

# SHEET INDEX

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## OWNER/DEVELOPER

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

### BY THE DEVELOPER:

I, THE DEVELOPER, CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH 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* 12/6/01  
SIGNATURE OF DEVELOPER DATE  
*Bruce Taylor, Pres*  
PRINTED NAME OF DEVELOPER

### BY THE ENGINEER:

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL, REPRESENTS A SOUND AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE AND THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTICED THE DEVELOPER'S COMPLIANCE WITH THE HOWARD SOIL CONSERVATION DISTRICT'S REQUIREMENTS AND PROVIDE THE "HOWARD SOIL CONSERVATION DISTRICT" WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

*Jonie M. Williams* 12/6/01  
SIGNATURE OF ENGINEER DATE  
*Jonie M. Williams*  
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.

*Jim Hopkins* 12/18/01  
USDA - NATURAL RESOURCES CONSERVATION SERVICE DATE

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

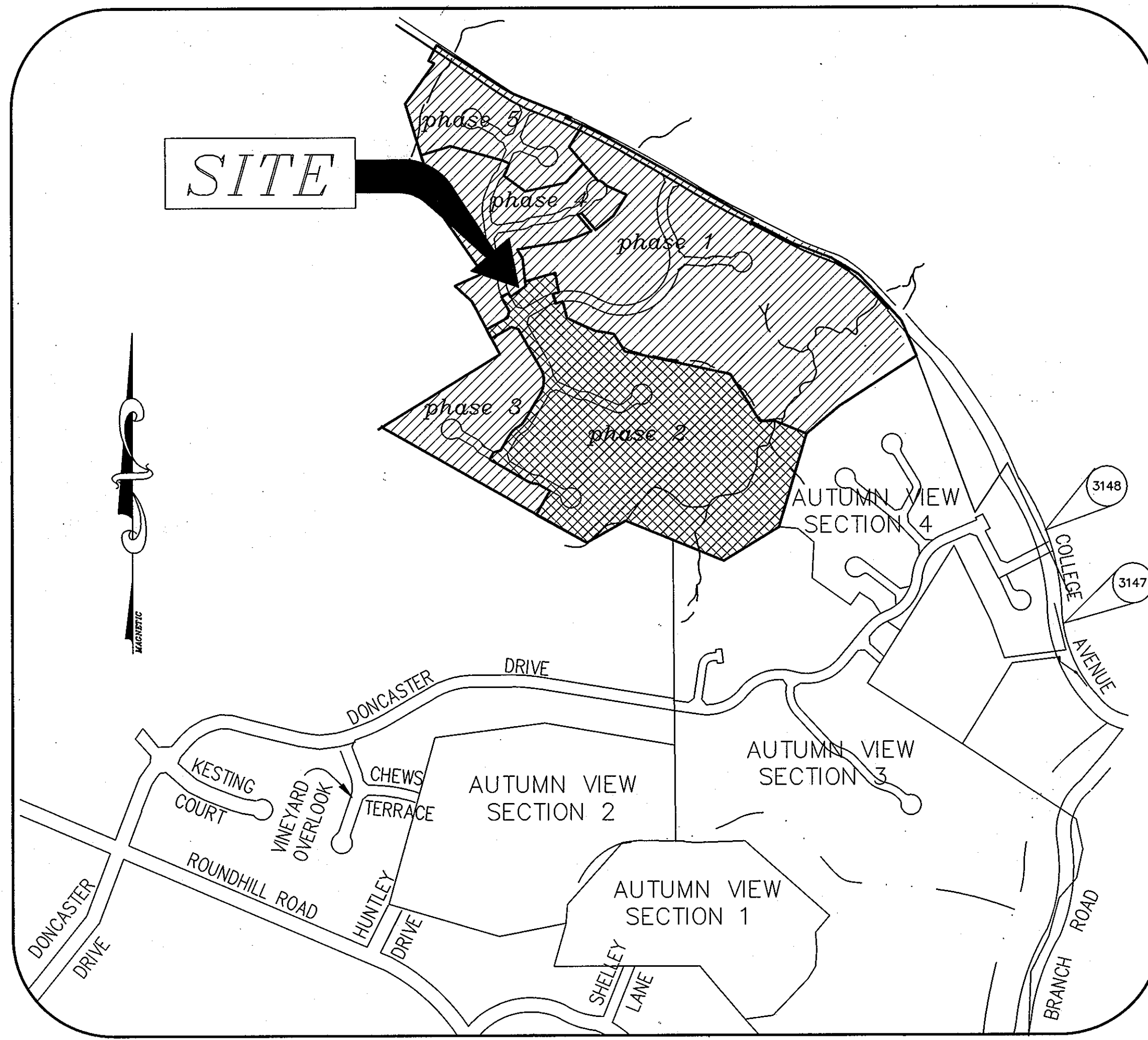
*Jim Hopkins* 12/18/01  
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Robert W. Ruck* 1-10-02  
CHIEF BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Carole Hamrick* 1/23/02  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*John J. ...* 12/24/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

# ROAD CONSTRUCTION PLANS AUTUMN VIEW SECTION 5, PHASE 2 LOT 260 THRU 300 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND



## VICINITY MAP

SCALE: 1"=500'

AREA OF BULK PARCEL "A": 4.32 AC ±  
\*GROSS AREA OF PHASE 4 (INCLUDING PARCEL "A"): 23.41 AC ±

SECTION 5 SUMMARY  
TOTAL NUMBER OF BUILDABLE LOTS/UNITS ALLOWED: 178  
TOTAL NUMBER OF BUILDABLE LOTS/UNITS - PHASE 1-ALLOWED: 46  
TOTAL NUMBER OF BUILDABLE LOTS/UNITS - PHASE 1-PROPOSED: 46  
TOTAL NUMBER OF BUILDABLE LOTS/UNITS REMAIN: 132

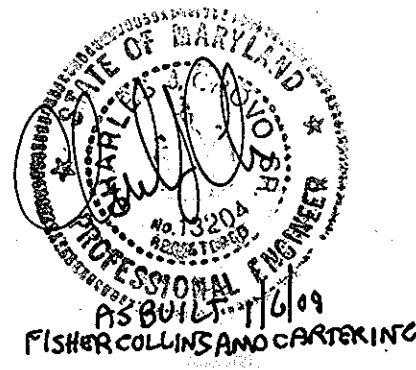
\*\*CREDIT OF 10,000 S.F. OF RECREATIONAL OPEN SPACE MAY BE APPLIED TO FUTURE PHASES OF SECTION 5.

## 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) 313-4900
  - AT&T CABLE LOCATION DIVISION (410) 393-3533
  - 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: TAX MAP 25 & 31, P/O PARCEL 75
  - ZONING: R-ED
  - ELECTION DISTRICT: 2ND
  - SECTION: 5
  - PHASE: 2
  - DPZ FILES: S-99-01 APPROVED 7/1/99, PB 329; P-00-09 APPROVED 5/14/00
- TOPOGRAPHIC INFORMATION ARE BASED ON AERIAL TOPOGRAPHIC SURVEY BY WINGS AERIAL MAPPING CO., INC. FLOWN ON MARCH 25, 1995. VERTICAL DATUM IS NAD 83.
- COORDINATES BASED ON NAD 83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 3147 AND 3148.
  - ✓ STA. 3147 N575598.0784, E137581.7884, EL. 335.987
  - ✓ STA. 3148 N575015.4313, E1375770.4364, EL. 379.248
- BOUNDARY INFORMATION IS BASED ON MONUMENTED FIELD RUN SURVEY BY MILDENBERG, BOENDER AND ASSOC., INC. PERFORMED IN OR ABOUT MAY, 2000.
- 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.
- HOUSES NOT CONTROLLED BY THE SWM PONDS TO HAVE DRY WELLS AT SDP STAGE. SEE DETAIL ON SHEET 8 OF 19.
- WETLANDS AND STREAM DELINEATION IS BY WILDMAN ENVIRONMENTAL SERVICES. DATED OCTOBER 1998.
- FLOODPLAIN STUDY PERFORMED BY MILDENBERG, BOENDER & ASSOC., INC. IN OCTOBER 1999.
- GEOTECHNICAL REPORT PREPARED BY HILLIS-CARNES ENGINEERING ASSOC. INC. IN OCTOBER 1999.
- DEED REFERENCE: P/O PARCEL 75, L. 5105 F. 652.
- NO CEMETERIES OR HISTORIC STRUCTURES EXIST ON SITE.
- ALL EXISTING STRUCTURES AND DRIVEWAYS ARE TO BE REMOVED UNLESS OTHERWISE NOTED.
- TRAFFIC STUDY BY TRAFFIC GROUP, DATED JUNE 4, 1998. APPROVED AUGUST 20, 1999.
- PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. WATER AND SEWER ARE PUBLIC WATER CONTRACT NO. 266-W. SEWER PROVIDED VIA PROPOSED PUMP STATION.
- PROPOSED WATER AND SEWER ARE PUBLIC, CONTRACT # 14-3859-D.
- P.B. CASE NO. 329, APPROVED ON JULY 1, 1999; PB 354 APPROVED ON 01/10/02.
- ALL LOTS WILL HAVE A MINIMUM OF 2 ON-SITE PARKING SPACES. NO STREET PARKING SPACES ARE REQUIRED.
- FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1202 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL HAVE BEEN SATISFIED BY PLACEMENT OF A TOTAL OF 62.67 ACRES IN A FOREST CONSERVATION EASEMENT (41.22 ACRES OF RETENTION UNDER AUTUMN VIEW, SECTION 3 (F-99-45), 7.59 ACRES OF RETENTION UNDER AUTUMN VIEW, SECTION 5, PHASE 1 (F-01-23), AND 13.96 ACRES OF RETENTION UNDER AUTUMN VIEW, SECTION 5, PHASE 2 (F-01-38)). 50.13 ACRES OF WHICH IS THE REQUIRED BREAK EVEN POINT FOR THE ACRES OF AUTUMN VIEW, SECTIONS 3, 4, AND 5 (PHASE 1 & 2). THE REMAINING 12.54 ACRES IS TO BE CREDITED TOWARD THE FUTURE PHASES OF AUTUMN VIEW, SECTION 5.
- 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.
- 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.
- ALL STORM DRAIN PIPES TO BE HDPE PIPES UNLESS OTHERWISE NOTED.
- ALL DRIVEWAYS ENTRANCES TO BE H.C.STD. R-6.03 UNLESS OTHERWISE NOTED.
- NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE WETLANDS, WETLANDS BUFFER, FLOODPLAIN, FOREST CONSERVATION EASEMENTS, OR STREAM BUFFER AREAS EXCEPT AS SHOWN ON APPROVED PLANS.
- 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 2993) 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 TRADITIONAIRE POST TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE AT WINDING ROSS WAY, STA. 0+25 OFFSET 26' RIGHT; STA. 6+25, OFFSET 15' LEFT; AT PLEASANT PATH STA. 3+55, OFFSET 14' RIGHT, L.P. STA. 1+74, OFFSET 3' AND AT EDGEHILL LANE STA. 0+06 OFFSET 13' RIGHT, L.P. STA. 1+16 OFFSET 3'.

## AREA TABULATION:

	EXISTING SECTION 3	SECTION 4	SECTION 5	SECTION 3, 4 & 5	SECTION 5 PHASE 1	SECTION 5 PHASE 2
GROSS AREA:	87.39 AC ±	19.08 AC ±	84.91 AC ±	191.38 AC ±	31.15 AC ±	29.87 AC ±
AREA OF STEEP SLOPES:	13.20 AC ±	2.05 AC ±	11.44 AC ±	26.69 AC ±	6.28 AC ±	5.16 AC ±
AREA OF FLOODPLAIN:	6.19 AC ±	0	2.03 AC ±	8.22 AC ±	0.90 AC ±	0.67 AC ±
NET AREA:	68.00 AC ±	17.03 AC ±	71.44 AC ±	156.47 AC ±	23.97 AC ±	24.04 AC ±
AREA OF PROPOSED BUILDABLE LOTS SFD:	16.46 AC ±	14.39 AC ±	32.64 AC ±	63.49 AC ±	9.93 AC ±	7.26 AC ±
AREA OF PROPOSED BUILDABLE LOTS SFA:	0	0	1.12 AC ±	1.12 AC ±	0	0
TOTAL AREA OF PROPOSED BUILDABLE LOTS:	16.46 AC ±	14.39 AC ±	33.76 AC ±	64.61 AC ±	9.93 AC ±	7.26 AC ±
AREA OF PROPOSED ROAD (R/W):	6.11 AC ±	2.12 AC ±	7.82 AC ±	16.05 AC ±	2.75 AC ±	2.51 AC ±
REQUIRED OPEN SPACE (25% OF GROSS AREA):	21.85 AC ±	4.77 AC ±	21.23 AC ±	47.85 AC ±	7.88 AC ±	7.47 AC ±
PROVIDED OPEN SPACE:	60.50 AC ±	6.89 AC ±	41.67 AC ±	109.06 AC ±	18.47 AC ±	20.10 AC ±
NON CREDITED OPEN SPACE:	0.06 AC ±	0.08 AC ±	0.20 AC ±	0.34 AC ±	0.09 AC ±	0.06 AC ±
CREDITED OPEN SPACE:	60.44 AC ±	6.79 AC ±	41.47 AC ±	108.54 AC ±	18.38 AC ±	20.04 AC ±
REQUIRED RECREATIONAL OPEN SPACE (250 S.F. PER LOT):	18,000 S.F.	14,250 S.F.	44,500 S.F.	76,750 S.F.	11,500 S.F.	9,500 S.F.
PROVIDED RECREATIONAL OPEN SPACE:	18,000 S.F.	14,250 S.F.	44,500 S.F.	76,750 S.F.	11,500 S.F.	9,500 S.F.
NUMBER OF PROPOSED BUILDABLE LOTS (SFD):	136	34	142	312	48	48
NUMBER OF BUILDABLE LOTS ALLOWED (NET AREA x 2):	72	56	146	284	46	38
NUMBER OF PROPOSED BUILDABLE LOTS (SFA):	0	0	22	22	0	0
NUMBER OF PROPOSED BUILDABLE LOTS:	72	56	178	306	46	38
NUMBER OF PROPOSED OPEN SPACE LOTS:	4	3	7	14	3	0
NUMBER OF BULK PARCELS:	1	0	0	1	0	0
TOTAL NUMBER OF PROPOSED LOTS:	76	59	185	320	49	41

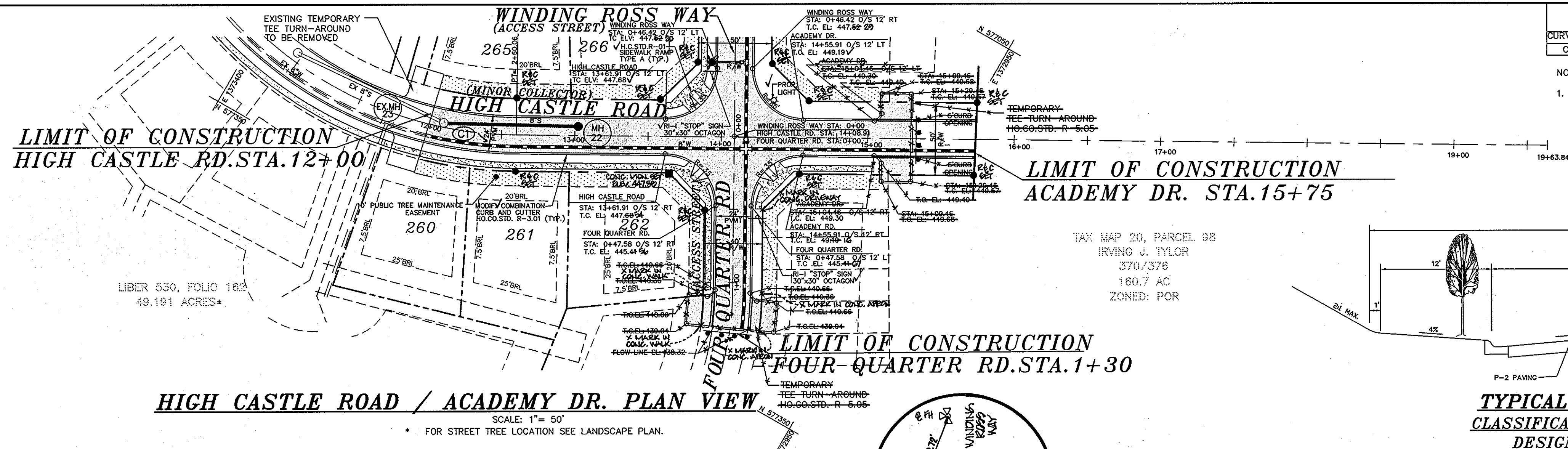
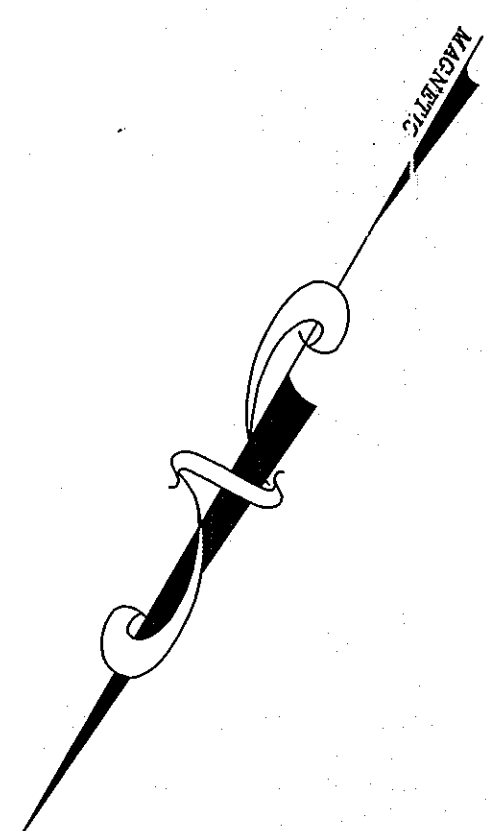


Project	99072	date	DEC. 2001
Illustration	MMP	engineering	MMP
scale	MMP	approval	AS SHOWN
revision			

Project	99072	date	11/17/02
Illustration	MMP	engineering	MMP
scale	MMP	approval	AS SHOWN
revision			

AUTUMN VIEW, SECTION 5, PHASE 2  
 LOTS: 260-300  
 TAX MAP 25 & 31, P/O PARCEL 75  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 COVER SHEET

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



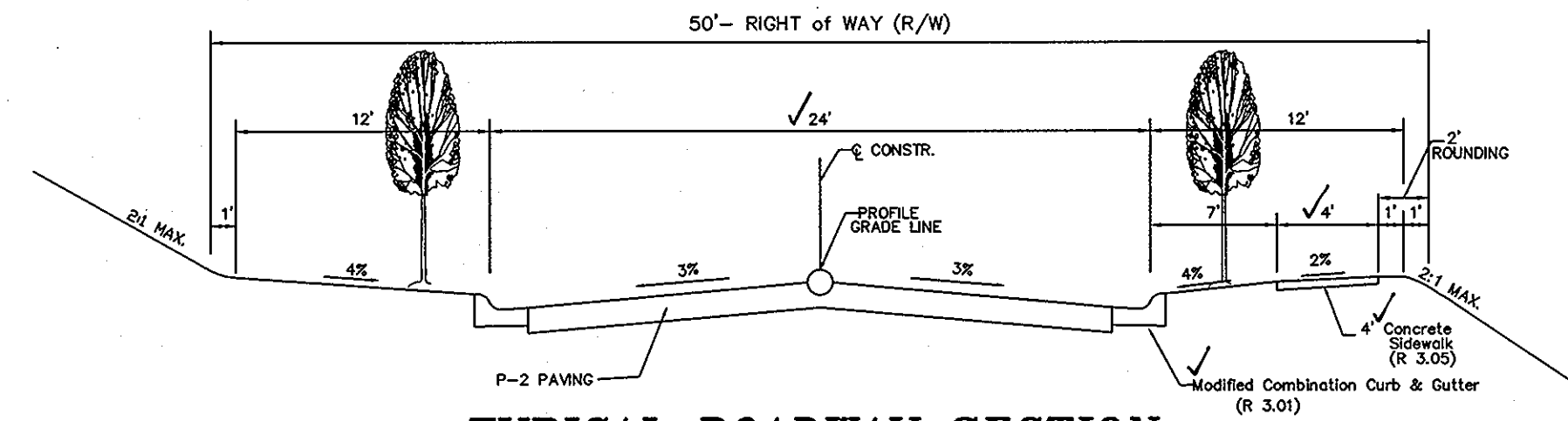
**HIGH CASTLE ROAD / ACADEMY DR. PLAN VIEW**

SCALE: 1" = 50'  
FOR STREET TREE LOCATION SEE LANDSCAPE PLAN.

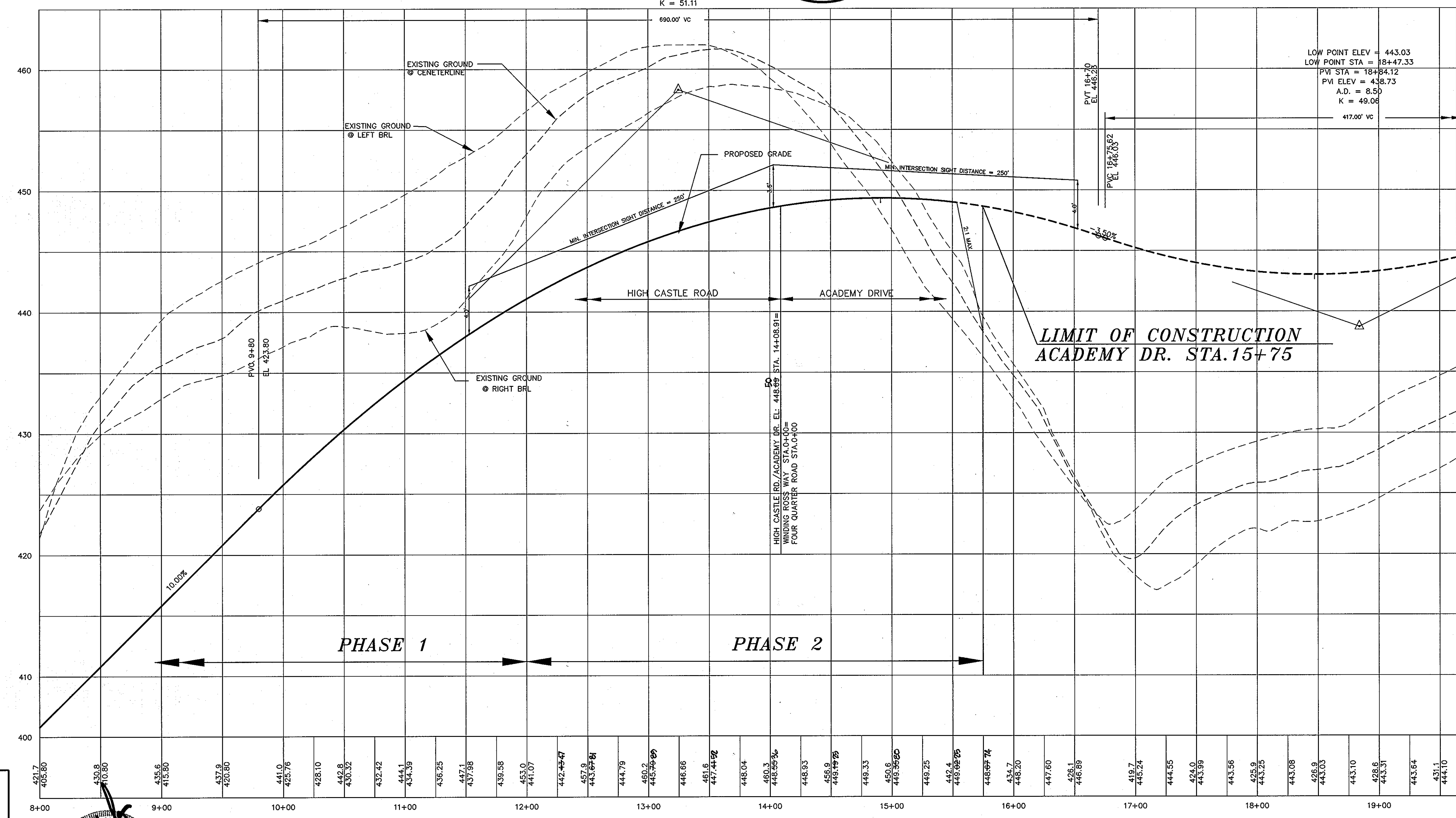
HIGH POINT ELEV = 449.36  
HIGH POINT STA = 14+91.11  
PVI STA = 13+25  
PVI ELEV = 458.30  
A.D. = -13.50  
K = 51.11

CURVE TABLE						
CURVE #	RADIUS	LENGTH	TANGENT	CHORD	DISTANCE	DELTA
C1	260.00'	60.08'	30.16'	567'16"59" W	59.92'	13°14'04"

NOTES:  
1. ALL SIDEWALK RAMPS TO BE TYPE "A" HOWARD COUNTY STD R-4.01.



**TYPICAL ROADWAY SECTION**  
CLASSIFICATION: MINOR COLLECTOR  
DESIGN SPEED: 35 MPH  
HIGH CASTLE ROAD  
ACADEMY DR.



**HIGH CASTLE RD./ACADEMY DR. PROFILE**  
CLASSIFICATION: MINOR COLLECTOR  
DESIGN SPEED: 35 MPH

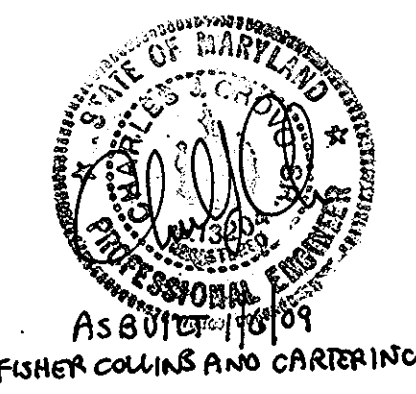
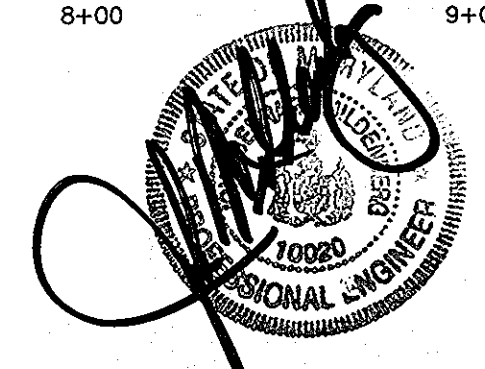
HORZ. SCALE: 1" = 50'  
VERT. SCALE: 1" = 5'

**OWNER/DEVELOPER**  
BONNIE BRANCH, CORPORATION  
P.O. BOX. 396  
ELLICOTT CITY, MD 21041

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 1-16-02 DATE  
CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*[Signature]* 1/23/02 DATE  
CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 12/24/01 DATE  
CHIEF, DEVELOPMENT ENGINEERING DIVISION



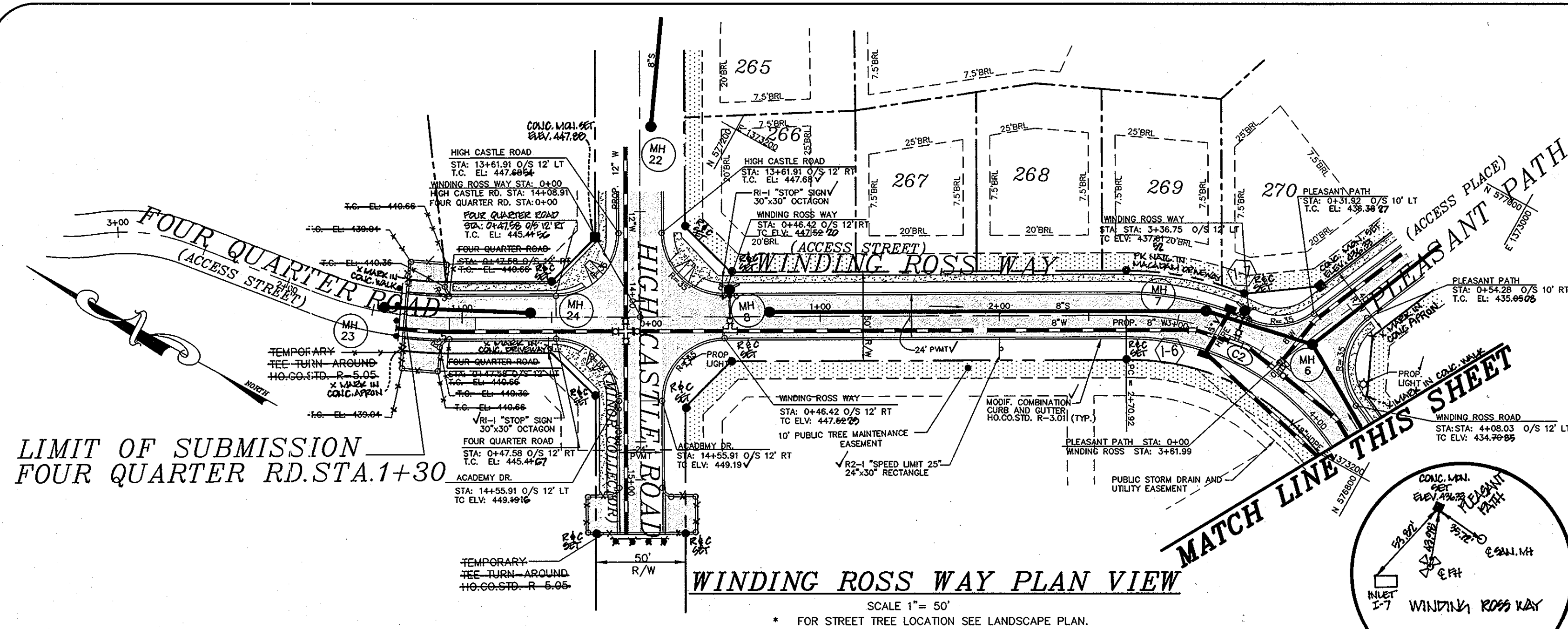
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DEC 2001	engineering	MMP
98072	illustration	MMP/MT
	scale	1" = 50'

no.	description	date
1/6/02	REVISED PER ROAD 12-BUILD	

**AUTUMN VIEW, SECTION 5, PHASE 2**  
LOTS 260-300  
TAX MAP 25 & 31, P/O PARCEL 75  
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
ROAD PLAN, PROFILE & TYPICAL SECTION

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

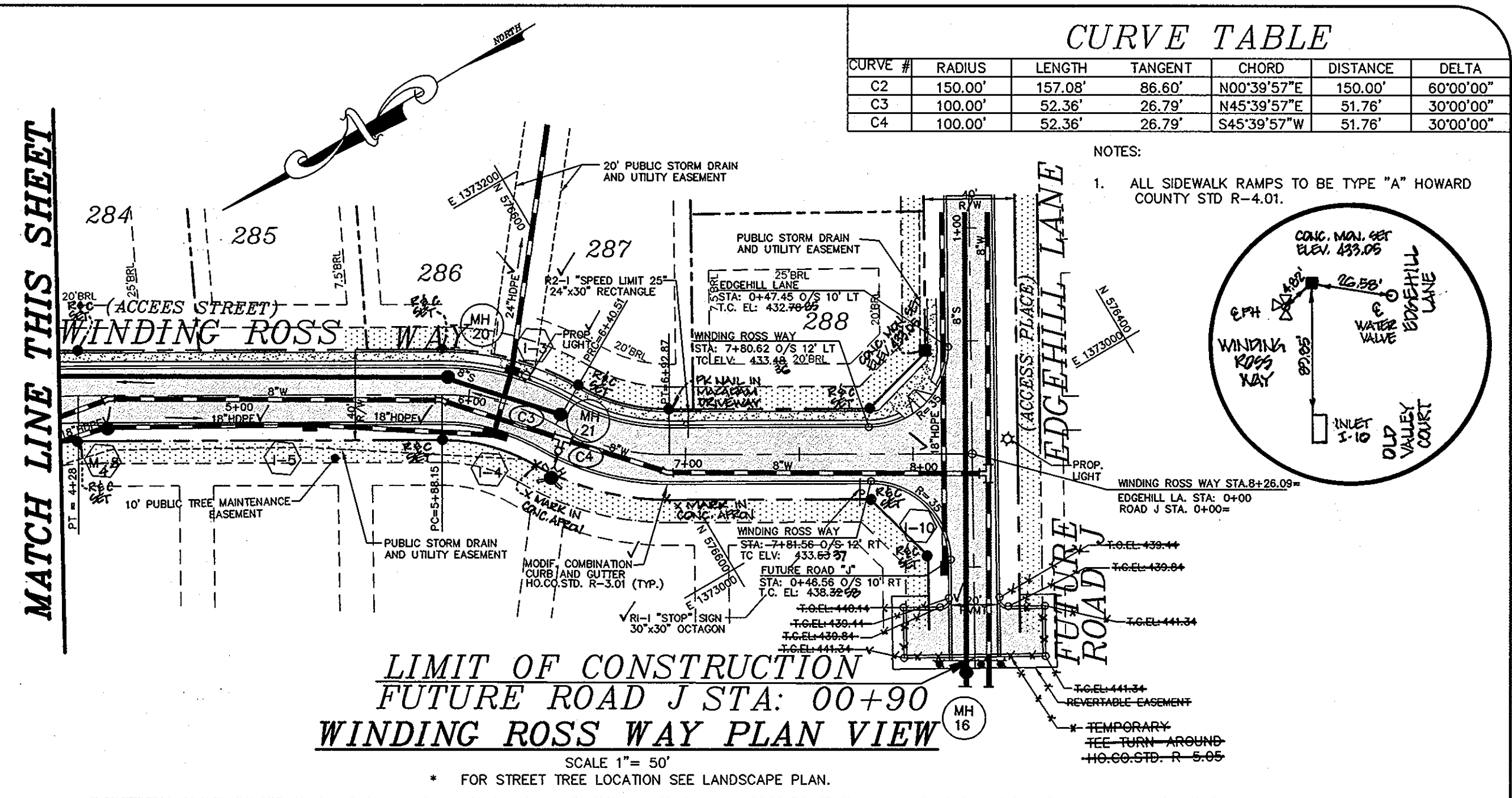




LIMIT OF SUBMISSION  
FOUR QUARTER RD. STA. 1+30

**WINDING ROSS WAY PLAN VIEW**

SCALE 1" = 50'  
FOR STREET TREE LOCATION SEE LANDSCAPE PLAN.



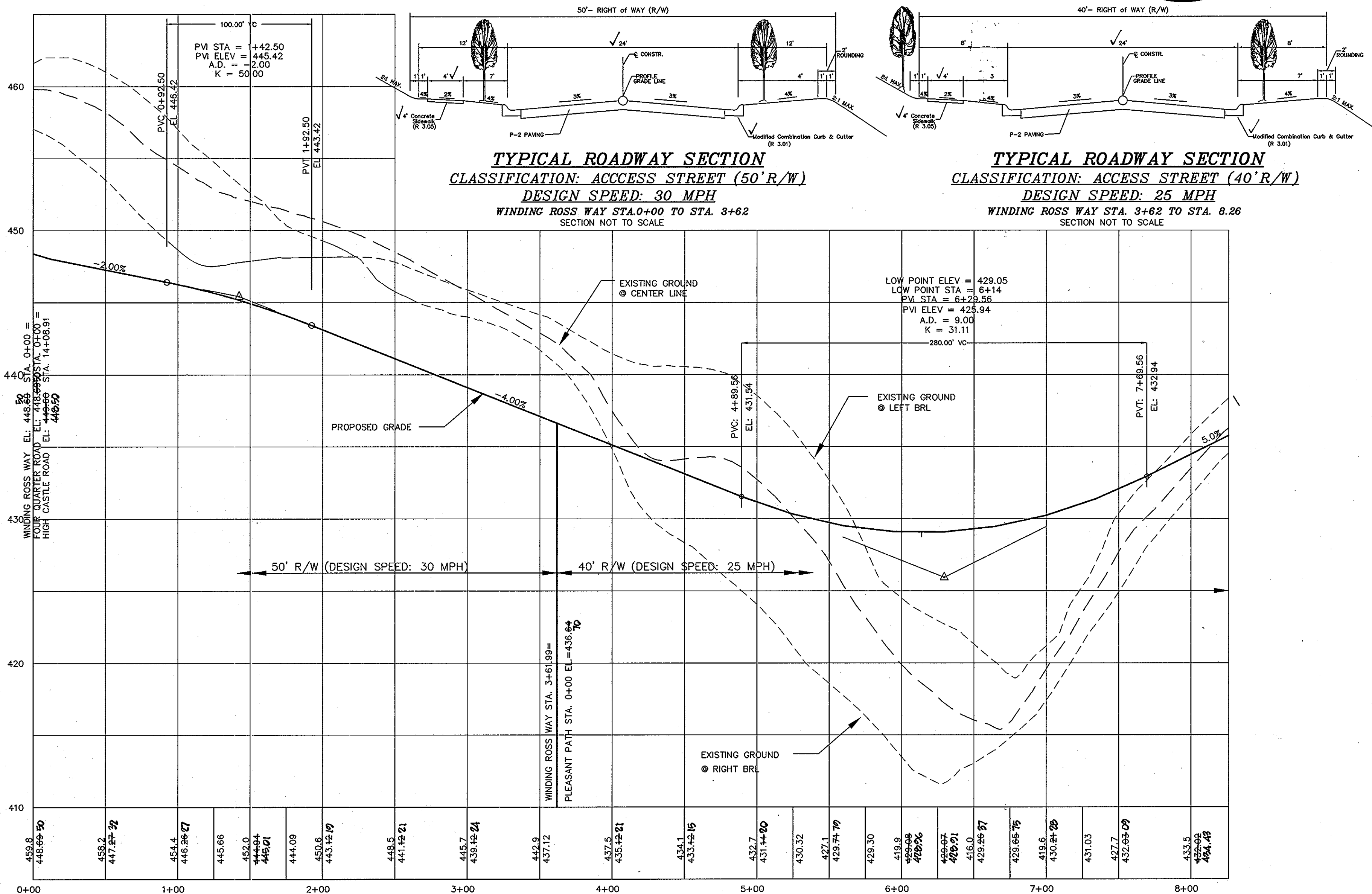
**WINDING ROSS WAY PLAN VIEW**

SCALE 1" = 50'  
FOR STREET TREE LOCATION SEE LANDSCAPE PLAN.

**CURVE TABLE**

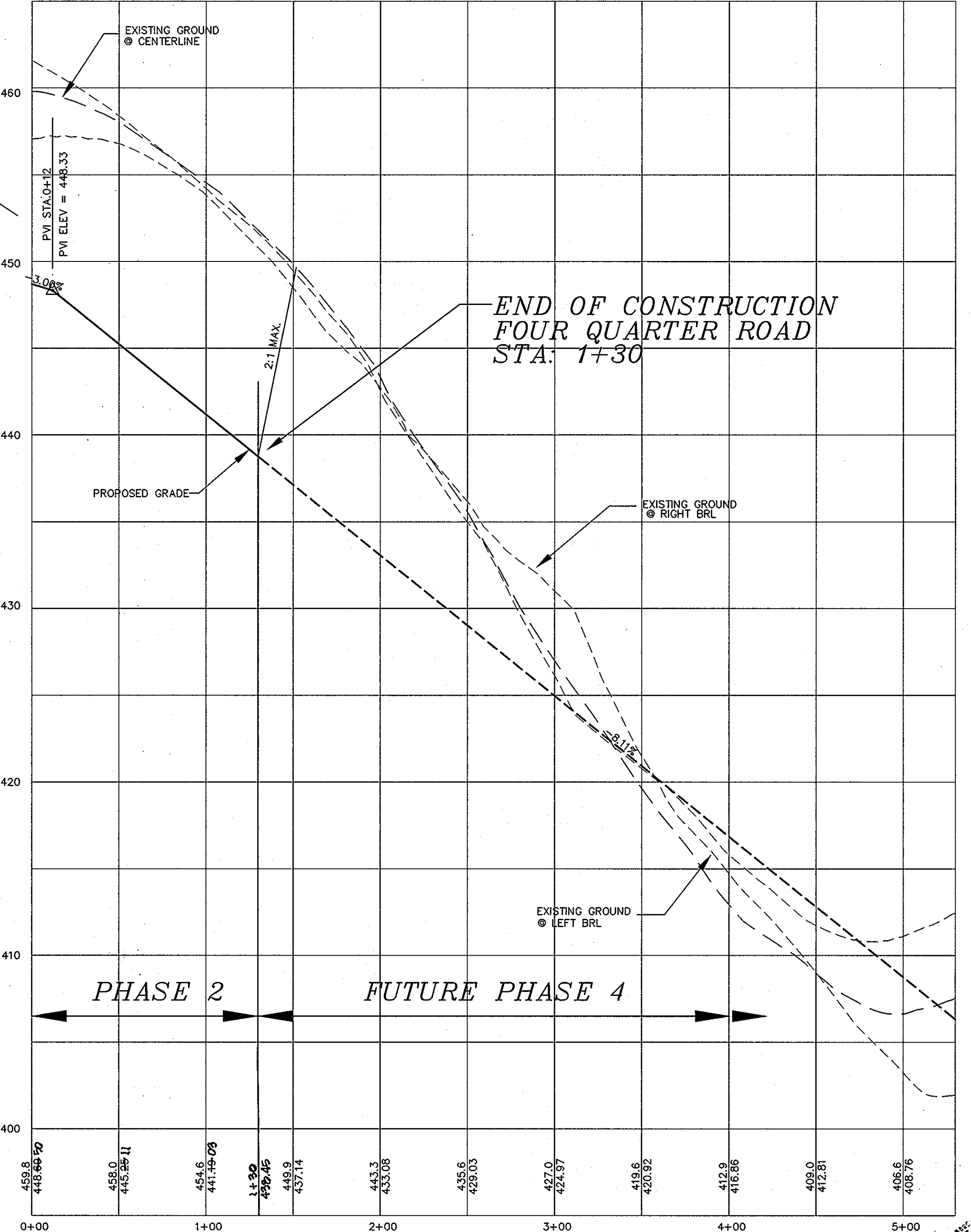
CURVE #	RADIUS	LENGTH	TANGENT	CHORD	DISTANCE	DELTA
C2	150.00'	157.08'	86.60'	N00°39'57"E	150.00'	60°00'00"
C3	100.00'	52.36'	26.79'	N45°39'57"E	51.76'	30°00'00"
C4	100.00'	52.36'	26.79'	S45°39'57"W	51.76'	30°00'00"

NOTES:  
1. ALL SIDEWALK RAMPS TO BE TYPE "A" HOWARD COUNTY STD R-4.01.



**WINDING ROSS WAY PROFILE**  
CLASSIFICATION: ACCESS STREET

DESIGN SPEED: 25 MPH  
SCALE: HOR. 1" = 50'  
VER. 1" = 5'



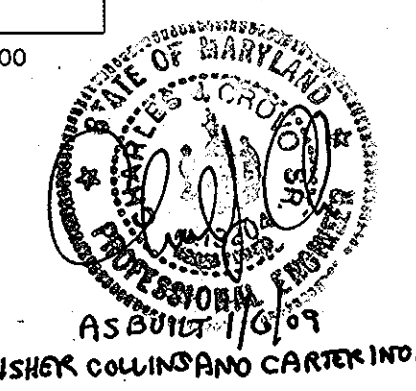
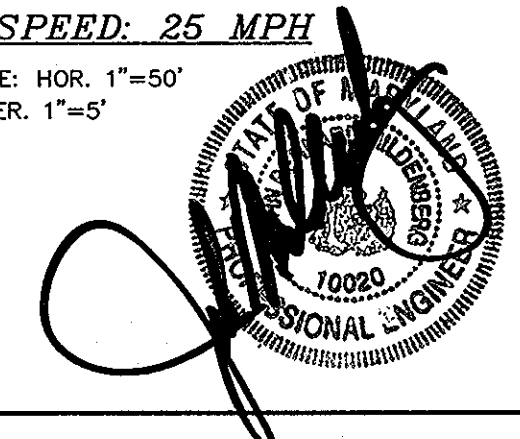
**FOUR QUARTER ROAD PROFILE**  
CLASSIFICATION: ACCESS STREET

DESIGN SPEED: 25 MPH  
SCALE: HOR. 1" = 50'  
VER. 1" = 5'

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Richard M. Decker* 1/16/02  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Horvath* 1/23/02  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*John P. ...* 1/24/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

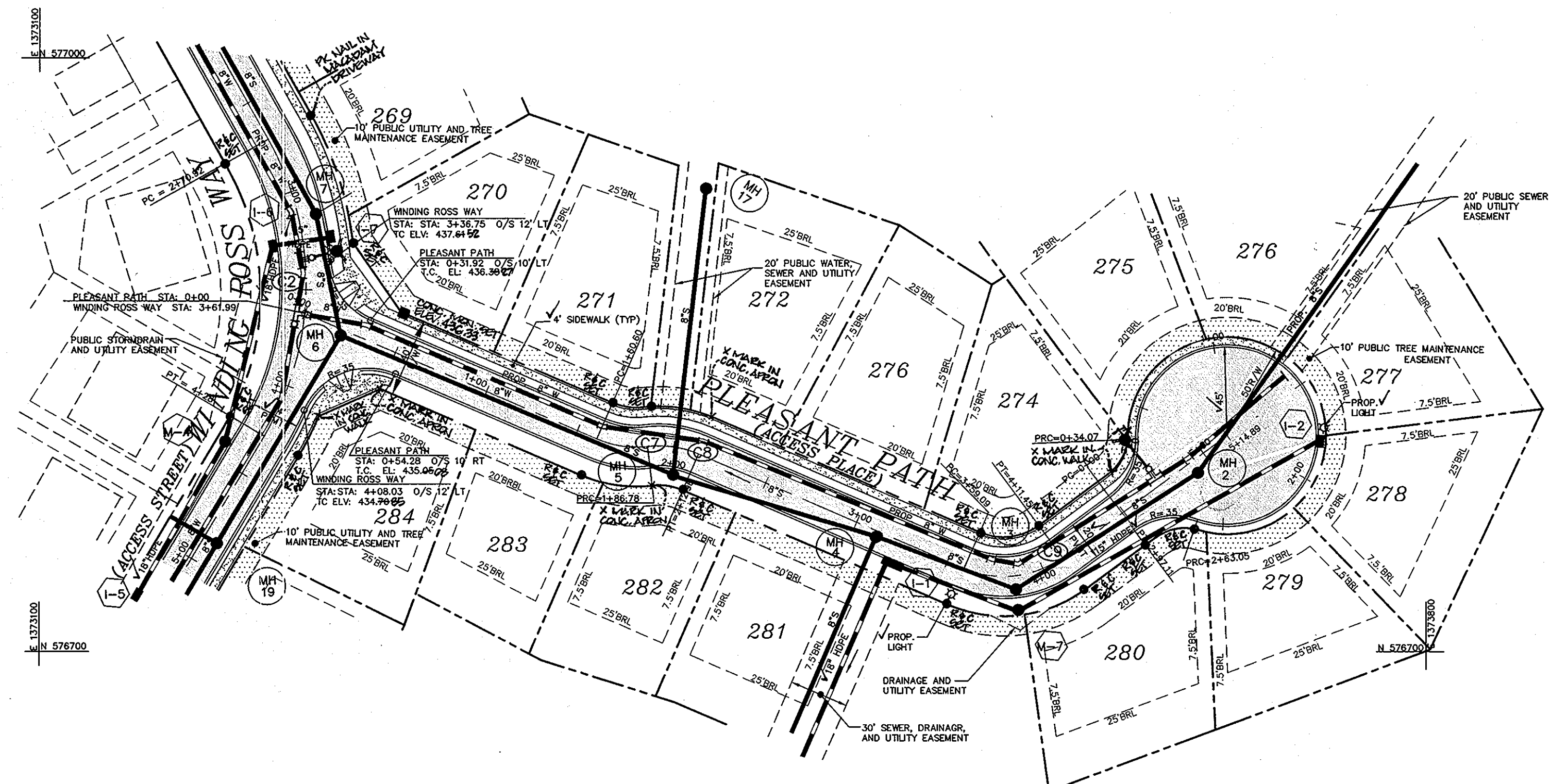


Project	99072	date	DEC. 2001
Illustration	MMP/MT	engineering	JBM
scale	1" = 50'	approval	

no.	1	description	REVISIONS PER ROAD MAP 2001	date	1/16/02
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**AUTUMN VIEW, SECTION 5, PHASE 2**  
LOTS 260-300  
TAX MAP 25 & 31, P/O PARCEL 75  
HOWARD COUNTY, MARYLAND  
SECOND ELECTION DISTRICT  
ROAD PLAN, PROFILE AND TYPICAL SECTION

**MILDENBERG, & ASSOC., INC.**  
Boender & Assoc., Inc.  
Engineers Planners Surveyors  
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042  
(410) 997-0286 Fax: (410) 997-0288 Fax.



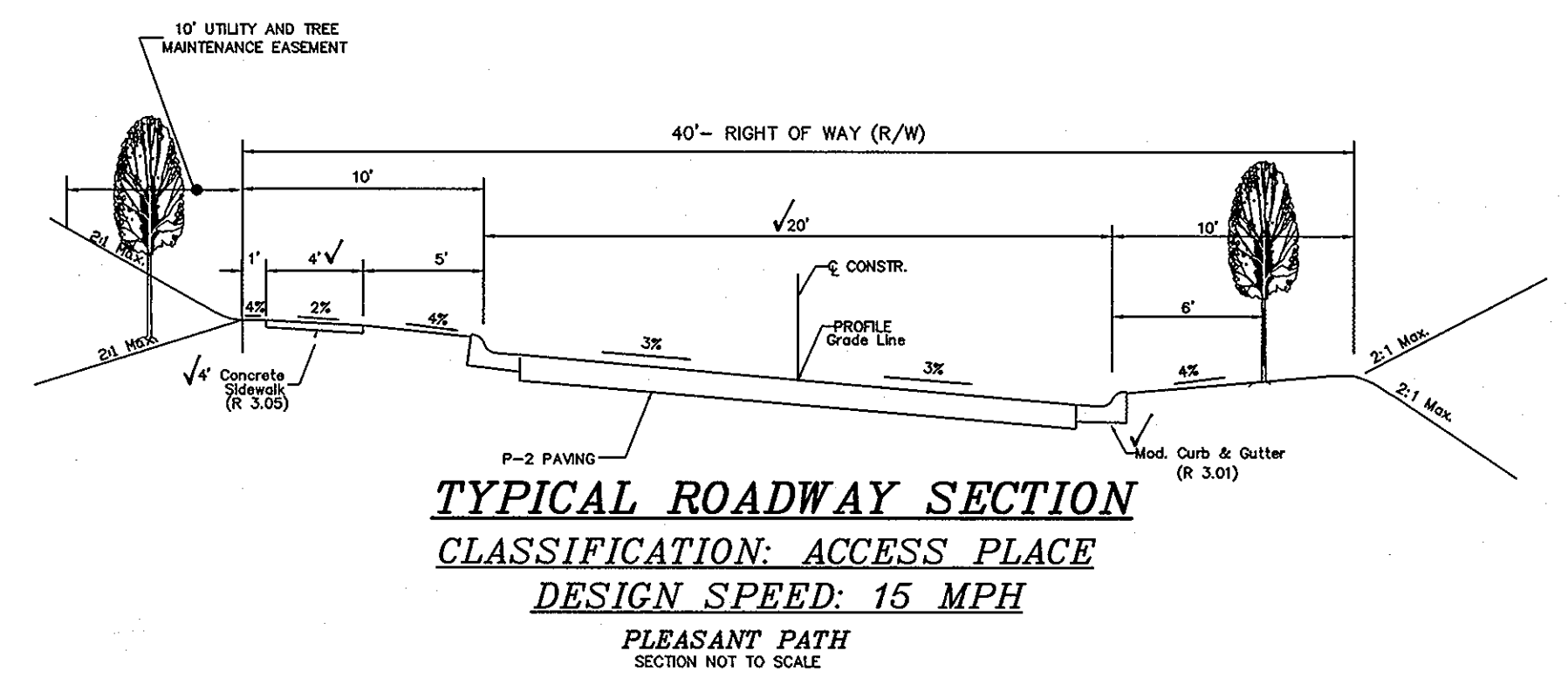
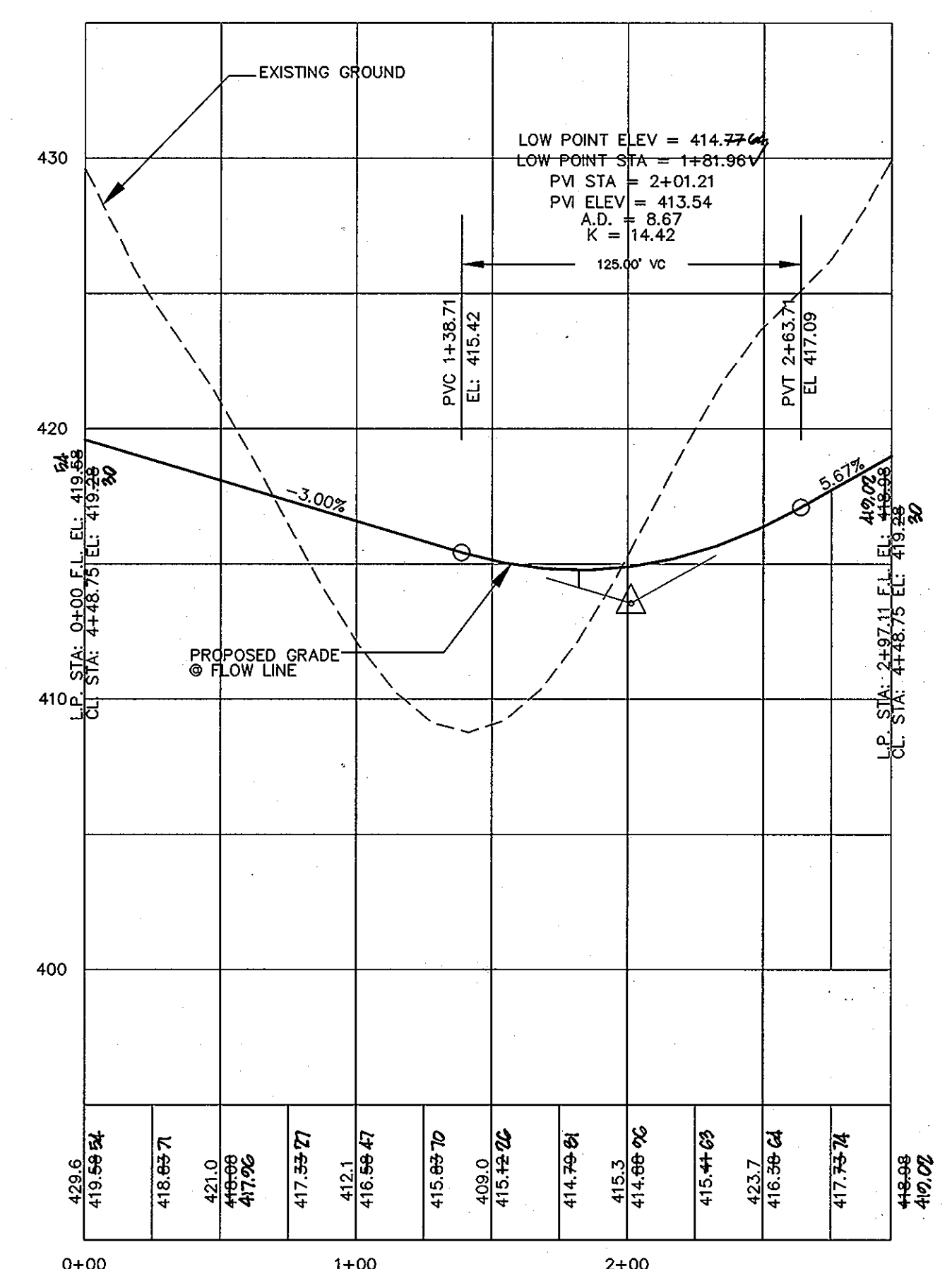
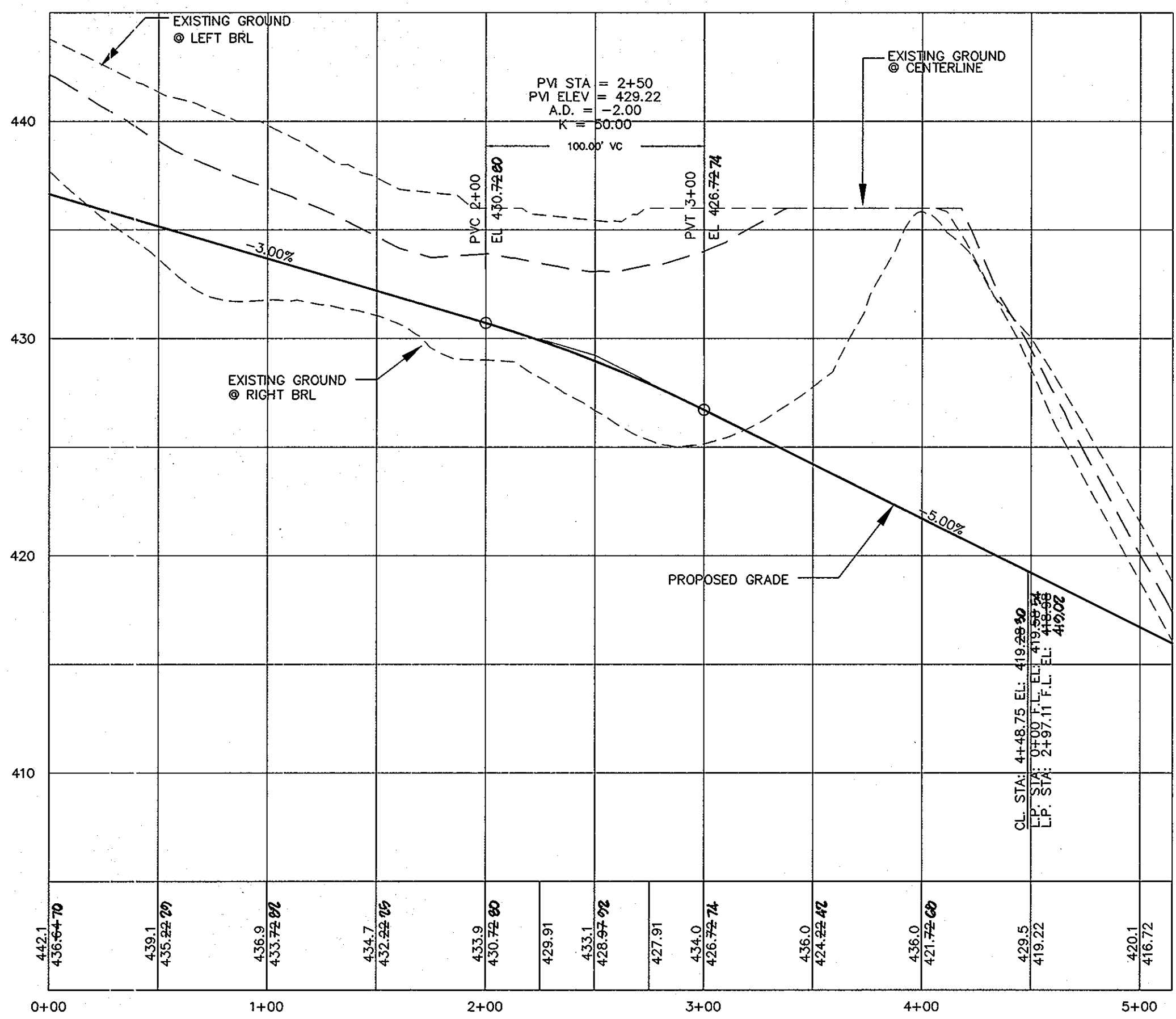
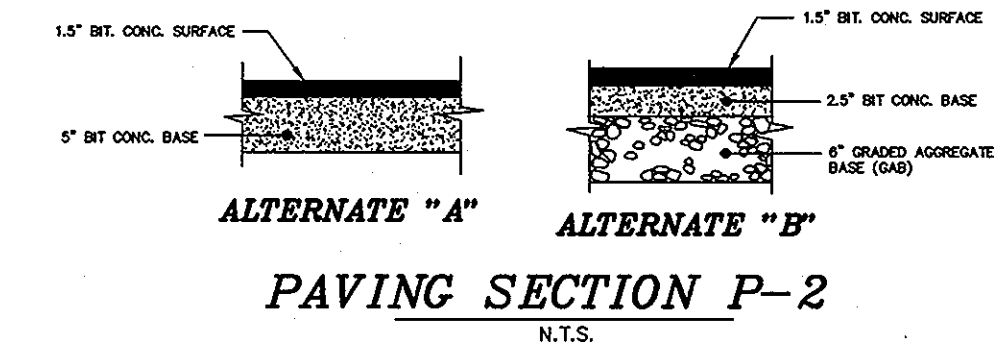
CURVE TABLE						
CURVE #	RADIUS	LENGTH	TANGENT	CHORD	DISTANCE	DELTA
C2	150.00'	157.08'	86.60'	N00°39'57"E	150.00'	60°00'00"
C7	50.00'	26.18'	13.40'	S81°37'28"E	25.88'	30°00'00"
C8	50.00'	26.18'	13.40'	N81°37'28"W	25.88'	30°00'00"
C9	50.00'	52.36'	28.87'	N83°22'32"E	50.00'	60°00'00"

NOTES:  
 1. ALL SIDEWALK RAMPS TO BE TYPE "A" HOWARD COUNTY STD R-4.01.

Project	99072	Date	DEC 2001
Illustration	MMP/MT	Engineering	JBM
Scale	1"=50'	Approval	JBM

NO.	1	DATE	12/24/01	DESCRIPTION	REVISIONS

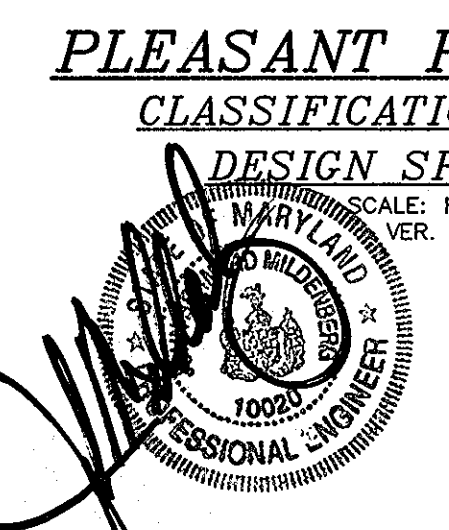
**AUTUMN VIEW, SECTION 5, PHASE 2**  
 LOTS 260-300  
 TAX MAP 25 & 31, P/O PARCEL 75  
 HOWARD COUNTY, MARYLAND  
 SECOND ELECTION DISTRICT  
 ROAD PLAN, PROFILE AND TYPICAL SECTION



APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Richard M. Decker* 1-16-02  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Hamata* 1/23/02  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*John Decker* 12/24/01  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



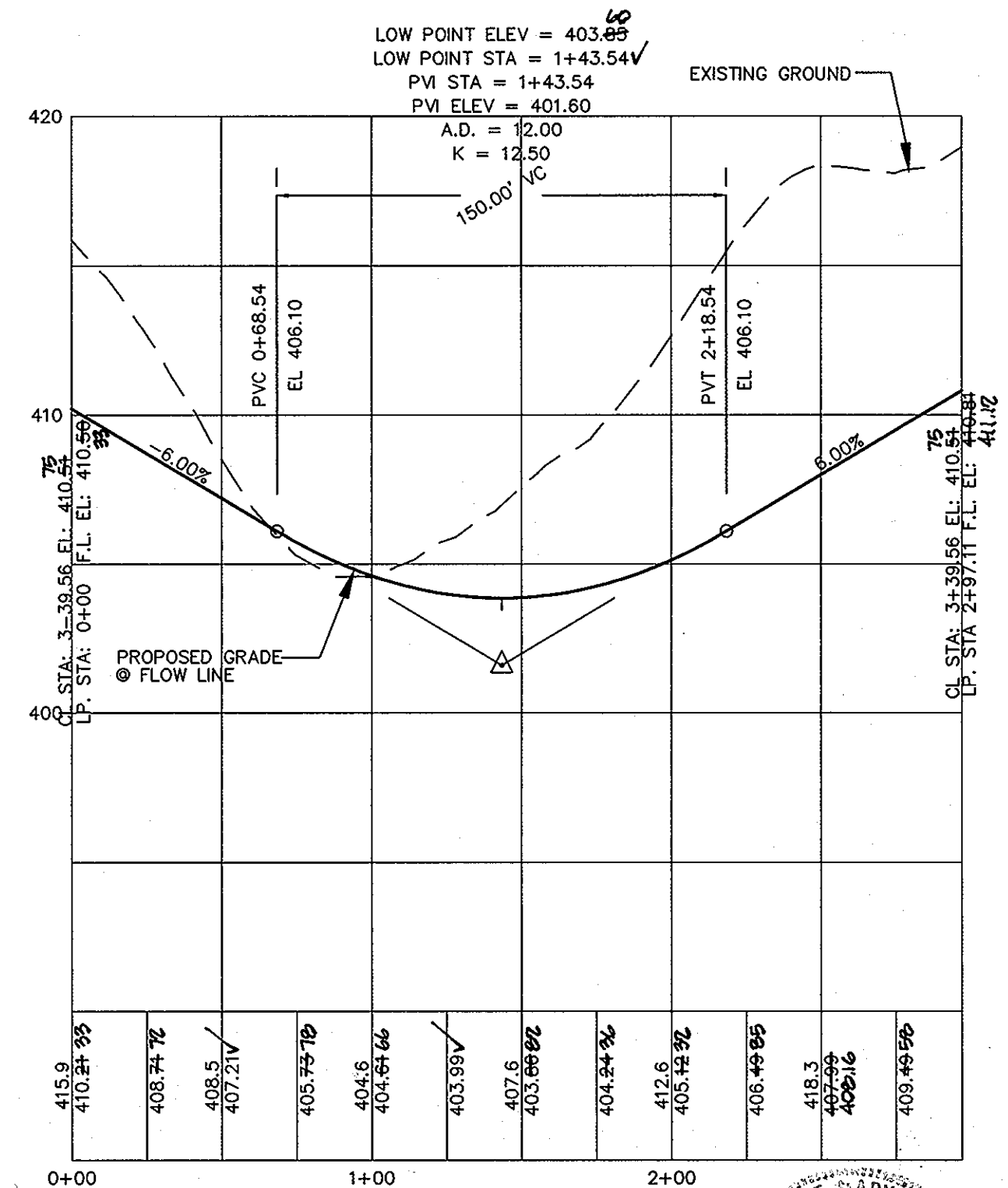
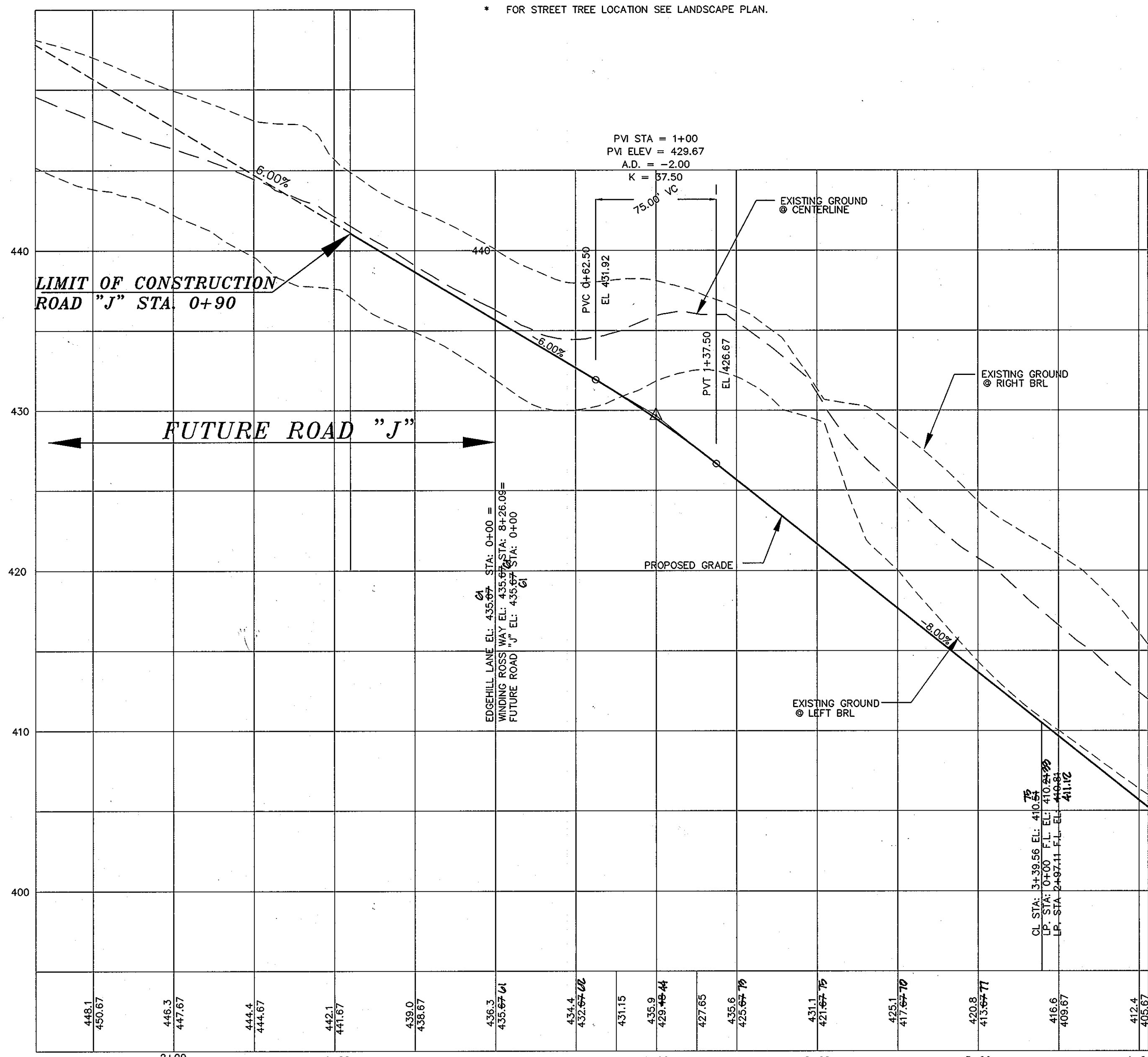
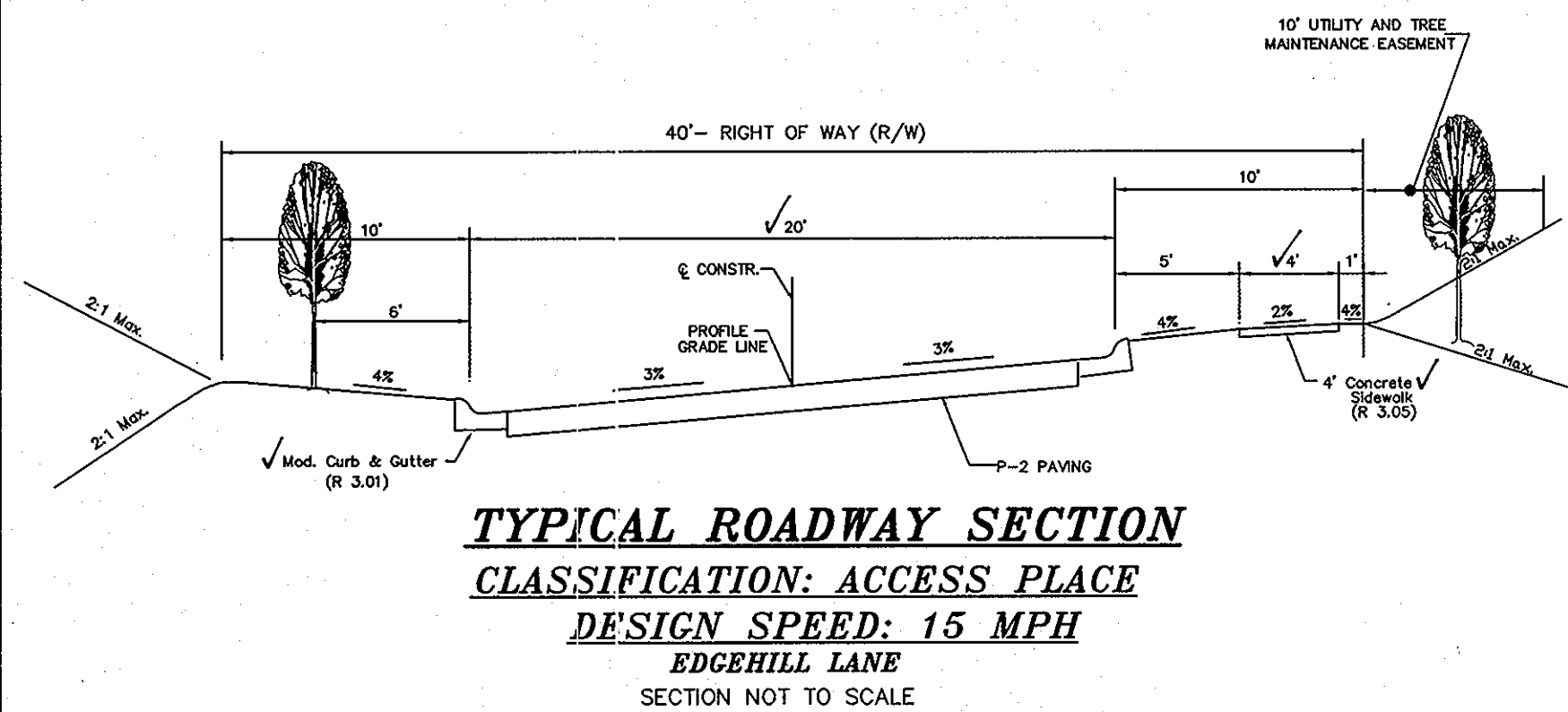
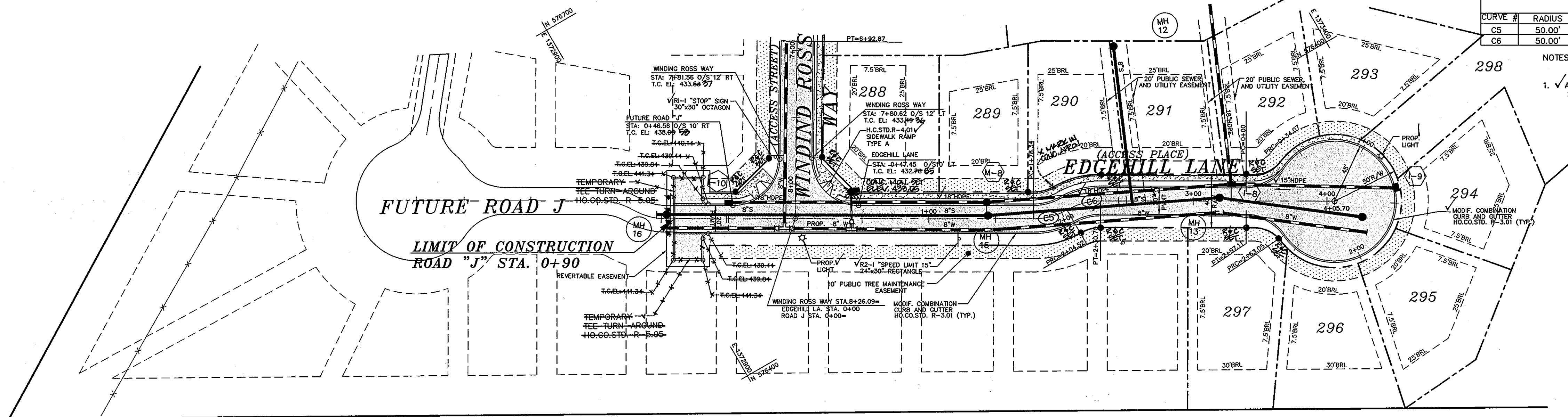
STATE OF MARYLAND  
 PROFESSIONAL ENGINEERS  
 AS BUILT  
 FISHER COLLINS AND CARTER INC.  
 OWNER/DEVELOPER  
 BONNIE BRANCH, CORPORATION  
 P.O. BOX 396  
 ELLICOTT CITY, MD 21041

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



CURVE #	RADIUS	LENGTH	TANGENT	CHORD	DISTANCE	DELTA
C5	50.00'	26.18'	13.40'	S74°54'08"E	25.88'	30°00'00"
C6	50.00'	26.18'	13.40'	N74°54'08"W	25.88'	30°00'00"

NOTES:  
1. ALL SIDEWALK RAMP TO BE TYPE "A" HOWARD COUNTY STD R-4.01.

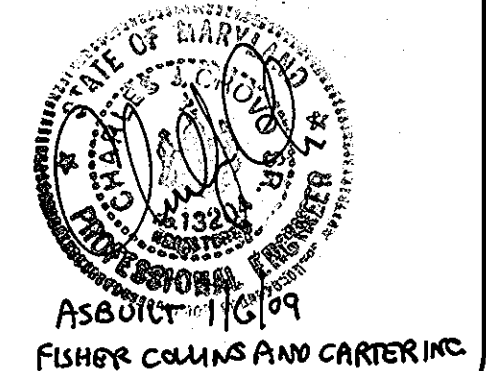
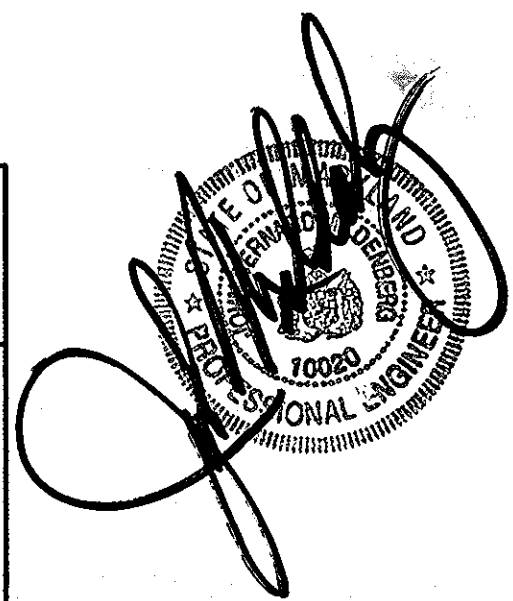


**OWNER/DEVELOPER**  
BONNIE BRANCH, CORPORATION  
P.O. BOX. 396  
ELLCOTT CITY, MD 21041

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Richard M. Amick* 1/16/02  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cecilia Hamster* 1/23/02  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Mike Damman* 1/24/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



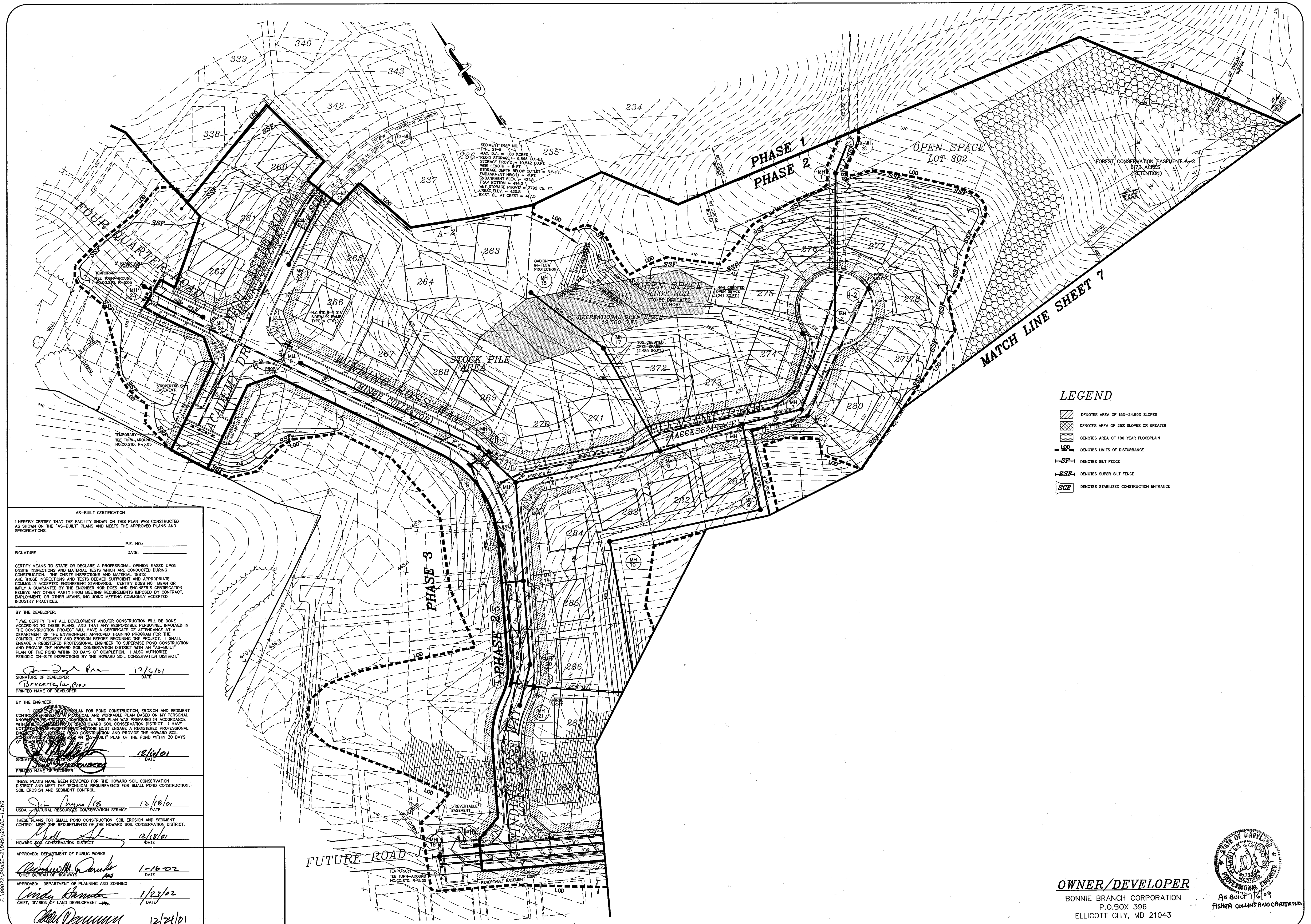
Project	98072	date	DEC. 2001
Illustration	MMP/MT	engineering	JRM
Scale	1"=50'	approval	JRM

no.	1	description	REVISIONS
date	1/16/02		

**AUTUMN VIEW, SECTION 5, PHASE 2**  
LOTS 260-300  
TAX MAP 25 & 31, P/O PARCEL 75  
HOWARD COUNTY, MARYLAND  
SECOND ELECTION DISTRICT  
ROAD PLAN, PROFILE & TYPICAL SECTION

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





SEDIMENT TRAP NO. 1  
 TYPE ST-1  
 MAX. L.A. = 1.06 ACRES  
 REED STORAGE = 6,698 CU. FT.  
 STORAGE PROVID. = 10,542 CU. FT.  
 REED LENGTH = 8 FT.  
 STORAGE DEPTH BELOW OUTLET = 3.5 FT.  
 EMBANKMENT HEIGHT = 4 FT.  
 TRAP BOTTOM = 414.0  
 NET STORAGE PROVID. = 3792 CU. FT.  
 CREST ELEV. = 420.5  
 EXIST. EL. AT CREST = 417.5

**LEGEND**

- DENOTES AREA OF 15%-24.9% SLOPES
- DENOTES AREA OF 25% SLOPES OR GREATER
- DENOTES AREA OF 100 YEAR FLOODPLAIN
- DENOTES LIMITS OF DISTURBANCE
- DENOTES SILT FENCE
- DENOTES SUPER SILT FENCE
- DENOTES 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.: \_\_\_\_\_  
 SIGNATURE: \_\_\_\_\_ 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 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: *Bruce Langley* DATE: 12/6/01  
 PRINTED NAME OF DEVELOPER: Bruce Langley

**BY THE ENGINEER:**

"I HEREBY CERTIFY THAT I AM AN AN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL. I HAVE PREPARED A TECHNICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE LOCAL CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTED THAT THE DEVELOPER 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: *John W. Drenth* DATE: 12/6/01  
 PRINTED NAME OF ENGINEER: John W. Drenth

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: *Jim Myers* DATE: 12/18/01  
 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: *Chellie St.* DATE: 12/18/01  
 HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 Signature: *Richard W. Danks* DATE: 1-16-02  
 CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Signature: *Cinda Kanata* DATE: 1/23/02  
 CHIEF, DIVISION OF LAND DEVELOPMENT

Signature: *Mike Dorman* DATE: 12/24/01  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION (MR)

Project	99072	date	DEC 2001
Illustration	MAP	engineering	MMP
scale	1"=50'	approval	JBM

1	REVISED PER 12/12/01	description	date
		revisions	

**AUTUMN VIEW, SECTION 5, PHASE 2**  
 LOTS 260-300  
 TAX MAP 25 & 31, P/O PARCEL 75  
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 GRADING AND SEDIMENT CONTROL PLAN

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



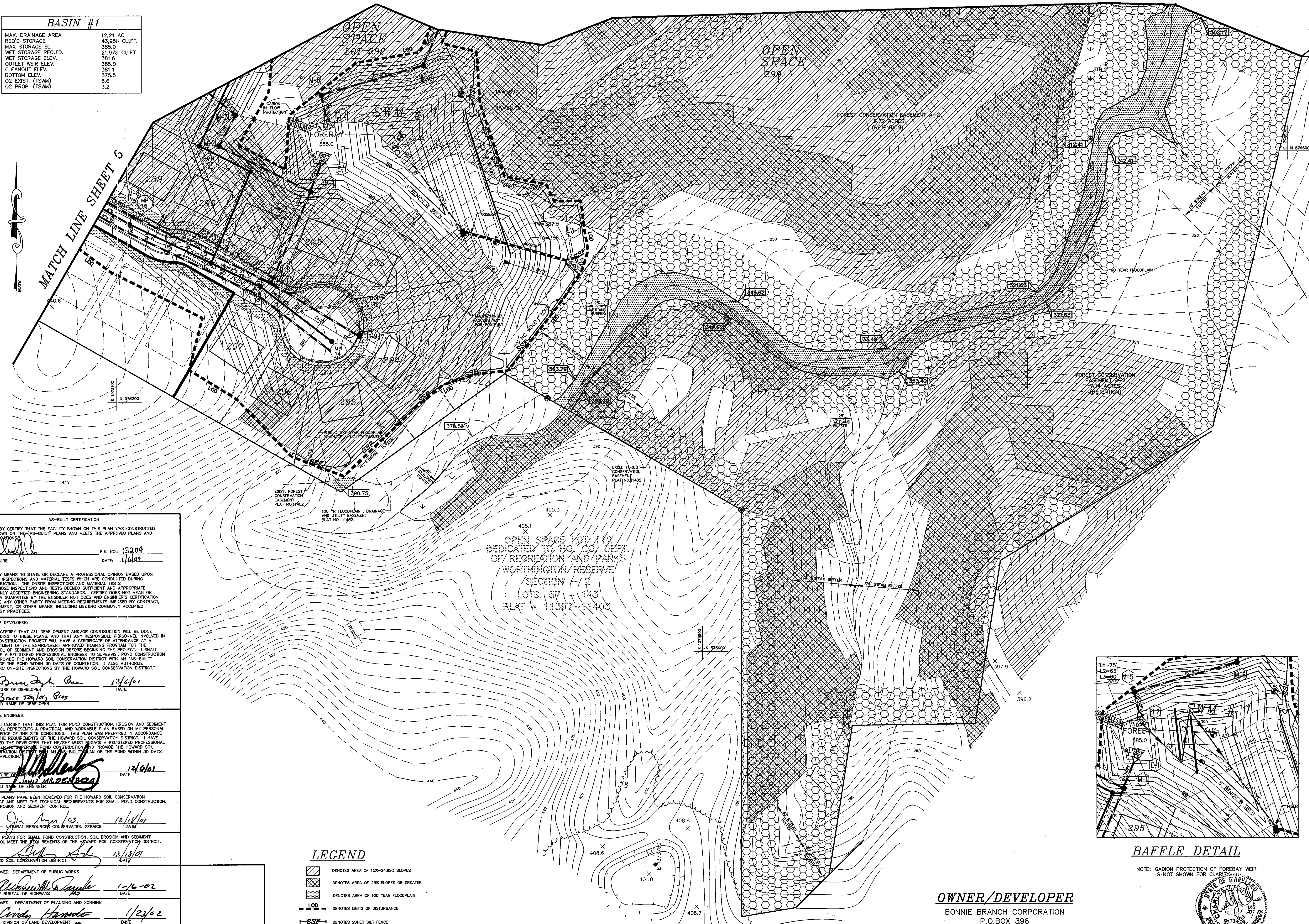
**OWNER/DEVELOPER**  
 BONNIE BRANCH CORPORATION  
 P.O. BOX 396  
 ELLICOTT CITY, MD 21043

As Built 1/16/09  
 FISHER COLLINS AND COMPANY INC.

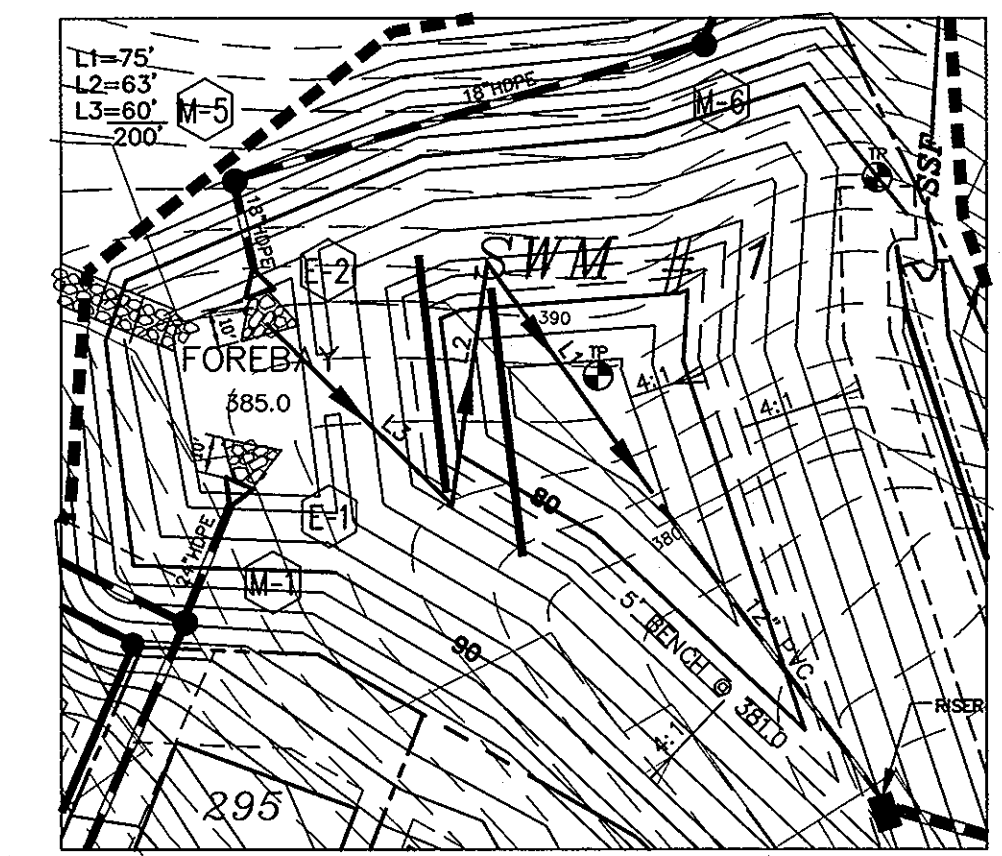


BASIN #1	
MAX. DRAINAGE AREA	12.21 AC
REQ'D STORAGE	43,956 CU.FT.
MAX STORAGE EL.	385.0
WET STORAGE REQ'D.	21,978 CU.FT.
WET STORAGE ELEV.	381.6
OUTLET WEIR ELEV.	385.0
CLEANOUT ELEV.	381.1
BOTTOM ELEV.	375.5
Q2 EXIST. (TSM)	8.6
Q2 PROP. (TSM)	3.2

MATCH LINE SHEET 6



OPEN SPACE LOT 112  
 DEDICATED TO HO, CO/DEPT.  
 OF RECREATION AND PARKS  
 WORTHINGTON RESERVE  
 SECTION 1-2  
 LOTS 57-143  
 PLAT # 11387-1403

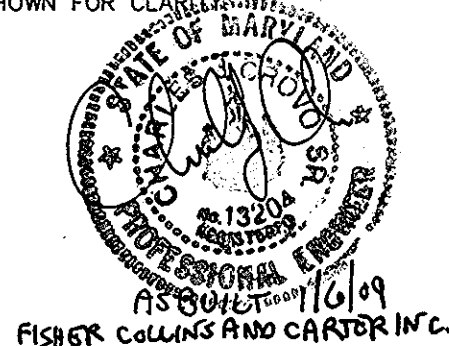


BAFFLE DETAIL

NOTE: GABION PROTECTION OF FOREBAY WEIR IS NOT SHOWN FOR CLARITY

- LEGEND**
- DENOTES AREA OF 15%-24.99% SLOPES
  - DENOTES AREA OF 25% SLOPES OR GREATER
  - DENOTES AREA OF 100 YEAR FLOODPLAIN
  - DENOTES LIMITS OF DISTURBANCE
  - DENOTES SUPER SILT FENCE

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



**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.: 11294  
 DATE: 1/6/09

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 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: 12/6/01  
 Printed Name of Developer: Bruce Taylor Pres

**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 NOTICED 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: 12/6/01  
 Printed Name of Engineer: John M. DeBora

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: 12/18/01

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

HOWARD SOIL CONSERVATION DISTRICT DATE: 12/18/01

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 Signature: *[Signature]* DATE: 1-16-02  
 CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Signature: *[Signature]* DATE: 1/23/02  
 CHIEF, DIVISION OF LAND DEVELOPMENT

Signature: *[Signature]* DATE: 12/24/01  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

Project	98072	Date	DEC 2001
Illustration	MMP	Engineering	JBM
Scale	1"=50'	Approval	JBM
Revisions	1/6/09	Date	1/6/09

**AUTUMN VIEW, SECTION 5, PHASE 2**  
 LOTS 260-300  
 TAX MAP 25 & 31, P/O PARCEL 75  
 HOWARD COUNTY, MARYLAND  
 SECOND ELECTION DISTRICT  
 GRADING AND SEDIMENT CONTROL PLAN

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

7 OF 20

**AS BUILT** F-01-38



HOWARD SOIL CONSERVATION DISTRICT PERMANENT SEEDING NOTES

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

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

- SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SPECIFICATIONS: 1. PREFERRED - APPLY 2 TONS PER ACRE OF LIME (92 LBS./1000 SQ.FT.)...

SEEDING - FOR PERIODS MARCH 1 THRU APRIL 30, AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE 1.4 LBS./1000 SQ.FT. OF KENTUCKY 31 TALL FESCUE...

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...

MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REINSTRUMENTED 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 GRASS...

MULCHING - APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED FREE SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING...

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

- 1. 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...

Table with 2 columns: SITE ANALYSIS, TOTAL AREA OF SITE: 29.87 ACRES, AREA TO BE ROOFED OR PAVED: 15.60 ACRES, etc.

- THESE QUANTITIES ARE FOR PERMIT PURPOSES ONLY. CONTRACTOR IS REQUIRED TO PROVIDE HIS OWN QUANTITY MEASUREMENTS.

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

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION...

BY THE DEVELOPER: I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY TRAINING PERSONNEL INVOLVED...

SIGNATURE OF DEVELOPER: [Signature] DATE: 12/26/01

BY THE ENGINEER: I CERTIFY THAT THESE PLANS AND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS THE BEST AVAILABLE PLAN BASED ON MY PERSONAL KNOWLEDGE...

SIGNATURE OF ENGINEER: [Signature] DATE: 12/26/01

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.

APPROVED: DEPARTMENT OF PUBLIC WORKS SIGNATURE: [Signature] DATE: 1-10-02

APPROVED: DEPARTMENT OF PLANNING AND ZONING SIGNATURE: [Signature] DATE: 1/25/02

APPROVED: HOWARD SOIL CONSERVATION DISTRICT SIGNATURE: [Signature] DATE: 12/24/01

- 10) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF PERIMETER EROSION AND SEDIMENT CONTROL...

STANDARD AND SPECIFICATIONS FOR TOPSOIL

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

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 TREATMENT, LOW NUTRIENT LEVELS, LOW pH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

- 1. THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE: a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH...

CONSTRUCTION AND MATERIAL SPECIFICATIONS

- 1. TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS...

- 2. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES: a. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

- 3. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES: a. ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:

- a. 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 PERSCRIBED TO RAISE THE pH TO 6.5 OR HIGHER.

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.

- 2. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.

- 3. 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.

- 4. ALTERNATIVE FOR PERMANENT SEEDING - INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:

- a. 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:

- a. 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.

- iv. 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.

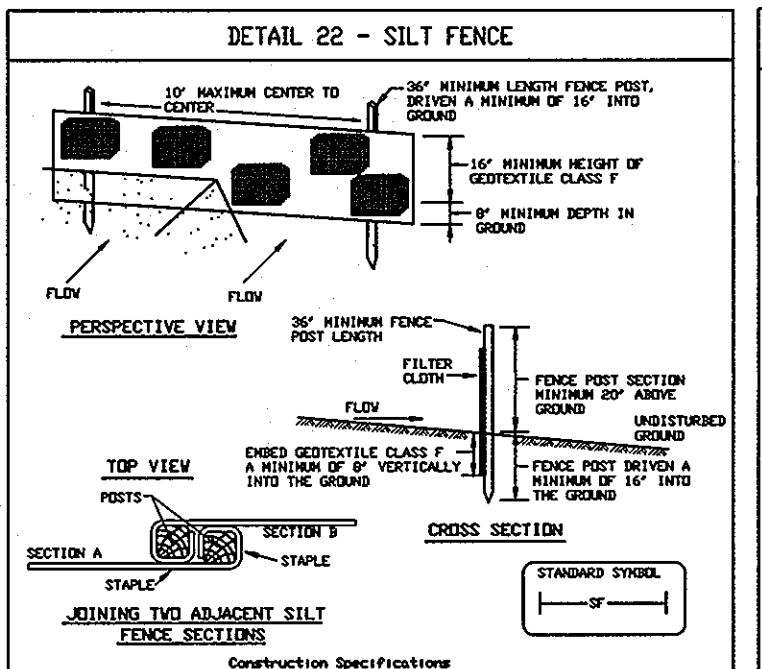
REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING, MD-VAB, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES. REVISED 1973.

TEMPORARY DUST CONTROL MEASURES

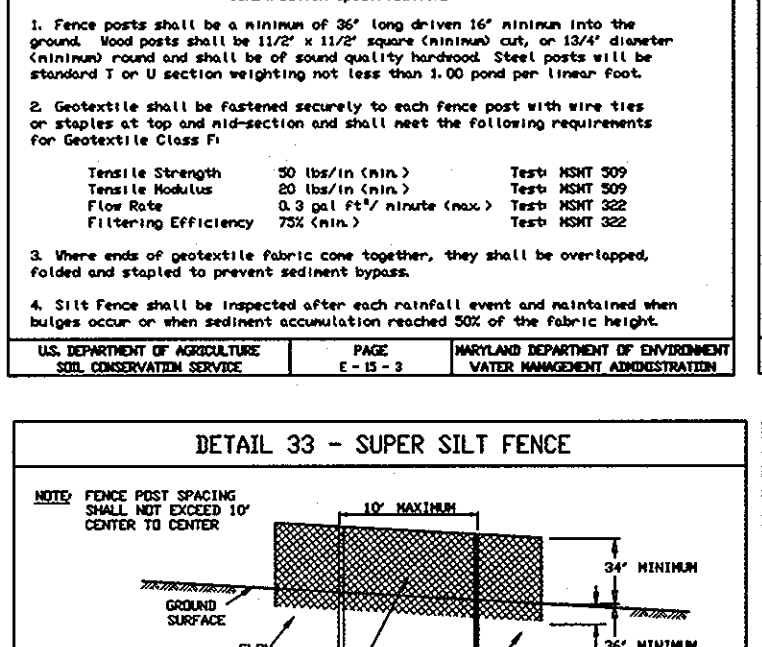
- 1. MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRIMPED OR TACKED TO PREVENT BLOWING.

SEQUENCE OF CONSTRUCTION

- 1. OBTAIN GRADING PERMIT.
- 2. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE WITH MOUNTABLE BERM AT LOCATION INDICATED. (1 DAY)
- 3. CONSTRUCT SILT FENCES, SUPER SILT FENCES AND TREE PROTECTION FENCES (4 DAYS)
- 4. CONSTRUCT SEDIMENT TRAP NO. 1 AND EARTH DIKE (2 DAYS)
- 5. CONSTRUCT AND STABILIZE STORMWATER MANAGEMENT POND, INCLUDING TEMPORARY LOW FLOW PLATE. TO MEET SEDIMENT BASIN DESIGN (3 DAYS)

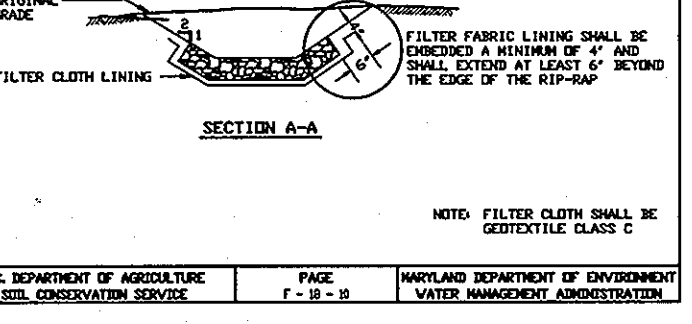
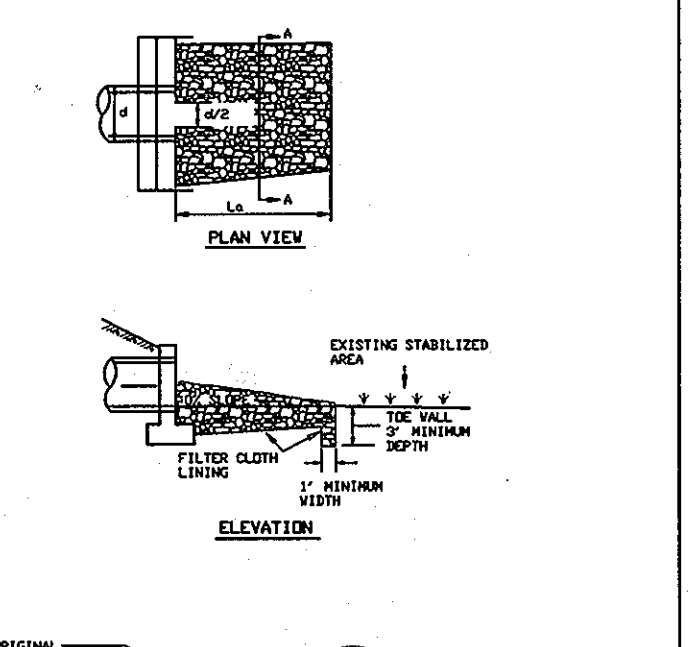


SILT FENCE Design Criteria table with columns: Slope Steepness, Chain Link Slope Length, Silt Fence Length. Includes construction specifications for fabric and geotextile.

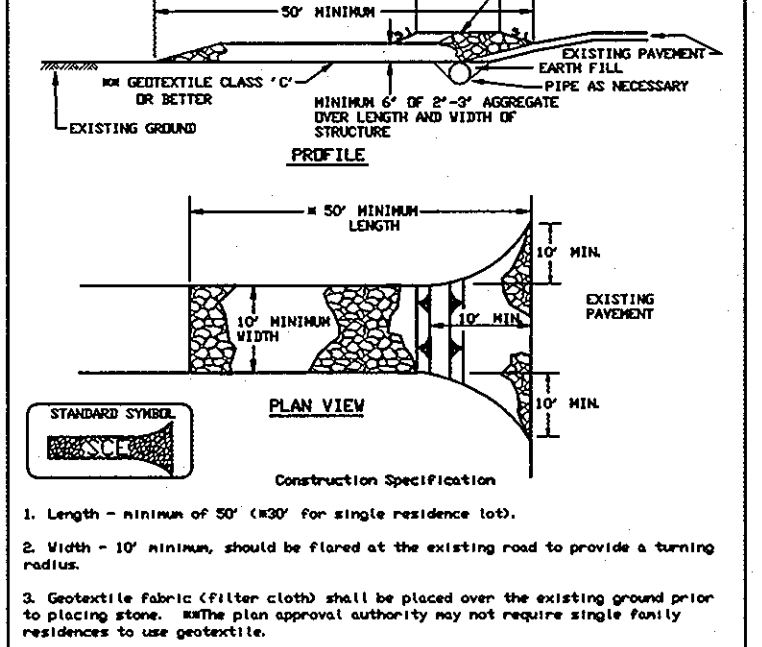


SUPER SILT FENCE Design Criteria table with columns: Slope Steepness, Chain Link Slope Length, Silt Fence Length. Includes construction specifications for fabric and geotextile.

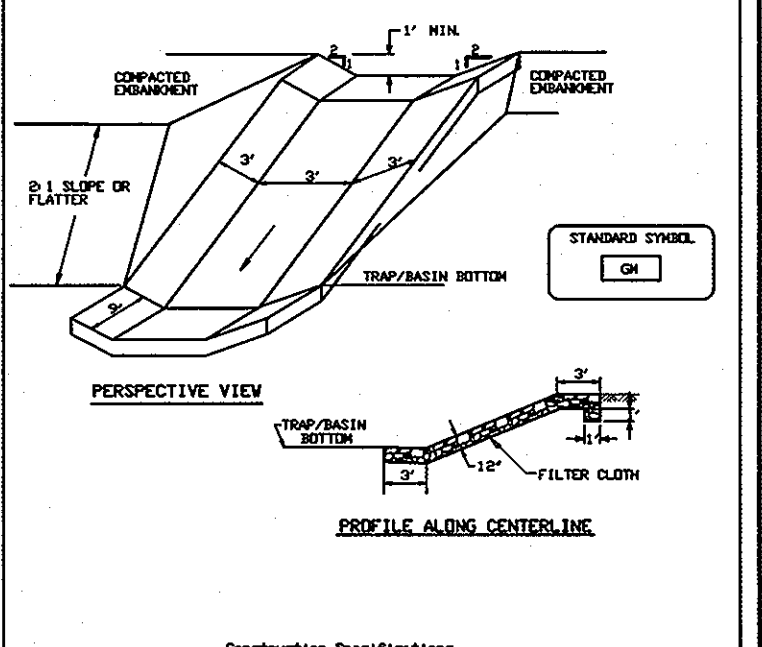
DETAIL 27 - ROCK OUTLET PROTECTION III



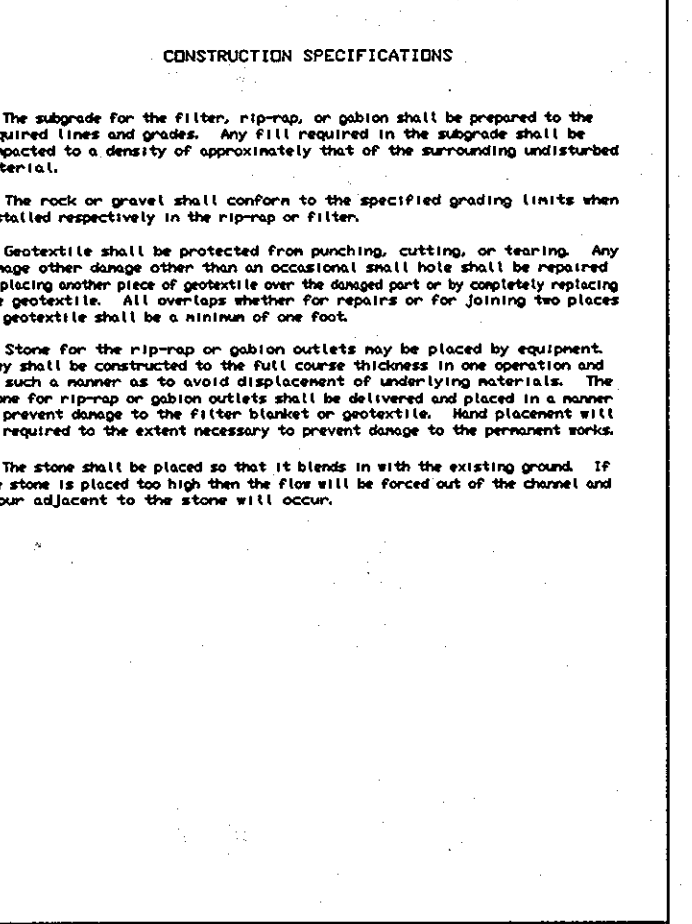
DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



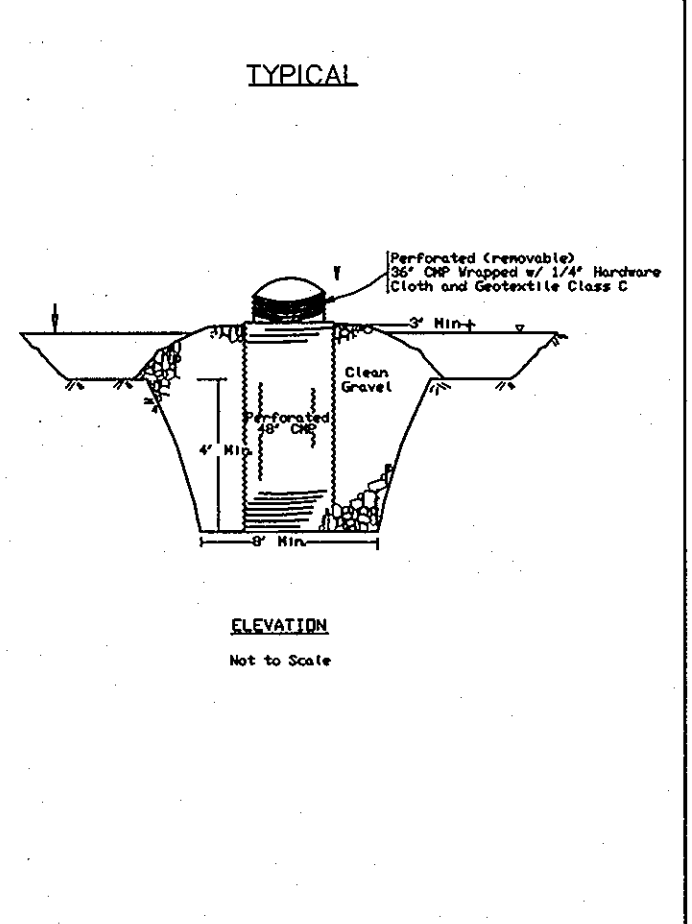
DETAIL 6 - GABION INFLOW PROTECTION



ROCK OUTLET PROTECTION III



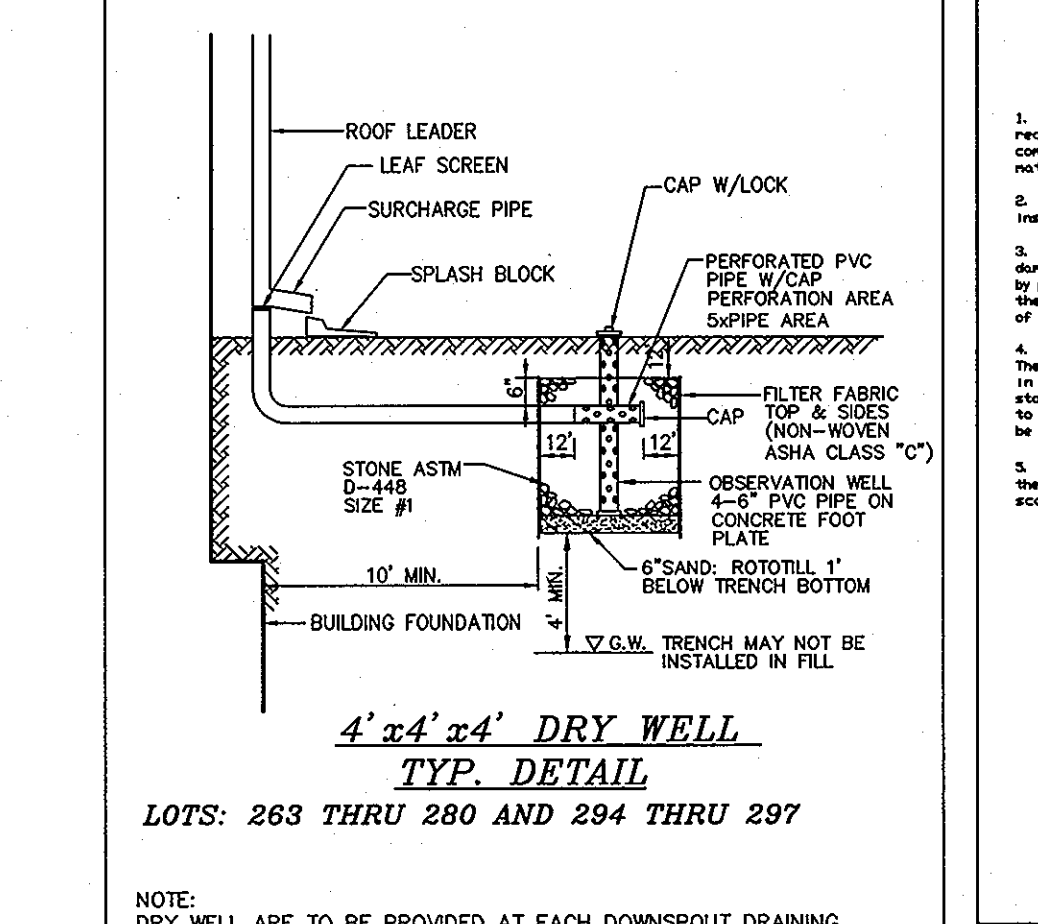
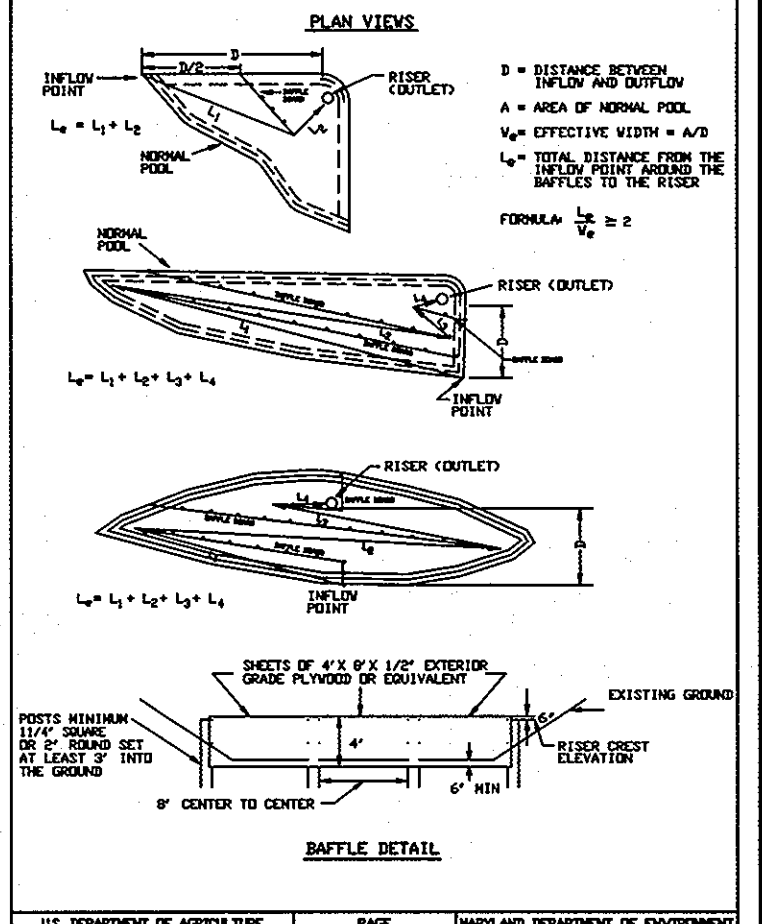
REMOVABLE PUMP STATION



SPECIFICATIONS FOR REMOVABLE PUMP STATION

- 1.0 REMOVABLE SPECIFICATIONS: REMOVABLE PUMP STATION Description of Practice: A temporary structure which is used to remove water from excavated areas, sediment traps and basins.

DETAIL 18 - SEDIMENT BASIN BAFFLES



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

Approval table with columns: project, date, illustration, approval, AS SHOWN JBM.

REVISIONS table with columns: NO., DESCRIPTION, DATE.

LOT: 260-300 TAX MAP 25 AND 31, P/O PARCEL 75 HOWARD COUNTY, MARYLAND

SECTION 5, PHASE 2 AUTUMN VIEW, DISTRICT SECOND ELECTION DISTRICT

EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

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

5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042 (410) 997-0298 Fax: (410) 997-0298

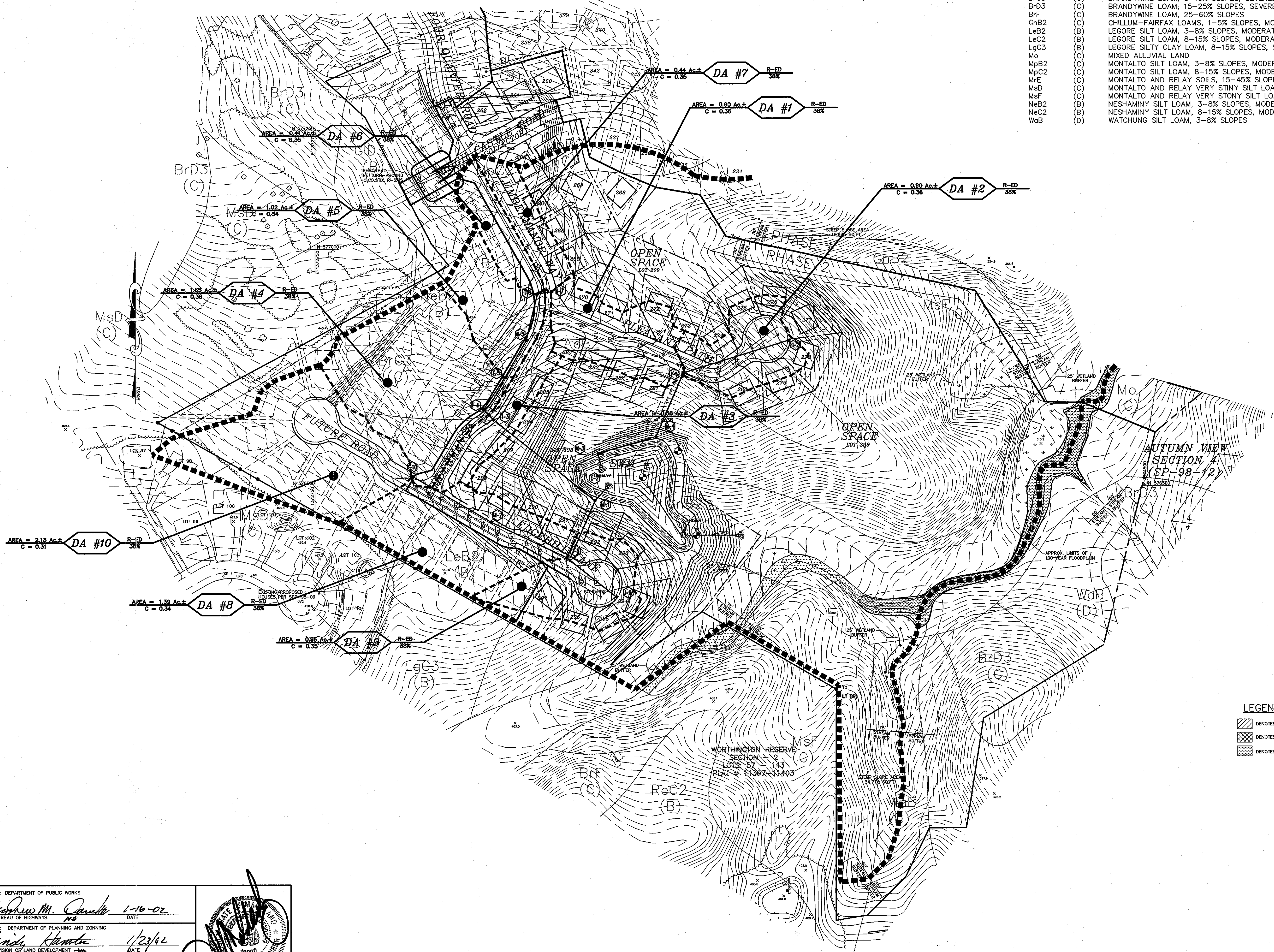
8 OF 20

AS BUILT F-01-38



SOIL CLASSIFICATION CHART

AdB2	(B)	ALDINO SILT LOAM, 3-8% SLOPES, MODERATELY ERODED
AdC2	(C)	ALDINO SILT LOAM, 8-15% SLOPES, MODERATELY ERODED
BrB2	(C)	BRANDYWINE LOAM, 3-8% SLOPES, MODERATELY ERODED
BrC3	(C)	BRANDYWINE LOAM, 8-15% SLOPES, SEVERELY ERODED
BrD3	(C)	BRANDYWINE LOAM, 15-25% SLOPES, SEVERELY ERODED
BrF	(C)	BRANDYWINE LOAM, 25-60% SLOPES
GnB2	(C)	CHILLUM-FAIRFAX LOAMS, 1-5% SLOPES, MODERATELY ERODED
LeB2	(B)	LEGORE SILT LOAM, 3-8% SLOPES, MODERATELY ERODED
LeC2	(B)	LEGORE SILT LOAM, 8-15% SLOPES, MODERATELY ERODED
LgC3	(B)	LEGORE SILTY CLAY LOAM, 8-15% SLOPES, SEVERELY ERODED
Mo	(C)	MIXED ALLUVIAL LAND
MpB2	(C)	MONTALTO SILT LOAM, 3-8% SLOPES, MODERATELY ERODED
MpC2	(C)	MONTALTO SILT LOAM, 8-15% SLOPES, MODERATELY ERODED
MrE	(C)	MONTALTO AND RELAY SOILS, 15-45% SLOPES
MsD	(C)	MONTALTO AND RELAY VERY STONY SILT LOAMS, 3-25% SLOPES
MsF	(C)	MONTALTO AND RELAY VERY STONY SILT LOAMS, 25-60% SLOPES
NeB2	(B)	NESHAMINY SILT LOAM, 3-8% SLOPES, MODERATELY ERODED
NeC2	(B)	NESHAMINY SILT LOAM, 8-15% SLOPES, MODERATELY ERODED
WaB	(D)	WATCHUNG SILT LOAM, 3-8% SLOPES



LEGEND

	Denotes area of 15%-24.99% slopes
	Denotes area of 25% slopes or greater
	Denotes area of 100 year floodplain

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Stephen M. Canale* 1-16-02  
 CHIEF BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Conita Hamlin* 1/23/02  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Michael J. ...* 12/24/01  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

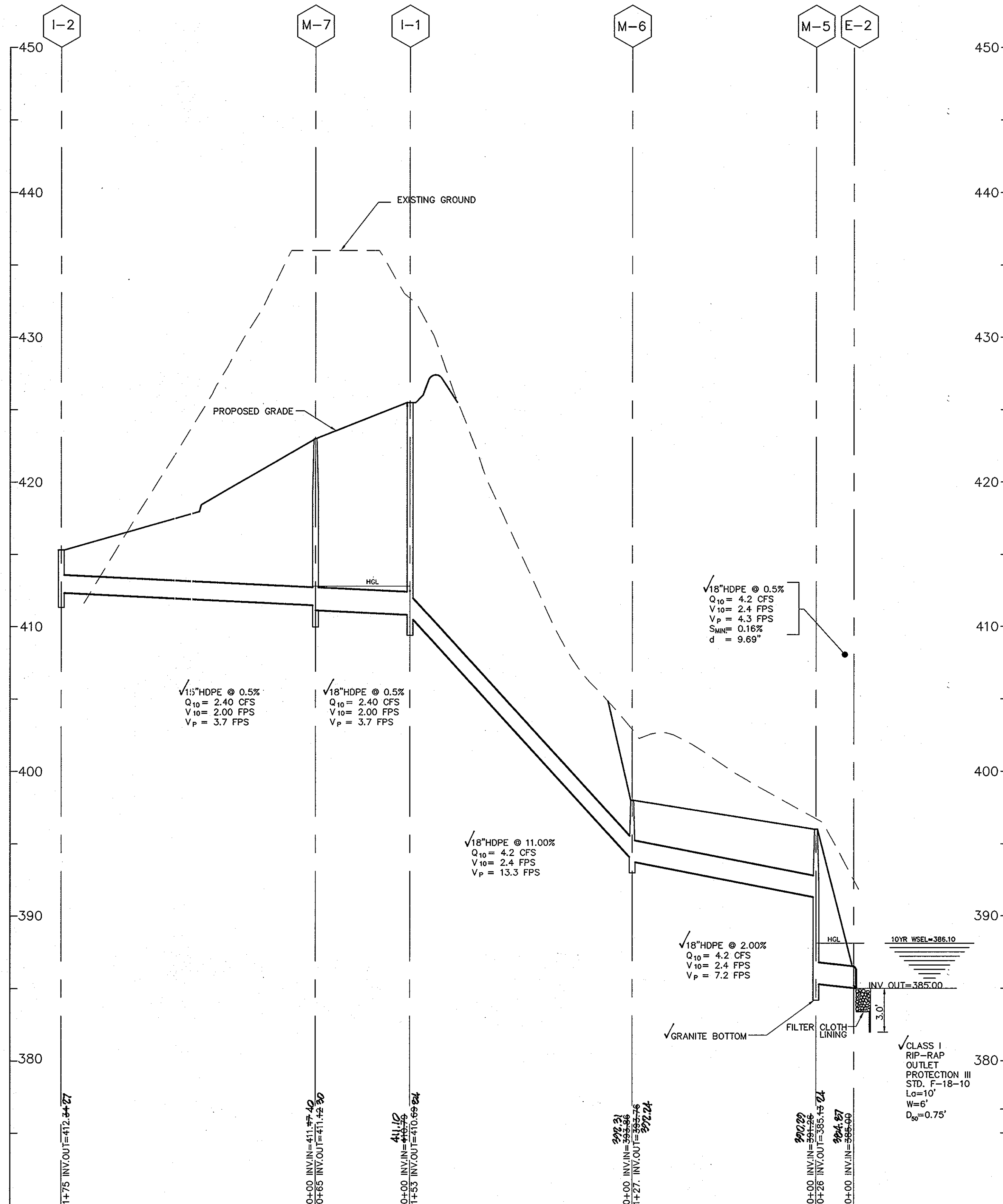
Project	99072	date	DEC 2001
Illustration	SA	engineering	JBM
Scale	1" = 100'	SA	approval

no.	description	date

AUTUMN VIEW, SECTION 5, PHASE 2  
 LOTS 260-300  
 TAX MAP 25 & 31, P/O PARCEL 75  
 HOWARD COUNTY, MARYLAND  
 SECOND ELECTION DISTRICT  
 STORM DRAIN DRAINAGE AREA MAP

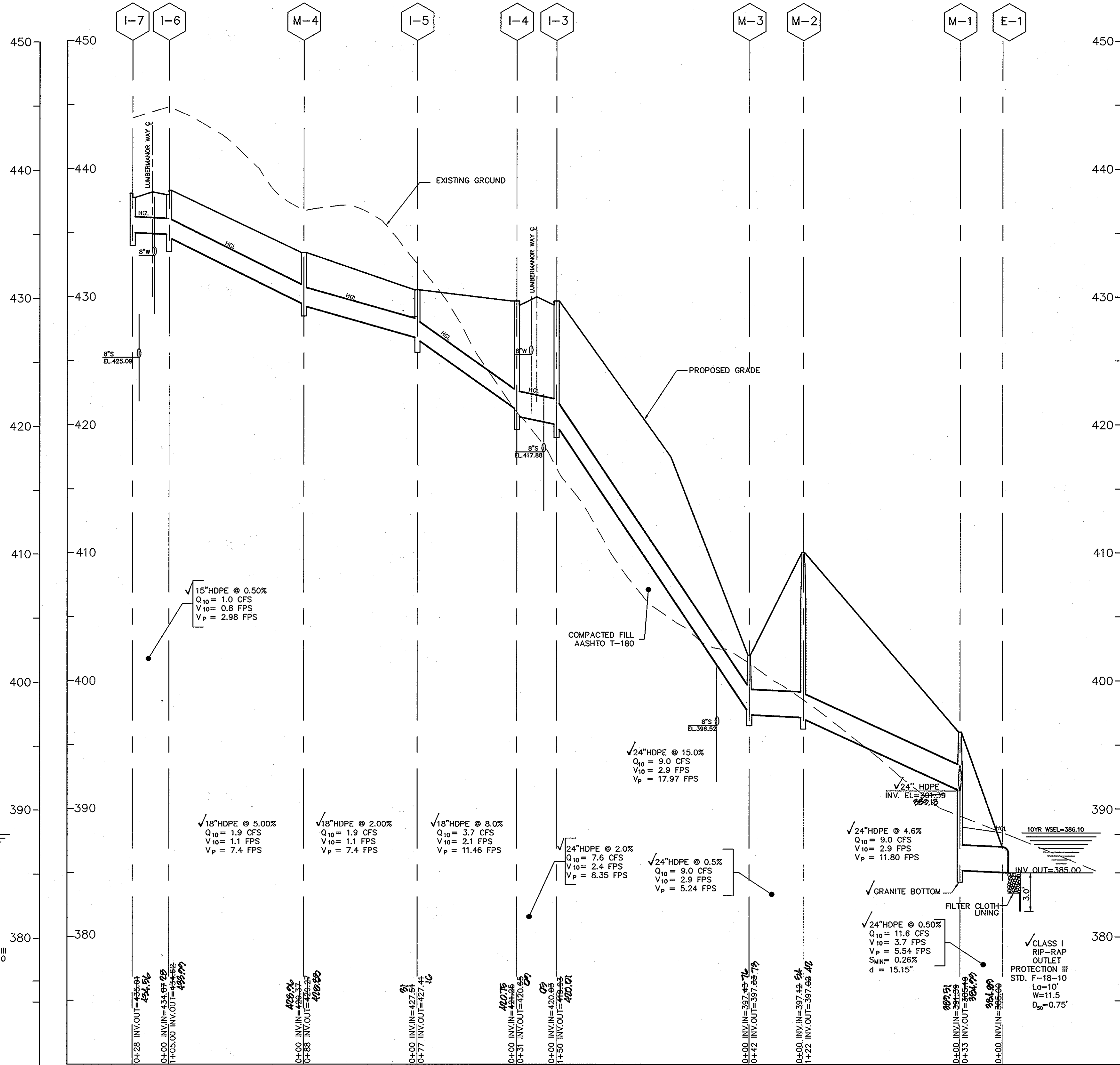
**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Planners Surveyors  
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042  
 (410) 987-0296 Balt. (301) 621-5521 Wash. (410) 997-0288 Fax





STORM DRAIN PROFILES I-2 TO E-2

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



STORM DRAIN PROFILES I-7 TO E-1

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

**OWNER/DEVELOPER**

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

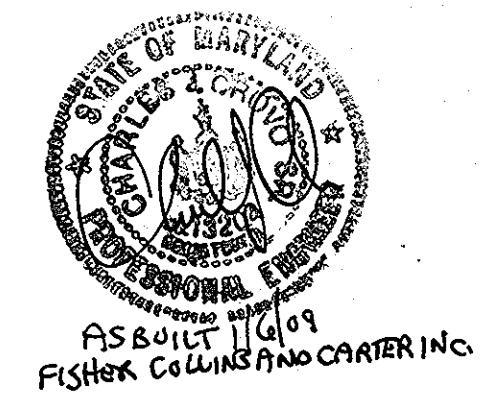
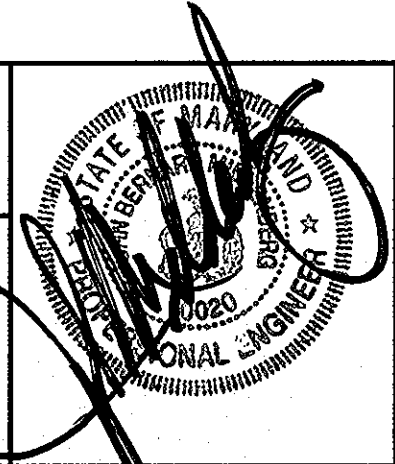
APPROVED: DEPARTMENT OF PUBLIC WORKS

*Richard M. ...* 1-16-02  
CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Chris ...* 1/23/02  
CHIEF, DIVISION OF LAND DEVELOPMENT

*...* 12/24/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION



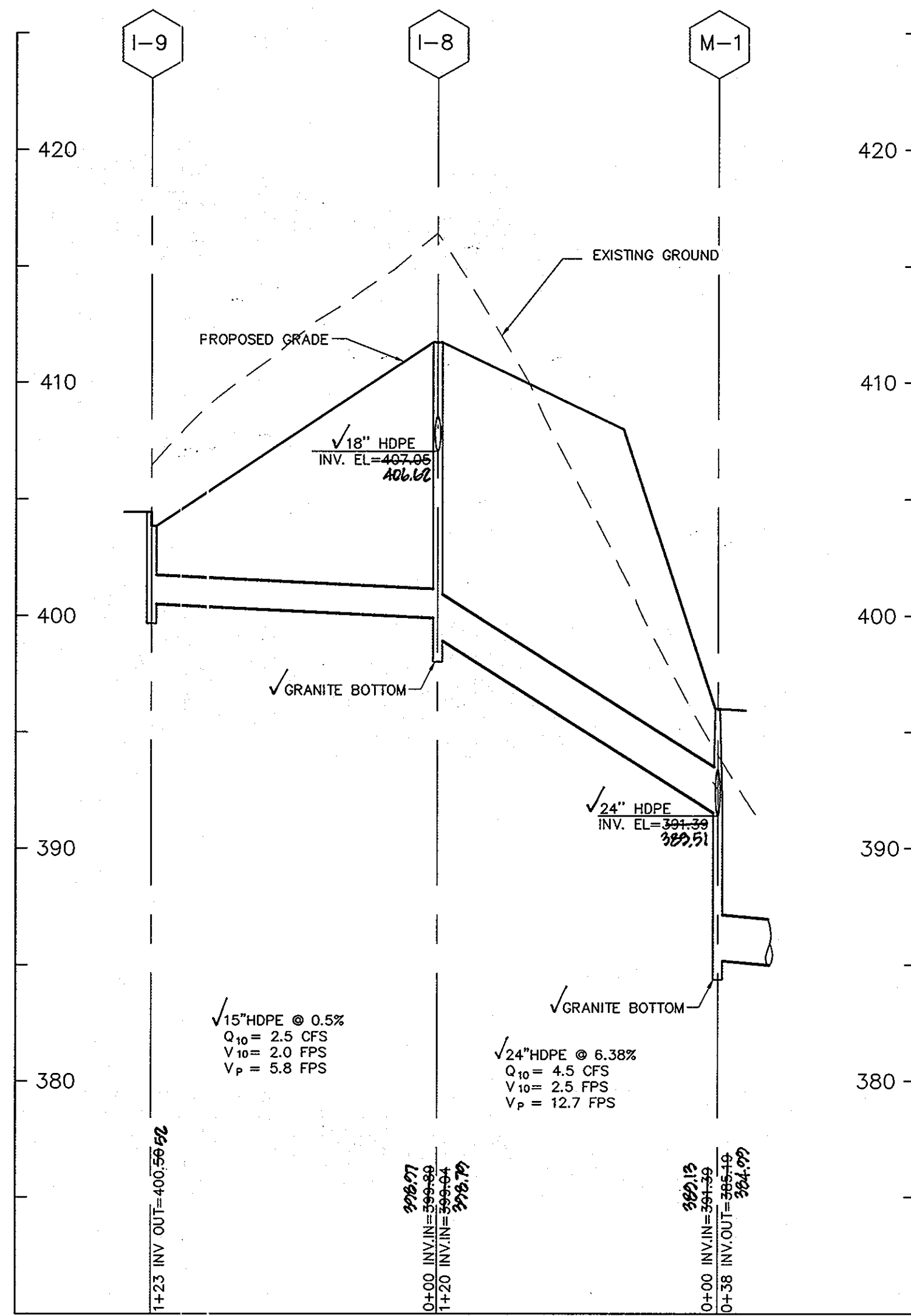
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scale	1"=50'	approval	JBM

no.	description	date	revisions
1	REVISED PER ROAD DEPT	1/10/02	

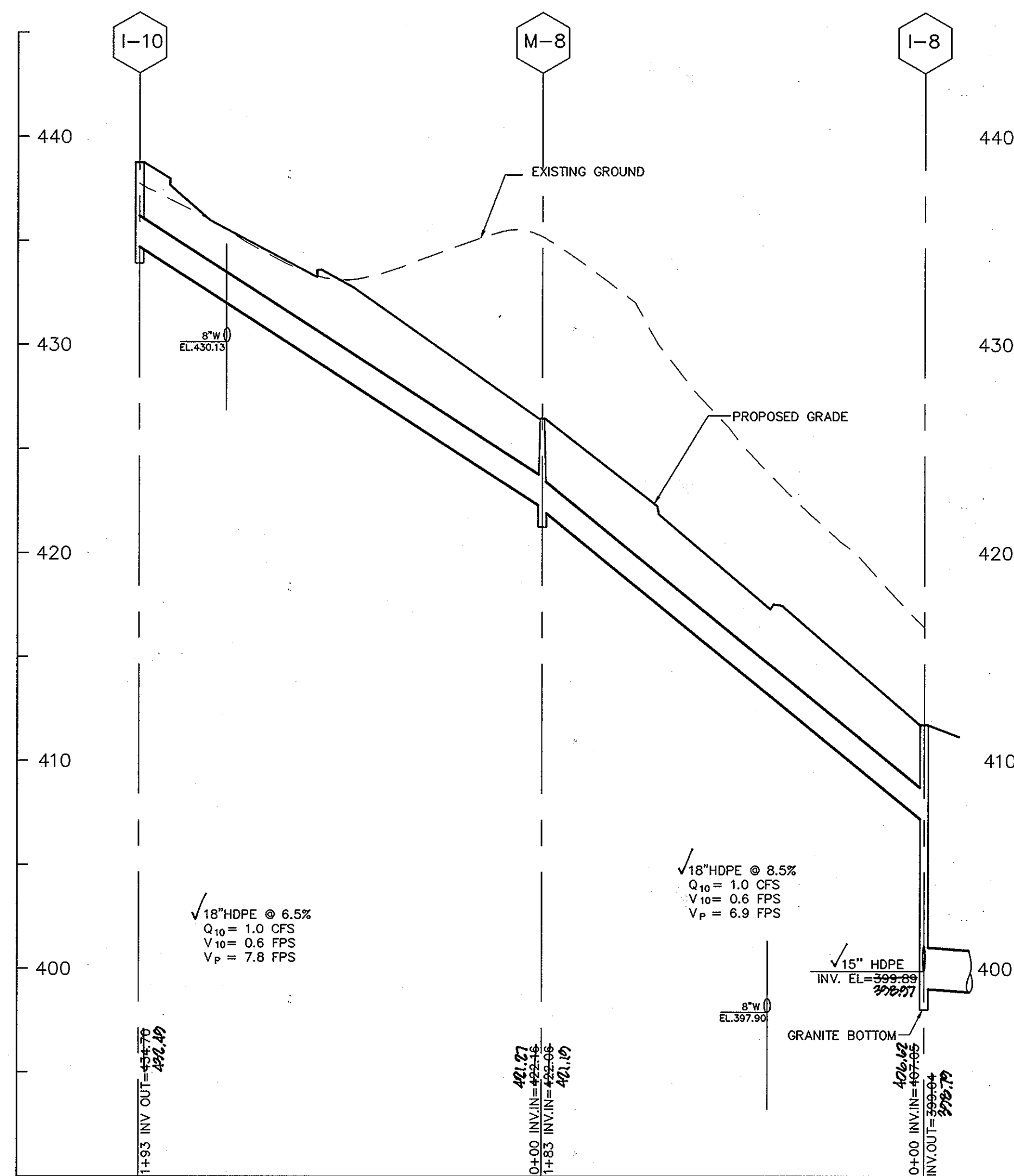
**AUTUMN VIEW SECTION 5, PHASE 2**  
LOTS: 260-300  
TAX MAP 25 & 31, P/O PARCEL 75  
HOWARD COUNTY, MARYLAND  
SECOND ELECTION DISTRICT  
STORM DRAIN PROFILE

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





STORM DRAIN PROFILES I-9 TO M-1  
SCALE: HOR. 1"=50'  
VER. 1"=5'



STORM DRAIN PROFILES I-10 TO I-8  
SCALE: HOR. 1"=50'  
VER. 1"=5'

STRUCTURE SCHEDULE

NO.	LOCATION	TOP EL.	INV. IN	INV. OUT	COMMENTS
I-1	PLEASANT PATH STA. 3+26.09 O/S 10.44' RT	425.70	411.10	410.60	✓TYPE A-10, H.C.STD. SD-4.02
I-2	PLEASANT PATH LINEAR STA. 1+81.96	415.37	---	412.34	✓TYPE A-5, H.C.STD. SD-4.01
I-3	WINDING ROSS WAY STA. 6+15.10 O/S 12.44' LT	422.27	420.67	420.67	✓TYPE A-5, H.C.STD. SD-4.01
I-4	WINDING ROSS WAY STA. 6+15.10 O/S 12.44' RT	422.27	422.27	420.67	✓TYPE A-10, H.C.STD. SD-4.02
I-5	WINDING ROSS WAY STA. 5+28.85 O/S 12.44' RT	430.44	427.44	427.44	✓TYPE A-5, H.C.STD. SD-4.01
I-6	WINDING ROSS WAY STA. 3+19.83 O/S 12.44' RT	438.65	434.67	434.67	✓TYPE A-5, H.C.STD. SD-4.01
I-7	WINDING ROSS WAY STA. 3+25.30 O/S 10.44' LT	438.65	406.67	406.67	✓TYPE A-5, H.C.STD. SD-4.01
I-8	EDGEHILL LANE STA. 3+28.28 O/S 12.44' LT	411.94	407.65	399.44	✓TYPE A-10, H.C.STD. SD-4.02
I-9	EDGEHILL LANE LINEAR STA. 1+43.54	404.46	---	400.60	✓TYPE A-5, H.C.STD. SD-4.01
I-10	FUTURE ROAD J STA. 0+49.72 O/S 10.44' RT	438.64	---	434.70	✓TYPE A-10, H.C.STD. SD-4.02
M-1	N 576+52.26 E 1373333.10	396.00	389.51	389.51	✓H.C.STD. G-5.12
M-2	N 576507.66 E 1373222.22	410.00	397.52	397.52	✓H.C.STD. G-5.12
M-3	N 576544.16 E 1373224.11	402.00	397.43	397.33	✓H.C.STD. G-5.12
M-4	WINDING ROSS WAY STA. 4+40.44 O/S 15.6' RT	433.60	429.37	429.27	✓H.C.STD. G-5.12
M-5	N 576568.62 E 1373346.16	396.00	395.10	385.43	✓H.C.STD. G-5.12
M-6	N 576601.92 E 1373467.42	398.00	393.23	393.70	✓H.C.STD. G-5.12
M-7	PLEASANT PATH STA. 3+85.0 O/S 12' RT	423.00	411.42	411.42	✓H.C.STD. G-5.12
M-8	EDGEHILL LANE STA. 1+43.27 O/S 12' LT	426.67	422.40	422.40	✓H.C.STD. G-5.12
E-1	N 576+84.99 E 1373344.27	---	384.00	---	✓H.C.STD. SD-5.61
E-2	N 576+45.88 E 1373354.99	---	384.00	---	✓H.C.STD. SD-5.61

NOTE: H.G.L. = TOP OF PIPE UNLESS OTHERWISE NOTED.

PIPE SCHEDULE

PIPE SIZE	LENGTH
15" HDPE	326 L.F.
18" HDPE	1,017 L.F.
24" HDPE	503 L.F.

OWNER/DEVELOPER

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

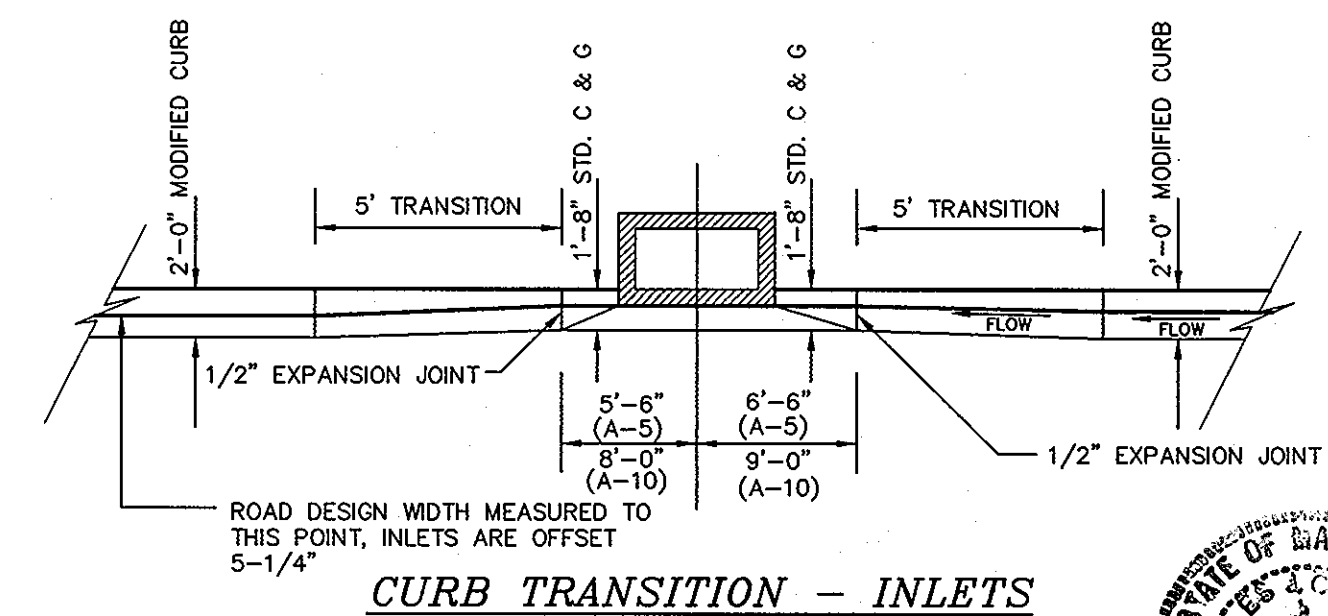
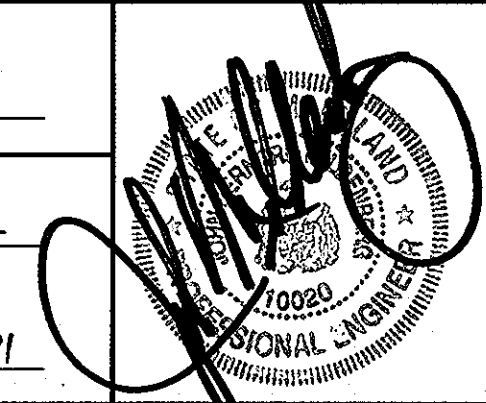
APPROVED: DEPARTMENT OF PUBLIC WORKS

*Andrew M. Jankle* 1/16/02  
CHIEF BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*David K. Hunter* 1/23/02  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*William J. ...* 12/24/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



CURB TRANSITION - INLETS  
NTS



AS BUILT 1/16/09  
FISHERS COLLINS ASSOCIATES, INC.

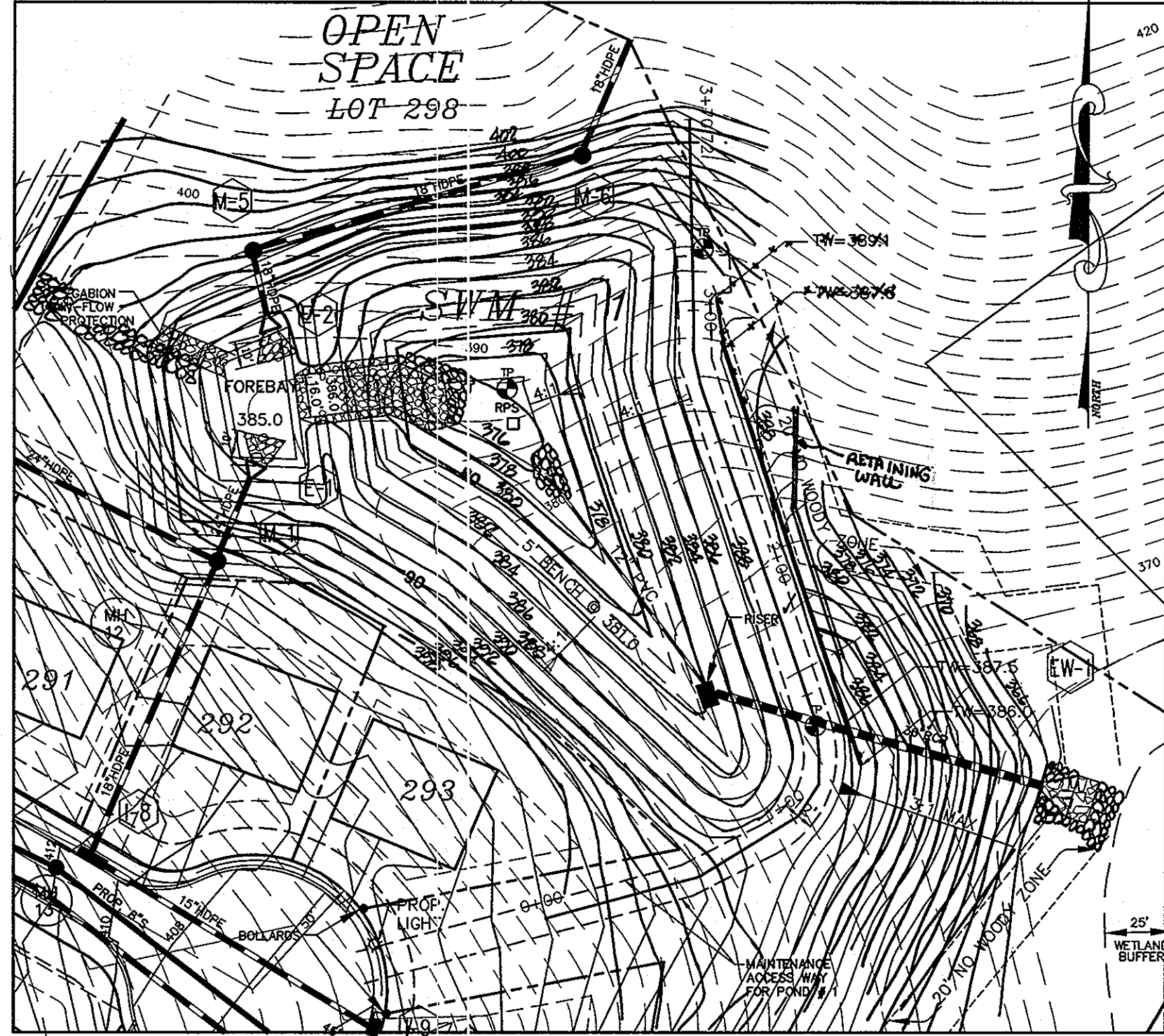
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Illustration	SAA	Engineering	SAA
Scale	1"=50'	Approval	IBM

Revisions	1/16/09	Date	1/16/09
no.	1	description	AS BUILT

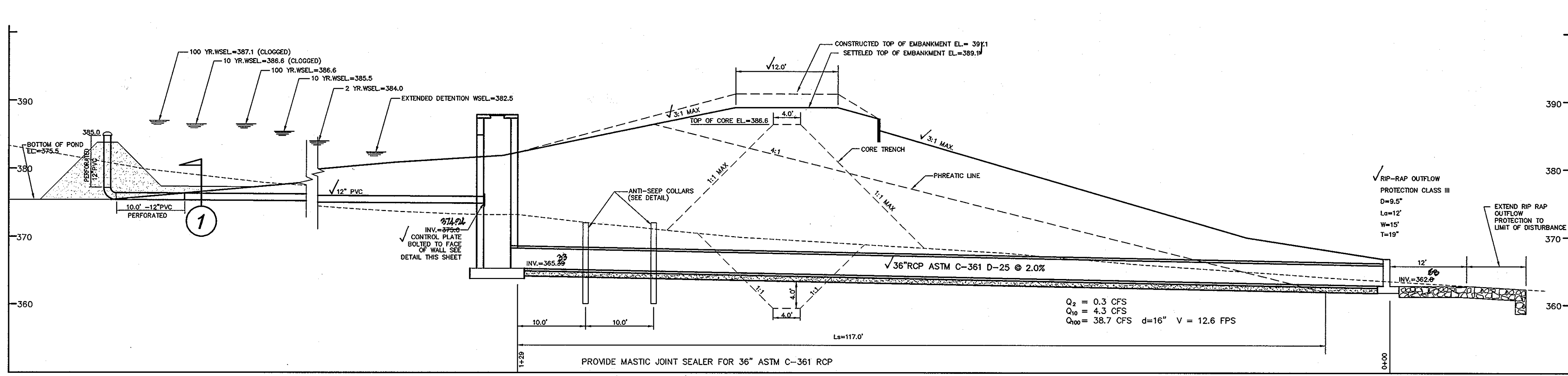
AUTUMN VIEW SECTION 5, PHASE 2  
LOTS: 260-300  
TAX MAP 25 & 31, P/O PARCEL 75  
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
STORM DRAIN PROFILE

MILDENBERG, BOENDER & ASSOC., INC.  
Engineers Planners Surveyors  
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042  
(410) 997-0296 Fax: (301) 997-5521 Wash. (410) 997-0288 Fax.

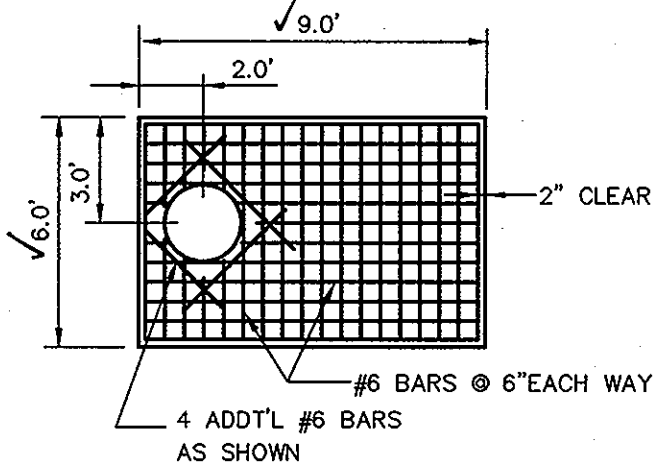




**SWM POND #1 PLAN VIEW**  
SCALE: 1"=50'



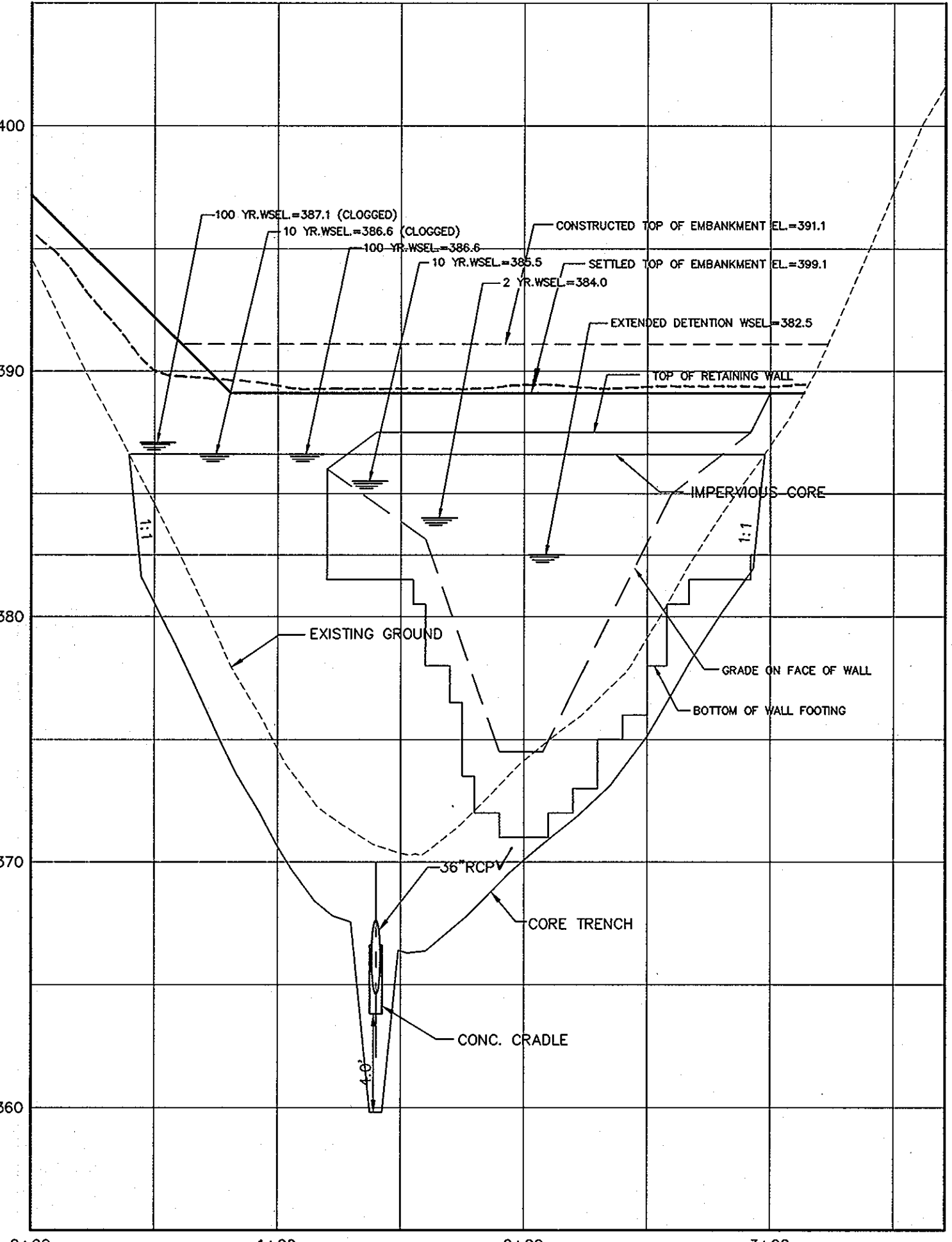
**PRINCIPLE SPILLWAY PROFILE**  
SCALE: 1"=10'



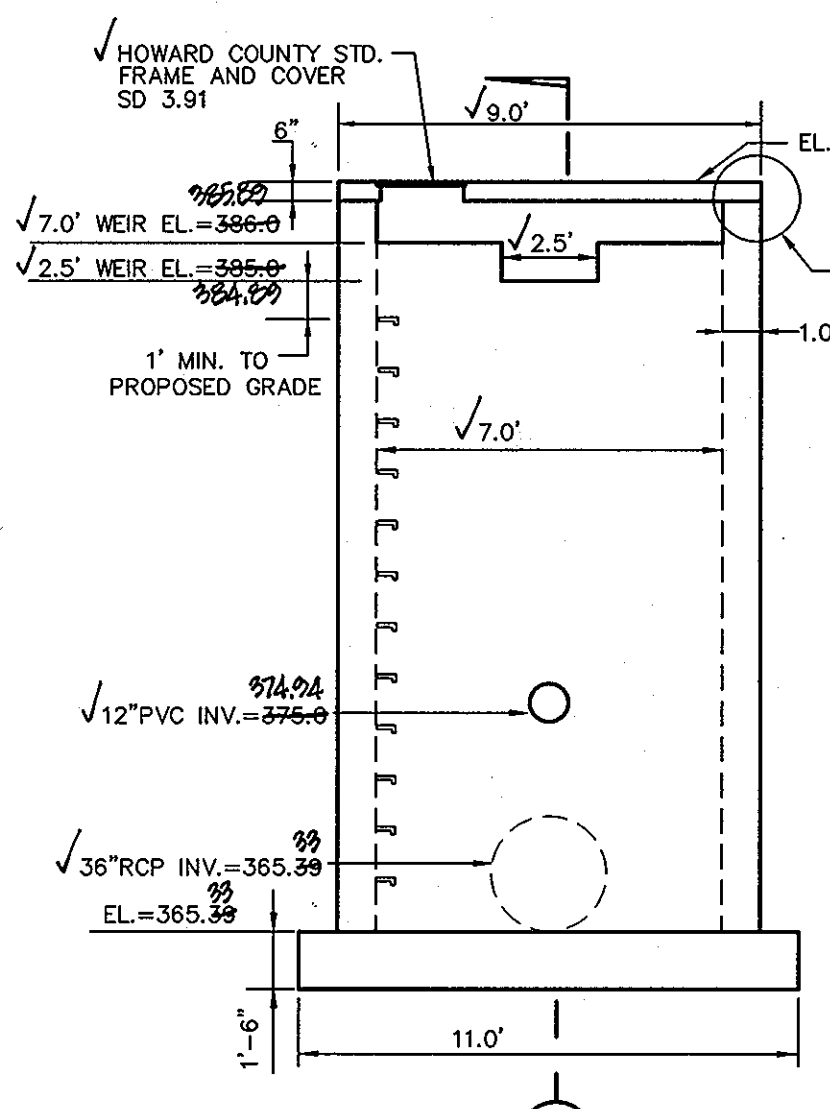
**TOP SLAB DETAIL**  
N.T.S.

**SWM #1 SUMMARY**

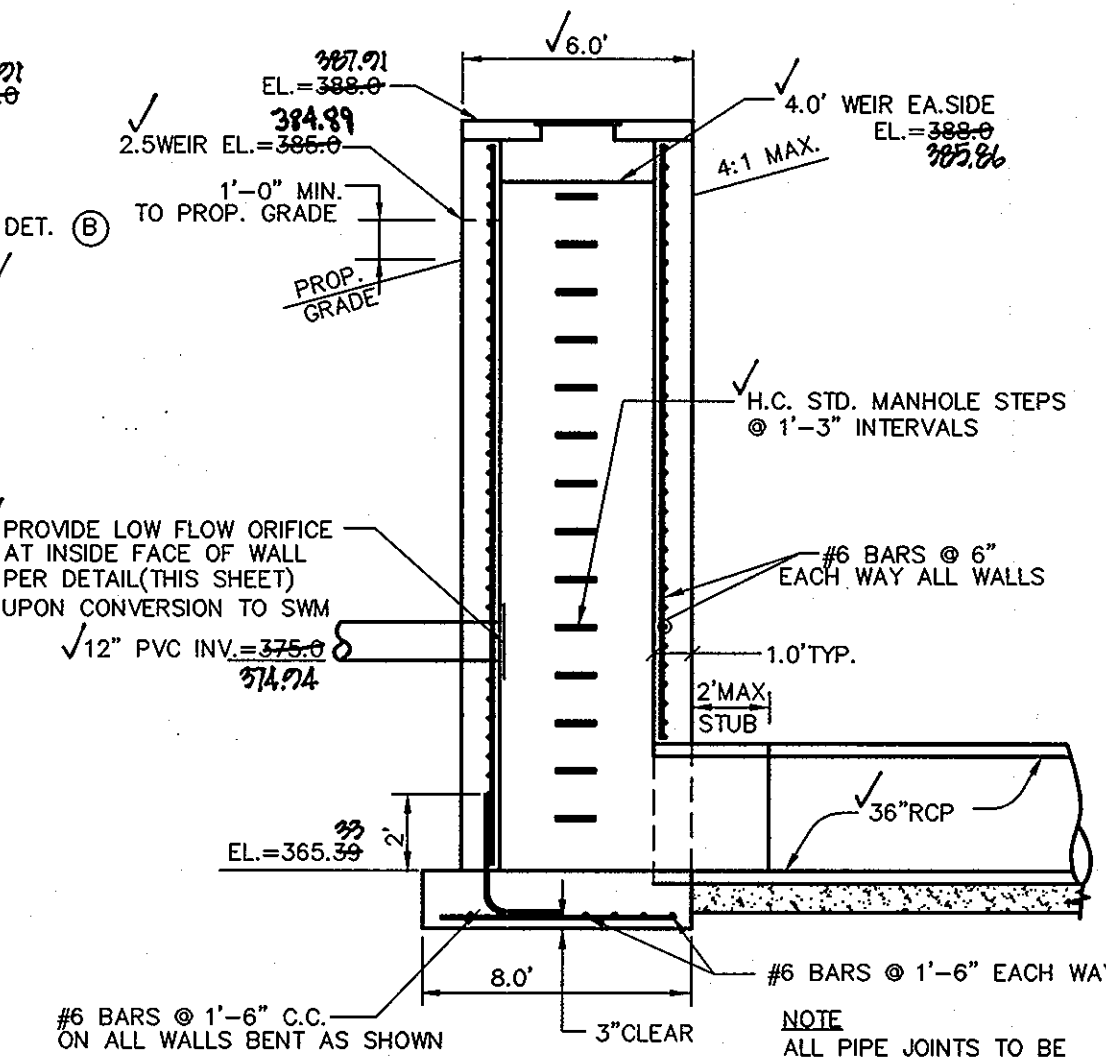
	2 YR.		BYPASS DEVELOPED	TOTAL DEVELOPED	EXISTING
	Q	EL.			
2 YR	0.3	384.1	31.5	31.8	35.3
10 YR	4.3	385.5	79.6	79.9	98.7
100 YR	38.7	386.6	N/A	N/A	N/A



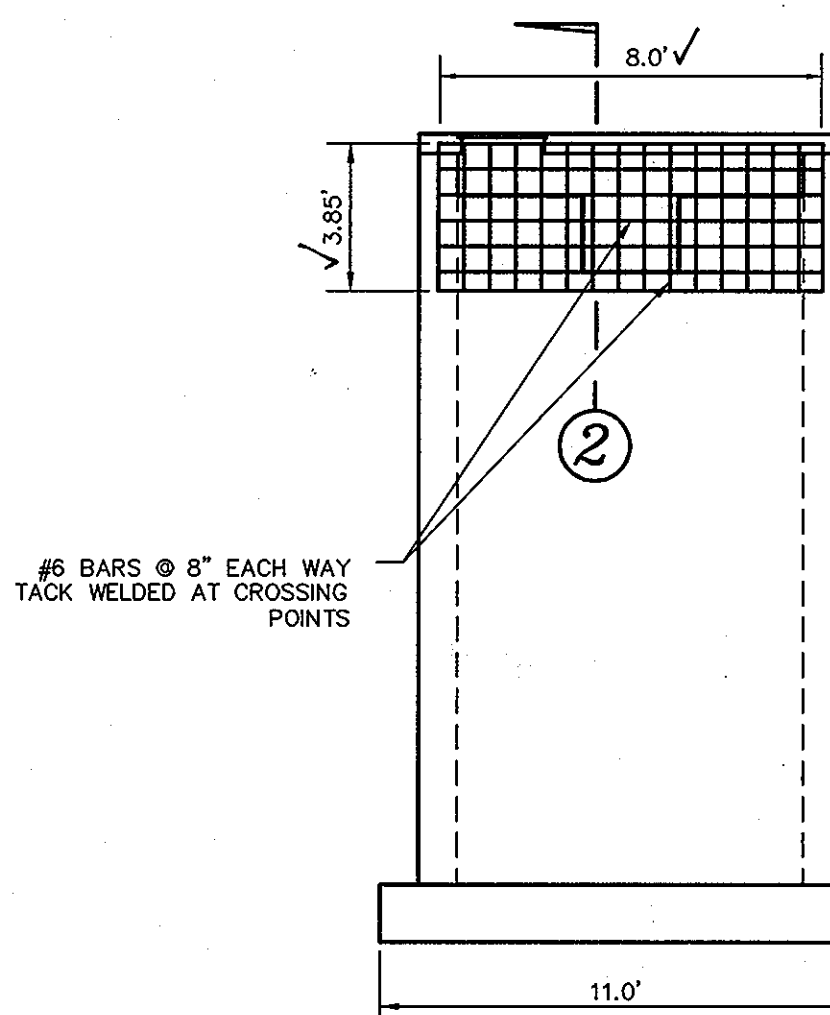
**CENTERLINE DAM PROFILE**  
SCALE: HOR. 1"=50' VER. 1"=5'



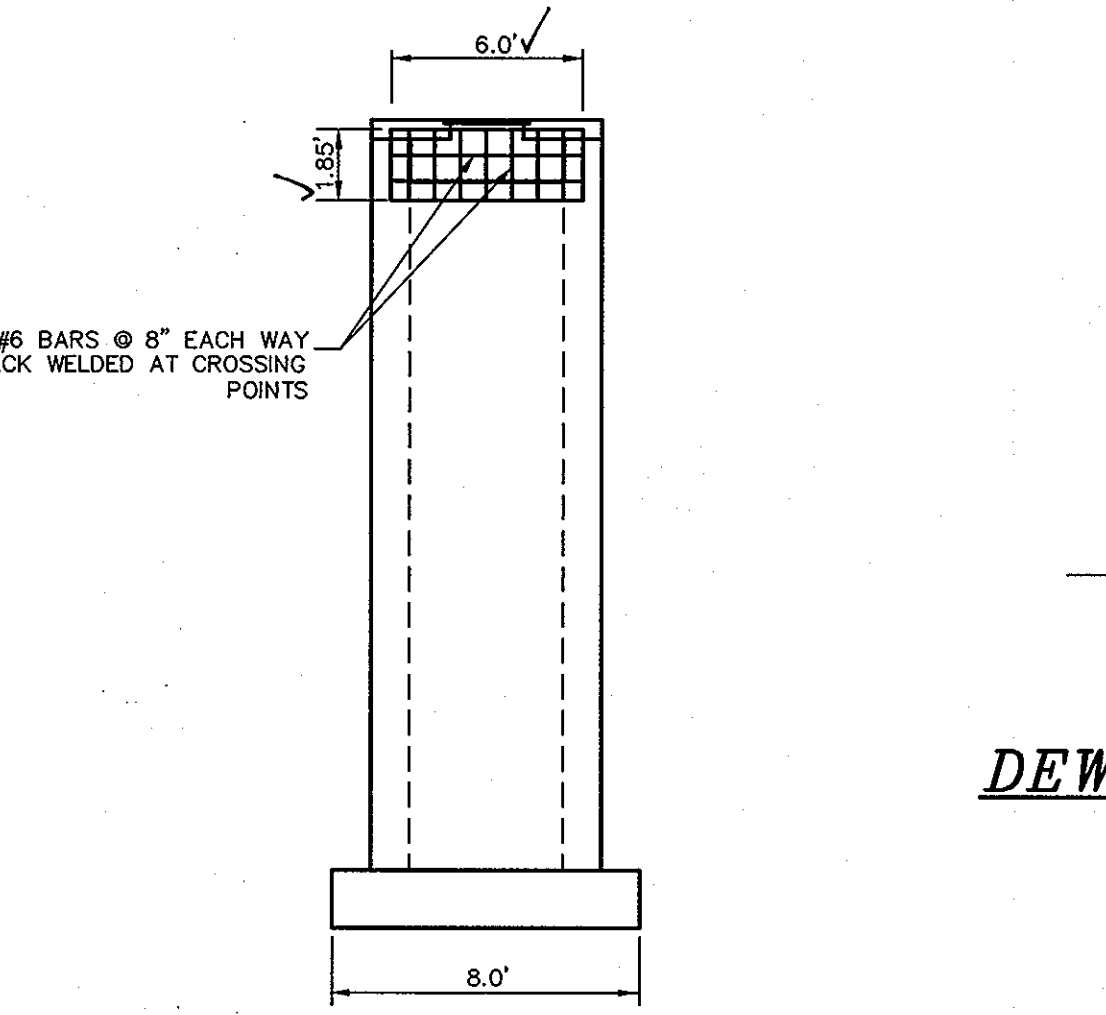
**FRONT WALL ELEVATION**  
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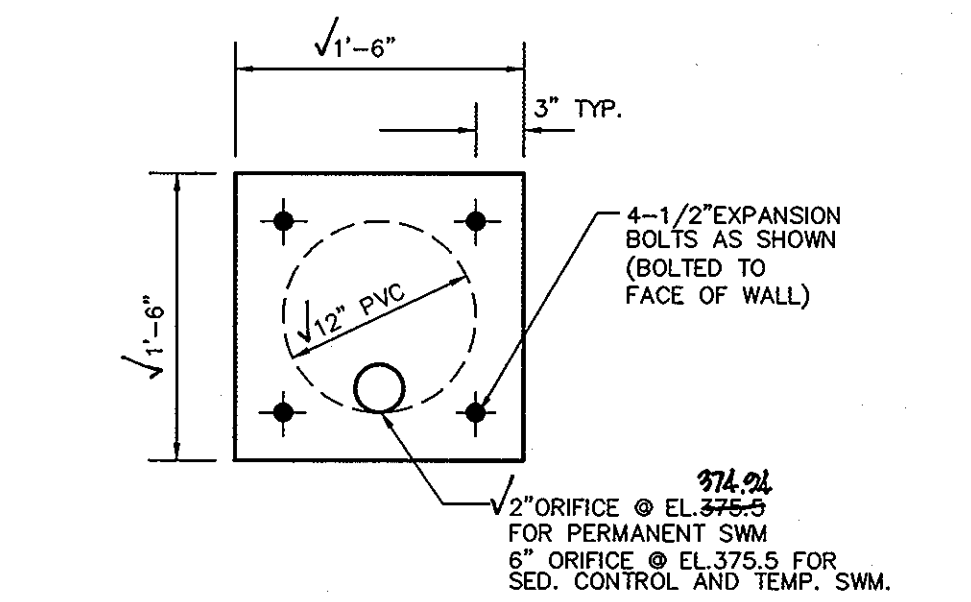
**SECTION 2**  
N.T.S.



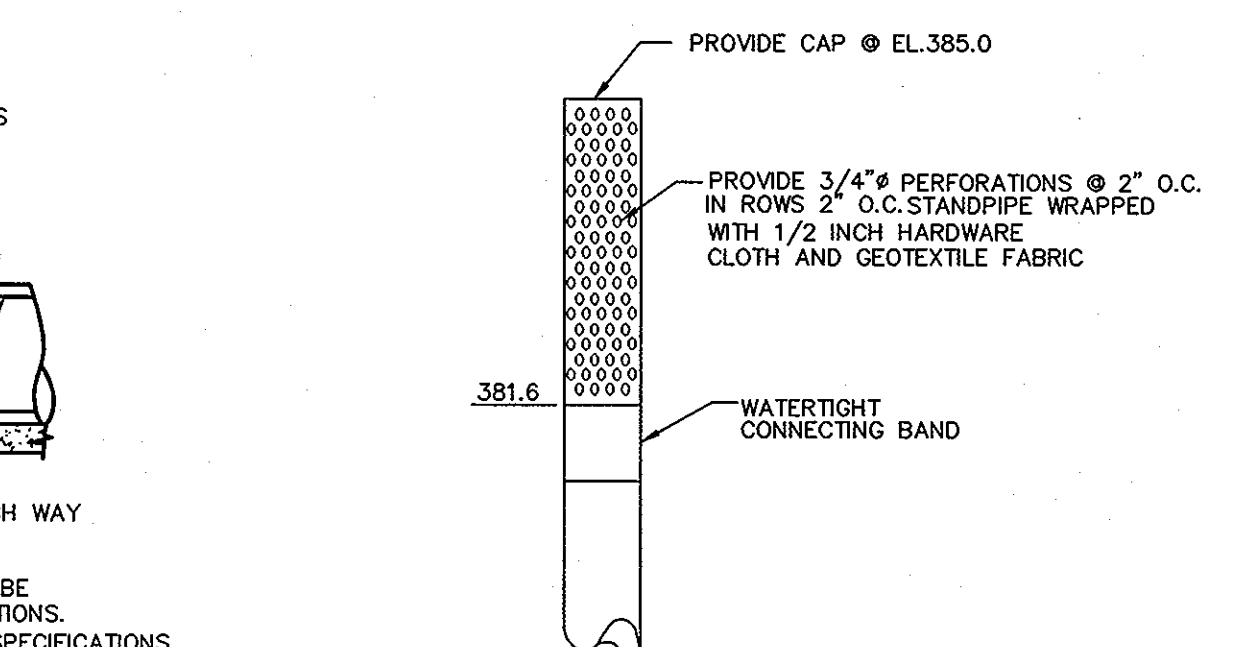
**ELEVATION OF FRONT TRASH RACK**  
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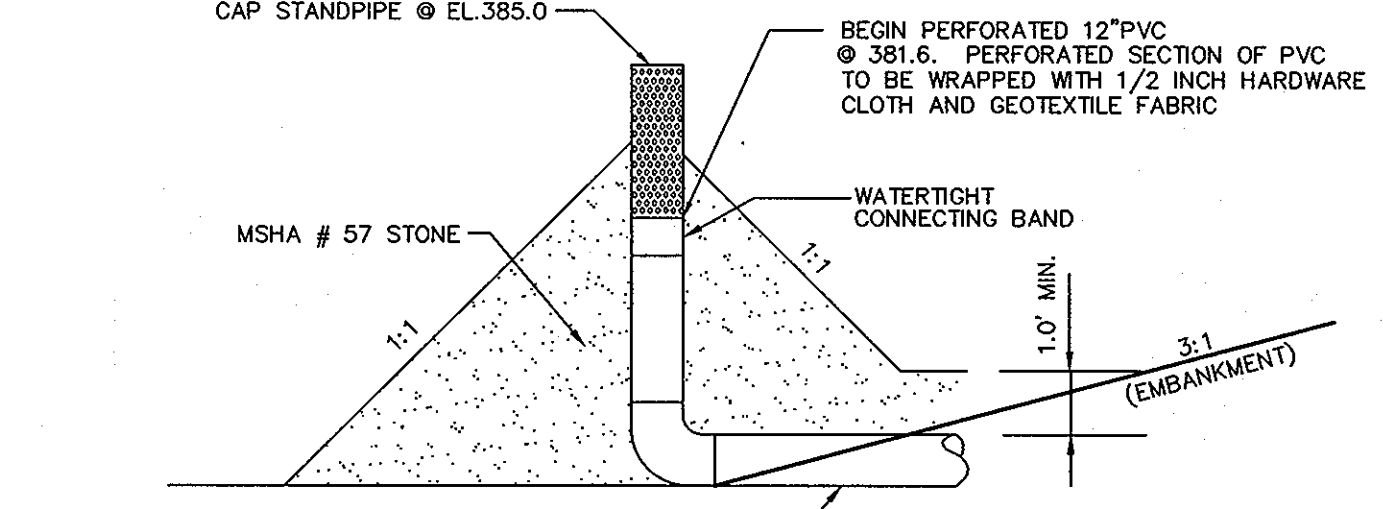
**ELEVATION OF SIDE TRASH RACK**  
N.T.S.



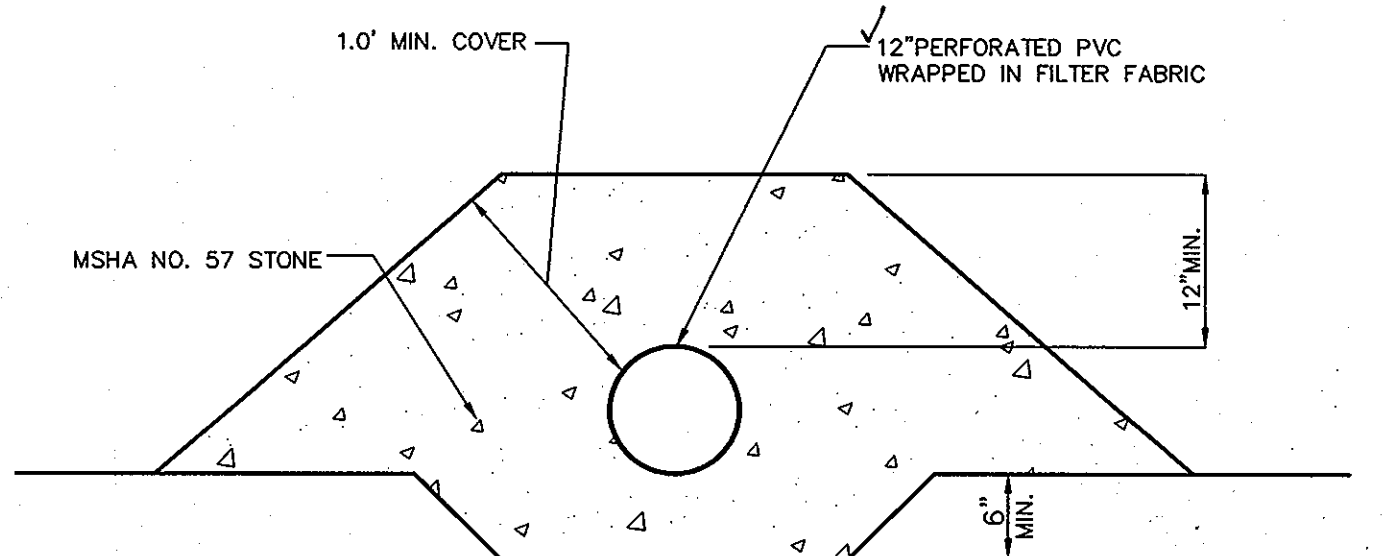
**LOW FLOW ORIFICE DETAIL**  
N.T.S.



**TEMPORARY STANDPIPE DETAIL**  
N.T.S.



**TEMPORARY DEWATERING STANDPIPES**  
N.T.S.



**SECTION 1**  
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: *[Signature]* P.E. NO.: 13204 DATE: 11/1/09

**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 POUD 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: 12/1/09  
PRINTED NAME OF DEVELOPER: Bruce Taylor, P.E.

**BY THE ENGINEER:**

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT THE SHEET IS NOT TO BE USED FOR ANY OTHER PURPOSES AND TO BE USED ONLY FOR THE PROJECT AND TO PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

SIGNATURE OF ENGINEER: *[Signature]* DATE: 12/1/09  
PRINTED NAME OF ENGINEER: [Name]

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: *[Signature]* DATE: 12/18/09  
USA - NATURAL RESOURCES CONSERVATION SERVICE

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

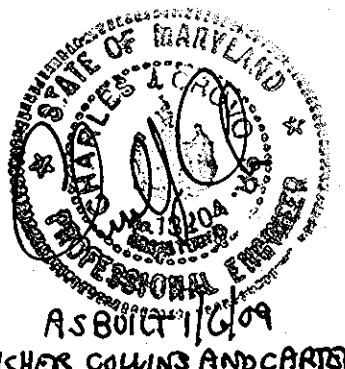
SIGNATURE: *[Signature]* DATE: 12/14/09  
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS  
SIGNATURE: *[Signature]* DATE: 1-10-02  
CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
SIGNATURE: *[Signature]* DATE: 1/23/02  
CHIEF, DIVISION OF LAND DEVELOPMENT

SIGNATURE: *[Signature]* DATE: 12/24/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION, PH-2

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



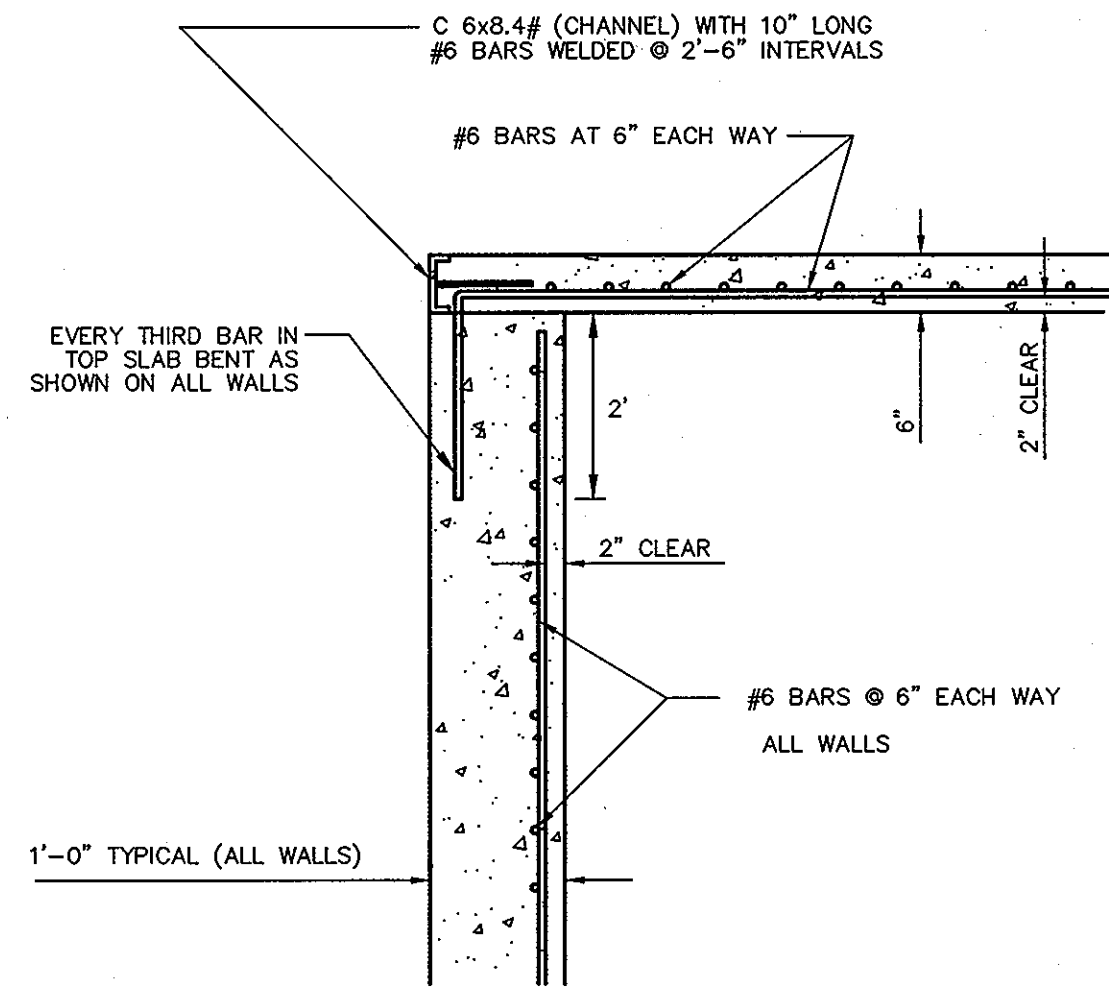
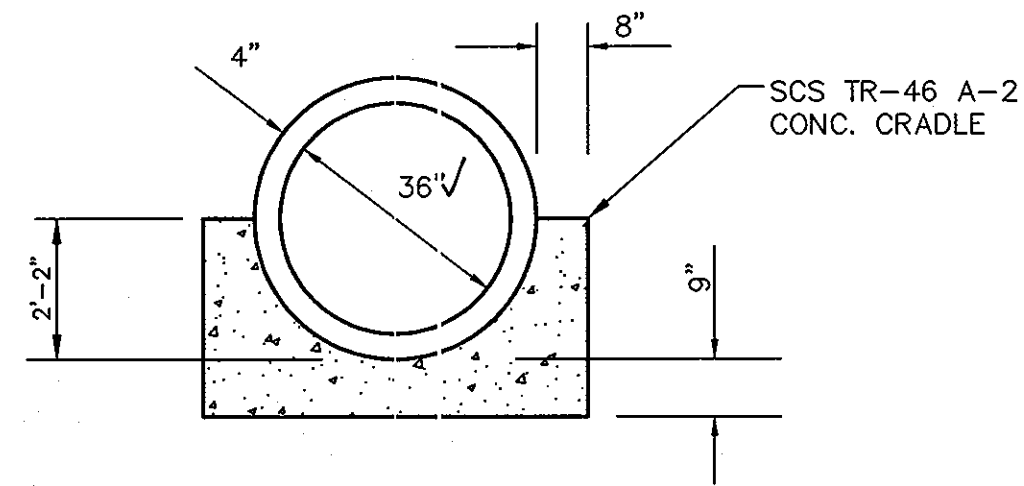
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illustration	MMP
scale	MMP
approval	AS SHOWN
no.	1
description	REVISIONS
date	11/1/09

no.	1
description	REVISIONS
date	11/1/09

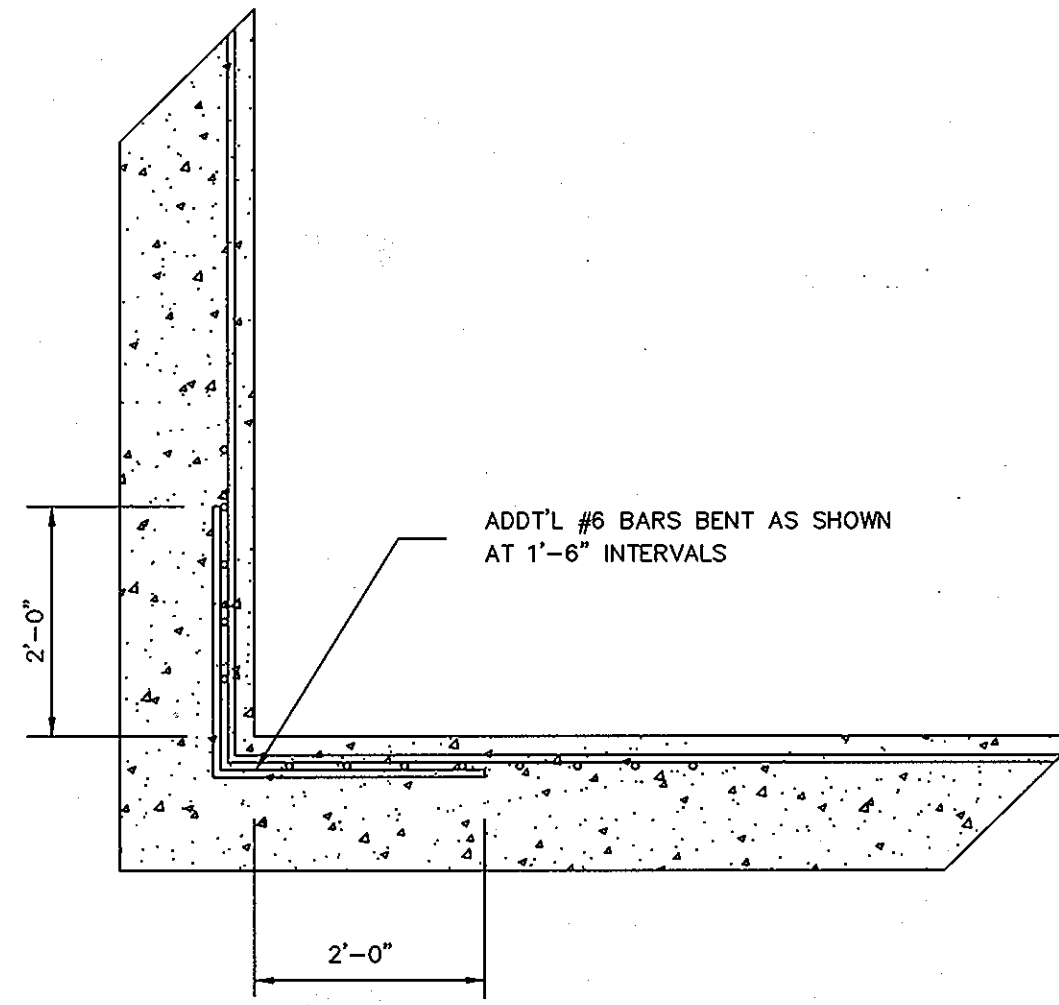
**AUTUMN VIEW, SECTION 5, PHASE 2**  
LOTS 280-300  
TAX MAP 25 & 31, P/O PARCEL 75  
HOWARD COUNTY, MARYLAND  
SECOND ELECTION DISTRICT  
STORMWATER MANAGEMENT PLAN AND PROFILES, POND #1

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

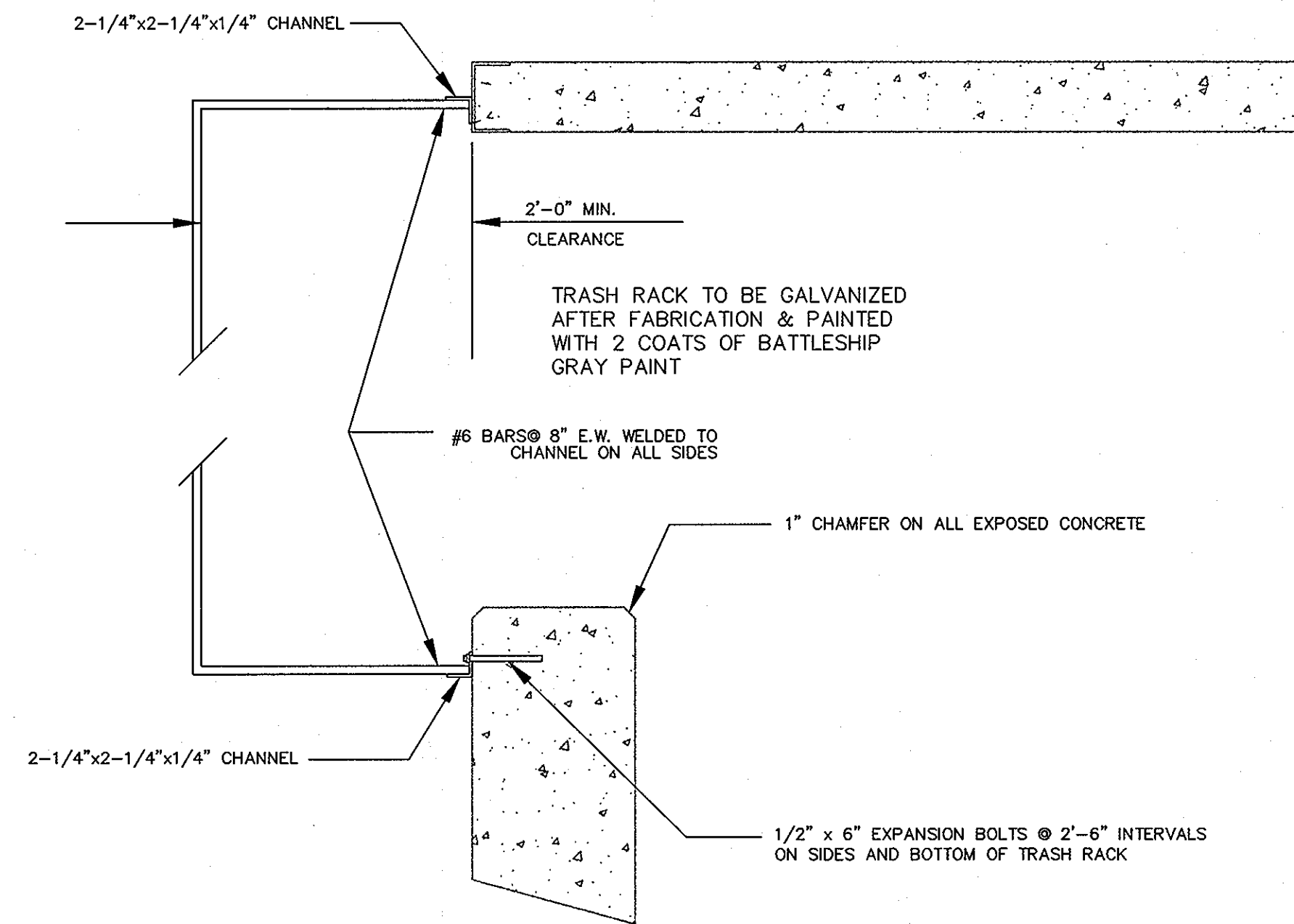




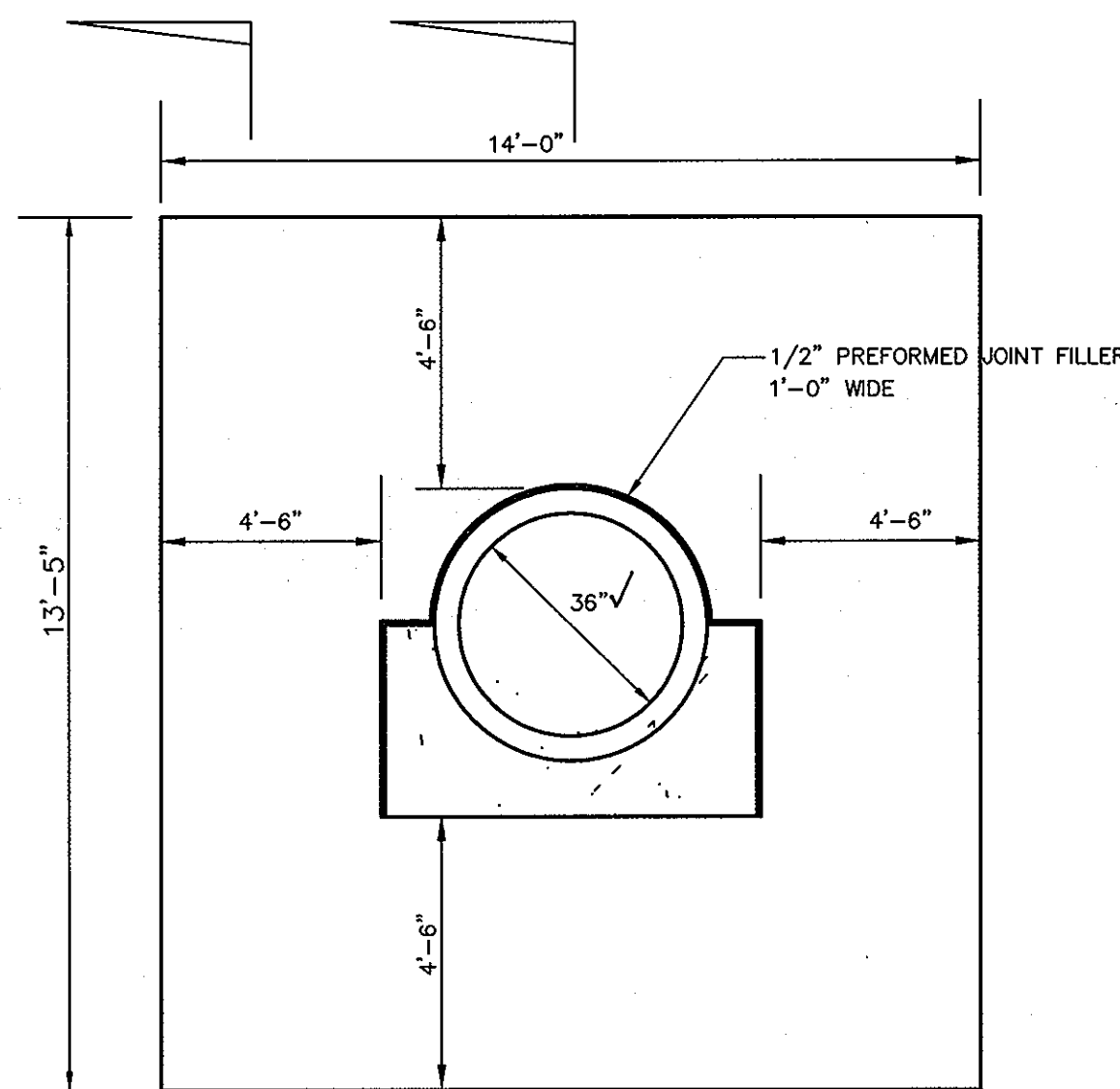
**DETAIL B**  
N.T.S.



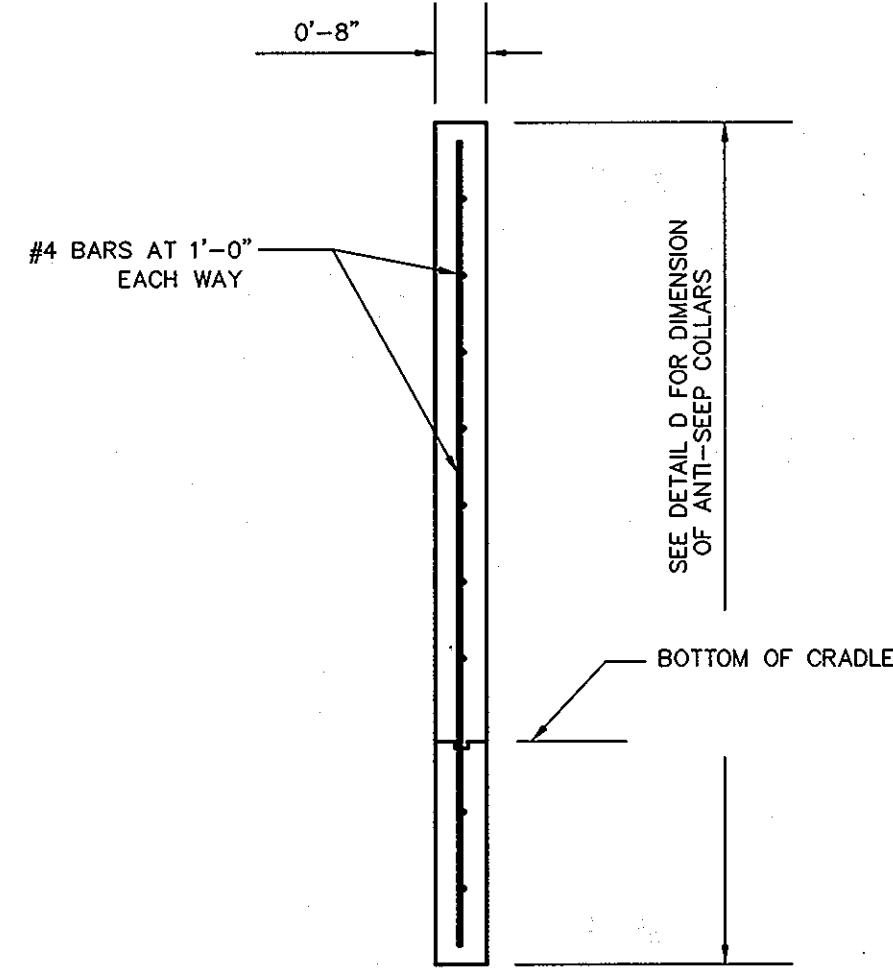
**CORNER TREATMENT DETAIL C**  
N.T.S.



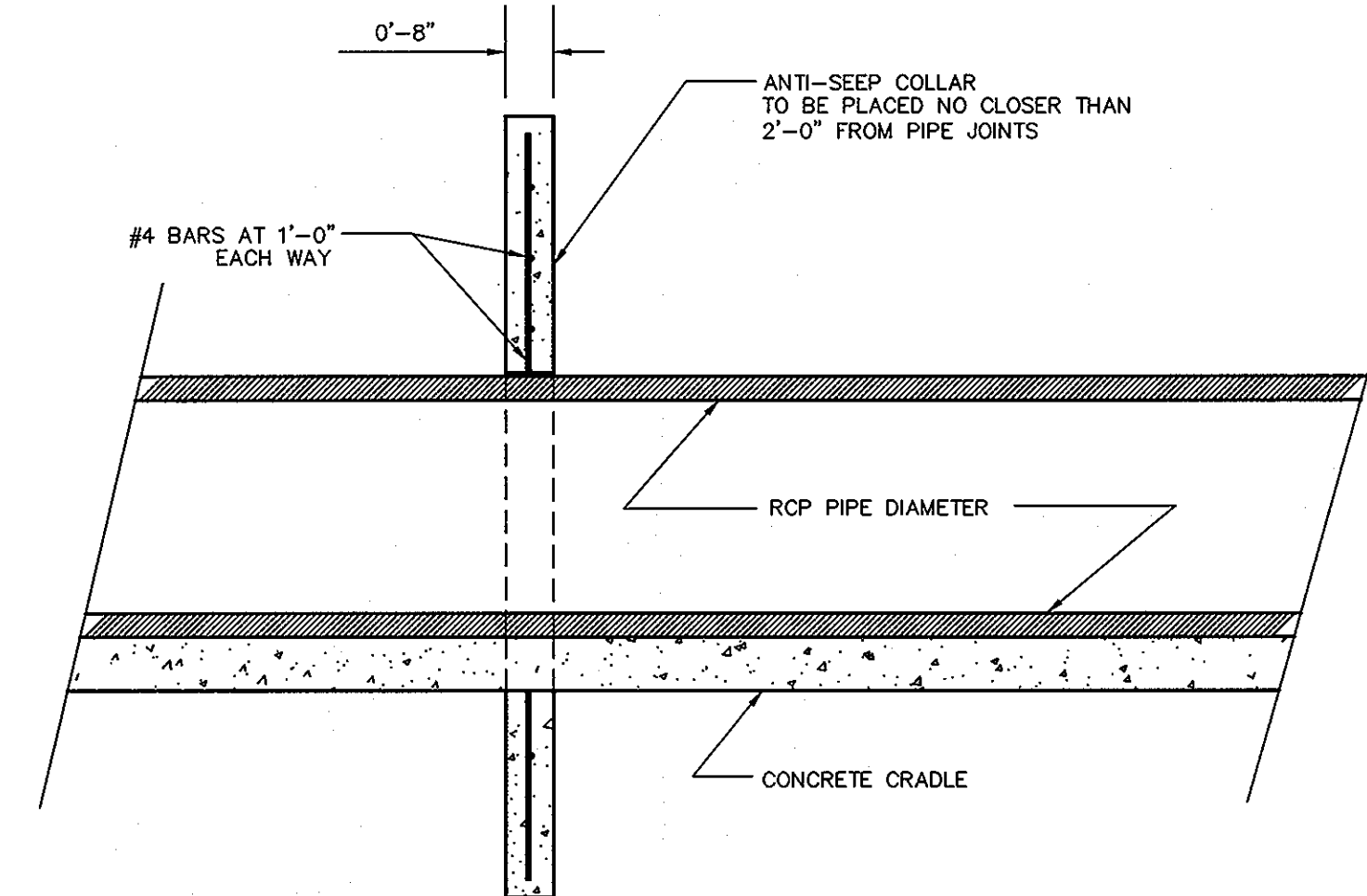
**SECTION 3**  
N.T.S.



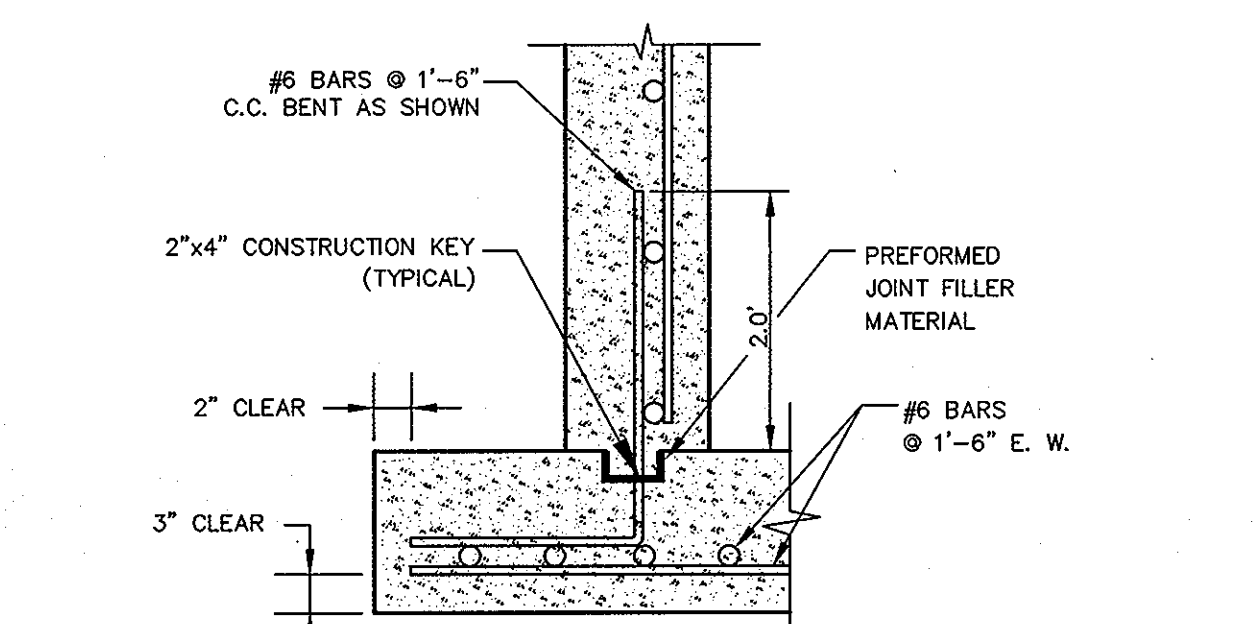
**ANTI-SEEP COLLAR DETAIL D**  
N.T.S.



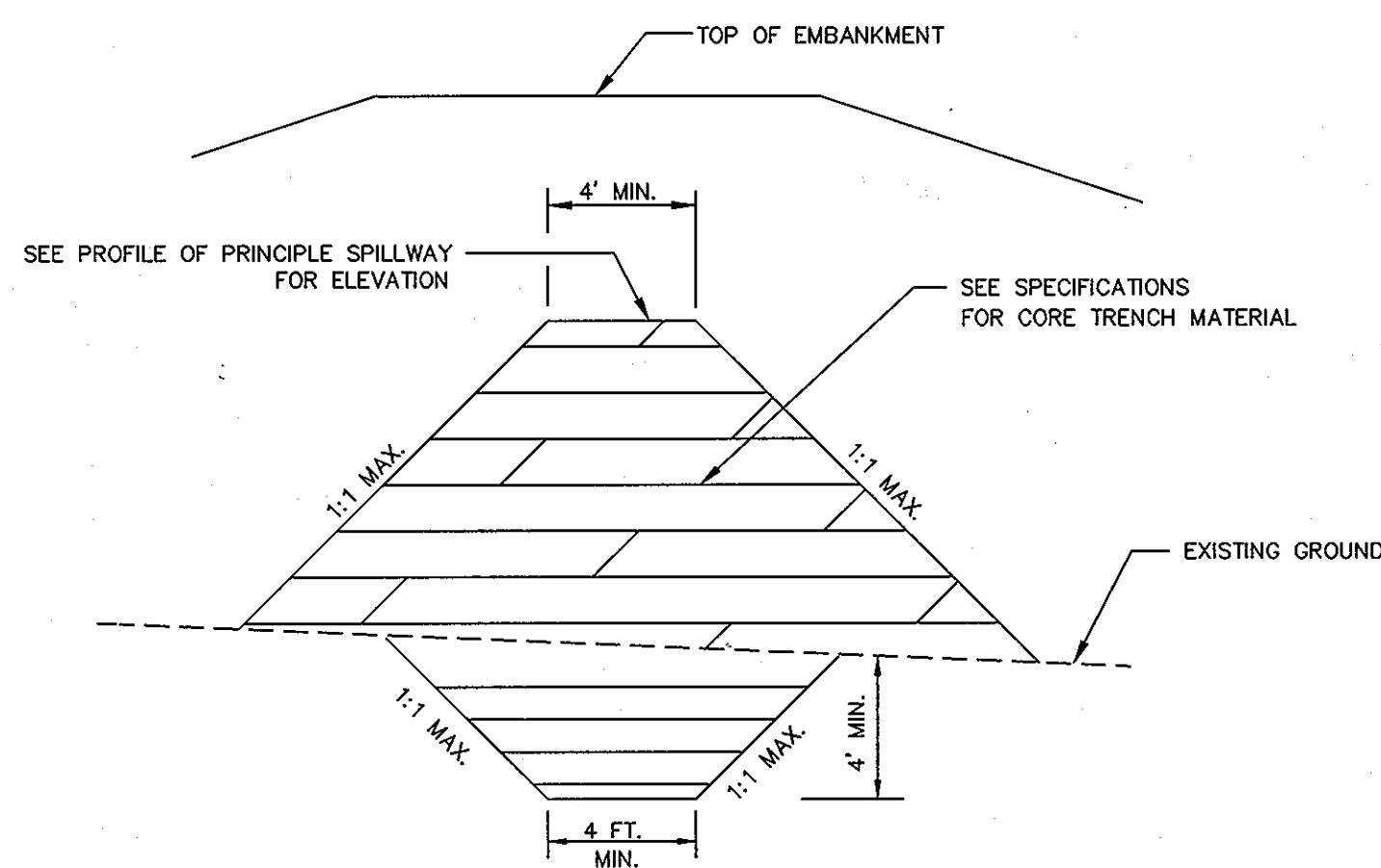
**SECTION 4**  
N.T.S.



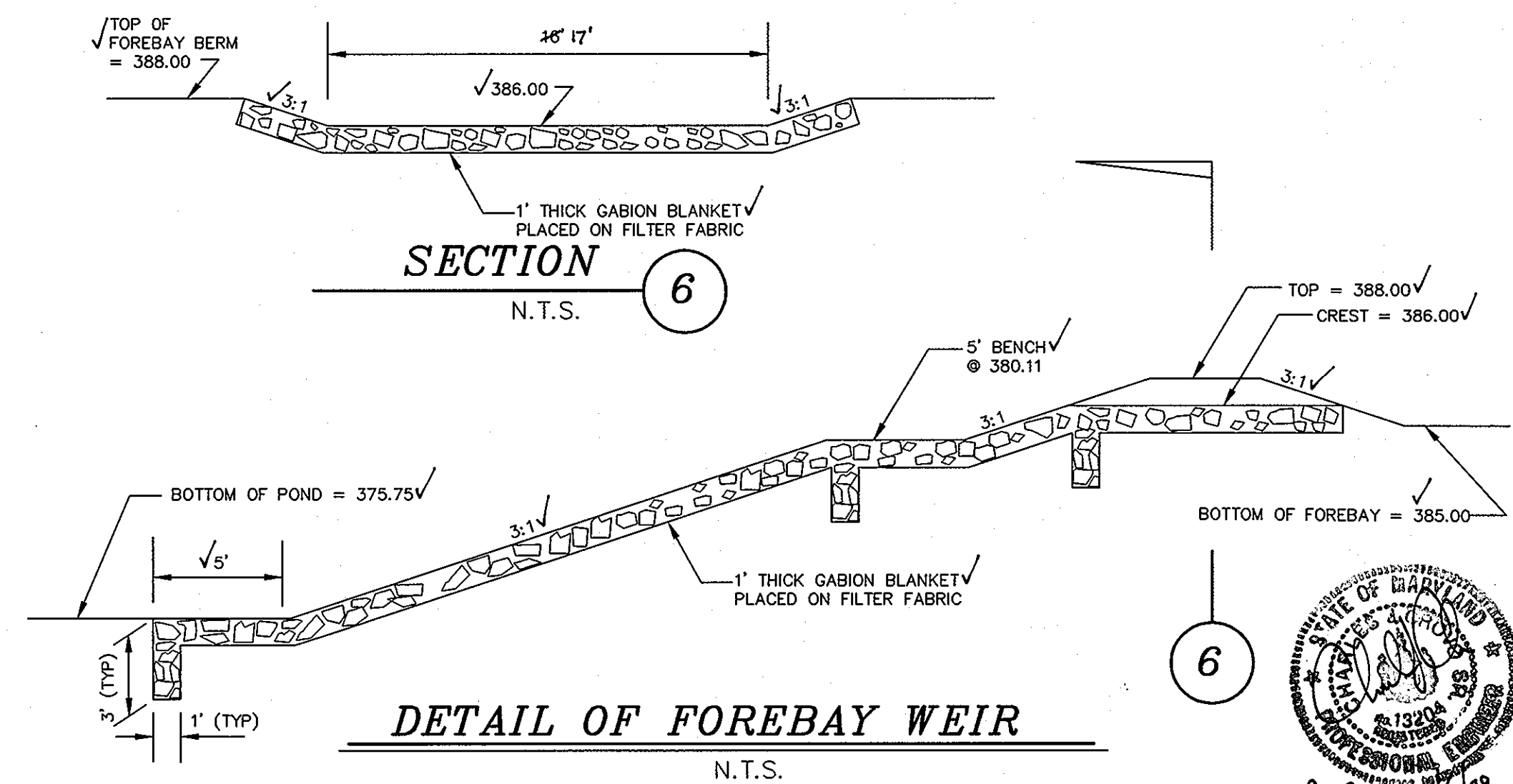
**SECTION 5**  
N.T.S.



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



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



**DETAIL OF FOREBAY WEIR**  
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: *[Signature]* P.E. NO. 13304  
DATE: 11/6/09

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: 12/16/11  
Printed Name of Developer: Bruce Taylor, Pres

BY THE ENGINEER:

I CERTIFY THAT THIS ENGINEERING CONSTRUCTION EROSION AND SEDIMENT CONTROL REPRESENTS A PROFESSIONAL AND ETHICAL PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, SPECIFICATIONS AND AS-BUILT PLANS 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 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: 12/16/11  
Printed Name of Engineer: James McInerney

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: 12/18/10

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

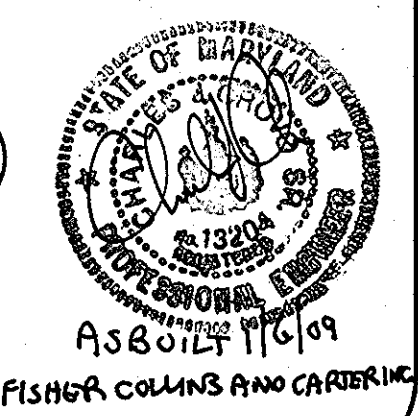
Signature: *[Signature]* DATE: 12/18/10  
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS  
Signature: *[Signature]* DATE: 1-16-02  
CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Signature: *[Signature]* DATE: 1/23/02  
CHIEF, DIVISION OF LAND DEVELOPMENT

Signature: *[Signature]* DATE: 12/24/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION #13

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



FISHER COLINS AND CARBERG

Project	99072	date	DEC 2001
Illustration	MMP	engineering	MMP
Scale	MMP	approval	MMP
AS SHOWN	JBM	approval	JBM

1	REVISION	DATE	1/10/09
	DESCRIPTION		
	REVISIONS		

**AUTUMN VIEW, SECTION 5, PHASE 2**  
LOTS: 260-300  
TAX MAP 25 & 31, P/O PARCEL 75  
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
STORMWATER MANAGEMENT DETAILS

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042  
(410) 987-0936 Fax: (301) 681-5521 Wash. (410) 987-0936 Fax.



MD-378 POND SPECIFICATIONS (JANUARY 2000)

CONSTRUCTION SPECIFICATIONS

THESE SPECIFICATIONS ARE APPROPRIATE TO ALL PONDS WITHIN THE SCOPE OF THE STANDARD FOR PRACTICE MD-378...

SITE PREPARATION

AREAS DESIGNATED FOR BORROW AREAS, EMBANKMENT, AND STRUCTURAL WORKS SHALL BE CLEARED, GRUBBED AND STRIPPED OF ALL VEGETATION...

AREAS TO BE COVERED BY THE RESERVOIR WILL BE CLEARED OF ALL TREES, BRUSH, LOGS, FENCES, RUBBISH AND OTHER OBJECTIONABLE MATERIAL...

ALL CLEARED AND GRUBBED MATERIAL SHALL BE DISPOSED OF OUTSIDE AND BELOW THE LIMITS OF THE DAM AND RESERVOIR AS DIRECTED BY THE OWNER...

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"...

PLACEMENT - AREAS ON WHICH FILL IS TO BE PLACED SHALL BE SCRIPED FIRST TO PLACE OF FILL. MATERIALS SHALL BE PLACED IN MAXIMUM 8 INCH THICK LAYERS...

COMPACT - THE MOVEMENT OF THE HAULING AND SPREADING EQUIPMENT OVER THE FILL SHALL BE CONTROLLED SO THAT THE ENTIRE SURFACE OF EACH LIFT SHALL BE TRAVERSED BY NOT LESS THAN ONE TREAD TRACK OF HEAVY EQUIPMENT...

CUT OFF TRENCH - THE CUTOFF TRENCH SHALL BE EXCAVATED INTO IMPERVIOUS MATERIAL ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT...

EMBANKMENT CORE - THE CORE SHALL BE PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE TOP WIDTH OF THE CORE SHALL BE A MINIMUM OF FOUR FEET...

STRUCTURAL BACKFILL

BACKFILL ADJACENT TO PIPES OR STRUCTURES SHALL BE OF THE TYPE AND QUALITY CONFORMING TO THAT SPECIFIED FOR THE ADJOINING FILL MATERIAL... REINFORCED CONCRETE PIPE SHALL HAVE BELL AND SPIGOT JOINTS WITH RUBBER GASKETS...

PIPE CONDUIT

ALL PIPES SHALL BE CIRCULAR IN CROSS SECTION. CORRUGATED METAL PIPE - ALL OF THE FOLLOWING CRITERIA SHALL APPLY FOR CORRUGATED METAL PIPE:

1. MATERIALS - (POLYMER COATED STEEL PIPE) - STEEL PIPES WITH POLYMERIC COATINGS SHALL HAVE A MINIMUM COATING THICKNESS OF 0.01 INCH (1 MIL) ON BOTH SIDES OF THE PIPE...

MATERIALS - (ALUMINUM COATED STEEL PIPE) - THIS PIPE AND ITS APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-196 OR M-21 WITH WATER TIGHT COUPLING BANDS OR FLANGES...

MATERIALS - (ALUMINUM PIPE) - THIS PIPE AND ITS APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-196 OR M-21 WITH WATER TIGHT COUPLING BANDS OR FLANGES...

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

3. CONNECTIONS - ALL CONNECTIONS WITH PIPES MUST BE COMPLETELY WATER TIGHT. THE DRAIN PIPE OR BARREL CONNECTION TO THE RISER SHALL BE WEATHER PROTECTED WHEN THE PIPE AND RISER ARE METAL ANTI-SEEP COLLARS SHALL BE CONNECTED TO THE PIPE IN SUCH A MANNER AS TO BE COMPLETELY WATER TIGHT...

ALL CONNECTIONS SHALL USE A RUBBER OR NEOPRENE GASKET WHEN JOINING PIPE SECTIONS. THE END OF EACH PIPE SHALL BE REINFORCED WITH CORRUGATIONS TO ACCOMMODATE THE BANDWIDTH. THE FOLLOWING TYPE CONNECTIONS ARE ACCEPTABLE FOR PIPES LESS THAN 24 INCHES IN DIAMETER...

HELICALLY CORRUGATED PIPE SHALL HAVE EITHER CONTINUOUSLY WELDED SEAMS OR HAVE LOCK SEARNS 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 C-361.

2. BEDDING - REINFORCED CONCRETE PIPE CONDUITS SHALL BE LAID IN A CONCRETE BEDDING/CRADLE FOR THEIR ENTIRE LENGTH. THIS BEDDING/CRADLE SHALL CONSIST OF HIGH SLUMP CONCRETE PLACED UNDER THE PIPE AND UP THE SIDES OF THE PIPE AT LEAST 50% OF ITS OUTSIDE DIAMETER WITH A MINIMUM THICKNESS OF 6 INCHES...

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 SHOULD BE TAKEN TO PREVENT ANY DEVIATION FROM THE ORIGINAL LINE AND GRADE OF THE PIPE...

4. BACKFILLING SHALL CONFORM TO "STRUCTURE BACKFILL."

5. OTHER DETAILS (ANTI-SEEP COLLARS, VALVES, ETC.) SHALL BE AS SHOWN ON THE DRAWINGS.

PLASTIC PIPE - THE FOLLOWING CRITERIA SHALL APPLY FOR PLASTIC PIPE:

1. MATERIALS - PVC PIPE SHALL BE PVC-1120 OR PVC-1220 CONFORMING TO ASTM D1785 OR ASTM D-2241 CORRUGATED HIGH DENSITY POLYETHYLENE (HDPE) PIPE, COUPLINGS AND FITTINGS SHALL CONFORM TO THE FOLLOWING: 4" - 10" INCH SHALL MEET THE REQUIREMENTS OF AASHTO M252 TYPE S, AND 12" THROUGH 24" INCH SHALL MEET THE REQUIREMENTS OF AASHTO M294 TYPE S.

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

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. BACKFILL SHALL CONFORM TO "STRUCTURE BACKFILL."

5. OTHER DETAILS (ANTI-SEEP COLLARS, VALVES, ETC.) SHALL BE AS SHOWN ON THE DRAWINGS.

DRAINAGE DIAPHRAGMS - WHEN A DRAINAGE DIAPHRAGM IS USED, A REGISTERED PROFESSIONAL ENGINEER WILL SUPERVISE THE DESIGN AND CONSTRUCTION INSPECTION.

CONCRETE

CONCRETE SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 414, MIX NO. 3.

ROCK RIPRAP

ROCK RIPRAP SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 311.

GEOTEXTILE 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 921.09, CLASS C.

CARE OF WATER DURING CONSTRUCTION

ALL WORK ON PERMANENT STRUCTURES SHALL BE CARRIED OUT IN AREAS FREE FROM WATER. THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ALL TEMPORARY DRESSES, LEAVES, COTTERDAMS, DRAINAGE CHANNELS, AND STREAM DIVERSIONS NECESSARY TO PROTECT THE AREAS TO BE OCCUPIED BY THE PERMANENT WORKS...

STABILIZATION

ALL BORROW AREAS SHALL BE GRADED TO PROVIDE PROPER DRAINAGE AND LEFT IN A SLIGHTLY CONDITION TO ALLOW WATER TO RUN OFF THE EMBANKMENT. SPILLAGE AND BORROW AREAS AND BERMS SHALL BE STABILIZED BY SEEDING, LIMING, FERTILIZING AND MULCHING IN ACCORDANCE WITH THE NATURAL RESOURCES 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.

OPERATION AND MAINTENANCE

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.

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, SC5 "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.

OPERATION, MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED EXTENDED DETENTION POND

ROUTINE MAINTENANCE

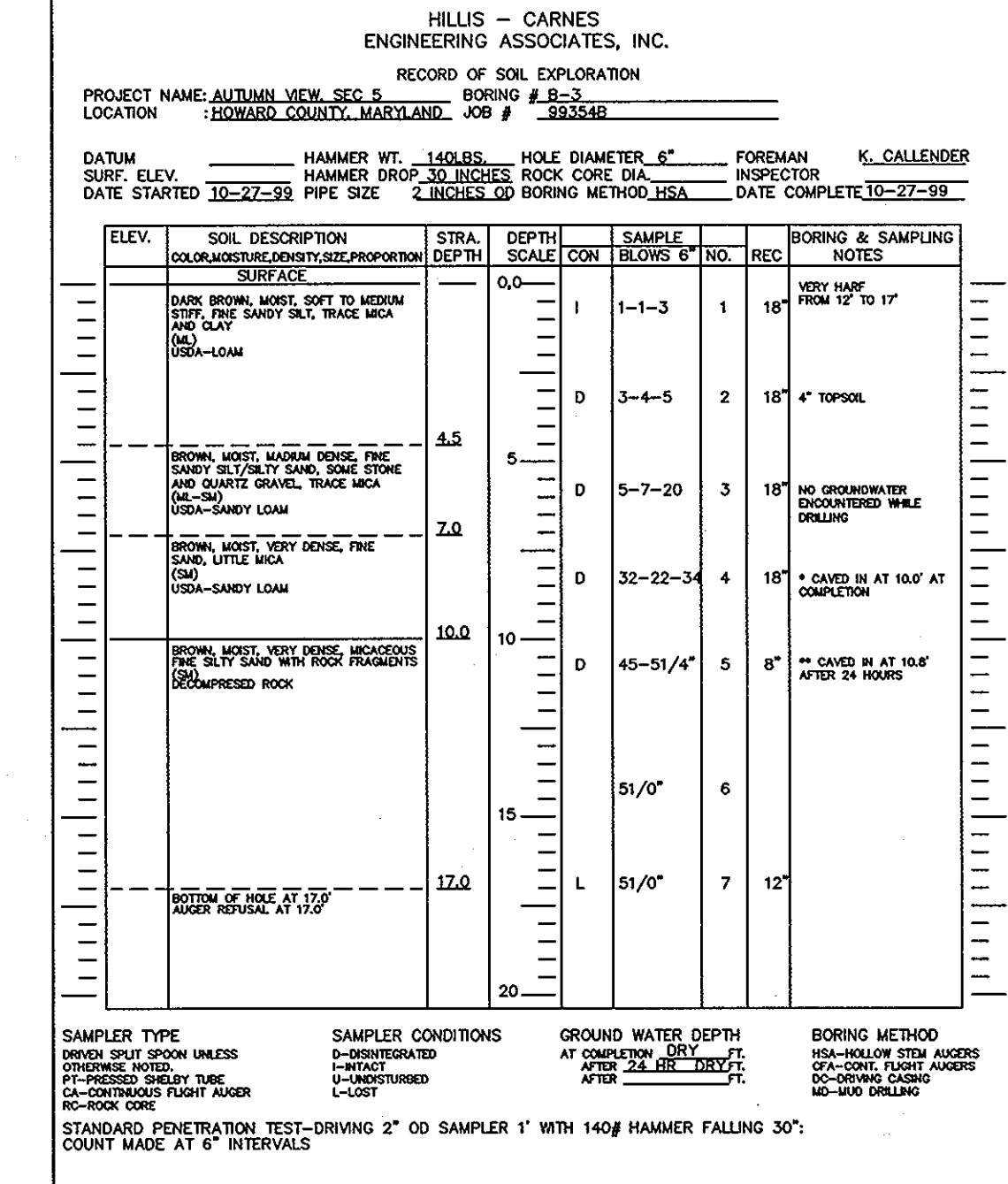
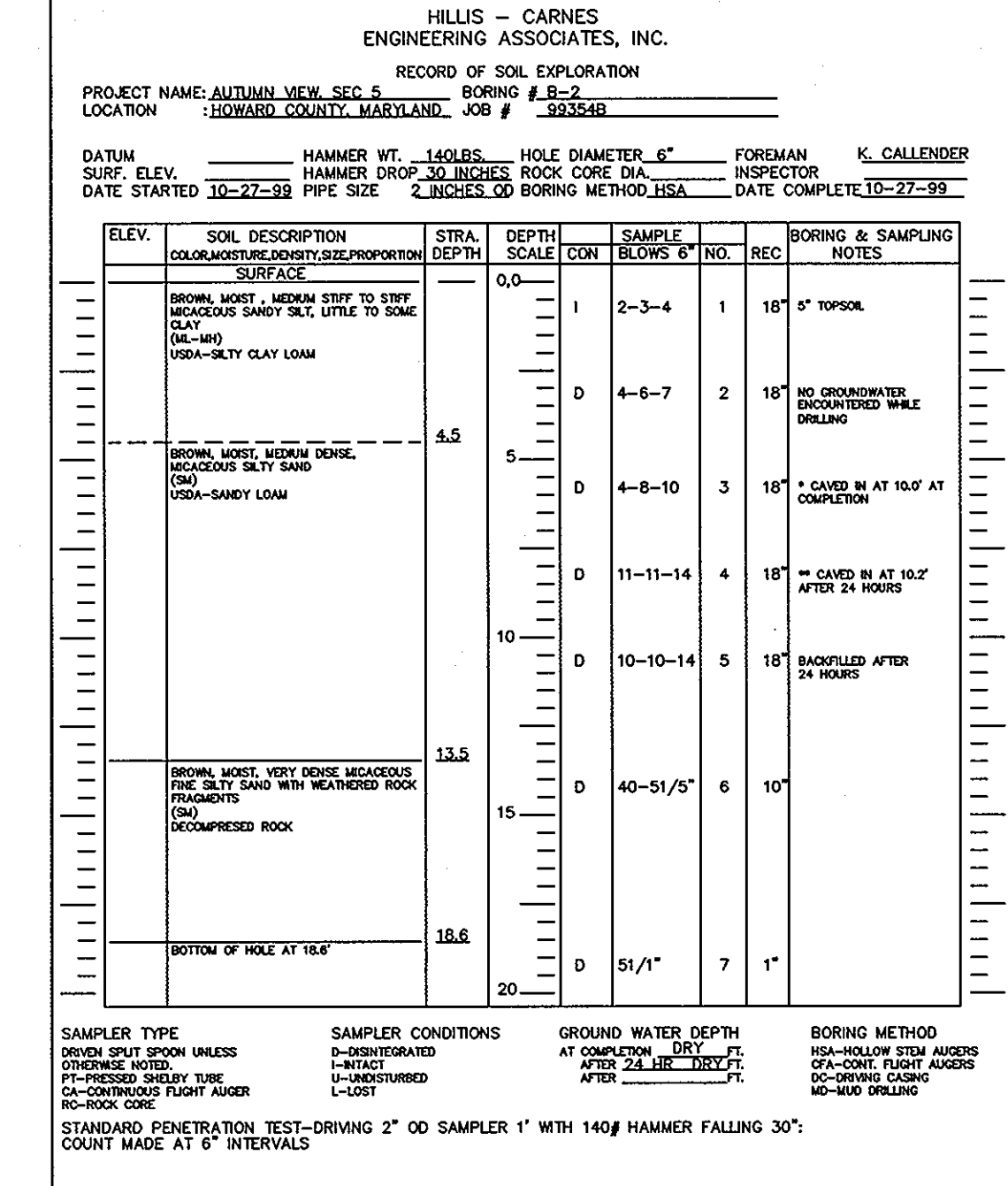
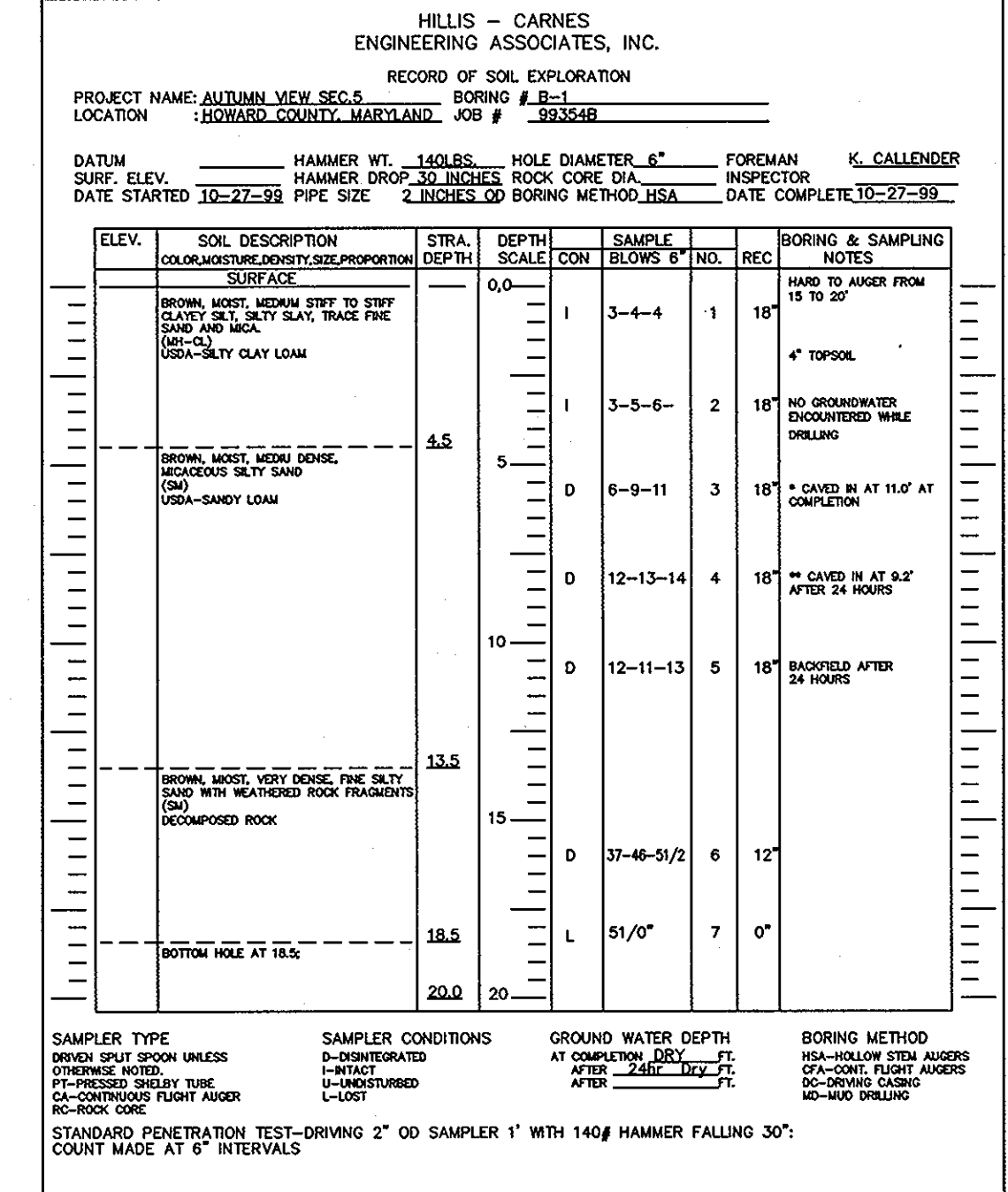
- 1. FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHALL BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE POND IS FUNCTIONING PROPERLY. 2. TOP AND SIDE SLOPES OF EMBANKMENT SHALL BE MOWED A MINIMUM TWO (2) TIMES PER YEAR...

NON-ROUTINE MAINTENANCE

- 1. STRUCTURAL COMPONENTS OF THE POND SUCH AS THE DAM, THE RISER, AND THE PIPES SHALL BE REPAIRED UPON THE DETECTION OF ANY DAMAGE. THE COMPONENTS SHALL BE INSPECTED DURING ROUTINE MAINTENANCE OPERATIONS. 2. SEDIMENT SHALL BE REMOVED FROM THE POND, AND FOREBAY, NO LATER THAN WHEN THE CAPACITY OF THE POND, OR FOREBAY, IS HALF FULL OF SEDIMENT...

GEOTECHNICAL RECOMMENDATIONS, EMBANKMENT AND CUT-OFF TRENCH CONSTRUCTION

THE SITE SHOULD BE STRIPPED OF TOPSOIL AND ANY OTHER UNSUITABLE MATERIALS FROM THE EMBANKMENT OF STRUCTURE AREA IN ACCORDANCE WITH SOIL CONSERVATION GUIDELINES. AFTER STRIPPING OPERATIONS HAVE BEEN COMPLETED, THE EXPOSED SUBGRADE MATERIALS SHOULD BE PROTECTED WITH A LOADED DUMP TRUCK OR SIMILAR EQUIPMENT...



Project information table with fields: date, engineering, illustration, M&P, M&P, score, NTS, approval, JEM.

Table with fields: date, description, revisions, no.

AUTUMN VIEW, SECTION 5, PHASE 2. TAX MAP 25 & 31, P/O PARCEL 75. HOWARD COUNTY, MARYLAND.

MILDENBERG, BOENDER & ASSOC., INC. 5072 Dorsey Hill Drive, Suite 202, Ellicott City, Maryland 21042. (410) 987-0296 Fax: (410) 987-0296.

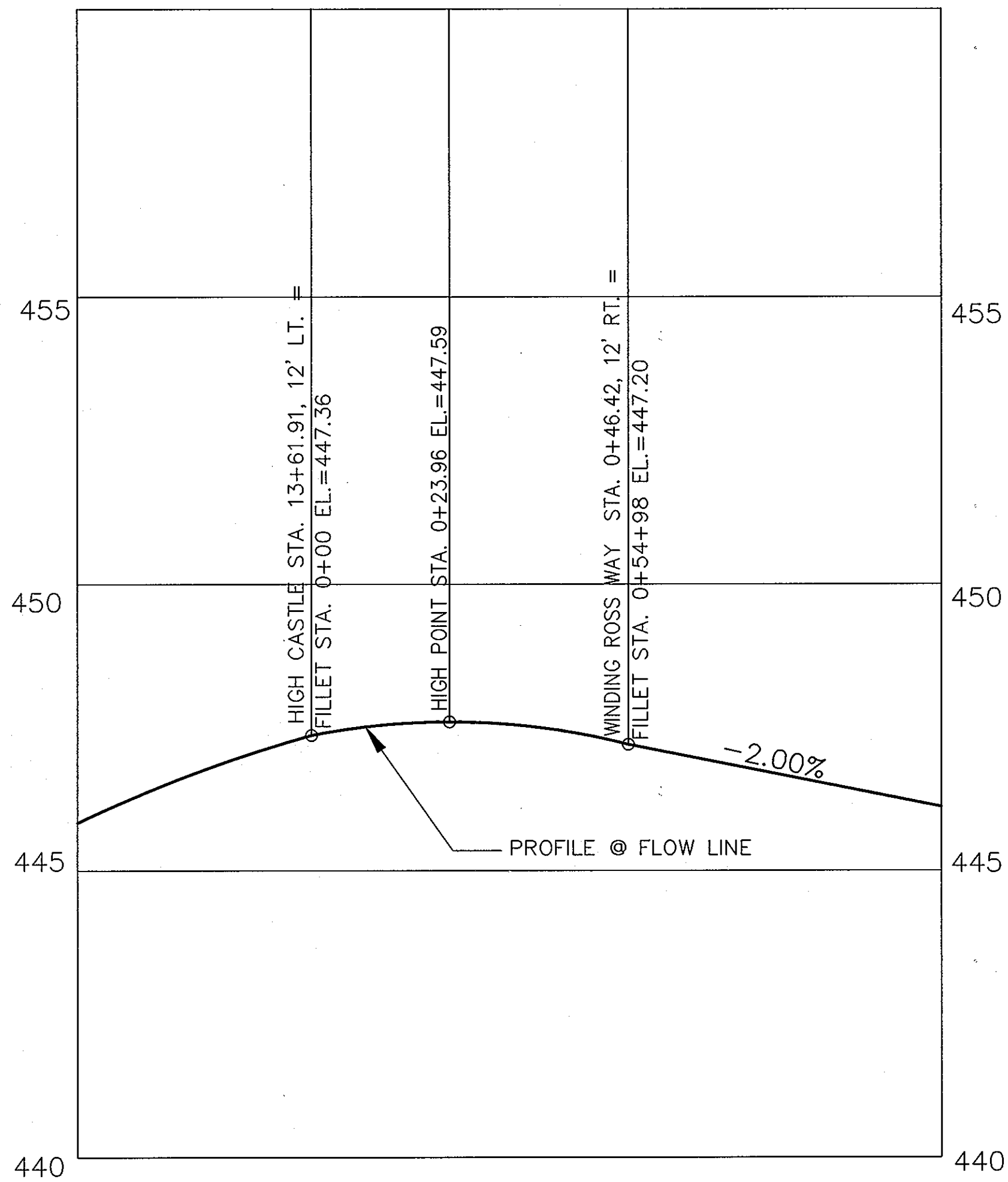


99072.DWG (PHASE 2) 072-FIL-PROF.DWG

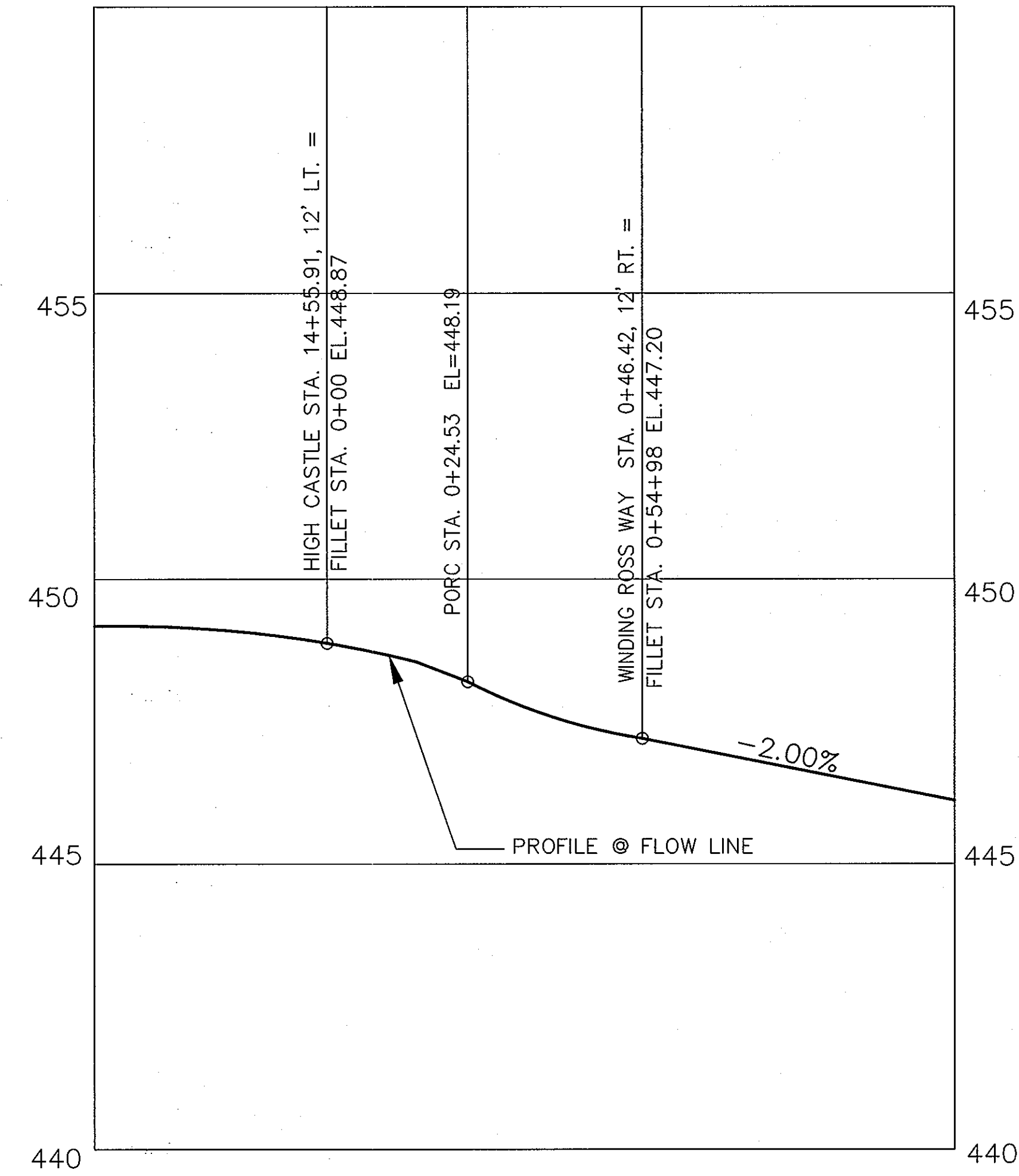
**OWNER/DEVELOPER**

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

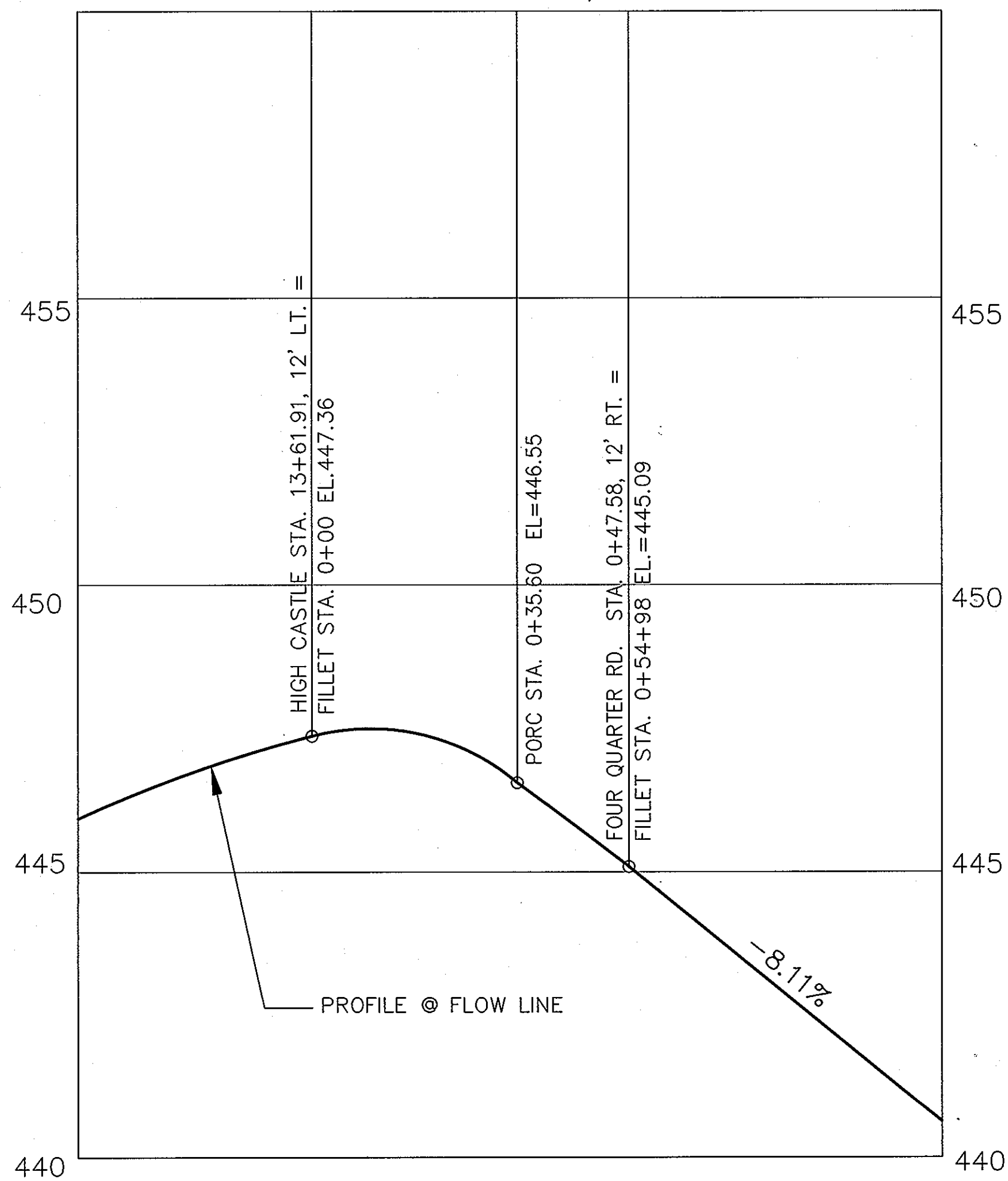
APPROVED: DEPARTMENT OF PUBLIC WORKS <i>[Signature]</i> CHIEF BUREAU OF HIGHWAYS DATE 1-16-02	
APPROVED: DEPARTMENT OF PLANNING AND ZONING <i>[Signature]</i> CHIEF, DIVISION OF LAND DEVELOPMENT DATE 1/23/02	
<i>[Signature]</i> CHIEF DEVELOPMENT ENGINEERING DIVISION DATE 12/24/01	



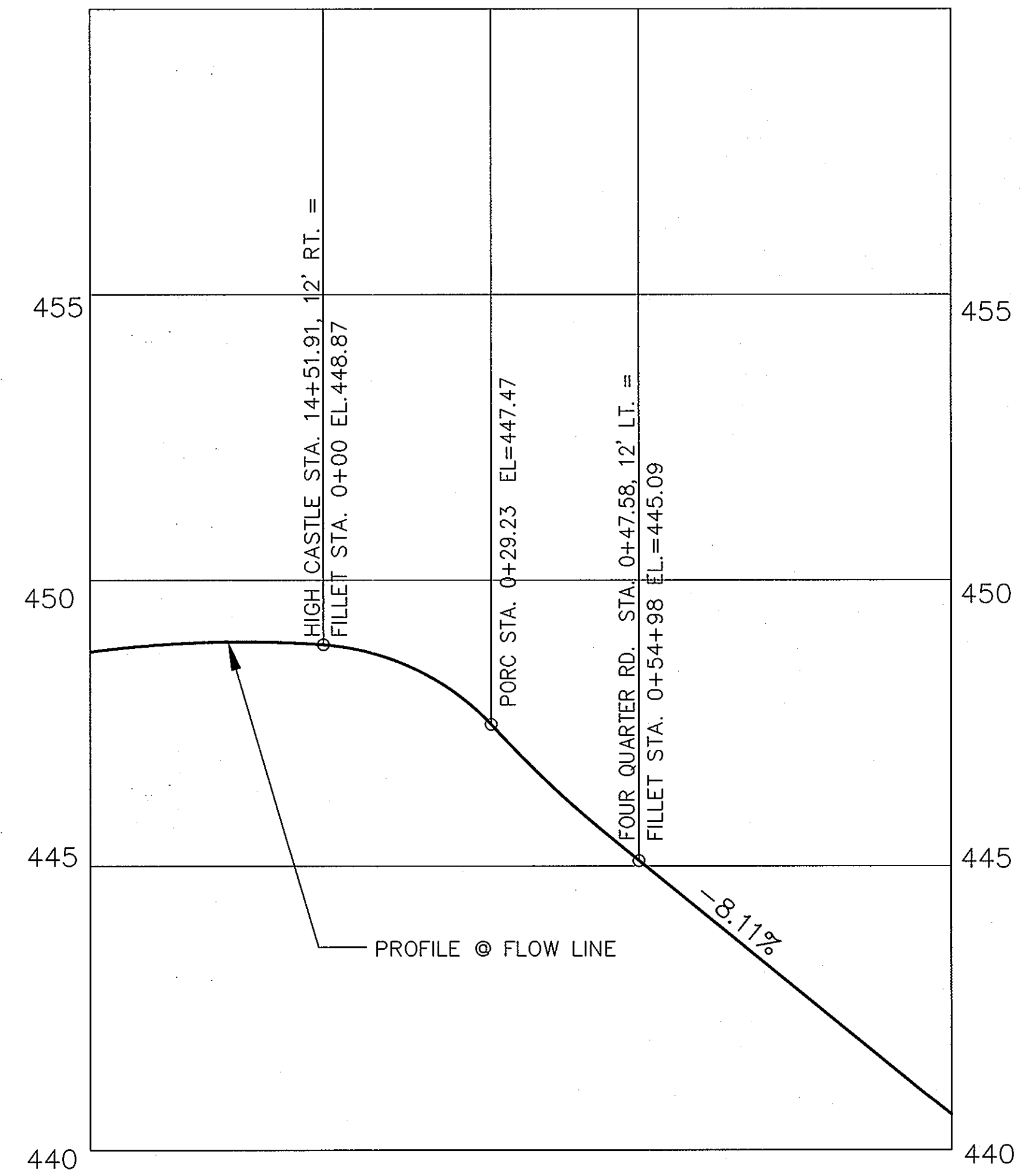
**HIGH CASTLE ROAD LEFT TURN TO WINDING ROSS WAY**  
SCALE: HOR. 1" = 20', VER 1" = 2'



**HIGH CASTLE ROAD RIGHT TURN TO WINDING ROSS WAY**  
SCALE: HOR. 1" = 20', VER 1" = 2'



**HIGH CASTLE ROAD RIGHT TURN TO FOUR QUARTER RD.**  
SCALE: HOR. 1" = 20', VER 1" = 2'



**HIGH CASTLE ROAD LEFT TURN TO FOUR QUARTER RD.**  
SCALE: HOR. 1" = 20', VER 1" = 2'

Project	99072	Date	DEC 2001
Illustration	SAA	Engineering	AS SHOWN JBM
Scale	SAA	Approval	
AS SHOWN	JBM		

no.	description	revisions	date

**AUTUMN VIEW SECTION 5, PHASE 2**  
LOTS 260-300  
TAX MAP 25 & 31, P/O PARCEL 75  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
FILLET PROFILES

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

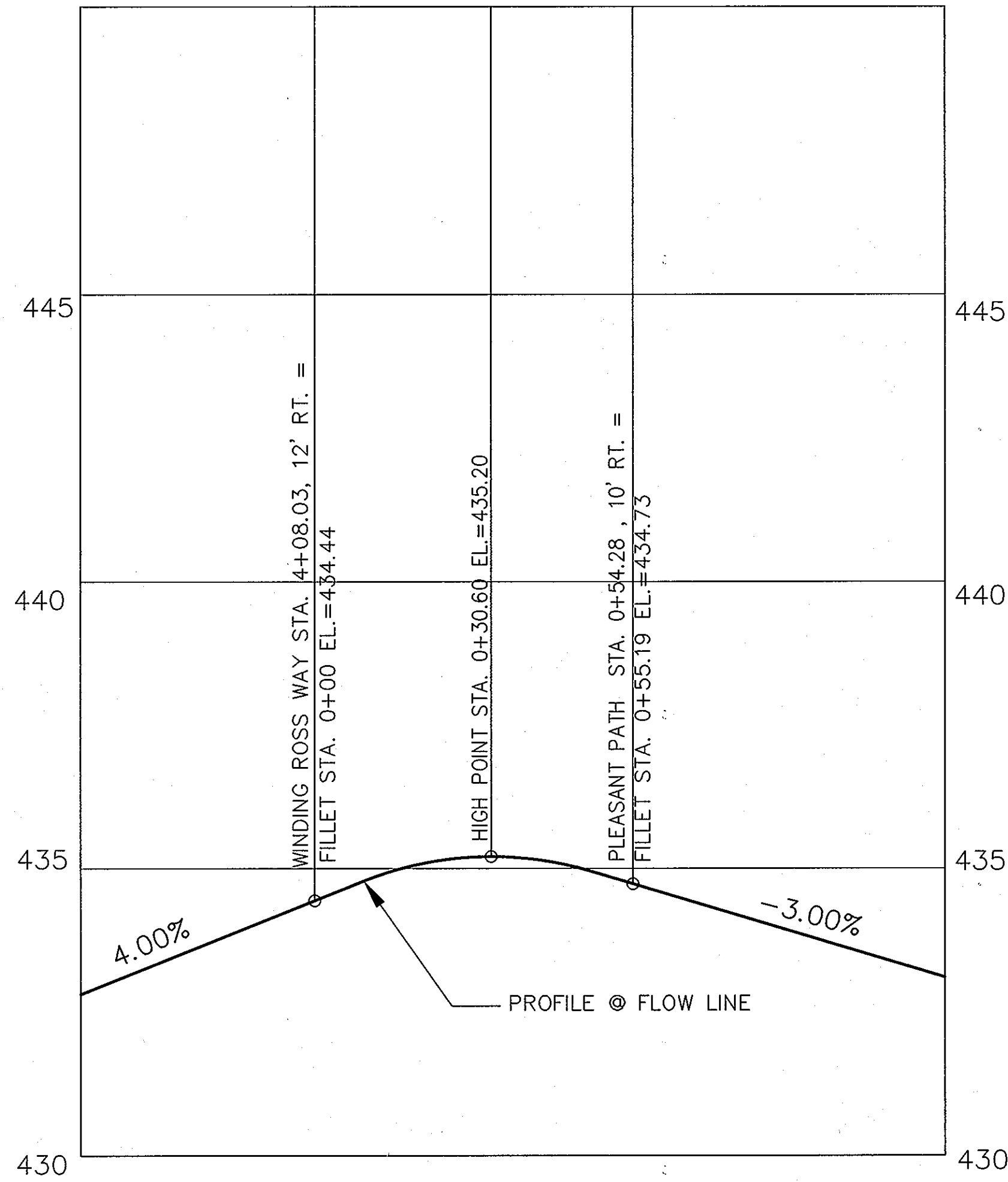
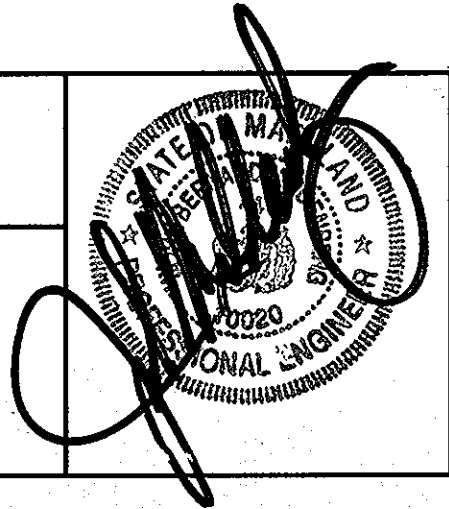


990721.DWG PHASE 2 1072-FIL-PROF.DWG

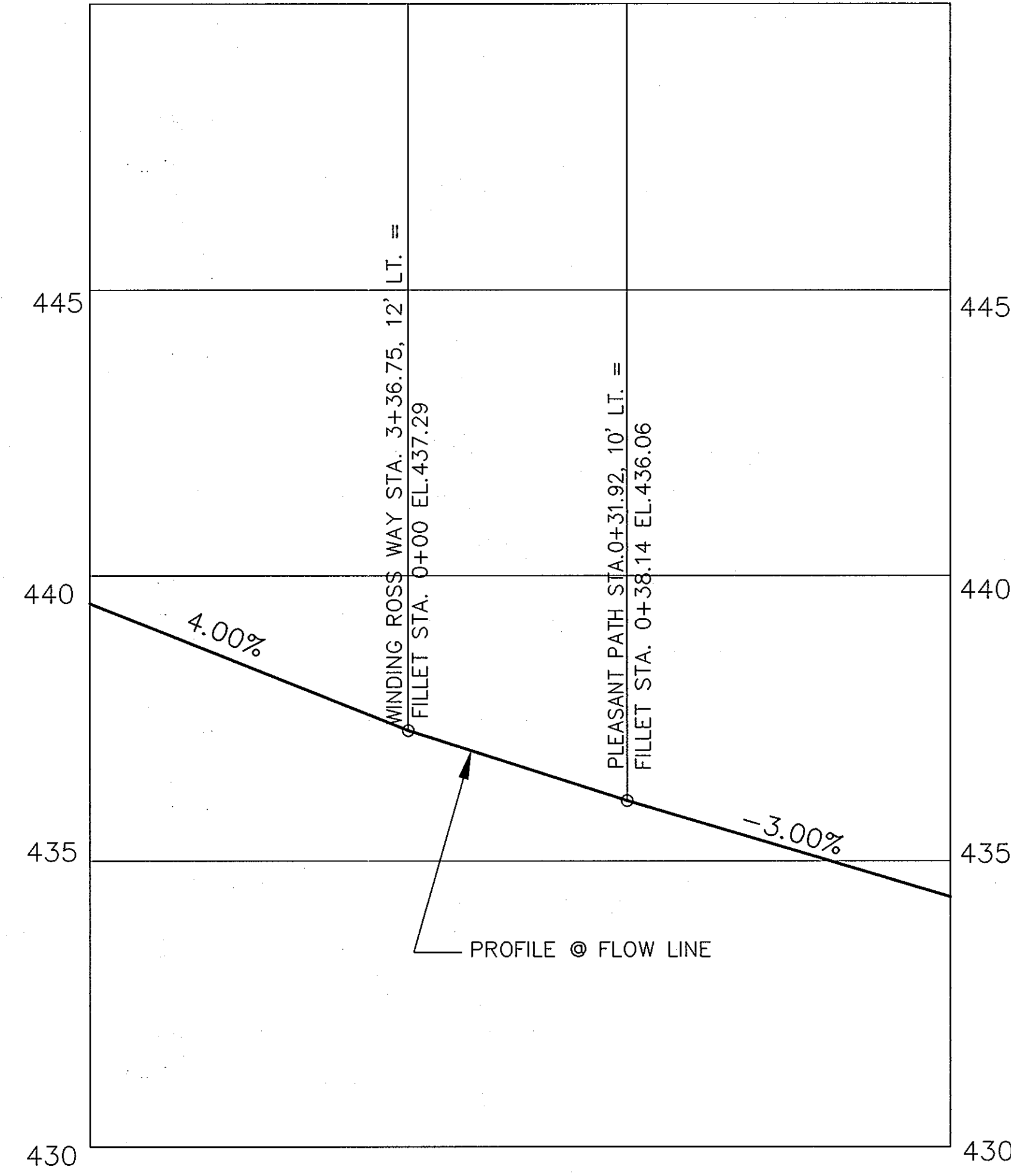
**OWNER/DEVELOPER**

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

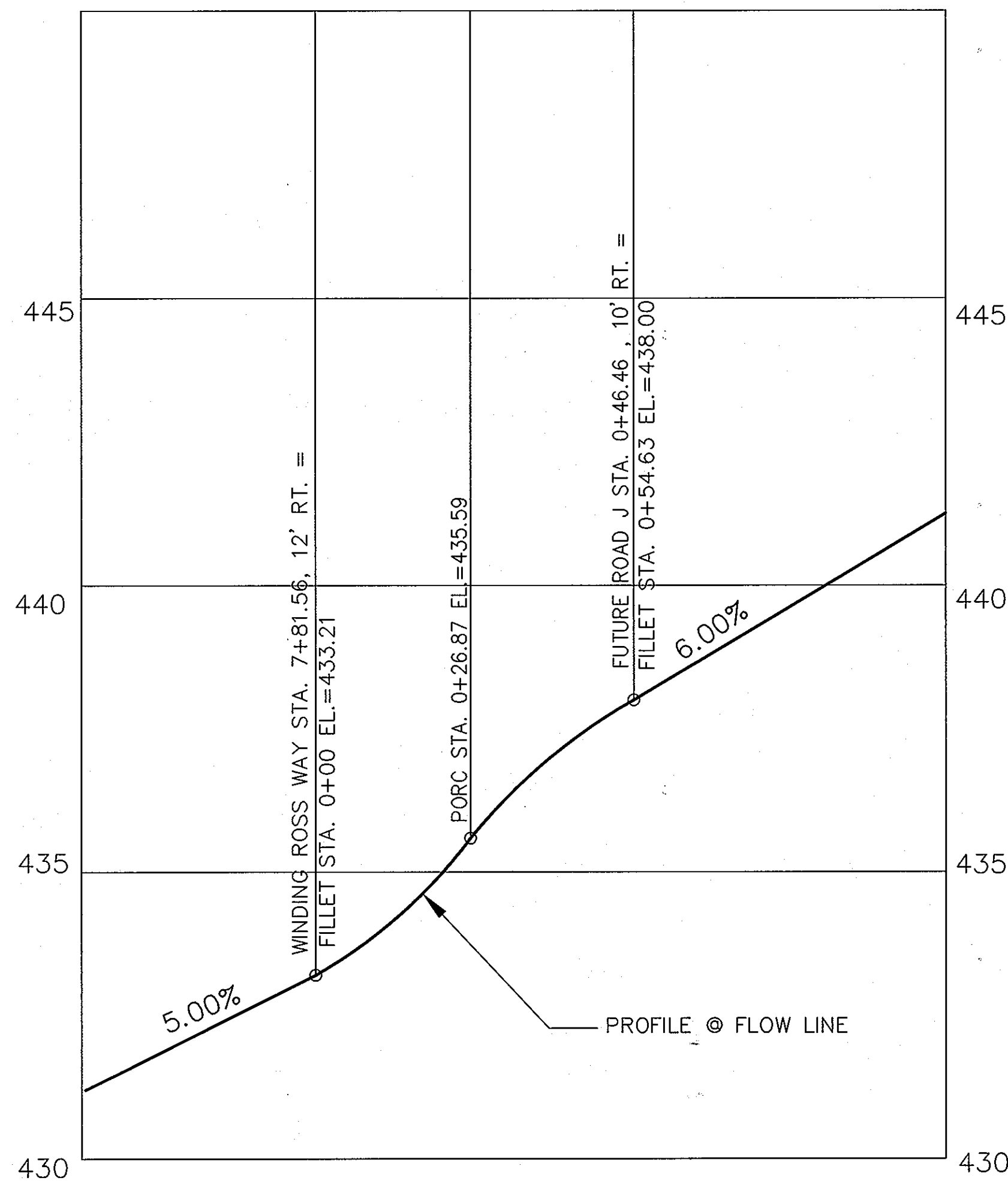
APPROVED: DEPARTMENT OF PUBLIC WORKS <i>Richard M. Dwyer</i> CHIEF BUREAU OF HIGHWAYS	DATE 1-16-02
APPROVED: DEPARTMENT OF PLANNING AND ZONING <i>Cinda Hamte</i> CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 1/23/02
<i>Mike Dammann</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 12/24/01



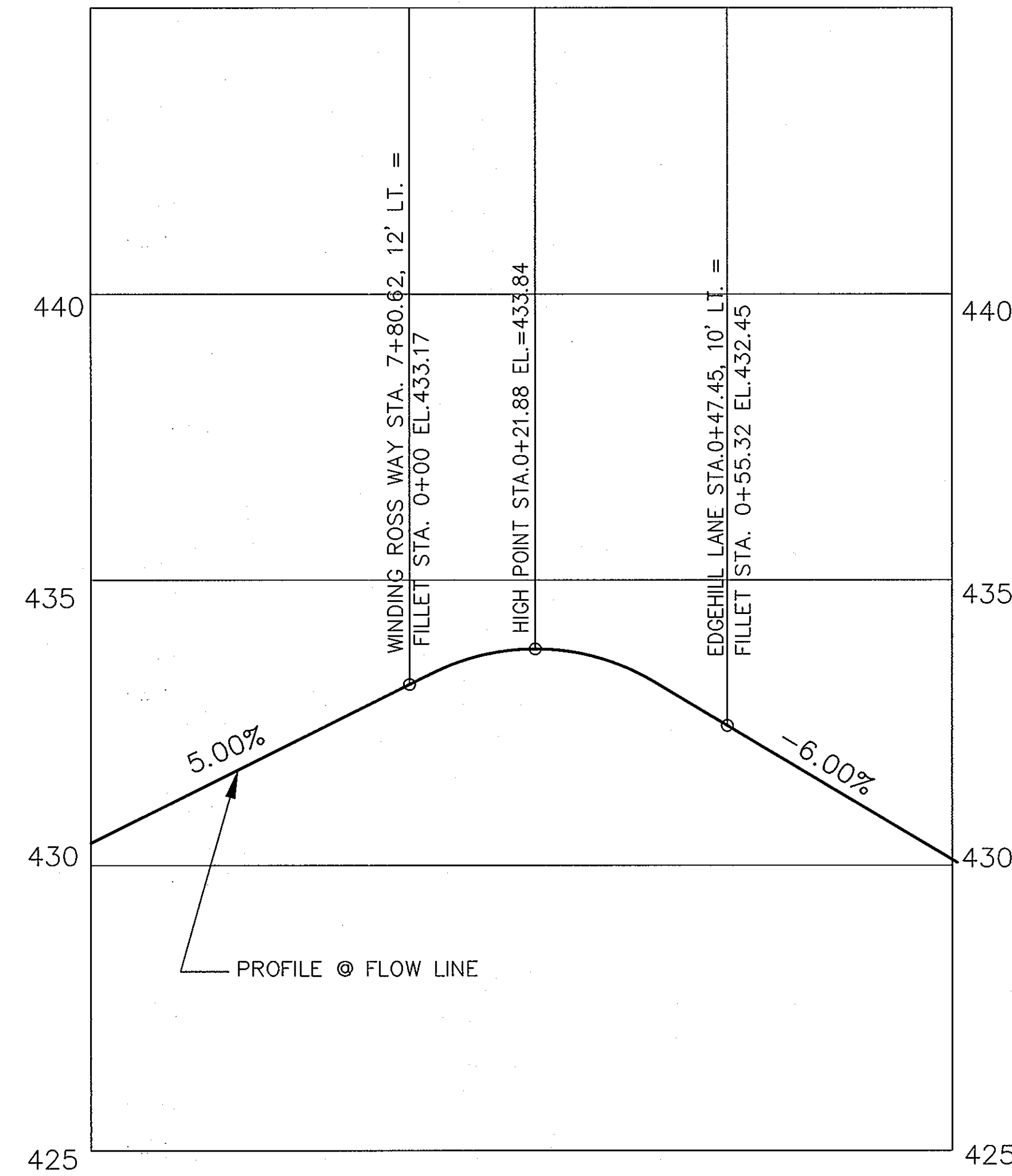
**WINDING ROSS WAY RIGHT TURN PLEASANT PATH**  
SCALE: HOR. 1" = 20', VER 1" = 2'



**WINDING ROSS WAY LEFT TURN PLEASANT PATH**  
SCALE: HOR. 1" = 20', VER 1" = 2'



**WINDING ROSS WAY RIGHT TURN FUTURE RD J**  
SCALE: HOR. 1" = 20', VER 1" = 2'



**WINDING ROSS WAY LEFT TURN EDGEHILL LANE**  
SCALE: HOR. 1" = 20', VER 1" = 2'

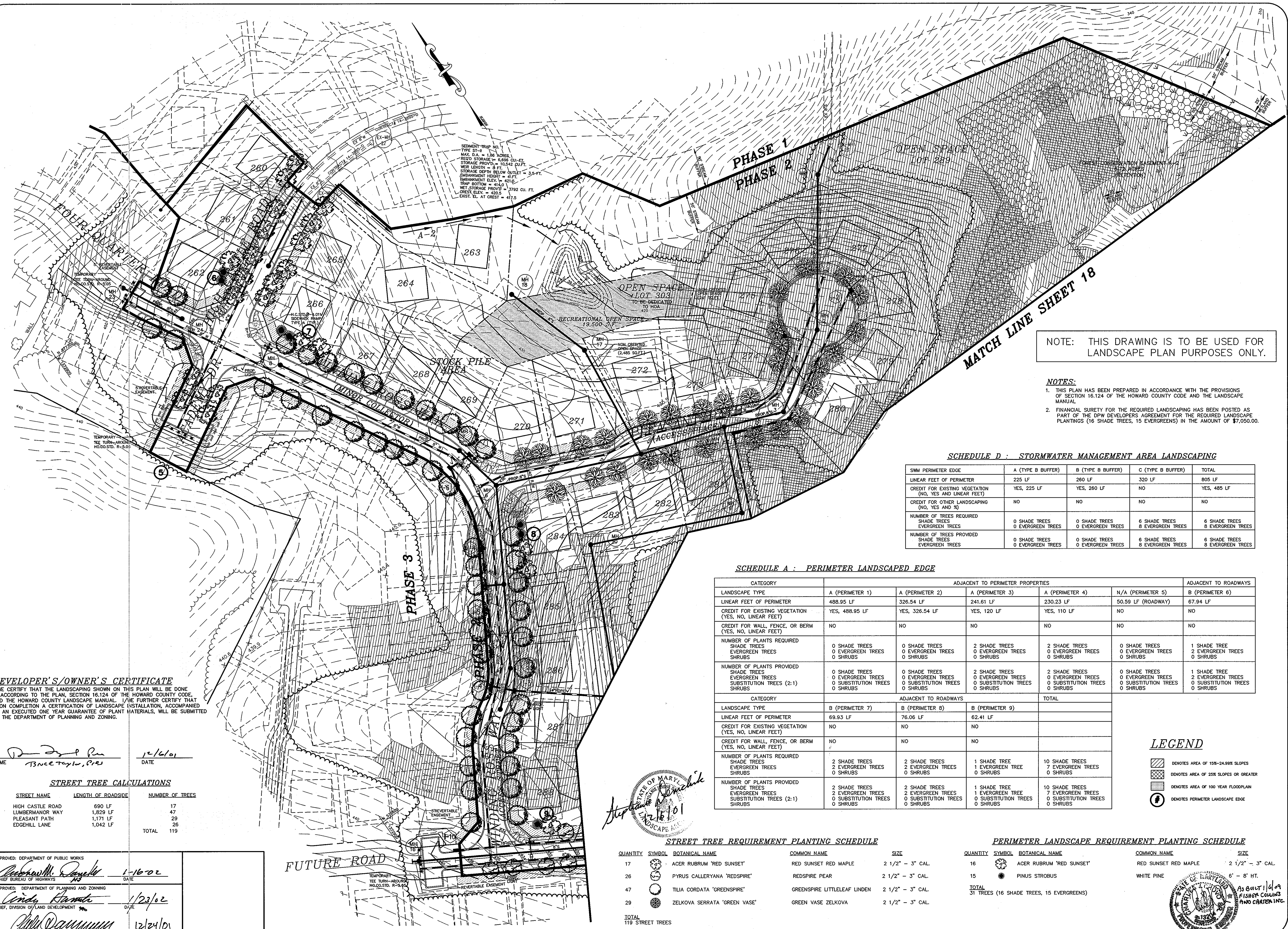
Project	99072	Date	DEC. 2001
Illustration	SA	Engineering	SA
Scale	AS SHOWN	Approval	IBM

no.	description	date

**AUTUMN VIEW SECTION 5, PHASE 2**  
LOTS 260-300  
TAX MAP 25 & 31, P/O PARCEL 75  
HOWARD COUNTY, MARYLAND  
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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 FOR THE REQUIRED LANDSCAPE PLANTINGS (16 SHADE TREES, 15 EVERGREENS) IN THE AMOUNT OF \$7,050.00.

SCHEDULE D : STORMWATER MANAGEMENT AREA LANDSCAPING

SWM PERIMETER EDGE	A (TYPE B BUFFER)	B (TYPE B BUFFER)	C (TYPE B BUFFER)	TOTAL
LINEAR FEET OF PERIMETER	225 LF	260 LF	320 LF	805 LF
CREDIT FOR EXISTING VEGETATION (NO, YES AND LINEAR FEET)	YES, 225 LF	YES, 260 LF	NO	YES, 485 LF
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	NO	NO	NO	NO
NUMBER OF TREES REQUIRED				
SHADE TREES	0 SHADE TREES	0 SHADE TREES	6 SHADE TREES	6 SHADE TREES
EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	8 EVERGREEN TREES	8 EVERGREEN TREES
NUMBER OF TREES PROVIDED				
SHADE TREES	0 SHADE TREES	0 SHADE TREES	6 SHADE TREES	6 SHADE TREES
EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	8 EVERGREEN TREES	8 EVERGREEN TREES

SCHEDULE A : PERIMETER LANDSCAPED EDGE

CATEGORY	ADJACENT TO PERIMETER PROPERTIES					ADJACENT TO ROADWAYS
	A (PERIMETER 1)	A (PERIMETER 2)	A (PERIMETER 3)	A (PERIMETER 4)	N/A (PERIMETER 5)	
LANDSCAPE TYPE						
LINEAR FEET OF PERIMETER	488.95 LF	326.54 LF	241.61 LF	230.23 LF	50.59 LF (ROADWAY)	67.94 LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	YES, 488.95 LF	YES, 326.54 LF	YES, 120 LF	YES, 110 LF	NO	NO
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	NO	NO	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED						
SHADE TREES	0 SHADE TREES	0 SHADE TREES	2 SHADE TREES	2 SHADE TREES	0 SHADE TREES	1 SHADE TREE
EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES
SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS
NUMBER OF PLANTS PROVIDED						
SHADE TREES	0 SHADE TREES	0 SHADE TREES	2 SHADE TREES	2 SHADE TREES	0 SHADE TREES	1 SHADE TREE
EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES
SUBSTITUTION TREES (2:1)	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES
SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS
CATEGORY	ADJACENT TO ROADWAYS					TOTAL
LANDSCAPE TYPE	B (PERIMETER 7)	B (PERIMETER 8)	B (PERIMETER 9)			
LINEAR FEET OF PERIMETER	69.93 LF	76.06 LF	62.41 LF			
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO	NO	NO			
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	NO	NO	NO			
NUMBER OF PLANTS REQUIRED						
SHADE TREES	2 SHADE TREES	2 SHADE TREES	1 SHADE TREE		10 SHADE TREES	
EVERGREEN TREES	2 EVERGREEN TREES	2 EVERGREEN TREES	1 EVERGREEN TREE		7 EVERGREEN TREES	
SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS		0 SHRUBS	
NUMBER OF PLANTS PROVIDED						
SHADE TREES	2 SHADE TREES	2 SHADE TREES	1 SHADE TREE		10 SHADE TREES	
EVERGREEN TREES	2 EVERGREEN TREES	2 EVERGREEN TREES	1 EVERGREEN TREE		7 EVERGREEN TREES	
SUBSTITUTION TREES (2:1)	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES		0 SUBSTITUTION TREES	
SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS		0 SHRUBS	

LEGEND  
 [Symbol] DENOTES AREA OF 15%-24.99% SLOPES  
 [Symbol] DENOTES AREA OF 25% SLOPES OR GREATER  
 [Symbol] DENOTES AREA OF 100 YEAR FLOODPLAIN  
 [Symbol] DENOTES PERIMETER LANDSCAPE EDGE

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: Bruce Taylor, P.E.  
 DATE: 12/16/01

STREET TREE CALCULATIONS

STREET NAME	LENGTH OF ROADSIDE	NUMBER OF TREES
HIGH CASTLE ROAD	690 LF	17
LUMBERMANOR WAY	1,829 LF	47
PLEASANT PATH	1,171 LF	29
EDGEHILL LANE	1,042 LF	26
TOTAL		119

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 [Signature] 1-16-02  
 CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 [Signature] 1/23/02  
 CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: [Signature] 12/24/01  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

STATE OF MARYLAND  
 LANDSCAPE ARCHITECT  
 [Signature]  
 12/16/01

STREET TREE REQUIREMENT PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
17	[Symbol]	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.
26	[Symbol]	PYRUS CALLERYANA 'RED SPIRE'	RED SPIRE PEAR	2 1/2" - 3" CAL.
47	[Symbol]	TILIA CORDATA 'GREEN SPIRE'	GREEN SPIRE LITTLELEAF LINDEN	2 1/2" - 3" CAL.
29	[Symbol]	ZELKOVA SERRATA 'GREEN VASE'	GREEN VASE ZELKOVA	2 1/2" - 3" CAL.
TOTAL				
119				STREET TREES

PERIMETER LANDSCAPE REQUIREMENT PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
16	[Symbol]	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.
15	[Symbol]	PINUS STROBUS	WHITE PINE	6" - 8" HT.
TOTAL				
31				TREES (16 SHADE TREES, 15 EVERGREENS)

AS BUILT 1/14/02  
 FISHBURN COLLINS AND CARTER INC.



F:\19072\PHASE-2\DWG\LANDSCAPE-2R.DWG

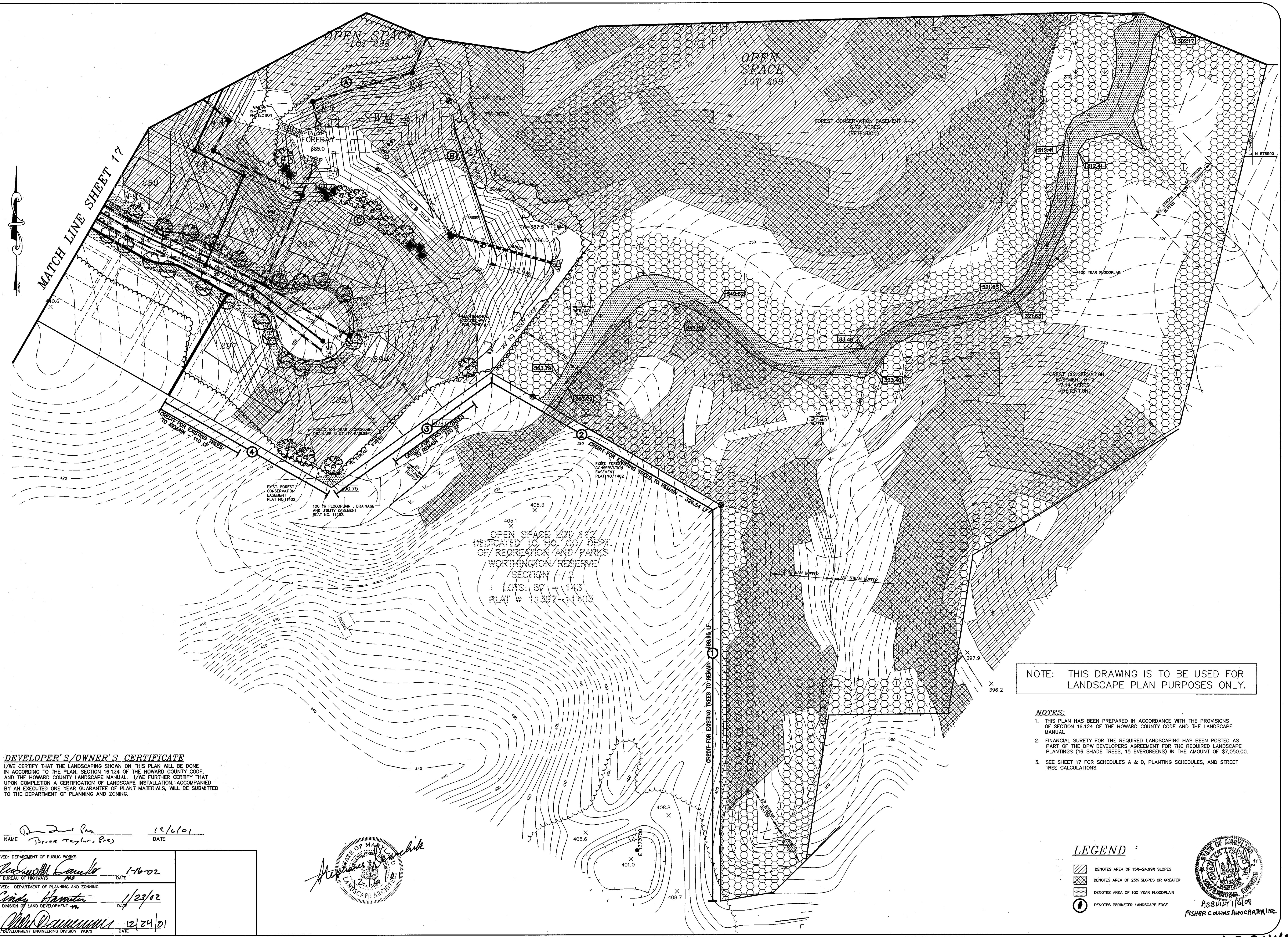
**DEVELOPER'S/OWNER'S CERTIFICATE**  
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE IN ACCORDANCE TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE, AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED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

NAME Bruce Taylor, Pres DATE 12/6/01

APPROVED: DEPARTMENT OF PUBLIC WORKS  
Richard M. Casella 1/16/02  
CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Cindy Hammett 1/23/02  
CHIEF, DIVISION OF LAND DEVELOPMENT

Chris Damman 12/24/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

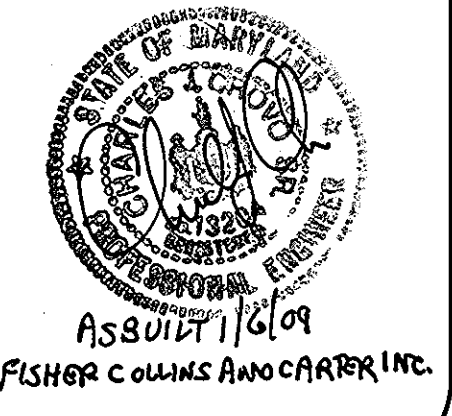


NOTE: THIS DRAWING IS TO BE USED FOR LANDSCAPE PLAN PURPOSES ONLY.

- 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 FOR THE REQUIRED LANDSCAPE PLANTINGS (16 SHADE TREES, 15 EVERGREENS) IN THE AMOUNT OF \$7,050.00.
  3. SEE SHEET 17 FOR SCHEDULES A & D, PLANTING SCHEDULES, AND STREET TREE CALCULATIONS.

**LEGEND**

- [Hatched pattern] DENOTES AREA OF 15%-24.99% SLOPES
- [Dotted pattern] DENOTES AREA OF 25% SLOPES OR GREATER
- [Cross-hatched pattern] DENOTES AREA OF 100 YEAR FLOODPLAIN
- [Circle with 'f'] DENOTES PERIMETER LANDSCAPE EDGE



Project	99072	date	DEC 2001
Illustration	MAP/SID	engineering	SJD
scale	1"=50'	approval	JBM

NO.	1	DATE	1/10/02	DESCRIPTION	REVISED
REVISIONS					

**AUTUMN VIEW, SECTION 5, PHASE 2**  
LOTS 260-300  
TAX MAP 25 & 31, P/O PARCEL 75  
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
LANDSCAPE PLAN

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



**LEGEND**

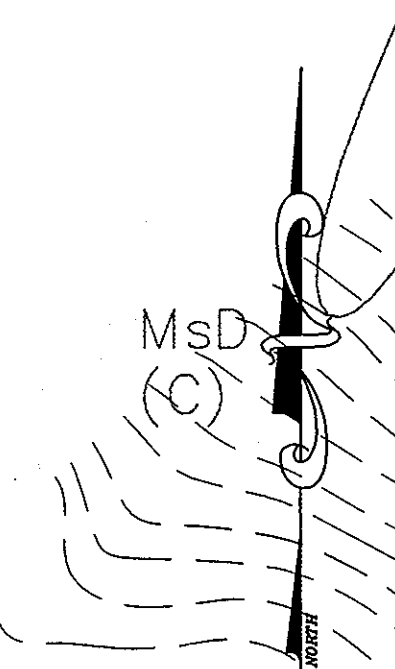
- DENOTES AREA OF 15%-24.99% SLOPES
- DENOTES AREA OF 25% SLOPES OR GREATER
- DENOTES AREA OF 100 YEAR FLOODPLAIN
- DENOTES FOREST CONSERVATION EASEMENT
- DENOTES FOREST CONSERVATION SIGNAGE

**FOREST RETENTION AREA**

MACHINERY, DUMPING OR STORAGE OF ANY MATERIALS IS PROHIBITED

VIOLATORS ARE SUBJECT TO FINES AS IMPOSED BY THE MARYLAND FOREST CONSERVATION ACT OF 1991

**SIGNAGE DETAIL**  
NOT TO SCALE



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

- NOTE:**
- THE FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1202 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL FOR THIS SUBDIVISION HAS BEEN FULFILLED BY RETENTION OF EXISTING FOREST IN THE AMOUNT OF 13.86 ACRES (603,741.6 SQ. FT.). FOREST CONSERVATION SURETY IN THE AMOUNT OF \$122,768.84 FOR RETENTION WILL BE POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT.
  - THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE, FOREST CONSERVATION ACT. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT; HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.

**SOIL CLASSIFICATION CHART**

A4B2	(B)	ALDINO SILT LOAM, 3-8% SLOPES, MODERATELY ERODED
A4C2	(C)	ALDINO SILT LOAM, 8-15% SLOPES, MODERATELY ERODED
BrC3	(C)	BRANDYWINE LOAM, 3-8% SLOPES, MODERATELY ERODED
BrC3	(C)	BRANDYWINE LOAM, 8-15% SLOPES, SEVERELY ERODED
BrF	(C)	BRANDYWINE LOAM, 15-25% SLOPES, SEVERELY ERODED
ChB2	(C)	CHILLUM-FAIRFAX LOAMS, 1-5% SLOPES, MODERATELY ERODED
LeC2	(B)	LEGORE SILT LOAM, 3-8% SLOPES, MODERATELY ERODED
LeC2	(B)	LEGORE SILT LOAM, 8-15% SLOPES, MODERATELY ERODED
LgC3	(B)	LEGORE SILTY CLAY LOAM, 8-15% SLOPES, SEVERELY ERODED
Mo	(C)	MIXED ALLUVIAL LAND
MpB2	(C)	MONTALTO SILT LOAM, 3-8% SLOPES, MODERATELY ERODED
MpC2	(C)	MONTALTO SILT LOAM, 8-15% SLOPES, MODERATELY ERODED
MrE	(C)	MONTALTO AND RELAY SOILS, 15-45% SLOPES
MsD	(C)	MONTALTO AND RELAY VERY STONY SILT LOAMS, 3-25% SLOPES
MsF	(C)	MONTALTO AND RELAY VERY STONY SILT LOAMS, 25-60% SLOPES
N6B2	(B)	NESHAMINY SILT LOAM, 3-8% SLOPES, MODERATELY ERODED
N6C2	(B)	NESHAMINY SILT LOAM, 8-15% SLOPES, MODERATELY ERODED
WaB	(D)	WATCHUNG SILT LOAM, 3-8% SLOPES

**AUTUMN VIEW, SECTIONS 3 THRU 5 (PHASES 1 & 2)**  
FOREST CONSERVATION DATA

I. BASIC SITE DATA		ACRES
GROSS SITE AREA		167.50
AREA WITHIN 100 YEAR FLOODPLAIN		7.76
AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL		0.00
NET TRACT AREA		159.74
LAND USE CATEGORY	RESIDENTIAL - SUBURBAN (HIGH DENSITY)	
II. FOREST CONSERVATION WORKSHEET DATA SUMMARY		
B. REFORESTATION THRESHOLD (20%)		31.95
C. AFFORESTATION MINIMUM (15%)		23.96
D. EXISTING FOREST ON NET TRACT AREA		14.52
E. FOREST AREAS TO BE CLEARED		81.85
F. FOREST AREAS TO BE RETAINED		62.67
IV. REFORESTATION CALCULATIONS		
G. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD		81.85
H. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD		0.00
I. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD		30.72
REFORESTATION FOR CLEARING ABOVE THRESHOLD		20.46
CREDIT FOR FOREST AREAS RETAINED ABOVE THRESHOLD		30.72
TOTAL REFORESTATION REQUIRED		0.00 (10.26 CREDIT)
TOTAL REFORESTATION PROVIDED		0.00
RETENTION PROVIDED UNDER AUTUMN VIEW, SECTION 3 (F-99-45)		41.22
RETENTION PROVIDED UNDER AUTUMN VIEW, SECTION 5, PHASE 1 (F-01-23)		7.59
RETENTION PROVIDED UNDER AUTUMN VIEW, SECTION 5, PHASE 2 (F-01-38)		13.86
TOTAL RETENTION PROVIDED UNDER AUTUMN VIEW, SECTIONS 3, 4, & 5 (PHASES 1 & 2)		62.67

**FOREST CONSERVATION EASEMENTS**

FCE A-2 (RETENTION)	6.72
FCE B-2 (RETENTION)	7.14
TOTAL FCE AREA (THIS PLAN)	13.86

**SPECIMEN TREE LIST**

No.	COMMON NAME	SCIENTIFIC NAME	DIA.	CONDITION
1	Silver Maple	Acer saccharinum	36"	Excellent
2	Tulip Poplar	Liriodendron tulipifera	50"	Poor
3	Red Oak	Quercus rubra	33"	Excellent
4	American Elm	Ulmus americana	40"	Excellent
5	Tulip Poplar	Liriodendron tulipifera	36"	Excellent
6	"	"	53"	Good
7	"	"	31"	Excellent
8	"	"	46"	Good
9	"	"	40"	Excellent
10	"	"	46"	Excellent
11	White Oak	Quercus alba	44"	Good
12	Pignut Hickory	Carya glabra	31"	Excellent
13	American Beech	Fagus grandifolia	32"	Excellent
14	Tulip Poplar	Liriodendron tulipifera	39"	Excellent
15	Tulip Poplar	Liriodendron tulipifera	42"	Excellent
16	White Oak	Quercus alba	39"	Excellent
17	American Beech	Fagus grandifolia	38"	Excellent
18	"	"	31"	Excellent
19	"	"	32"	Excellent
20	"	"	36"	Excellent
21	Tulip Poplar	Liriodendron tulipifera	35"	Excellent
22	White Ash	Fraxinus americana	30"	Excellent
23	American Beech	Fagus grandifolia	39"	Excellent
24	White Ash	Fraxinus americana	54"	Excellent
29	American Sycamore	Platanus occidentalis	48"	Excellent
30	Tulip Poplar	Liriodendron tulipifera	58"	Excellent

**GENERAL NOTES**

- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION AREA SHALL BE PROHIBITED.
- 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**

- 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:
  - 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;
  - INSPECT ALL FLAGGED BOUNDARIES AND PROTECTION DEVICES; MAKE ALL NECESSARY ADJUSTMENTS;
  - ASSIGN RESPONSIBILITIES AS APPROPRIATE AND DISCUSS PENALTIES.

**CONSTRUCTION MONITORING**

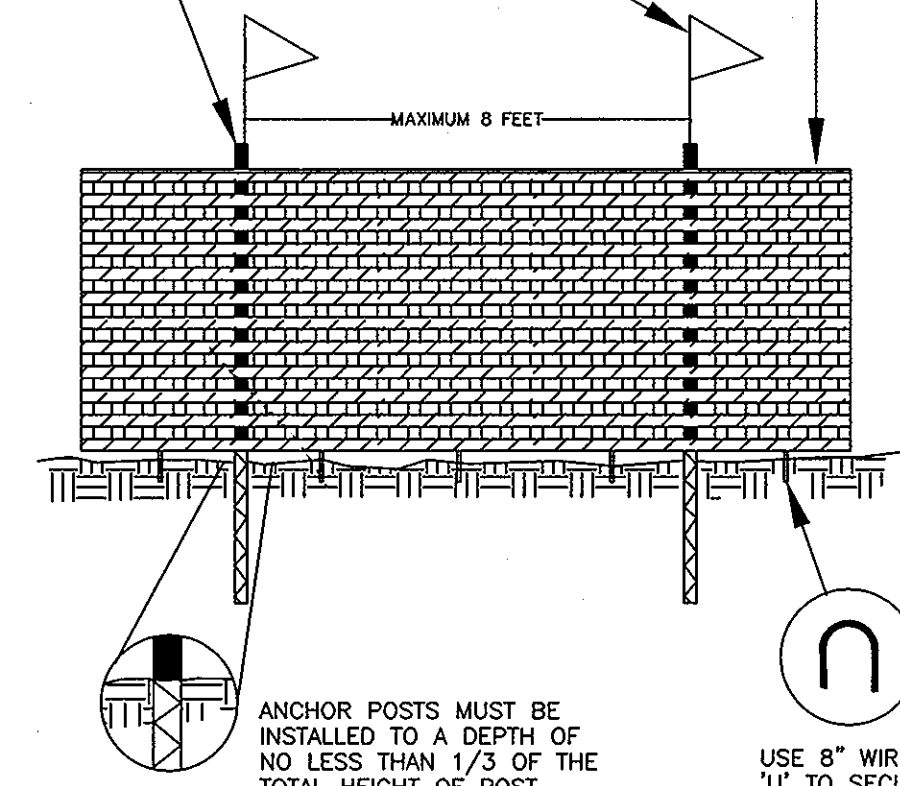
- THE SITE SHALL BE INSPECTED PERIODICALLY DURING THE CONSTRUCTION PHASE OF THE PROJECT. A QUALIFIED PROFESSIONAL SHALL BE RESPONSIBLE FOR IDENTIFYING DAMAGE TO PROTECTED FOREST AREAS OR INDIVIDUAL TREES WHICH MAY HAVE BEEN CAUSED BY CONSTRUCTION ACTIVITIES, SUCH AS SOIL COMPACTION, ROOT INJURY, TRUNK 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.
- 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, 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 WILDMAN ENVIRONMENTAL SERVICES, INC.

ANCHOR POSTS SHOULD BE MINIMUM 2" STEEL U CHANNEL OR 2" X 2" TIMBER, 6' IN LENGTH



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

**PROTECTIVE FENCE DETAIL**  
BLAZE ORANGE PLASTIC MESH



MD DNR QUALIFIED PROFESSIONAL FOREST CONSERVATION EASEMENT DESIGNER  
STEPHANIE DEMCHIK

**OWNER/DEVELOPER**

AS BUILT 11/14/09  
FISHER COLLINS AND COMPANY  
BONNIE BRANCH, CORPORATION  
P.O. BOX. 396  
ELLCOTT CITY, MD 21041

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Richard M. Quabe* 1/16/02  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Hamden* 1/23/02  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*William Demchik* 12/24/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Project	98072	date	DEC 2001
Illustration	MMP/SJD	engineering	JSD
scale	1"=100'	approval	JBM

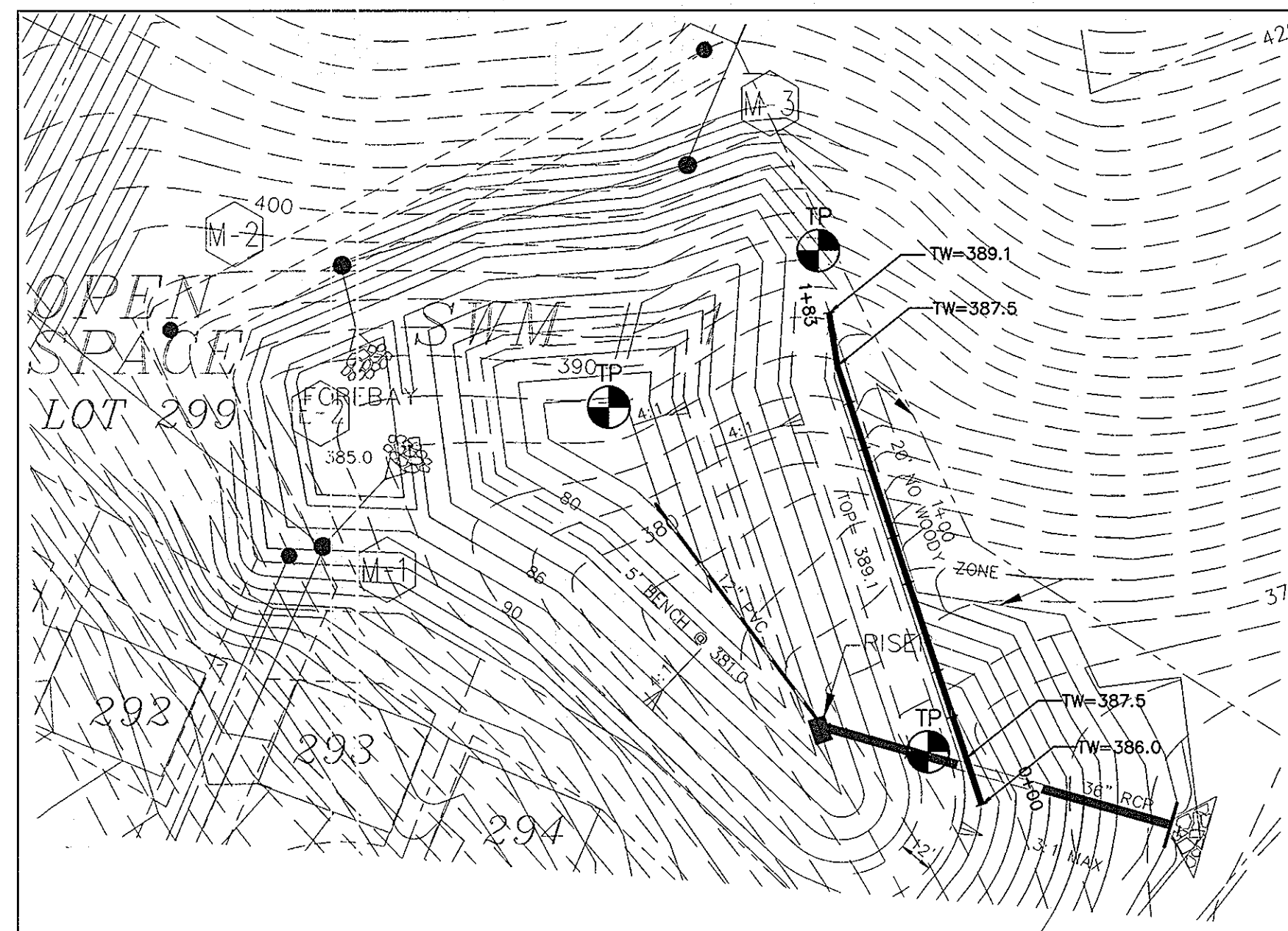
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AUTUMN VIEW, SECTION 5, PHASE 2  
LOTS 260-300  
TAX MAP 25 & 31, P/O PARCEL 75  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
FOREST CONSERVATION PLAN

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
6072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042  
(410) 987-0896 Fax: (301) 621-5521 Wash. (410) 997-0288 Fax.

AS BUILT

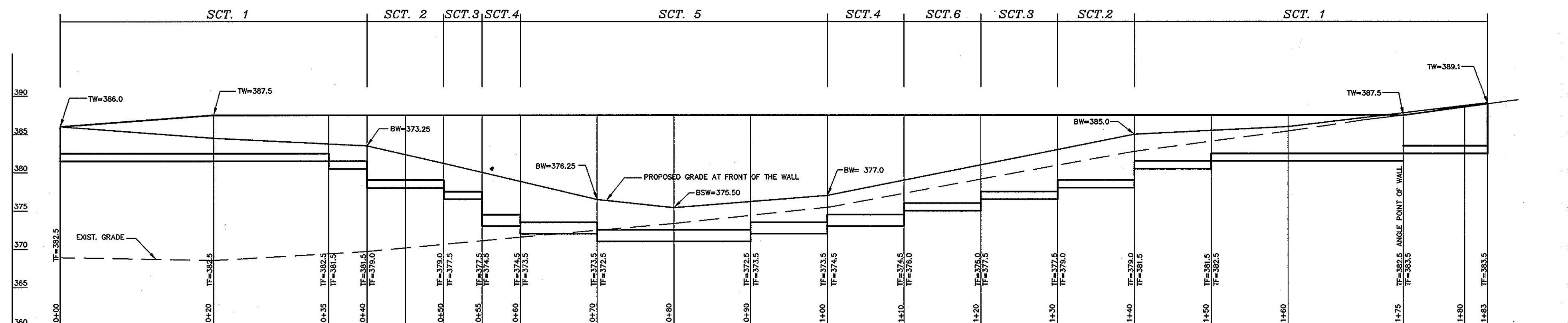




**PLAN**  
SCALE: 1"=50'

**GENERAL NOTES:**

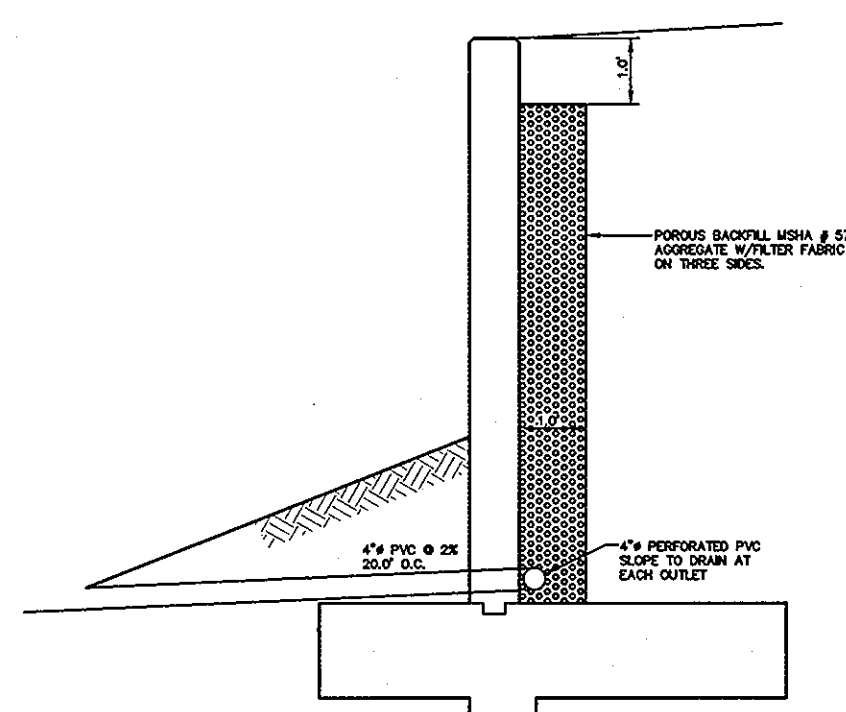
1. CONCRETE FOR RETAINING WALLS SHALL BE MSHA MIX. NO. 3, F'C = 3,500 PSI.
2. REINFORCING STEEL SHALL CONFORM TO MSHA STANDARDS AND SPECIFICATION, F<sub>y</sub> = 60,000 PSI. OF EXPANSION AND CONTRACTION JOINTS. REFER TO MSHA STANDARDS RW (6.10) - 83 - 157 FOR DETAILS.
3. REFER TO MSHA STANDARDS RW (6.09) - 83 - 155 FOR STEPPED FOOTING DETAIL.
4. ALL WORK SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF MSHA.
5. MINIMUM ALLOWABLE BEARING PRESSURE OF GRADE UNDER FOOTERS SHALL BE 2,500 PSF, TO BE DETERMINED BY ON-SITE GEOTECHNICAL ENGINEER.
6. MAINTAIN MINIMUM COVER OF 3" ABOVE FOOTINGS OF WALL AT ALL TIMES UNLESS OTHERWISE NOTED.
7. REFER TO RETAINING WALL ELEVATION FOR TOP OF WALL, BOTTOM OF FOOTERS AND STRUCTURAL SECTIONS TO BE USED.
8. ALL REINFORCING SPLICES IF REQUIRED, SHALL BE 40 INCH MINIMUM TENSION SPLICES, OR EQUIVALENT.
9. ALL EXPOSED CORNERS CHAMFERED 3/4 INCH.
10. RETAINING WALLS SHALL ONLY BE CONSTRUCTED UNDER THE OBSERVATION OF A REGISTERED PROFESSIONAL ENGINEER AND A (NICET, WACEL, OR EQUIVALENT) CERTIFIED SOILS TECHNICIAN.
11. THE REQUIRED BEARING PRESSURE BENEATH THE FOOTING OF THE WALL SHALL BE VERIFIED IN THE FIELD BY A CERTIFIED SOILS TECHNICIAN. TESTING DOCUMENTATION MUST BE PROVIDED TO THE HOWARD COUNTY INSPECTOR PRIOR TO THE START OF CONSTRUCTION. THE REQUIRED TEST PROCEDURE SHALL BE THE DYNAMIC CONE PENETROMETER TEST ASTM STP-399.
12. THE SUITABILITY OF FILL MATERIAL SHALL BE CONFIRMED BY THE ON-SITE SOILS TECHNICIAN. EACH EIGHT INCH LIFT MUST BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTER DENSITY AND THE TESTING REPORT SHALL BE MADE AVAILABLE TO THE HOWARD COUNTY INSPECTOR UPON COMPLETION OF CONSTRUCTION.



**RETAINING WALL ELEVATION**

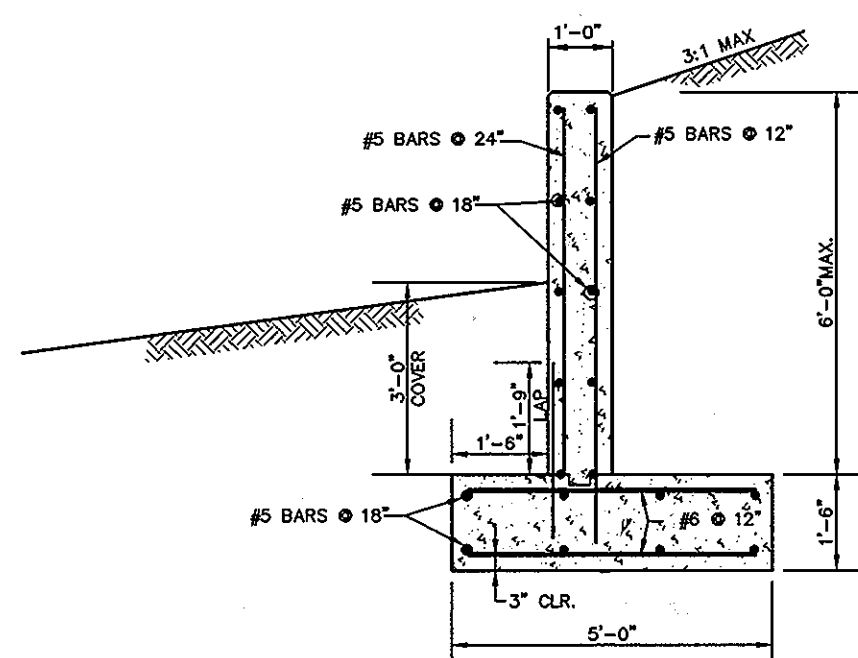
SCALE: 1"=10'

LEGEND:  
TF=TOP OF FOOTING  
TW=TOP OF WALL  
BW=PROPOSED GRADE AT FACE OF WALL



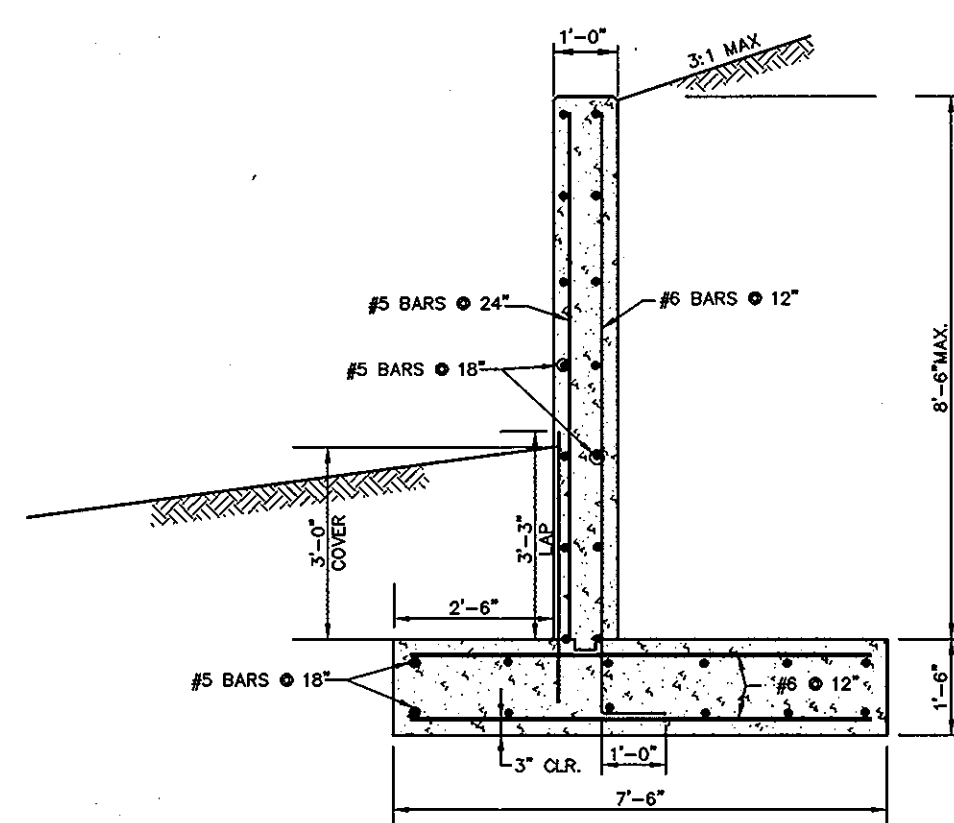
**WEEPHOLES DETAIL**

SCALE: 1"=3"



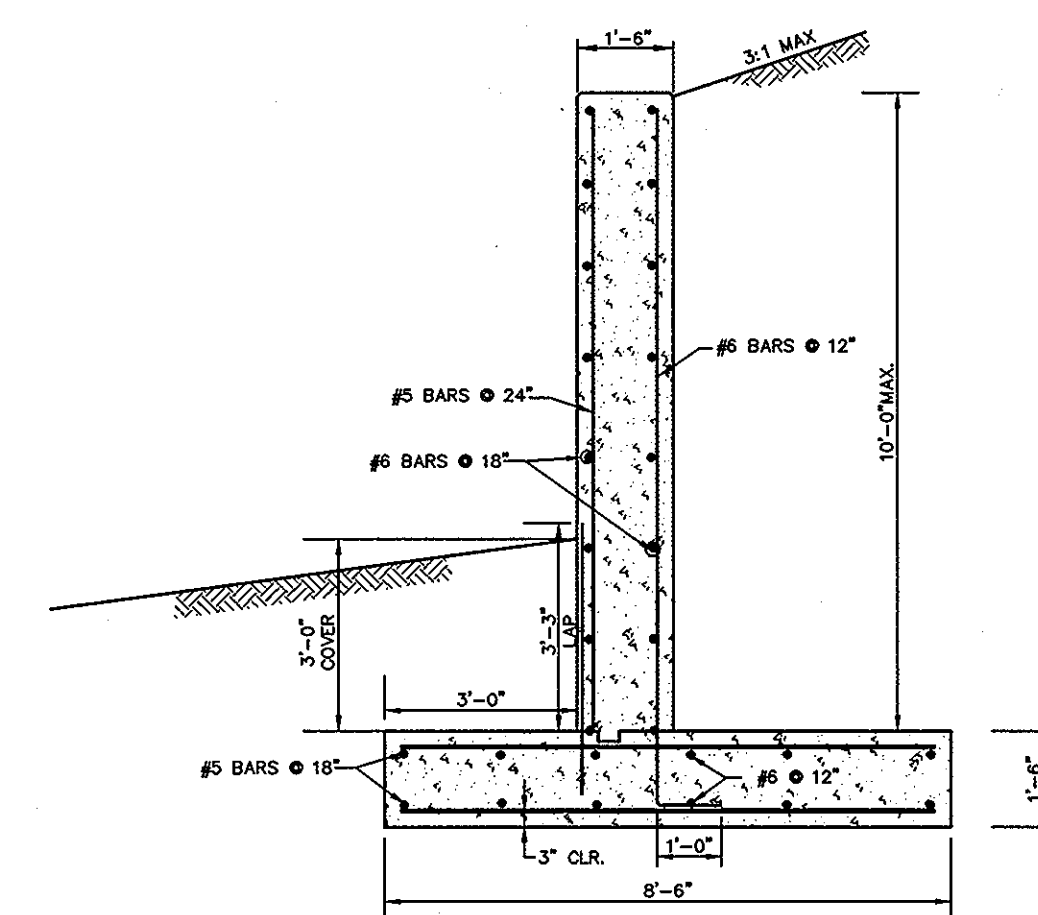
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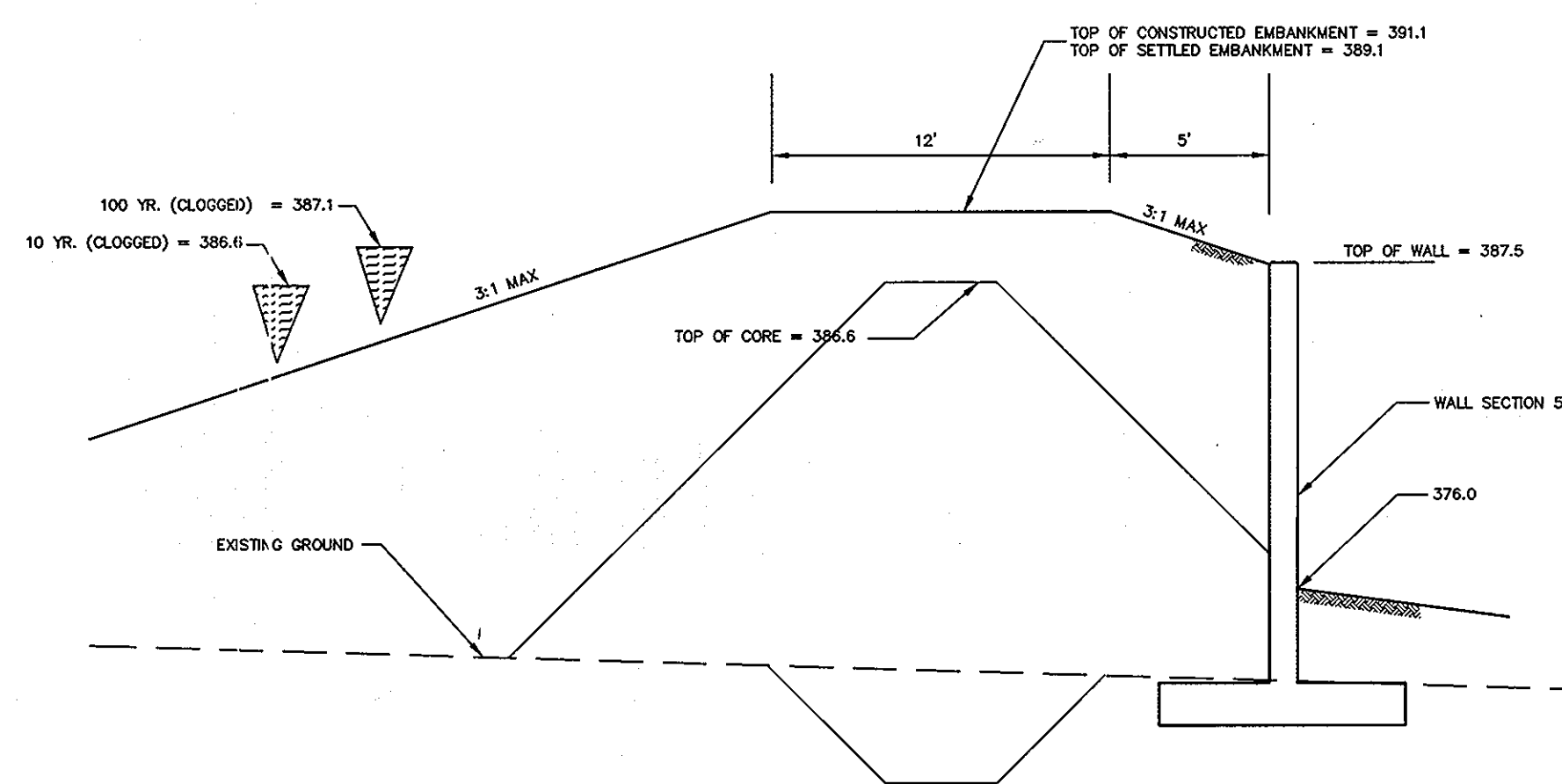
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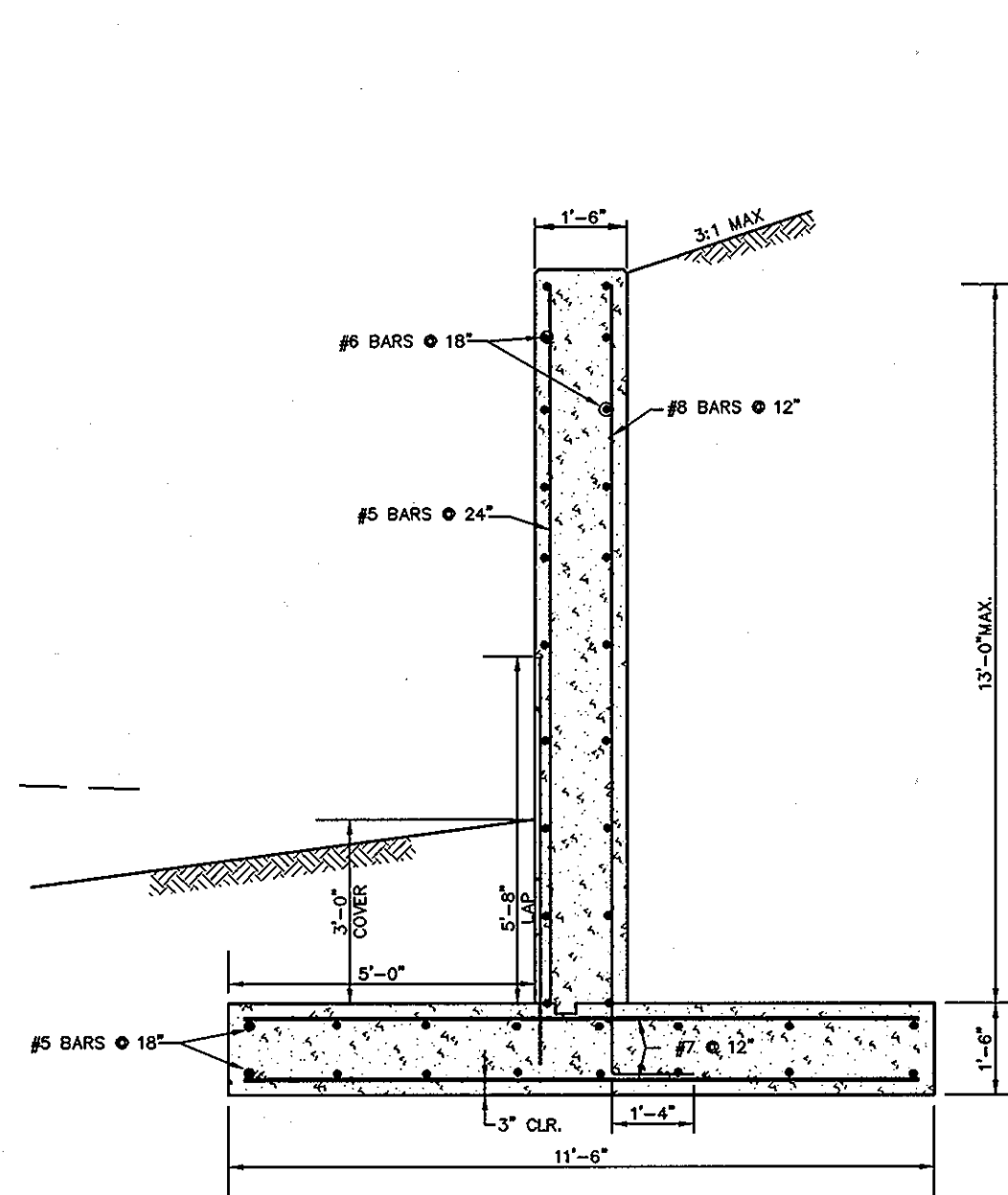
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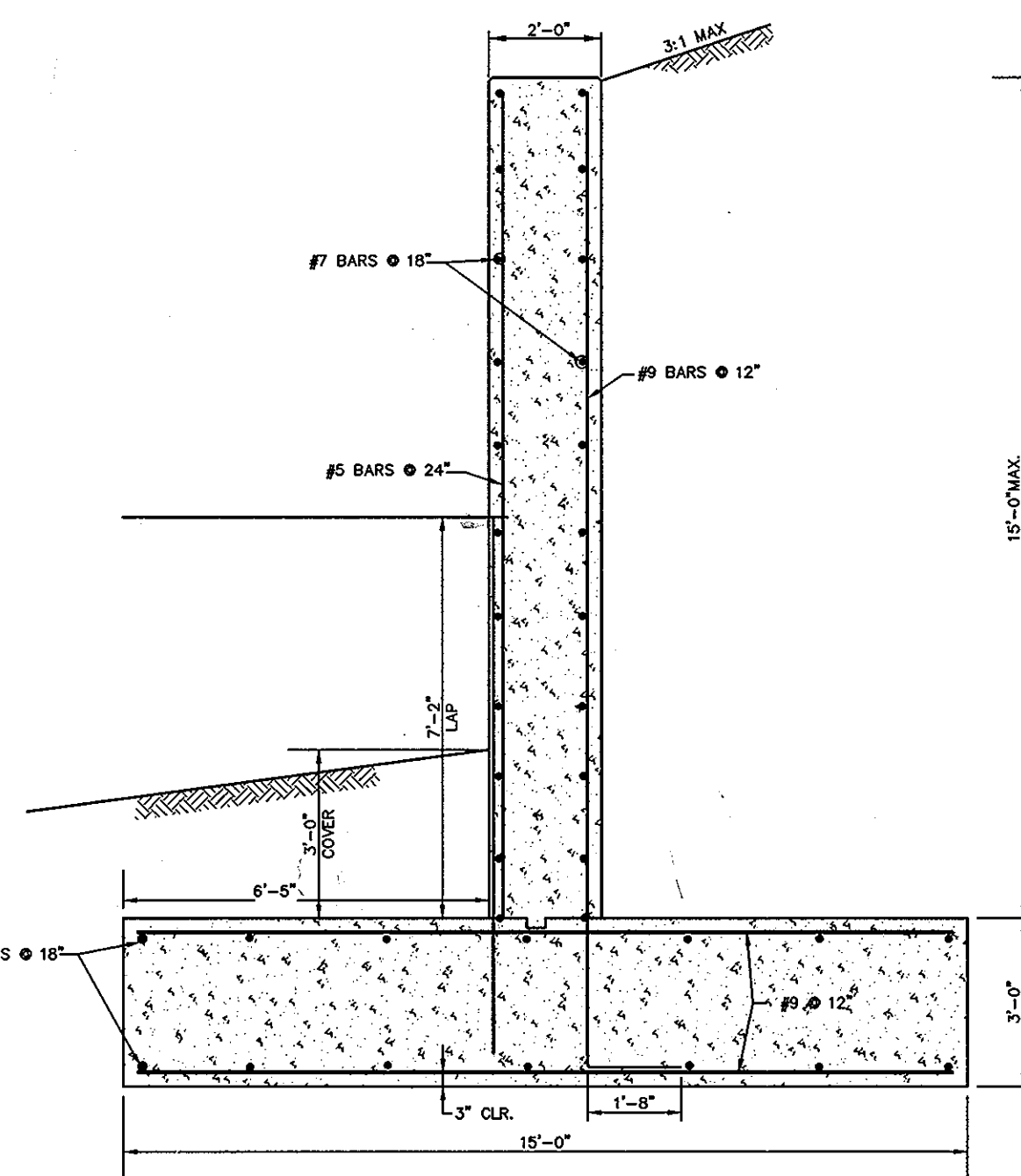
**EMBANKMENT SECTION AT STA. 00+74**

SCALE: 1"=3"



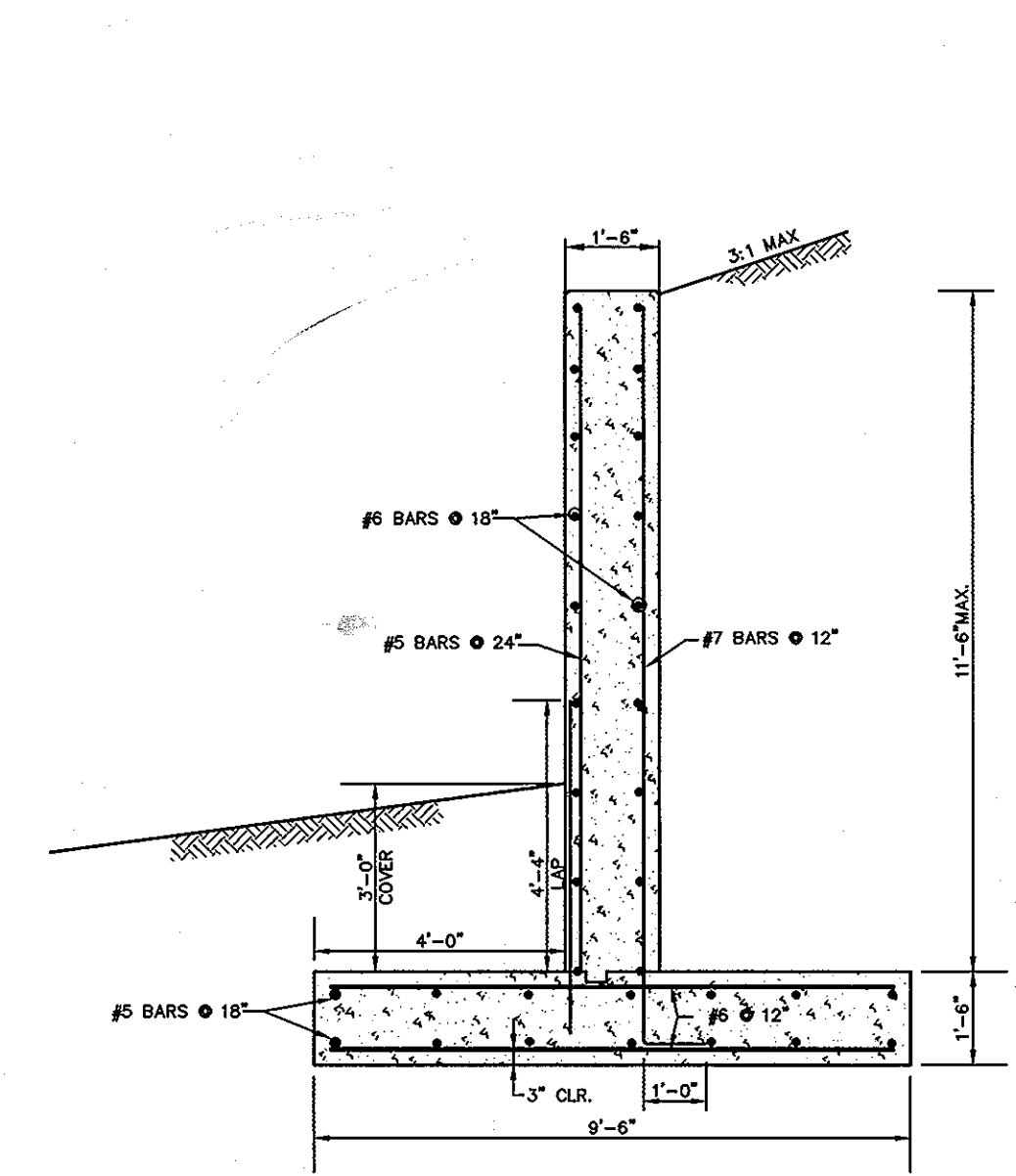
**SECTION 4**

SCALE: 1"=3"



**SECTION 5**

SCALE: 1"=3"



**SECTION 6**

SCALE: 1"=3"

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT

CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE: 12/3/03

DATE: 12/3/03

DATE: 12/3/03

DATE: 12/3/03



THIS SHEET IS TO REPLACE SHEET 20 OF 20, AUTUMN VIEW SECTION 5 PHASE 2 (F-01-038)

Project	12/03
Illustration	JBM
Scale	AS SHOWN
Approval	JBM

1	RETAINING WALL SECTION AND REINFORCEMENT REDSIGN	8/25/03	date
			revisions

**AUTUMN VIEW, SECTION 5, PHASE 2**  
LOTS 260-300  
TAX MAP 25 & 31, P/O PARCEL 75  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
REVISED RETAINING WALL - DETAILS

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