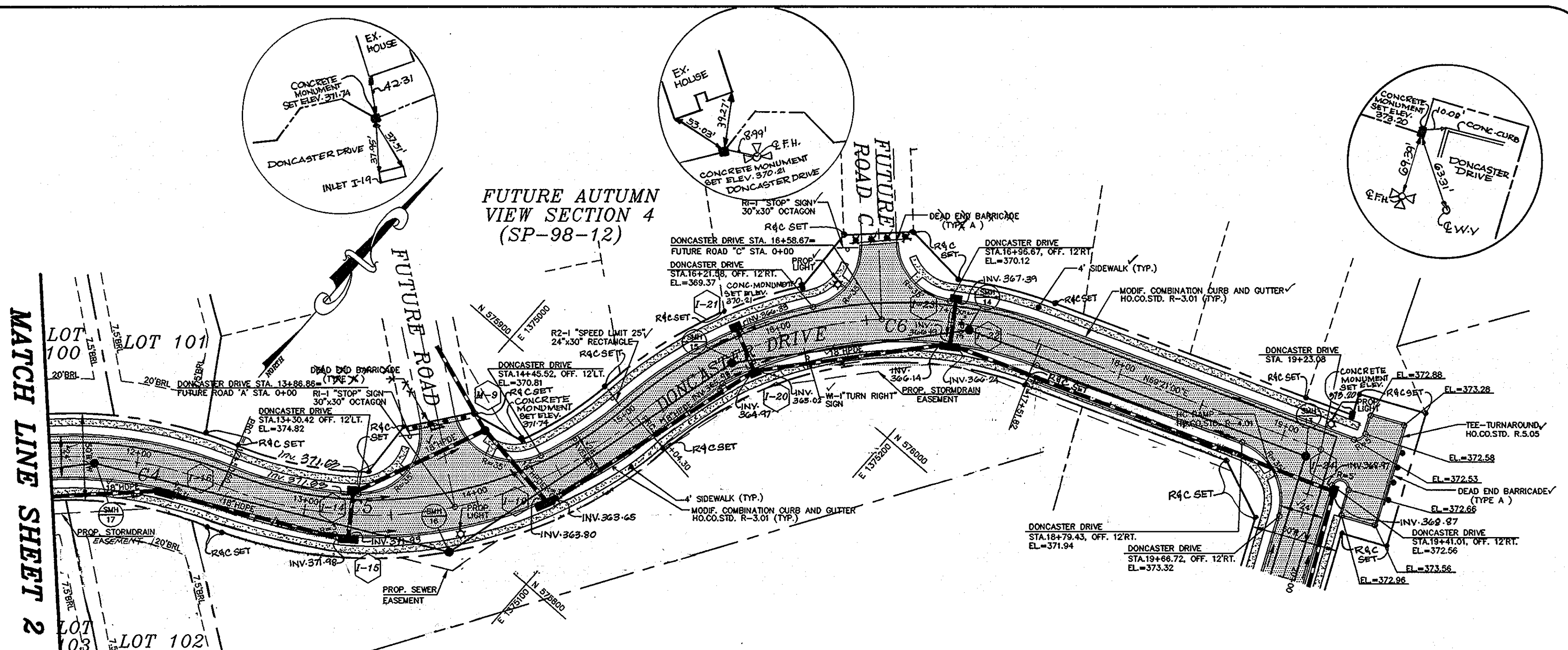
**TYPICAL ROADWAY SECTION**  
 CLASSIFICATION: ACCESS STREET  
 DESIGN SPEED: 25 MPH  
 ROADS: "TALL MAPLE COURT"  
 SECTION NOT TO SCALE



**TYPICAL ROADWAY SECTION**  
 CLASSIFICATION: ACCESS PLACE  
 DESIGN SPEED: 15 MPH  
 ROADS: "RED LEAF COURT",  
 "HAZEL NUT LANE"  
 SECTION NOT TO SCALE



**PAVING SECTION P-2**  
 N.T.S.



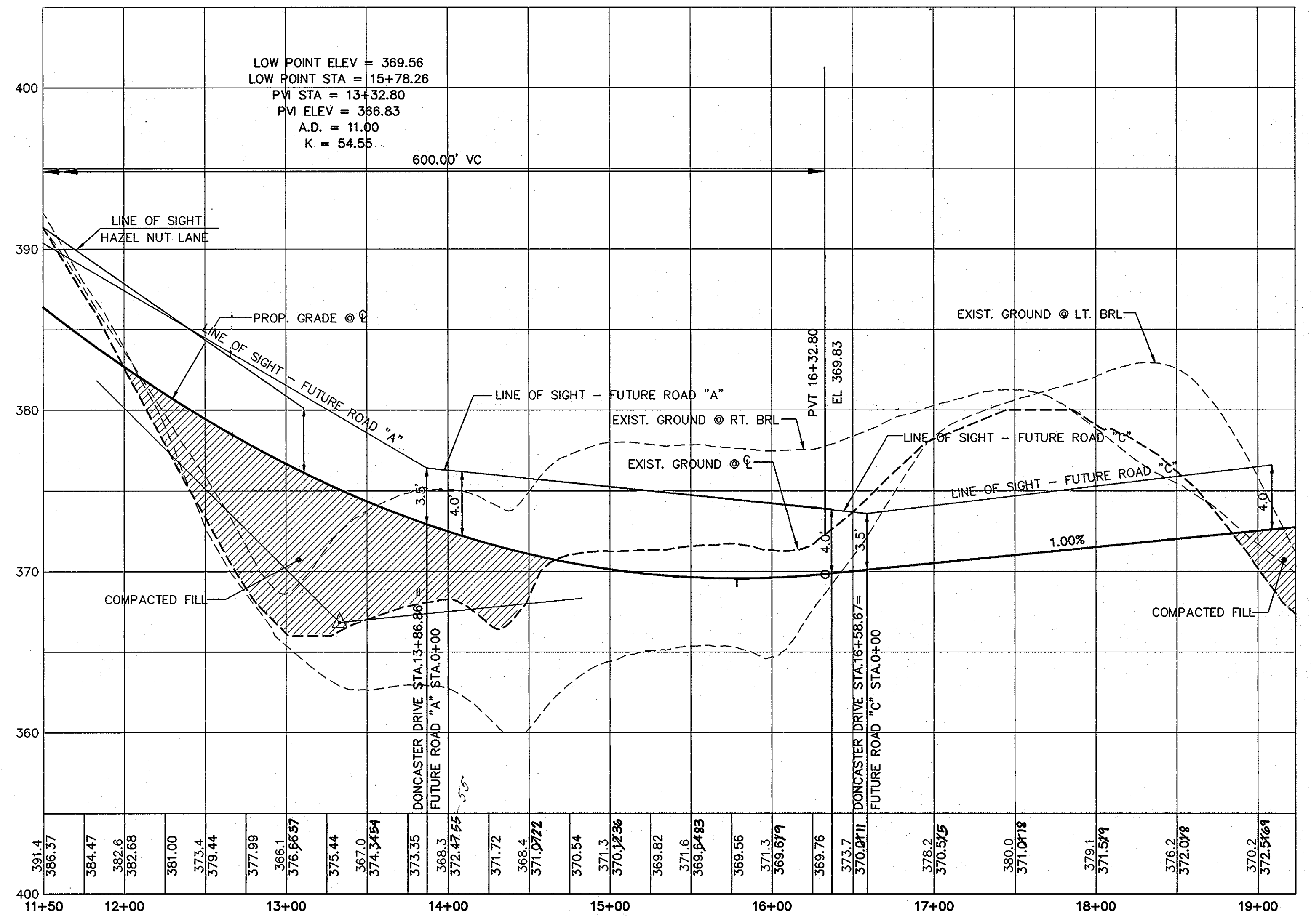
**DONCASTER DRIVE PLAN VIEW**  
 SCALE: 1"=50'

- NOTES: 1. FOR STREET TREES LOCATION SEE LANDSCAPE PLAN  
 2. ALL SIDEWALK RAMPS TO BE TYPE "A" HOWARD COUNTY STD. R-4.01

**CURVE TABLE**

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
*C4	230.00	116.29	59.42	115.06	S 56°24'14" W	28°58'14"
C5	230.00	253.70	141.50	241.03	N 39°17'21" E	63°11'59"
C6	230.00	247.52	137.27	235.75	S 38°31'11" W	61°39'38"

\* NOT A TRAFFIC CALMING DEVICE.



**DONCASTER DRIVE PROFILE**  
 SCALE: HOR. 1"=50'  
 VER. 1"=5'

CLASSIFICATION: MINOR COLLECTOR  
 DESIGN SPEED: 35 MPH

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Danke* 4-16-99  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Hanotta* 7/27/99  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Mike Danneberg* 4/21/99  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

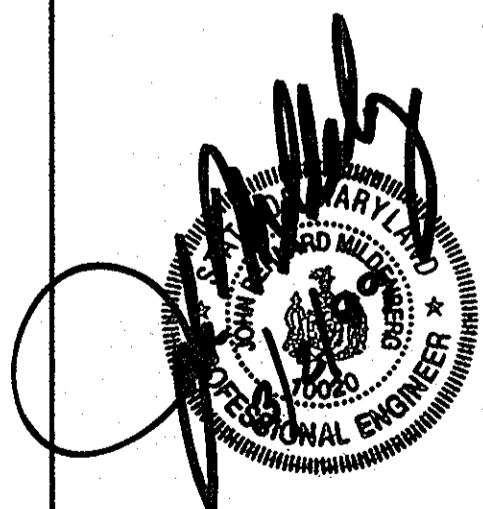
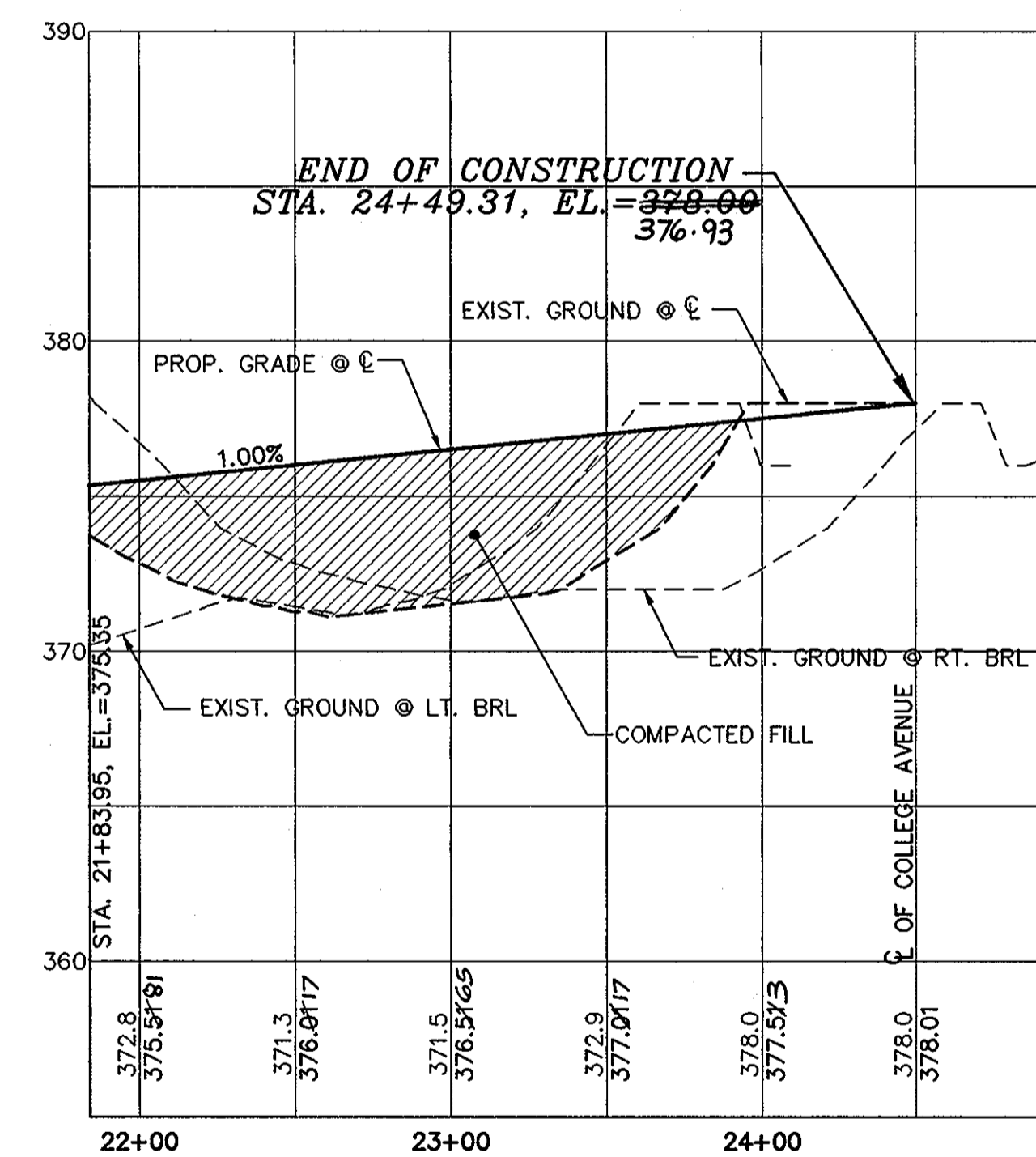
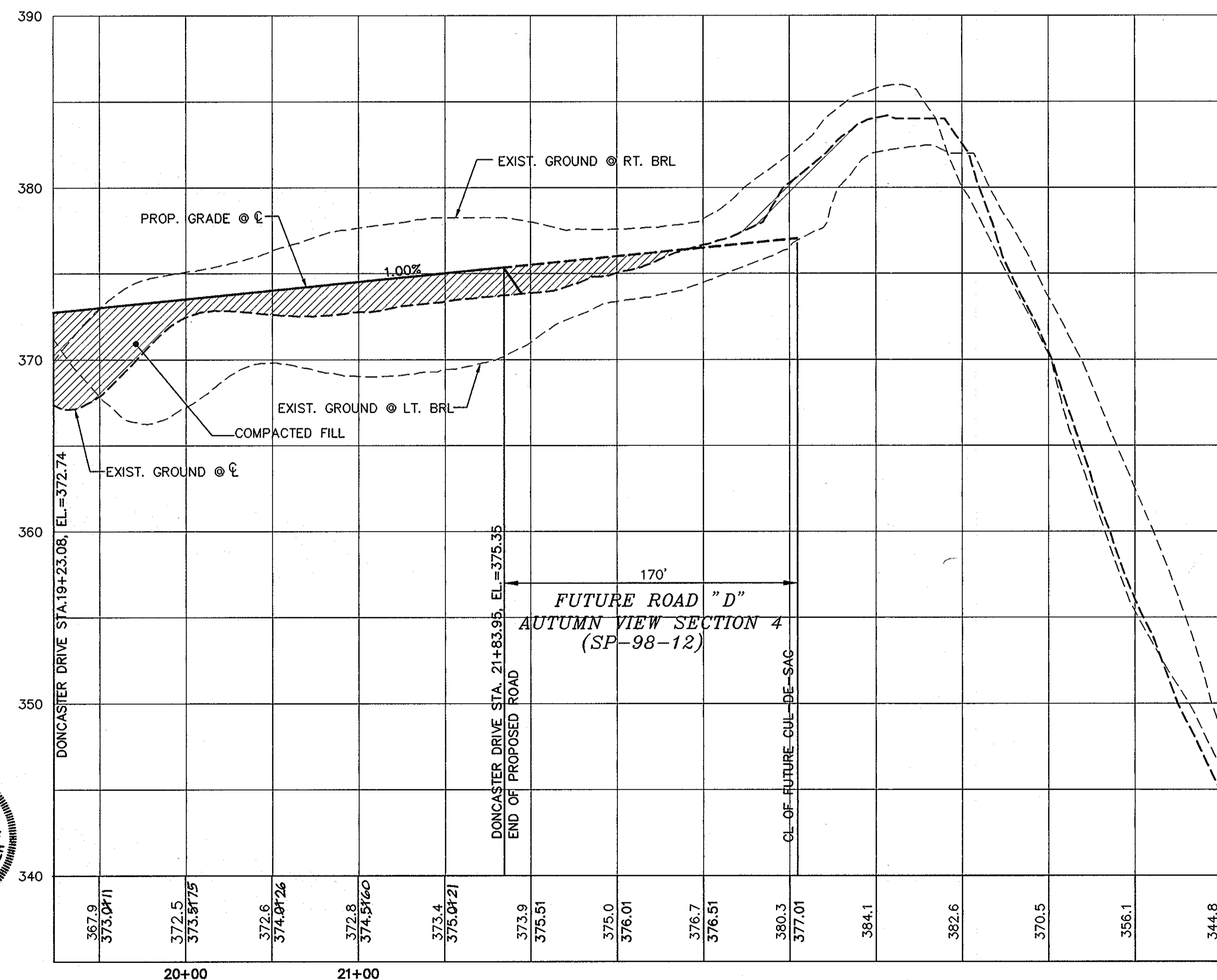
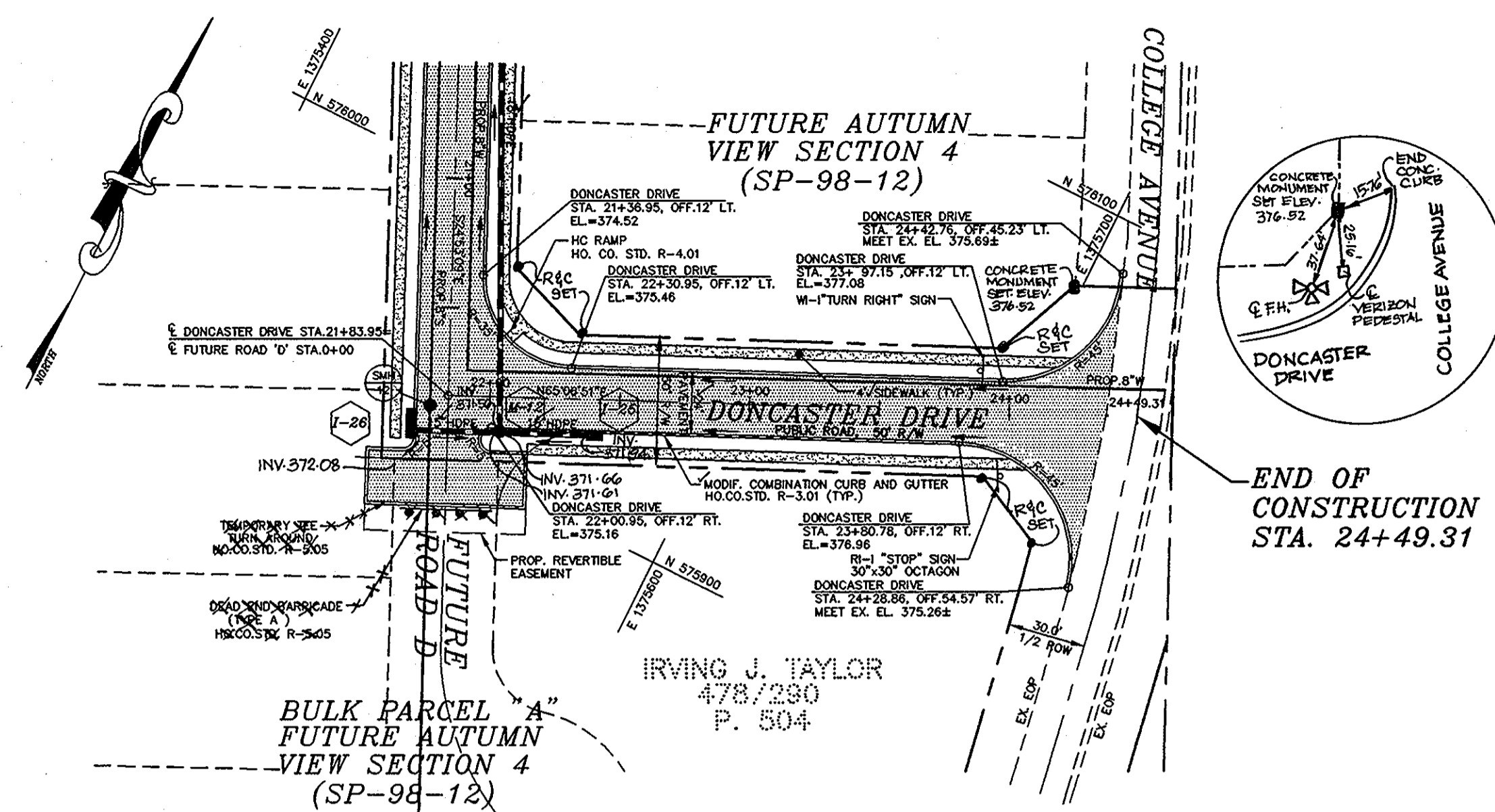
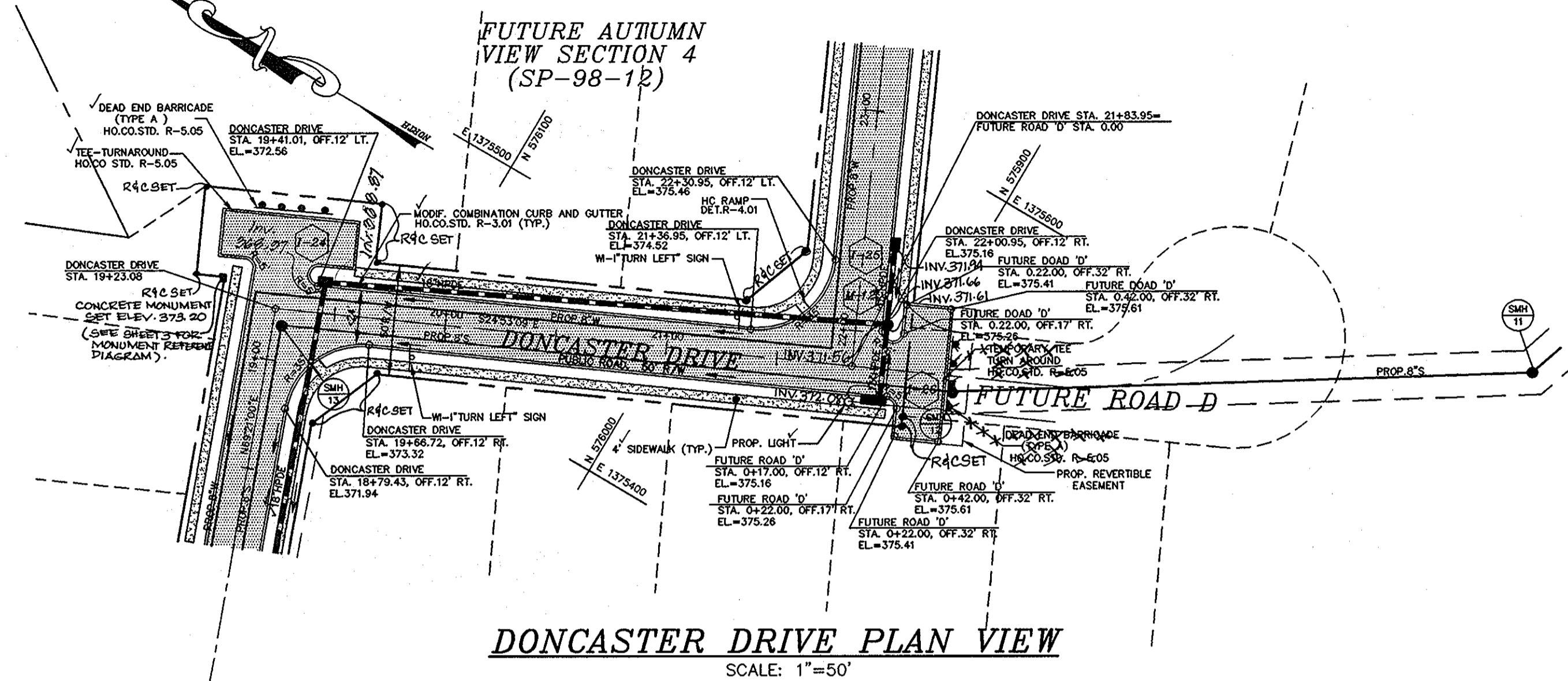


Project: 97015  
 Date: FEB. 1999  
 Illustration: MIP  
 Scale: 1"=50'  
 Ver. 1-2'

1. EMINENT PAR. PARKING SPA. ALONG DONCASTER DR.  
 11/2/00  
 description: revisions

**AUTUMN VIEW, SECTION 3**  
 LOTS: 76-151 AND BULK PARCEL "A"  
 TAX MAP 31; PARCEL 5, 13 AND P/O 4 & 504  
 HOWARD COUNTY, MARYLAND  
 SECOND ELECTION DISTRICT  
 ROAD PLAN AND PROFILE AND TYPICAL SECTIONS

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Planners Surveyors  
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland, 21042  
 (410) 987-0296 Fax. (301) 821-5521 Wash. (410) 987-0298 Fax.



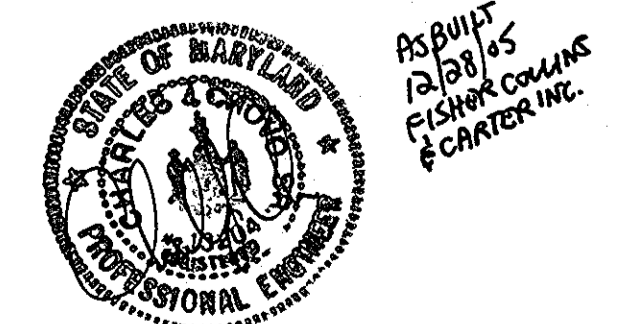
APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Richard M. Dworkin* 4/16/99  
CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Hamilton* 4/27/99  
CHIEF, DIVISION OF LAND DEVELOPMENT

*John P. ...* 4/21/99  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**DONCASTER DRIVE PROFILE**  
SCALE: HOR. 1"=50'  
VER. 1"=5'

CLASSIFICATION: MINOR COLLECTOR  
DESIGN SPEED: 35 MPH



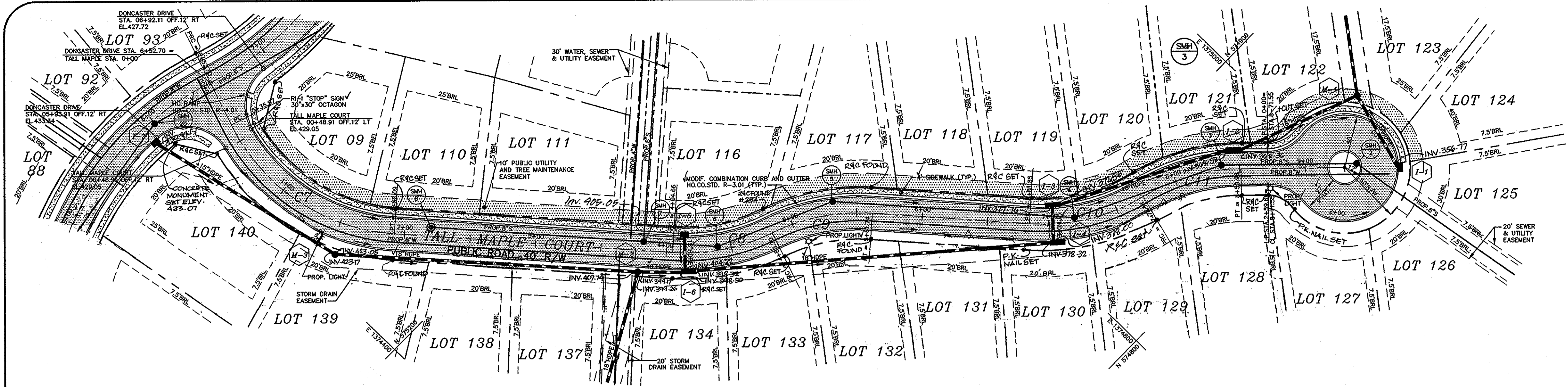
Project	97015
date	FEB. 1999
Illustration	MMP
scale	1"=50'
revision	1

no.	description	date	revisions

**AUTUMN VIEW, SECTION 3,**  
LOTS: 76-151 AND BULK PARCEL "A"  
TAX MAP 31; PARCEL 5, 13 ANF P/O 4 & 504  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

ROAD PLAN AND PROFILE

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
5072 Dorsey Hall Drive, Suite 202, Beltsville, Maryland, 21042  
(410) 987-0296 Fax. (301) 621-5321 Wash. (410) 987-0298 Fax.



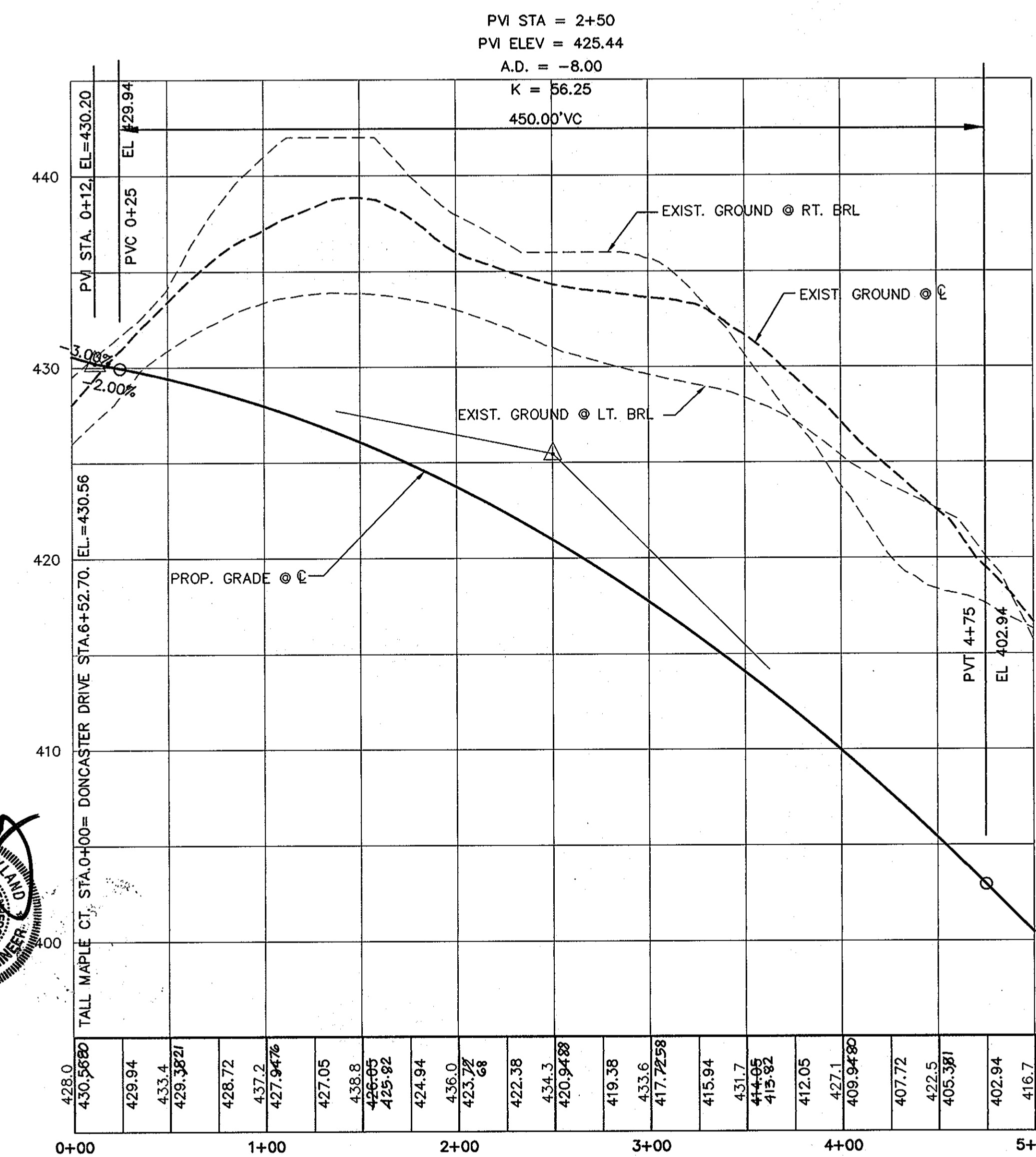
**CURVE TABLE**

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
*C7	150.00	156.12	85.96	148.17	S 10°38'0" E	59°37'56"
C8	150.00	78.54	40.19	77.65	S 55°26'58" E	30°00'00"
C9	150.00	78.54	40.19	77.65	N 55°26'58" W	30°00'00"
C10	150.00	90.59	46.72	89.22	S 57°45'1" E	34°38'06"
C11	150.00	78.54	40.19	77.65	N 60°3'4" W	30°00'00"

\* NOT A TRAFFIC CALMING DEVICE.

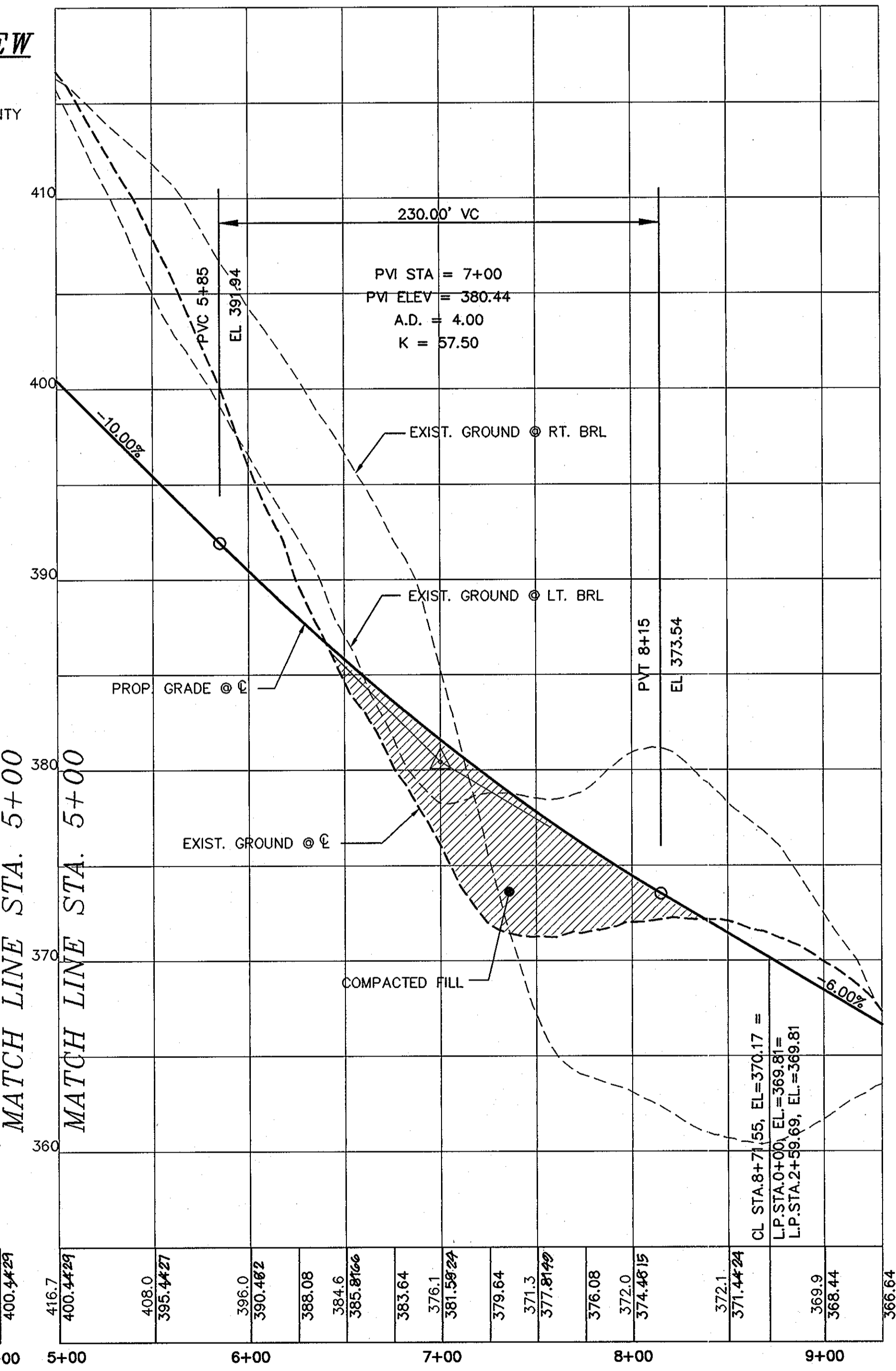
**TALL MAPLE COURT PLAN VIEW**  
SCALE: 1"=50'

NOTES: 1. FOR STREET TREES LOCATION SEE LANDSCAPE PLAN  
2. ALL SIDEWALK RAMPS TO BE TYPE "A" HOWARD COUNTY STD. R-4.01

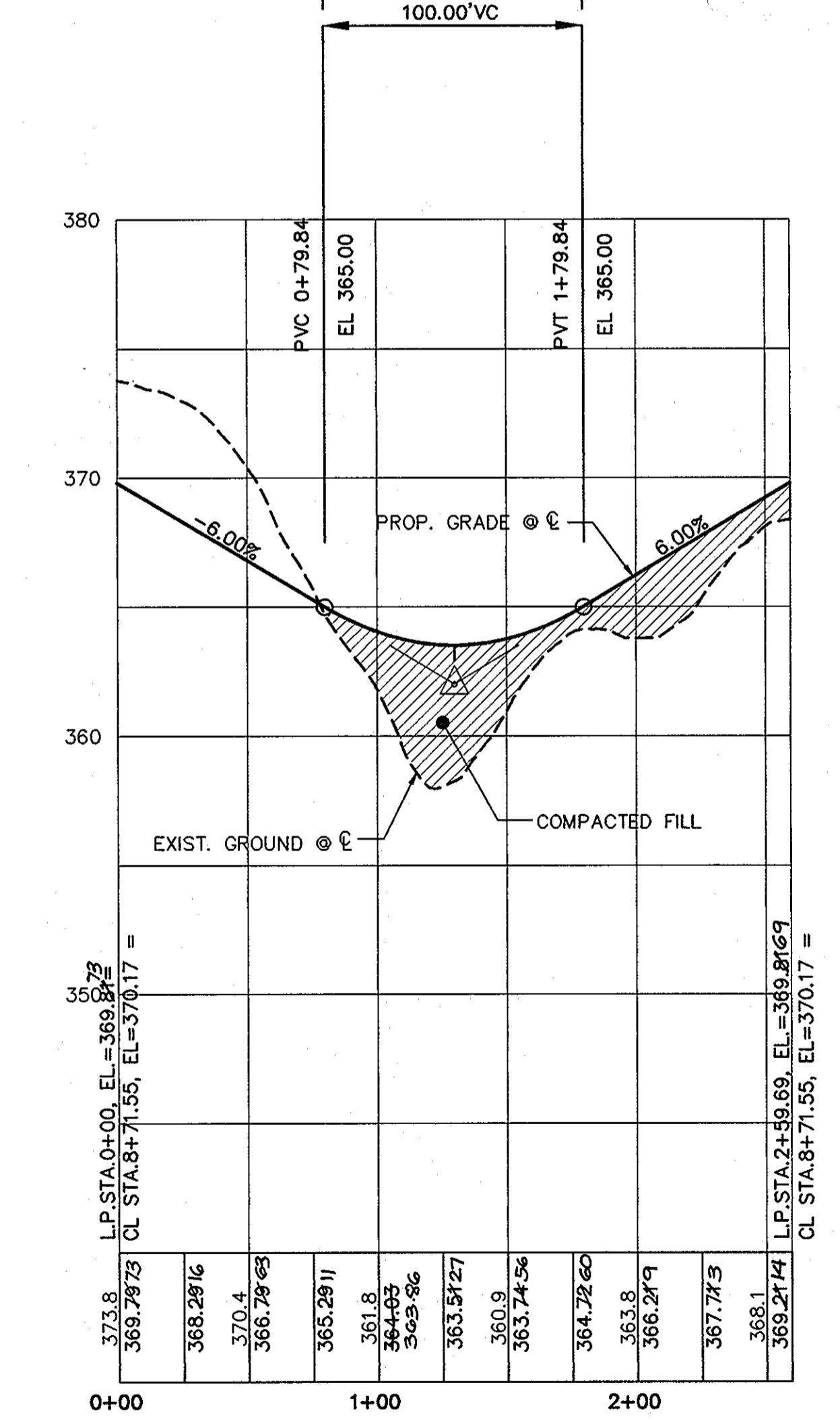


**TALL MAPLE COURT PROFILE**  
SCALE: HOR. 1"=50'  
VER. 1"=5'

CLASSIFICATION: ACCESS STREET  
DESIGN SPEED: 25 MPH

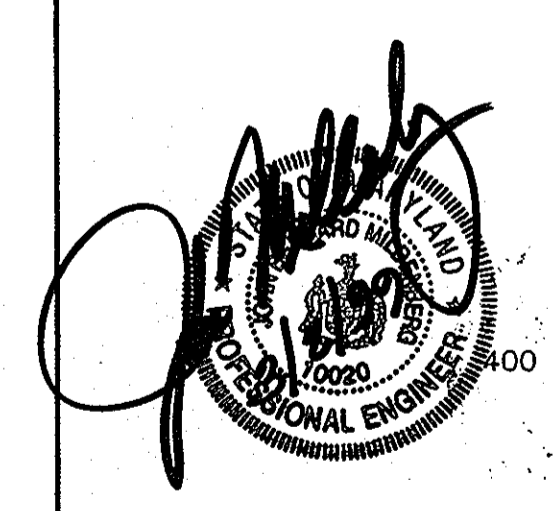


LOW POINT ELEV = 363.50  
LOW POINT STA = 1+29.84  
PVI STA = 1+29.84  
PVI ELEV = 362.00  
A.D. = 12.00  
K = 8.33



**TALL MAPLE COURT LINEAR PROFILE**  
SCALE: HOR. 1"=50'  
VER. 1"=5'

CLASSIFICATION: ACCESS STREET



APPROVED: DEPARTMENT OF PUBLIC WORKS  
*M. J. Decker* 4-16-09  
CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Hamatta* 4/20/09  
CHIEF, DIVISION OF LAND DEVELOPMENT

*M. J. Decker* 4/21/09  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

project	97015	date	FEB. 1999
illustration	MMP	engineering	MMP
scale	1"=50'	revision	1

no.	1	description	ELIMINATE PAR. PARKING SPA. ALONG TALL MAPLE CT.	date	11/2/00
revisors					

**AUTUMN VIEW, SECTION 3,**  
LOTS: 76-151 AND BULK PARCEL "A"  
TAX MAP 31; PARCEL 5, 13 ANF P/O 4 & 504  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

ROAD PLAN AND PROFILE

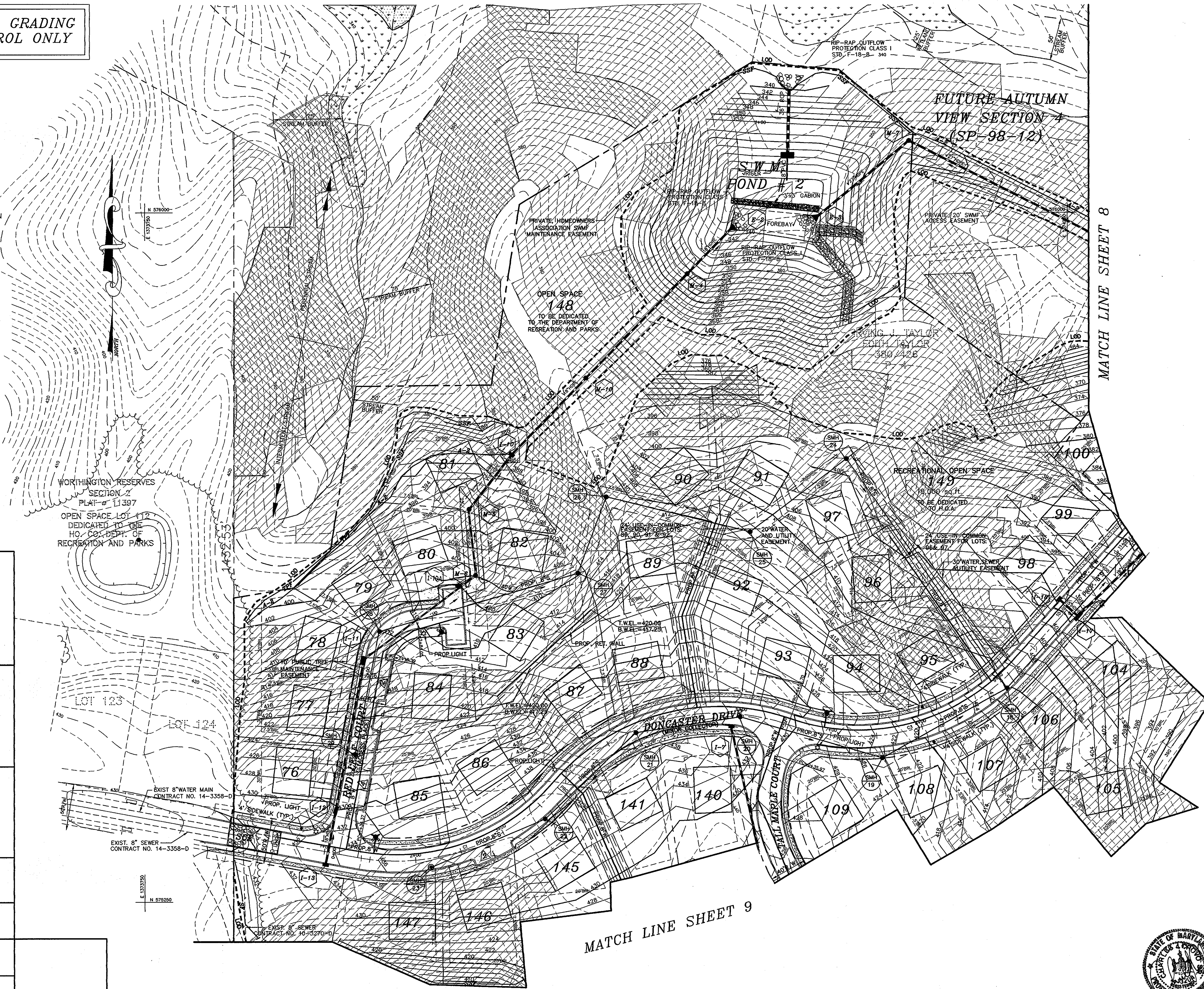
**MILDENBERG, & ASSOC., INC.**  
Engineers Planners Surveyors  
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland, 21042  
(410) 987-0286 Fax: (801) 621-5521 Wash. (410) 987-0288 Fax



THIS DRAWING IS FOR GRADING  
AND SEDIMENT CONTROL ONLY

LEGEND

- EARTH DIKE
- SILT FENCE
- SUPER SILT FENCE
- TREE PROTECTION FENCE
- LIMIT OF DISTURBANCE
- STABILIZED CONSTRUCTION ENTRANCE



MATCH LINE SHEET 8

MATCH LINE SHEET 9

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

P.E. NO.: \_\_\_\_\_  
DATE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES THE 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.

Signature of Developer: *Steve Taylor* DATE: 2/23/99  
Printed Name of Developer: Steve Taylor

BY THE ENGINEER:

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND FEASIBLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THE INFORMATION PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT THE REGISTERED PROFESSIONAL ENGINEER IS SUPERVISING THE CONSTRUCTION OF THE POND WITHIN 30 DAYS OF COMPLETION.

Signature of Engineer: *John M. Williams* DATE: 2/23/99  
Printed Name of Engineer: John M. Williams

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

Signature: *Paul Simmons* DATE: 4/16/99  
686A - NATURAL RESOURCES CONSERVATION SERVICE

Signature: *Robert W. Zimmerman* DATE: 4/16/99  
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS  
Signature: *Robert W. Zimmerman* DATE: 4-16-99  
CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Signature: *Cindy Hamilton* DATE: 4/21/99  
CHIEF, DIVISION OF LAND DEVELOPMENT

Signature: *John M. Williams* DATE: 4/16/99  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Project	Date	Illustration	Scale
97015	FEB 1999	Engineering	1" = 50'
		MFP	approval

Project	Date	Description	Revisions
3	11/05/03	CHANGED THE LOCATION OF F-04 AND MHS	
2	01/10/02	ADD PARK PARKING ALONG THE ROADS	
1	11/16/00	ADD INLET F-04 ON RED LEAF COUR	
		ELIMINATE PARK PARKING SPA. ALONG THE ROADS	

AUTUMN VIEW, SECTION 3  
 LOTS: 76 - 151 & BULK PARCEL "A"  
 TAX MAP 31; PARCEL 5, 13 AND P/O 4 & 504  
 HOWARD COUNTY, MARYLAND  
 SECOND ELECTION DISTRICT  
 GRADING AND SEDIMENT CONTROL PLAN

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Planners Surveyors  
 5072 Dorsey Hill Drive, Suite 202, Ellicott City, Maryland 21042  
 (410) 987-0286 Fax: (301) 821-5651 Wash. (410) 987-0288 Fax



AS-BUILT  
 12/28/05  
 JOHN M. WILLIAMS  
 PROFESSIONAL ENGINEER

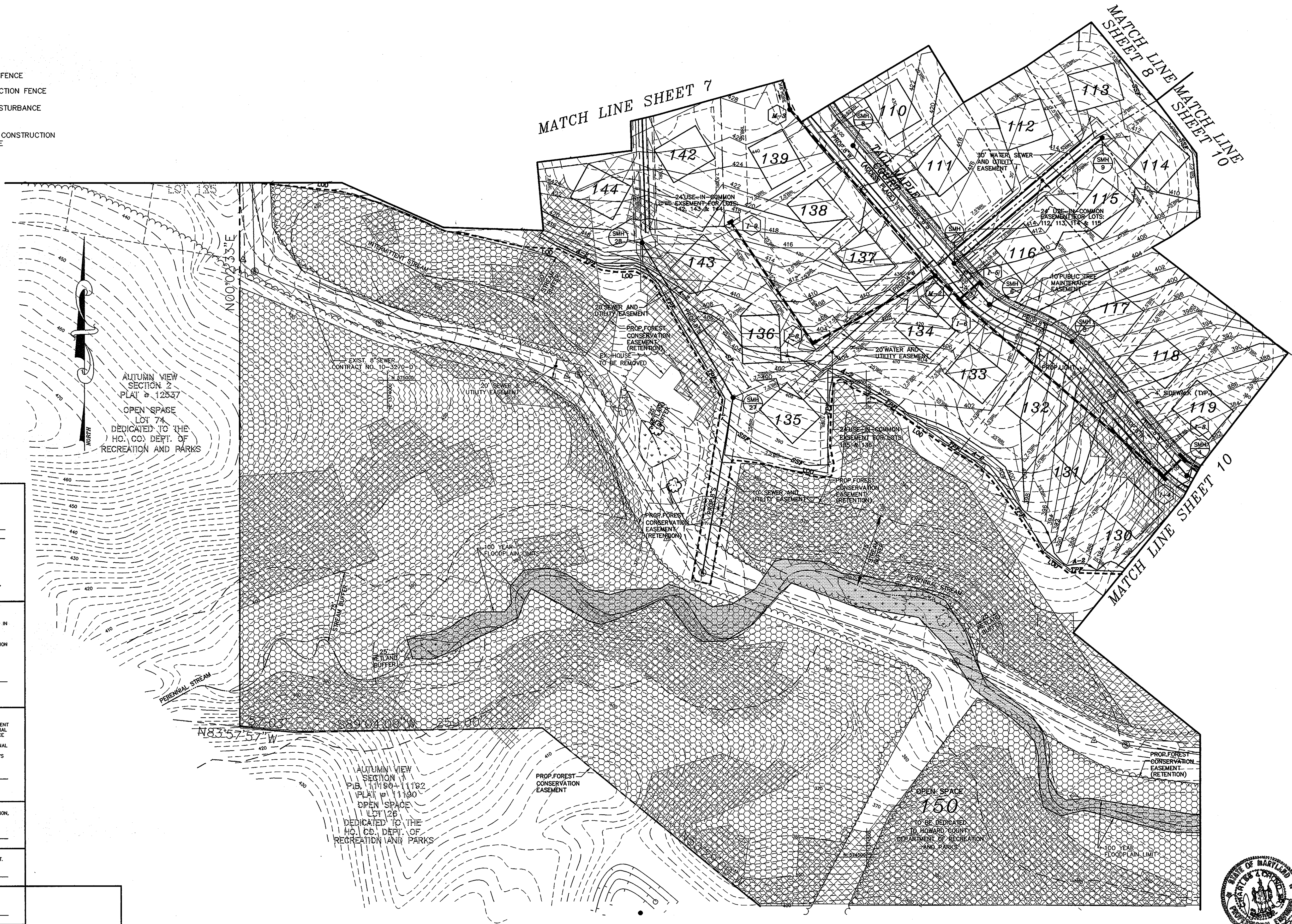




THIS DRAWING IS FOR GRADING  
AND SEDIMENT CONTROL ONLY

LEGEND

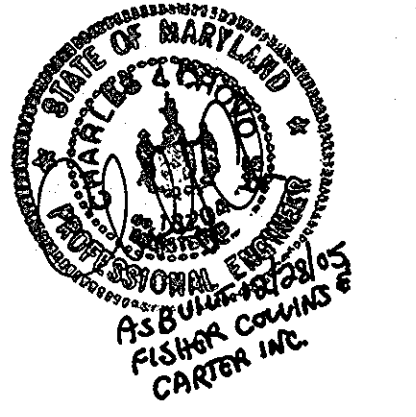
- EARTH DIKE
- SILT FENCE
- SUPER SILT FENCE
- TREE PROTECTION FENCE
- LIMIT OF DISTURBANCE
- STABILIZED CONSTRUCTION ENTRANCE



AUTUMN VIEW  
SECTION 2  
PLAT # 12537  
OPEN SPACE  
LOT 74  
DEDICATED TO THE  
HO. CO. DEPT. OF  
RECREATION AND PARKS

AUTUMN VIEW  
SECTION 1  
PLAT # 1180-1182  
OPEN SPACE  
LOT 126  
DEDICATED TO THE  
HO. CO. DEPT. OF  
RECREATION AND PARKS

AS-BUILT CERTIFICATION	
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.	
SIGNATURE	P.E. NO. _____ DATE: _____
CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE 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.	
	3/2/99
SIGNATURE OF DEVELOPER	
PRINTED NAME OF DEVELOPER	
BY THE ENGINEER:	
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL, REPRESENTS A DESIGN 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 DISTRICT AND 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.	
	3/2/99
SIGNATURE OF ENGINEER	
PRINTED NAME OF ENGINEER	
THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.	
	4/16/99
USNR - NATIONAL RESOURCE CONSERVATION SERVICE	
DATE	
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.	
	4/16/99
HOWARD SOIL CONSERVATION DISTRICT	
DATE	
APPROVED: DEPARTMENT OF PUBLIC WORKS	
	4-16-99
CHIEF, BUREAU OF HIGHWAYS	
DATE	
APPROVED: DEPARTMENT OF PLANNING AND ZONING	
	4/27/99
CHIEF, DIVISION OF LAND DEVELOPMENT	
DATE	
	4/21/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION	
DATE	



Project	97015
date	FEB. 1999
Illustration	engineering
M.P.	M.P.
scale	1" = 50'
approval	

description	ELIMINATE PAR. PARKING SPA. ALONG TALL MAPLE CT. 1125, 700.
revisions	
date	

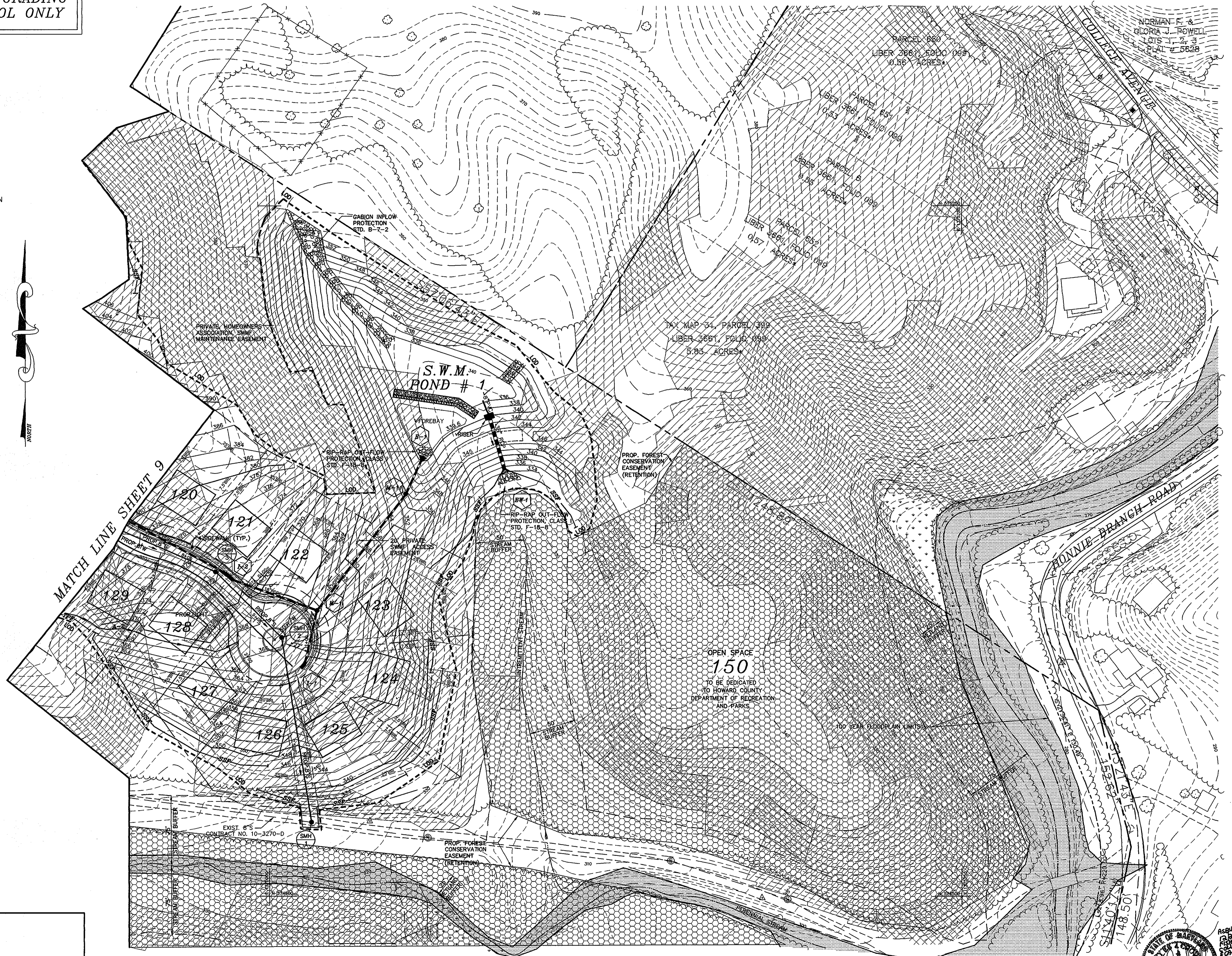
AUTUMN VIEW, SECTION 3  
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HOWARD COUNTY, MARYLAND  
SECOND ELECTION DISTRICT  
GRADING AND SEDIMENT CONTROL PLAN

**MILDENBERG, & ASSOC., INC.**  
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THIS DRAWING IS FOR GRADING  
AND SEDIMENT CONTROL ONLY

LEGEND

- A-2 EARTH DIKE
- SF SILT FENCE
- SSF SUPER SILT FENCE
- TPF TREE PROTECTION FENCE
- LOD LIMIT OF DISTURBANCE
- SCE STABILIZED CONSTRUCTION ENTRANCE



AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

P.E. NO.: \_\_\_\_\_  
DATE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES 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.

*Bruce Taylor* 3/23/99  
SIGNATURE OF DEVELOPER DATE  
BRUCE TAYLOR P.E.S.  
PRINTED NAME OF DEVELOPER

BY THE ENGINEER:

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE DESIGN WITHIN MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN IS IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTICED THE DEVELOPER THAT HE/SHE MUST MAINTAIN ACCESS TO ALL NEARBY PROPERTIES AND TO SUPERVISE CONSTRUCTION TO MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT WITHIN 30 DAYS OF COMPLETION.

*John M. Decker* 4/16/99  
SIGNATURE OF ENGINEER DATE  
JOHN M. DECKER  
PRINTED NAME OF ENGINEER

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

*Cheryl Simmons* 4/16/99  
DATE  
NRA - NATURAL RESOURCES CONSERVATION SERVICE

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

*Robert W. Gilman* 4/16/99  
DATE  
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Stephen M. Decker* 4-16-99  
DATE  
CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Condy Hamilton* 4/17/99  
DATE  
CHIEF, DIVISION OF LAND DEVELOPMENT

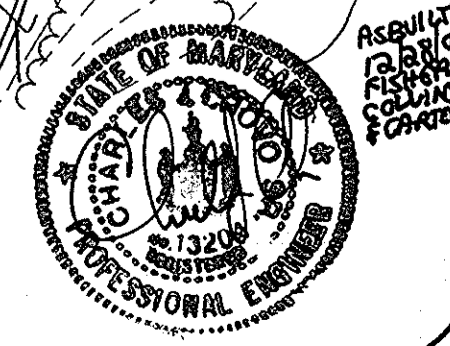
*John M. Decker* 4-21-99  
DATE  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Project	97015	Date	FEB. 1999
Illustration	MMP	Engineering	MMP
Scale	1"=50'	Approval	MPP

1.	ELIMINATE PAR. PARKING SPA. ALONG TALL MAPLE CT. 11/17/00.	description	date
		revisions	

AUTUMN VIEW, SECTION 3  
LOTS: 76 - 151 AND BULK PARCEL "A"  
TAX MAP 31, PARCEL 5, 13 AND P/O 4 & 504  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
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97015.DWG FINAL GRADING-4

**HOWARD SOIL CONSERVATION DISTRICT**

**PERMANENT SEEDING NOTES**

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITE LIMESTONE (92 LBS./1000 SQ.FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS./1000 SQ.FT.).
- ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITE LIMESTONE (92 LBS./1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING - FOR PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 15 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE 1.4 LBS./1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (.05 LBS./1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) - 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) - USE SOLO. OPTION (3) - SEED WITH 60 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 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 SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

**TEMPORARY SEEDING NOTES**

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, FOR NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.)

SEEDING - FOR PERIODS MARCH 1 THRU APRIL 30, AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.) FOR PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (.07 LBS./1000 SQ.FT.). FOR PERIOD NOVEMBER 16 THRU NOVEMBER 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 SOLO.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED WEE FREE SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

**STANDARD SEDIMENT CONTROL NOTES**

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION. (313-1855).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERMETER 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 SHALL BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERMETER 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 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC.5), SO2 (SEC. 5A), TEMPORARY SEEDING (SEC. 5D) AND MULCHING (SEC. 5E). 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:	82.33 ACRES
AREA DISTURBED:	27.45 ACRES
AREA TO BE ROOFED OR PAVED:	5.50 ACRES
AREA TO BE VEGETATIVELY STABILIZED:	21.38 ACRES
TOTAL CUT:	64.00 CU. YDS.
TOTAL FILL:	64.00 CU. YDS.
TOTAL WASTE/BORROW AREA LOCATION:	(NOT REQUIRED)
- THESE QUANTITIES ARE FOR PERMIT PURPOSES ONLY. CONTRACTOR IS REQUIRED TO PROVIDE HIS OWN QUANTITY MEASUREMENTS.
- 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 PERMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

**STANDARD AND SPECIFICATIONS FOR TOPSOIL**

DEFINITION  
PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

PURPOSE  
TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

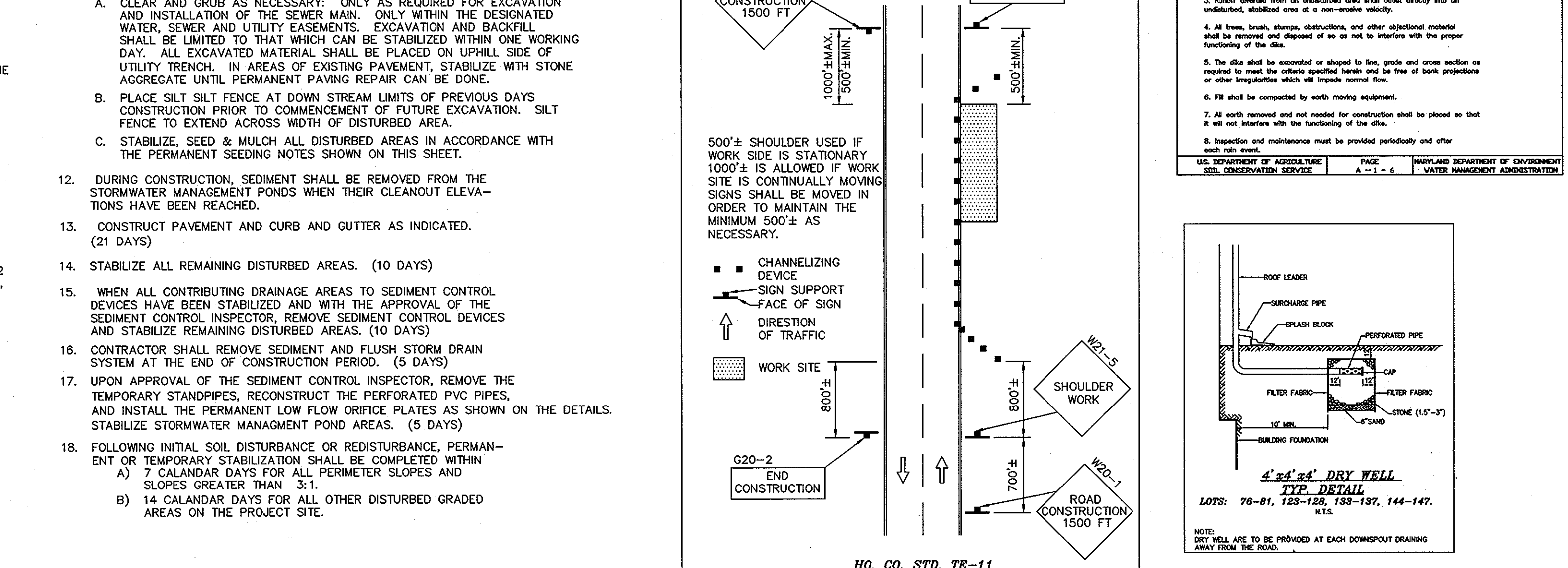
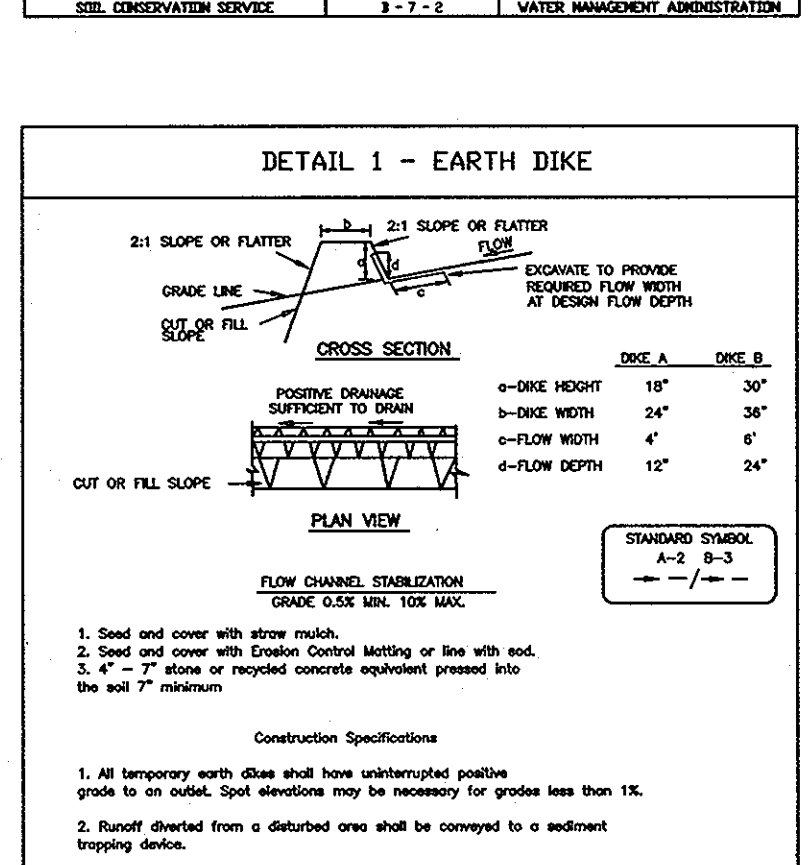
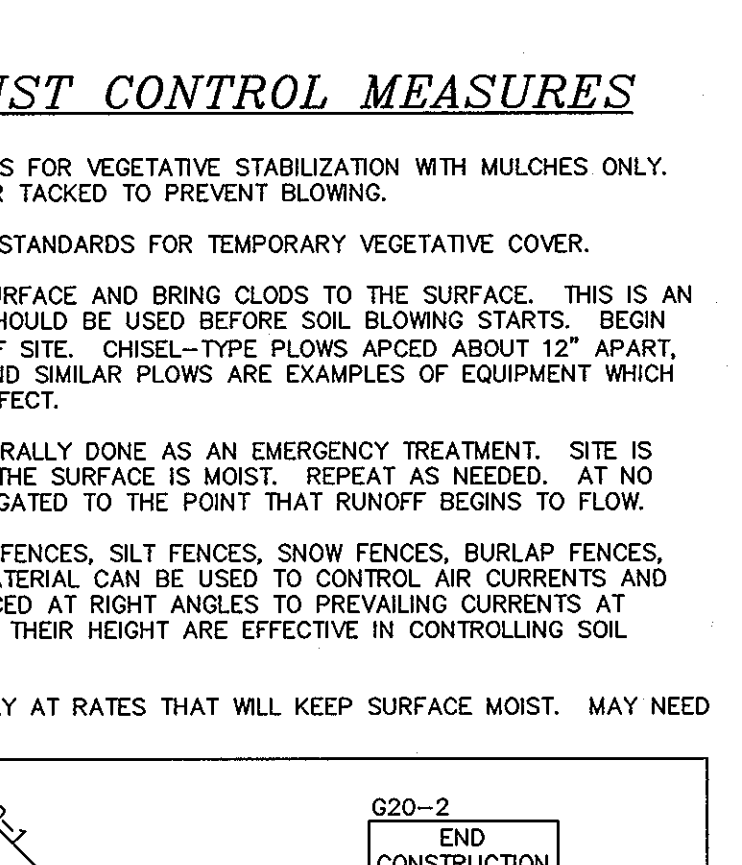
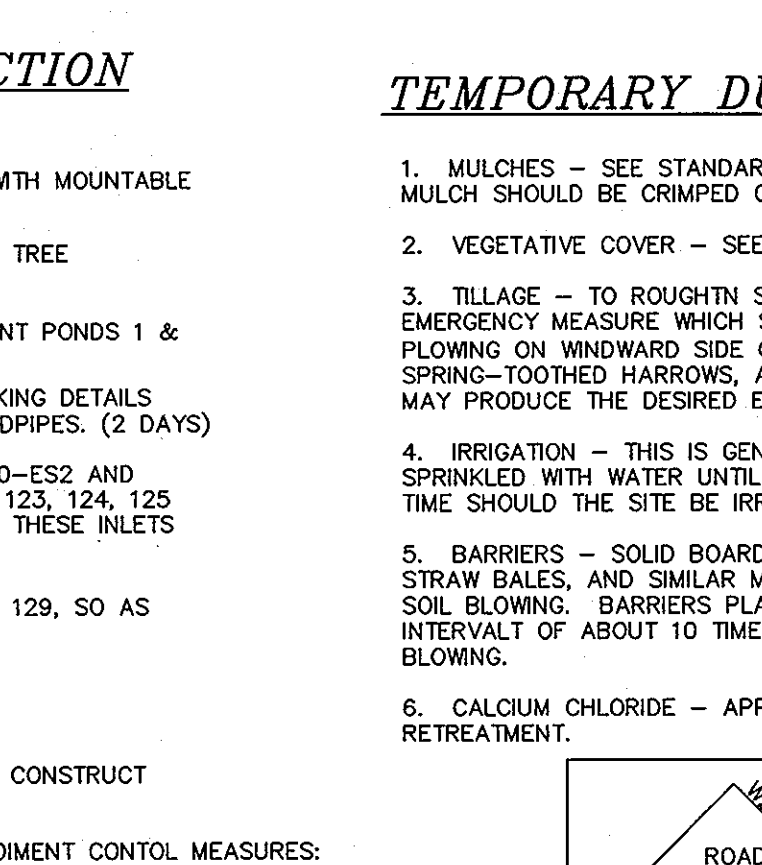
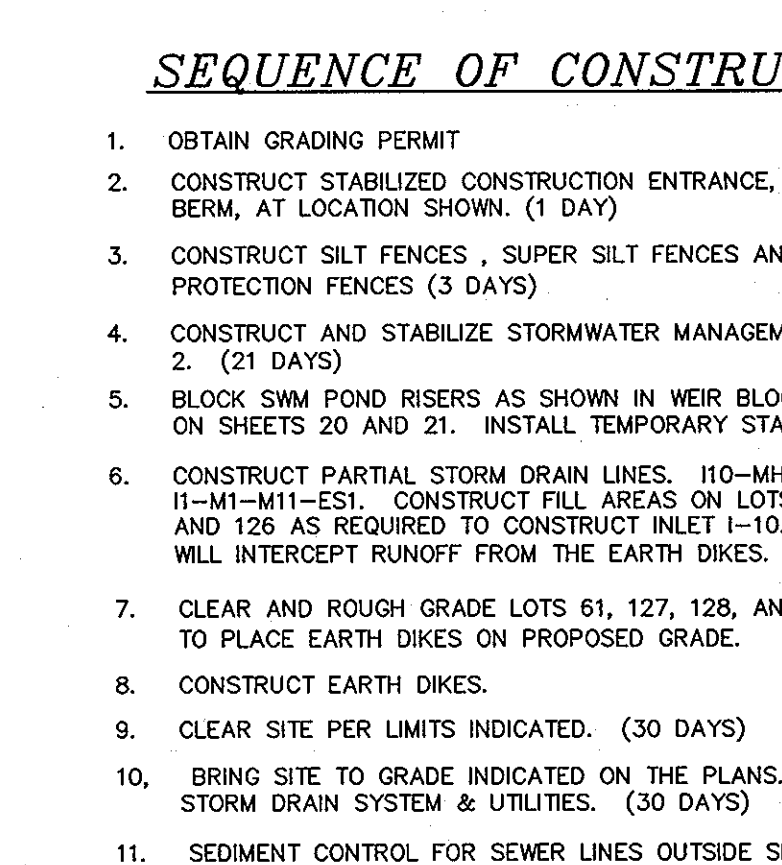
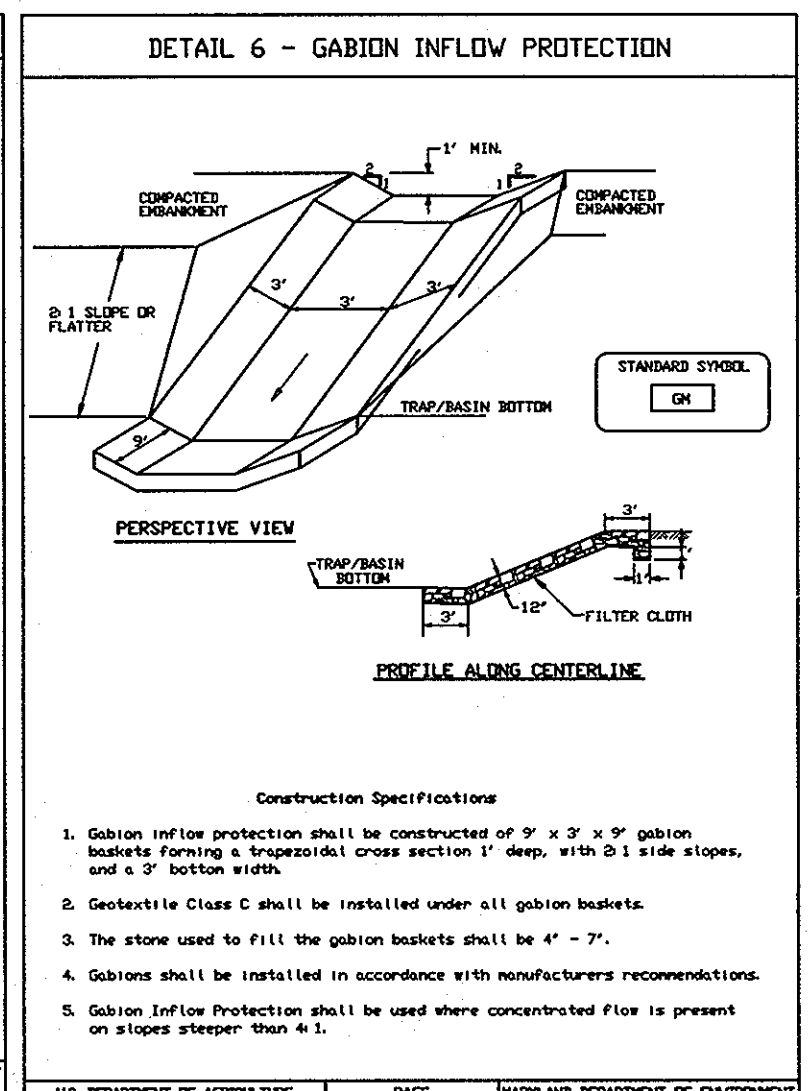
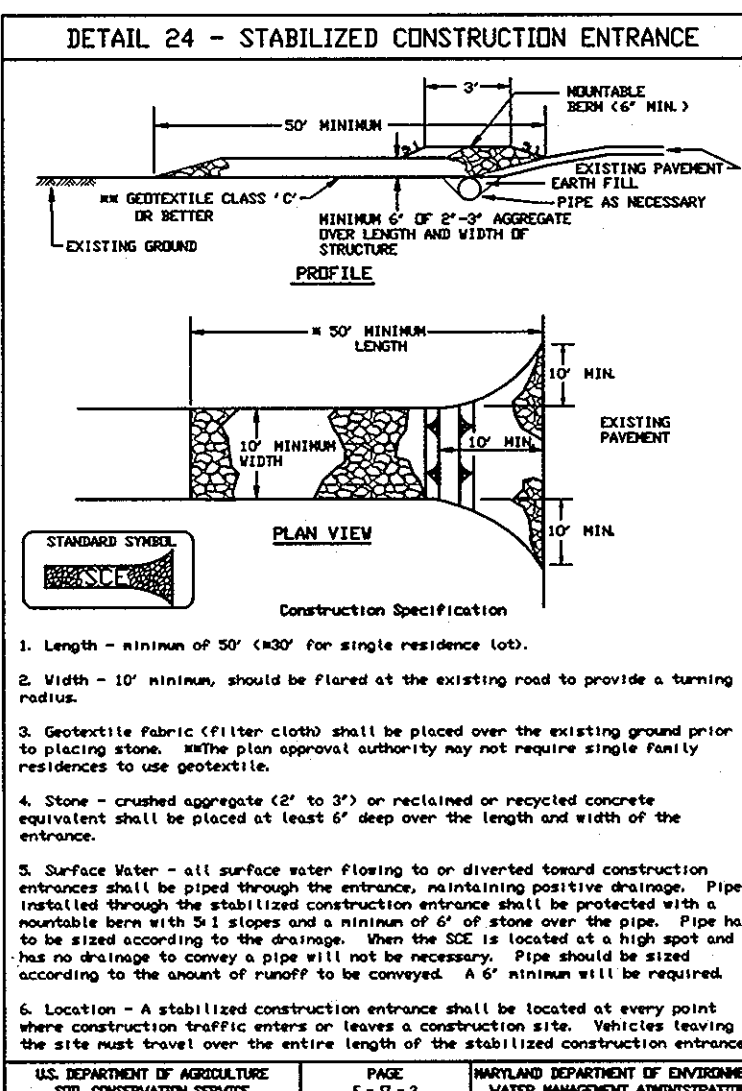
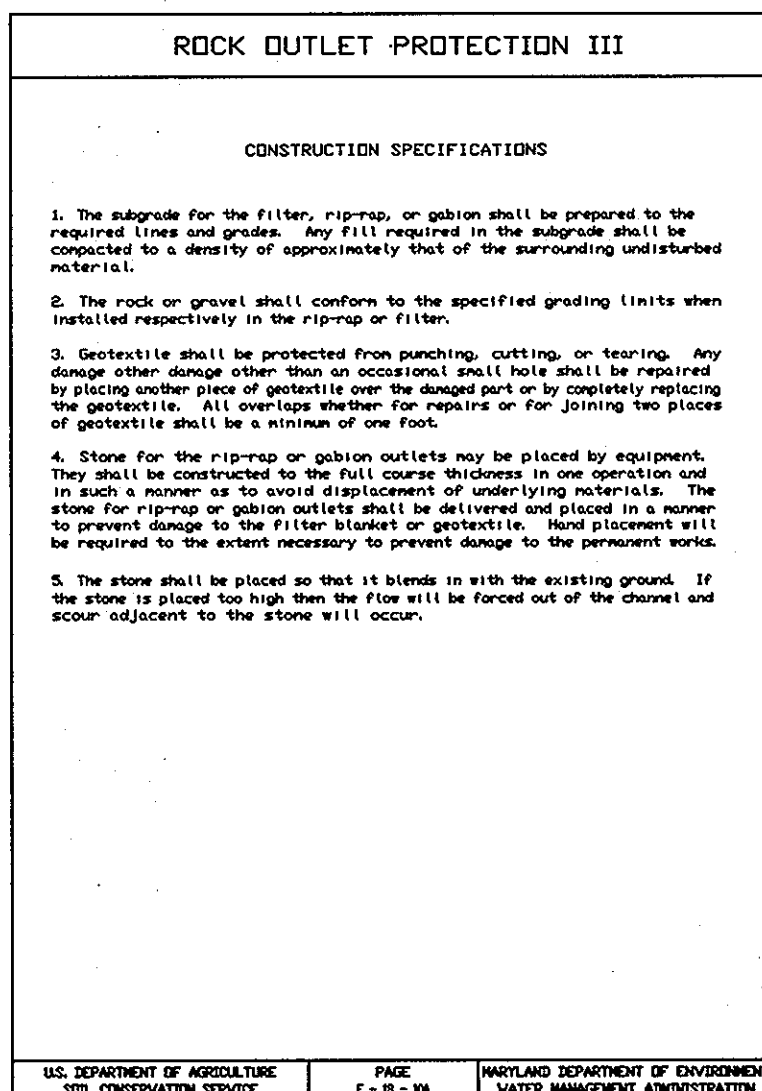
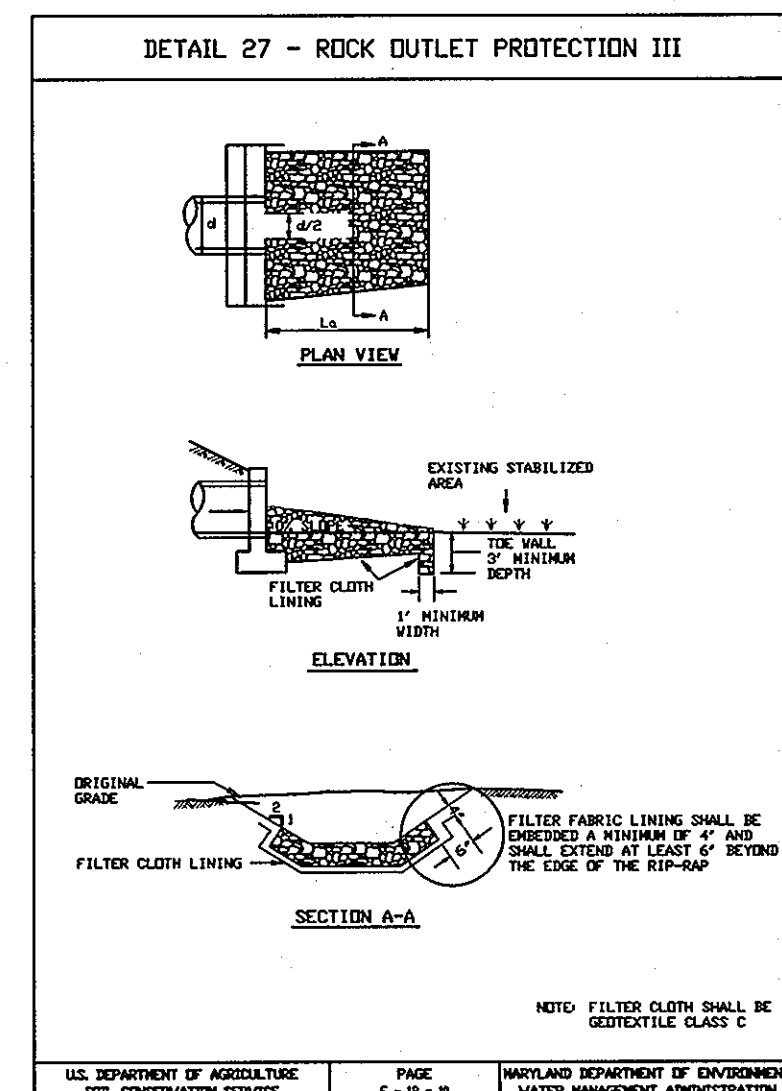
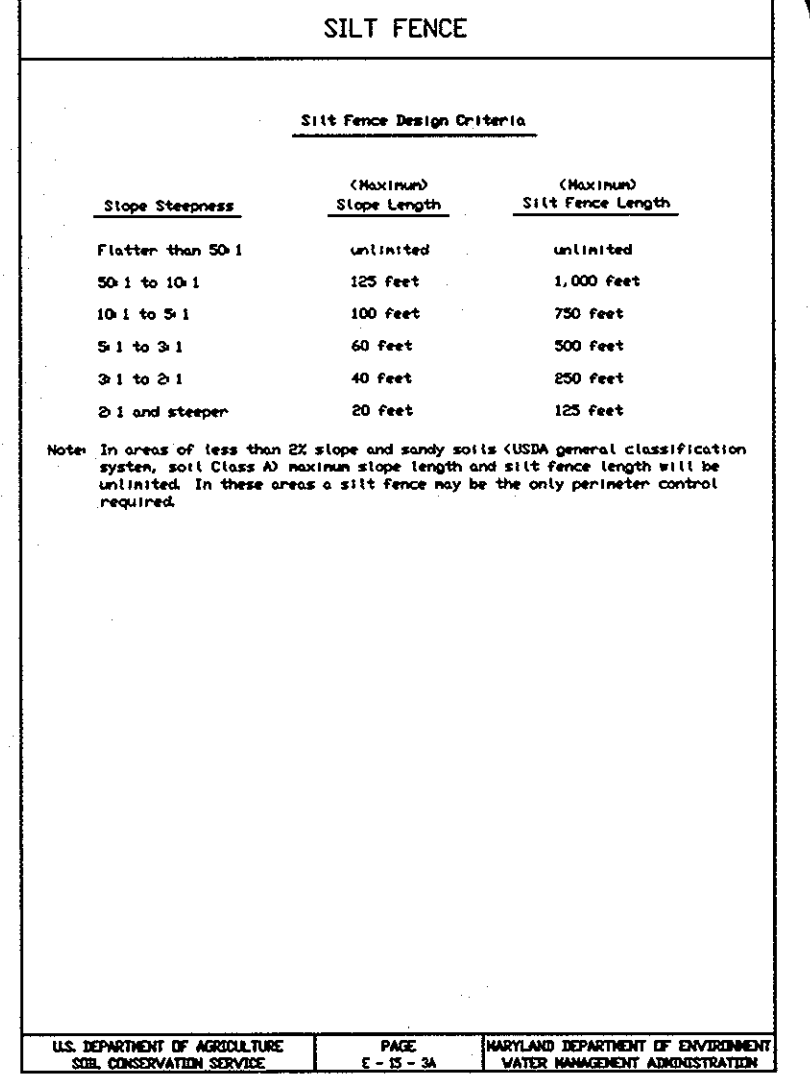
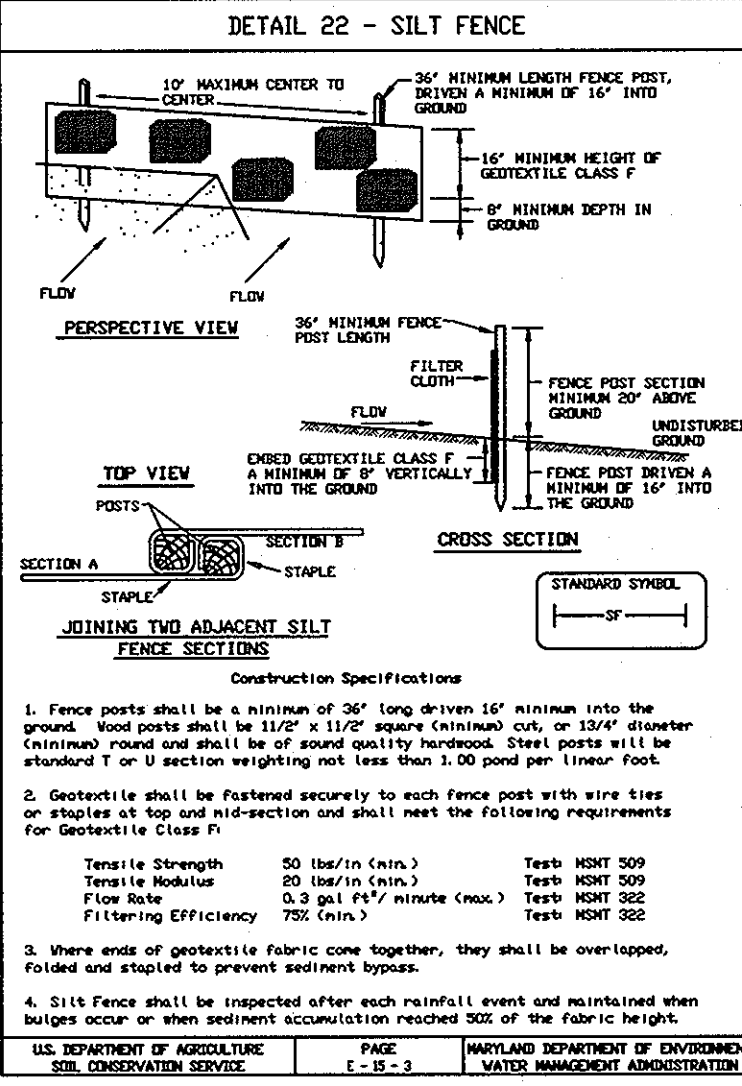
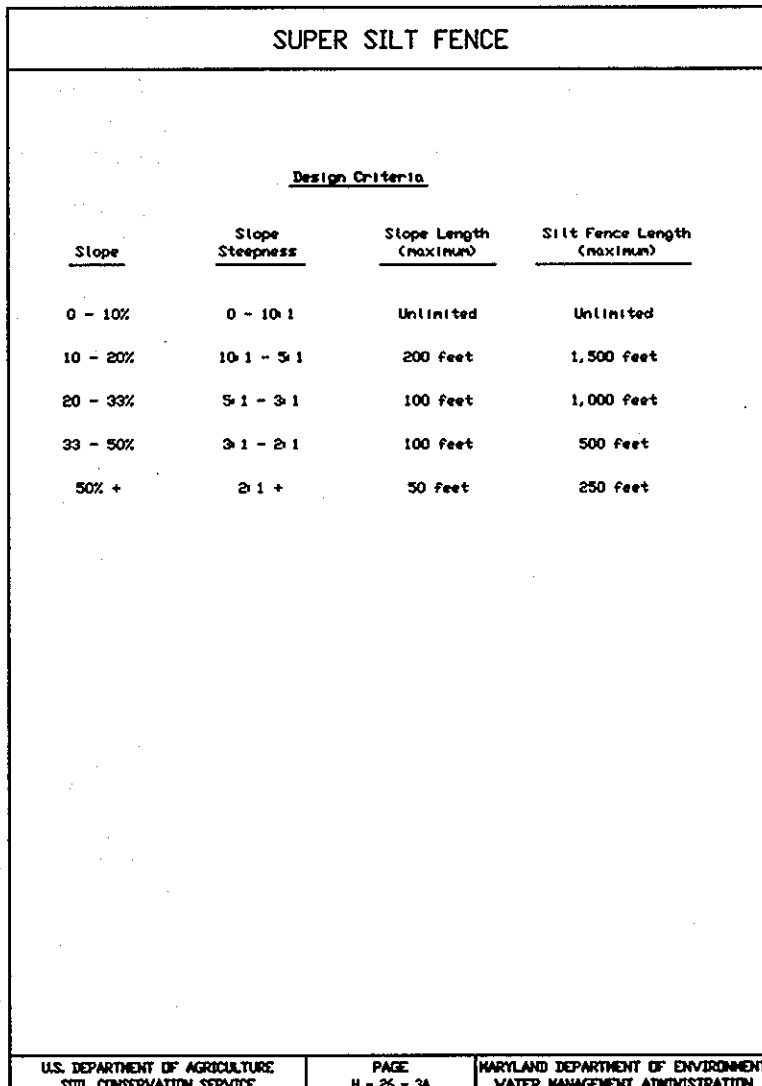
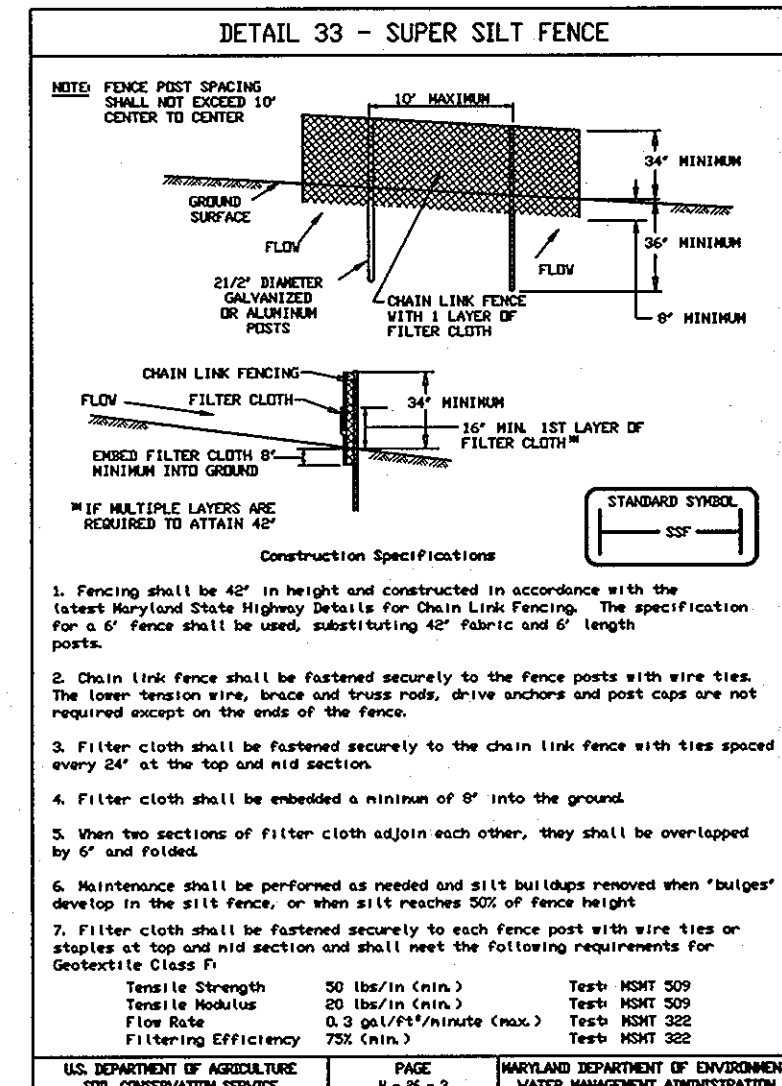
**CONDITIONS WHERE PRACTICE APPLIES**

- THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
  - THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
  - THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
  - THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
  - FOR THE SOIL IS SO AODIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
- FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

**CONSTRUCTION AND MATERIAL SPECIFICATIONS**

- TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.
- TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
  - TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CON-TRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.
  - TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSON-SOON GRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
  - WHERE THE SUBSOIL IS EITHER HIGHLY AODIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.
- FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
  - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
  - ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
    - PH FOR TOPSOILS SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A PH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PERMITTED TO RAISE THE PH TO 6.5 OR HIGHER.
    - ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
    - TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
    - NO SOIL OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
- NOTE: TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.
- PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
- TOPSOIL APPLICATION
  - WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
  - GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBERT 4" - 8" HIGHER IN ELEVATION.
  - TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" TO 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
  - TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.
  - ALTERNATIVE FOR PERMANENT SEEDING - INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZERS, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:
    - COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITES HAVING AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
      - COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS WHO ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.
      - COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHOROUS, AND 0.2 PERCENT POTASSIUM AND HAVE A PH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
      - COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.
    - COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4 LB./1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE.

REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING. MD-VA, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES. REVISED 1973.



AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

Signature: *[Signature]* P.E. NO. 12204 DATE: 12/28/05

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES IT IMPLY TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.

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 TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Signature of Developer: *[Signature]* DATE: 3/1/99

Signature of Engineer: *[Signature]* DATE: 3/1/99

PRINTED NAME OF DEVELOPER: Robert W. Zubin

PRINTED NAME OF ENGINEER: Robert W. Zubin

APPROVED: DEPARTMENT OF PUBLIC WORKS DATE: 4/6/99

APPROVED: DEPARTMENT OF PLANNING AND ZONING DATE: 4/16/99

APPROVED: CHIEF DEVELOPMENT ENGINEERING DIVISION DATE: 4/21/99

DATE: FEB. 1999

PROJECT: 97015

DESCRIPTION: AUTUMN VIEW, SECTION 3

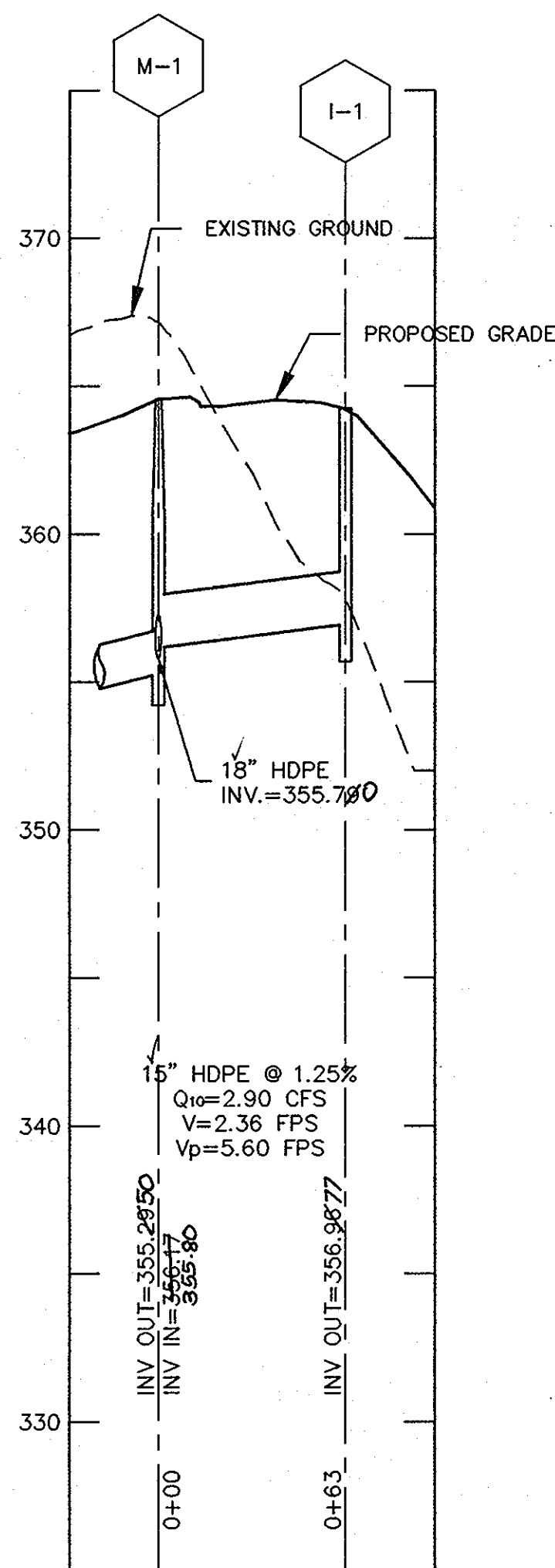
SCALE: M&P

DATE: 11 OF 30

AS-BUILT 12-28-05 F 99 45

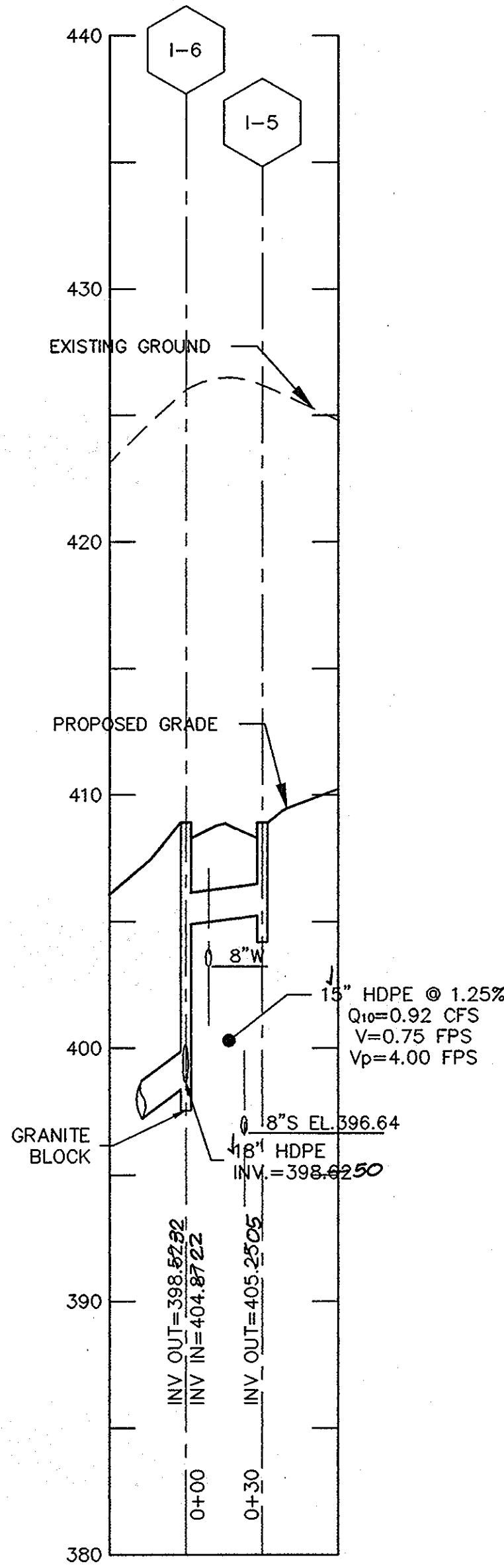
MILDENBERG, BOENDER & ASSOC., INC. Surveyors, Planners, Engineers

5072 Dorsey Hill Drive, Suite 202, Ellicott City, Maryland, 21042 (410) 987-0298



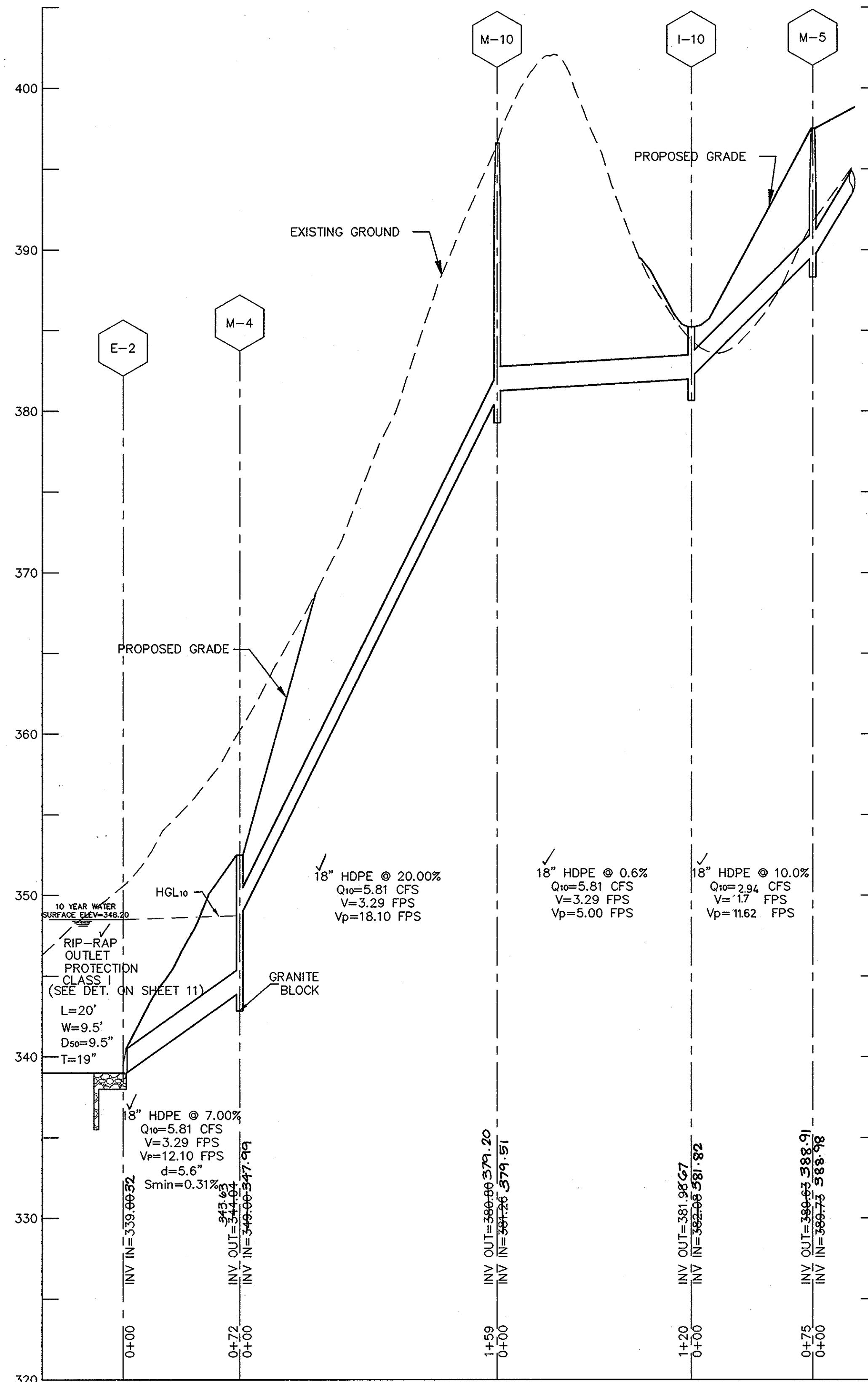
**STORM DRAIN PROFILE**  
**M-1 TO I-1**

SCALE  
HORIZONTAL 1"=50'  
VERTICAL 1"=5'



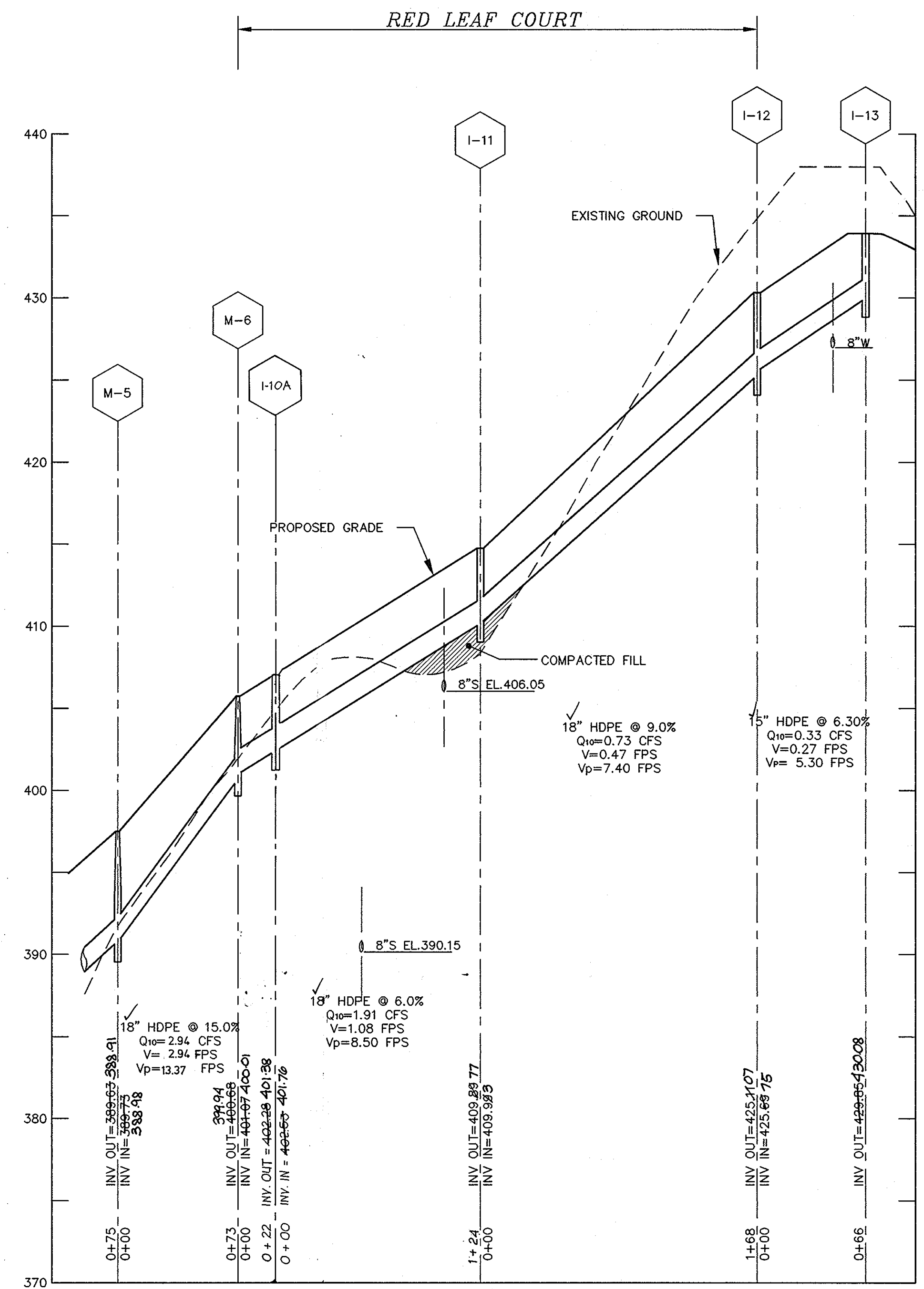
**STORM DRAIN PROFILE**  
**I-6 TO I-5**

SCALE  
HORIZONTAL 1"=50'  
VERTICAL 1"=5'



**STORM DRAIN PROFILE**  
**E-2 TO M-5**

SCALE  
HORIZONTAL 1"=50'  
VERTICAL 1"=5'



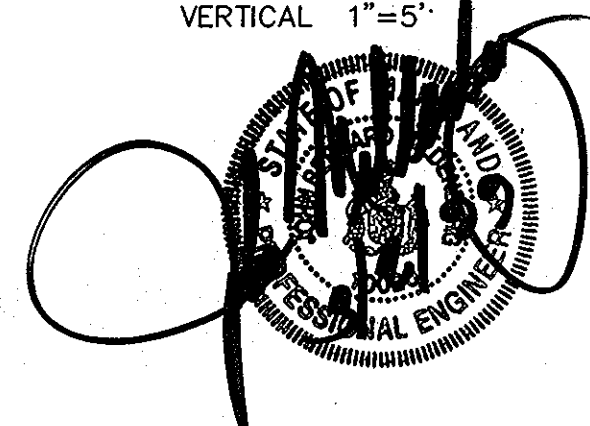
**STORM DRAIN PROFILE**  
**M-5 TO I-13**

SCALE  
HORIZONTAL 1"=50'  
VERTICAL 1"=5'

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Danek* 4-16-99  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Crista Hanatta* 4/20/99  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*John J. ...* 4/21/99  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



NOTE: HGL IS TOP OF PIPE UNLESS OTHERWISE NOTED



Project	97015	Date	FEB.1999
Illustration	KR	Engineering	MMP
Scale	1"=50'	Approval	

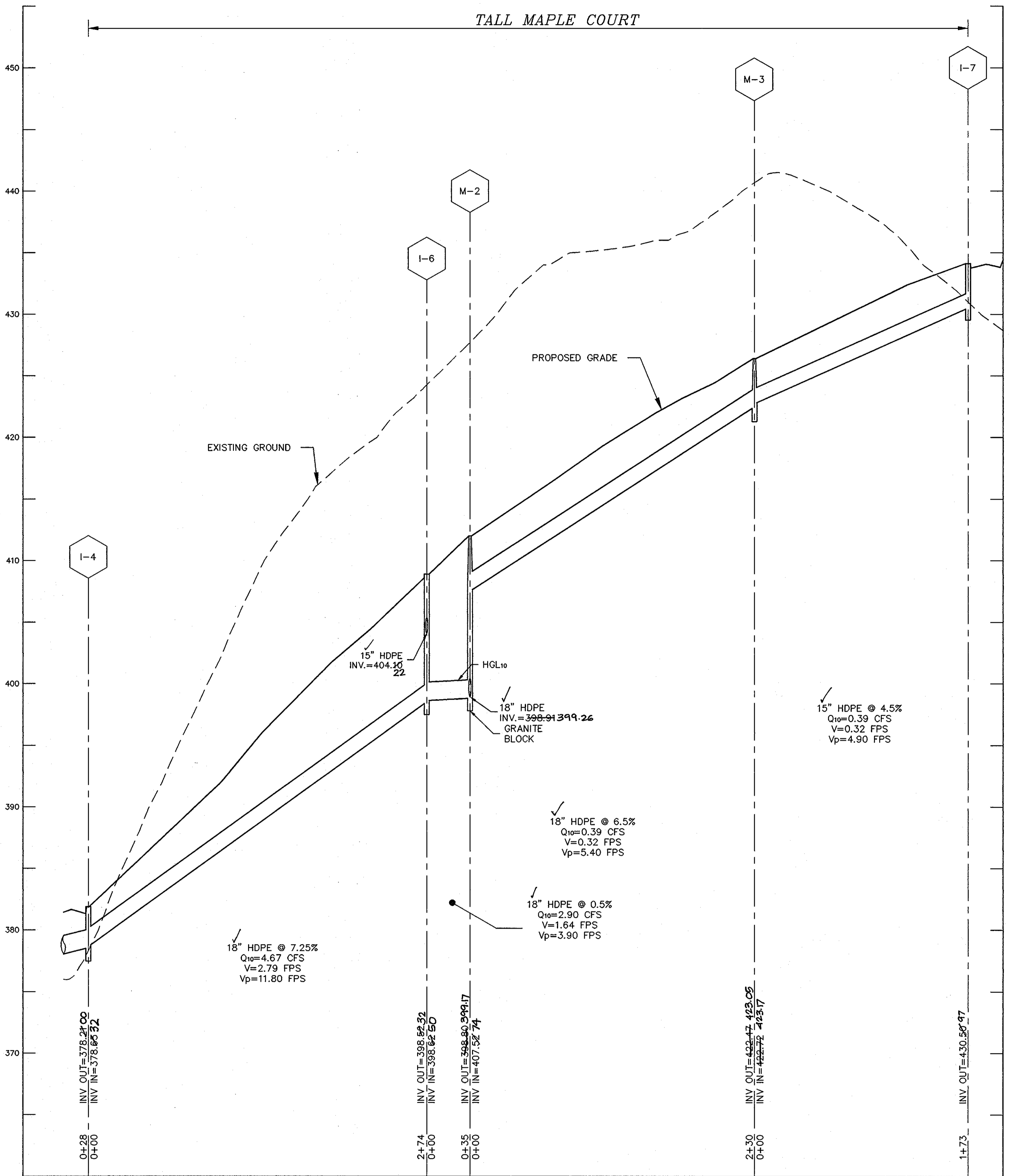
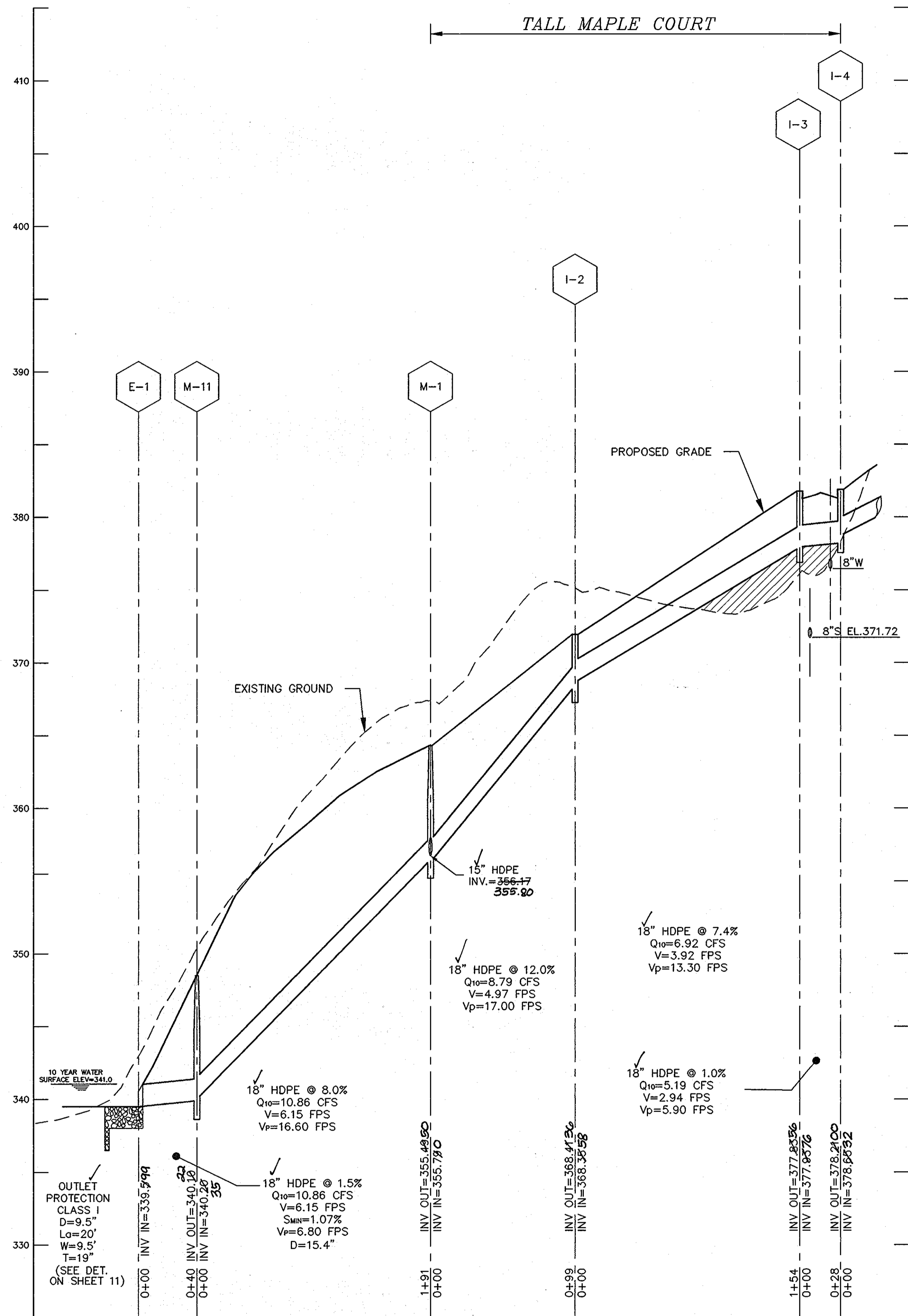
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1	ADD INLET I-10A	11/6/00

**AUTUMN VIEW, SECTION 3**  
LOTS: 76-151 AND BULK PARCEL "A"  
TAX MAP 31; PARCELS 5, 13 AND P/O 4 & 504  
HOWARD COUNTY, MARYLAND  
SECOND ELECTION DISTRICT

**STORM DRAIN PROFILES**

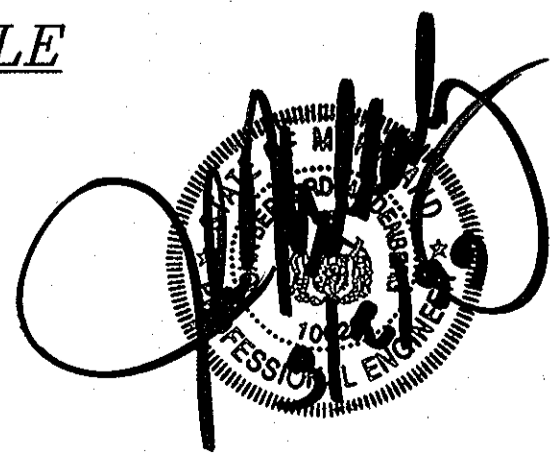
**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
5072 Dorsey Hall Drive, Suite 202, Beltsville, Md., Maryland, 21042  
(410) 987-0296 Ext. (301) 821-5351 Wash. (410) 987-0298 Fax.





**STORM DRAIN PROFILE**  
E-1 TO I-4

SCALE  
HORIZONTAL 1"=50'  
VERTICAL 1"=5'



NOTE: HGL IS TOP OF PIPE UNLESS OTHERWISE NOTED

**STORM DRAIN PROFILE**  
I-4 TO I-7

SCALE  
HORIZONTAL 1"=50'  
VERTICAL 1"=5'



AS BUILT  
DATE 12/28/05  
BY  
FISHKILL  
COUNTY &  
CARRIAGE, INC.

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Cassius M. Rindler* 4-16-99  
CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Hamstra* 4/23/99  
CHIEF, DIVISION OF LAND DEVELOPMENT

*John Damman* 4/21/99  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Project	97015
date	FEB.1999
illustration	engineering
scale	KR
scale	MMP
scale	APP
scale	1"=50'

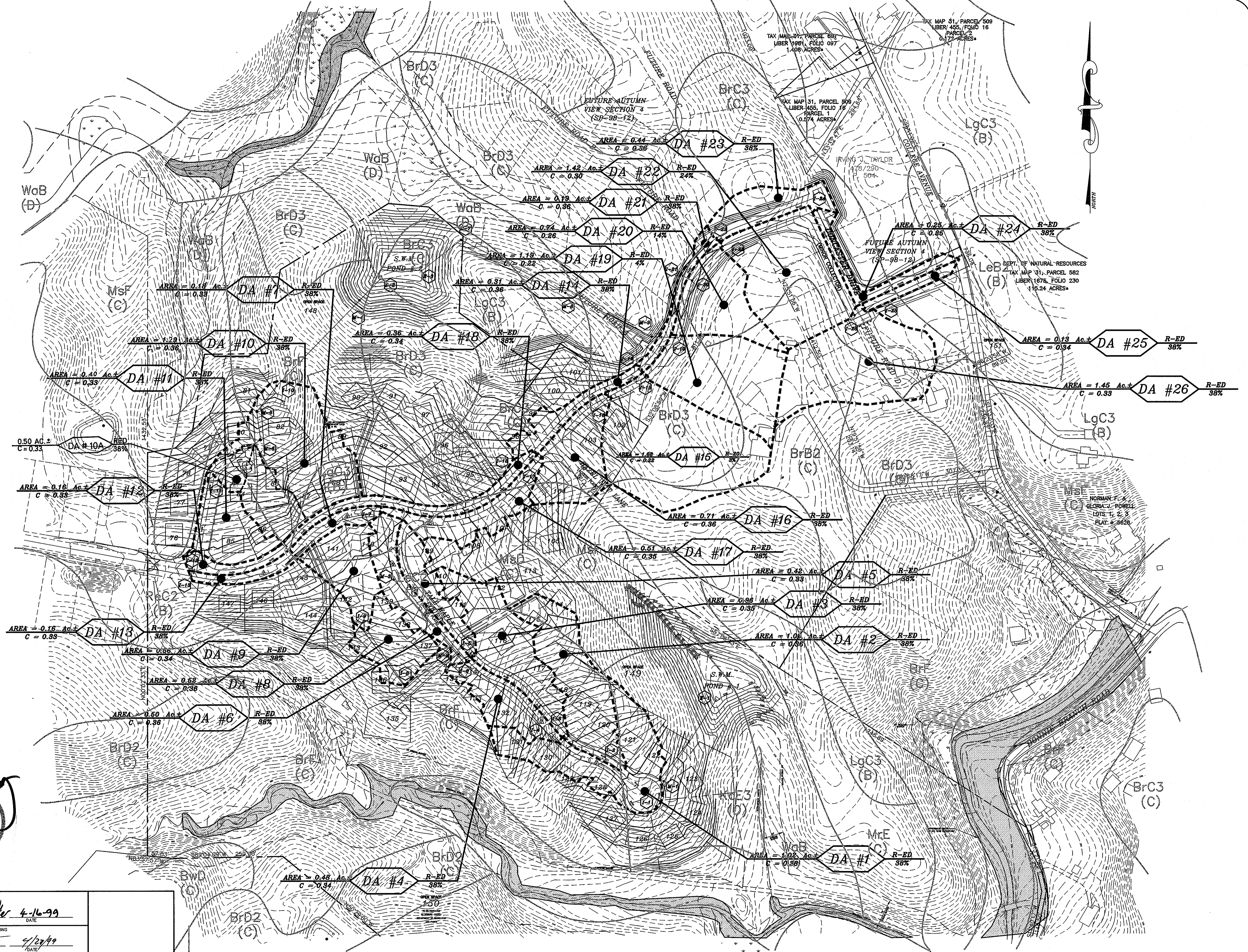
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**AUTUMN VIEW, SECTION 3**  
LOTS: 76-151 AND BULK PARCEL "A"  
TAX MAP 31; PARCELS 5, 13 & P/O 4 & 504  
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**STORM DRAIN PROFILES**

**MILDENBERG, & ASSOC., INC.**  
Engineers Planners Surveyors  
5072 Dorsey Hall Drive, Suite 202, Beltsville, Md., Maryland, 21042  
(410) 987-0286 Fax: (301) 621-5321 Wash. (410) 987-0288 Fax.





Project	date
97015	FEB. 1999
Illustration	engineering
MMP/KR	MMP
scale	1" = 100'

1	REVISE DRAINAGE AREA MAP ADD I-DA	11/6/00	DATE
	description		REVISED

**AUTUMN VIEW, SECTION 3,  
LOTS: 76-151 AND BULK PARCEL "A"**  
TAX MAP 31, PARCEL 5, 13 AND P/O 4 & 504  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
DRAINAGE AREA MAP

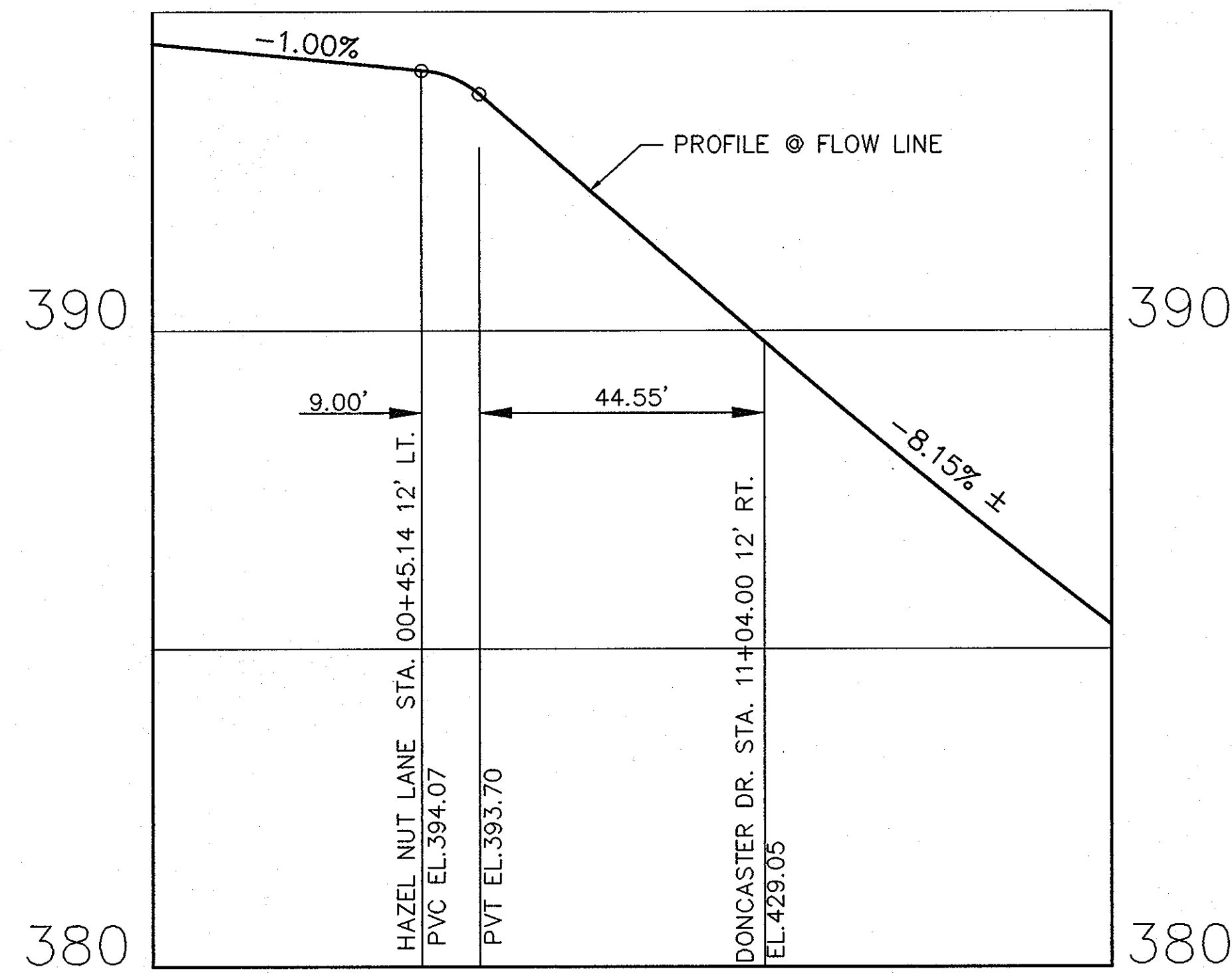
**MILDENBERG,  
BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland, 21042  
(410) 997-0296 Ext. (301) 621-5521 Wash. (410) 997-0298 Fax.

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daneker* 4-16-99  
CHIEF BUREAU OF HIGHWAYS DATE

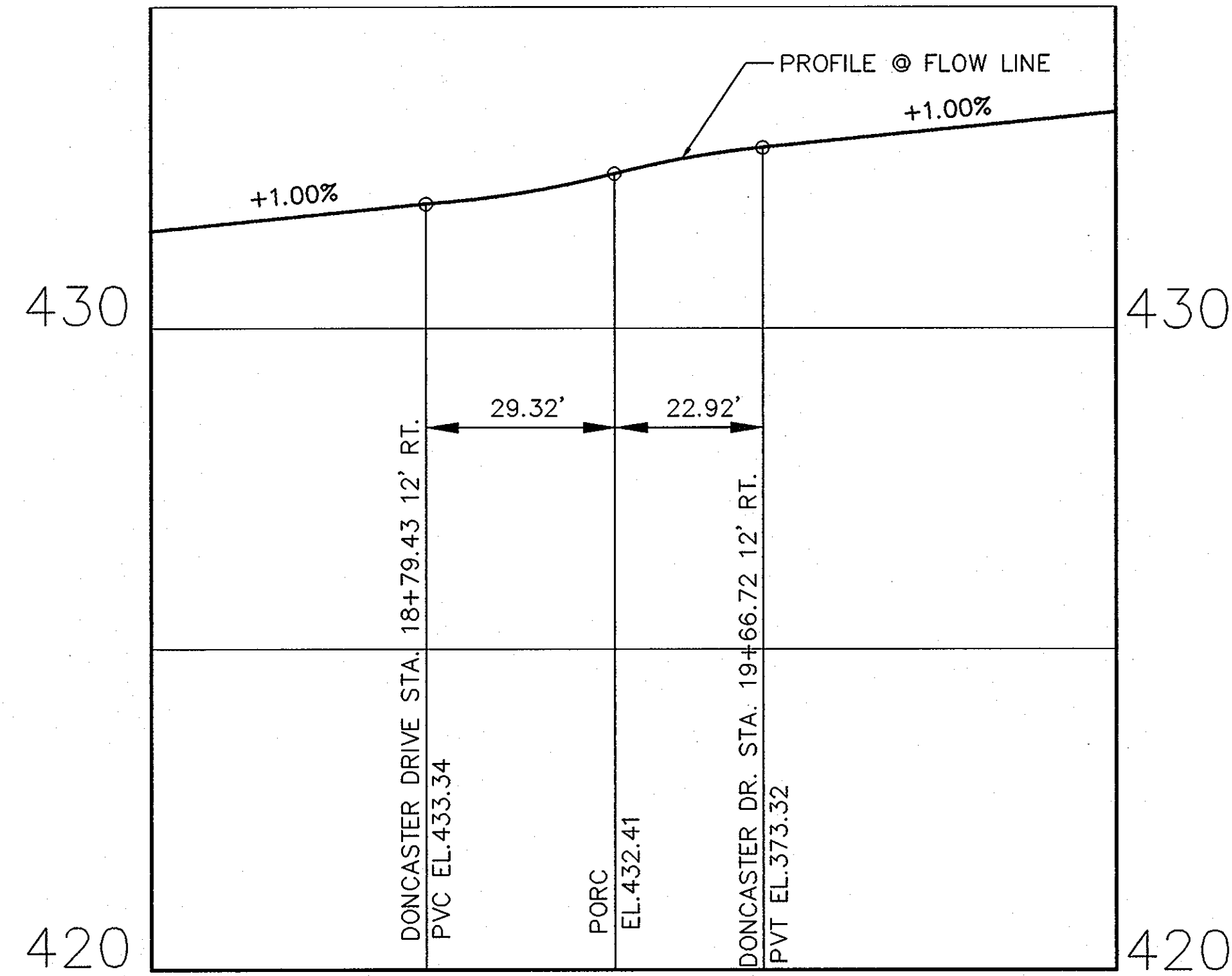
APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cinda Heavitt* 4/23/99  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Michael Dunning* 4/2/99  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

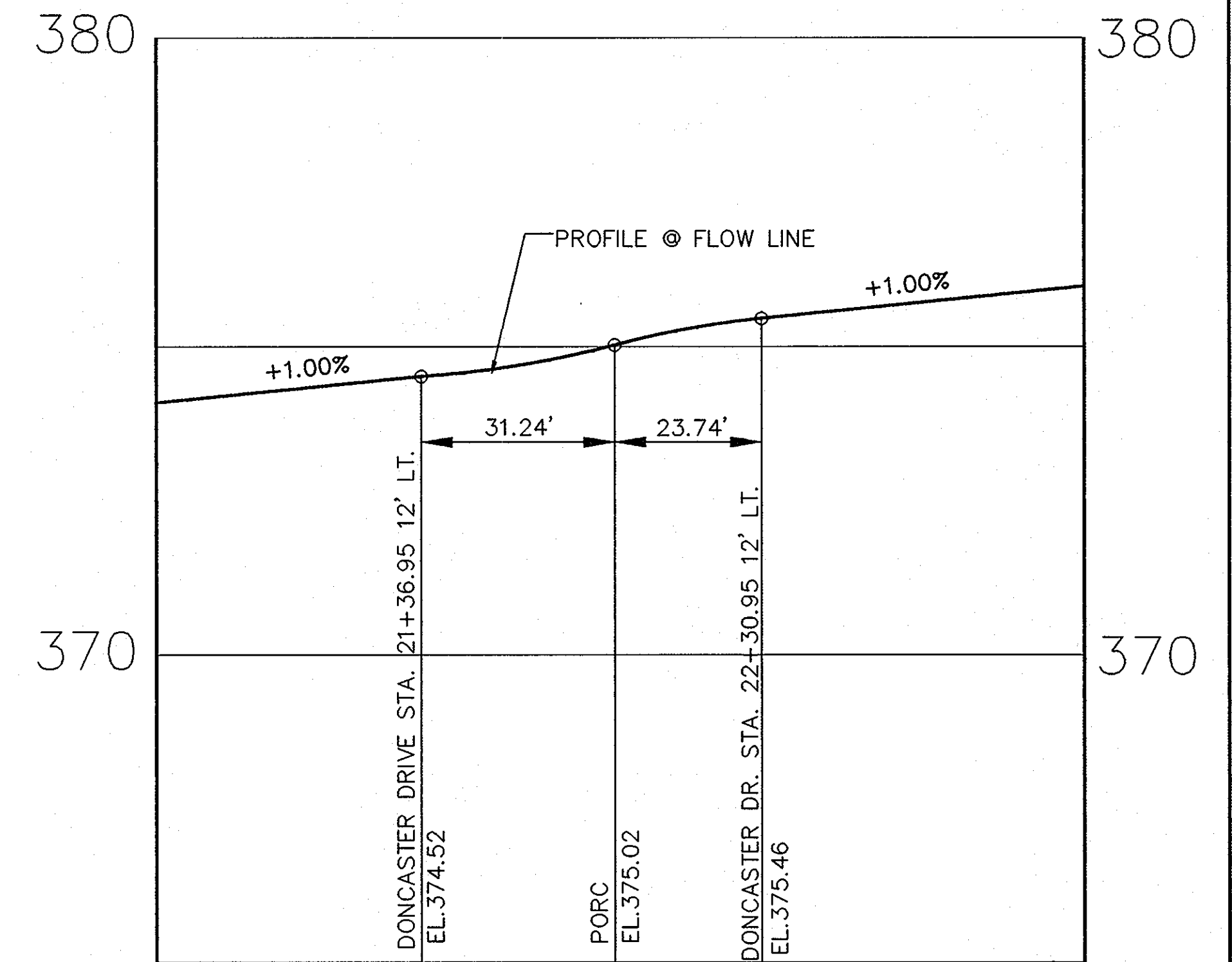




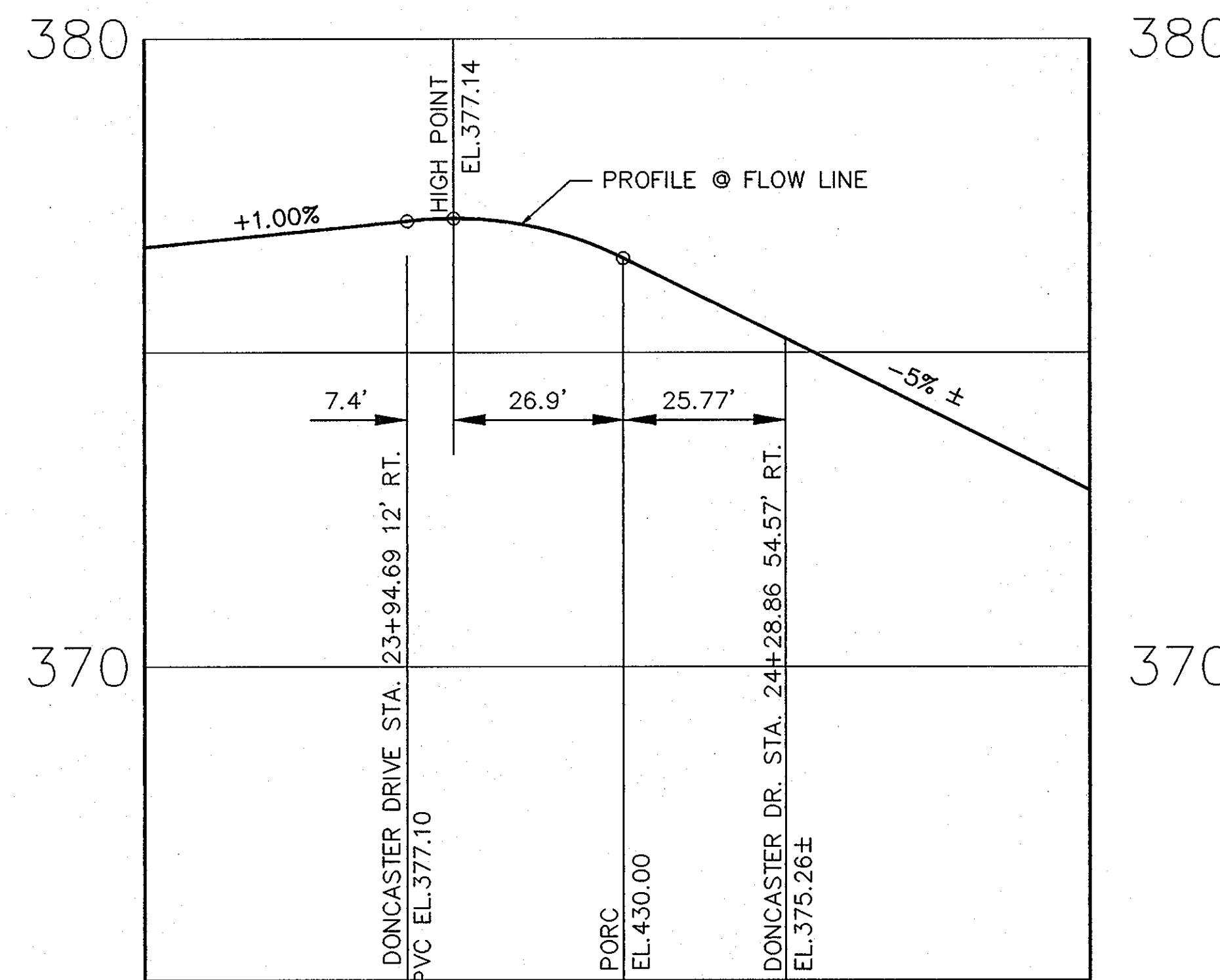
HAZEL NUT LANE RIGHT TURN TO DONCASTER DR.  
SCALE: HOR. 1" = 20', VER 1" = 2'



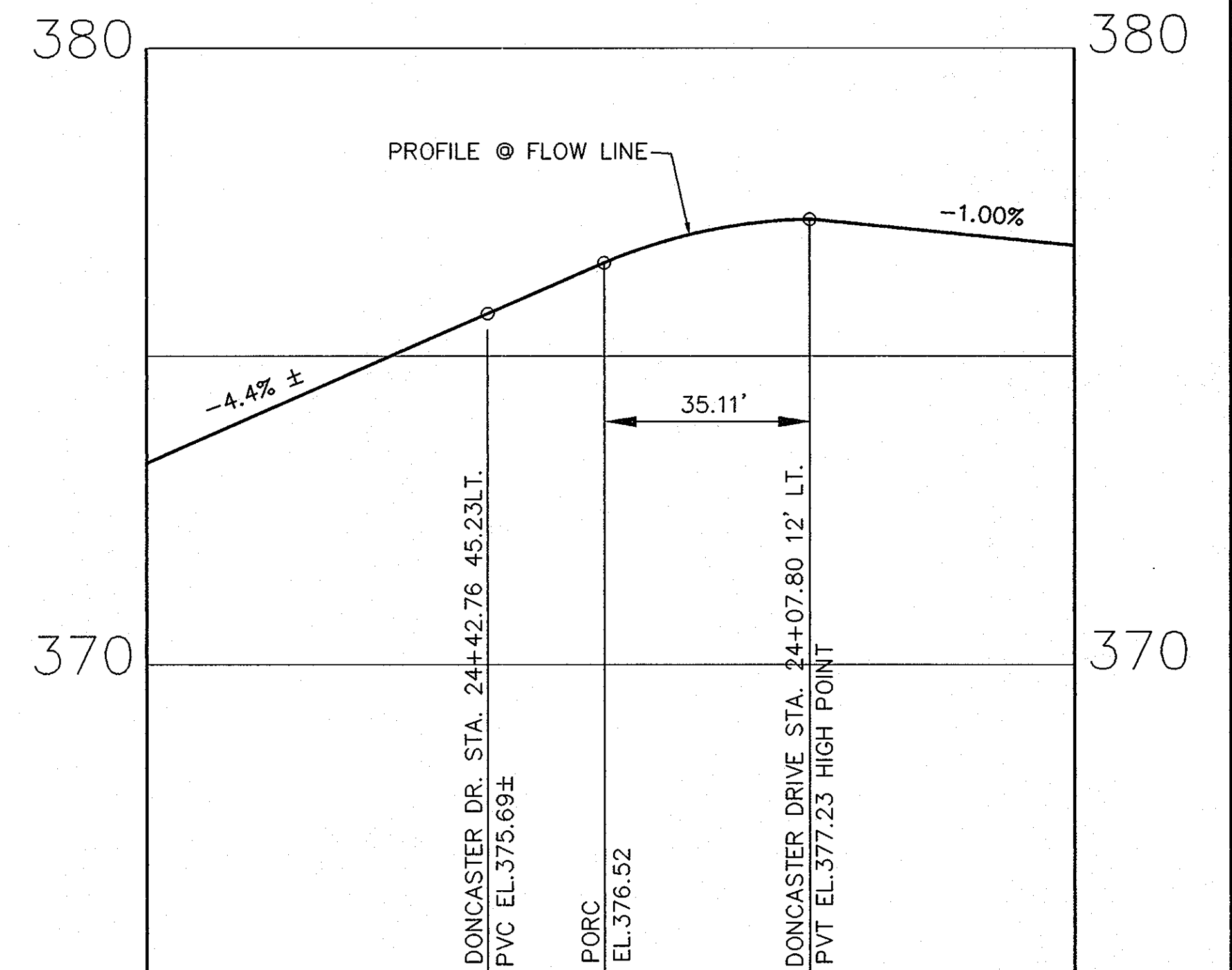
DONCASTER DR. STA. 18+79.43 TO STA. 19+66.72  
SCALE: HOR. 1" = 20', VER 1" = 2'



DONCASTER DR. STA. 21+36.95 TO STA. 22+30.95  
SCALE: HOR. 1" = 20', VER 1" = 2'



DONCASTER DR. RIGHT TURN TO COLLEGE AVE.  
SCALE: HOR. 1" = 20', VER 1" = 2'



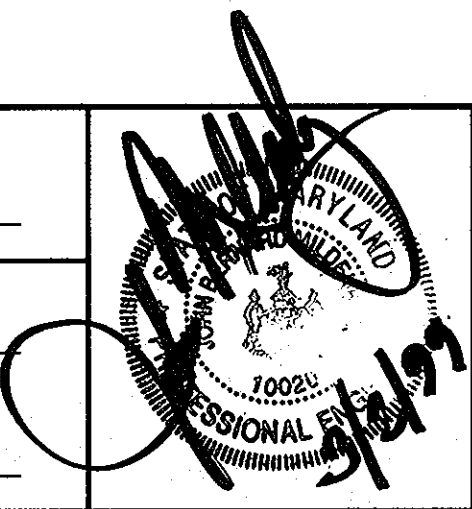
COLLEGE AVE. RIGHT TURN TO DONCASTER DR.  
SCALE: HOR. 1" = 20', VER 1" = 2'

97015 LONG FINAL PROFILE

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Robert M. Quake* 4-16-99  
CHIEF BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cande Hamilton* 4/22/99  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Alb. Damann* 4/21/99  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

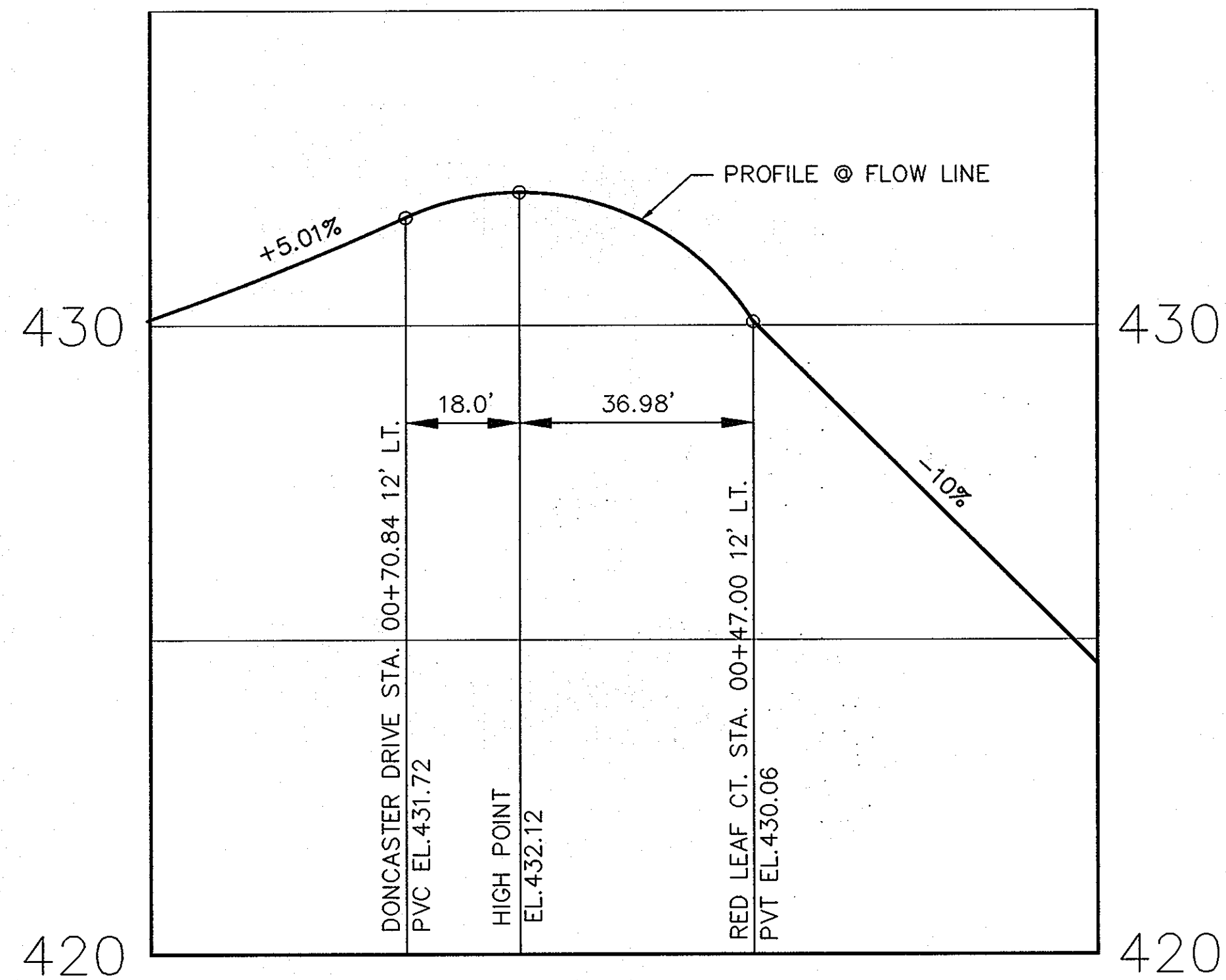


project	97015	date	FEB.1999
illustration	FCL	engineering	FCL
scale	AS SHOWN	approved	[Signature]

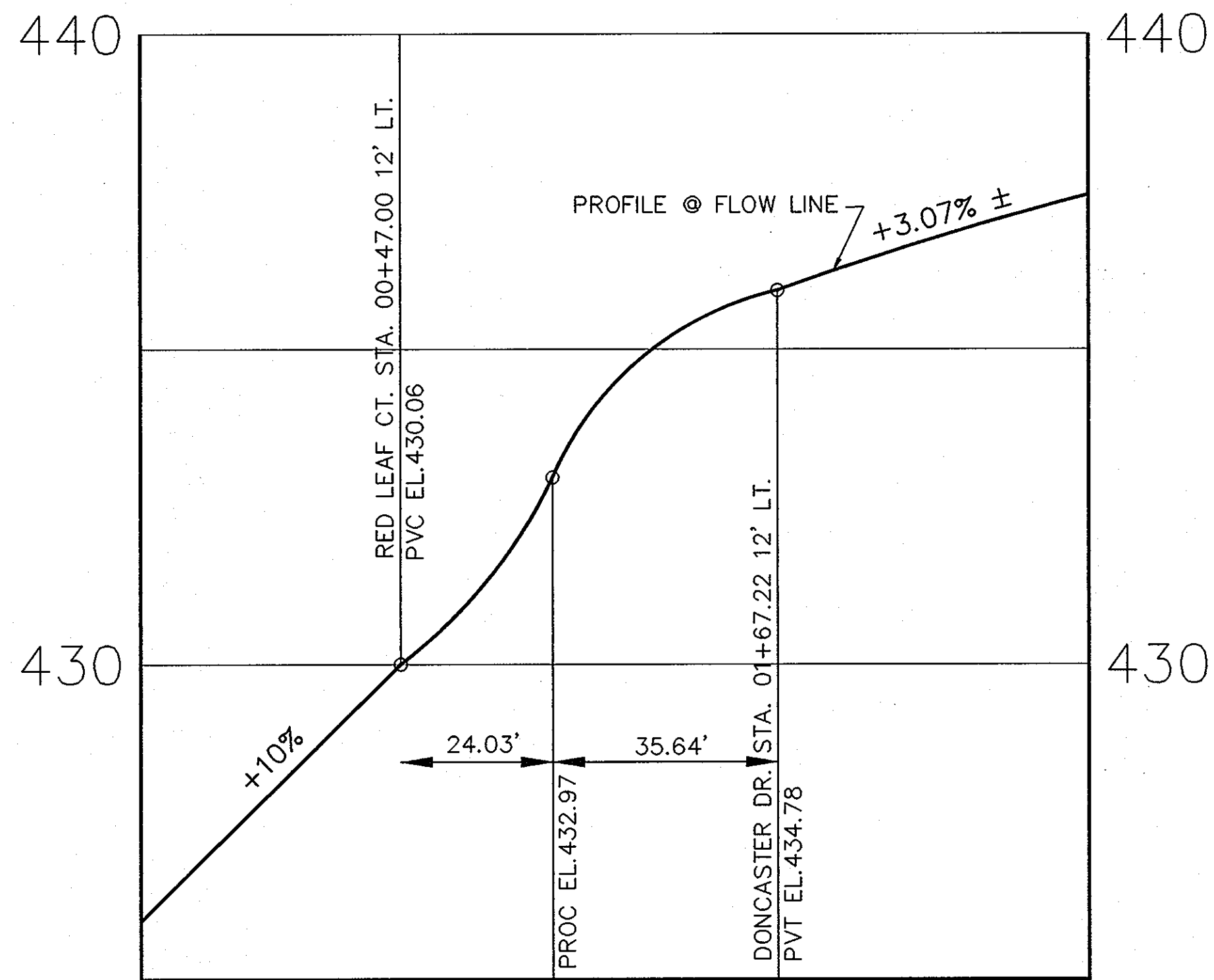
no.	description	date

**AUTUMN VIEW, SECTION 3**  
LOTS: 76-151 AND BULK PARCEL "A"  
TAX MAP 31; PARCEL 5, 13 AND P/O 4 & 504  
HOWARD COUNTY, MARYLAND  
SECOND ELECTION DISTRICT  
FILLETTS PROFILES

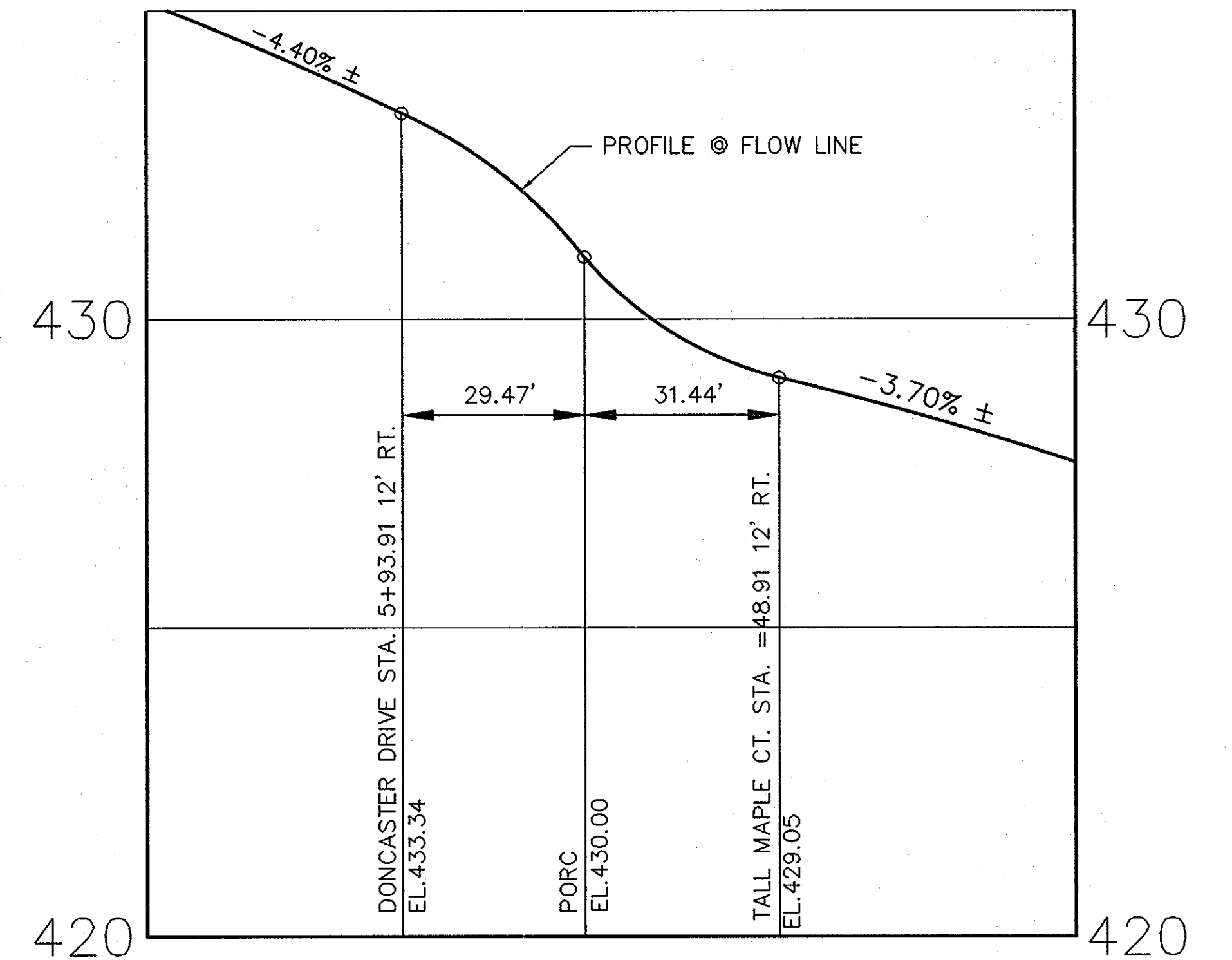
**MILDENBERG, & ASSOC., INC.**  
Engineers Planners Surveyors  
5092 Dorsey Hill Drive, Suite 202, Ellicott City, Maryland, 21042  
(410) 987-0286 Fax. (301) 821-5821 Wash. (410) 987-0288 Fax.



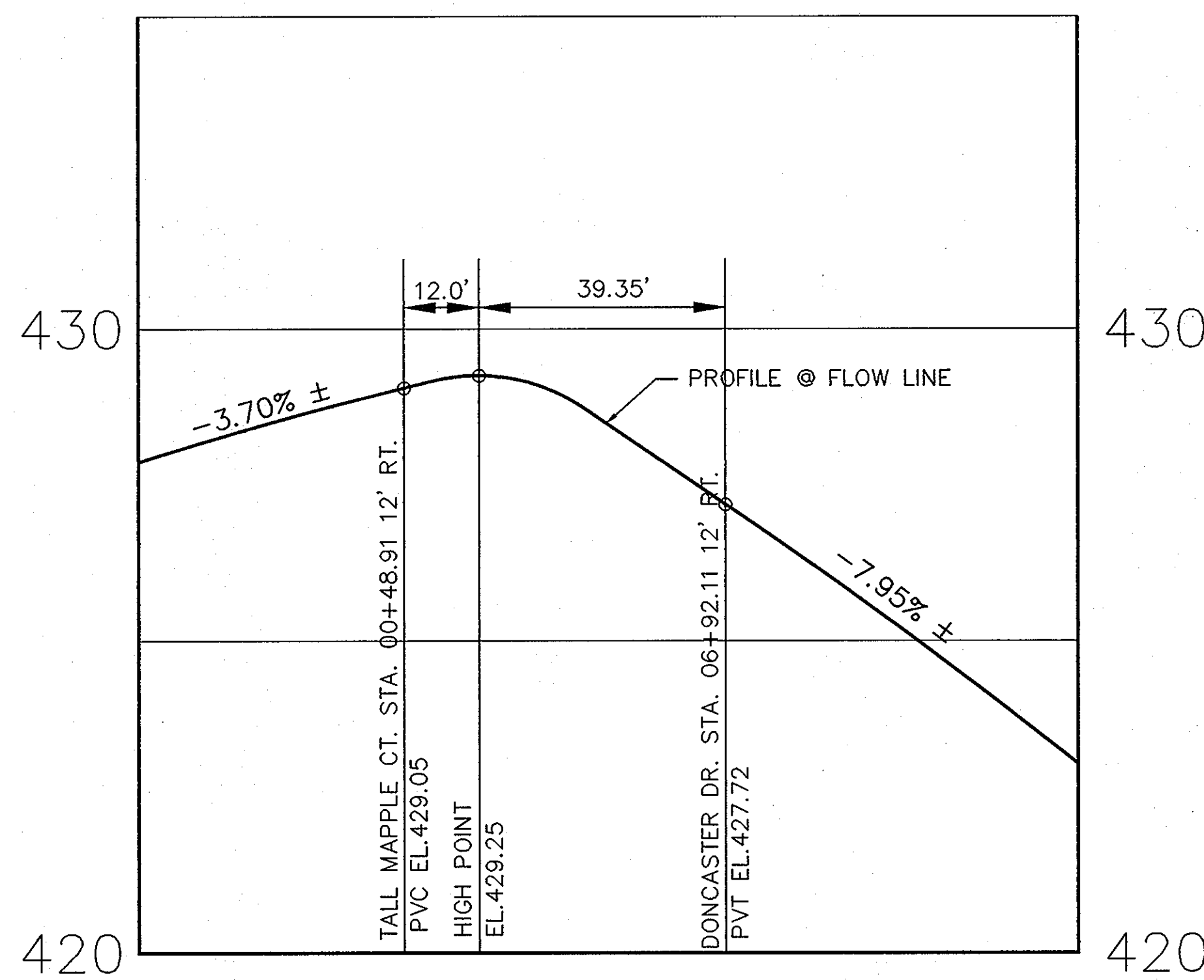
DONCASTER DR. LEFT TURN TO RED LEAF CT.  
SCALE: HOR. 1" = 20', VER 1" = 2'



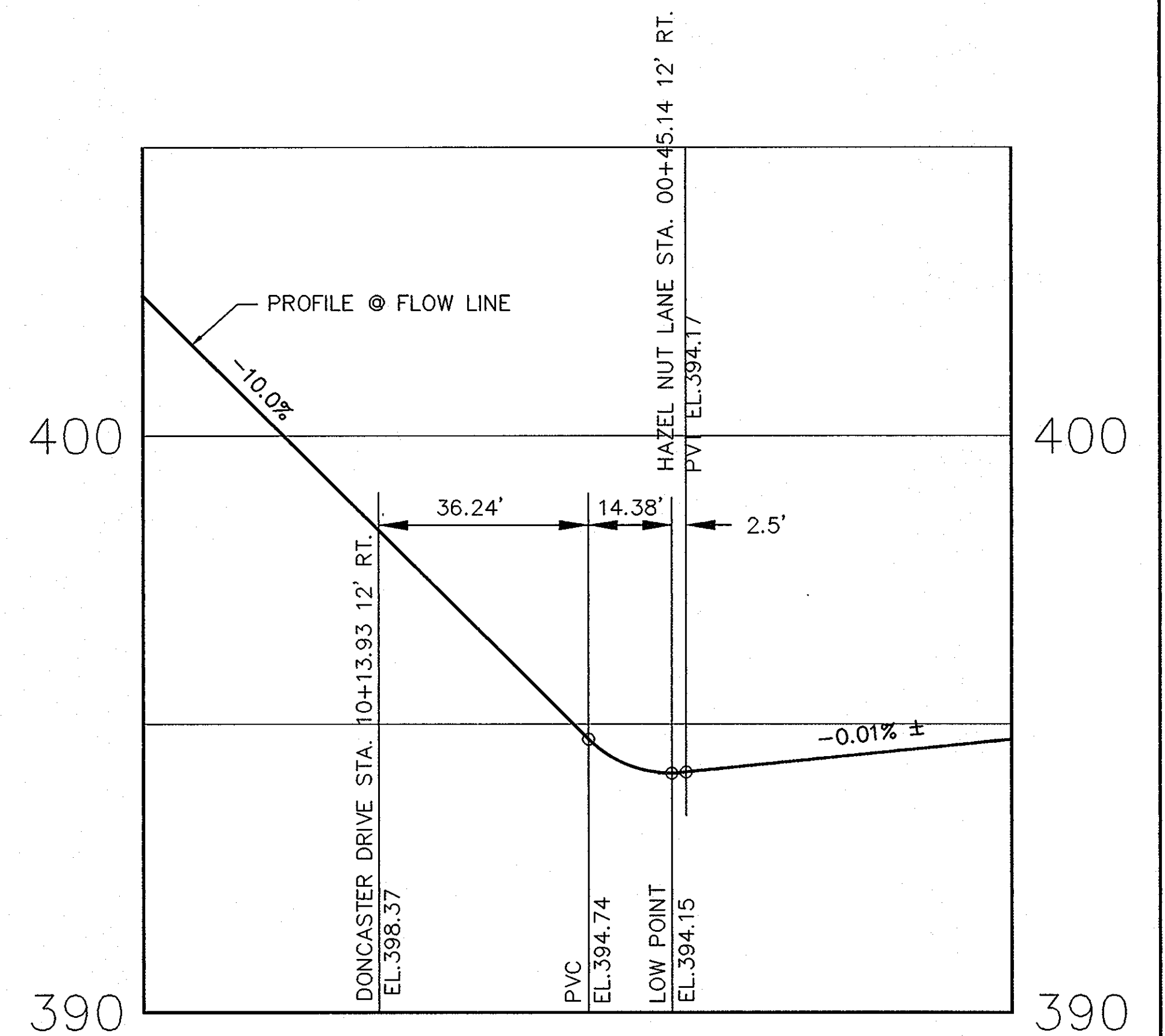
RED LEAF CT. LEFT TURN TO DONCASTER DR.  
SCALE: HOR. 1" = 20', VER 1" = 2'



DONCASTER DR. RIGHT TURN TO TALL MAPLE CT.  
SCALE: HOR. 1" = 20', VER 1" = 2'



TALL MAPLE CT. RIGHT TURN TO DONCASTER DR.  
SCALE: HOR. 1" = 20', VER 1" = 2'



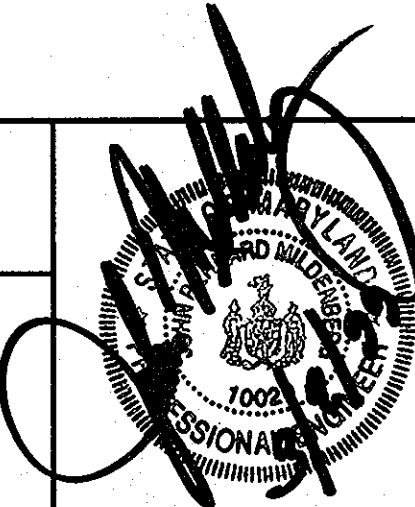
DONCASTER DR. RIGHT TURN TO HAZEL NUT LANE  
SCALE: HOR. 1" = 20', VER 1" = 2'

97015 VDMG FINAL - PROFILES

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Christopher M. Dineen* 4-16-99  
CHIEF BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Hamilton* 4/21/99  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Michael Damascus* 4/21/99  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



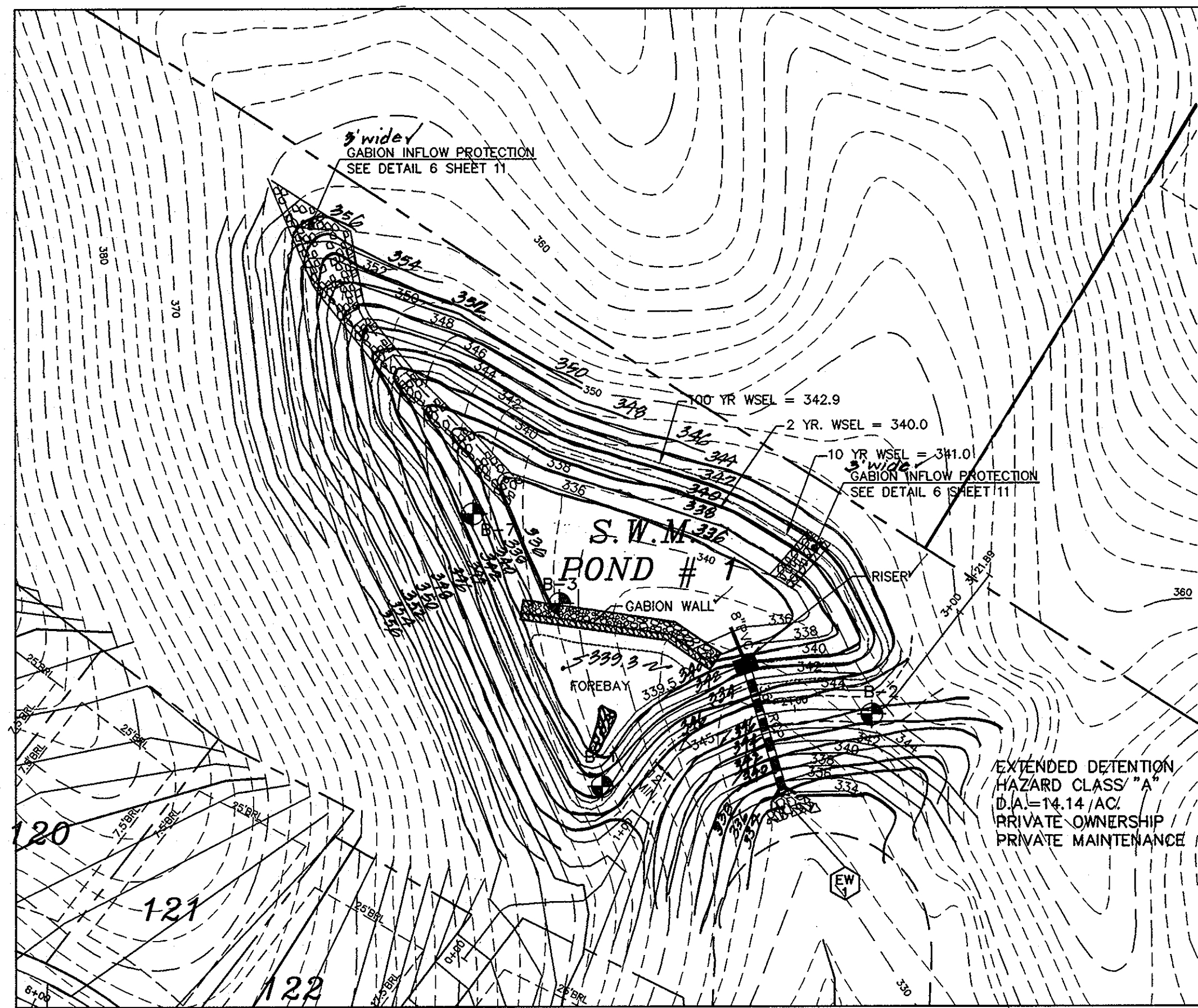
date	FEB. 1999
project	97015
illustration	FCL
scale	AS SHOWN
revision	

no.		description	date

**AUTUMN VIEW, SECTION 3**  
LOTS: 76-151 AND BULK PARCEL "A"  
TAX MAP 31; PARCEL 5, 13 AND P/O 4 & 504  
HOWARD COUNTY, MARYLAND  
SECOND ELECTION DISTRICT

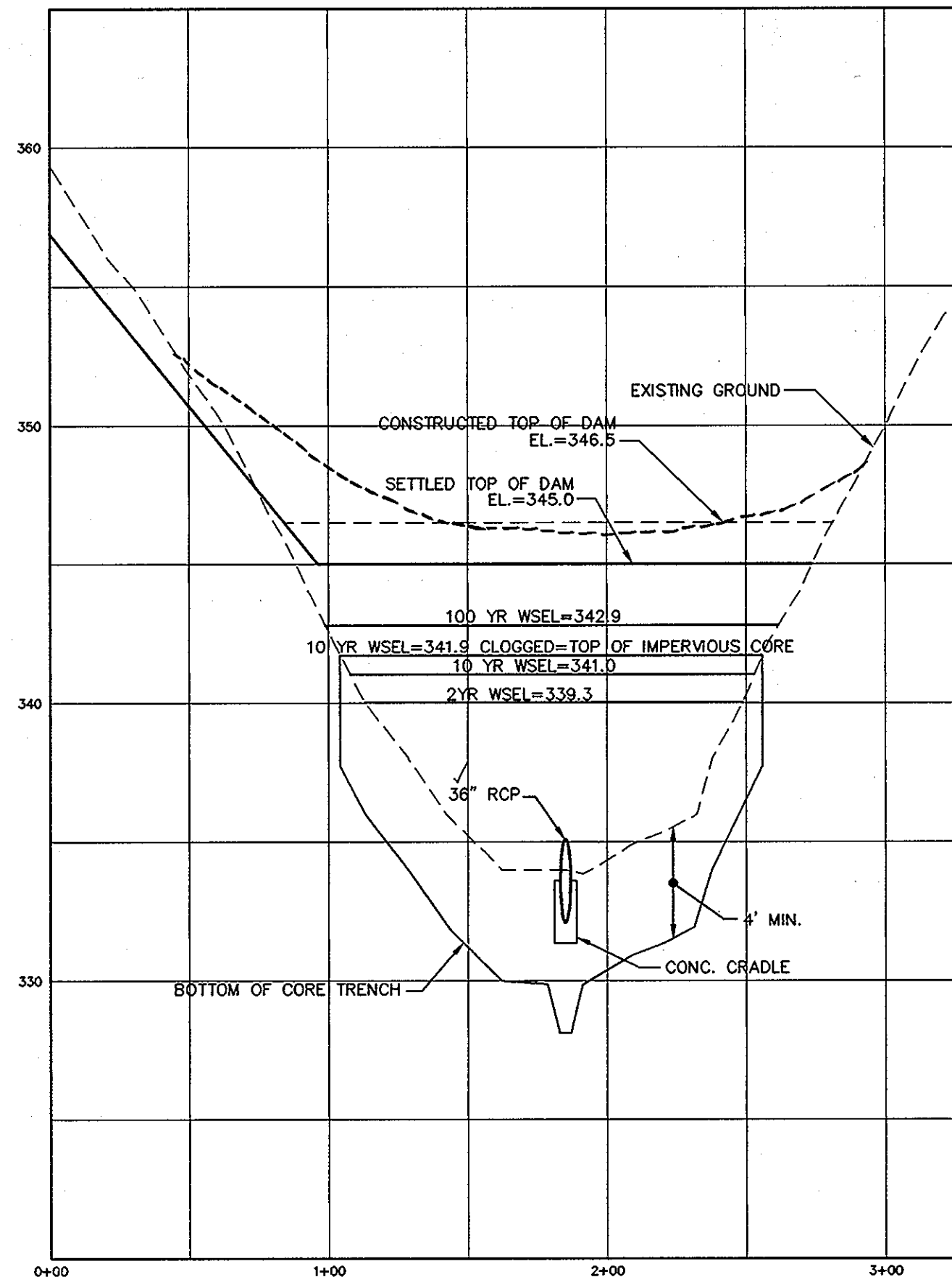
FILLET'S PROFILES

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
5072 Dorsey Hill Drive, Suite 202, Ellicott City, Maryland 21042  
(410) 987-0298 Fax (301) 824-5551 Wash. (410) 987-0298 Fax



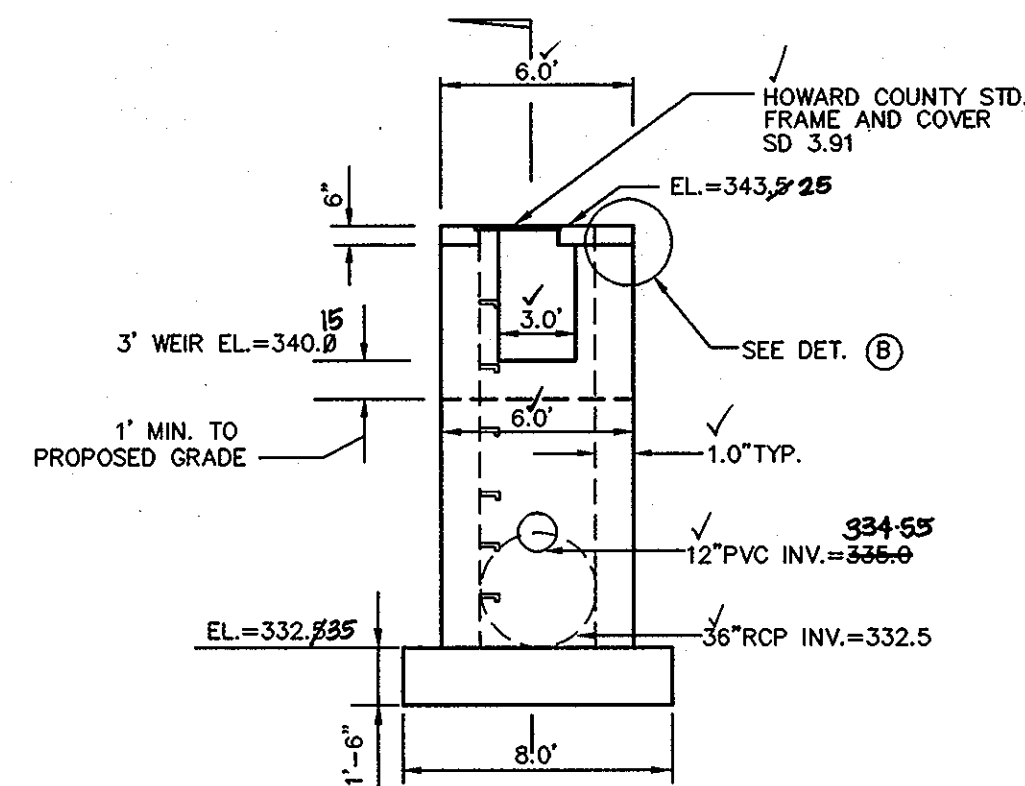
**SWM POND # 1 PLAN VIEW**

SCALE: 1"=50'



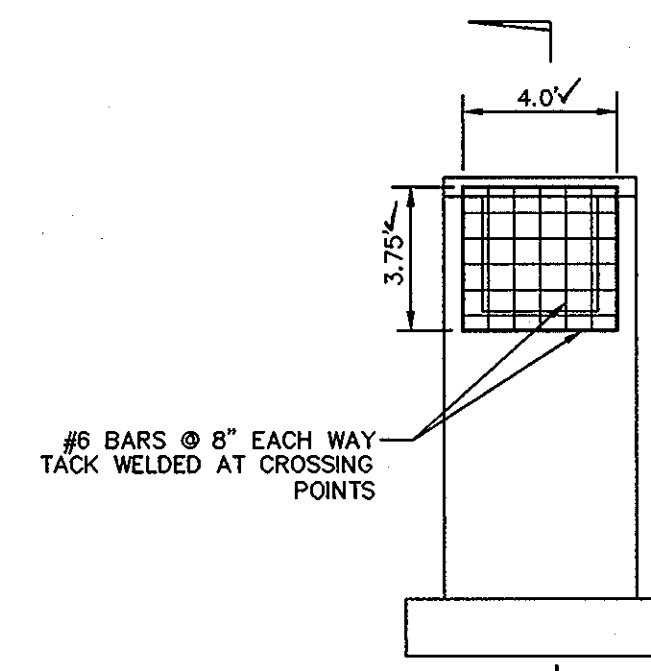
**CENTERLINE DAM PROFILE**

SCALE: HOR. 1"=5' VER. 1"=50'



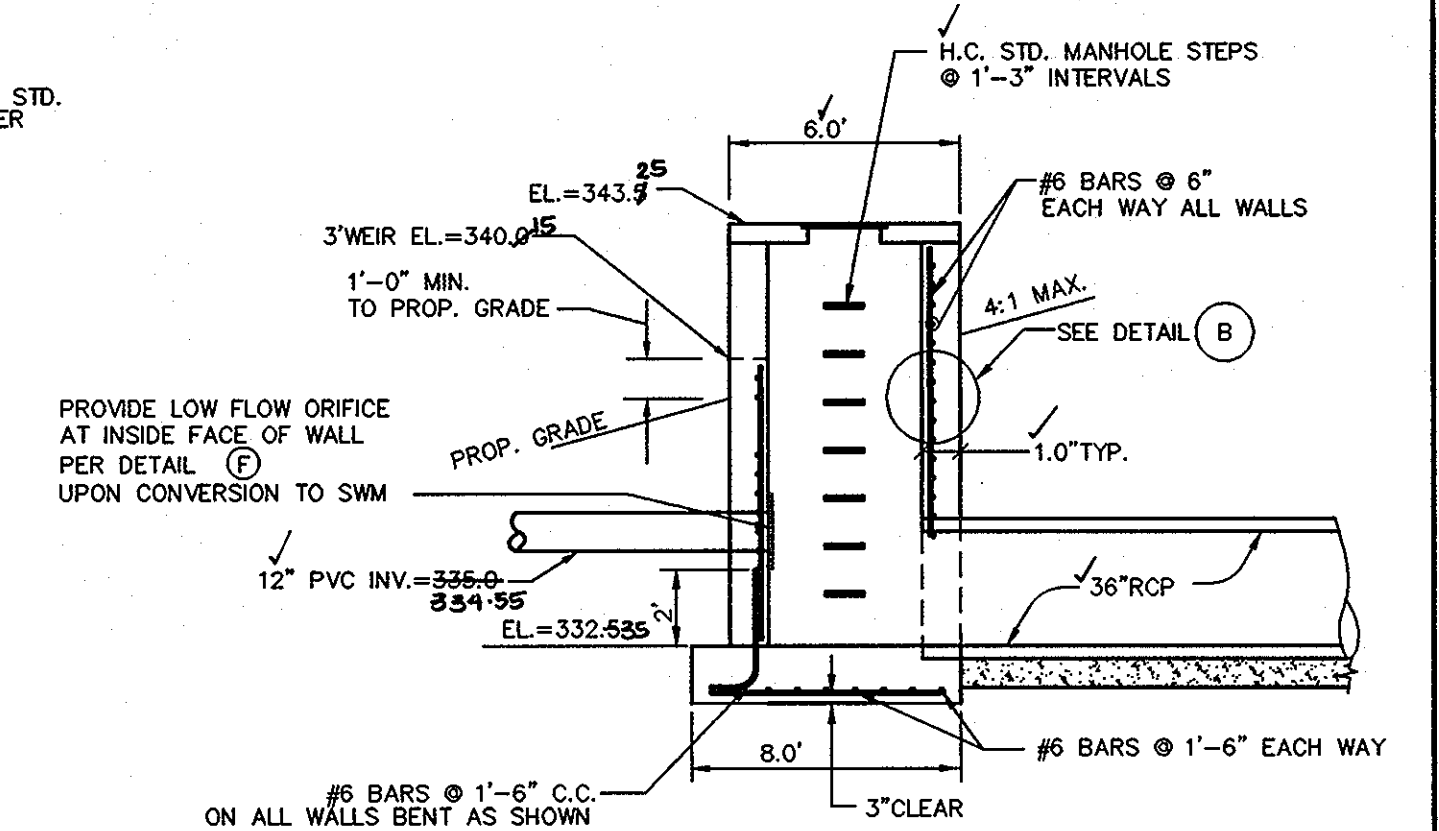
**FRONT WALL ELEVATION**

N.T.S.



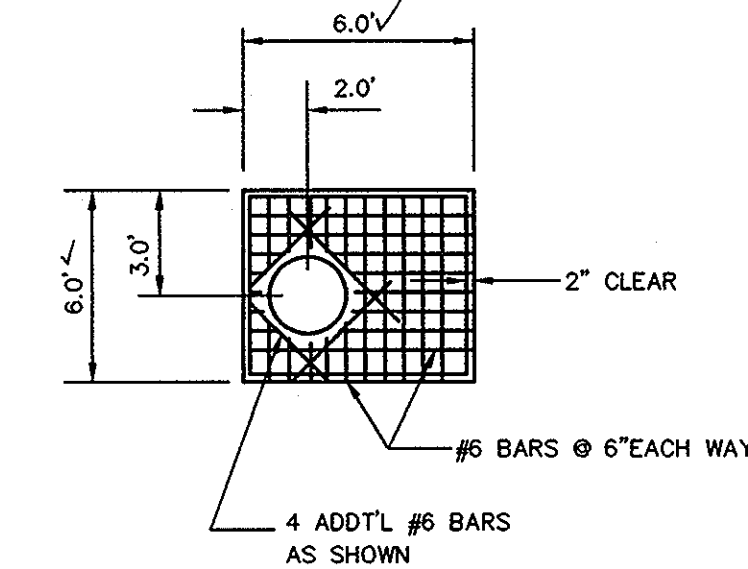
**ELEVATION OF TRASH RACK**

N.T.S.



**SECTION 2**

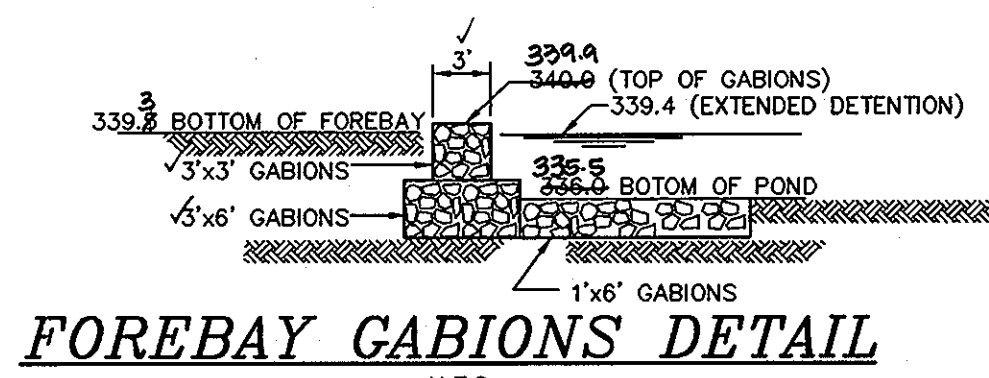
N.T.S.



**TOP SLAB DETAIL**

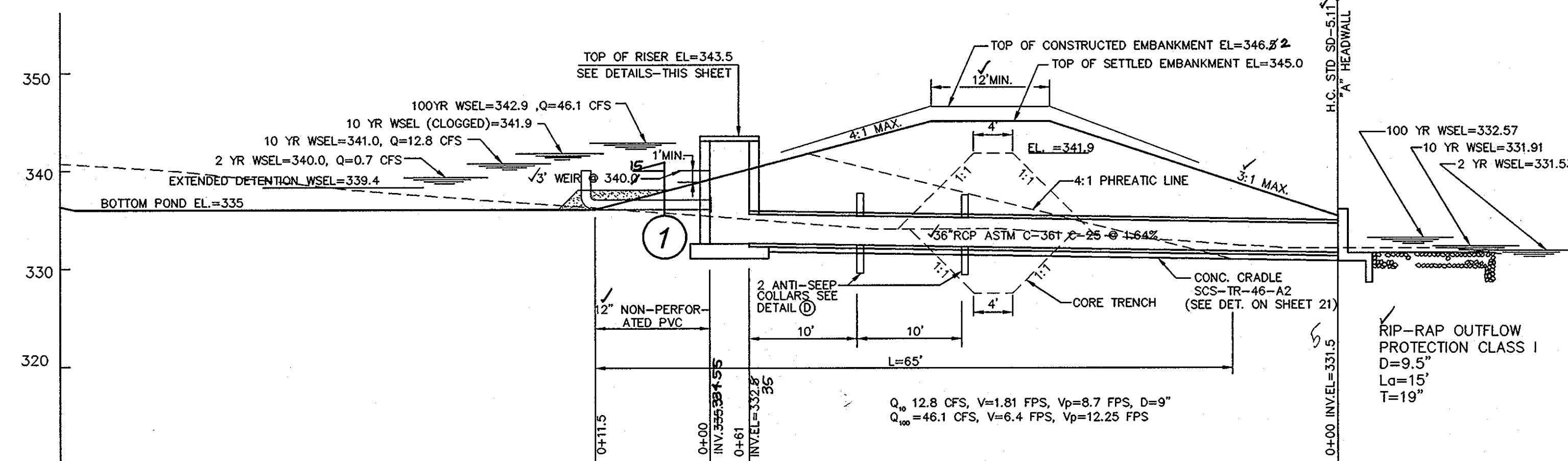
N.T.S.

SWMF #1 SUMMARY			
	2 YR.	10 YR.	100 YR.
Q EXISTING	49.0	126.6	N/A
Q DEVELOPED	40.9	100.9	N/A
Q TO SWMF	19.9	46.2	N/A
Q FROM SWMF	0.8	12.8	46.1
WSEL	340.0	341.0	342.9
VOLUME AC-PT	0.883	1.293	2.249



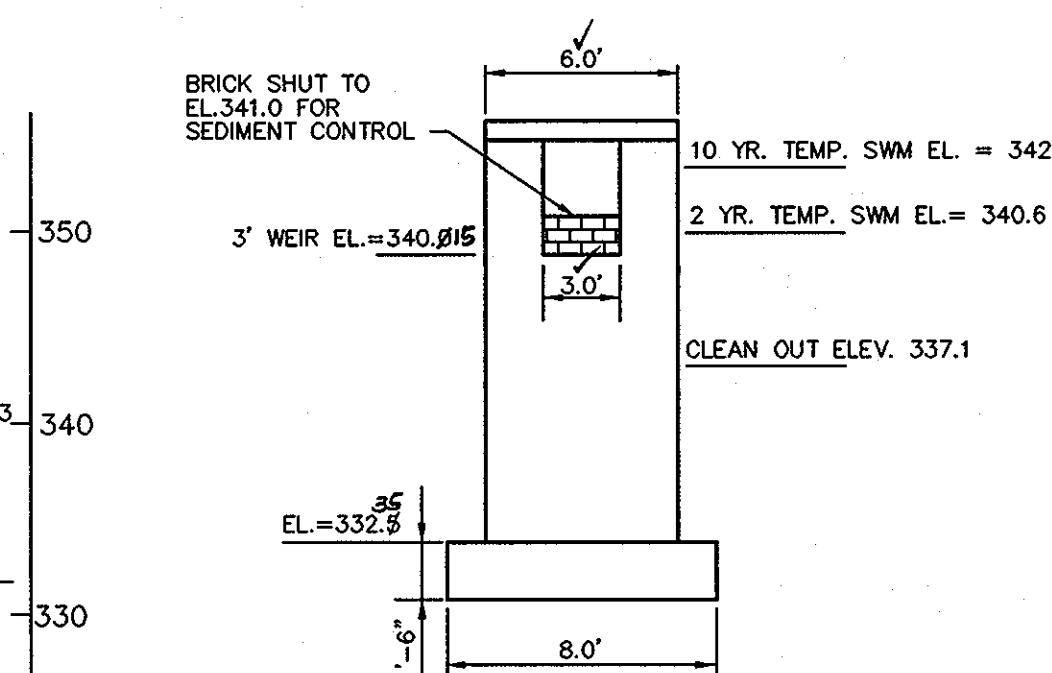
**FOREBAY GABIONS DETAIL**

N.T.S.



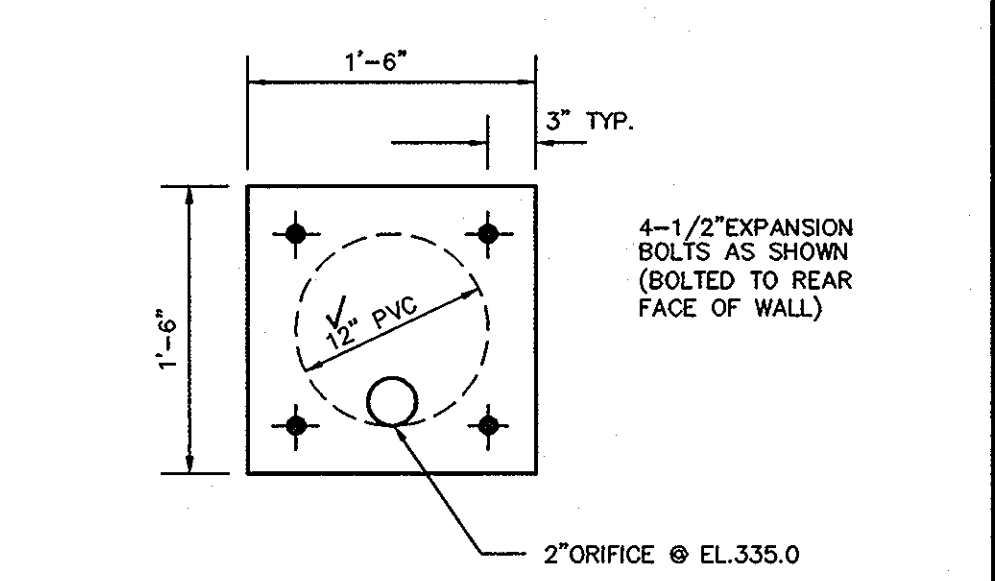
**PRINCIPLE SPILLWAY PROFILE**

SCALE: 1"=10'



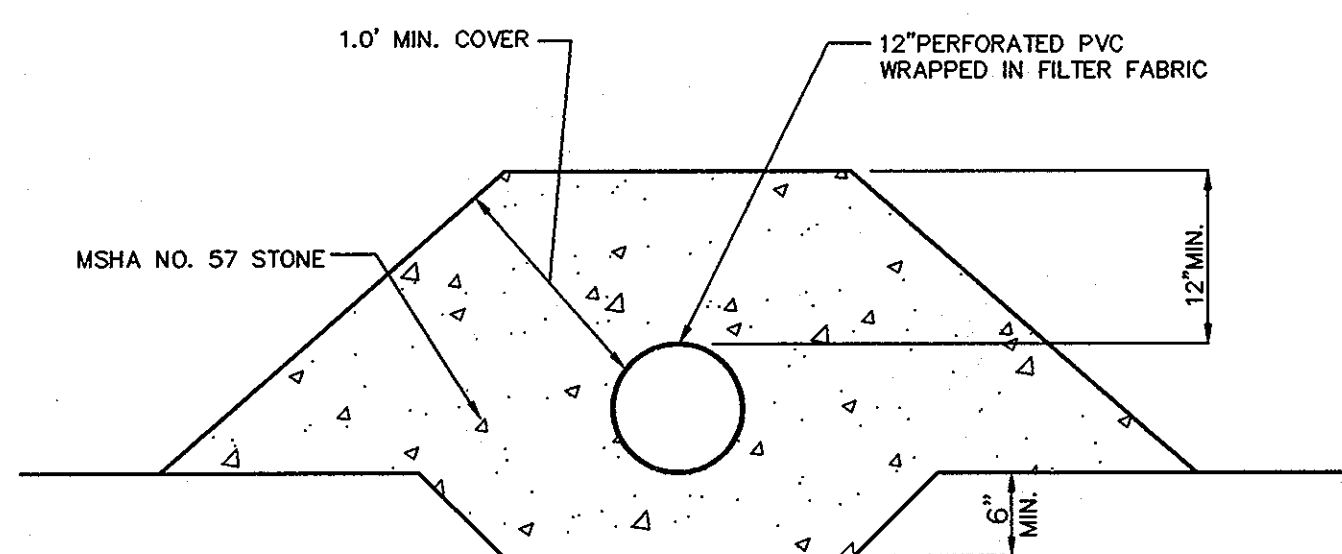
**TEMPORARY BLOCKING DETAIL FOR SEDIMENT CONTROL**

N.T.S.



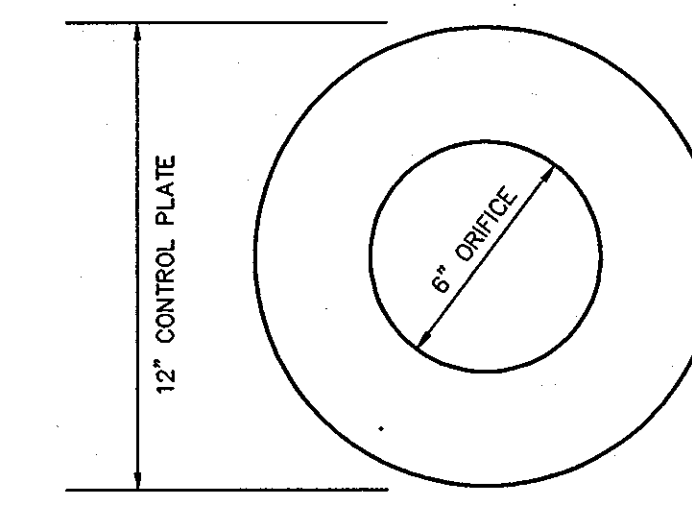
**LOW FLOW ORIFICE DETAIL**

N.T.S.



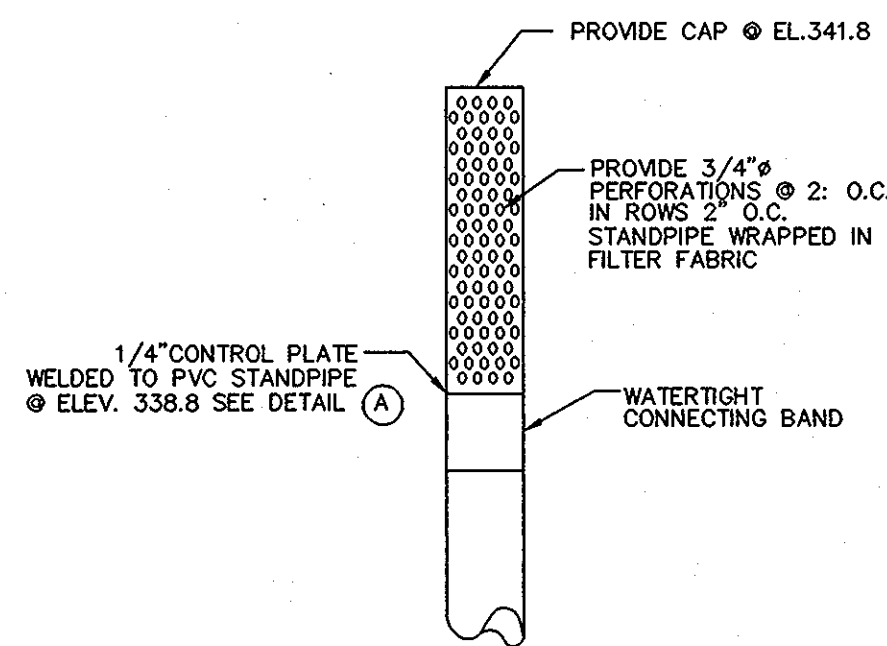
**SECTION 1**

N.T.S.

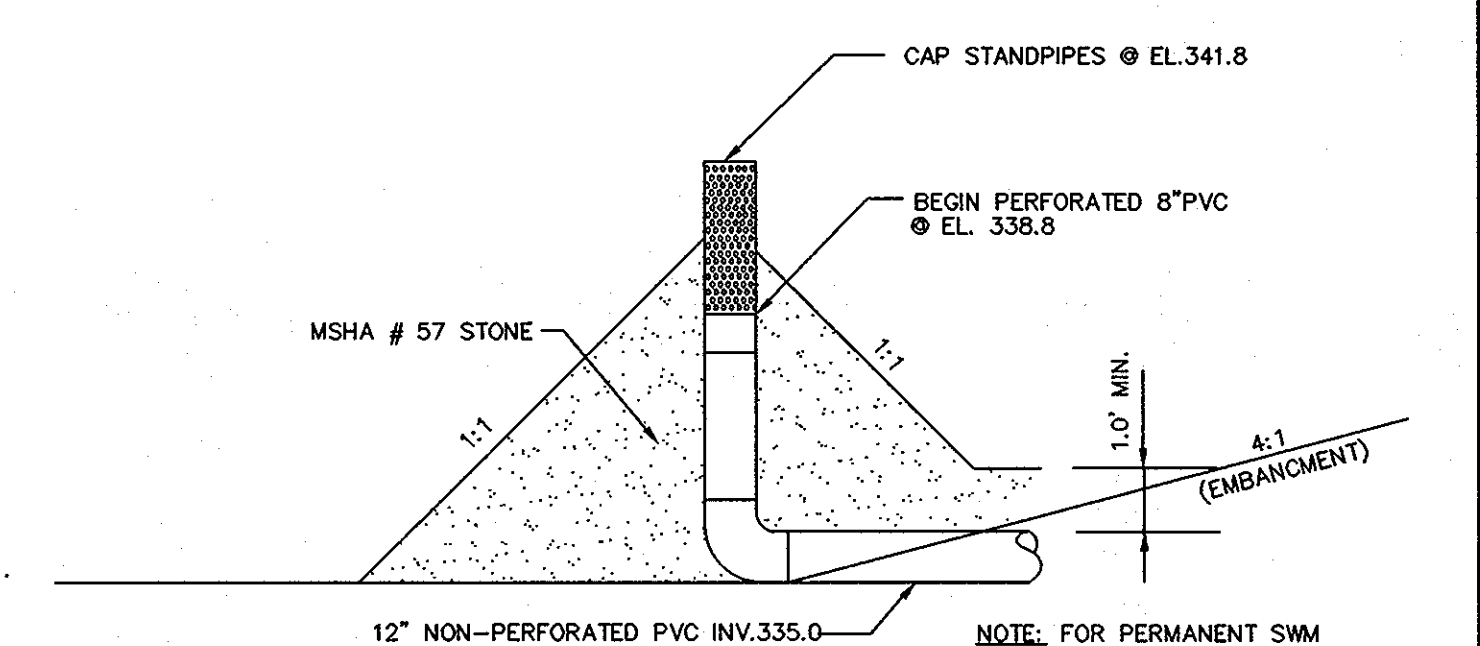


**DETAIL CONTROL PLATE A**

N.T.S.

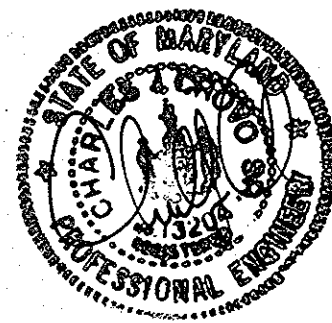


**TEMPORARY STANDPIPE DETAIL**



**TEMPORARY DEWATERING STANDPIPES**

NOTE: FOR PERMANENT SWM REMOVE VERTICAL STANDPIPE AND REPLACE WITH VERTICAL PERFORATED PVC. PROVIDE CAP @ EL. 340.0



AS-BUILT CERTIFICATION  
FISHER COLLIERIES CONTRACTING

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.  
SIGNATURE: [Signature] P.E. NO.: 13204 DATE: 1/12/05

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER FOR DOES AND 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.

SIGNATURE OF DEVELOPER: [Signature] DATE: 3/2/99  
PRINTED NAME OF DEVELOPER: S Taylor

BY THE ENGINEER:  
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL, REPRESENTS A PROFESSIONAL ENGINEERING PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE AND THAT THE PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE ADVISED THE DEVELOPER OF THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT AND ADVISED THE DEVELOPER TO ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

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.

USDA - NATURAL RESOURCES CONSERVATION SERVICE  
Robert W. Richm 4/10/99 DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS  
Richard M. D'Amico 4-16-99 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Cindy Hamilton 4/21/99 DATE

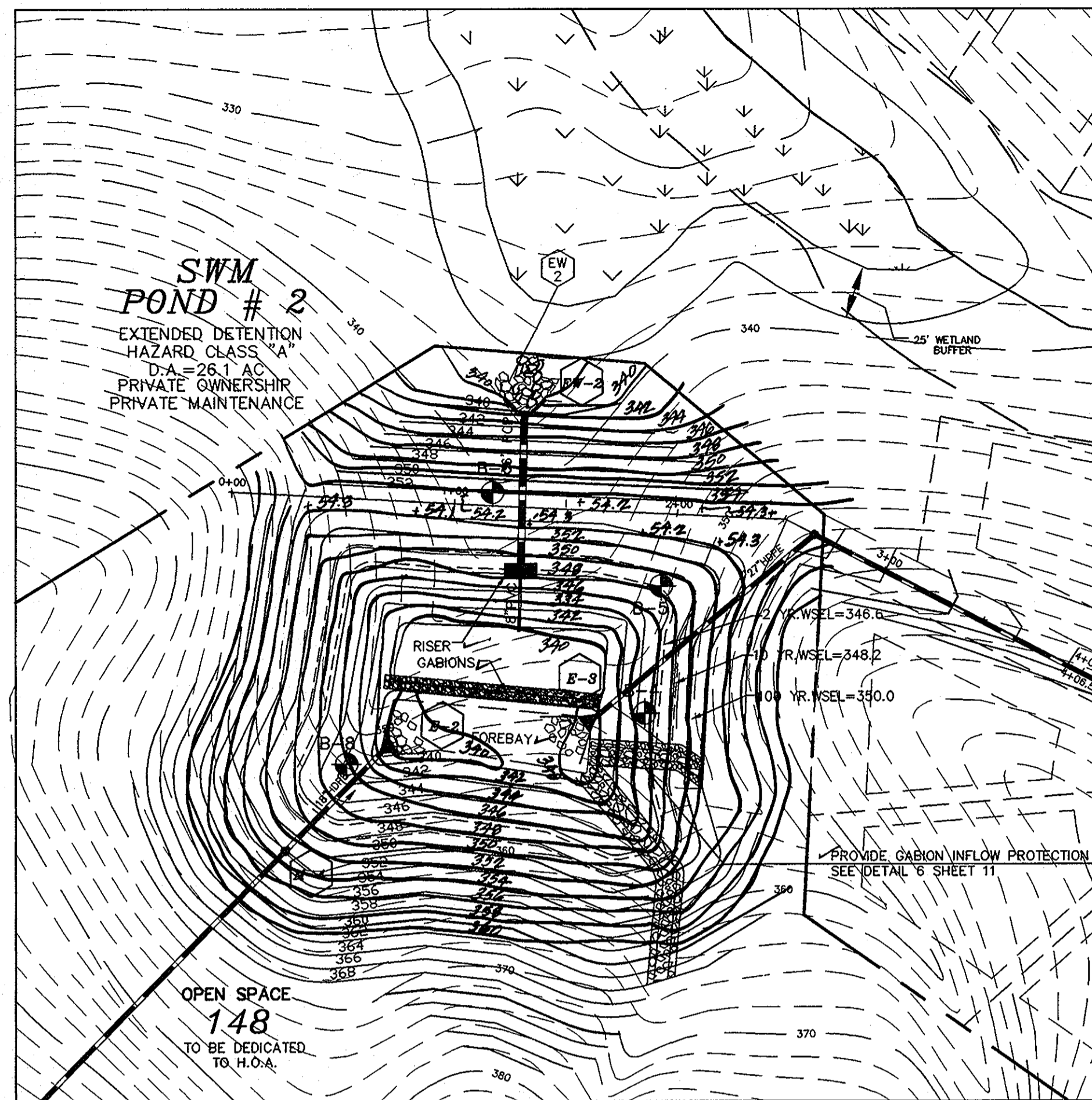
APPROVED: DEPARTMENT OF PLANNING AND ZONING  
[Signature] 4/21/99 DATE

project	97015	date	FEB. 1999
illustration	MMP	engineering	MMP
scale	AS SHOWN	checked by	[Signature]

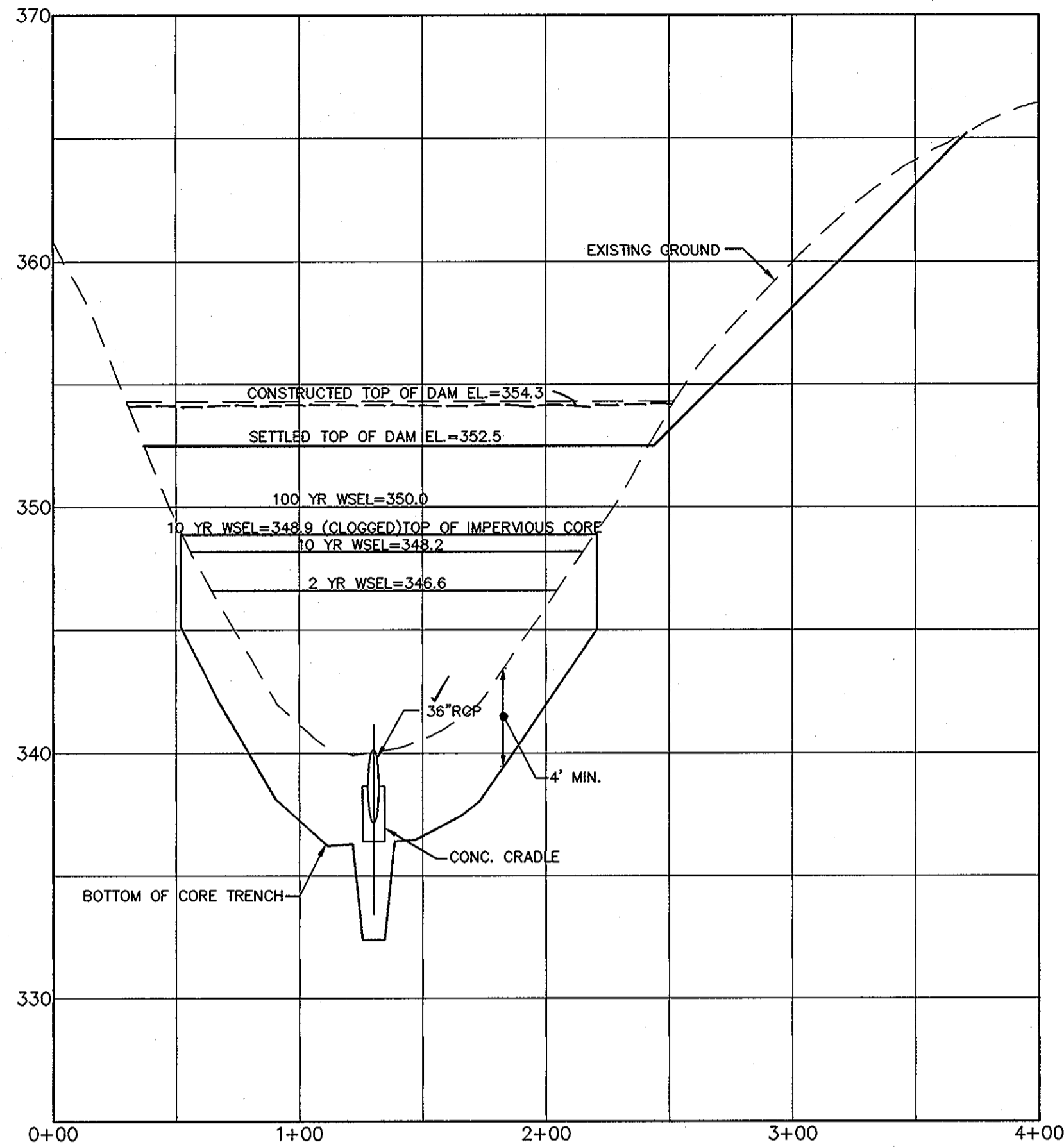
description	revisions	date

**AUTUMN VIEW, SECTION 3**  
LOTS: 76-150 AND BULK PARCEL "A"  
TAX MAP 31; PARCEL 5, 13 AND P/O 4 & 504  
HOWARD COUNTY, MARYLAND  
SECOND ELECTION DISTRICT  
STORMWATER MANAGEMENT PLAN AND PROFILES, POND # 1

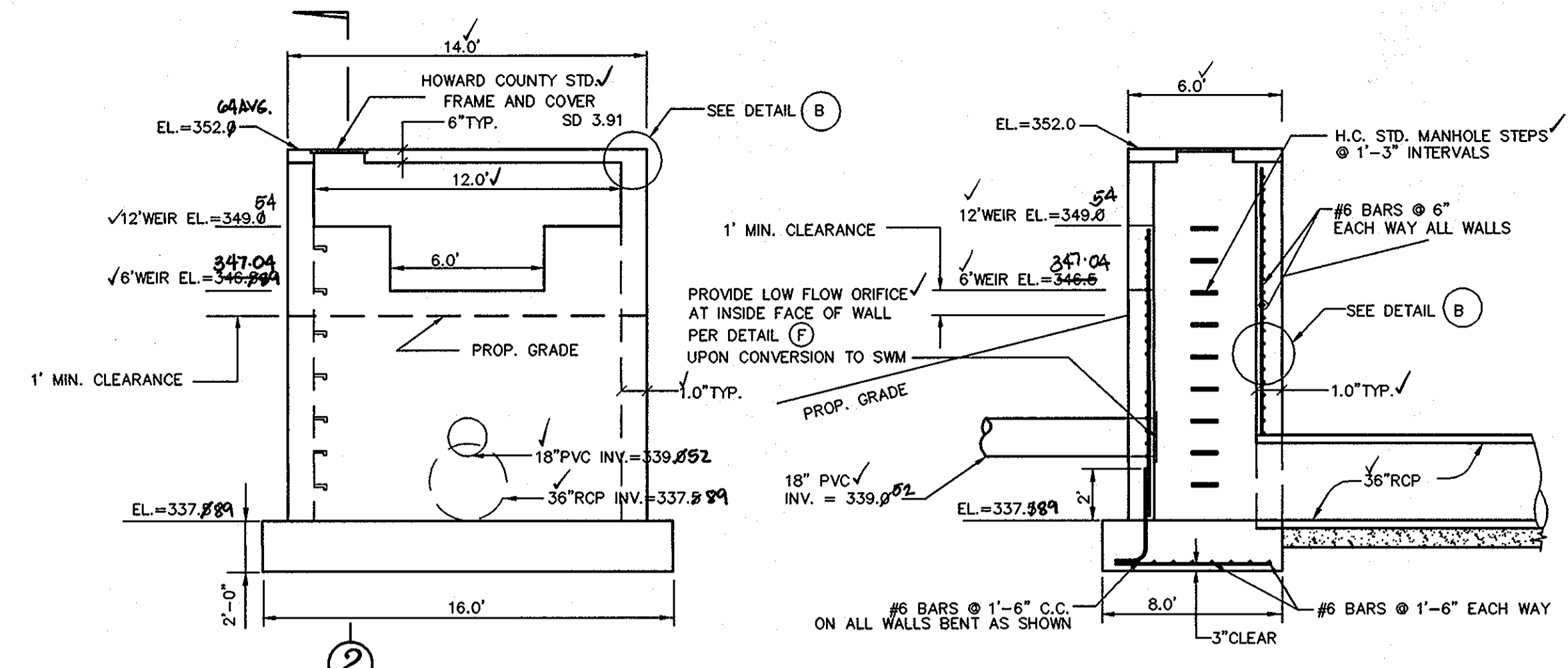
**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
5072 Dorsey Hall Drive, Suite 202, Beltsville, Maryland, 21042  
(410) 987-0286 Fax: (301) 621-5621 Wash. (410) 987-0288 Fax



**SWM POND # 2 PLAN VIEW**  
SCALE: 1"=50'

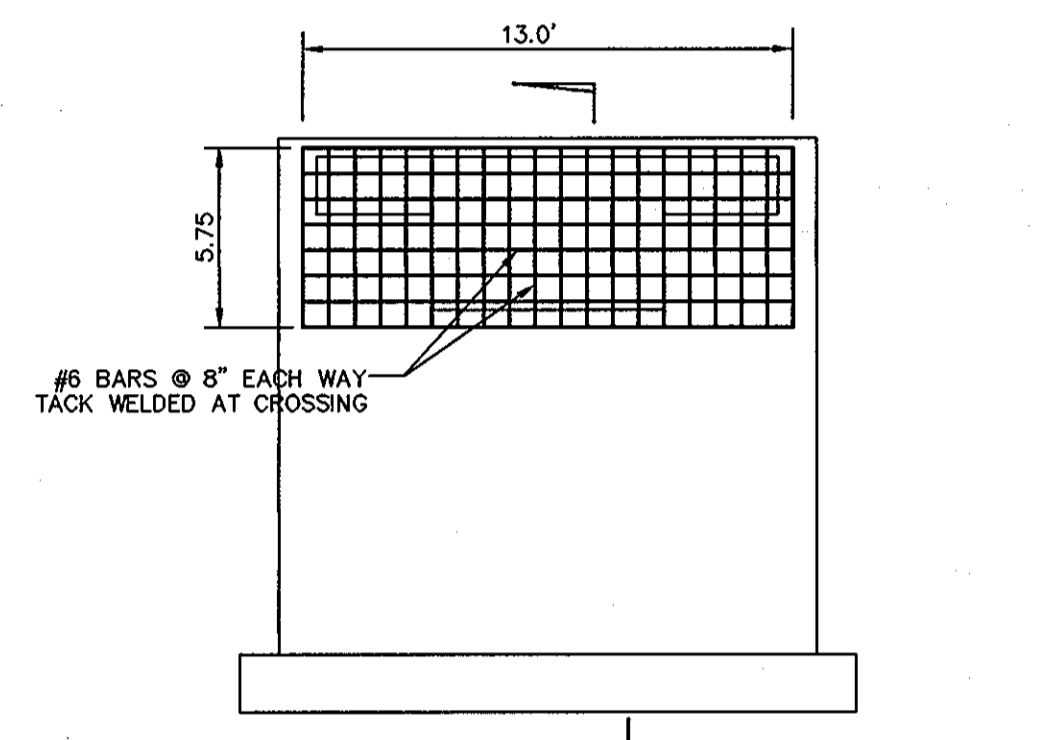


**CENTERLINE DAM PROFILE**  
SCALE: HOR. 1"=50' VER. 1"=50'

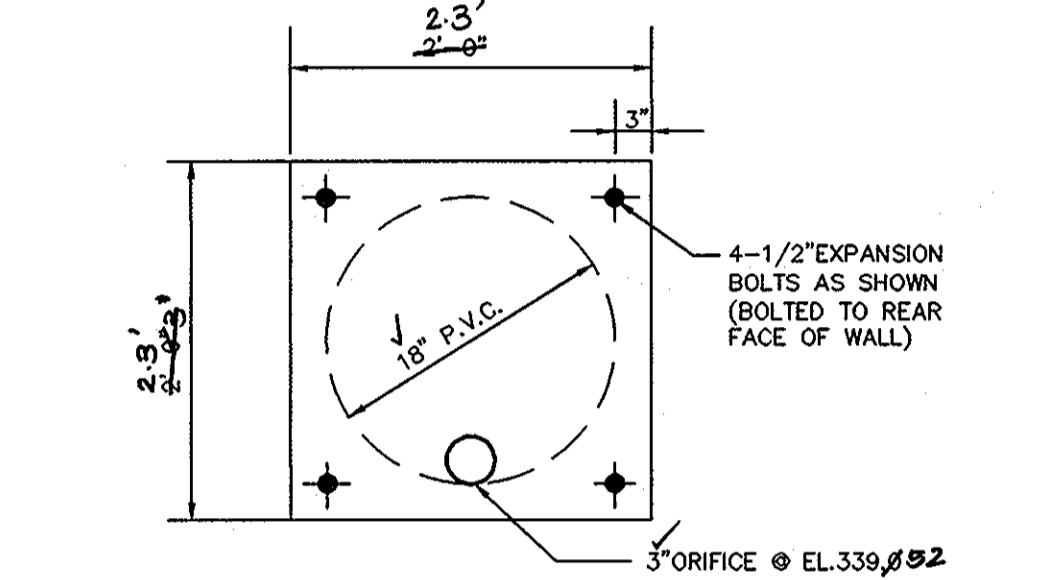


**FRONT WALL ELEVATION**  
SCALE: 1"=5'

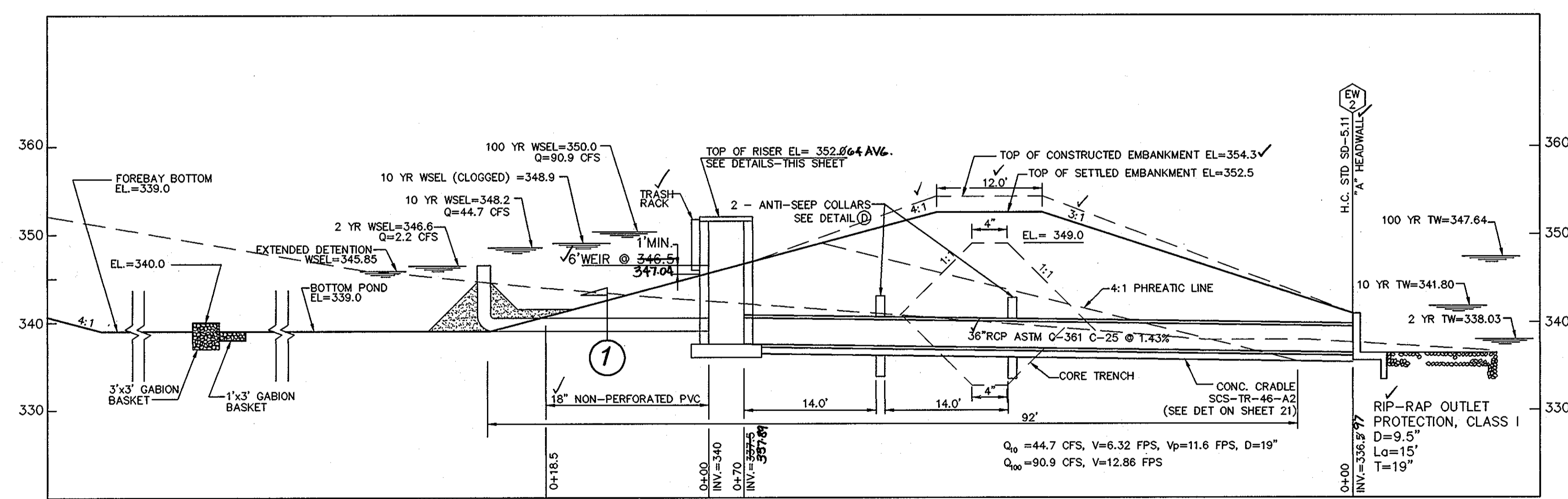
**SECTION 2**  
SCALE: 1"=5'



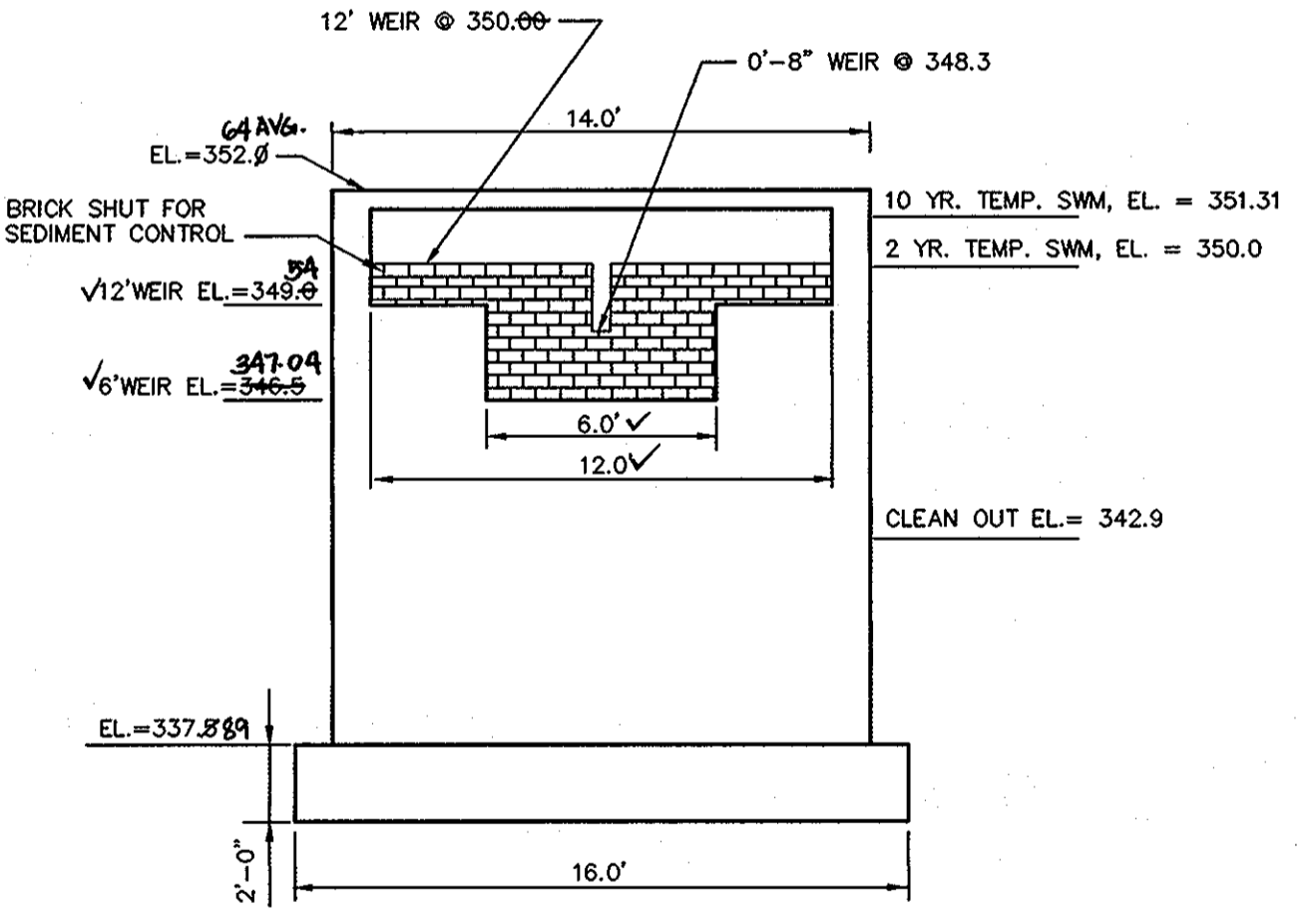
**ELEVATION OF TRASH RACK**  
N.T.S.



**LOW FLOW ORIFICE DETAIL (F)**  
N.T.S.

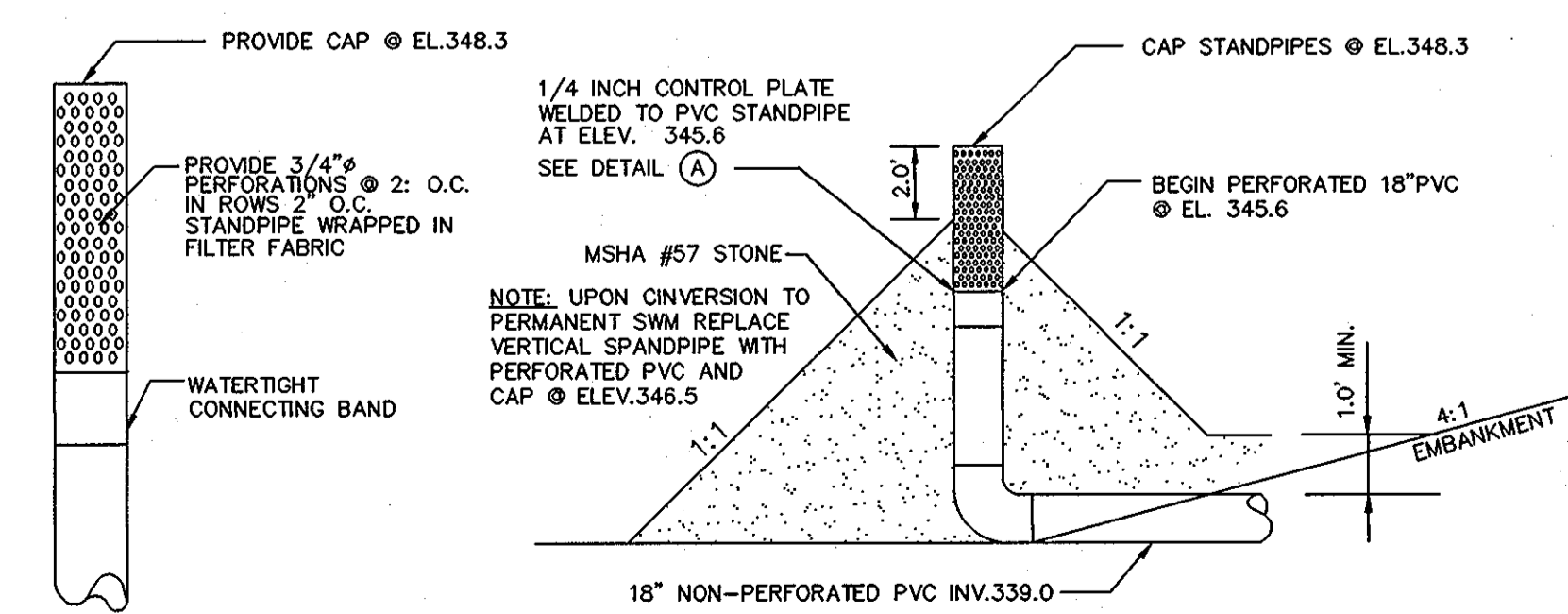


**PRINCIPLE SPILLWAY PROFILE**  
SCALE: 1"=10'



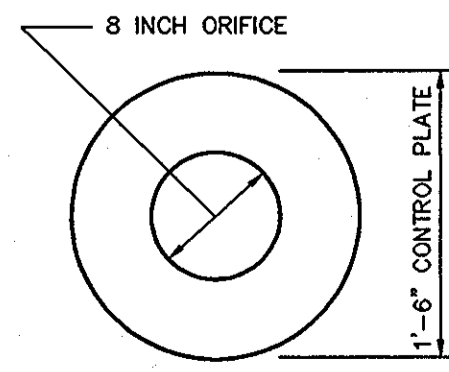
**TEMPORARY BLOCKING DETAIL FOR SEDIMENT CONTROL**  
N.T.S.

SWMF #2 SUMMARY			
	2 YR.	10 YR.	100 YR.
Q EXISTING	43.8	121.7	N/A
Q DEVELOPED	28.7	104.2	N/A
Q TO SWMF	42.1	92.0	N/A
Q FROM SWMF	2.2	44.7	90.9
WSEL	346.6	348.2	350.0
VOLUME	0.9396	2.2765	2.2893

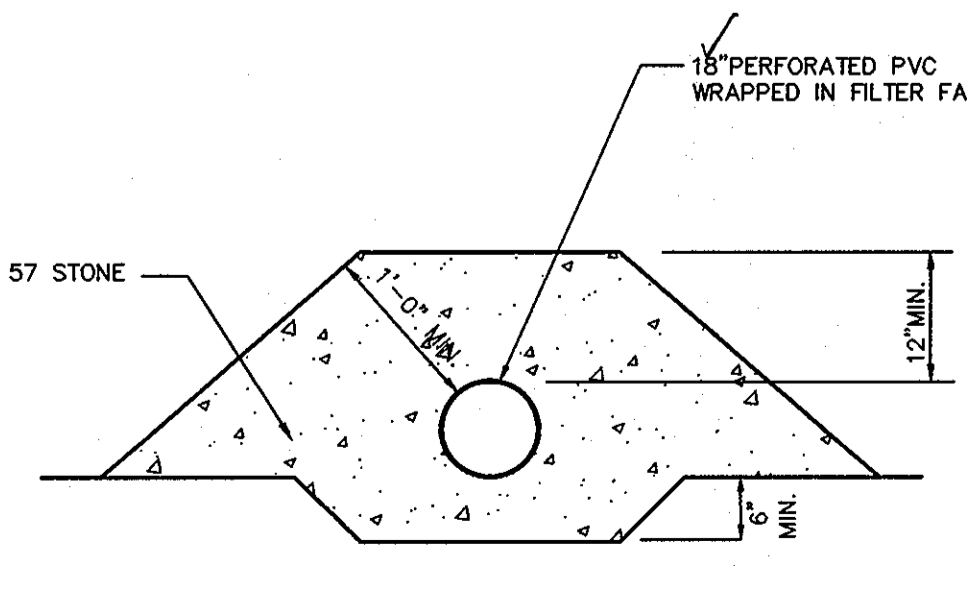


**TEMPORARY STANDPIPE DETAIL**

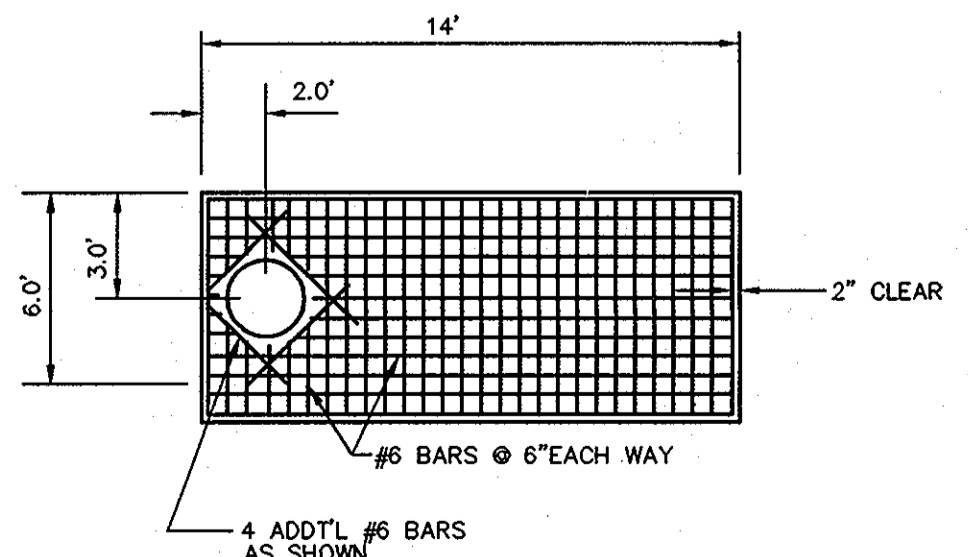
**TEMPORARY DEWATERING STANDPIPES**



**DETAIL A**  
N.T.S.



**SECTION 1**  
N.T.S.



**TOP SLAB DETAIL**  
N.T.S.



**AS-BUILT CERTIFICATION**

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

SIGNATURE: *Robert Taylor* P.E. NO.: 13204 DATE: 12/20/05

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE 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 REQUIREMENTS 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 EMPLOY A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF DEVELOPER: *Robert Taylor* DATE: 3/2/09  
PRINTED NAME OF DEVELOPER: Robert Taylor

BY THE ENGINEER:

I CERTIFY THAT THIS SWMF POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE AND THAT THE PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER OF ANY DEFICIENCIES AND A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

SIGNATURE OF ENGINEER: *Robert Taylor* DATE: 2/11/09  
PRINTED NAME OF ENGINEER: Robert Taylor

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

SIGNATURE OF HOWARD SOIL CONSERVATION DISTRICT: *Robert Taylor* DATE: 4/16/99  
USDA - NATURAL RESOURCES CONSERVATION SERVICE

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

SIGNATURE OF HOWARD SOIL CONSERVATION DISTRICT: *Robert Taylor* DATE: 4/16/99

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Spader* DATE: 4-16-99  
CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Linda Hamstra* DATE: 4/27/99  
CHIEF, DIVISION OF LAND DEVELOPMENT

*Chad Danayaru* DATE: 4/21/99  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

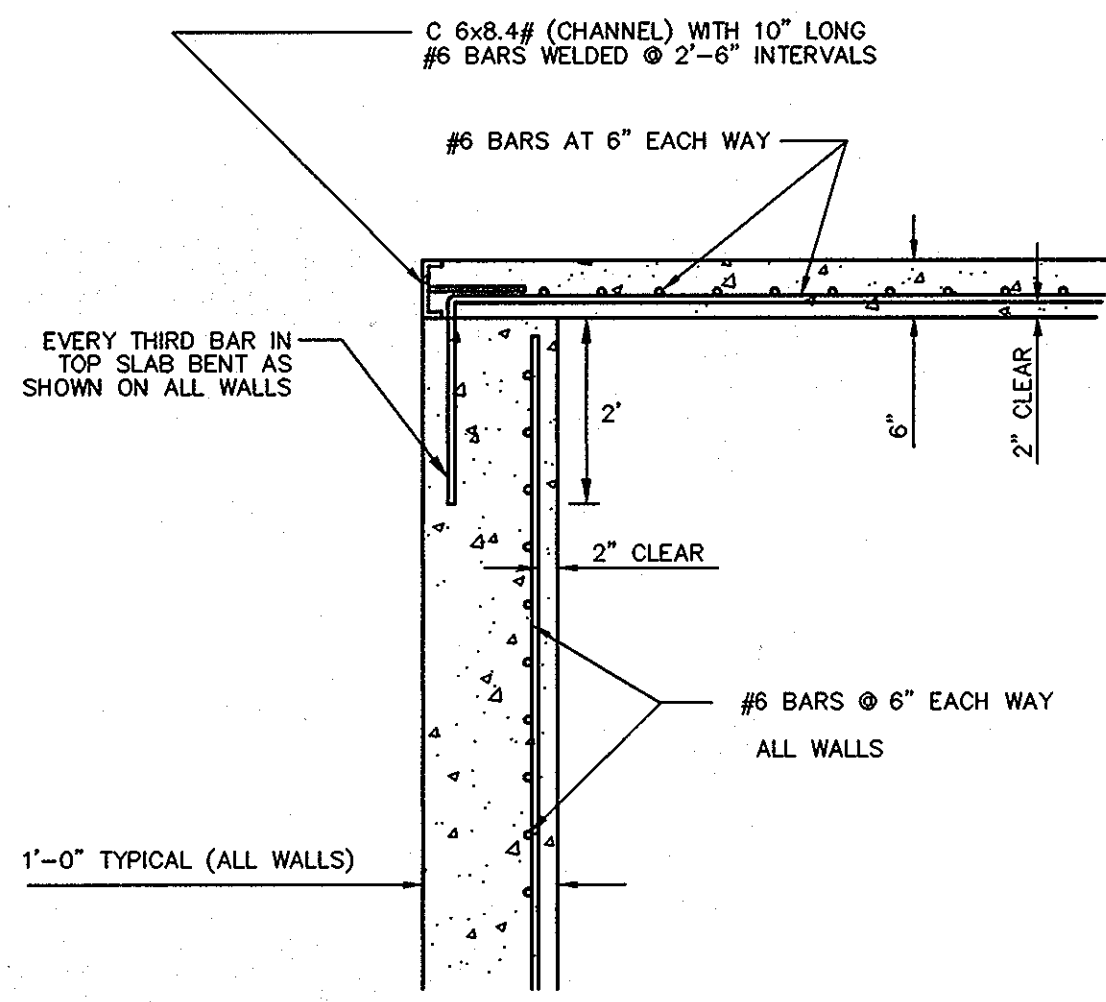
project: 97015 illustration: MAMP scale: AS SHOWN date: FEB 99

**AUTUMN VIEW, SECTION 3**  
LOTS: 76-151 AND BULK PARCEL "A"  
TAX MAP 31; PARCEL 5.13 AND P.O. 4 & 504  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

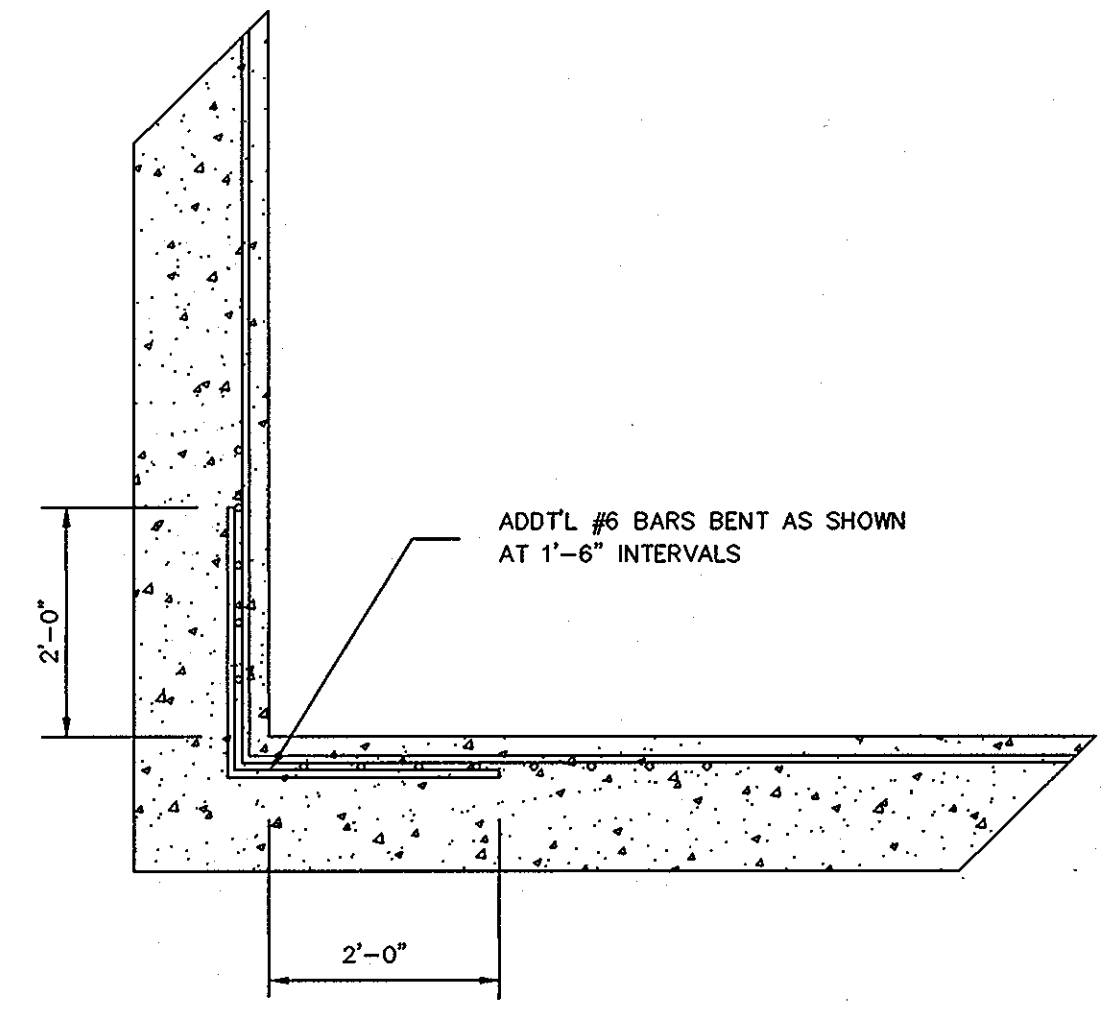
**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland, 21042  
(410) 997-0296 Fax: (301) 621-5521

**STORMWATER MANAGEMENT PLAN AND PROFILES, POND # 2**

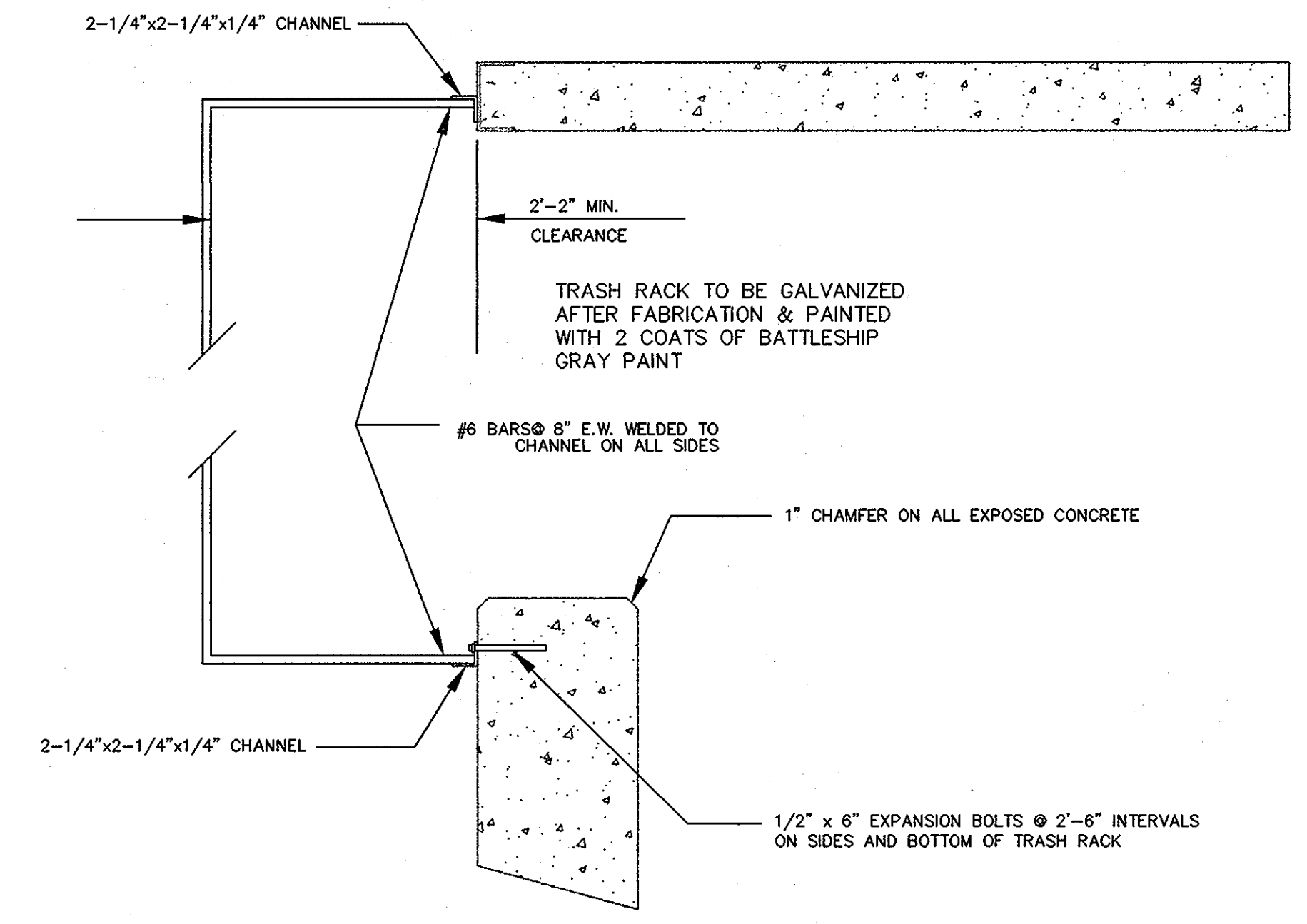
20 OF 30



**DETAIL B**  
N.T.S.

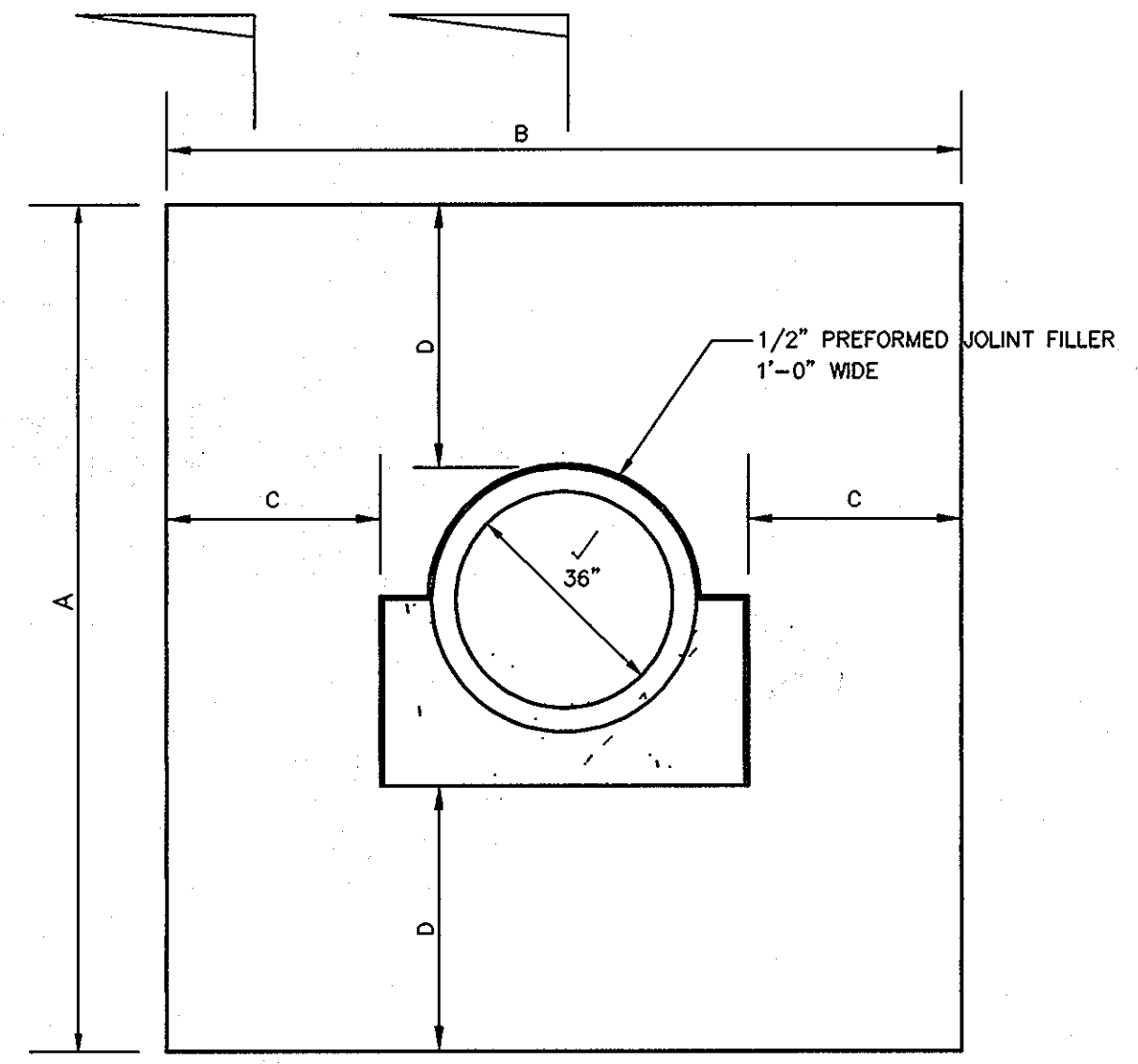


**CORNER TREATMENT DETAIL C**  
N.T.S.

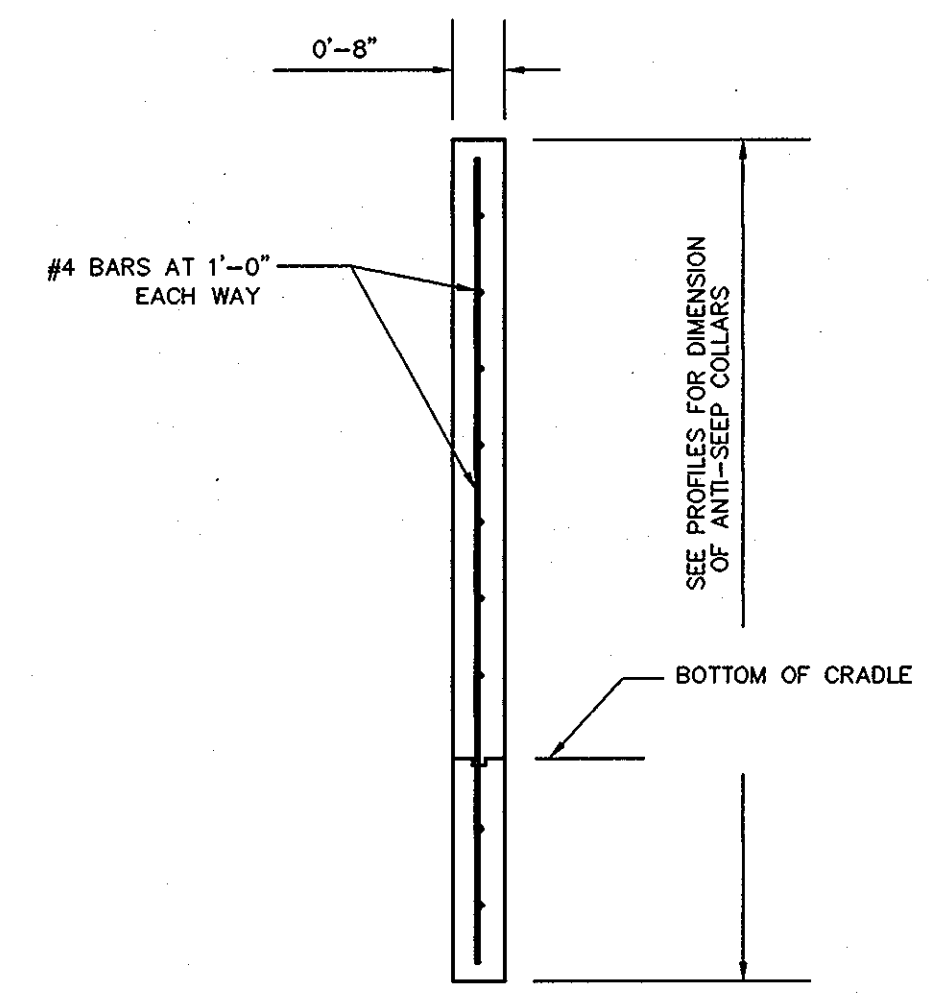


**SECTION 3**  
N.T.S.

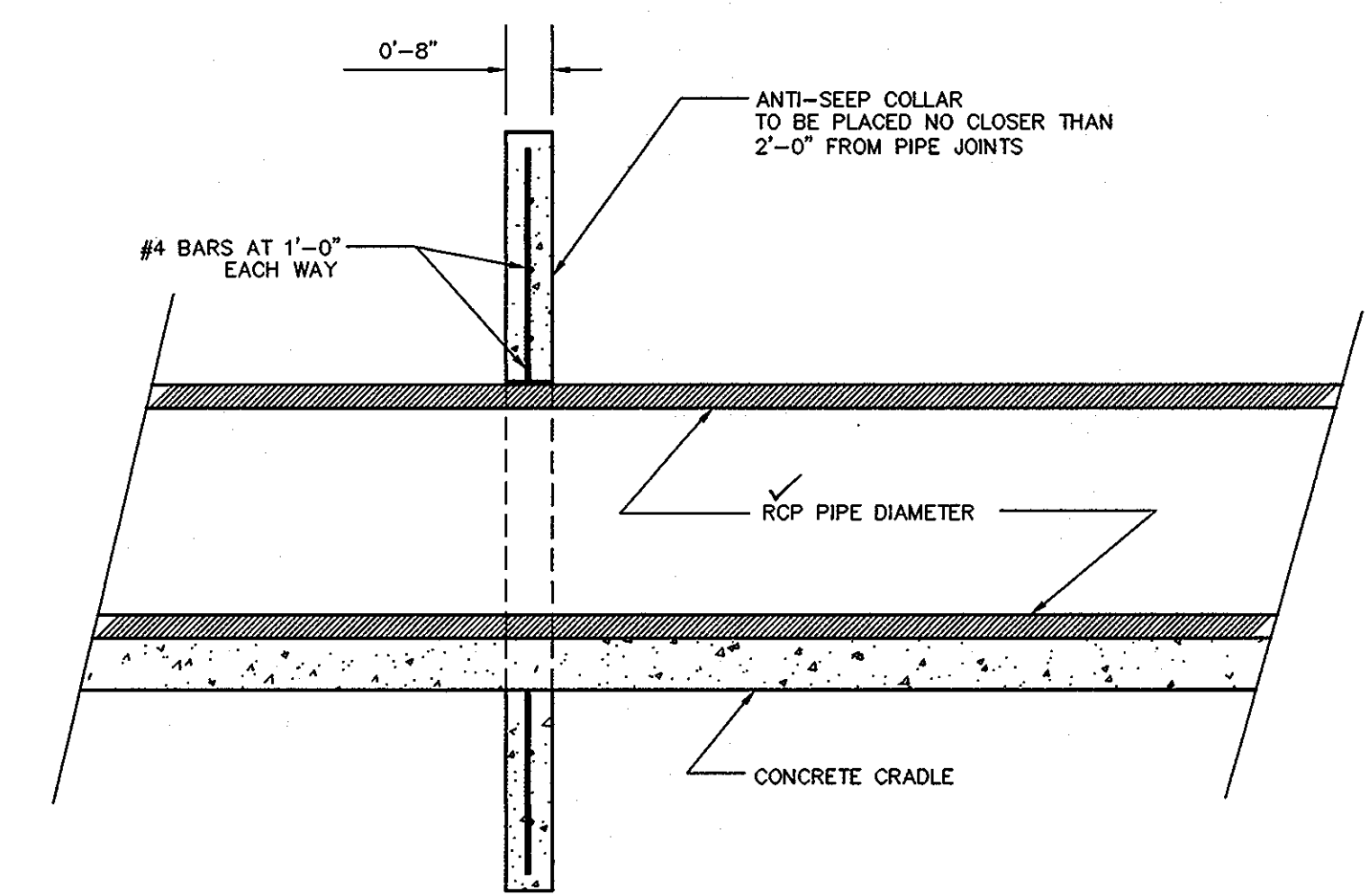
	POND # 1	POND # 2
A	9'-5"	10'-5"
B	10'-0"	12'-0"
C	2'-6"	3'-6"
D	2'-6"	3'-6"



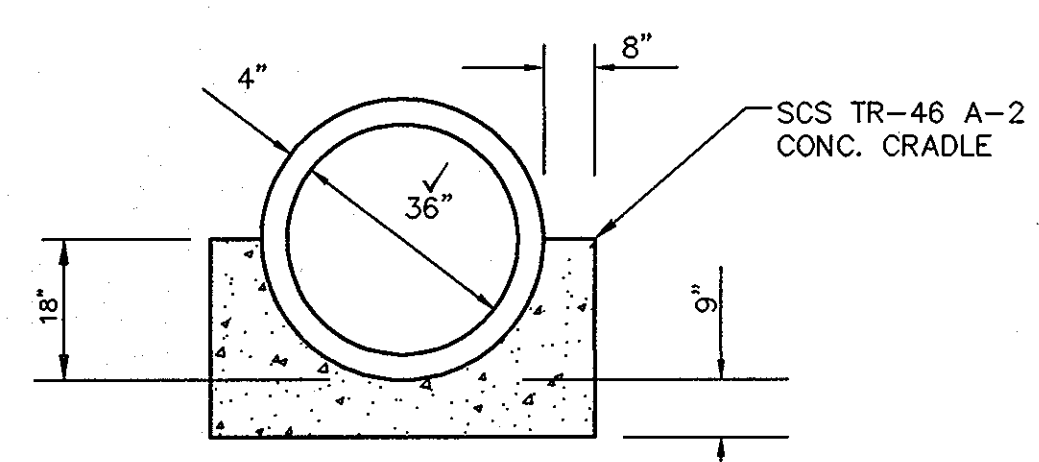
**ANTI-SEEP COLLAR DETAIL D**  
N.T.S.



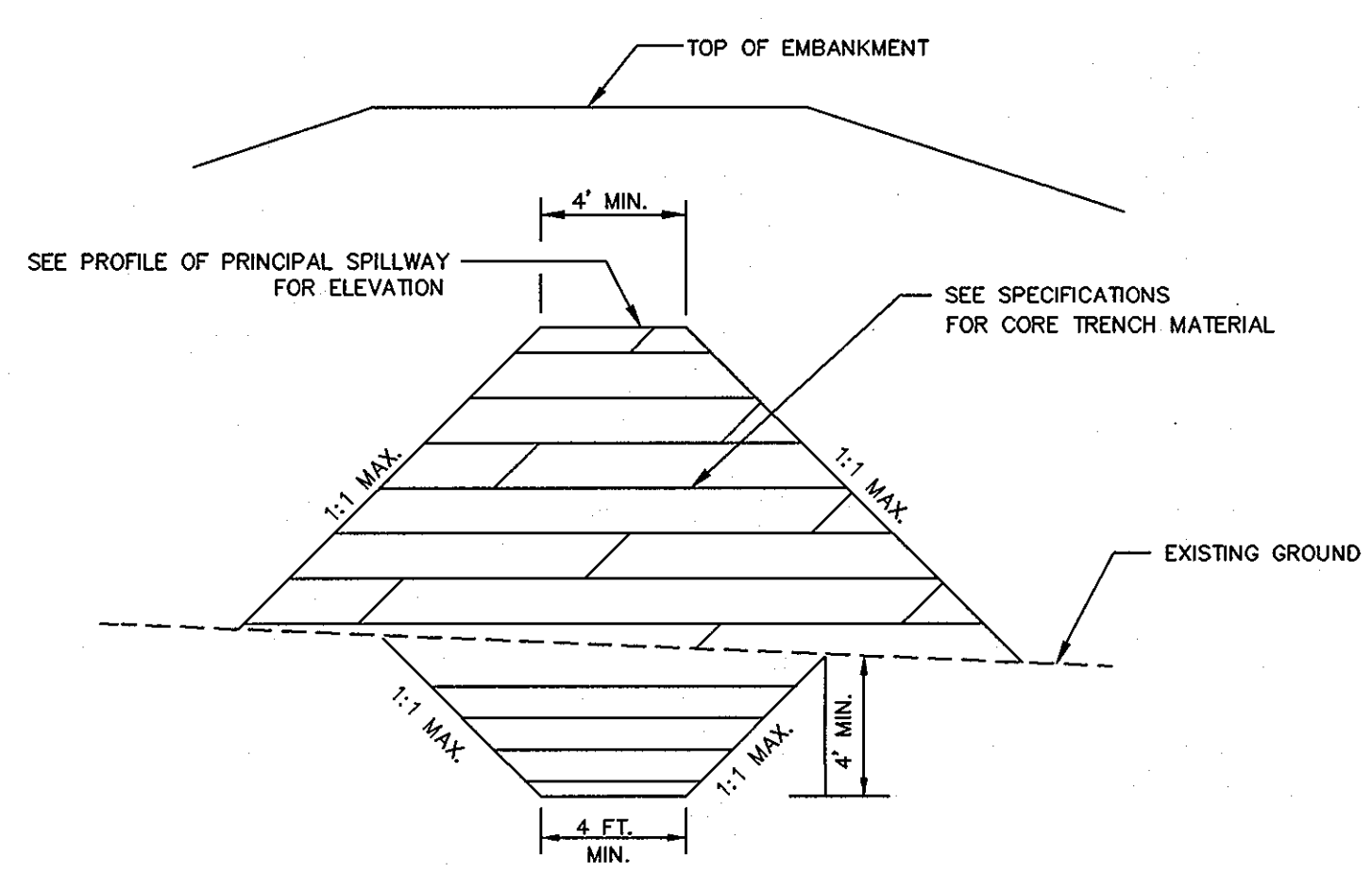
**SECTION 4**  
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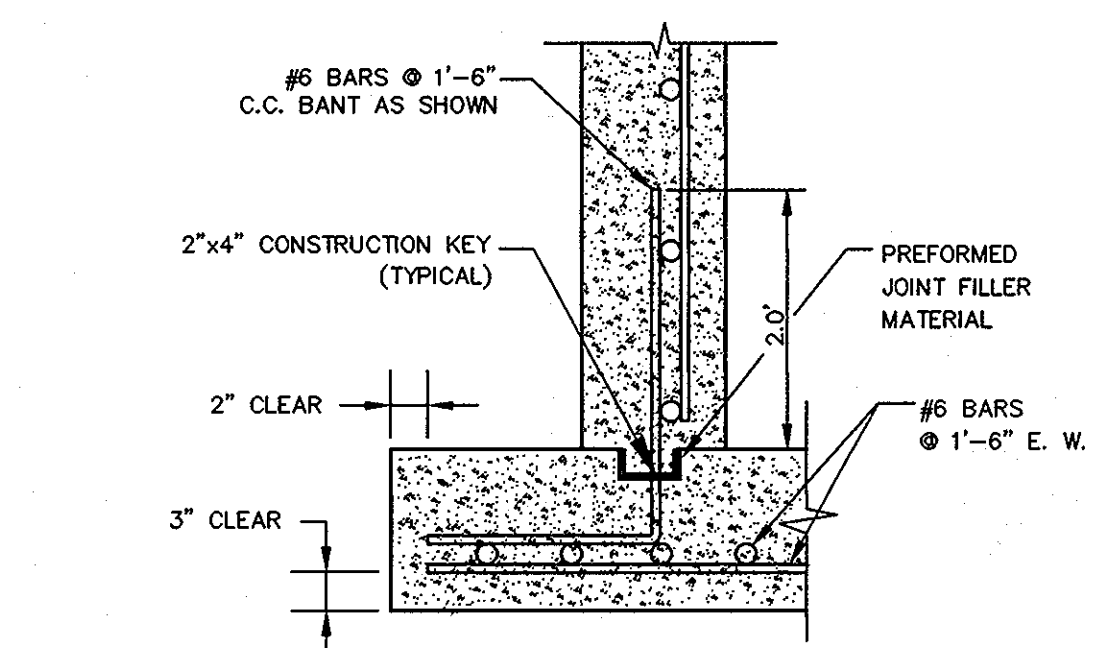
**SECTION 5**  
N.T.S.



**DETAIL OF CONCRETE CRADLE**  
N.T.S.



**CORE TRENCH DETAIL E**  
N.T.S.



**WALL TO BOTTOM SLAB CONNECTION**  
N.T.S.



AS-BUILT 12-28-05  
FISHER COLLINS & COMPANY

**AS-BUILT CERTIFICATION**  
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

SIGNATURE: *[Signature]* P.E. NO. 13204  
DATE: 12/28/05

CERTIFY MEANS TO START OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES THE 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."

SIGNATURE OF DEVELOPER: *[Signature]* DATE: 2/2/99  
PRINTED NAME OF DEVELOPER: B. Taylor

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 AND THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

SIGNATURE OF ENGINEER: *[Signature]* DATE: 2/11/99  
PRINTED NAME OF ENGINEER: J. Simmons

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.  
USDA - NATURAL RESOURCES CONSERVATION SERVICE  
DATE: 4/6/99

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
DATE: 4/16/99

APPROVED: DEPARTMENT OF PUBLIC WORKS  
DATE: 4-16-99

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
DATE: 4/27/99

DATE: 4/21/99

Project	97015	date	FEB 99
Illustration	MMP	engineering	MMP
scale	MMP	approval	AS SHOWN

description	revisions	date

**AUTUMN VIEW, SECTION 3**  
LOTS: 76-150 AND BULK PARCEL "A"  
TAX MAP 31; PARCEL 5, 13 AND P/O A & 504  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
STORMWATER MANAGEMENT DETAILS

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
5072 Borsley Hall Drive, Suite 202, Beltsville, Maryland 21042  
(410) 997-0286, Fax: (301) 621-5521, Wash. (410) 997-0289, Fax.

POND SPECIFICATIONS

THESE SPECIFICATIONS ARE APPROPRIATE TO ALL PONDS WITHIN THE SCOPE OF THE STANDARD FOR PRACTICE MD-378. ALL REFERENCES TO ASTM AND AASHTO SPECIFICATIONS APPLY TO THE MOST RECENT VERSION.

SITE PREPARATION

AREAS DESIGNATED FOR BORROW AREAS, EMBANKMENT, AND STRUCTURAL WORKS SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL. ALL TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED. CHANNEL BANKS SHALL BE SLOPED TO NO STEEPER THAN 1:1. AREAS TO BE COVERED BY THE RESERVOIR WILL BE CLEARED OF ALL TREES, BRUSH, LOGS, RUBBISH AND OTHER OBJECTIONABLE MATERIAL UNLESS OTHERWISE DESIGNATED TO 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 CC, 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 SHALL BE SCARIFIED PRIOR TO PLACEMENT OF FILL. FILL MATERIALS SHALL BE PLACED IN 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 AND SPREADING EQUIPMENT OVER THE FILL SHALL BE CONTROLLED SO THAT THE ENTIRE SOIL LAYER IS NOT TRAVED BY NOT LESS THAN ONE TREAD TRACK OF THE EQUIPMENT OR TRACK SHALL BE ACHIEVED BY A MINIMUM OF FOUR COMPLETE PASSES OF A SHEEPSFOOT, RUBBER TIRE 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 CUFF OFF 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 MATERIAL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED FIVE FEET IN THICKNESS AND COMPACTED BY HAND TAMPERS OR OTHER MANUALLY DIRECTED COMPACTION EQUIPMENT. THE MATERIAL NEEDS TO FILL COMPLETELY ALL SPACES UNDER AND ADJACENT TO THE PIPE. AT NO TIME DURING THE BACKFILLING OPERATION SHALL DRIVEN EQUIPMENT BE ALLOWED TO OPERATE FEET, MEASURED HORIZONTAL TO ANY PART OF A STRUCTURE. UNDER NO CIRCUMSTANCES SHALL EQUIPMENT BE DRIVEN OVER ANY PART OF A CONCRETE FILL OF 24" OR GREATER OVER THE STRUCTURE OR PIPE.

PIPE CONDUITS

ALL PIPES SHALL BE CIRCULAR IN CROSS SECTION.

CORRUGATED METAL PIPE- ALL OF THE FOLLOWING CRITERIA SHALL APPLY FOR CORRUGATED METAL PIPE:  
1. MATERIALS- (STEEL PIPE)- THIS PIPE AND ITS APPURTENANCES SHALL BE GALVANIZED AND FULLY BITUMINOUS COATED AND SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-190 TYPE A WITH WATER TIGHT 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 COATINGS OR AN APPROVED EQUAL MAY BE USED: NEXON, PLASTICOTE BLACK-GLAD, AND BETH-CHEM-LOY. COATED CORRUGATED STEEL PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M-245 AND M-246.

MATERIALS- (ALUMINUM COATED STEEL PIPE)- THIS PIPE AND ITS APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-274 WITH WATER TIGHT 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 WATER TIGHT COUPLING BANDS OR FLANGES. ALUMINUM SURFACES THAT ARE TO BE IN CONTACT WITH CONCRETE SHALL BE PAINTED WITH ONE COAT OF ZINC CHROMATE PRIMER AND GALVANIZED BOLTS MAY BE USED FOR CONNECTIONS. THE PH OF THE SURROUNDING SOILS SHALL BE BETWEEN 4 AND 9.

2. COUPLING BANDS, ANTI-SEEP COLLARS, END SECTIONS, ETC., SHALL BE COMPOSED OF THE SAME MATERIAL AS THE PIPE. METALS MUST BE INSULATED FROM DISSIMILAR MATERIALS WITH USE RUBBER OR PLASTIC INSULATING MATERIALS AT LEAST 24 MILS IN THICKNESS.

3. 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 JOINTS SHALL BE WELDED TO BE WATERTIGHT.  
ALL CONNECTIONS SHALL USE A RUBBER OR NEOPRENE GASKET WHEN JOINING PIPE SECTIONS. THE END OF EACH PIPE SHALL BE ROLLED AND ADEQUATE NUMBER OF CORRUGATIONS TO ACCOMMODATE THE BAND WIDTH. THE FOLLOWING TYPE CONNECTIONS ARE ACCEPTABLE FOR PIPE LESS THAN 24" IN DIAMETER: RANGES ON BOTH ENDS OF THE PIPE, A 12" WIDE STANDARD LAP TYPE BAND WITH 1/2" THICK CLOSED CELL CIRCULAR NEOPRENE GASKET; AND A 12" WIDE HUGGER TYPE BAND WITH O-RING GASKETS HAVING MINIMUM DIAMETER OF 1/2" GREATER THAN THE CORRUGATION DEPTH. PIPES 24" IN DIAMETER AND LARGER SHALL BE CONNECTED BY A 24" LONG ANNUAL CORRUGATED BAND USING RODS AND LUGS. A 12" WIDE BY 3/8" THICK CLOSED CELL CIRCULAR NEOPRENE GASKET WILL BE INSTALLED ON THE END OF EACH PIPE FOR A TOTAL OF 24".

HELICALLY CORRUGATED PIPE SHALL HAVE EITHER CONTINUOUSLY WELDED SEAMS OR HAVE LOCK SEAMS WITH INTERNAL CAULKING OR A NEOPRENE BEAD.  
4. BEDDING- THE PIPE SHALL BE FIRMLY AND UNIFORMLY BEDDED THROUGHOUT ITS ENTIRE LENGTH. WHERE ROCK OR SOFT, SPONGY OR OTHER UNSTABLE SOIL IS ENCOUNTERED ALL SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH SUITABLE EARTH COMPACTED TO PROVIDE ADEQUATE SUPPORT.

5. BACKFILLING SHALL CONFORM TO "STRUCTURE BACKFILL."  
6. OTHER DETAILS (ANTI-SEEP COLLARS, VALVES, ETC.) SHALL BE AS SHOWN ON THE DRAWINGS.

REINFORCED CONCRETE PIPE- ALL OF THE FOLLOWING CRITERIA SHALL APPLY FOR REINFORCED CONCRETE PIPE:  
1. MATERIALS- REINFORCED CONCRETE PIPE SHALL HAVE BELL AND SPIGOT JOINTS WITH RUBBER GASKETS AND SHALL EQUAL OR EXCEED ASTM DESIGNATION C-361.

2. BEDDING- ALL REINFORCED CONCRETE PIPE CONDUITS SHALL BE LAID IN A CONCRETE BEDDING FOR THEIR ENTIRE LENGTH. THIS BEDDING SHALL BE MADE OF HIGH STRENGTH CONCRETE PLACED UNDER THE PIPE AND UP THE SIDES OF THE PIPE AT LEAST 10% OF ITS OUTSIDE DIAMETER WITH A MINIMUM THICKNESS OF 3 INCHES, OR AS SHOWN ON THE DRAWINGS.

3. LAYING PIPE- BELL AND SPIGOT PIPE SHALL BE PLACED WITH THE BELL 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 DEVIATION FROM THE ORIGINAL LINE AND GRADE OF THE PIPE. THE FIRST JOINT MUST BE LOCATED WITHIN 2 FEET FROM THE RISER.

4. BACKFILLING SHALL CONFORM TO "STRUCTURE BACKFILL."  
5. OTHER DETAILS (ANTI-SEEP COLLARS, VALVES, ETC.) SHALL BE AS SHOWN ON THE DRAWINGS.

1. MATERIALS- PVC PIPE SHALL BE PVC-1120 OR PVC-1220 CONFORMING TO ASTM D-1785 OR ASTM D-2241.

2. JOINTS AND CONNECTIONS TO ANTI-SEEP COLLARS SHALL BE COMPLETELY WATERTIGHT.

3. BEDDING- THE PIPE SHALL BE FIRMLY AND UNIFORMLY BEDDED THROUGHOUT ITS ENTIRE LENGTH. WHERE ROCK OR SOFT, SPONGY OR OTHER UNSTABLE SOIL IS ENCOUNTERED, ALL SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH SUITABLE EARTH COMPACTED TO PROVIDE ADEQUATE SUPPORT.

4. BACKFILLING SHALL CONFORM TO "STRUCTURE BACKFILL."  
5. OTHER DETAILS (ANTI-SEEP COLLARS, VALVES, ETC.) SHALL BE AS SHOWN ON THE DRAWINGS.

CONCRETE

CONCRETE SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 905. THE RIPRAP SHALL BE PLACED TO THE REQUIRED THICKNESS IN ONE OPERATION. THE ROCK SHALL BE DELIVERED AND PLACED IN A MANNER THAT WILL 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 919.12.2.

CARE OF WATER DURING CONSTRUCTION

ALL WORK ON THE PERMANENT STRUCTURES SHALL BE CARRIED OUT IN AREAS FREE FROM WATER. THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ALL TEMPORARY DIKES, LEVES, 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 THE REQUIRED EXCAVATIONS AND WILL ALLOW SATISFACTORY PERFORMANCE OF ALL AND CONSTRUCTION OPERATIONS. DURING THE PLACING AND COMPACTING OF THE WATER LEVELS AT THE LOCATIONS BEING REFILLED SHALL BE MAINTAINED BELOW THE BOTTOM OF THE EXCAVATION AT SUCH LOCATIONS WHICH MAY REQUIRE DRAINING THE WATER TO SLUMPS 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.

SWM POND MAINTENANCE REQUIREMENTS

- a. SILT SHALL BE REMOVED WHEN ACCUMULATION EXCEEDS SIX (6) INCHES IN BASINS WITHOUT FOREBAYS. IN BASIN WITH FOREBAYS, SILT SHALL BE REMOVED WHEN THE ACCUMULATION EXCEEDS FOUR (4) INCHES IN THE FOREBAYS.
- b. ACCUMULATED PAPER, TRASH AND DEBRIS SHALL BE REMOVED AS NECESSARY.
- c. VEGETATION GROWING ON THE EMBANKMENT TOP AND FACES IS NOT ALLOWED TO EXCEED 18 INCHES IN HEIGHT AT ANY TIME.
- d. ANNUAL INSPECTION AND REPAIR, IF REQUIRED, OF THE STRUCTURE SHALL BE PERFORMED.

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 THE 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.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.  
RECORD OF SOIL EXPLORATION  
PROJECT NAME: AUTUMN VIEW SECTION 3 BORING # B-3  
LOCATION: HOWARD COUNTY, MARYLAND JOB # 97172A

DATUM: HAMMER WT. 140 LBS. HOLE DIAMETER: 6" FOREMAN: D. HARRP  
SURF. ELEV. 336.89 HAMMER DROP: 30 INCHES ROCK CORE DIA. INSPECTOR:  
DATE STARTED: 08-28-92 PIPE SIZE: 2.0 INCHES @ BORING METHOD: HSA DATE COMPLETE: 08-28-92

ELEV.	SOIL DESCRIPTION	STRA. DEPTH	DEPTH	SCALE	SAMPLE CON.	BLOWS	NO.	REC.	BORING & SAMPLING NOTES
0.0	SURFACE								
0.0	BROWN, MOIST, VERY LOOSE, SILTY (SANDY LOAM)		0.0			1-3	1	12"	6" TOPSOIL
2.5	BROWN, MOIST, MEDIUM DENSE, SILTY (SANDY SILT)		2.5			3-4	2	18"	NO GROUNDWATER ENCOUNTERED AT 3.0' WHILE DRILLING
5.5	BROWN AND GREY, WET, VERY LOOSE, SILTY SAND (SANDY SILT)		5.5			3-4	3	12"	CAVED IN TO 4.2' AT COMPLETION
10.0	GRAVE BROWN, MOIST, MEDIUM DENSE, SANDY SILT (SANDY LOAM)		10.0			4-4	4	18"	CAVED IN TO 4.8' AFTER 24 HOURS BACKFILLED AFTER 24 HOURS

SAMPLER TYPE: OPEN SHUT SPOON UNLESS OTHERWISE NOTED  
SAMPLER CONDITIONS: D-DETERIORATED, L-UNLUBRICATED, P1-PRESSED DRIVE SHAFT, P2-PRESSED DRIVE SHAFT, P3-PRESSED DRIVE SHAFT, P4-PRESSED DRIVE SHAFT, P5-PRESSED DRIVE SHAFT, P6-PRESSED DRIVE SHAFT, P7-PRESSED DRIVE SHAFT, P8-PRESSED DRIVE SHAFT, P9-PRESSED DRIVE SHAFT, P10-PRESSED DRIVE SHAFT, P11-PRESSED DRIVE SHAFT, P12-PRESSED DRIVE SHAFT, P13-PRESSED DRIVE SHAFT, P14-PRESSED DRIVE SHAFT, P15-PRESSED DRIVE SHAFT, P16-PRESSED DRIVE SHAFT, P17-PRESSED DRIVE SHAFT, P18-PRESSED DRIVE SHAFT, P19-PRESSED DRIVE SHAFT, P20-PRESSED DRIVE SHAFT, P21-PRESSED DRIVE SHAFT, P22-PRESSED DRIVE SHAFT, P23-PRESSED DRIVE SHAFT, P24-PRESSED DRIVE SHAFT, P25-PRESSED DRIVE SHAFT, P26-PRESSED DRIVE SHAFT, P27-PRESSED DRIVE SHAFT, P28-PRESSED DRIVE SHAFT, P29-PRESSED DRIVE SHAFT, P30-PRESSED DRIVE SHAFT, P31-PRESSED DRIVE SHAFT, P32-PRESSED DRIVE SHAFT, P33-PRESSED DRIVE SHAFT, P34-PRESSED DRIVE SHAFT, P35-PRESSED DRIVE SHAFT, P36-PRESSED DRIVE SHAFT, P37-PRESSED DRIVE SHAFT, P38-PRESSED DRIVE SHAFT, 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NOTE: THIS DRAWING IS TO BE USED FOR LANDSCAPE PLAN PURPOSES ONLY.

**NOTES:**  
 1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.  
 2. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$ 16,800.00.

**STREET TREE CALCULATIONS (THIS SHEET)**  
 DONCASTER DRIVE - 2152 / 40 = 54  
 RED LEAF COURT - 746 / 40 = 19  
 TALL MAPLE COURT - 314 / 40 = 8  
 HAZEL NUT LANE - 130 / 40 = 3  
 TOTAL TREES REQUIRED = 84 TREES  
 TOTAL TREES PROVIDED = 84 TREES

PERIMETER	EDGE TYPE
PERIMETER 1 ROAD ROW - 50.85 LF	N/A
SFD & OPEN SPACE TO SFD - 323.31 LF 1 SHADE TREE / 60 LF	A
PERIMETER 2 SFD SIDE TO ROAD - 110.84 LF 1 SHADE TREE / 50 LF 1 EVERGREEN / 40 LF	B
PERIMETER 3 SFD SIDE TO ROAD - 112.02 LF 1 SHADE TREE / 50 LF 1 EVERGREEN / 40 LF	B
PERIMETER 4 SFD SIDE TO ROAD - 70.04 LF 1 SHADE TREE / 50 LF 1 EVERGREEN / 40 LF	B
PERIMETER 5 SFD SIDE TO ROAD - 89.60 LF 1 SHADE TREE / 50 LF 1 EVERGREEN / 40 LF	B
PERIMETER 6 SFD SIDE TO ROAD - 86.60 LF 1 SHADE TREE / 50 LF 1 EVERGREEN / 40 LF	B
PERIMETER 7 SFD SIDE TO ROAD - 132.69 LF 1 SHADE TREE / 50 LF 1 EVERGREEN / 40 LF	B
PERIMETER 8 SFD TO SFD - 102.61 LF 1 SHADE TREE / 60 LF	A
PERIMETER 9 SFD TO SFD - 49.88 LF 1 SHADE TREE / 60 LF	A
<b>TOTAL PLANTING OBLIGATION</b>	
SHADE TREES	20
EVERGREEN TREES	15
SHRUBS	0

**SCHEDULE D : STORMWATER MANAGEMENT AREA LANDSCAPING**

LINEAR FEET OF PERIMETER	805 LF
CREDIT FOR EXISTING VEGETATION (NO, YES AND LINEAR FEET)	YES, 805 LF OF EXISTING TREES TO REMAIN
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	N/A
NUMBER OF TREES REQUIRED	0 SHADE TREES 0 EVERGREEN TREES
NUMBER OF TREES PROVIDED	0 SHADE TREES 0 EVERGREEN TREES 0 OTHER TREES (2:1 SUBSTITUTION)

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Decker* 4-16-99  
 CHIEF BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Hamilton* 4/27/99  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Chris Cummins* 4/21/99  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**DEVELOPER'S/OWNER'S CERTIFICATE**

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE IN ACCORDANCE TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE, AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

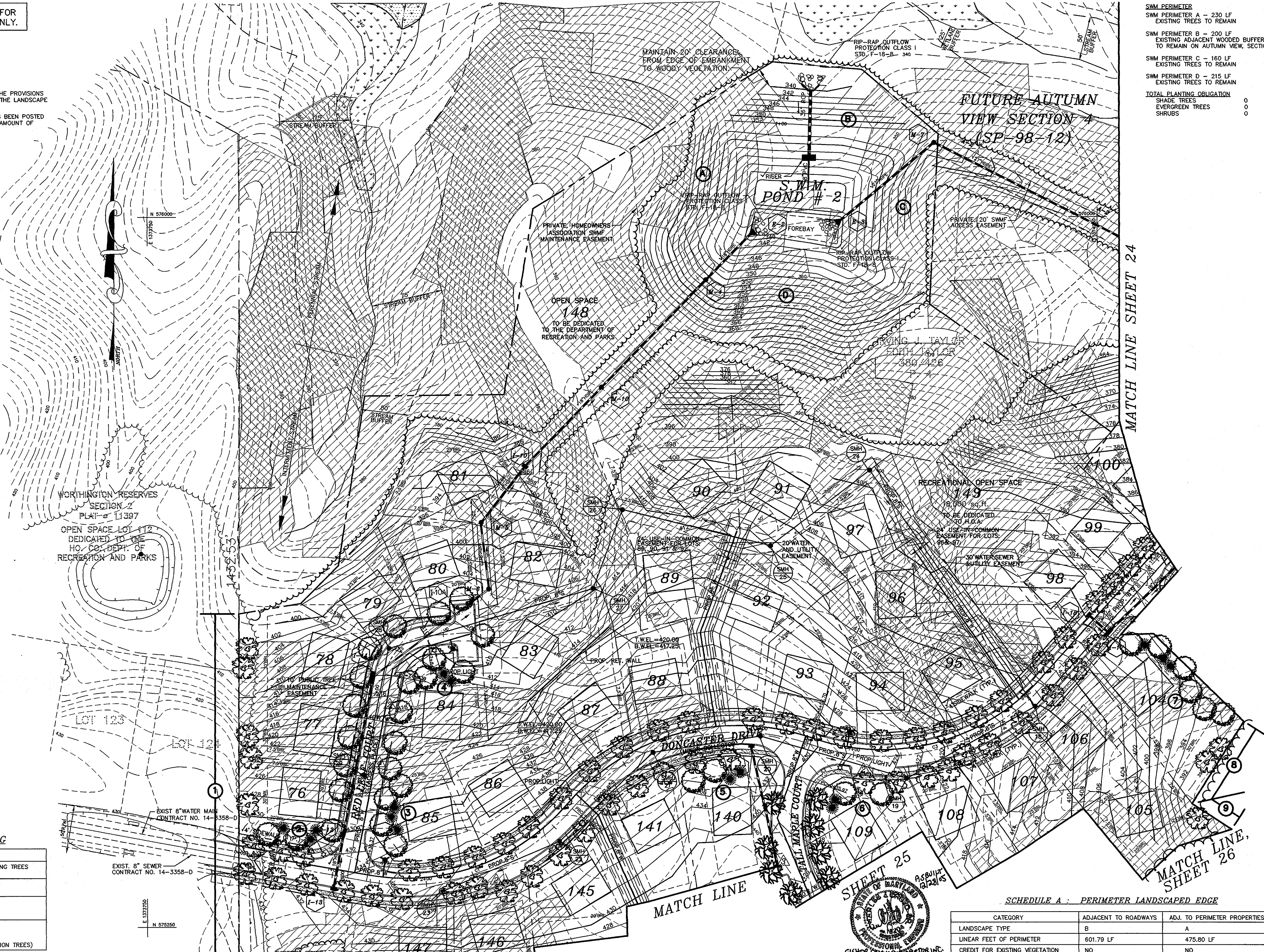
*[Signature]* 3/2/99  
 NAME DATE

**LANDSCAPE PLANTING SCHEDULE**

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
62		ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	1 1/2" - 2 1/2" CAL.
15		PINUS STROBUS	WHITE PINE	6" - 8" HT.
8		PYRUS CALLERYANA 'REDSPIRE'	REDSPIRE PEAR	1 1/2" - 2 1/2" CAL.
34		TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN	1 1/2" - 2 1/2" CAL.
<b>TOTAL</b>				
119 TREES				(84 STREET TREES, 20 SHADE TREES, & 15 EVERGREENS)

**SCHEDULE A : PERIMETER LANDSCAPED EDGE**

CATEGORY	ADJACENT TO ROADWAYS	ADJ. TO PERIMETER PROPERTIES
LANDSCAPE TYPE	B	A
LINEAR FEET OF PERIMETER	601.79 LF	475.80 LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO	NO
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	NO	NO
NUMBER OF PLANTS REQUIRED	12 SHADE TREES 15 EVERGREEN TREES 0 SHRUBS	8 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS
NUMBER OF PLANTS PROVIDED	12 SHADE TREES 15 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS	8 SHADE TREES 0 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS



**SWM PERIMETER**

SWM PERIMETER	EDGE TYPE
SWM PERIMETER A - 230 LF EXISTING TREES TO REMAIN	B
SWM PERIMETER B - 200 LF EXISTING ADJACENT WOODED BUFFER TO REMAIN ON AUTUMN VIEW, SECTION 4	B
SWM PERIMETER C - 160 LF EXISTING TREES TO REMAIN	B
SWM PERIMETER D - 215 LF EXISTING TREES TO REMAIN	B
<b>TOTAL PLANTING OBLIGATION</b>	
SHADE TREES	0
EVERGREEN TREES	0
SHRUBS	0

Project	date	description	revision
97015	FEB 1999	engineering	approval
97015	MAY/SID	scale	1"=50'

Project	date	description	revision
97015	11/05/03	CHANGE THE LOCATION OF 1" DIA. ANCHOR BOLTS TO ADD PAR. PARKING ALONG THE ROADS	1
97015	02/10/02		1

**LANDSCAPE PLAN**  
 AUTUMN VIEW, SECTION 3  
 LOTS: 76 - 151 & BULK PARCEL "A"  
 TAX MAP 31; PARCEL 5, 13 AND P/O 4 & 504  
 HOWARD COUNTY, MARYLAND  
 SECOND ELECTION DISTRICT

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Planners Surveyors  
 5072 Dorsey Hill Drive, Suite 202, Ellicott City, Maryland, 21042  
 (410) 987-0286, Fax: (410) 987-0288

NOTE: THIS DRAWING IS TO BE USED FOR LANDSCAPE PLAN PURPOSES ONLY.

**NOTES:**

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**STREET TREE CALCULATIONS**  
 DONCASTER DRIVE - 2675 / 40 = 67  
 HAZEL NUT LANE - 195 / 40 = 5  
 TOTAL TREES REQUIRED = 72 TREES  
 TOTAL TREES PROVIDED = 72 TREES

PERIMETER	EDGE TYPE
PERIMETER 10 SFD SIDE TO ROAD - 125.74 LF 1 SHADE TREE / 50 LF 3 1 EVERGREEN / 40 LF 3	B
PERIMETER 11 ROAD ENTRANCE - 40.91 LF SFD TO SFD - 165.89 LF 1 SHADE TREE / 60 LF 3	N/A A
<b>TOTAL PLANTING OBLIGATION</b> SHADE TREES 6 EVERGREEN TREES 3 SHRUBS 0	

**SCHEDULE A - PERIMETER LANDSCAPED EDGE**

CATEGORY	ADJACENT TO ROADWAYS	ADJ. TO PERIMETER PROPERTIES
LANDSCAPE TYPE	B	A
LINEAR FEET OF PERIMETER	125.74 LF	165.89 LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO	NO
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	NO	NO
NUMBER OF PLANTS REQUIRED		
SHADE TREES	3 SHADE TREES	3 SHADE TREES
EVERGREEN TREES	3 EVERGREEN TREES	0 EVERGREEN TREES
SHRUBS	0 SHRUBS	0 SHRUBS
NUMBER OF PLANTS PROVIDED		
SHADE TREES	3 SHADE TREES	3 SHADE TREES
EVERGREEN TREES	3 EVERGREEN TREES	0 EVERGREEN TREES
OTHER TREES (2:1 SUBSTITUTION)	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES
SHRUBS (10:1 SUBSTITUTION)	0 SHRUBS	0 SHRUBS

**DEVELOPER'S/OWNER'S CERTIFICATE**

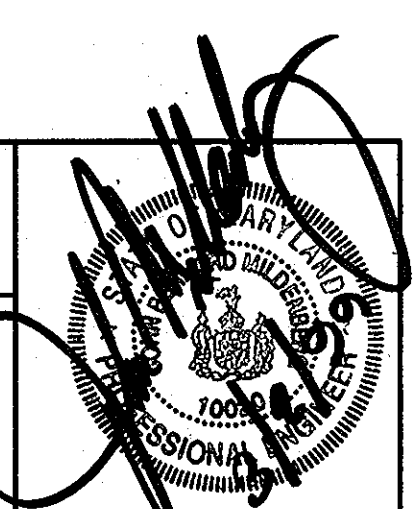
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE IN ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE, AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

NAME: Boender DATE: 3/2/99

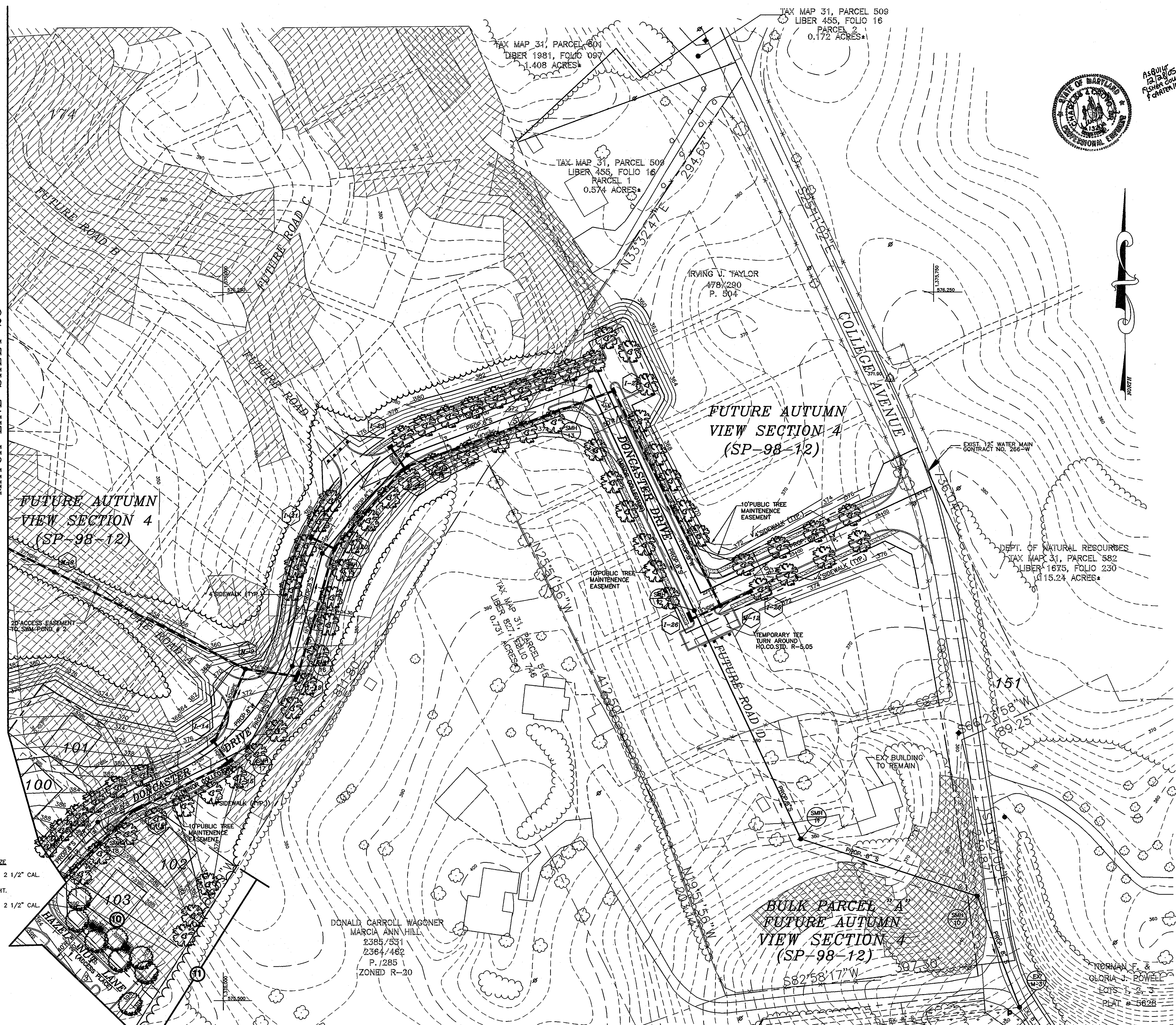
**LANDSCAPE PLANTING SCHEDULE**

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
70		ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	1 1/2" - 2 1/2" CAL.
3		PINUS STROBUS	WHITE PINE	6" - 8" HT.
8		TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN	1 1/2" - 2 1/2" CAL.
<b>TOTAL</b>				
81 TREES (72 STREET TREES, 6 SHADE TREES, & 3 EVERGREENS)				

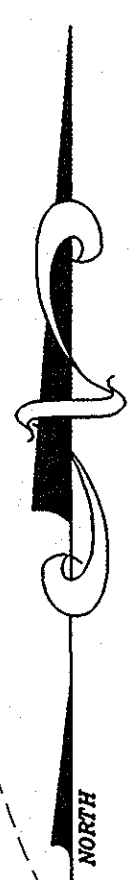
APPROVED: DEPARTMENT OF PUBLIC WORKS  
 Chief Bureau of Highways: W. Daniels 4/6/99  
 APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Chief, Division of Land Development: Condy Hamilton 4/27/99  
 Chief, Development Engineering Division: Allen Damman 4/21/99



MATCH LINE SHEET 23



MATCH LINE SHEET 26



Project	97015
date	FEB. 1999
illustration	MMP/S/D
scale	1" = 50'
revision	

no.		description	revisions	date

**LANDSCAPE PLAN**  
 AUTUMN VIEW, SECTION 3  
 LOTS: 76-151 & BULK PARCEL "A"  
 TAX MAP 31, PARCEL 5, 13 AND P/O 4 & 504  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Planners Surveyors  
 5072 Dorsy Hall Drive, Suite 202, Beltsville, Maryland, 21042  
 (410) 997-0296 Fax, (301) 621-5521 Wash. (410) 997-0298 Fax



NOTE: THIS DRAWING IS TO BE USED FOR LANDSCAPE PLAN PURPOSES ONLY.

SCHEDULE A: PERIMETER LANDSCAPED EDGE

CATEGORY	ADJ. TO PERIMETER PROPERTIES
LANDSCAPE TYPE	A
LINEAR FEET OF PERIMETER	1180.11 LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	YES, 1180.11 LF OF EX. TREES TO REMAIN
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	NO
NUMBER OF PLANTS REQUIRED	
SHADE TREES	0 SHADE TREES
EVERGREEN TREES	0 EVERGREEN TREES
SHRUBS	0 SHRUBS
NUMBER OF PLANTS PROVIDED	
SHADE TREES	0 SHADE TREES
EVERGREEN TREES	0 EVERGREEN TREES
OTHER TREES (2:1 SUBSTITUTION)	0 SUBSTITUTION TREES
SHRUBS (10:1 SUBSTITUTION)	0 SHRUBS

STREET TREE PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
28		PYRUS CALLERYANA 'REDSPIRE'	REDSPIRE PEAR	1 1/2" - 2 1/2" CAL.
TOTAL 28 STREET TREES				

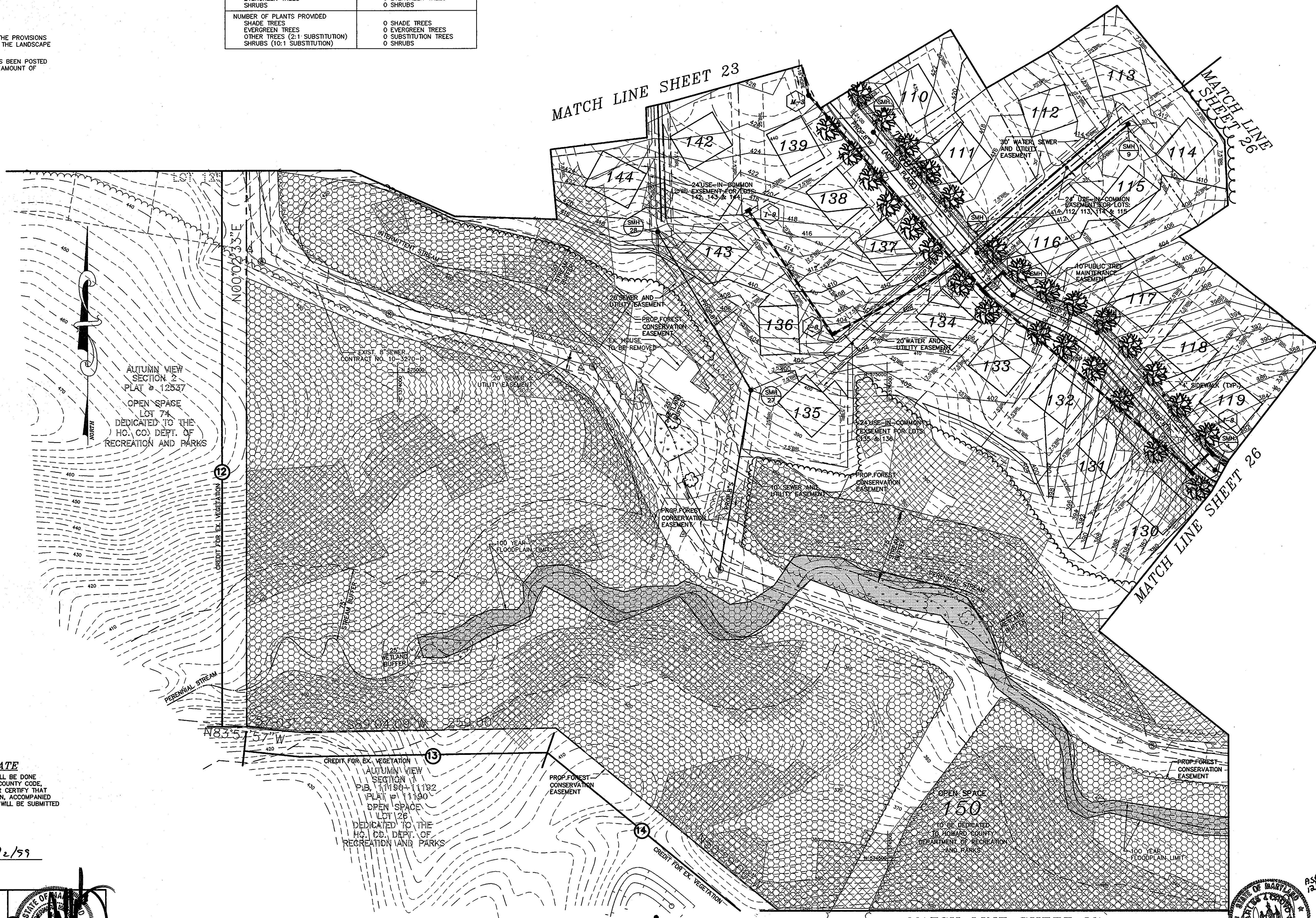
NOTES:

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STREET TREE CALCULATIONS

TALL MAPLE COURT - 1120 / 40 = 28  
 TOTAL TREES REQUIRED = 28 TREES  
 TOTAL TREES PROVIDED = 28 TREES

PERIMETER	EDGE TYPE
PERIMETER 12	A
OPEN SPACE TO SFD - 569.41 LF	
EXISTING TREES TO REMAIN	
PERIMETER 13	A
OPEN SPACE TO SFD - 316.03 LF	
EXISTING TREES TO REMAIN	
PERIMETER 14	A
OPEN SPACE TO SFD - 294.67 LF	
EXISTING TREES TO REMAIN	
TOTAL PLANTING OBLIGATION	
SHADE TREES	0
EVERGREEN TREES	0
SHRUBS	0



DEVELOPER'S/OWNER'S CERTIFICATE

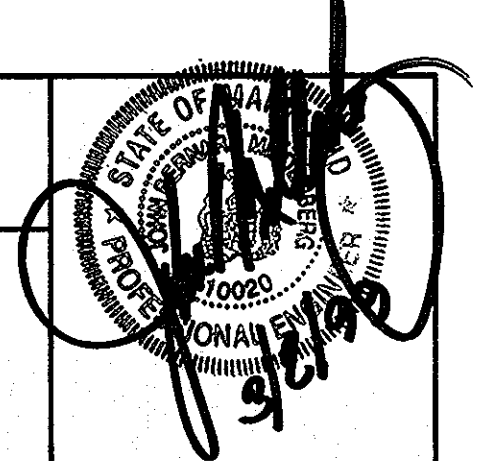
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NAME: ADP DATE: 3/2/99

APPROVED: DEPARTMENT OF PUBLIC WORKS  
Richard M. Daneker 4-16-99  
 CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Cindy Hamilton 4/27/99  
 CHIEF, DIVISION OF LAND DEVELOPMENT

Michael Damms 4/21/99  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION



Project	97015	date	FEB.1999
Illustration	MMP/SJD	engineering	97015
Scale	1"=50'	SJD	

Project	97015	date	FEB.1999
Illustration	MMP/SJD	engineering	97015
Scale	1"=50'	SJD	

AUTUMN VIEW, SECTION 3  
 LOTS: 76 - 151 & BULK PARCEL "A"  
 TAX MAP 31; PARCEL 5, 13 AND P/O 4 & 504  
 HOWARD COUNTY, MARYLAND  
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 LANDSCAPE PLAN

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**STREET TREE CALCULATIONS (THIS SHEET)**

TALL MAPLE COURT - 540 / 40 = 14  
 TOTAL TREES REQUIRED = 14 TREES  
 TOTAL TREES PROVIDED = 14 TREES

**SCHEDULE D: STORMWATER MANAGEMENT AREA LANDSCAPING**

LINEAR FEET OF PERIMETER	1170 LF
CREDIT FOR EXISTING VEGETATION (NO, YES AND LINEAR FEET)	YES, 530 LF
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	N/A
NUMBER OF TREES REQUIRED	13 SHADE TREES 16 EVERGREEN TREES
NUMBER OF TREES PROVIDED	13 SHADE TREES 16 EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION) 0 TREES (0 SUBSTITUTION TREES)

<b>PERIMETER</b>	<b>EDGE TYPE</b>
PERIMETER 15	
OPEN SPACE TO SFD - 698.97 LF	A
EXISTING TREES TO REMAIN	
SWM TO SFD - 500 LF	A
CREDIT FOR SWM LANDSCAPING	
PERIMETER 16	
OPEN SPACE TO SFD - 259.98 LF	B
EXISTING TREES TO REMAIN	

<b>SWM PERIMETER</b>	<b>EDGE TYPE</b>
SWM PERIMETER E - 500 LF	B
1 SHADE TREE / 50 LF	10
1 EVERGREEN / 40 LF	12
SWM PERIMETER F - 360 LF	B
EXISTING TREES TO REMAIN	
SWM PERIMETER G - 140 LF	B
1 SHADE TREE / 50 LF	3
1 EVERGREEN / 40 LF	4
SWM PERIMETER H - 170 LF	B
EXISTING TREES TO REMAIN	
<b>TOTAL PLANTING OBLIGATION</b>	
SHADE TREES	13
EVERGREEN TREES	16
SHRUBS	0

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*Bruce Taylor, P.E.* 3/29/99  
 NAME DATE

**SCHEDULE A: PERIMETER LANDSCAPED EDGE**

CATEGORY	ADJACENT TO ROADWAYS	ADJ. TO PERIMETER PROPERTIES
LANDSCAPE TYPE	B	A
LINEAR FEET OF PERIMETER	259.98 LF	1198.97 LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	YES, 259.98 LF OF EX. TREES TO REMAIN	YES, 698.97 LF OF EX. TREES TO REMAIN
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	NO	YES, 500 LF OF CREDIT FOR SWM LANDSCAPING
NUMBER OF PLANTS REQUIRED		
SHADE TREES	0 SHADE TREES	0 SHADE TREES
EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES
SHRUBS	0 SHRUBS	0 SHRUBS
NUMBER OF PLANTS PROVIDED		
SHADE TREES	0 SHADE TREES	0 SHADE TREES
EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES
OTHER TREES (2:1 SUBSTITUTION)	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES
SHRUBS (10:1 SUBSTITUTION)	0 SHRUBS	0 SHRUBS

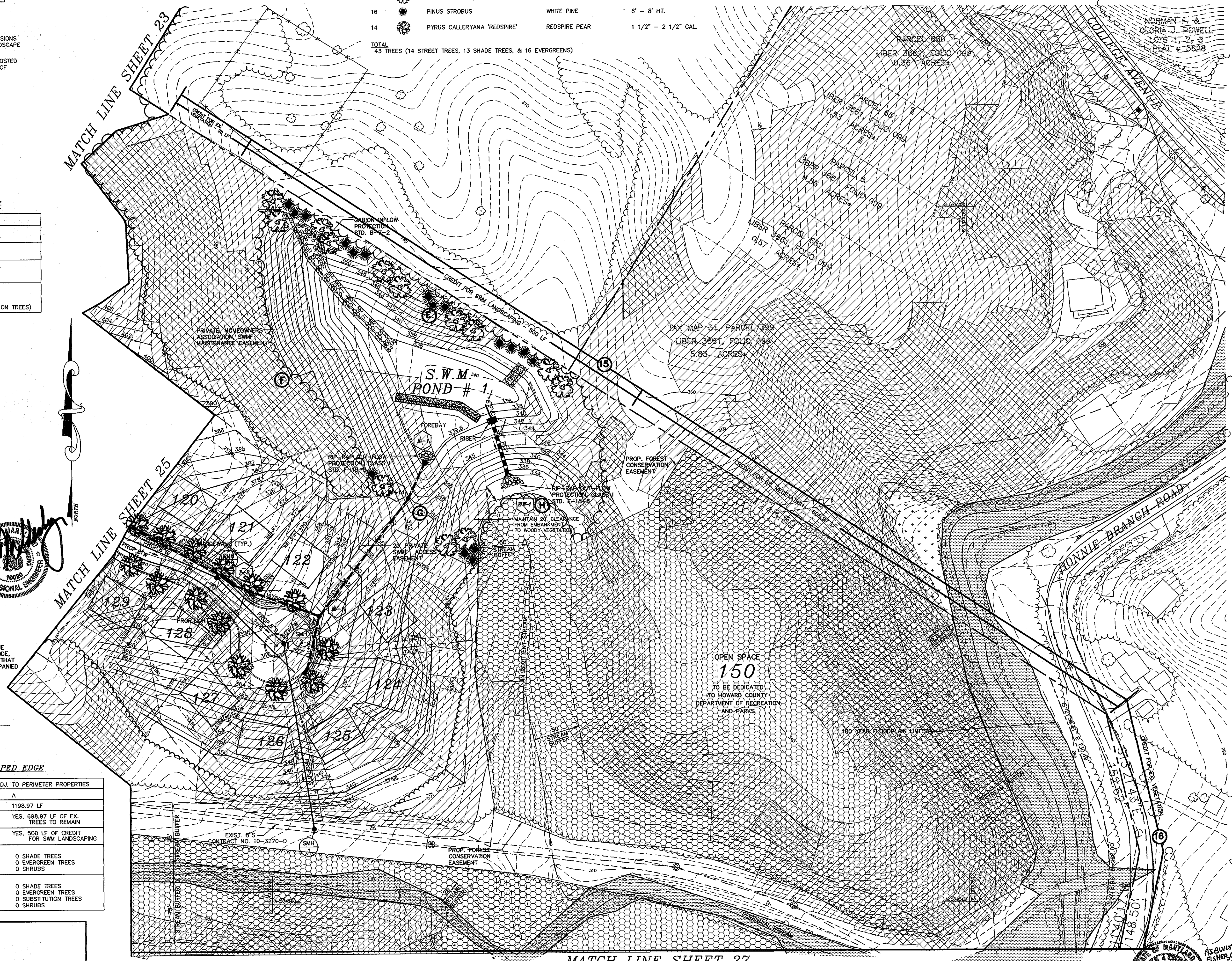
APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daniels* 4-16-99  
 CHIEF BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Hamilton* 4/27/99  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Chad Ramsey* 4/21/99  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**LANDSCAPE PLANTING SCHEDULE**

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
13		ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	1 1/2" - 2 1/2" CAL.
16		PINUS STROBUS	WHITE PINE	6' - 8' HT.
14		PYRUS CALLERYANA 'REDSPIRE'	REDSPIRE PEAR	1 1/2" - 2 1/2" CAL.
<b>TOTAL</b>				
43 TREES				(14 STREET TREES, 13 SHADE TREES, & 16 EVERGREENS)



project: 97015  
 date: FEB.1999  
 illustration: MJP/SJD  
 scale: 1"=50'  
 approval: [Signature]

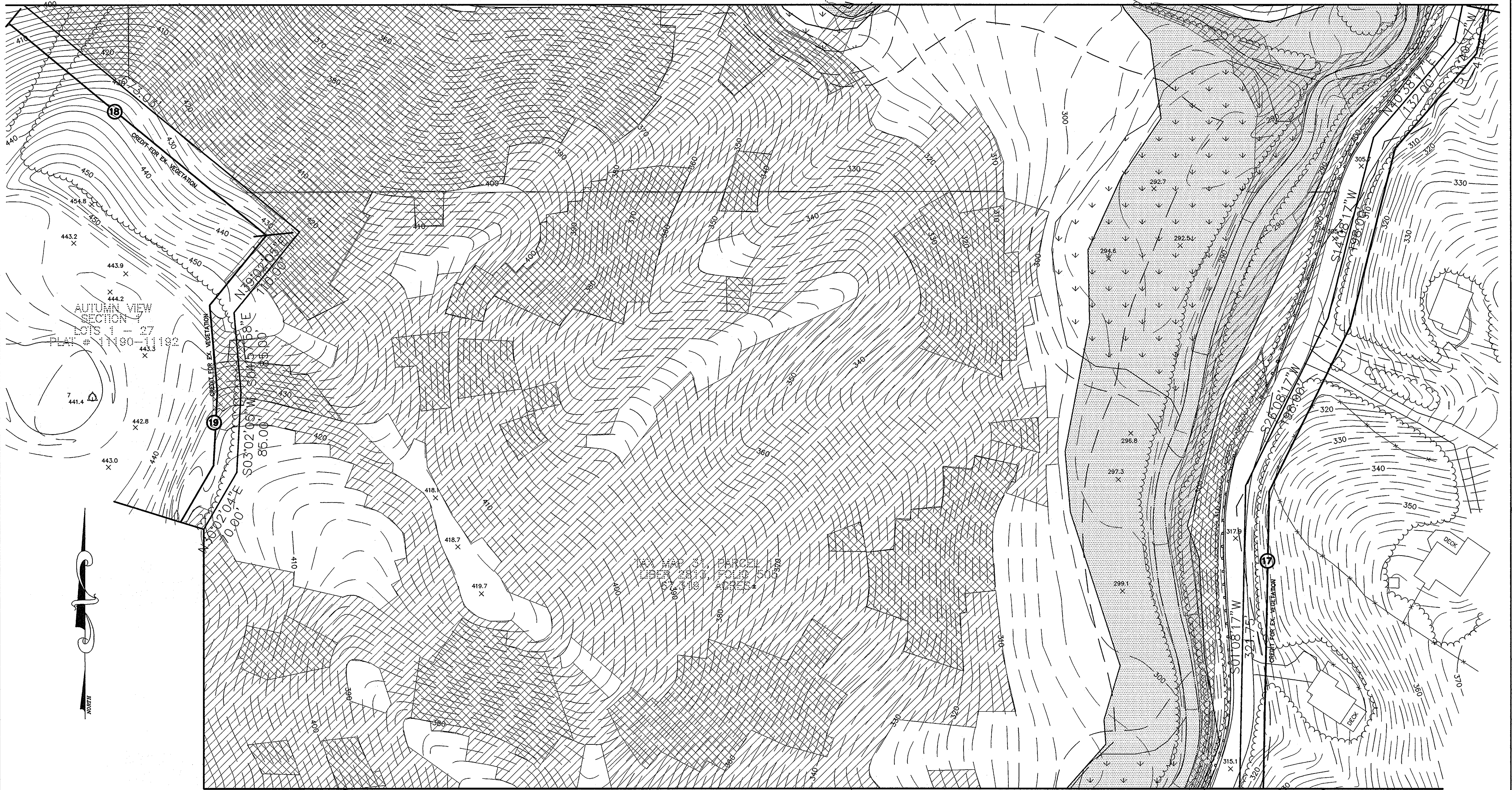
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 revisions: [ ]  
 date: [ ]

**AUTUMN VIEW, SECTION 3**  
 LOTS: 76 - 151 AND BULK PARCEL "A"  
 TAX MAP 31; PARCEL: 5, 13 AND P/O 4 & 504  
 HOWARD COUNTY, MARYLAND  
 SECOND ELECTION DISTRICT  
 LANDSCAPE PLAN

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Planners Surveyors  
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042  
 (410) 997-0286 Bldg. (301) 621-5521 Wash. (410) 997-0288 Fax

NOTE: THIS DRAWING IS TO BE USED FOR LANDSCAPE PLAN PURPOSES ONLY.

MATCH LINE SHEET 26



MATCH LINE SHEET 28

- NOTES:**
1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
  2. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$ 16,800.00 .

**DEVELOPER'S/OWNER'S CERTIFICATE**

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE IN ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE, AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

NAME Dzi DATE 3/2/99

PERIMETER	EDGE TYPE
PERIMETER 17 OPEN SPACE TO ROAD - 890.89 LF EXISTING TREES TO REMAIN	B
PERIMETER 18 OPEN SPACE TO SFD - 378.36 LF EXISTING TREES TO REMAIN	A
PERIMETER 19 OPEN SPACE TO SFD - 350 LF EXISTING TREES TO REMAIN	A
<b>TOTAL PLANTING OBLIGATION</b>	
SHADE TREES	0
EVERGREEN TREES	0
SHRUBS	0

**SCHEDULE A : PERIMETER LANDSCAPED EDGE**

CATEGORY	ADJACENT TO ROADWAYS	ADJ. TO PERIMETER PROPERTIES
LANDSCAPE TYPE	B	A
LINEAR FEET OF PERIMETER	890.89 LF	728.36 LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	YES, 890.89 LF OF EX. TREES TO REMAIN	YES, 728.36 LF OF EX. TREES TO REMAIN
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	NO	NO
NUMBER OF PLANTS REQUIRED		
SHADE TREES	0	0
EVERGREEN TREES	0	0
SHRUBS	0	0
NUMBER OF PLANTS PROVIDED		
SHADE TREES	0	0
EVERGREEN TREES	0	0
OTHER TREES (2:1 SUBSTITUTION)	0	0
SHRUBS (10:1 SUBSTITUTION)	0	0

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Panko* 4-16-99  
 CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Chris Hamilton* 4/27/99  
 CHIEF, DIVISION OF LAND DEVELOPMENT

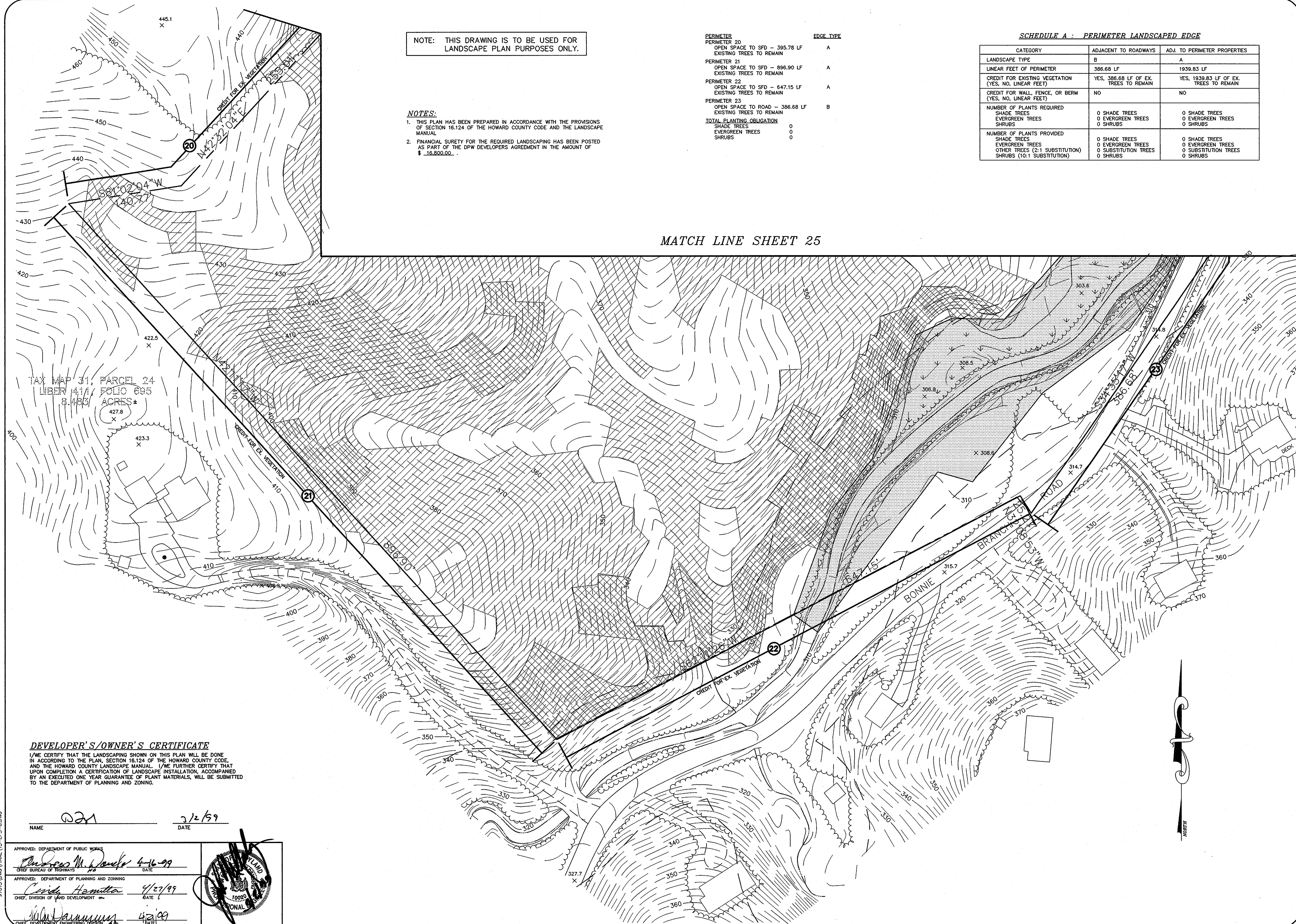
APPROVED: DEPARTMENT OF ENGINEERING  
*John Dammer* 4/21/99  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

Project	97015
date	FEB.1999
Illustration	engineering
MMP/SJD	SJD
scale	1"=50'

no.	description	revisions	date

**AUTUMN VIEW, SECTION 3**  
 LOTS: 76 - 151 AND BULK PARCEL "A"  
 TAX MAP 31; PARCEL: 5, 13 AND P/O 4 & 504  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 LANDSCAPE PLAN

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Planners Surveyors  
 5072 Dorsey Hill Drive, Suite 202, Ellicott City, Maryland, 21042  
 (410) 997-0296 Fax. (301) 821-5351 Wash. (410) 997-0298 Fax.



NOTE: THIS DRAWING IS TO BE USED FOR LANDSCAPE PLAN PURPOSES ONLY.

- NOTES:**
- 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 LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$ 16,800.00.

PERIMETER	EDGE TYPE
PERIMETER 20 OPEN SPACE TO SFD - 395.78 LF EXISTING TREES TO REMAIN	A
PERIMETER 21 OPEN SPACE TO SFD - 896.90 LF EXISTING TREES TO REMAIN	A
PERIMETER 22 OPEN SPACE TO SFD - 647.15 LF EXISTING TREES TO REMAIN	A
PERIMETER 23 OPEN SPACE TO ROAD - 386.68 LF EXISTING TREES TO REMAIN	B
<b>TOTAL PLANTING OBLIGATION</b>	
SHADE TREES	0
EVERGREEN TREES	0
SHRUBS	0

SCHEDULE A : PERIMETER LANDSCAPED EDGE		
CATEGORY	ADJACENT TO ROADWAYS	ADJ. TO PERIMETER PROPERTIES
LANDSCAPE TYPE	B	A
LINEAR FEET OF PERIMETER	386.68 LF	1939.83 LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	YES, 386.68 LF OF EX. TREES TO REMAIN	YES, 1939.83 LF OF EX. TREES TO REMAIN
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	NO	NO
NUMBER OF PLANTS REQUIRED		
SHADE TREES	0 SHADE TREES	0 SHADE TREES
EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES
SHRUBS	0 SHRUBS	0 SHRUBS
NUMBER OF PLANTS PROVIDED		
SHADE TREES	0 SHADE TREES	0 SHADE TREES
EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES
OTHER TREES (2:1 SUBSTITUTION)	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES
SHRUBS (10:1 SUBSTITUTION)	0 SHRUBS	0 SHRUBS

MATCH LINE SHEET 25

TAX MAP 31, PARCEL 24  
LIBERTY 4.17 ACRES ±  
FOLIO 095

**DEVELOPER'S/OWNER'S CERTIFICATE**  
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE IN ACCORDANCE TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

NAME: D2A DATE: 2/2/99

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Pando* 4-16-99  
 CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Hamilton* 4/20/99  
 CHIEF, DIVISION OF LAND DEVELOPMENT

*M. Jammy* 4-21-99  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION


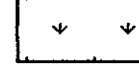



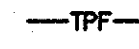

Project	date	description	revisions
97015	FEB.1999	illustration	1
		MMP/SID	1
		scale	1"=50'

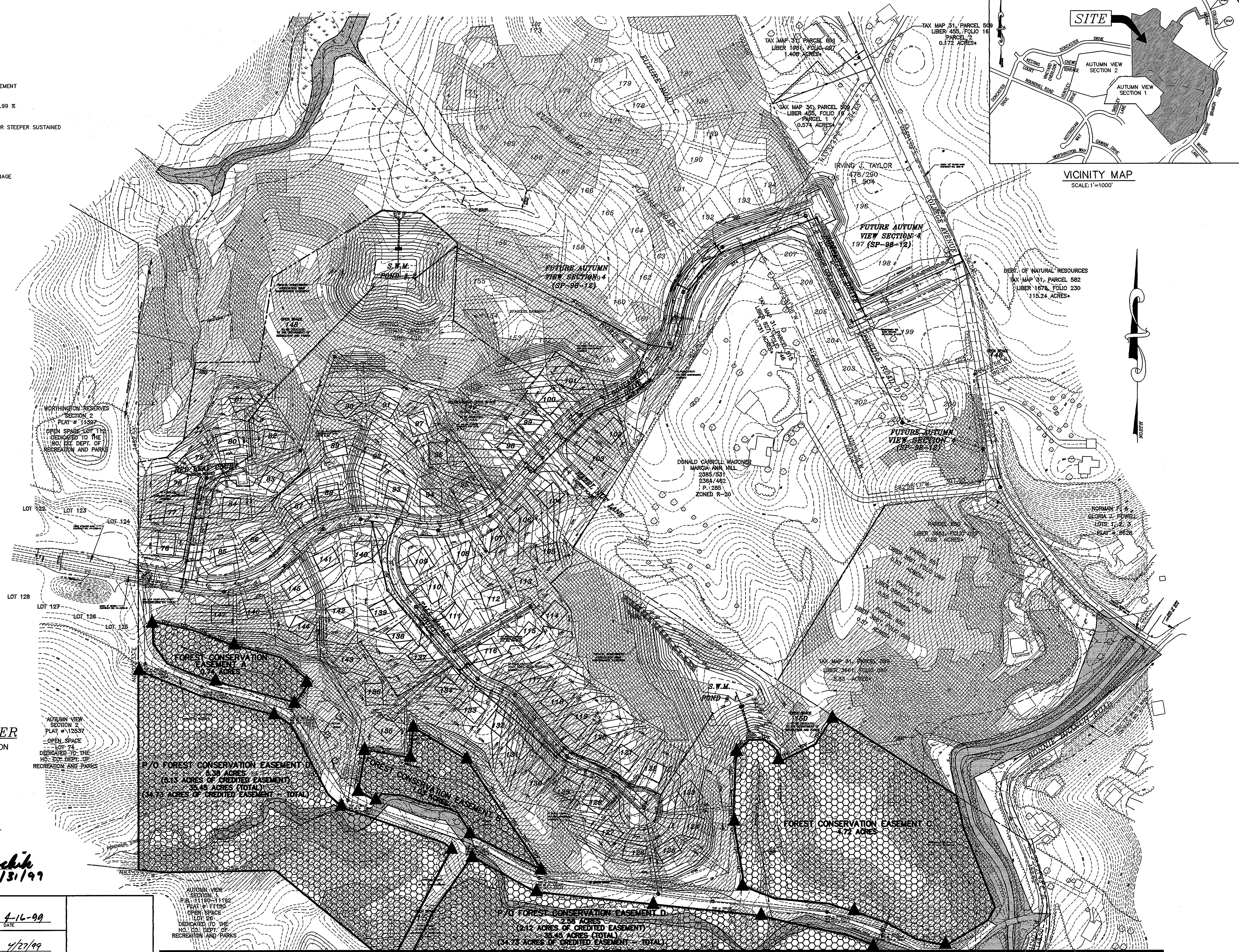
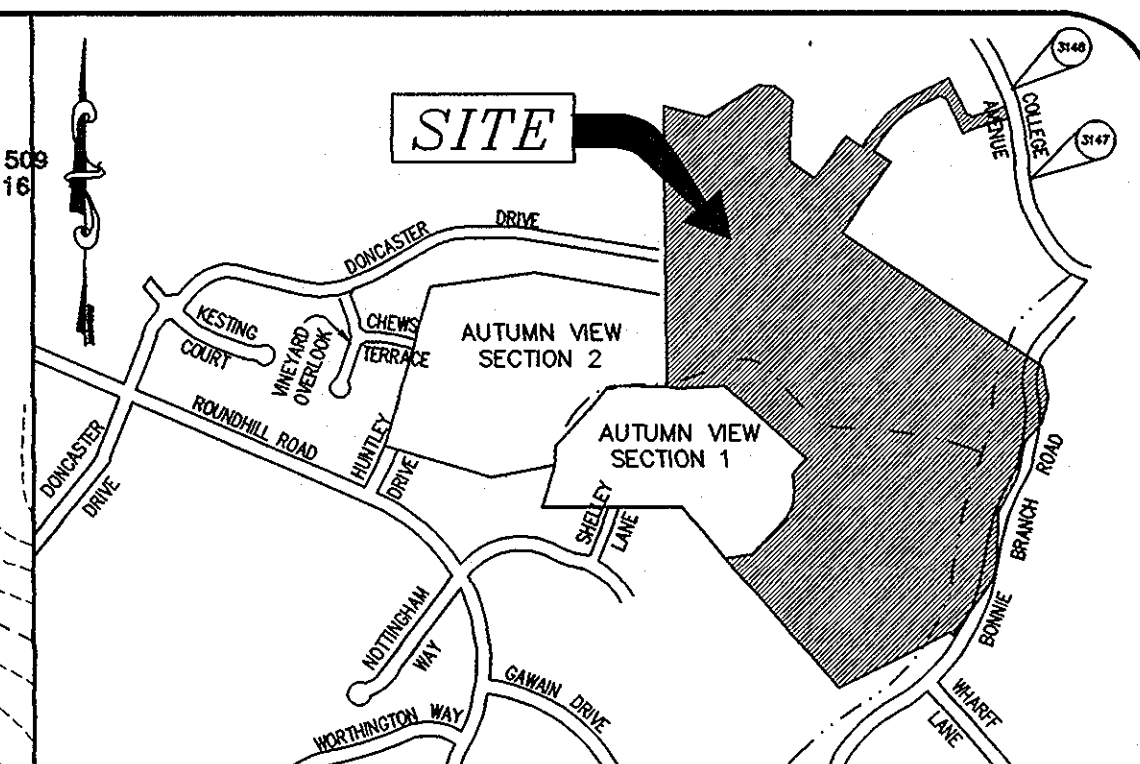
no.	date	description	revisions

**AUTUMN VIEW, SECTION 3**  
 LOTS: 76 - 151 AND BULK PARCEL "A"  
 TAX MAP 31, PARCEL 5, 13 AND P/O 4 & 504  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 LANDSCAPE PLAN


**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Planners Surveyors  
 5072 Dorssey Hall Drive, Suite 202, Ellicott City, Maryland, 21042  
 (410) 987-0288 Fax: (301) 621-5321 Wash. (410) 987-0288 Fax


**LEGEND**

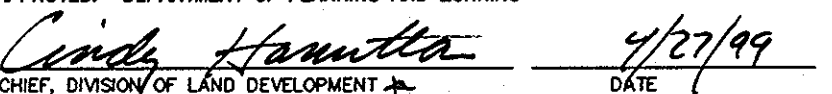
-  100 YEAR FLOODPLAIN
-  WETLANDS
-  FOREST CONSERVATION EASEMENT
-  DENOTES SLOPES OF 15-24.99 %
-  DENOTES SLOPES OF 25% OR STEEPER SUSTAINED FOR 10 VERTICAL FEET.
-  TREE PROTECTIVE FENCING
-  FOREST CONSERVATION SIGNAGE



**OWNER/DEVELOPER**  
 BONNIE BRANCH CORPORATION  
 P.O. BOX 396  
 ELLICOTT CITY, MD 21043

MD DNR QUALIFIED PROFESSIONAL  
  
 STEPHANIE DEMCHIK 3/31/99

APPROVED: DEPARTMENT OF PUBLIC WORKS  
  
 ANDREW M. DONOLO 4-16-99  
 CHIEF BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
  
 CINDY HAMILTON 4/27/99  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

  
 MATT HUMMER 4/21/99  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

AUTUMN VIEW SECTION 2  
 PLAT # 112537  
 OPEN SPACE LOT 74  
 DEDICATED TO THE HO. CO. DEPT. OF RECREATION AND PARKS

P/O FOREST CONSERVATION EASEMENT A  
 4.33 ACRES  
 (5.13 ACRES OF CREDITED EASEMENT)  
 35.45 ACRES (TOTAL)  
 (34.75 ACRES OF CREDITED EASEMENT - TOTAL)

P/O FOREST CONSERVATION EASEMENT D  
 2.47 ACRES  
 (2.47 ACRES OF CREDITED EASEMENT)  
 35.45 ACRES (TOTAL)  
 (34.75 ACRES OF CREDITED EASEMENT - TOTAL)

MATCH LINE SEE SHEET 30

project	97015	date	FEB.1999
illustration	MMP/SID	engineering	SID
scale	1"=100'	approval	

description	revisions	date

**AUTUMN VIEW, SECTION 3**  
 LOTS: 76 - 151 & BULK PARCEL "A"  
 TAX MAP 31, PARCEL 5, 13 AND P/O 4 & 504  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
**FOREST CONSERVATION PLAN**

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Planners Surveyors  
 5072 Dorsey Hill Drive, Suite 202, Ellicott City, Maryland, 21042  
 (410) 987-0288, Fax: (301) 821-5821, Wash. (410) 987-0288 Fax.

NOTE: THIS PLAN IS TO BE USED FOR FOREST CONSERVATION PURPOSES ONLY.

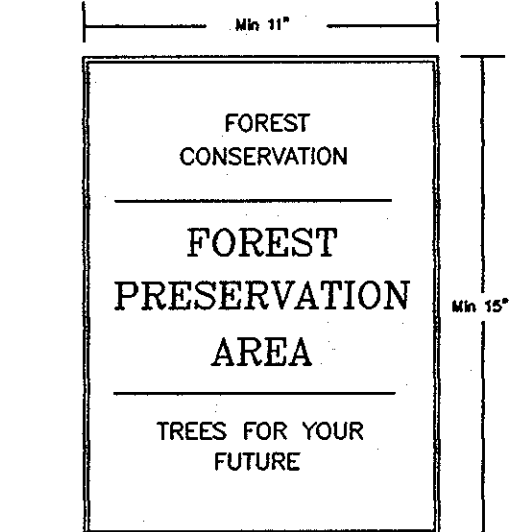
MATCHLINE SEE SHEET 29



AUTUMN VIEW SECTION  
LOTS 1 - 27  
PLAT # 11190-11192

FOREST CONSERVATION EASEMENT D  
27.48 ACRES (THIS SHEET)  
(27.48 ACRES OF CREDITED EASEMENT - THIS SHEET)  
35.45 ACRES (TOTAL)  
(34.73 ACRES OF CREDITED EASEMENT - TOTAL)

TAX MAP 31 PARCEL 204  
LIBER 411, FOLIO 865  
8.488 ACRES



SIGNAGE DETAIL  
NOT TO SCALE

**OWNER/DEVELOPER**  
BONNIE BRANCH CORPORATION  
P.O. BOX 396  
ELLCOTT CITY, MD 21043

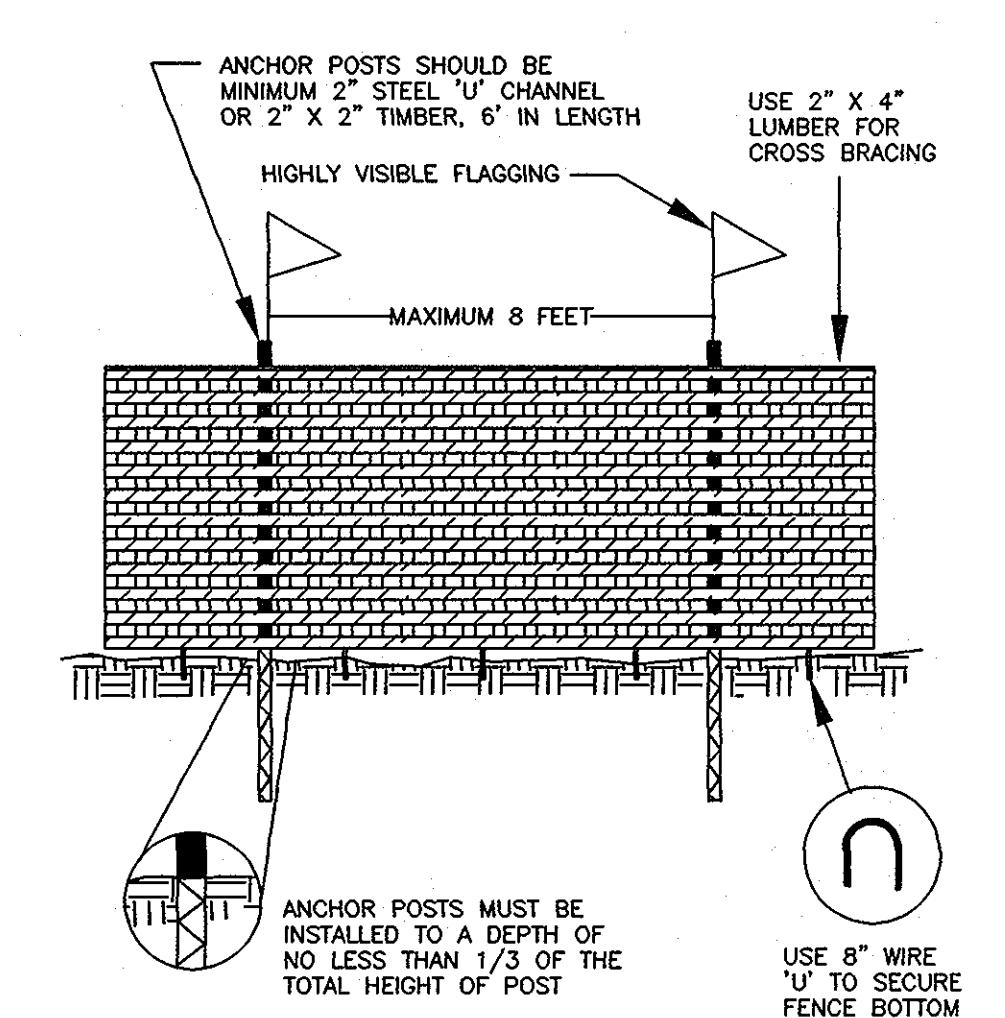
**LEGEND**

	100 YEAR FLOODPLAIN
	WETLANDS
	FOREST CONSERVATION EASEMENT
	DENOTES SLOPES OF 15-24.99 %
	DENOTES SLOPES OF 25% OR STEEPER SUSTAINED FOR 10 VERTICAL FEET.

**FOREST CONSERVATION DATA**

	ACRES
I. BASIC SITE DATA	
GROSS SITE AREA	82.33
AREA WITHIN 100 YEAR FLOODPLAIN	6.21
AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL	0.00
NET TRACT AREA	76.12
LAND USE CATEGORY	RESIDENTIAL (SUBURBAN)
II. FOREST CONSERVATION WORKSHEET DATA SUMMARY	
B. REFORESTATION THRESHOLD (20%)	15.22
C. AFFORESTATION MINIMUM (15%)	11.42
D. EXISTING FOREST ON NET TRACT AREA	71.75
E. FOREST AREAS TO BE CLEARED	30.53
F. FOREST AREAS TO BE RETAINED	41.22
IV. REFORESTATION CALCULATIONS	
G. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD	30.53
H. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD	0.00
I. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD	26.00
REFORESTATION FOR CLEARING ABOVE THRESHOLD	7.63
CREDIT FOR FOREST AREAS RETAINED ABOVE THRESHOLD	26.00
TOTAL REFORESTATION REQUIRED	0.00 (18.37 CREDIT)

**PROTECTIVE FENCE DETAIL**  
BLAZE ORANGE PLASTIC MESH



- NOTES
1. FOREST PROTECTION DEVICE ONLY.
  2. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
  3. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
  4. ROOT DAMAGE SHOULD BE AVOIDED.
  5. PROTECTIVE SIGNAGE MAY ALSO BE USED.
  6. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

MD DNR QUALIFIED PROFESSIONAL  
*Stephanie Demchik*  
STEPHANIE DEMCHIK 3/31/99

**GENERAL NOTES**

- FOREST PROTECTION**
1. ALL FOREST RETENTION AREAS SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED BLAZE ORANGE PLASTIC MESH FENCING AND SIGNAGE AS INDICATED ON THE PLANS. THE DEVICES SHALL BE INSTALLED ALONG THE FOREST RETENTION BOUNDARY PRIOR TO ANY LAND CLEARING, GRUBBING, OR GRADING ACTIVITIES.
  2. THE FOREST PROTECTION DEVICES SHALL BE INSTALLED SUCH THAT THE CRITICAL ROOT ZONES OF ALL TREES WITHIN THE RETENTION AREA NOT OTHERWISE PROTECTED WILL BE WITHIN FOREST PROTECTION DEVICES.
  3. ALL PROTECTION DEVICES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION, INCLUDING SILT FENCE BEING USED AS PROTECTIVE FENCING. ALL DEVICES SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION HAS CEASED IN THE IMMEDIATE VICINITY.
  4. ATTACHMENT OF SIGNS, OR ANY OTHER OBJECTS TO TREES IS PROHIBITED. NO EQUIPMENT, MACHINERY, VEHICLES, MATERIALS OR EXCESSIVE PEDESTRIAN TRAFFIC SHALL BE ALLOWED WITHIN THESE PROTECTED AREAS.
  5. INSTALLATION AND MAINTENANCE OF PROTECTIVE FENCING AND SIGNAGE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL TAKE THE UTMOST CARE TO PROTECT TREE ROOT SYSTEMS DURING ALL CONSTRUCTION ACTIVITIES. TREE ROOT SYSTEMS SHALL BE PROTECTED FROM SMOTHERING, FLOODING, EXCESSIVE WETTING FROM DE-WATERING OPERATIONS, OFF-SITE RUN OFF, SPILLAGE AND DRAINING OF MATERIALS THAT MAY BE HARMFUL TO TREES.
  6. THE GENERAL CONTRACTOR SHALL PREVENT PARKING OF CONSTRUCTION VEHICLES AND EQUIPMENT, AND THE STORING OF BUILDING SUPPLIES OR STOCKPILING OF EARTH WITHIN FOREST CONSERVATION EASEMENTS.
  7. REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION AREA SHALL BE PROHIBITED.
  8. THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST CONSERVATION EASEMENTS. ROOT PRUNING SHALL BE USED AT THE LIMIT OF DISTURBANCE OR LIMIT OF GRADING WITHIN AND ADJACENT TO ALL PRESERVATION AREAS, AS NECESSARY.

**PRE-CONSTRUCTION MEETING**

1. AFTER THE BOUNDARIES OF THE FOREST RETENTION AREAS HAVE BEEN FIELD LOCATED AND MARKED AND AFTER THE FOREST PROTECTION DEVICES HAVE BEEN INSTALLED, BUT BEFORE ANY OTHER DISTURBANCE HAS TAKEN PLACE ON SITE, A PRE-CONSTRUCTION MEETING SHALL TAKE PLACE ON SITE. THE DEVELOPER, CONTRACTOR OR PROJECT MANAGER, AND HOWARD COUNTY INSPECTORS SHALL ATTEND. THE PURPOSE OF THIS MEETING WILL BE:
  - A. TO IDENTIFY THE LOCATIONS OF THE FOREST RETENTION AREAS, SPECIMEN TREES WITHIN 50 FEET OF THE LIMIT OF DISTURBANCE, LIMITS OF CONSTRUCTION, EMPLOYEE PARKING AREAS AND EQUIPMENT STAGING AREAS;
  - B. INSPECT ALL FLAGGED BOUNDARIES AND PROTECTION DEVICES;
  - C. MAKE ALL NECESSARY ADJUSTMENTS;
  - D. ASSIGN RESPONSIBILITIES AS APPROPRIATE AND DISCUSS PENALTIES.

**CONSTRUCTION MONITORING**

1. THE SITE SHALL BE INSPECTED PERIODICALLY DURING THE CONSTRUCTION PHASE OF THE PROJECT. A QUALIFIED PROFESSIONAL SHALL BE RESPONSIBLE FOR IDENTIFYING DAMAGE TO PROTECTED FOREST AREAS OR INDIVIDUAL TREES WHICH MAY HAVE BEEN CAUSED BY CONSTRUCTION ACTIVITIES, SUCH AS SOIL COMPACTION, ROOT INJURY, TRUNK WOUNDS, LIMB INJURY, OR STRESS CAUSED BY FLOODING OR DROUGHT CONDITIONS. ANY SUCH DAMAGE THAT MAY OCCUR SHALL BE REMEDIATED IMMEDIATELY USING APPROPRIATE MEASURES. SEVERE PROBLEMS MAY REQUIRE CONSULTATION WITH A PROFESSIONAL ARBORIST.
2. THE CONSTRUCTION PROCEDURE SHALL NOT DAMAGE AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE AS DESIGNATED ON THE PLANS. ANY DAMAGE SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE AND TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

**NOTE :**

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENTS EXCEPT AS PERMITTED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, SOIL COMPACTION, OR EXCAVATION, INTRODUCTION OF TOXIC CHEMICALS OR OTHER DISTURBANCES DETRIMENTAL TO THE LIVE SPECIMEN TREES OR CRITICAL ROOT ZONES FOR THESE TREES EXCEPT AS PERMITTED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.

FOR FOREST STAND DELINEATION INFORMATION, SEE PLAN PREPARED BY CHESAPEAKE ENVIRONMENTAL, INC.

Project	97015	date	FEB 1999
Illustration	MMP/SJD	engineering	SJD
scale	1"=100'	approval	

no.	description	date

**AUTUMN VIEW, SECTION 3**  
LOTS: 76 - 151 & BULK PARCEL "A"  
TAX MAP 31; PARCEL 5, 13 AND P/O 4 & 504  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
FOREST CONSERVATION PLAN

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
5072 Dorsy Hill Drive, Suite 202, Ellicott City, Maryland 21042  
(410) 987-0298, Fax (410) 987-0298, Wash. (301) 821-5821 Wash. (410) 987-0298, Fax