

ROAD CONSTRUCTION PLAN AUTUMN VIEW — SECTION TWO SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

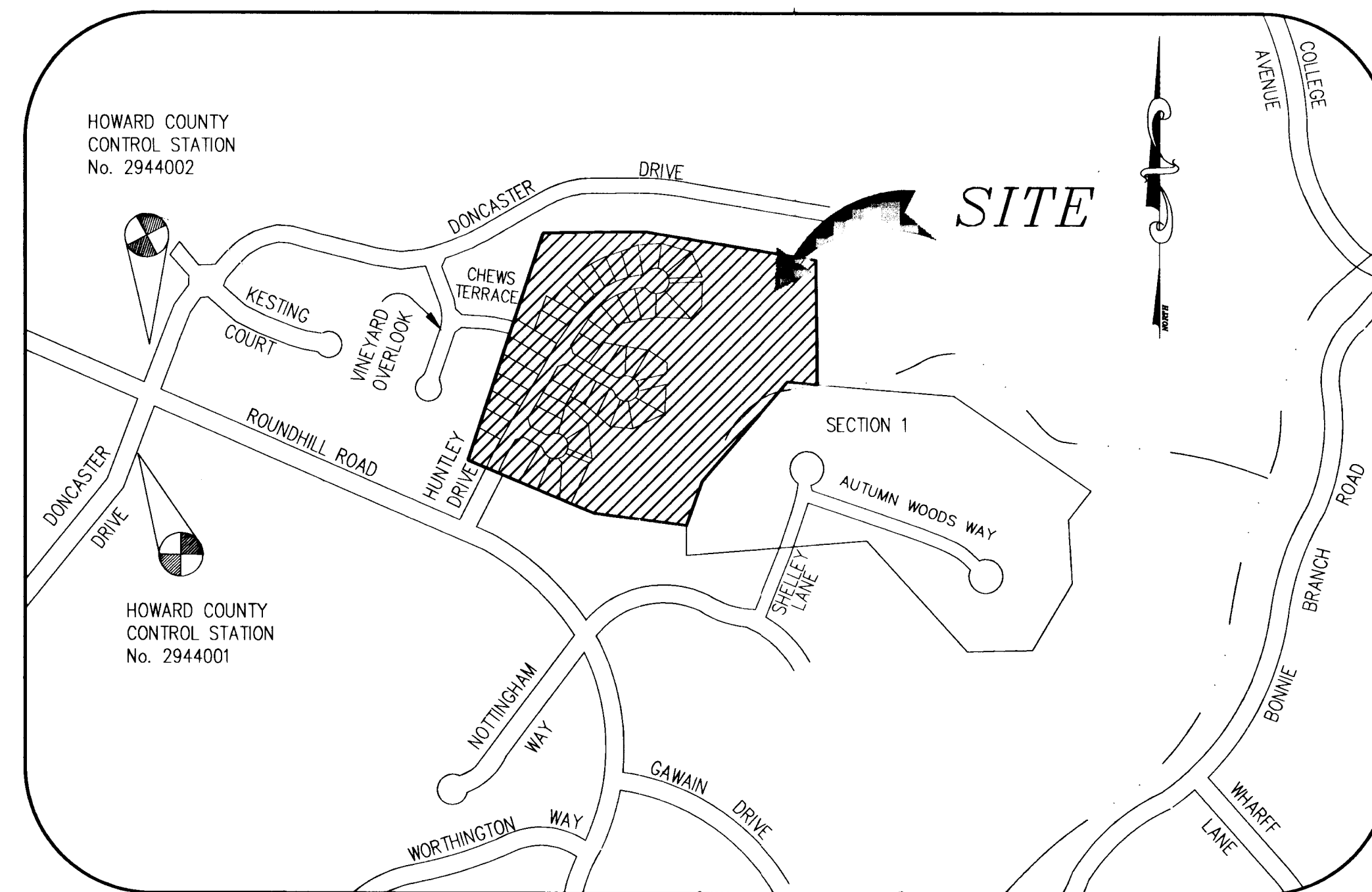
GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY.
2. 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.
3. 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	725-9976
HOWARD COUNTY BUREAU OF UTILITIES	313-4900
AT&T CABLE LOCATION DIVISION	393-3533
BALTIMORE GAS & ELECTRIC	685-0123
STATE HIGHWAY ADMINISTRATION	531-5533
HOWARD COUNTY DEPT. OF PUBLIC WORKS/ CONSTRUCTION INSPECTION DIVISION	313-1880
4. PROJECT BACKGROUND:

LOCATION: 2ND ELECTION DISTRICT, TAX MAP 31, P/O PARCEL 13
ZONING: R-ED
TOTAL TRACT AREA: 26.40
NUMBER OF PROPOSED LOTS: 47 (46 BUILDABLE)
DATE PREVIOUS PLANS APPROVED AND DPZ REFERENCE #:
- S-94-01, OCTOBER 21, 1994
- P-94-20, MAY 18, 1995
5. TWO FOOT CONTOUR TOPOGRAPHY AND EXISTING CONDITIONS BASED ON A FIELD RUN SURVEY BY FISHER, COLLINS AND CARTER, INC. DATED FEB. 1992.
6. HORIZONTAL AND VERTICAL DATUMS BASED ON MARYLAND STATE COORDINATE SYSTEM (NAD 27).

STA No. 2944001	N 513669.929
	E 858664.268
STA No. 2944002	N 514196.358
	E 858596.389
7. LIGHT POLES AND FIXTURES FOR STREET LIGHTS SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOL. III, ROADS AND BRIDGES.
8. WATER AND SEWER ARE PUBLIC, CONTRACT # 14-3448-D
9. STORMWATER MANAGEMENT CONTROL WILL BE PROVIDED BY THE METHOD OF EXTENDED DETENTION. STORMWATER MANAGEMENT POND WILL BE PUBLIC.
10. GEOTECHNICAL REPORT PREPARED BY INVESTIGATIVE TESTING & ENGINEERING, INC. DATED DEC 1994.
11. STREET LIGHTS: 100 WATT "TRADITIONAIRE" HPS VAPOR POST TOP FIXTURE ON 14" BLACK FIBERGLASS POLE ON THE FOLLOWING LOCATION:
#1 HUNTLEY DRIVE @ STA 4+64, 18' RIGHT
#2 HUNTLEY DRIVE @ STA 8+00, 16' RIGHT
#3 HUNTLEY DRIVE L.P. STA 1+36, 3' OF EDGE OF PAVEMENT
12. NO FLOODPLAINS EXIST ON SITE.
13. THIS SUBDIVISION IS SUBJECT TO PLANNING BOARD CASE NO. 297 DATED SEPTEMBER 1, 1994, WHICH APPROVED SKETCH PLAN S-94-01.
14. EXISTING UTILITIES LOCATIONS ARE BASED ON AS-BUILT DRAWINGS ON RECORD AT HOWARD COUNTY.
15. 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.
16. HOUSES NOT CONTROLLED BY THE SWM POND WILL HAVE DRY WELLS AT SDP STAGE. SEE SHEET 9 OF 12 FOR DETAIL.
17. COMPACTION IN FILL AREAS TO BE 95% DETERMINED PER AASHTO T-180.
18. THE FOREST CONSERVATION EASEMENT(S) HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF HOWARD COUNTY FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, EXCEPT AS SHOWN ON AN APPROVED ROAD CONSTRUCTION DRAWING OR SITE DEVELOPMENT PLAN. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.



VICINITY MAP
SCALE: 1"=500'

DEVELOPER

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

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12-7-95

AS BUILT CERTIFICATION	
ENGINEER'S SIGNATURE	DATE
APPROVED: DEPARTMENT OF PUBLIC WORKS	
<i>Andrew M. Daniels</i> CHIEF, BUREAU OF HIGHWAYS	1-30-96 DATE
APPROVED: DEPARTMENT OF PLANNING AND ZONING	
<i>Gina Stummans</i> CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH	2/6/96 DATE
<i>Chris Damann</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	2/2/96 DATE

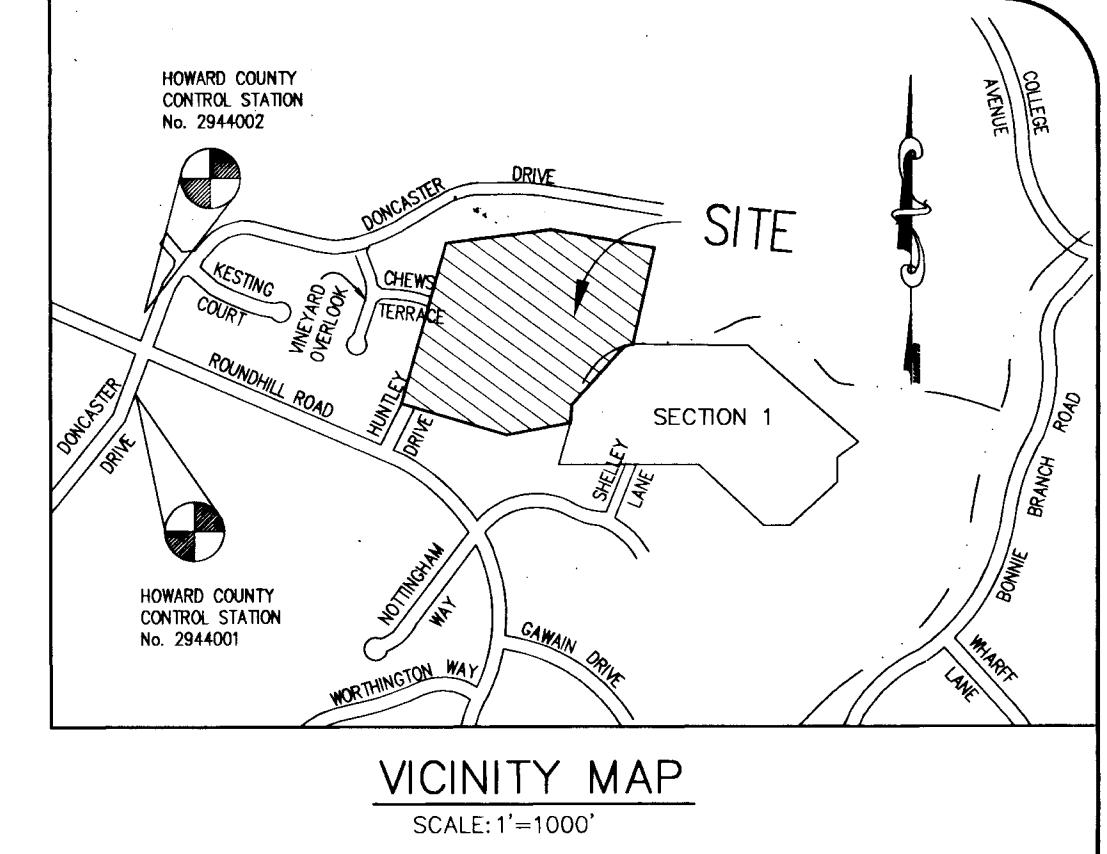
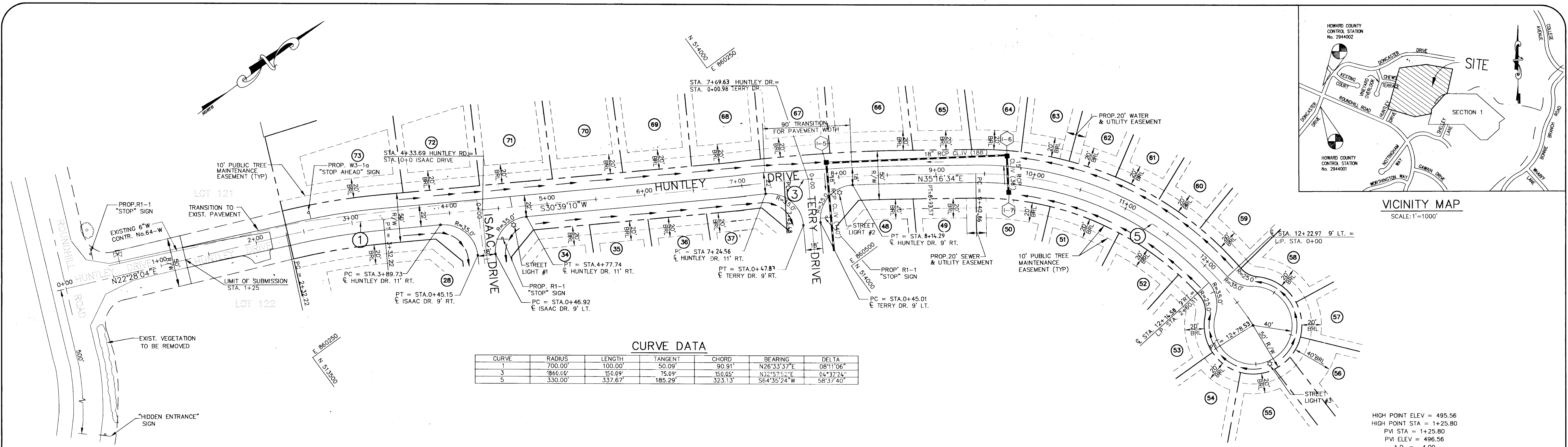
TAX MAP 31, P/O PARCEL 13, BLOCK 3
AUTUMN VIEW—SECT.2, LOTS: 28—74
 SECOND ELECTION DISTRICT
 HOWARD COUNTY
TITLE SHEET

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hill Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 987-0236 Bldg. (301) 621-5521 Wash. (410) 987-0298 Fax

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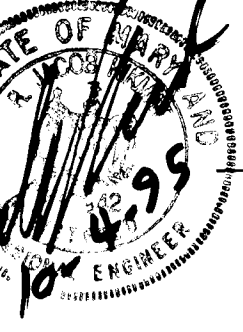
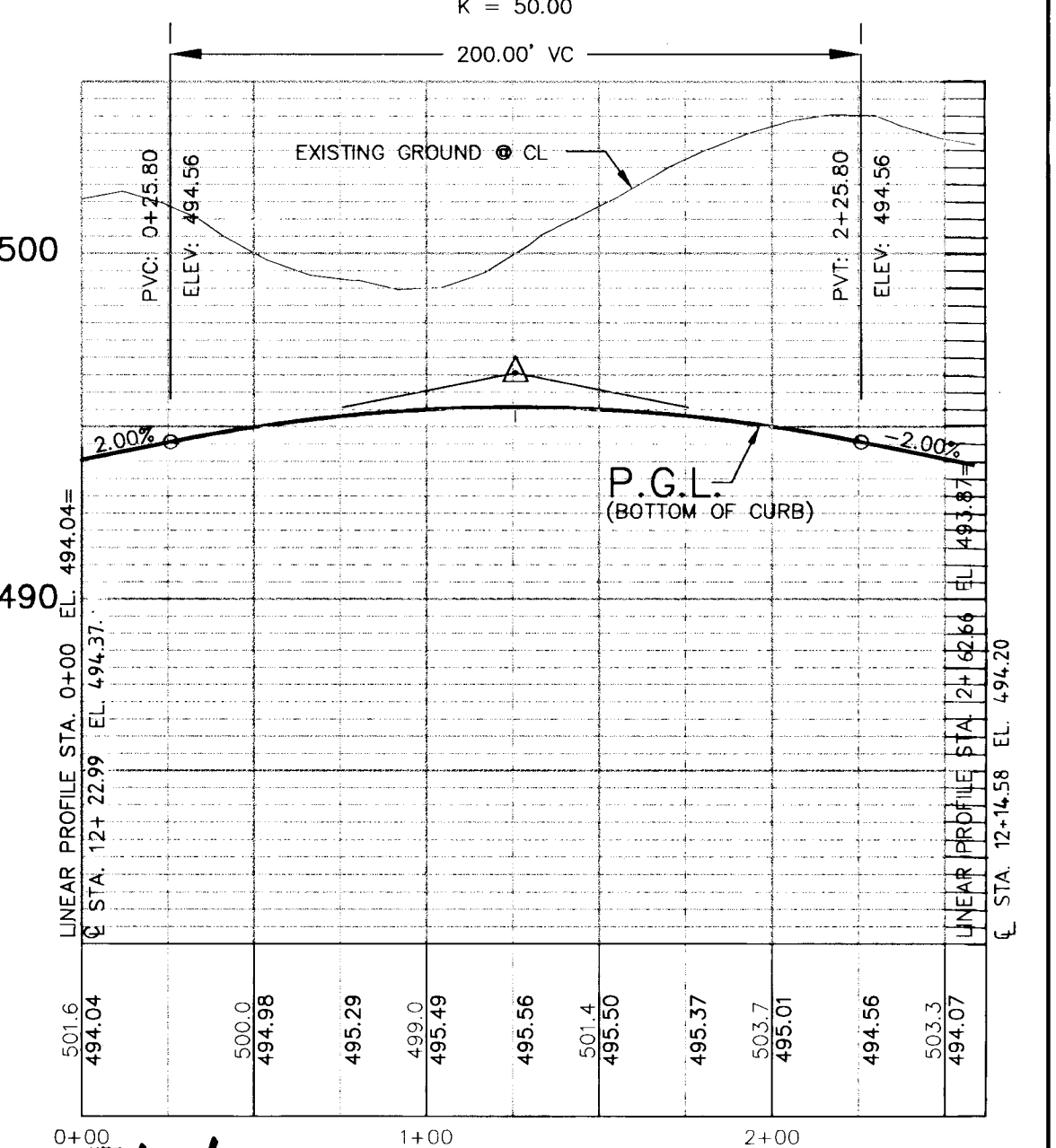
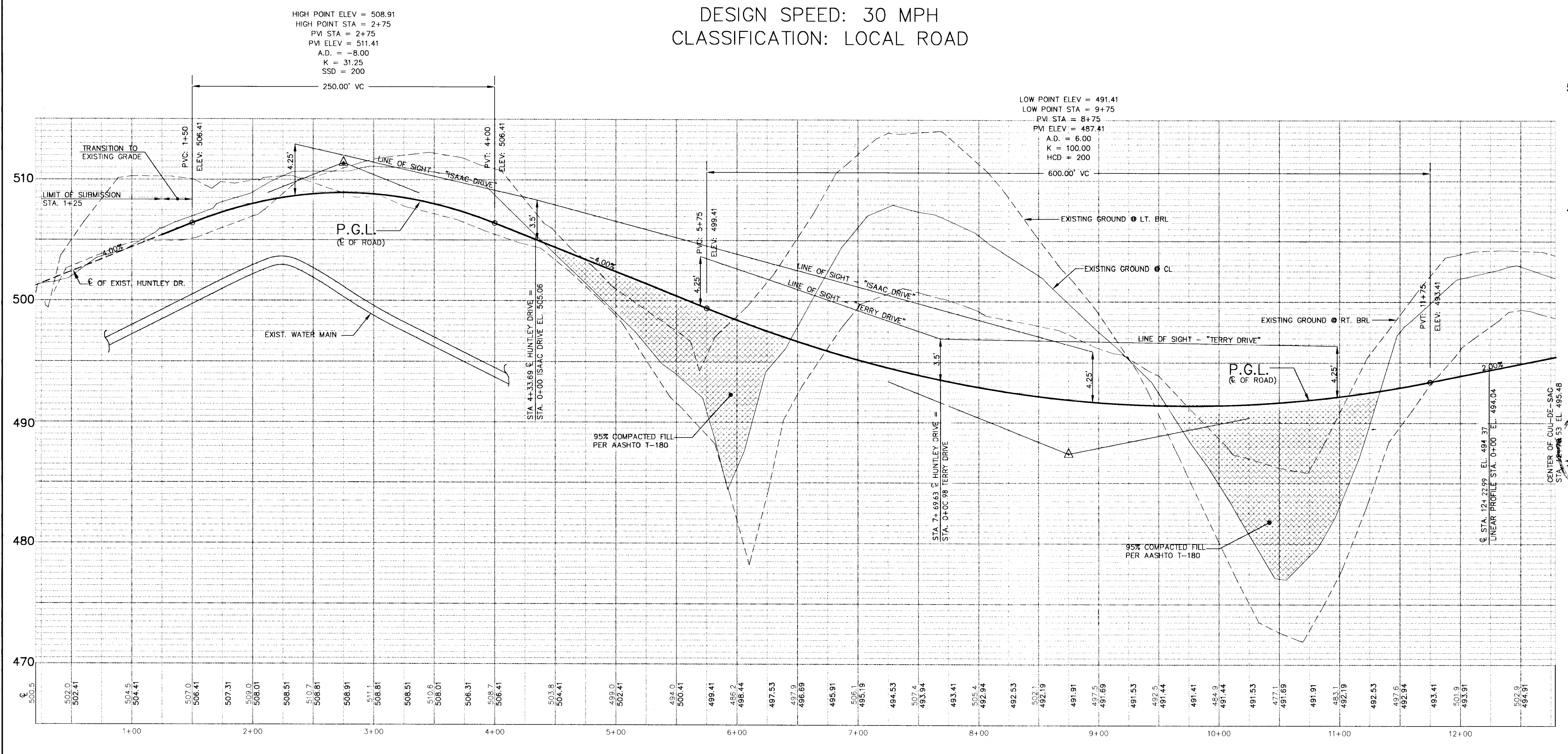
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CURVE DATA

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
1	700.00'	100.00'	50.09'	90.91'	N26°33'37"E	08°11'06"
3	1860.00'	150.09'	15.09'	150.05'	N72°57'24"E	04°37'24"
5	330.00'	337.67'	185.29'	323.13'	S64°35'24"W	58°17'40"

DESIGN SPEED: 30 MPH
CLASSIFICATION: LOCAL ROAD



AS BUILT CERTIFICATION

ENGINEER'S SIGNATURE: *Andrew M. Danesh* DATE: 1-30-96
APPROVED: DEPARTMENT OF PUBLIC WORKS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Gina Summery DATE: 2/6/96
M. Danesh DATE: 2/2/96

OWNER/DEVELOPER
IRVING TAYLOR & EDITH TAYLOR
C/O BONNIE BRANCH CORPORATION
P.O. BOX 396
ELLCOTT CITY, MD 21043

PROJECT: 94031
DATE: JULY 95
ENGINEERING: J.H.
M.P. APPROVAL: J.H.

REVISIONS
1. REVISION ON JUNE CURVE #3 ON HUNTLEY DR.
DATE: 10/16/96
M.P. APPROVAL: J.H.

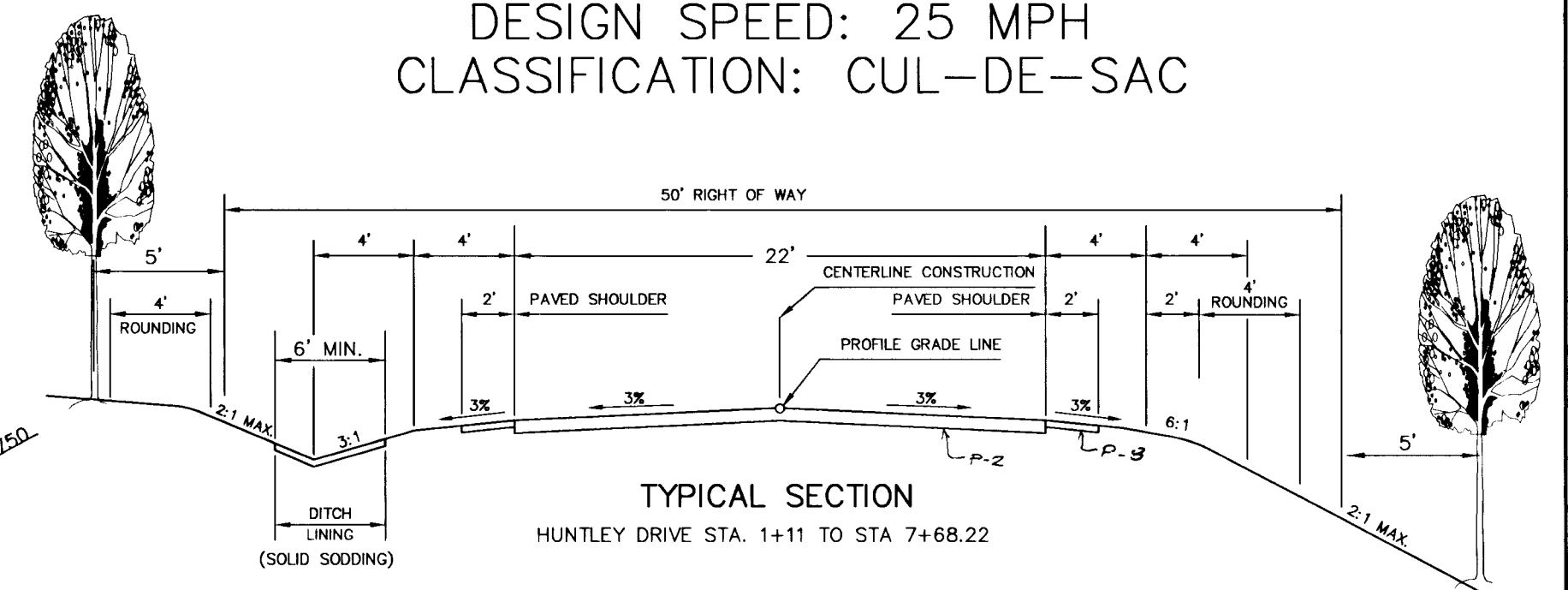
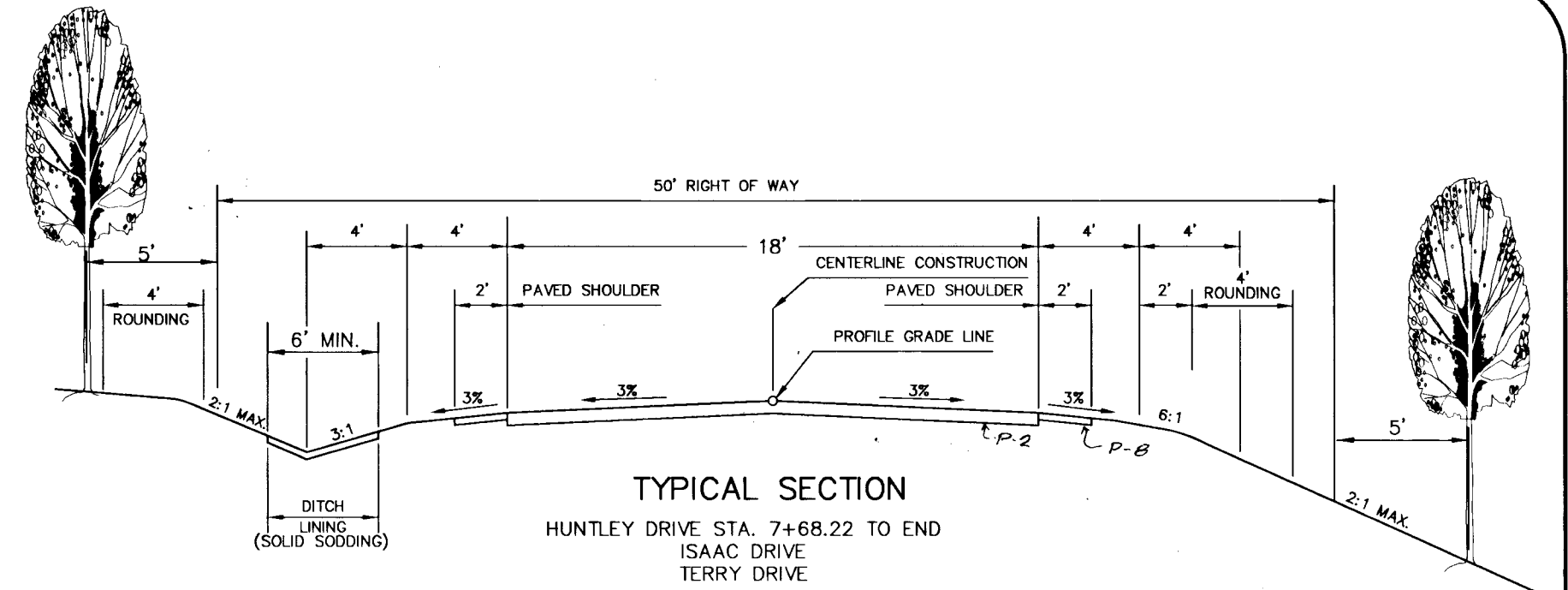
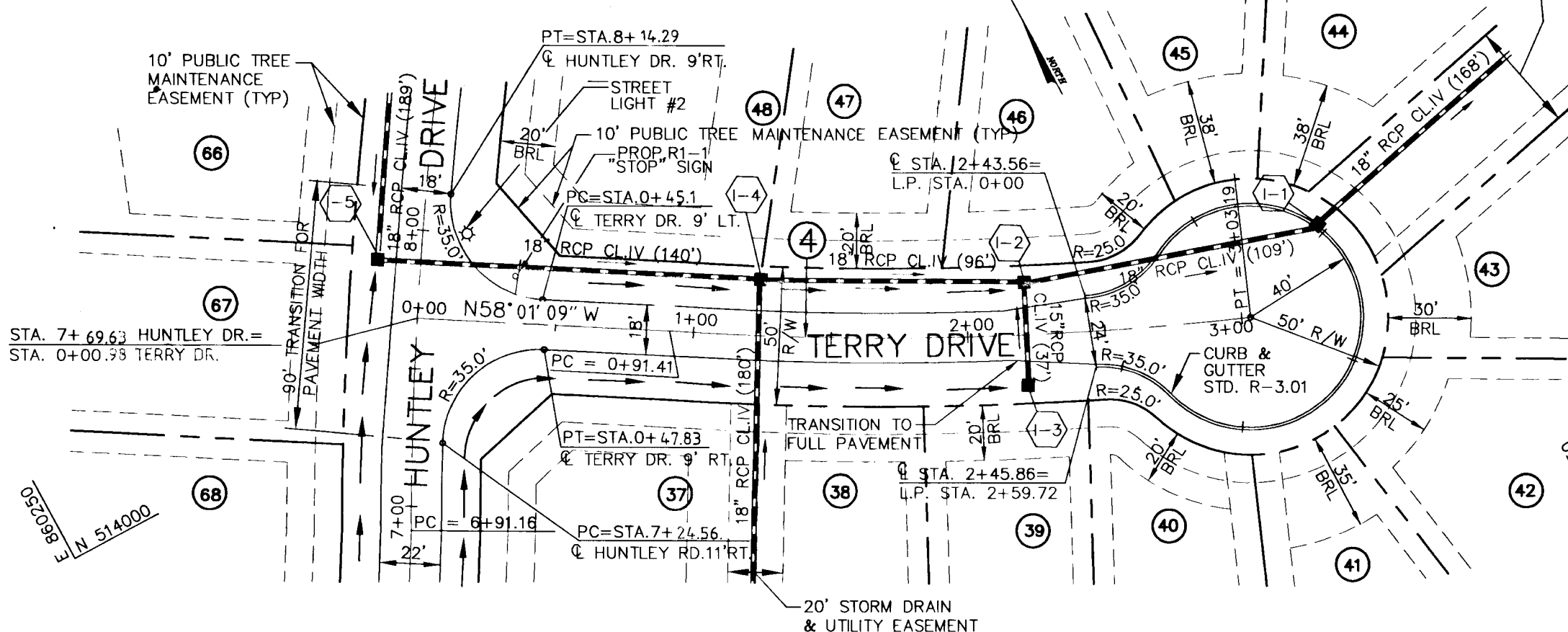
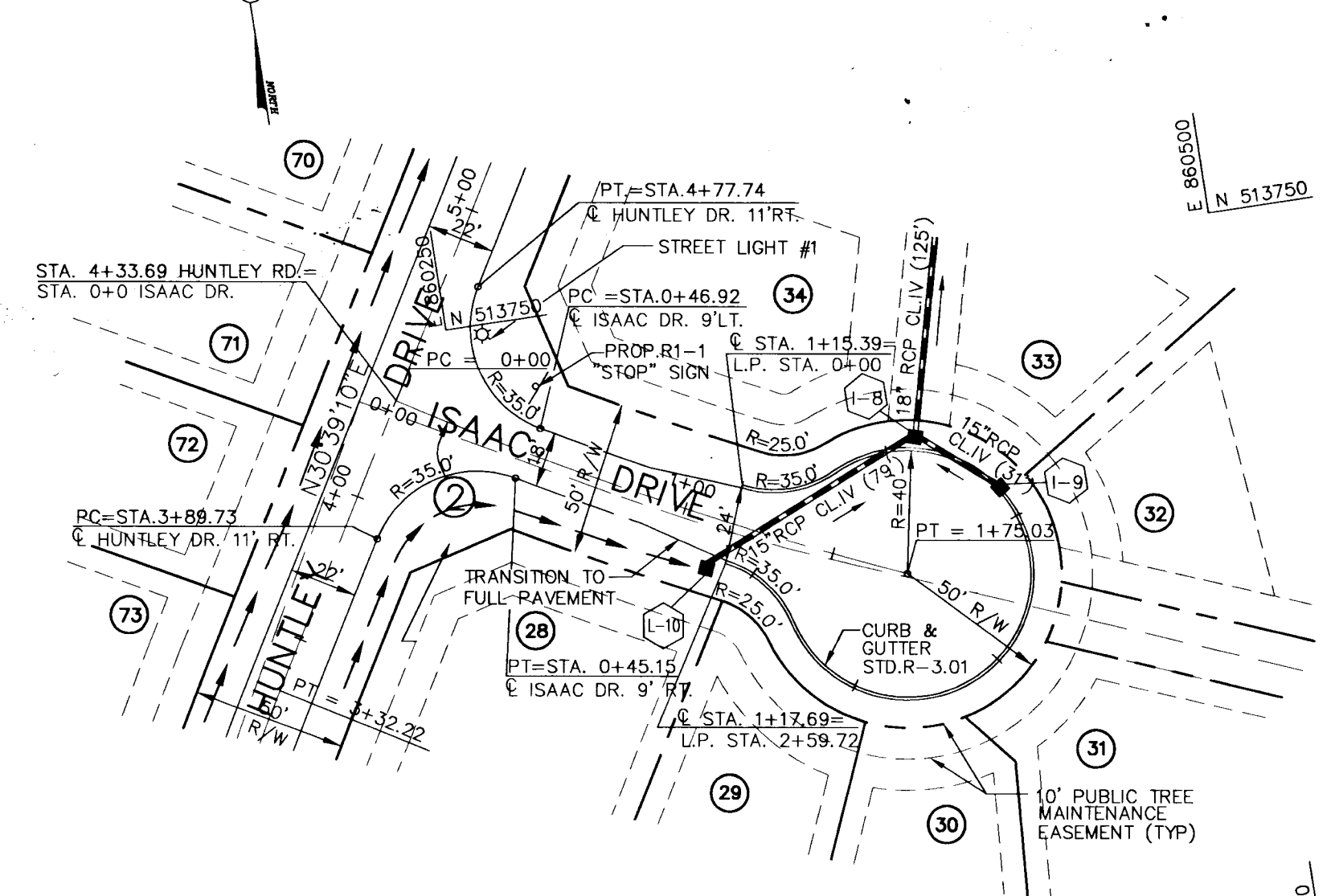
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AUTUMN VIEW-SECT.2, LOTS: 28-74
SECOND ELECTION DISTRICT
HOWARD COUNTY
ROAD PLAN AND PROFILES

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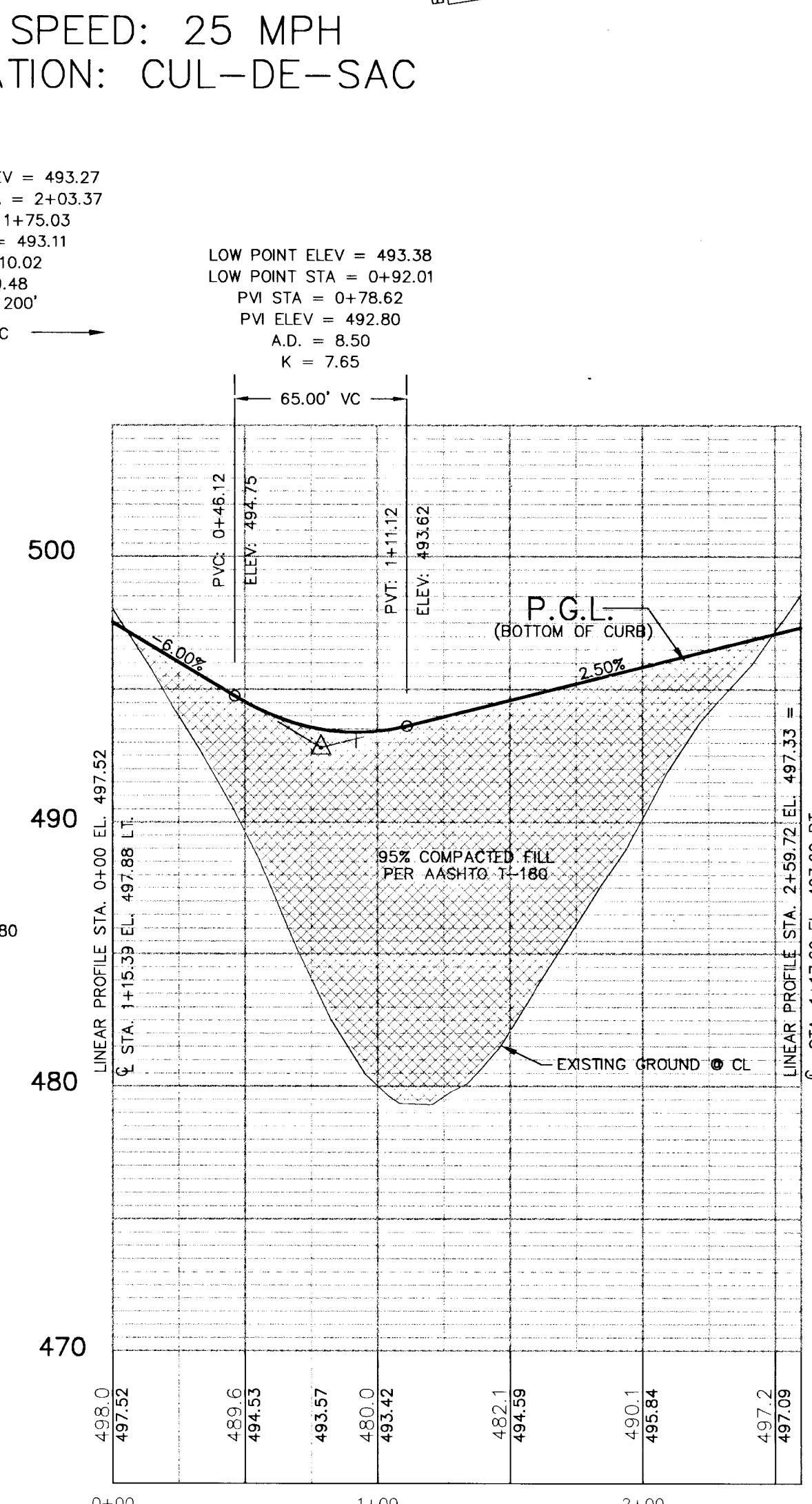
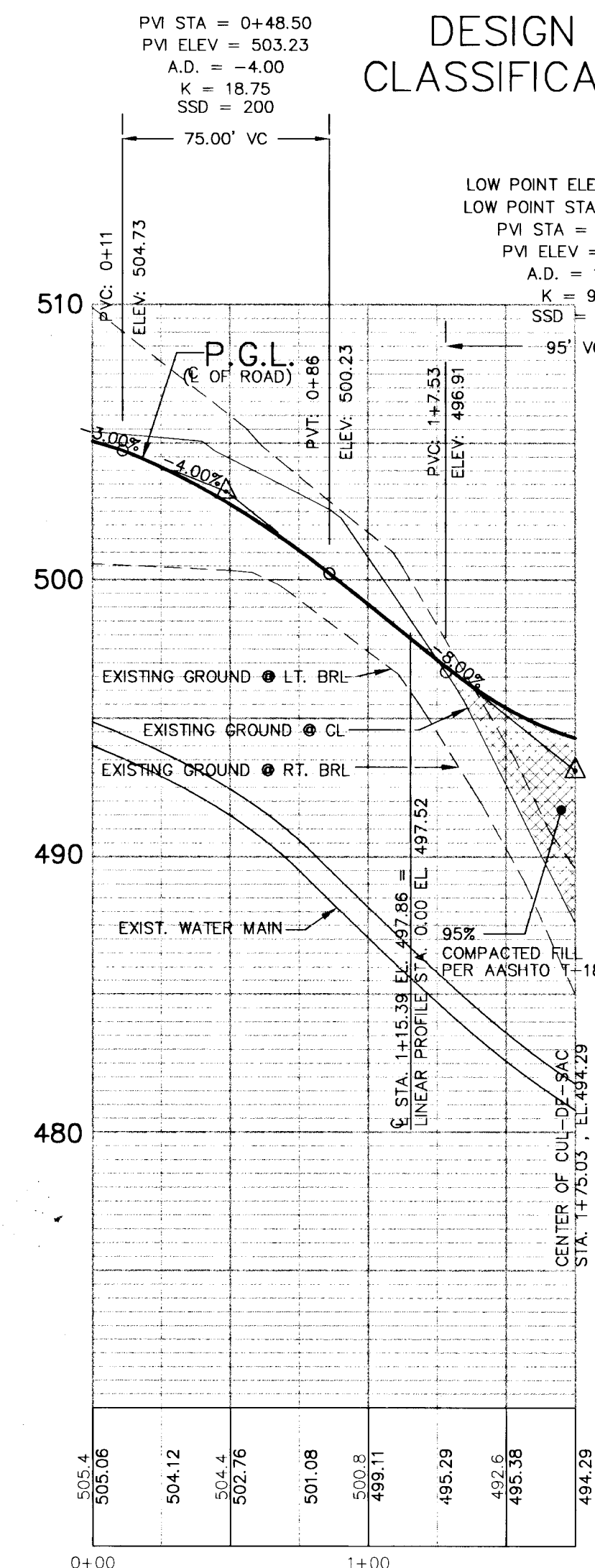
CURVE DATA

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
2	1200.00'	175.03'	87.67'	174.87'	S62°28'42"E	08°21'25"
4	1200.00'	211.78'	106.17'	211.50'	S63°44'39"E	10°06'42"



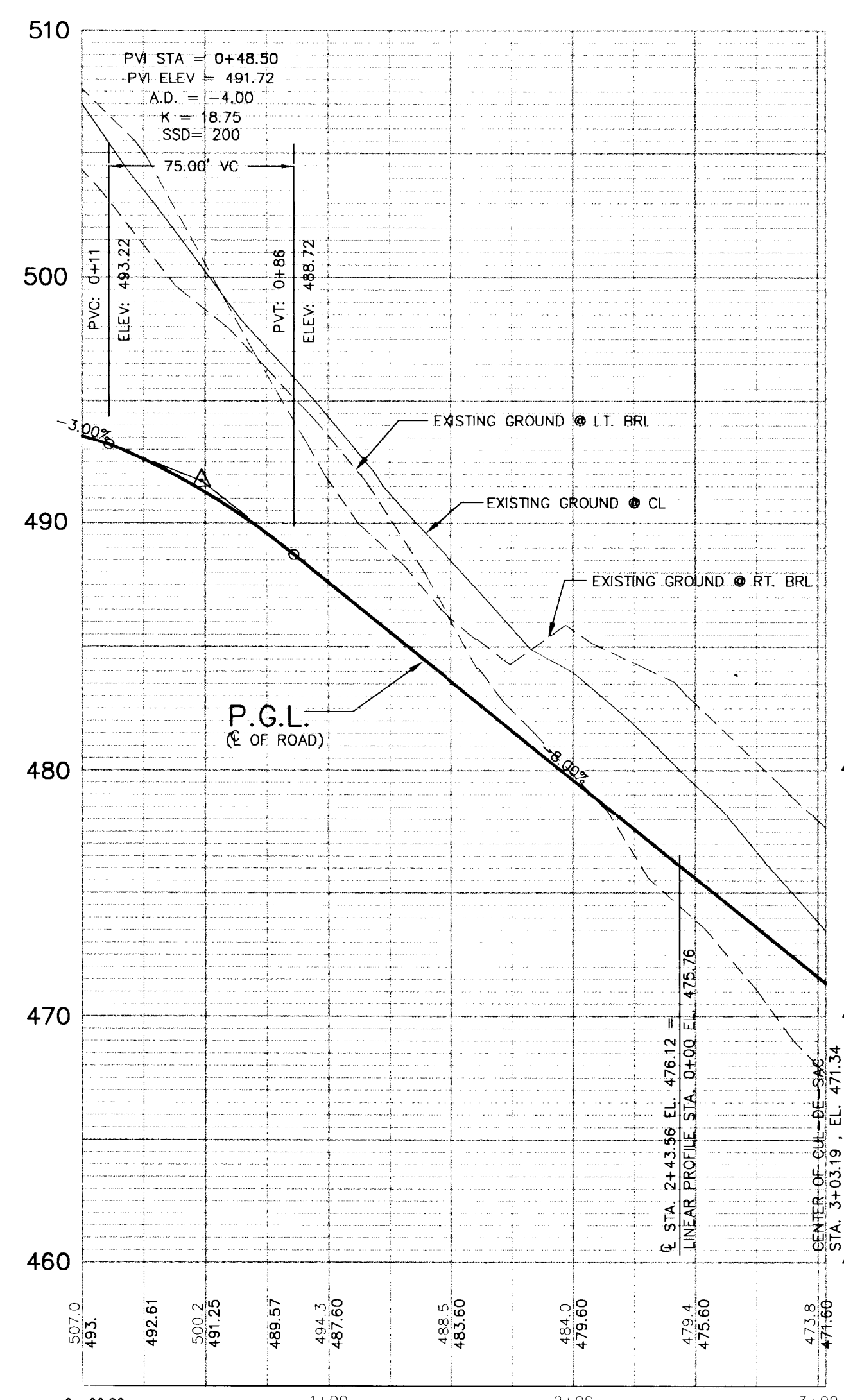
DESIGN SPEED: 25 MPH
CLASSIFICATION: CUL-DE-SAC

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CLASSIFICATION: CUL-DE-SAC

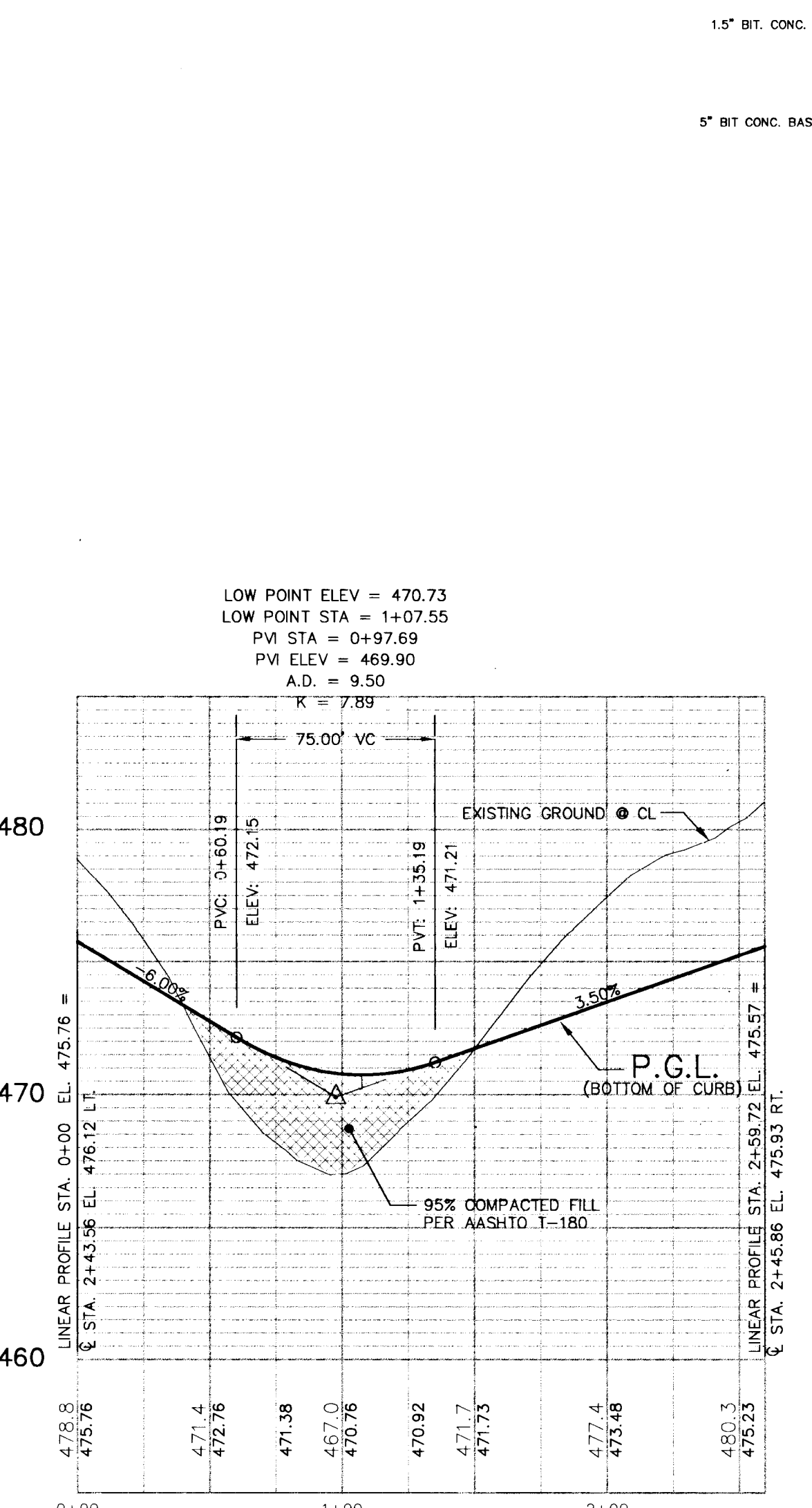


ISAAC DRIVE PROFILE
SCALE: VER: 1"=5'
HOR: 1"=50'

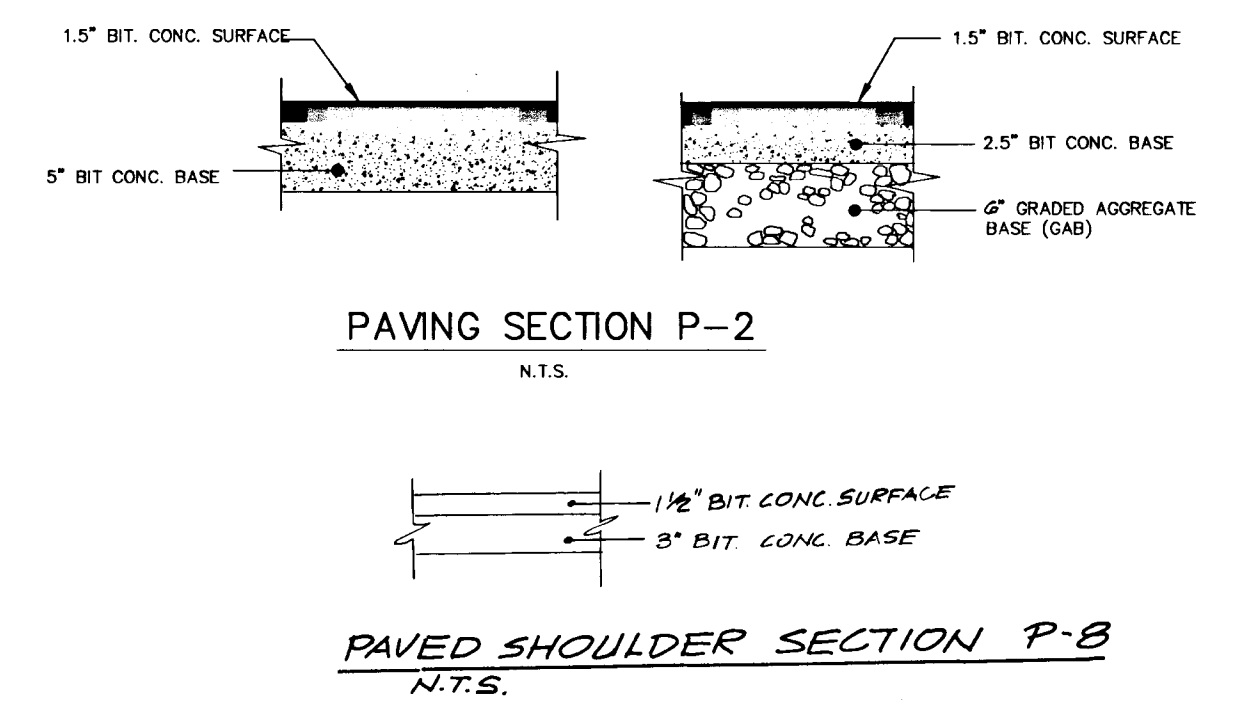
ISAAC DRIVE PROFILE
LINEAR PROFILE
SCALE: VER: 1"=5'
HOR: 1"=50'



TERRY DRIVE PROFILE
SCALE: VER: 1"=5'
HOR: 1"=50'



TERRY DRIVE PROFILE
LINEAR PROFILE
SCALE: VER: 1"=5'
HOR: 1"=50'



10.4.99

OWNER/DEVELOPER
IRVING TAYLOR & EDITH TAYLOR
C/O BONNIE BRANCH CORPORATION
P.O. BOX 396
ELLCOTT CITY, MD 21043

AS BUILT CERTIFICATION

ENGINEER'S SIGNATURE	DATE
APPROVED: DEPARTMENT OF PUBLIC WORKS	
<i>Richard M. Daniels</i>	1-30-96
CHIEF, BUREAU OF HIGHWAYS	DATE
APPROVED: DEPARTMENT OF PLANNING AND ZONING	
<i>Anna Swirnam</i>	2/6/96
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH	DATE
<i>William</i>	2/2/96
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE

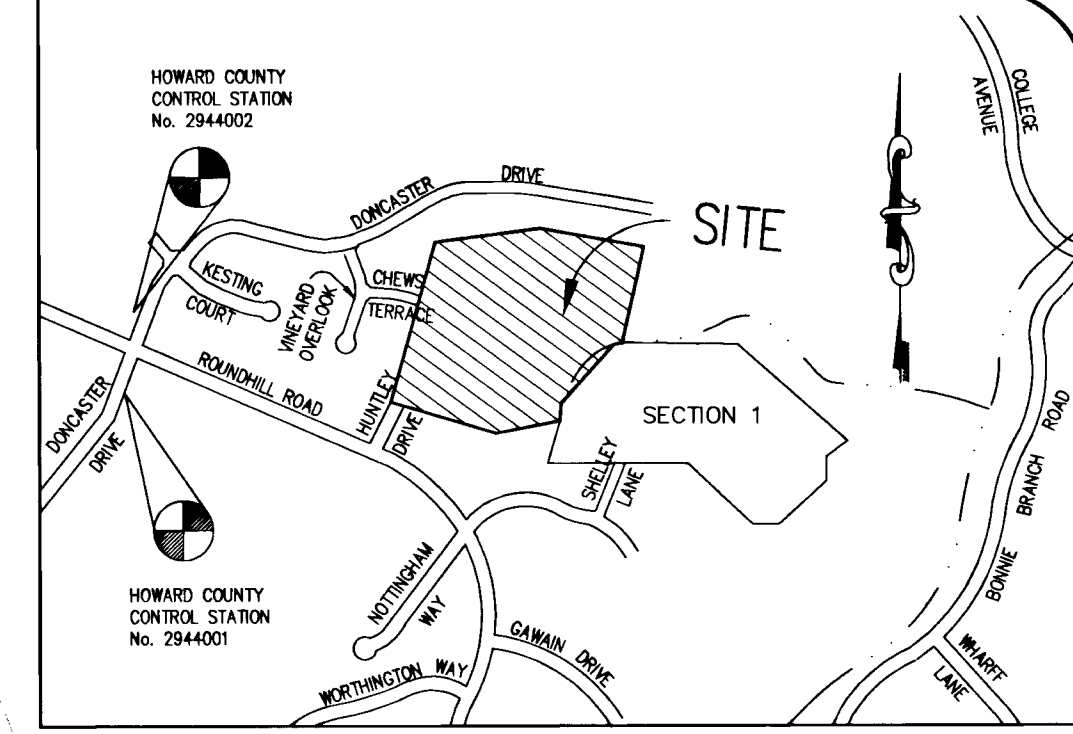
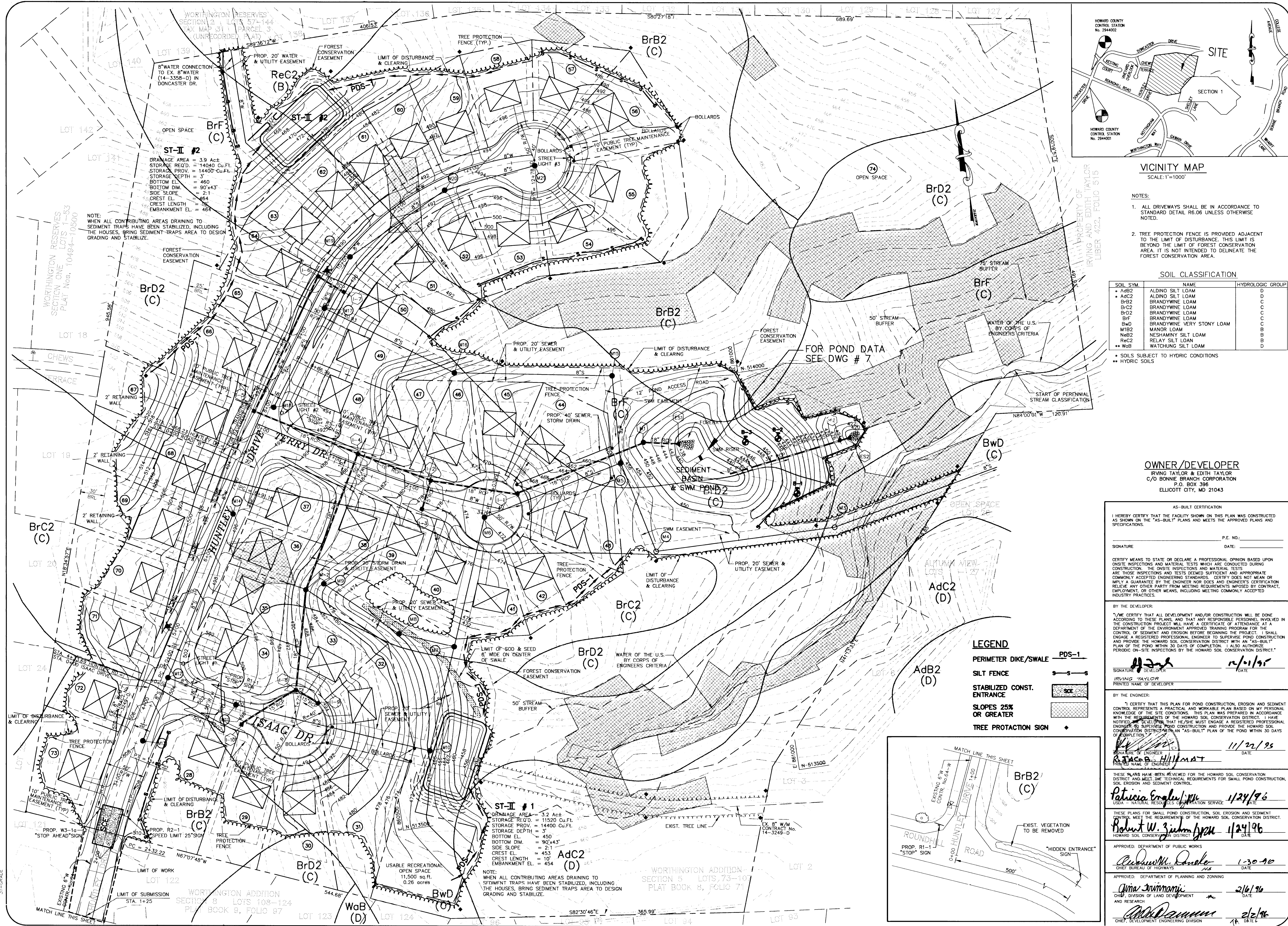
DATE: JULY 95
PROJECT: 94031
DRAWING: M.P.
SCALE: M.P.
REVISIONS: 10/16/96

NO. 1
DESCRIPTION: REVISION ON HOR. CURVE #3 HUNTLEY DR.
DATE: 10/16/96

TAX MAP 31, P/O/PARCEL 13, BLOCK 3
AUTUMN VIEW-SECT.2, LOTS: 28-74
HOWARD COUNTY
SECOND ELECTION DISTRICT
ROAD PLANS AND PROFILES

MILDENBERG, BOENDER & ASSOC., INC.
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1687



VICINITY MAP
SCALE: 1"=1000

- NOTES:
1. ALL DRIVEWAYS SHALL BE IN ACCORDANCE TO STANDARD DETAIL R6.06 UNLESS OTHERWISE NOTED.
 2. TREE PROTECTION FENCE IS PROVIDED ADJACENT TO THE LIMIT OF DISTURBANCE. THIS LIMIT IS BEYOND THE LIMIT OF FOREST CONSERVATION AREA. IT IS NOT INTENDED TO DELINEATE THE FOREST CONSERVATION AREA.

SOIL CLASSIFICATION

SOIL SYM.	NAME	HYDROLOGIC GROUP
AdB2	ALDINO SILT LOAM	D
AdC2	ALDINO SILT LOAM	D
BrB2	BRANDYWINE LOAM	C
BrC2	BRANDYWINE LOAM	C
BrD2	BRANDYWINE LOAM	C
BrF	BRANDYWINE LOAM	C
BwD	BRANDYWINE VERY STONY LOAM	C
M1B2	MANOR LOAM	B
NwB2	NESHAMINY SILT LOAM	B
ReC2	RELY SILT LOAM	B
WaB	WATCHUNG SILT LOAM	D

• SOILS SUBJECT TO HYDRIC CONDITIONS
• HYDRIC SOILS

OWNER/DEVELOPER
IRVING TAYLOR & EDITH TAYLOR
C/O 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: _____ P.E. NO.: _____
DATE: _____

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE COMMONLY ACCEPTED STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT, OR OTHER MEANS, INCLUDING MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

BY THE DEVELOPER:
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF DEVELOPER: *[Signature]* DATE: *11/21/95*
IRVING TAYLOR
PRINTED NAME OF DEVELOPER

BY THE ENGINEER:
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL, REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER 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.

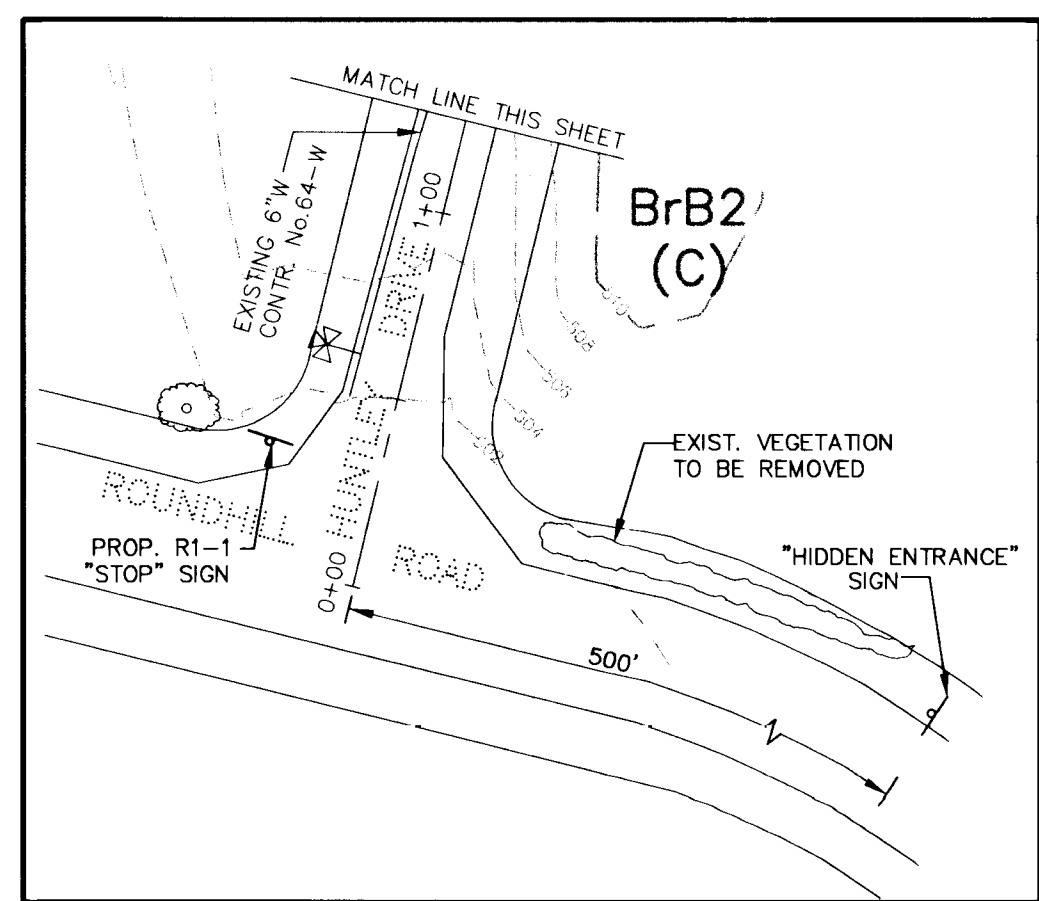
SIGNATURE OF ENGINEER: *[Signature]* DATE: *11/22/95*
PATRICIA ENGLISH
PRINTED NAME OF ENGINEER

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.
SIGNATURE: *[Signature]* DATE: *11/24/96*
PATRICIA ENGLISH
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: *11/24/96*
HOWARD W. ZIMMERMAN
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS
SIGNATURE: *[Signature]* DATE: *1/30/96*
CHIEF ENGINEER

APPROVED: DEPARTMENT OF PLANNING AND ZONING
SIGNATURE: *[Signature]* DATE: *2/16/96*
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH



LEGEND

- PERIMETER DIKE/SWALE PDS-1
- SILT FENCE
- STABILIZED CONST. ENTRANCE
- SLOPES 25% OR GREATER
- TREE PROTECTION SIGN

ST-II #1
DRAINAGE AREA = 3.2 AC±
STORAGE REQ'D = 11520 CU.FT.
STORAGE PROV. = 14400 CU.FT.
STORAGE DEPTH = 3'
BOTTOM EL. = 450
BOTTOM DIM. = 90'x43'
SIDE SLOPE = 2:1
CREST EL. = 453
CREST LENGTH = 10'
EMBANKMENT EL. = 454

NOTE: WHEN ALL CONTRIBUTING AREAS DRAINING TO SEDIMENT TRAPS HAVE BEEN STABILIZED, INCLUDING THE HOUSES, BRING SEDIMENT TRAPS AREA TO DESIGN GRADING AND STABILIZE.

DATE: JULY 95
PROJECT: 94031
ILLUSTRATION: M.P.
SCALE: 1"=50'
APPROVAL: J.H.

DESCRIPTION: GRADING AND SEDIMENT CONTROL PLAN
REVISED: _____

TAX MAP 31, P/O PARCEL 13, BLOCK 3
AUTUMN VIEW-SECT.2, LOTS: 28-74
SECOND ELECTION DISTRICT
HOWARD COUNTY
GRADING AND SEDIMENT CONTROL PLAN

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

HOWARD SOIL CONSERVATION DISTRICT

PERMANENT SEEDING NOTES

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

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

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

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

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

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

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

TEMPORARY SEEDING NOTES

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

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

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

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (32 LBS./1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (07 LBS./1000 SQ.FT.) FOR THE PERIOD NOVEMBER 16 THRU NOVEMBER 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOO.

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

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

HOWARD SOIL CONSERVATION DISTRICT

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, (313-1855).
2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", AND REVISIONS THERETO.
3) FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4) ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
5) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC.51), SOO (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC.52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
6) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
7) SITE ANALYSIS:
TOTAL AREA OF SITE: 26.4 ACRES
AREA DISTURBED: 14.7 ACRES
AREA TO BE ROOFED OR PAVED: 6.0 ACRES
AREA TO BE VEGETATIVELY STABILIZED: 8.7 ACRES
TOTAL CUT: 27,500 CU. YDS.
TOTAL FILL: 27,500 CU. YDS.
TOTAL WASTE/BORROW AREA LOCATION: 0
8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9) ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
10) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
11) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

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.

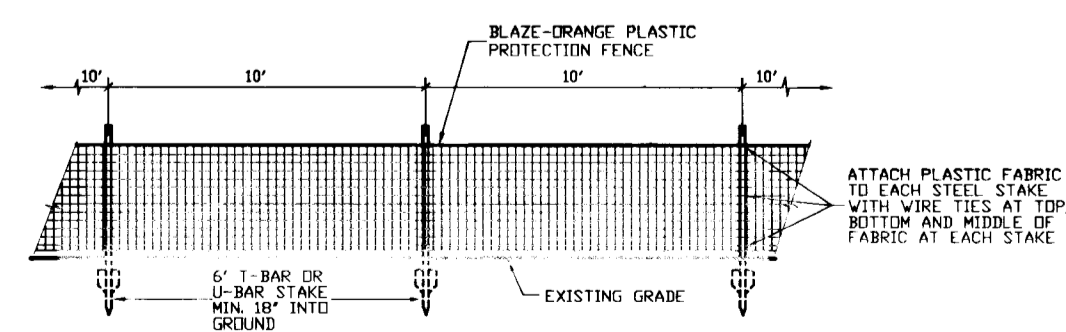
SIGNATURE DATE PE NO.

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 BY COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT, OR OTHER MEANS, INCLUDING MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

OPERATION, MAINTENANCE, AND INSPECTION

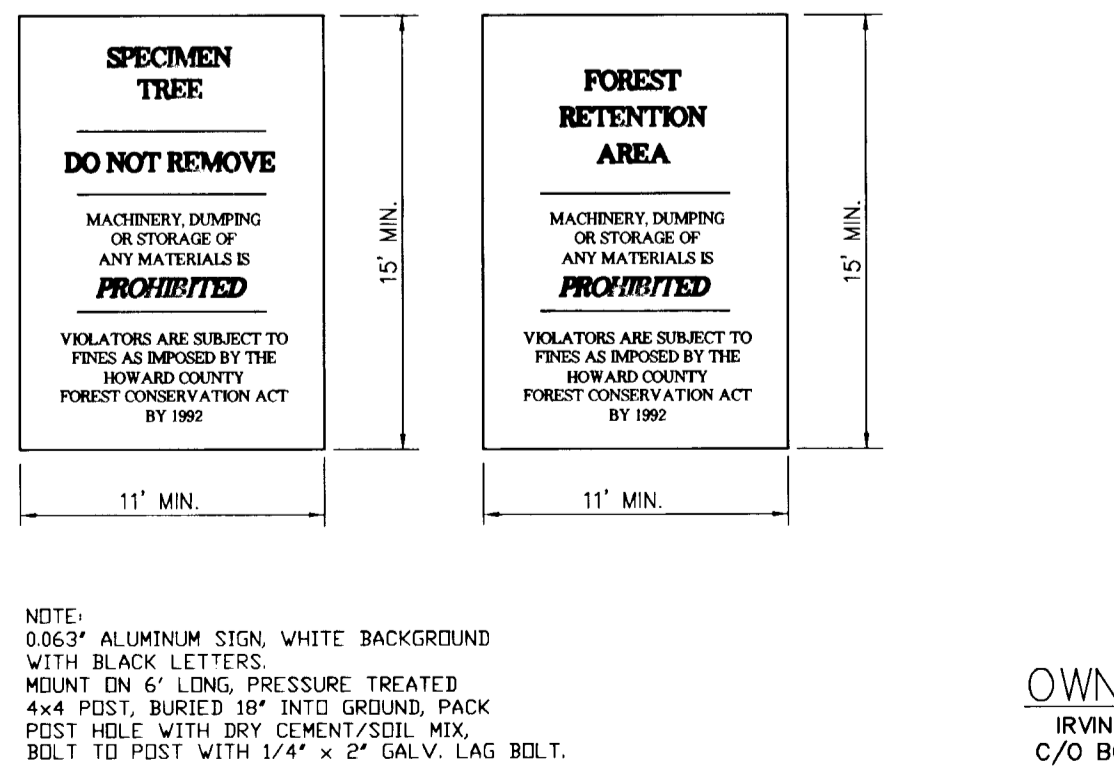
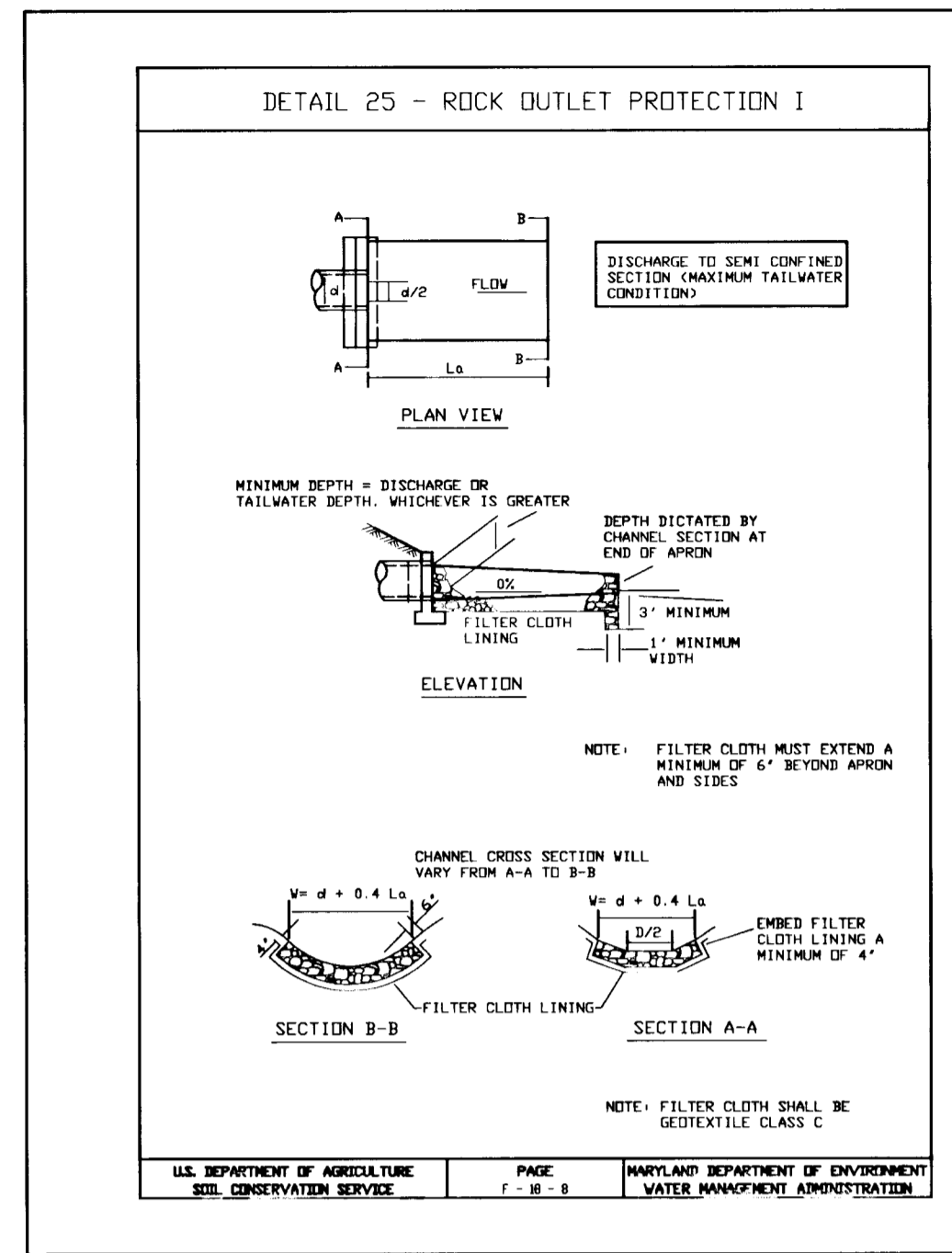
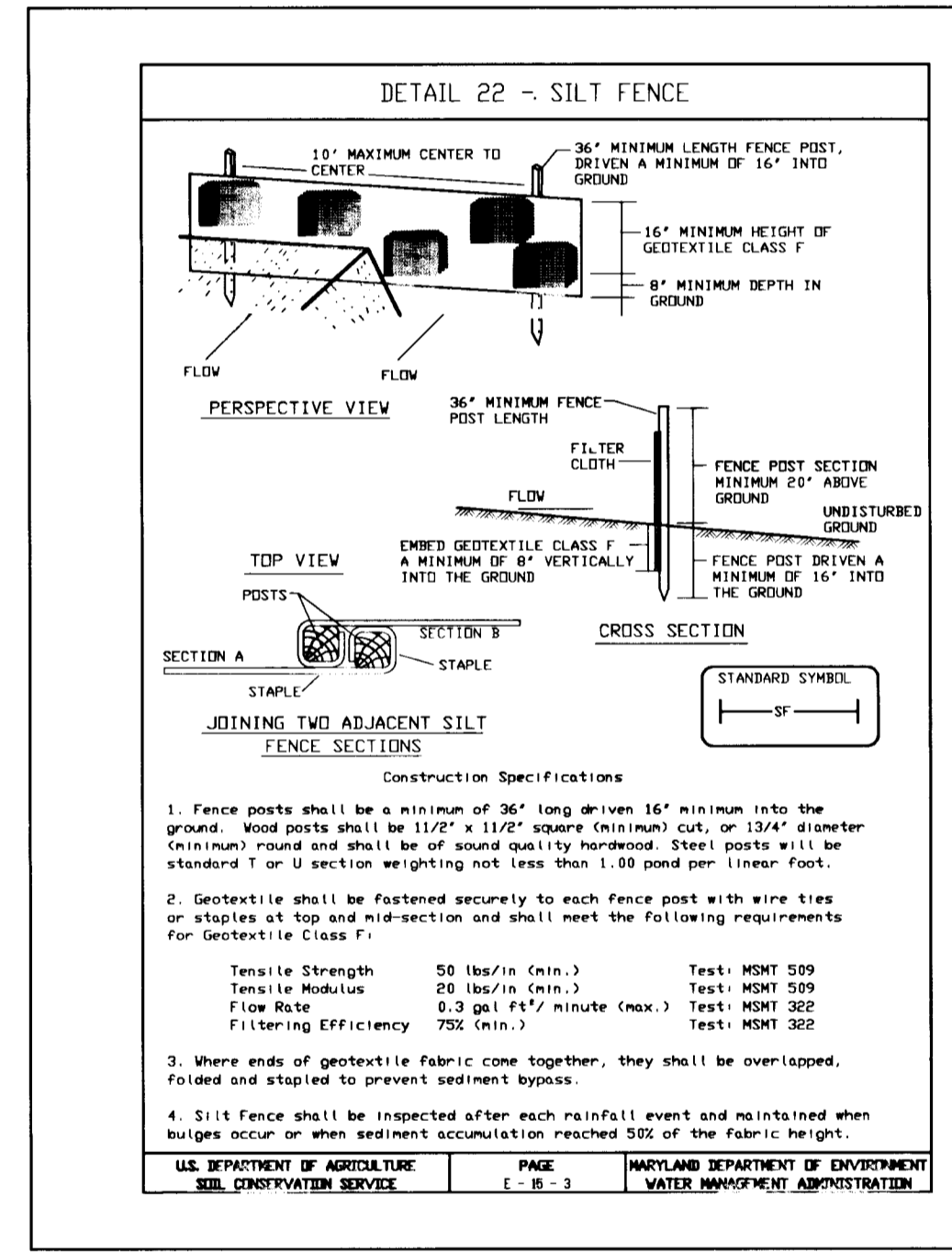
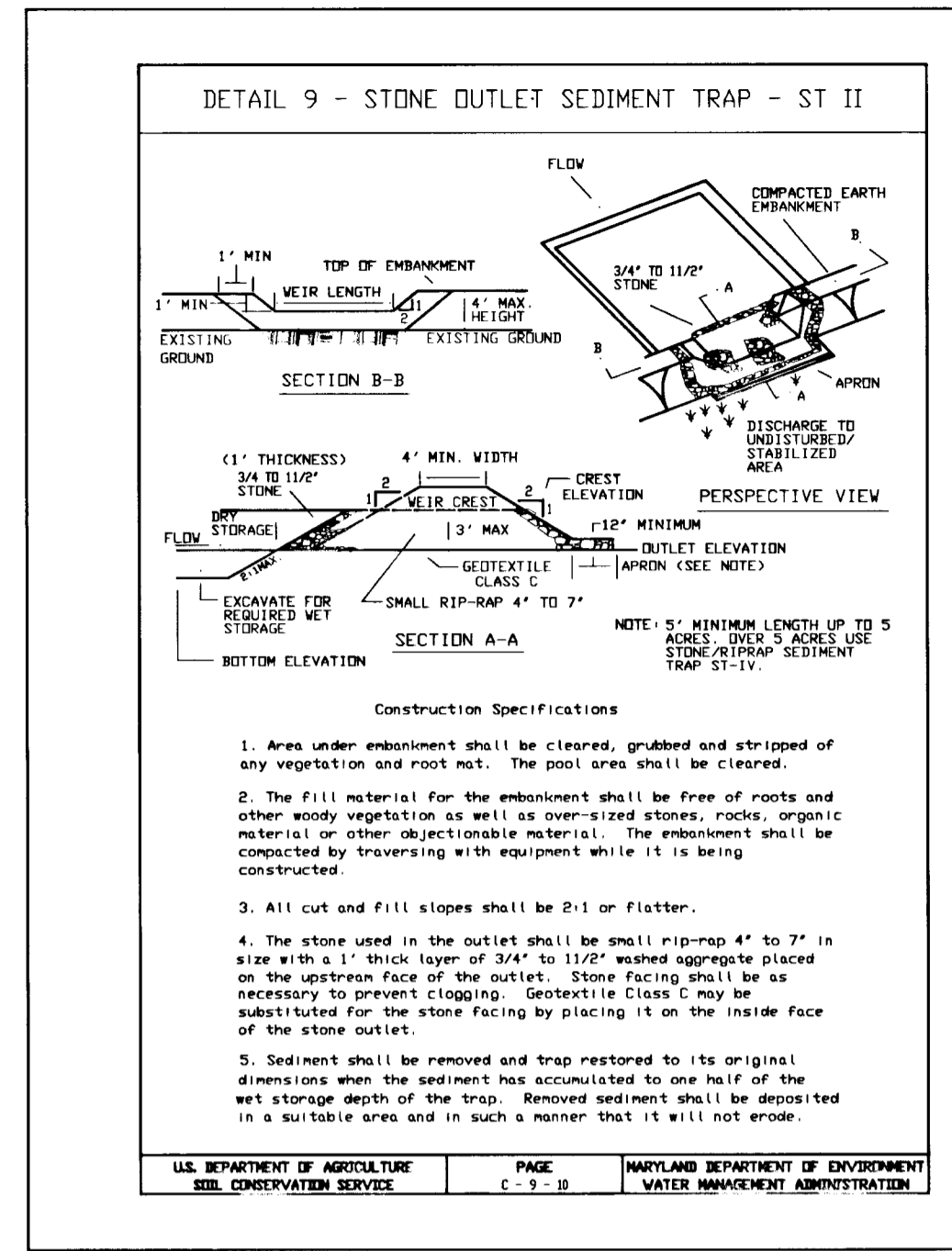
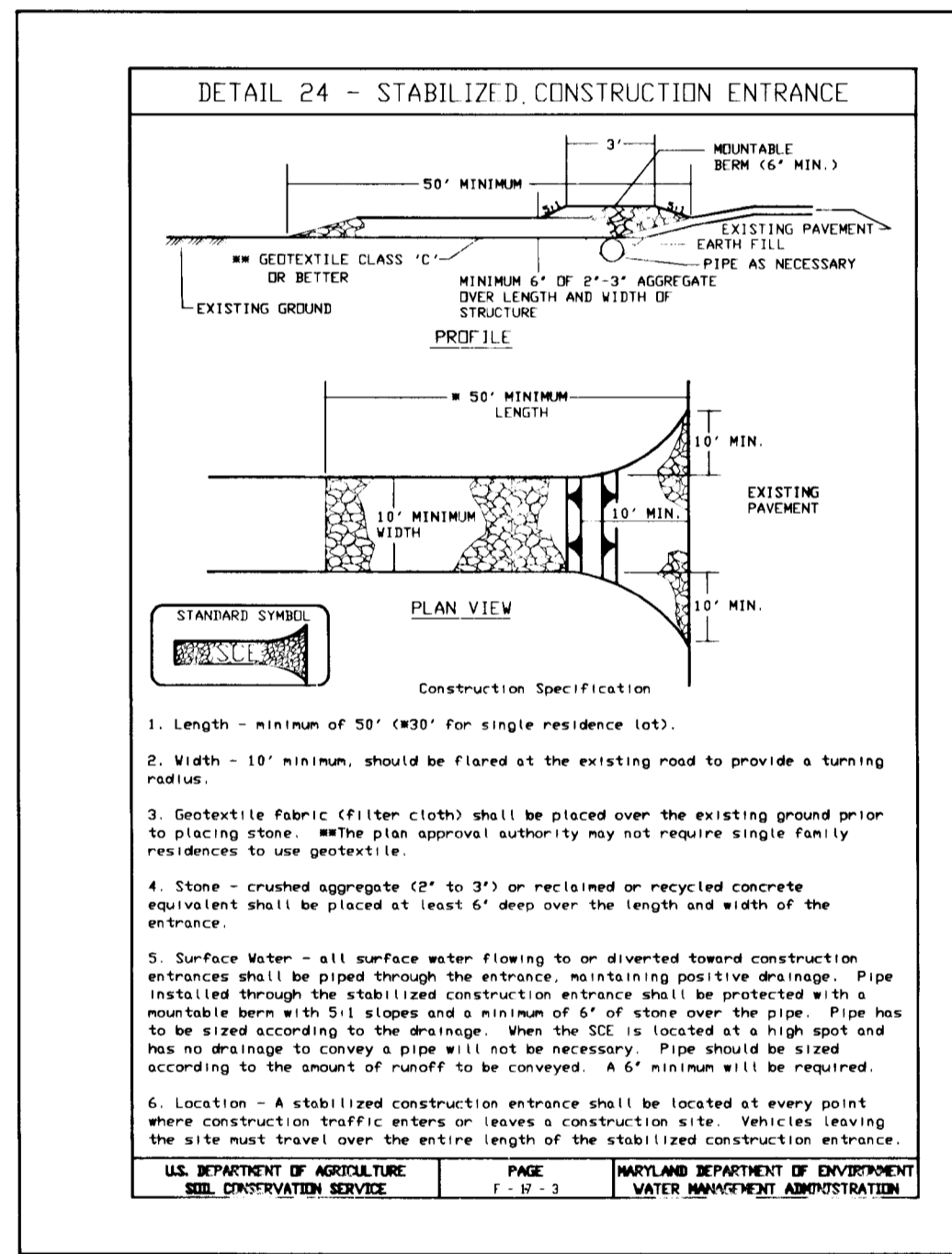
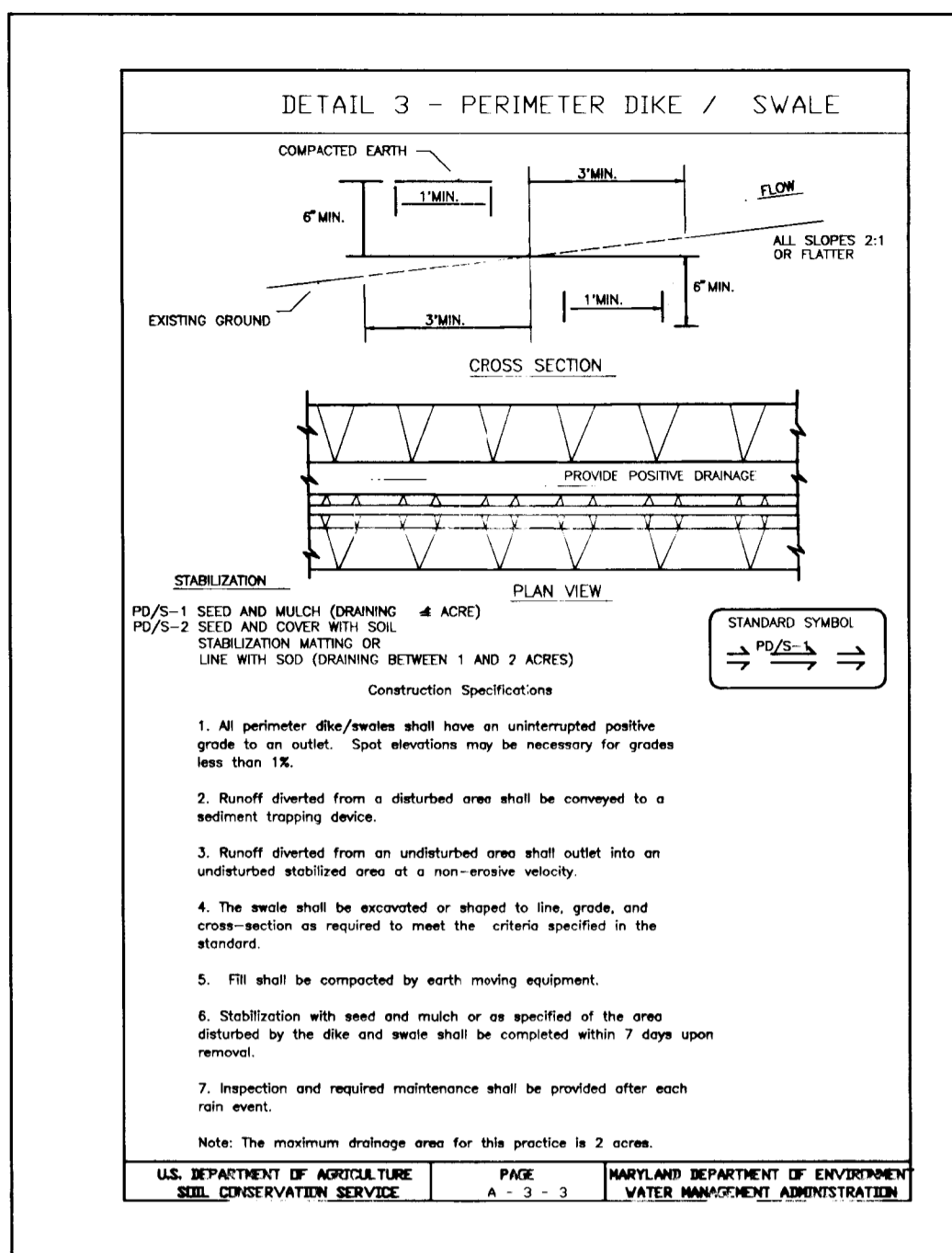
INSPECTION OF THE POND(S) SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITH USDA, SCS "STANDARDS AND SPECIFICATIONS FOR PONDS" (MD-378). THE POND OWNER(S) AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION, AND MAINTENANCE THEREOF. THE POND OWNER(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.

TREE PROTECTION FENCE NO SCALE



SEQUENCE OF CONSTRUCTION

- 1. OBTAIN GRADING PERMIT.
2. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE.
3. INSTALL TREE PROTECTION FENCE AS INDICATED.
4. CLEAR AND GRUB AREAS SURROUNDING SEDIMENT CONTROL FEATURES.
5. CONSTRUCT PERMANENT STORMWATER MANAGEMENT POND AND SEDIMENT TRAPS AND STABILIZE USING TEMPORARY SEEDING METHOD.
6. BLOCK THE SWM POND RISER AS SHOWN IN "WEIR BLOCKING DETAIL".
7. CONSTRUCT SILT FENCE AND EARTH TRENCH, STABILIZE EARTH DIKES WITH TEMPORARY SEEDING.
8. CLEAR SITE PER LIMIT INDICATED.
9. CONSTRUCT SITE TO GRADES INDICATED ON THE PLANS AND CONSTRUCT STORM DRAIN SYSTEM AND UTILITIES.
10. UPON STABILIZATION OF GRADED AREAS, ALL ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE STORM DRAIN SYSTEM.
11. DURING CONSTRUCTION, SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT TRAPS AND STORMWATER MANAGEMENT POND WHEN THEIR CLEANOUT ELEVATIONS HAVE BEEN REACHED.
12. STABILIZE ALL RIGHT OF WAY AREAS WITH PERMANENT SEEDING.
13. INSPECT ALL SEDIMENT CONTROL DEVICES DAILY AND AFTER EACH RAINFALL, REPAIR AS NECESSARY.
14. WHEN ALL CONTRIBUTING AREAS TO SEDIMENT CONTROL DEVICES HAVE BEEN PERMANENTLY STABILIZED, END AFTER THE APPROVAL OF THE INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES, GRADE AREAS DISTURBED, AND PROVIDE PERMANENT SEED AND MULCH.
15. CONTRACTOR SHALL REMOVE SEDIMENT AND FLUSH STORM DRAIN SYSTEM AT END OF CONSTRUCTION PERIOD.
16. CONTRACTOR SHALL DETERMINE THE STORMWATER MANAGEMENT POND AND REMOVE ACCUMULATED SEDIMENTS, REPLACE THE PERFORATED PIPES SERVING AS DEWATERING DEVICES AND RECONSTRUCT THE RISER AS PER THE PLANS.
17. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
A) 7 CALENDAR DAYS FOR ALL PERIMETER SLOPES AND GREATER THAN 3:1
B) 14 DAYS FOR ALL OTHER DISTURBED GRADED AREAS ON THE PROJECT SITE.



OWNER/DEVELOPER IRVING TAYLOR & EDITH TAYLOR C/O BONNIE BRANCH CORPORATION 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 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 BY COMMONLY ACCEPTED ENGINEERING STANDARDS.

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.

SIGNATURE OF DEVELOPER IRVING TAYLOR DATE 12/6/95

BY THE ENGINEER: I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/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 R. JACOB HIKMAT DATE 11/27/95

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

SIGNATURE OF ENGINEER Patricia Engle DATE 1/24/96

APPROVED: DEPARTMENT OF PUBLIC WORKS Robert W. Zichem DATE 1/24/96

APPROVED: DEPARTMENT OF PLANNING AND ZONING GINA SWANSON DATE 1-30-96

APPROVED: CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE 2/6/96

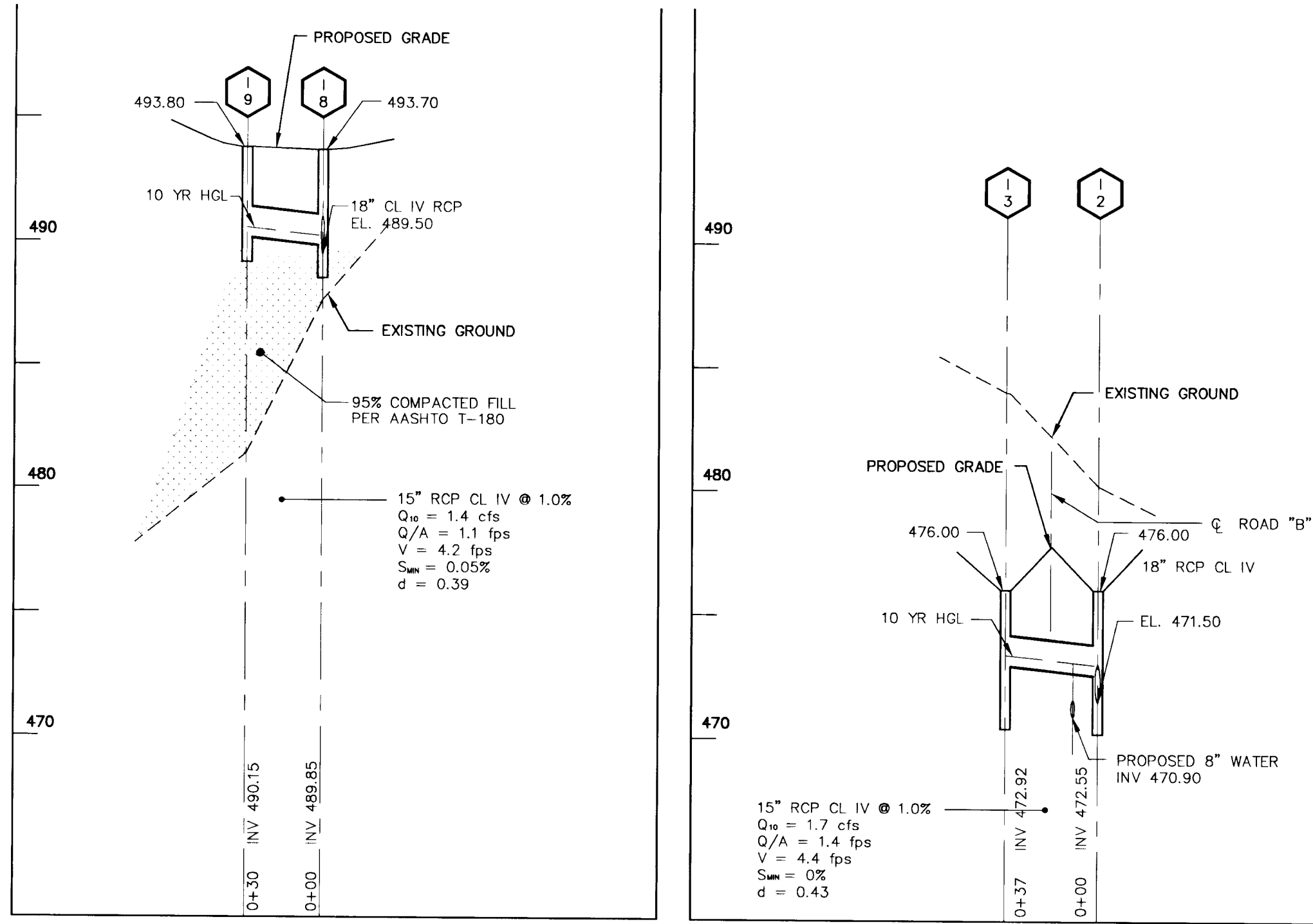
APPROVED: CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 2/2/96

Project information table with columns for Project No. (94031), Date (JUNE 1995), Engineer (AS SHOWN), M.P., and other details.

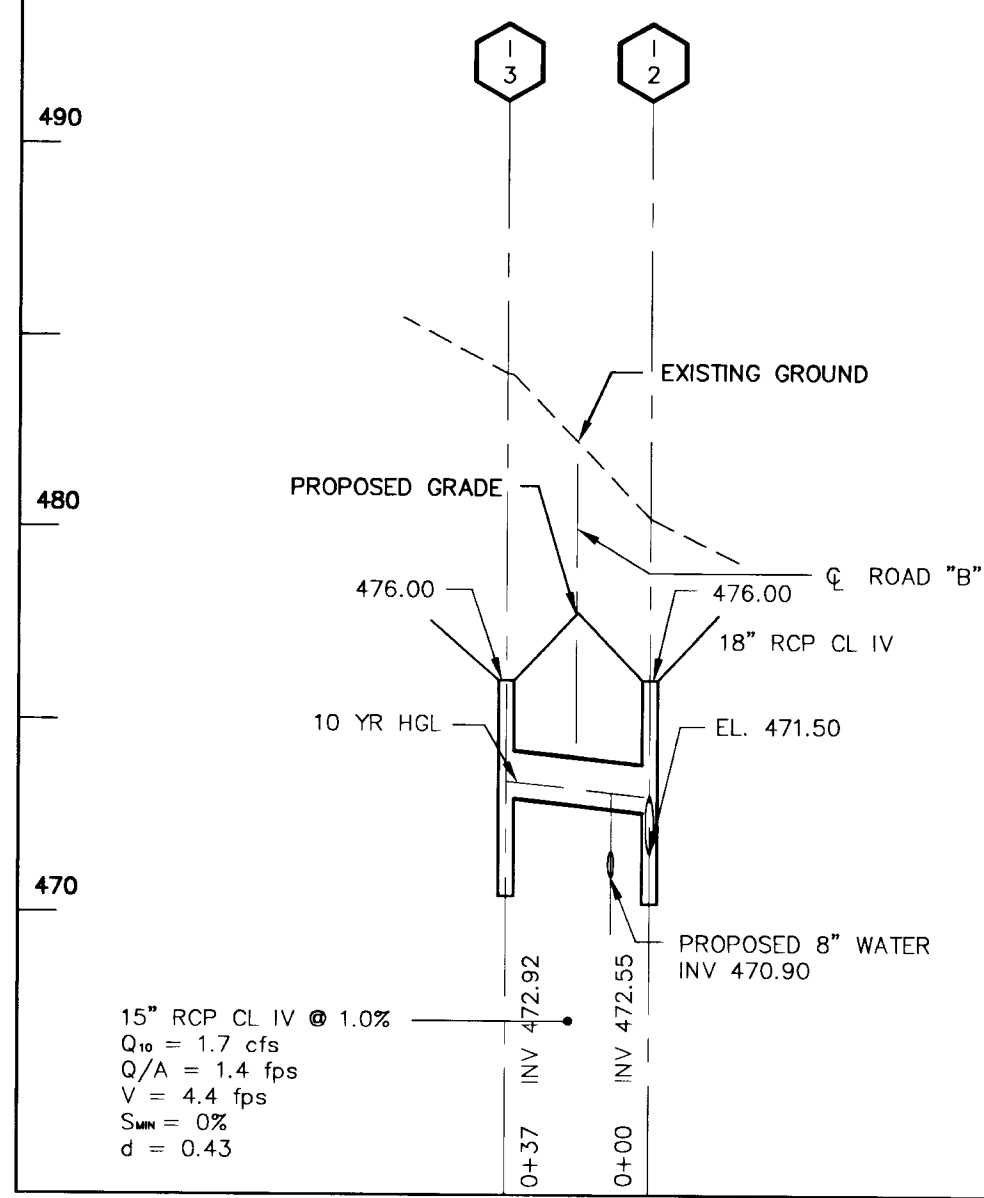
Construction notes table with columns for Description, Date, and Reviewer.

TAX MAP 31, P/O PARCELS 13, BLOCK 3 AUTUMN VIEW - SECTION 2 HOWARD COUNTY SECOND ELECTION DISTRICT SEDIMENT CONTROL NOTES & DETAILS

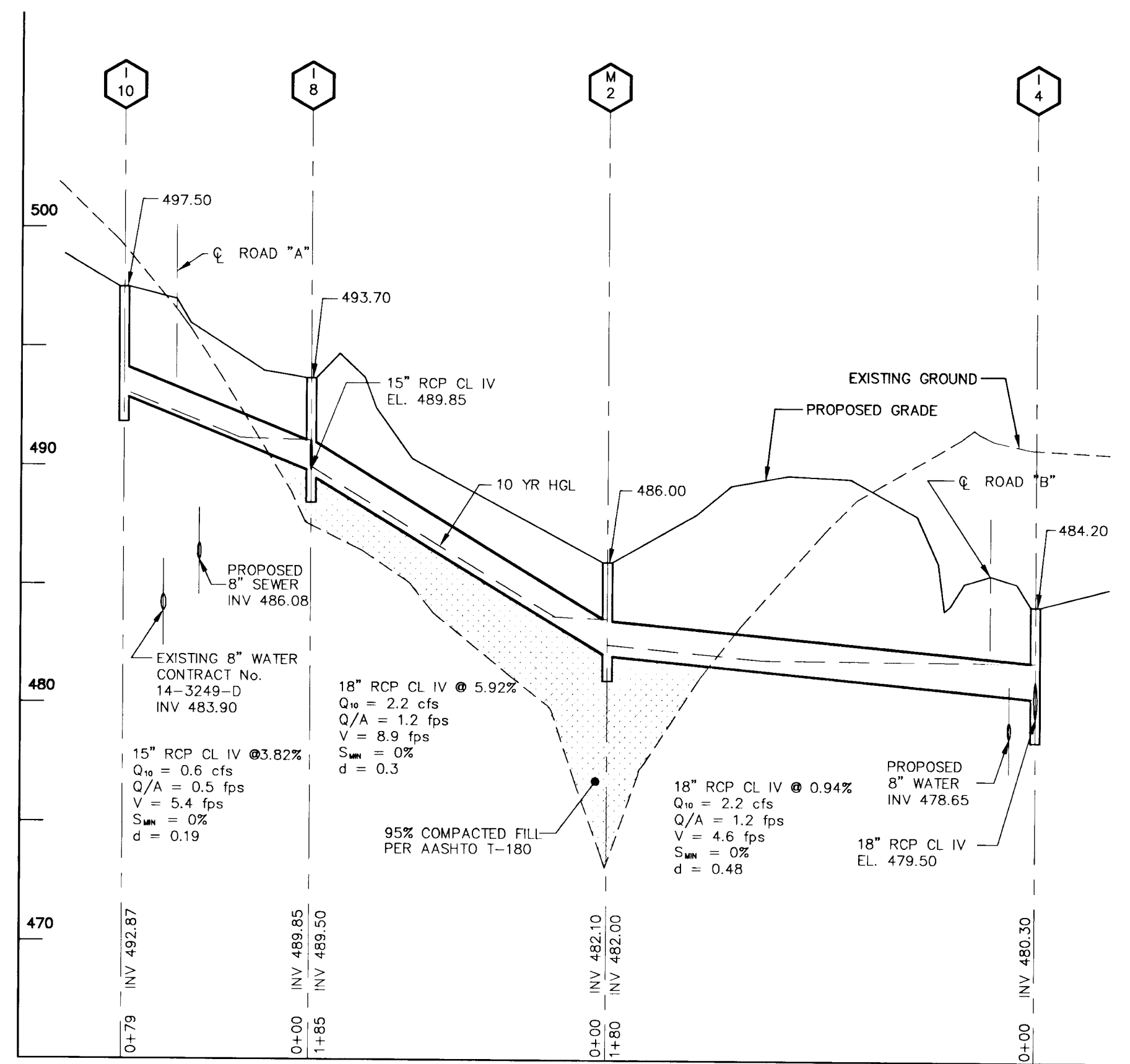
MILDENBERG, BOENDER & ASSOC., INC. Planners Surveyors 5072 Dorsey Road, Suite 202, Ellicott City, Maryland 21042 (410) 997-0296 Fax: (301) 621-5521 Wash.



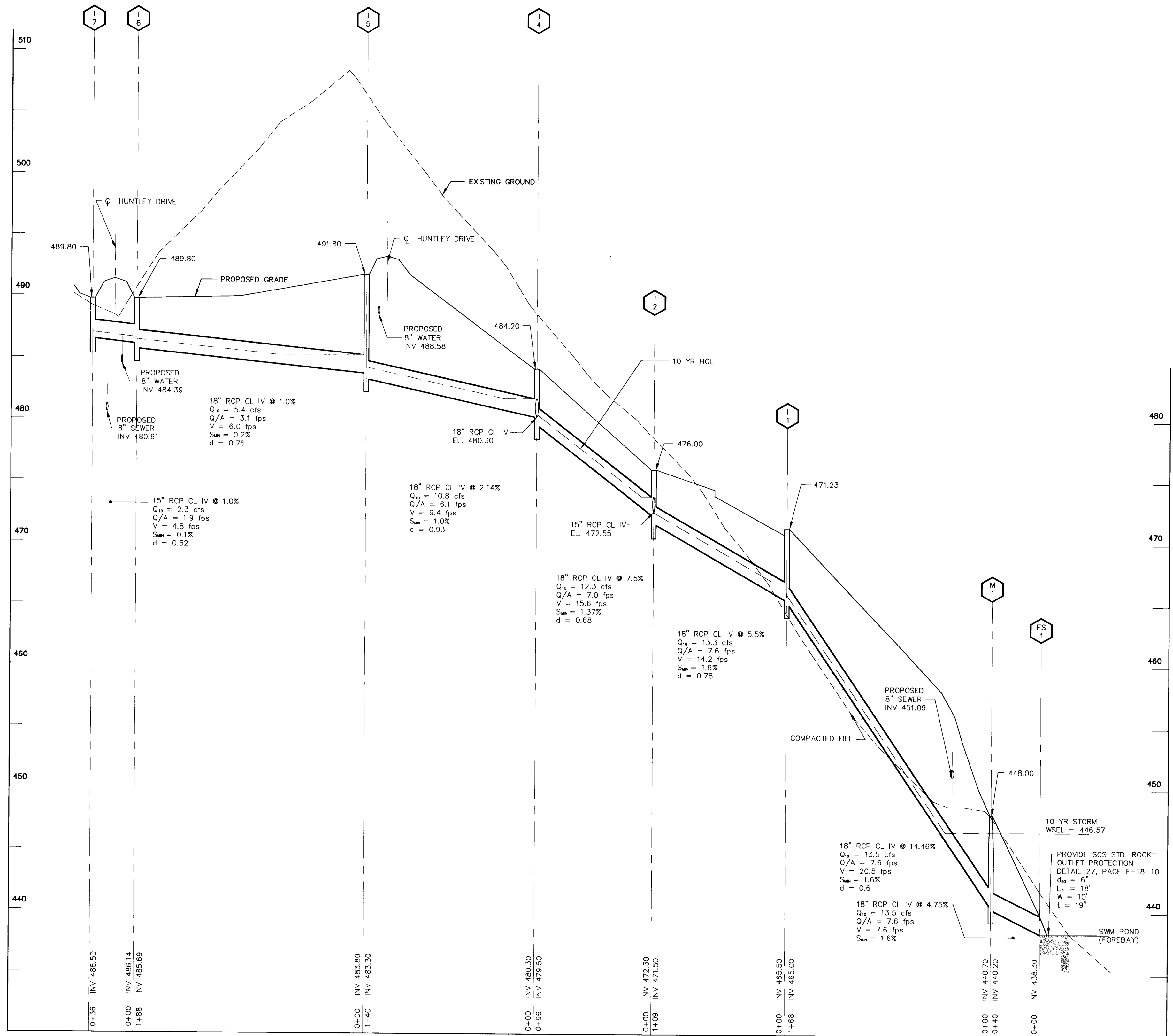
SCALE : HOR. 1" = 50'
VER. 1" = 5'



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



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



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

STRUCTURE SCHEDULE					
NO.	LOCATION	RIM ELEV.	INV IN	INV OUT	COMMENTS
I-1	L.P. STA 1+08	471.23	465.50	465.00	A-5 TYPE STD DTL SD-4.01
I-2	CL STA 2+21 O/F 17' LT	476.00	472.30 472.55	471.50	K TYPE STD DTL SD-4.12
I-3	CL STA 2+21 O/F 17' RT	476.00	-	472.92	K TYPE STD DTL SD-4.12
I-4	CL STA 1+53 O/F 17' LT	484.20	480.30	479.50	K TYPE STD DTL SD-4.12
I-5	CL STA 7+88 O/F 18' LT	491.80	483.80	483.30	K TYPE STD DTL SD-4.12
I-6	CL STA 9+71 O/F 17' LT	489.80	486.14	485.69	K TYPE STD DTL SD-4.12
I-7	CL STA 9+71 O/F 17' RT	489.80	-	486.50	K TYPE STD DTL SD-4.12
I-8	L.P. STA 0+60 O/F 5' LT	493.70	489.85	489.50	K TYPE STD DTL SD-4.12
I-9	L.P. STA 0+93	493.80	-	490.15	A-5 TYPE STD DTL SD-4.01
I-10	CL STA 1+13 O/F 17' RT	497.50	-	492.87	K TYPE STD DTL SD-4.12
M-1	N. 513932.0112 ; E. 860869.4447	448.00	440.70	440.20	STANDARD 4' MANHOLE STD DTL G-5.01
M-2	N. 513814.4084 ; E. 860426.3088	486.00	482.10	482.00	STANDARD 4' MANHOLE STD DTL G-5.01
ES-1	N. 513923.9328 ; E. 860910.9432	-	438.30	-	18" CONCRETE END SECTION STD DTL SD-5.51

OWNER/DEVELOPER
IRVING TAYLOR & EDITH TAYLOR
C/O BONNE BRANCH CORPORATION
P.O. BOX 396
ELICOTT CITY, MD 21043

AS BUILT CERTIFICATION

ENGINEER'S SIGNATURE _____ DATE _____

APPROVED: DEPARTMENT OF PUBLIC WORKS

Richard M. Decker 1-30-96
CHIEF, BUREAU OF HIGHWAYS MS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Gina Dimmangy 2/6/96
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

Chad Danner 2/2/96
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

PROJECT: 94031 DATE: 7/95
DESIGNER: WSP MP
CHECKER: JH
SCALE: HOR. 1" = 50' VER. 1" = 5'

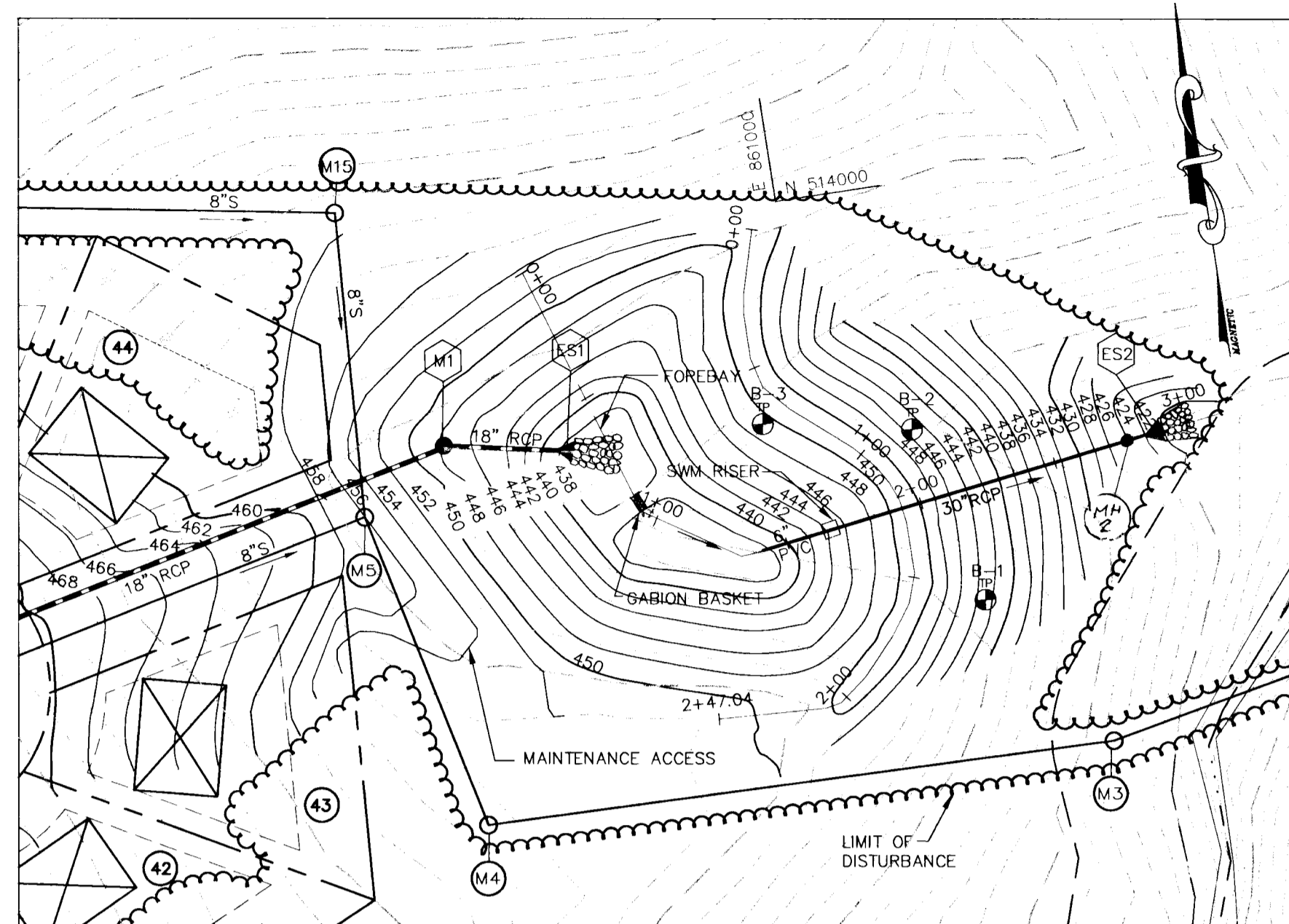
TAX MAP 31, P/O PARCEL 13, BLOCK 3
AUTUMN VIEW-SECT.2, LOTS:28-74
HOWARD COUNTY
SECOND ELECTION DISTRICT
STORM DRAIN PROFILES

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Drexel Hill Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0266 Fax: (301) 621-5521 Wash. (410) 997-0268 Fax

6 OF 12
F-96-13

1687

94031

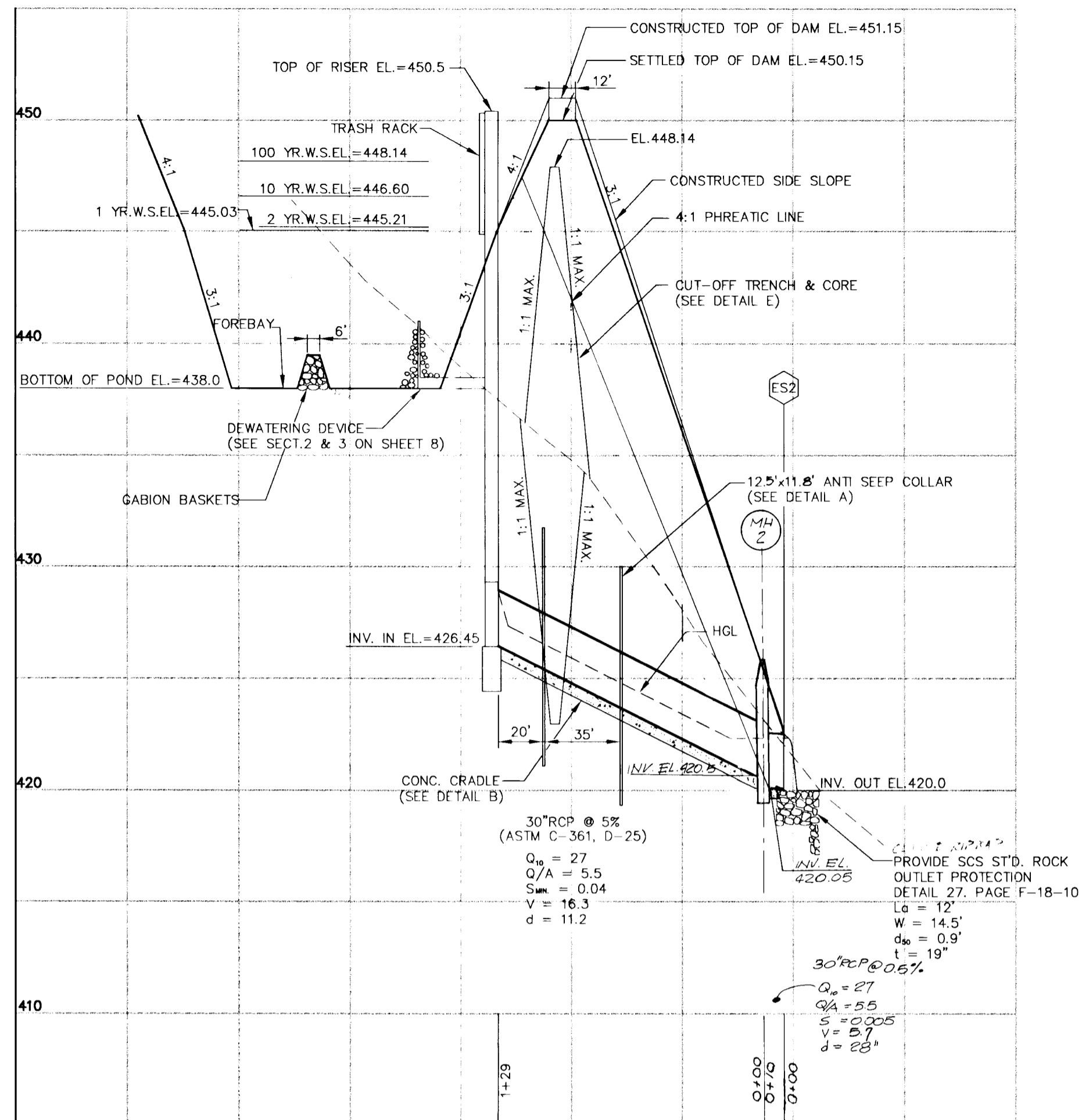


SEDIMENT BASIN & SWM POND - PLAN

SCALE: 1"=50'

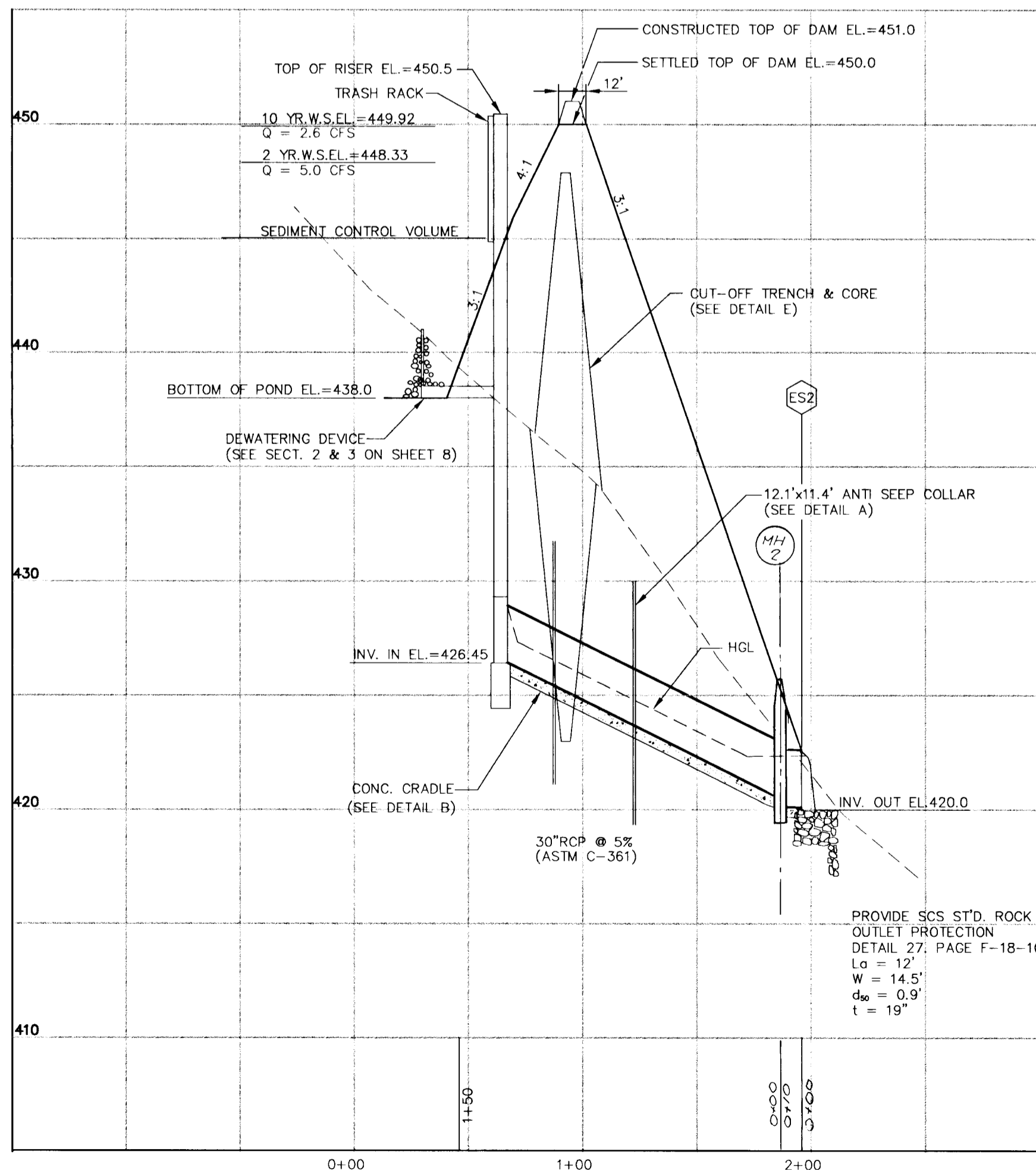
POND DATA

HAZARD CLASSIFICATION - "o"
 DRAINAGE AREA - 12.1 ACRES
 PROPOSED RCN - 79
 PROPOSED TC - 0.23 HR.
 WATER QUALITY TYPE - EXTENDED DETENTION
 EXTENDED DETENTION POOL ELEVATION - 445.03, Q = 0.47 CFS, V = 0.65 AC.FT.
 2 YEAR STORM POOL ELEVATION - 445.21, Q = 2.4 CFS, V = 1.05 AC.FT.
 10 YEAR STORM POOL ELEVATION - 446.66, Q = 26.0 CFS, V = 1.05 AC.FT.
 100 YEAR STORM POOL ELEVATION - 448.14, Q = 60.0 CFS, V = 1.48 AC.FT.
 FOREBAY VOLUME - 1,350 CF
 OWNERSHIP - PUBLIC



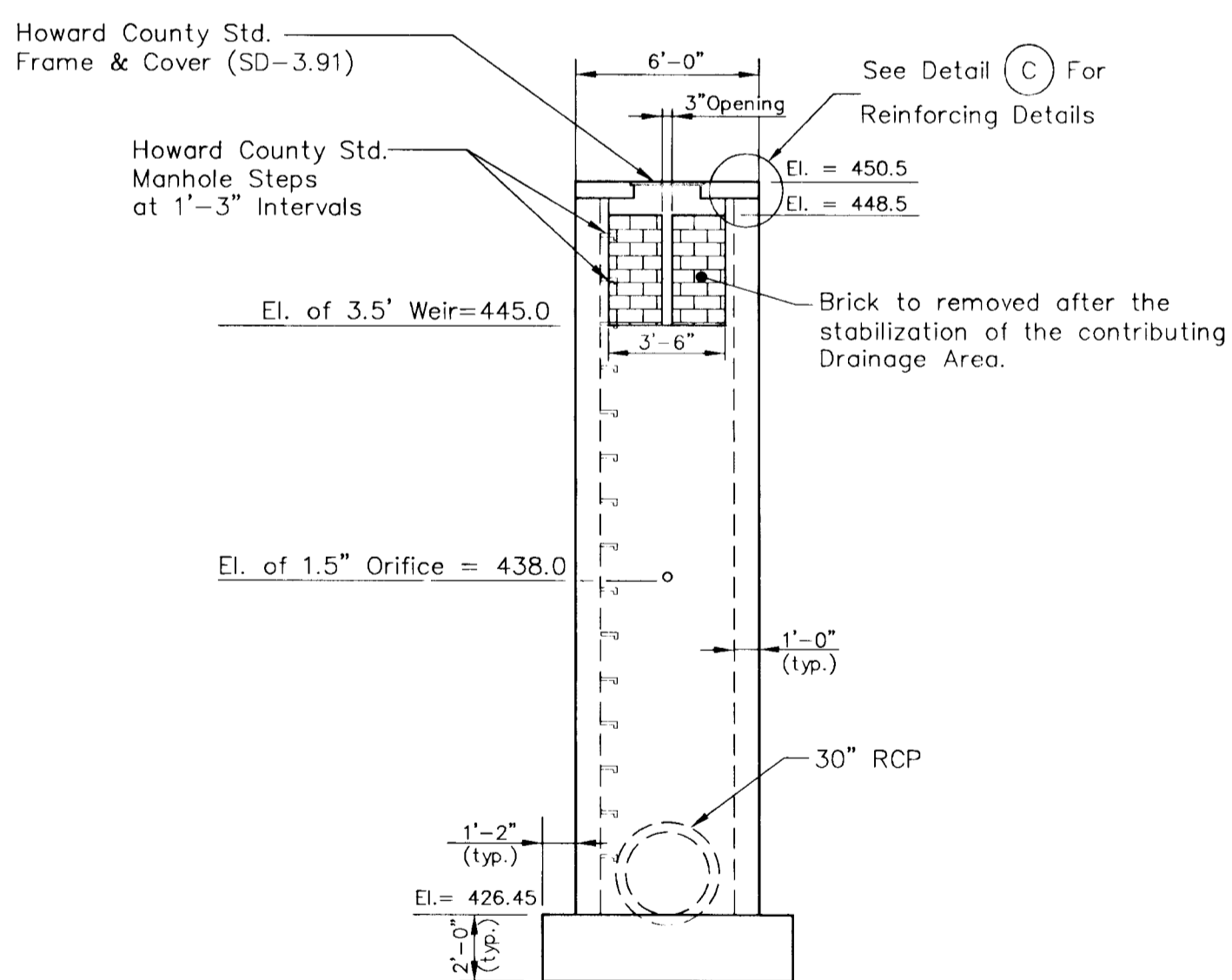
PRINCIPAL SPILLWAY PROFILE

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



**PRINCIPAL SPILLWAY PROFILE
 TEMPORARY S.W.M. USE**

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

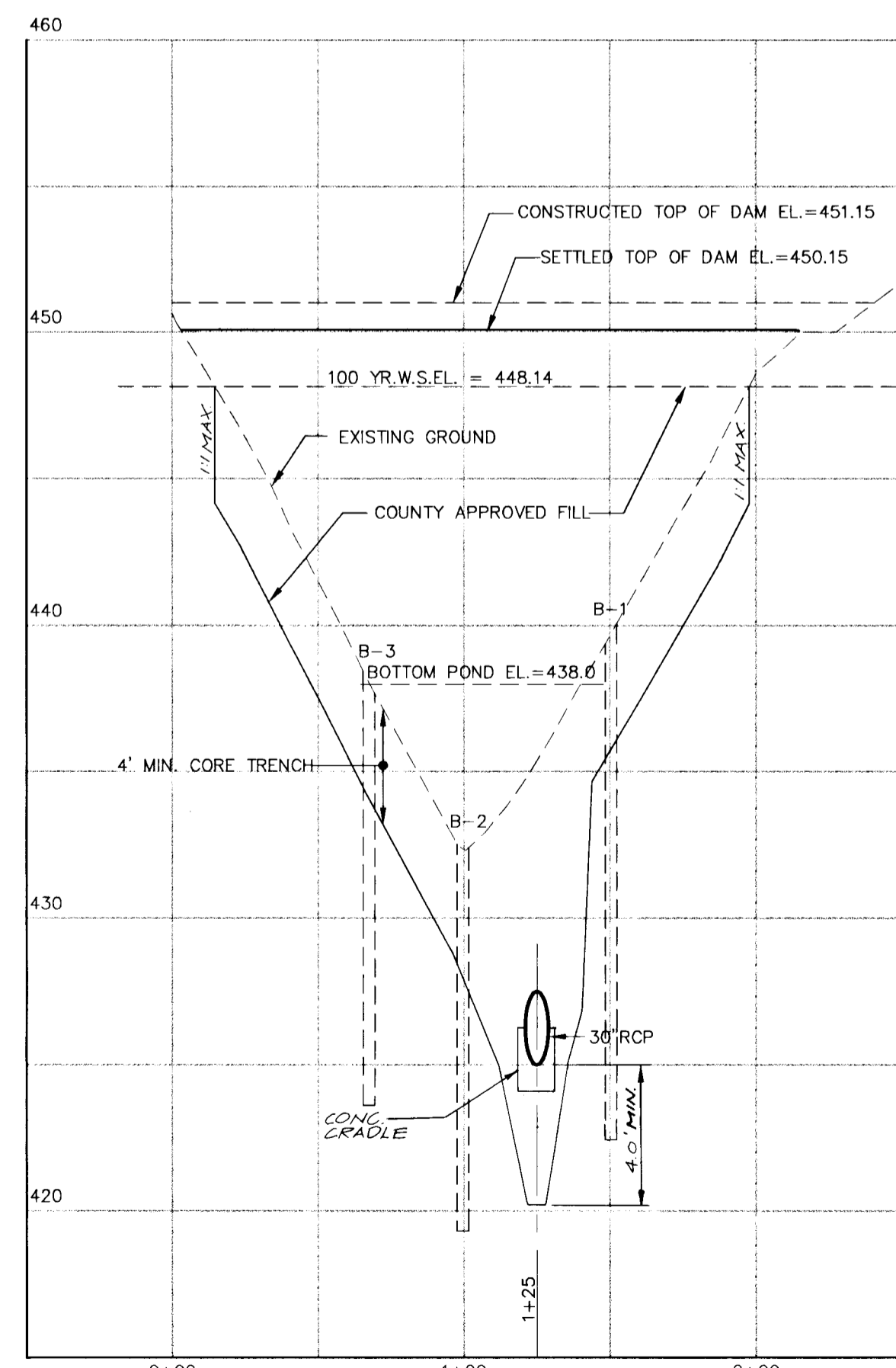


WEIR BLOCKING DETAIL

N.T.S.

SEDIMENT BASIN DATA

DRAINAGE AREA - 12.1 ACRES
 PROPOSED RCN - 79
 WET STORAGE REQUIRES = 0.5 AC.FT.
 WET STORAGE PROVIDED = 0.64 AC.FT. EL. 445.0
 DRY STORAGE REQUIRED = 0.5 AC.FT.
 DRY STORAGE PROVIDED = 0.84 AC.FT.
 RCN (TSWM) = 94
 Q₁₀ (TSWM) = 4.7 CFS. EL. = 448.33



TOP OF DAM PROFILE

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

OWNER/DEVELOPER

IRVING TAYLOR & EDITH TAYLOR
 C/O BONNE 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: _____ P.E. NO.: _____
 DATE: _____

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT, OR OTHER MEANS, INCLUDING MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

BY THE DEVELOPER:

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE: *Irving Taylor* DATE: 12/4/95
 IRVING TAYLOR
 PRINTED NAME OF DEVELOPER

BY THE ENGINEER:

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

SIGNATURE: *R. H. HIKMAT* DATE: 10-5-95
 R. H. HIKMAT
 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.

SIGNATURE: *Patricia Engle* DATE: 1/24/96
 PATRICIA ENGLE
 PRINTED NAME OF ENGINEER

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

SIGNATURE: *Robert W. Zuber* DATE: 1/24/96
 ROBERT W. ZUBER
 PRINTED NAME OF ENGINEER

APPROVED: DEPARTMENT OF PUBLIC WORKS

SIGNATURE: *Richard M. Daniels* DATE: 1-30-96
 RICHARD M. DANIELS
 CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

SIGNATURE: *Gina Wirnany* DATE: 2/6/96
 GINA WIRNANY
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

SIGNATURE: *Michael J. ...* DATE: 2/2/96
 MICHAEL J. ...
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

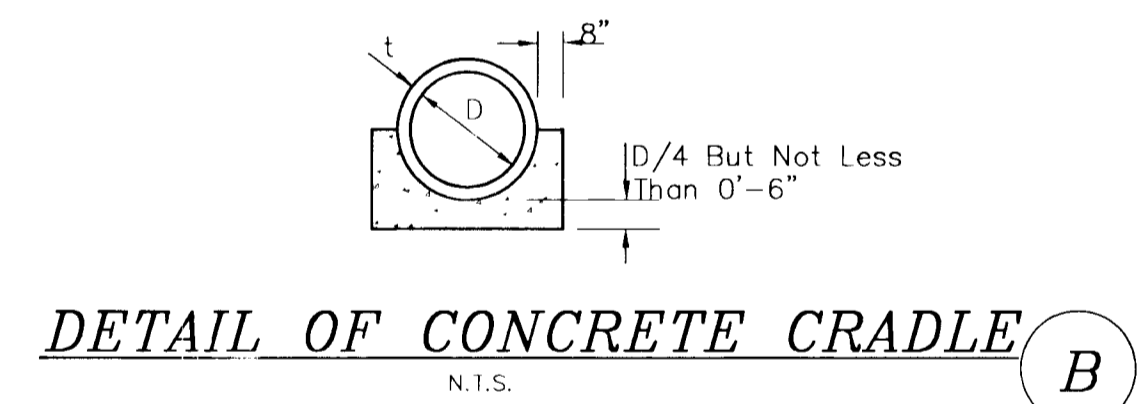
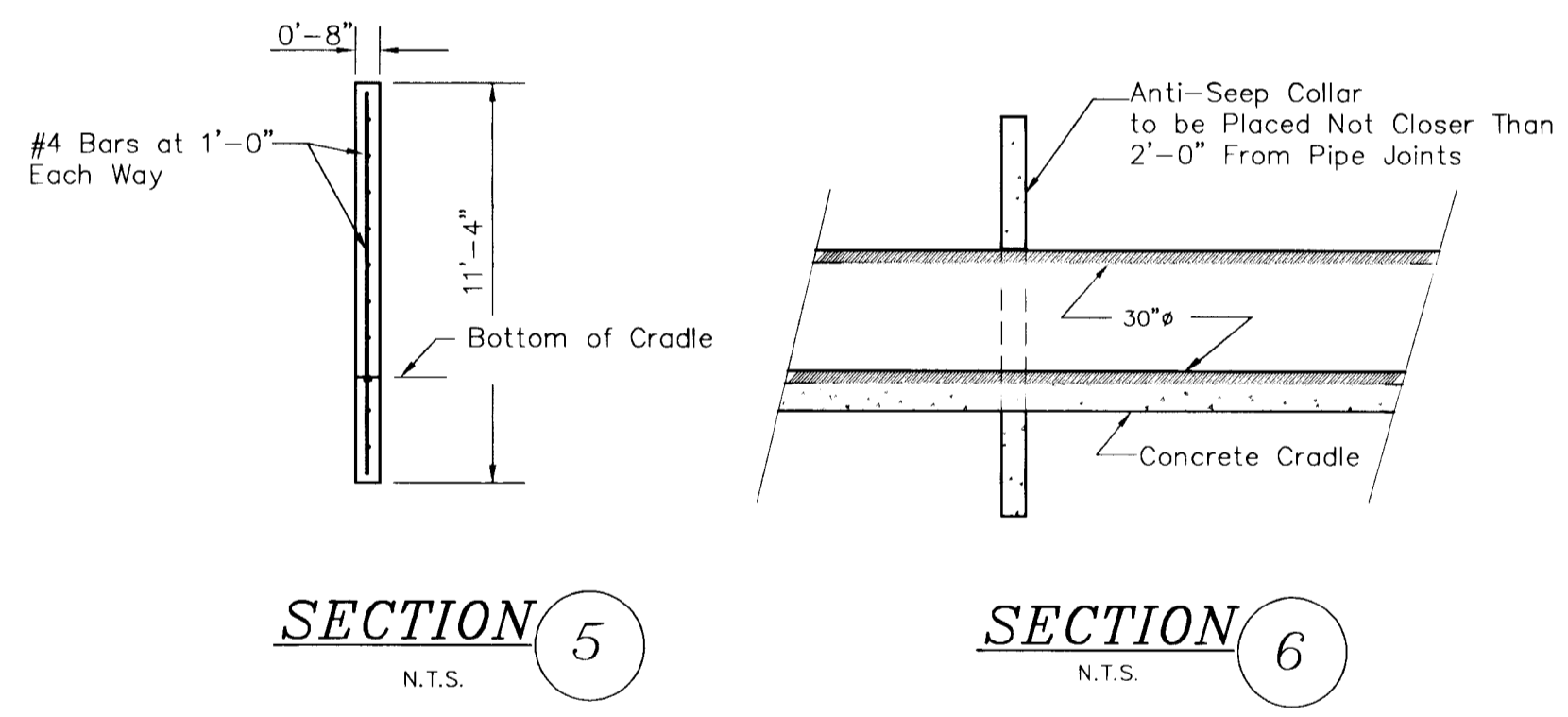
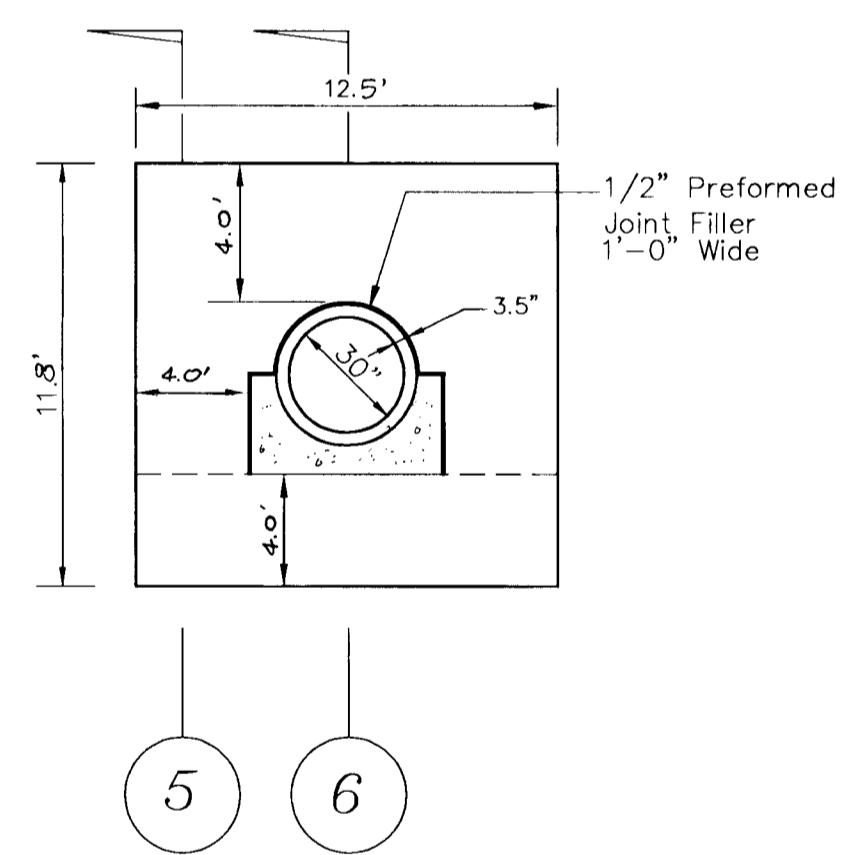
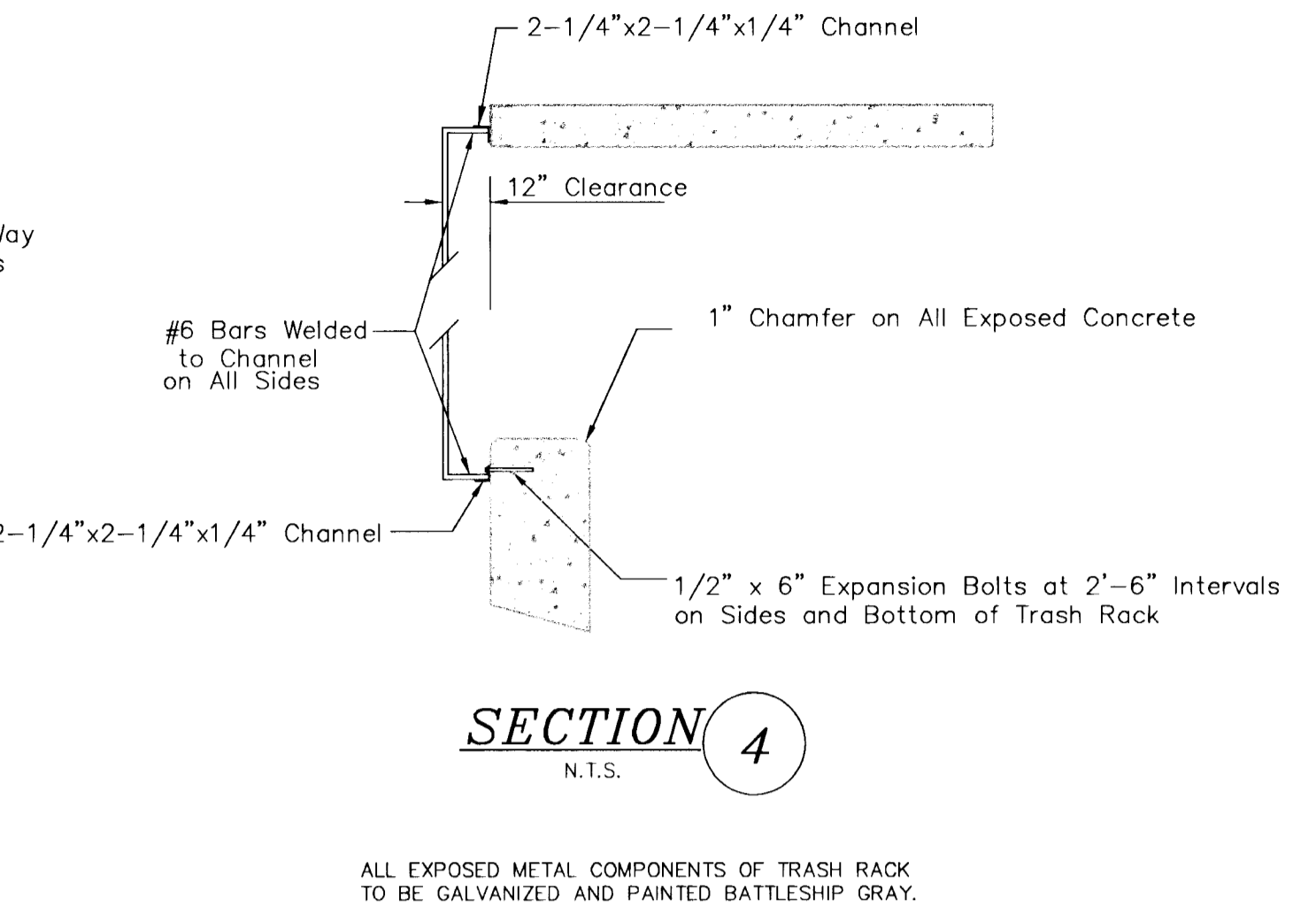
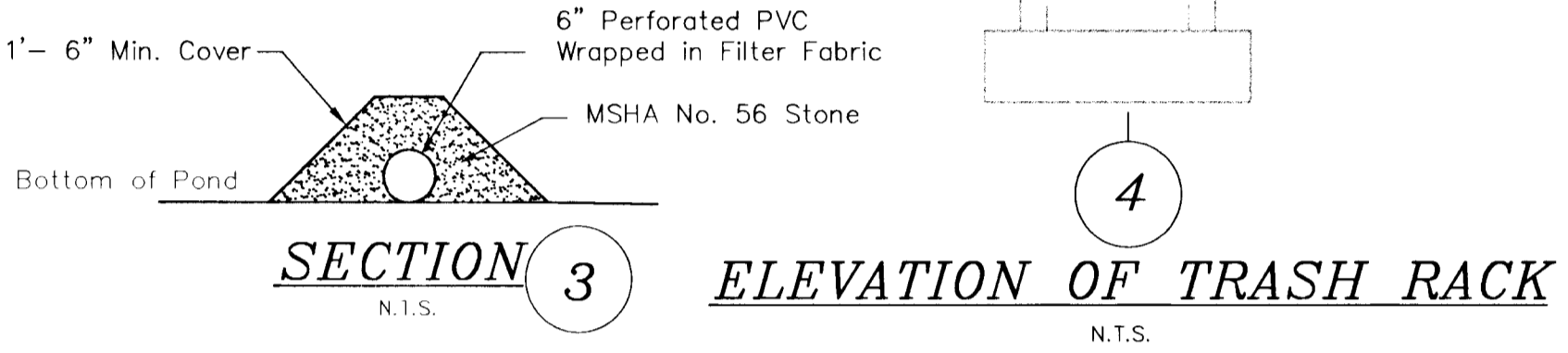
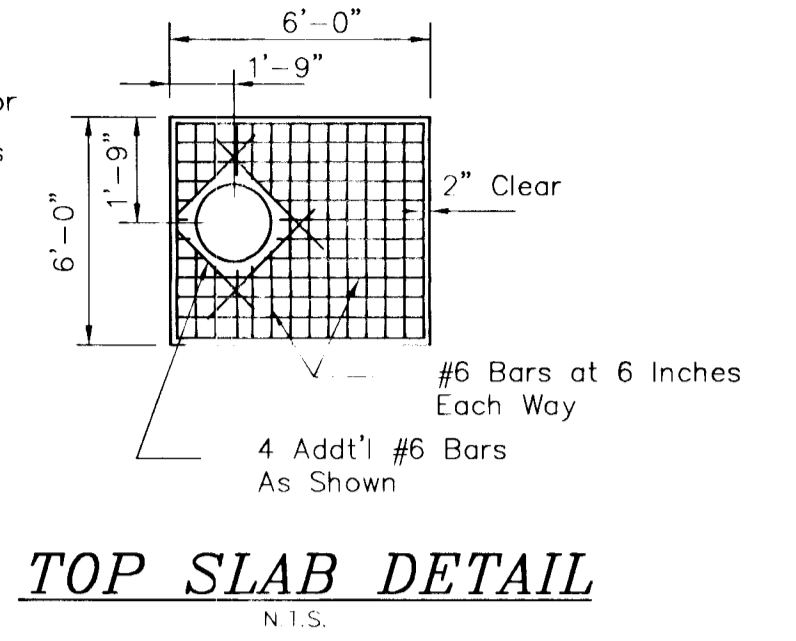
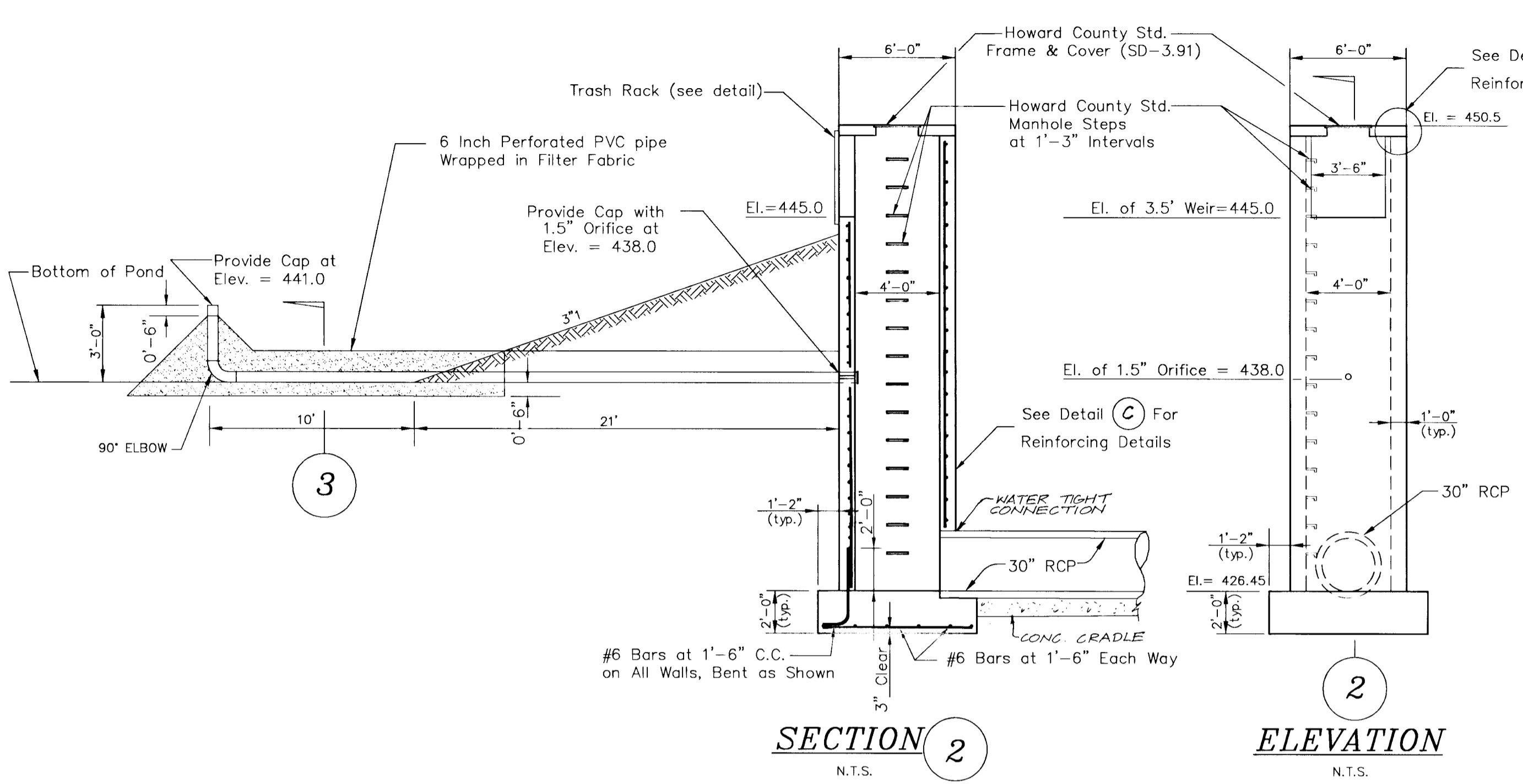
Project	94031	Scale	M.P.
Date	JULY 95	Author	M.P.
Discipline	Engineering	Reviewer	M.P.
Sheet	AS SHOWN I.H.	Checker	M.P.

Project	94031	Scale	M.P.
Date	JULY 95	Author	M.P.
Discipline	Engineering	Reviewer	M.P.
Sheet	AS SHOWN I.H.	Checker	M.P.

TAX MAP 31, P/O PARCEL 13, BLOCK 3
AUTUMN VIEW-SECT.2, LOTS: 28-74
 HOWARD COUNTY
 SECOND ELECTION DISTRICT
STORMWATER MANAGEMENT PLAN & PROFILES

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
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1687

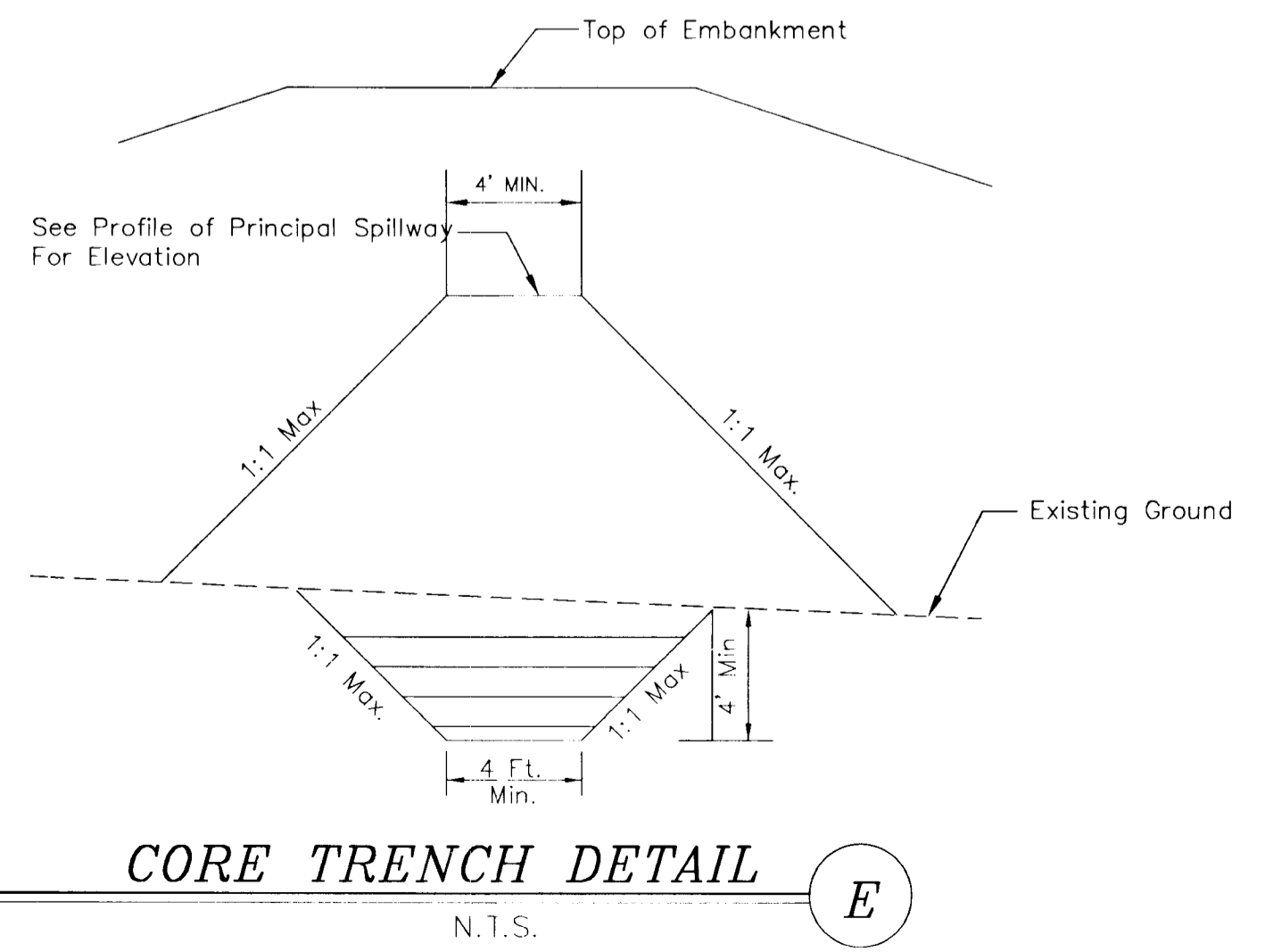
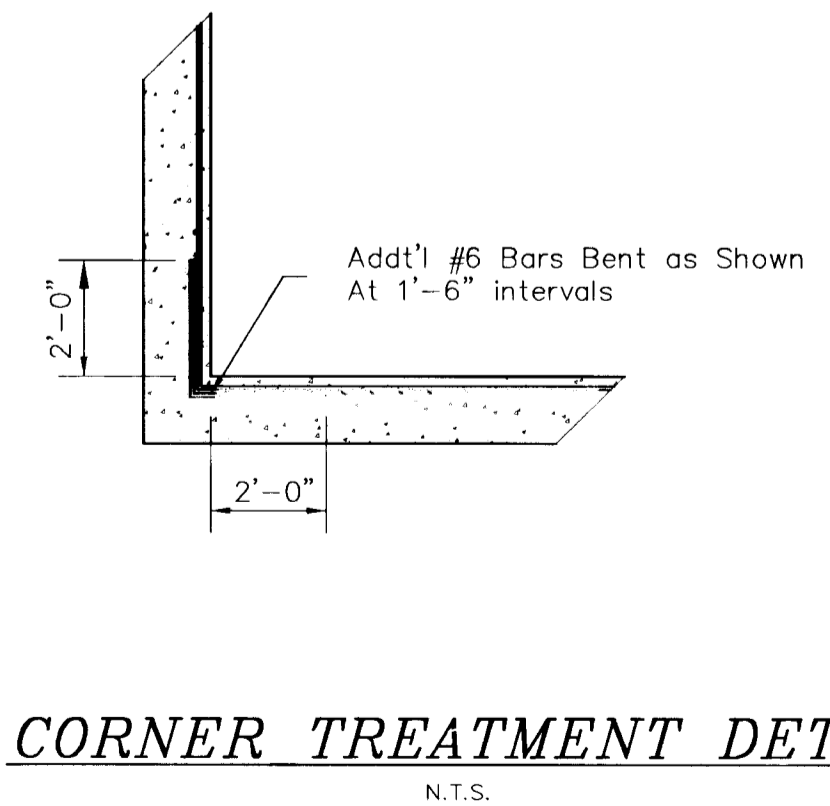
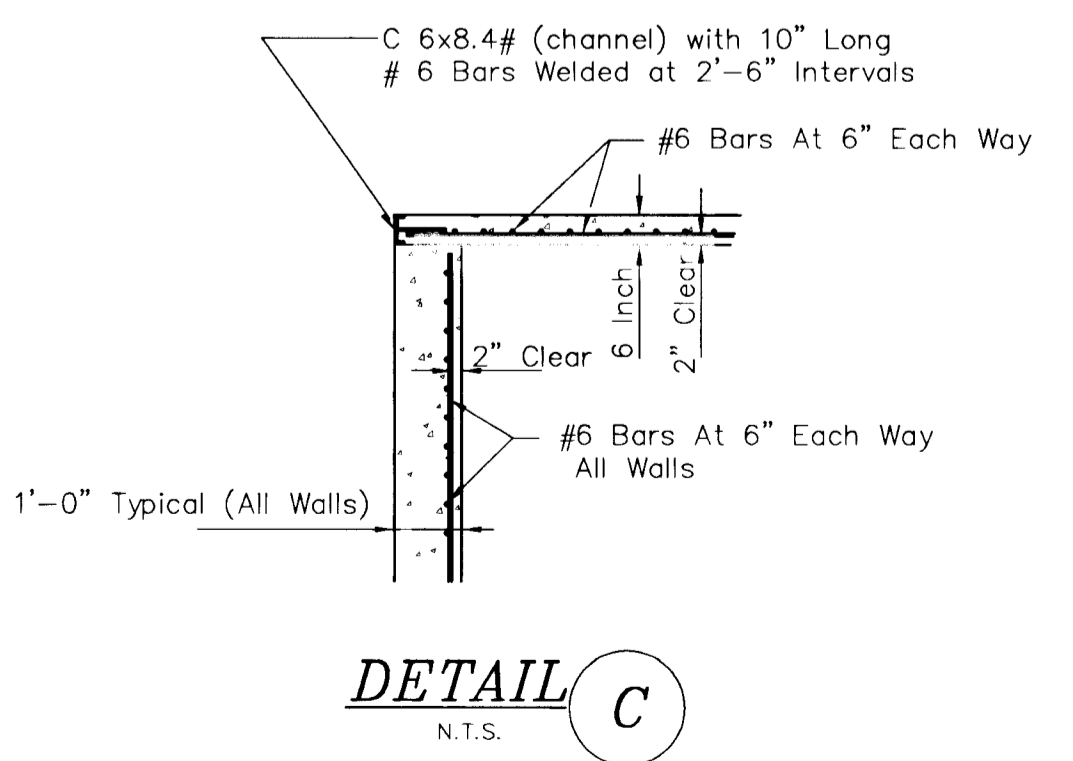


ANTI-SEEP COLLAR DETAIL (A)
N.T.S.

SECTION 5
N.T.S.

SECTION 6
N.T.S.

DETAIL OF CONCRETE CRADLE (B)
N.T.S.



DETAIL C
N.T.S.

CORNER TREATMENT DETAIL (D)
N.T.S.

CORE TRENCH DETAIL (E)
N.T.S.

OWNER/DEVELOPER
IRVING TAYLOR & EDITH TAYLOR
C/O BONNE BRANCH CORPORATION
P.O. BOX 396
ELLCOTT 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	P.E. NO.:
DATE:	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 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: <i>Irving Taylor</i>	DATE: 12/2/95
BY THE ENGINEER:	
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTHERED THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE MOST 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: <i>Riz Jacobs Hikmat</i>	DATE: 10-4-95
THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.	
SIGNATURE: <i>Patricia Engle</i>	DATE: 1/24/96
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.	
SIGNATURE: <i>Robert W. Zindman</i>	DATE: 1/24/96
APPROVED: DEPARTMENT OF PUBLIC WORKS	
SIGNATURE: <i>Robert M. D... ..</i>	DATE: 1-30-96
APPROVED: DEPARTMENT OF PLANNING AND ZONING	
SIGNATURE: <i>Gina Surumanyi</i>	DATE: 2/6/96
APPROVED: CHIEF, DEVELOPMENT ENGINEERING DIVISION	
SIGNATURE: <i>...</i>	DATE: 2/2/96

DATE: JULY 95
DRAWN BY: M.P.
CHECKED BY: M.P.
SCALE: AS SHOWN

TAX MAP 31, P/O PARCEL 13, BLOCK 3
AUTUMN VIEW-SECT.2, LOTS: 28-74
HOWARD COUNTY
SECOND ELECTION DISTRICT
STORMWATER MANAGEMENT DETAILS

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.

1687

POND CONSTRUCTION SPECIFICATIONS

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

SITE PREPARATION

AREAS DESIGNATED FOR BORROW AREAS, EMBANKMENT, AND STRUCTURAL WORKS SHALL BE CLEARED, GRUBBED AND STRIPPED TO TOP SOIL. ALL TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED. CHANNEL BANKS AND SPILLWAY BREAKS SHALL BE SLOPED TO NO STEEPER THAN 1:1.

AREAS TO BE COVERED BY THE RESERVOIR WILL BE CLEARED OF ALL TREES, BRUSH, LOGS, RUBBISH AND OTHER OBJECTIONABLE MATERIAL UNLESS OTHERWISE DESIGNATED TO THE PLANS. TREES, BRUSH AND STUMPS SHALL BE CUT APPROXIMATELY LEVEL WITH THE GROUND SURFACE. FOR DRY STORAGE/RETENTION PONDS, A MINIMUM OF A 50 FOOT RADIUS AROUND THE INLET STRUCTURE SHALL BE CLEARED.

ALL CLEARED AND GRUBBED MATERIAL SHALL BE DISPOSED OF OUTSIDE AND BELOW THE LIMITS OF THE DAM AND RESERVOIR AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVE. WHEN SPECIFIED, A SUFFICIENT QUANTITY OF TOP SOIL WILL BE STOCKPILED IN A SUITABLE LOCATION FOR USE ON THE EMBANKMENT AND OTHER DESIGNATED AREAS.

EARTH FILL

MATERIAL - THE FILL MATERIAL SHALL BE TAKEN FROM APPROVED DESIGNATED BORROW AREAS. IT SHALL BE FREE OF ROOTS, STUMPS, WOOD, RUBBISH, STONES GREATER THAN 6", FROZEN OR OTHER OBJECTIONABLE MATERIALS. FILL MATERIAL FOR THE CENTER OF THE EMBANKMENT AND CUT OFF TRENCH SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION GC, SC, CH OR CL. CONSIDERATION MAY BE GIVEN TO THE USE OF OTHER MATERIALS IN THE EMBANKMENT IF DESIGN AND CONSTRUCTION ARE SUPERVISED BY A GEOTECHNICAL ENGINEER.

PLACEMENT - AREAS ON WHICH FILL IS TO BE SHALL BE SCARIFIED PRIOR TO PLACEMENT OF FILL. FILL MATERIALS SHALL BE PLACED IN MAXIMUM 8 INCH THICK (BEFORE COMPACTION) LAYERS WHICH ARE TO BE CONTINUOUS OVER THE ENTIRE LENGTH OF THE FILL. THE MOST PERMISSIBLE BORROW MATERIAL SHALL BE PLACED IN THE DOWNSTREAM PORTIONS OF THE EMBANKMENT. THE PRINCIPAL SPILLWAY MUST BE INSTALLED CONCURRENTLY WITH FILL PLACEMENT AND NOT EXCAVATED INTO THE EMBANKMENT.

COMPACTION - THE MOVEMENT OF AND SPREADING EQUIPMENT OVER THE FILL SHALL BE CONTROLLED SO THAT THE ENTIRE SURFACE OF EACH LIFT SHALL BE TRAVELLED BY NOT LESS THAN ONE TREAD TRACK OF THE EQUIPMENT OR COMPACTION SHALL BE ACHIEVED BY A MINIMUM OF FOUR COMPLETE PASSES OF A SHEET PILE OR RUBBER TIRE DREDGER. FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE SUCH THAT THE REQUIRED DEGREE OF COMPACTION WILL BE OBTAINED WITH THE EQUIPMENT USED. THE FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE SO THAT IF FORMED INTO A BALL IT WILL NOT CRUMBLE YET NOT BE SO WET THAT WATER CAN BE SQUEEZED OUT.

WHERE A MINIMUM REQUIRED DENSITY IS SPECIFIED, IT SHALL NOT BE LESS 95% OF MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT WITHIN ± 2% OF THE OPTIMUM. EACH LAYER OF FILL SHALL BE COMPACTED AS NECESSARY TO OBTAIN THAT DENSITY, AND IS TO BE CERTIFIED BY THE ENGINEER AT THE TIME OF CONSTRUCTION. ALL COMPACTION IS TO BE DETERMINED BY AASHTO METHOD T-99.

MATERIALS - (STEEL PIPE) - THIS PIPE AND ITS APPURTENANCES SHALL BE GALVANIZED AND FULLY BITUMINOUS COATED AND SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-190 TYPE A WITH WATER TIGHT COUPLING BANDS. ANY BITUMINOUS COATING DAMAGED OR OTHERWISE REMOVED SHALL BE REPLACED WITH COLD APPLIED BITUMINOUS COATING COMPOUND. STEEL PIPES WITH POLYURETHANE COATINGS SHALL HAVE A MINIMUM THICKNESS OF 0.01 INCH (0.25 MM) ON BOTH SIDES OF THE PIPE. THE FOLLOWING COATINGS OR AN APPROVED EQUAL MAY BE USED: NEXON, PLASTICOTE, BLAC-KLAD, AND BETH-CU-LOY. COATED CORRUGATED STEEL PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M-245 AND M-246.

CUT OFF TRENCH - THE CUFF OFF TRENCH SHALL BE EXCAVATED INTO IMPERVIOUS MATERIAL ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE BOTTOM WIDTH OF THE TRENCH SHALL BE GOVERNED BY THE EQUIPMENT USED FOR EXCAVATION, WITH THE MINIMUM WIDTH BEING FOUR FEET. THE DEPTH SHALL BE AT LEAST FOUR FEET BELOW EXISTING GRADE OR AS SHOWN ON THE PLANS. THE SIDE SLOPES OF THE TRENCH SHALL BE 1 TO 1 OR FLATTER. THE BACKFILL SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS, OR HAND TAMPERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY.

STRUCTURE BACKFILL

BACKFILL ADJACENT TO PIPES OR STRUCTURES SHALL BE OF THE TYPE AND QUALITY CONFORMING TO THAT SPECIFIED FOR THE ADJOINING FILL MATERIAL. THE FILL MATERIAL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED FOUR INCHES IN THICKNESS AND COMPACTED BY HAND TAMPERS OR OTHER MANUALLY DIRECTED COMPACTION EQUIPMENT. THE FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE AND ADJACENT TO THE PIPE. AT NO TIME DURING THE BACKFILLING OPERATION SHALL DRIVEN EQUIPMENT BE ALLOWED TO OPERATE CLOSER THAN FOUR FEET, MEASURED HORIZONTALLY, TO ANY PART OF A STRUCTURE UNDER NO CIRCUMSTANCES SHALL EQUIPMENT BE DRIVEN OVER ANY PART OF A CONCRETE FILL OF 24" OR GREATER OVER THE STRUCTURE OR PIPE.

PIPE CONDUITS

ALL PIPES SHALL BE CIRCULAR IN CROSS SECTION.

CORRUGATED METAL PIPE - ALL OF THE FOLLOWING CRITERIA SHALL APPLY FOR CORRUGATED METAL PIPE:

1. MATERIALS - (STEEL PIPE) - THIS PIPE AND ITS APPURTENANCES SHALL BE GALVANIZED AND FULLY BITUMINOUS COATED AND SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-190 TYPE A WITH WATER TIGHT COUPLING BANDS. ANY BITUMINOUS COATING DAMAGED OR OTHERWISE REMOVED SHALL BE REPLACED WITH COLD APPLIED BITUMINOUS COATING COMPOUND. STEEL PIPES WITH POLYURETHANE COATINGS SHALL HAVE A MINIMUM THICKNESS OF 0.01 INCH (0.25 MM) ON BOTH SIDES OF THE PIPE. THE FOLLOWING COATINGS OR AN APPROVED EQUAL MAY BE USED: NEXON, PLASTICOTE, BLAC-KLAD, AND BETH-CU-LOY. COATED CORRUGATED STEEL PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M-245 AND M-246.

MATERIALS - (ALUMINUM COATED STEEL PIPE) - THIS PIPE AND ITS APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-274 WITH WATER TIGHT COUPLING BANDS OR FLANGES. ANY ALUMINUM COATING DAMAGED OR OTHERWISE REMOVED SHALL BE REPLACED WITH COLD APPLIED BITUMINOUS COATING COMPOUND.

MATERIALS - (ALUMINUM PIPE) - THIS PIPE AND ITS APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-196 OR M-211 WITH WATER TIGHT COUPLING BANDS OR FLANGES. ALUMINUM SURFACES THAT ARE TO BE IN CONTACT WITH CONCRETE SHALL BE PAINTED WITH ONE COAT OF ZINC CHROMATE PRIMER. HOT DIP GALVANIZED BOLTS MAY BE USED FOR CONNECTIONS. THE PH OF THE SURROUNDING SOILS SHALL BE BETWEEN 4 AND 9.

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

3. CONNECTIONS - ALL CONNECTIONS WITH PIPES MUST BE COMPLETELY WATERTIGHT. THE DRAIN PIPE OR BARREL CONNECTION TO THE RISER SHALL BE WELDED ALL AROUND WHEN THE PIPE AND RISER ARE METAL. ANTI-SEEP COLLARS SHALL BE CONNECTED TO THE PIPE IN SUCH A MANNER AS TO BE COMPLETELY WATERTIGHT. DIPLE BANDS ARE NOT CONSIDERED TO BE WATERTIGHT.

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

HELICALLY CORRUGATED PIPE SHALL HAVE EITHER CONTINUOUSLY WELDED SEAMS OR HAVE LOCK SEAMS WITH INTERNAL CAULKING OR A NEOPRENE BEAD.

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

5. BACKFILLING SHALL CONFORM TO "STRUCTURE BACKFILL."

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

REINFORCED CONCRETE PIPE - ALL OF THE FOLLOWING CRITERIA SHALL APPLY FOR REINFORCED CONCRETE PIPE.

1. MATERIALS - REINFORCED CONCRETE PIPE SHALL HAVE BELL AND SPIGOT JOINTS WITH RUBBER GASKETS AND SHALL EQUAL OR EXCEED ASTM DESIGNATION C-361.

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

3. LAYING PIPE - BELL AND SPIGOT PIPE SHALL BE PLACED WITH THE BELL END UPSTREAM. JOINTS SHALL BE MADE IN ACCORDANCE WITH RECOMMENDATIONS OF THE MANUFACTURER OF THE MATERIAL. AFTER THE JOINTS ARE SEALED FOR THE ENTIRE LINE, THE BEDDING SHALL BE PLACED SO THAT ALL SPACES UNDER THE PIPE ARE FILLED. CARE SHALL BE EXERCISED TO PREVENT ANY DEVIATION FROM THE ORIGINAL LINE AND GRADE OF THE PIPE. THE FIRST JOINT MUST BE LOCATED WITHIN 2 FEET FROM THE RISK.

4. BACKFILLING SHALL CONFORM TO "STRUCTURE BACKFILL."

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

POLYVINYL CHLORIDE (PVC) PIPE - ALL OF THE FOLLOWING CRITERIA SHALL APPLY FOR POLYVINYL CHLORIDE (PVC) PIPE:

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

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

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

4. BACKFILLING SHALL CONFORM TO "STRUCTURE BACKFILL."

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

CONCRETE

CONCRETE SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 905.

THE RIPRAP SHALL BE PLACED TO THE REQUIRED THICKNESS IN ONE OPERATION. THE ROCK SHALL BE DELIVERED AND PLACED IN A MANNER THAT WILL INSURE THE RIPRAP IN PLACE SHALL BE REASONABLY HOMOGENEOUS WITH THE LARGER ROCKS UNIFORMLY DISTRIBUTED AND FIRMLY IN CONTACT ONE TO ANOTHER WITH THE SMALLER ROCKS FILLING THE Voids BETWEEN THE LARGER ROCKS. FILTER CLOTH SHALL BE REPLACED UNDER ALL RIPRAP AND SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 919.12?

CARE OF WATER DURING CONSTRUCTION

ALL WORK ON THE PERMANENT STRUCTURES SHALL BE CARRIED OUT IN AREAS FREE FROM WATER. THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ALL TEMPORARY DIKES, LEVEES, COFFERDAMS, DRAINAGE CHANNELS, AND STRAM DIVERSIONS NECESSARY TO PROTECT THE AREAS TO BE OCCUPIED BY THE PERMANENT WORKS. THE CONTRACTOR SHALL ALSO FURNISH, INSTALL, OPERATE AND MAINTAIN ALL NECESSARY PUMPING AND OTHER EQUIPMENT REQUIRED FOR REMOVAL OF WATER FROM THE VARIOUS PARTS OF THE WORK AND FOR MAINTAINING THE EXCAVATIONS, FOUNDATION AND OTHER PARTS OF THE WORK FREE FROM WATER AS REQUIRED OR DIRECTED BY THE ENGINEER FOR CONSTRUCTING EACH PART OF THE WORK. AFTER HAVING SERVED THEIR PURPOSE, ALL TEMPORARY PROTECTIVE WORKS SHALL BE REMOVED OR LEVELED AND GRADED TO THE EXTENT REQUIRED TO PREVENT OBSTRUCTION IN ANY DEGREE WHATSOEVER OF THE FLOW OF WATER TO THE SPILLWAY OR OUTLET WORKS AND SO AS NOT TO INTERFERE IN ANY WAY WITH THE OPERATION OR MAINTENANCE OF THE STRUCTURE. STRAM DIVERSIONS SHALL BE MAINTAINED UNTIL THE FULL FLOW CAN BE PASSED THROUGH THE PERMANENT WORKS. THE REMOVAL OF WATER FROM THE REQUIRED EXCAVATION AND THE FOUNDATION SHALL BE ACCOMPLISHED IN A MANNER AND TO THE EXTENT THAT WILL MAINTAIN STABILITY OF THE EXCAVATED SLOPES AND BOTTOM OF THE REQUIRED EXCAVATIONS AND WILL ALLOW SATISFACTORY PERFORMANCE OF ALL AND CONSTRUCTION OPERATIONS. DURING THE PLACING AND COMPACTING OF MATERIAL IN REQUIRED EXCAVATIONS, THE WATER LEVEL AT THE LOCATIONS BEING REFILLED SHALL BE MAINTAINED BELOW THE BOTTOM OF THE EXCAVATION AT SUCH LOCATIONS WHICH MAY REQUIRE DRAINING THE WATER TO SUMPS FROM WHICH THE WATER SHALL BE PUMPED.

STABILIZATION

ALL BORROW AREAS SHALL BE GRADED TO PROVIDE PROPER DRAINAGE AND LEFT IN A SLIGHTLY CONDITION. ALL EXPOSED SURFACES OF THE EMBANKMENT, SPILLWAY, SPOIL AND BORROW AREAS, AND BERMS SHALL BE STABILIZED BY SEEDING, LIMING, FERTILIZING AND MULCHING IN ACCORDANCE WITH THE MARYLAND SOIL CONSERVATION SERVICE STANDARDS AND SPECIFICATIONS FOR CRITICAL AREA PLANTING (MD-342) OR AS SHOWN ON THE ACCOMPANYING DRAWINGS.

EROSION AND SEDIMENT CONTROL

CONSTRUCTION OPERATIONS WILL BE CARRIED OUT IN SUCH A MANNER THAT EROSION WILL BE CONTROLLED AND WATER AND AIR POLLUTION MINIMIZED. STATE AND LOCAL LAWS CONCERNING POLLUTION ABATEMENT WILL BE FOLLOWED. CONSTRUCTION PLANS SHALL DETAIL EROSION AND SEDIMENT CONTROL MEASURES TO BE EMPLOYED DURING THE CONSTRUCTION PERIOD.

OPERATION, MAINTENANCE AND INSPECTION

INSPECTION OF THE POND(S) SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, SCS "STANDARDS AND SPECIFICATIONS FOR PONDS" (MD-378). THE POND OWNER(S) AND THE HEIRS SUCCESSORS OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION, AND MAINTENANCE THEREOF. THE POND OWNER(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.

SUPPLEMENTAL SPECIFICATIONS

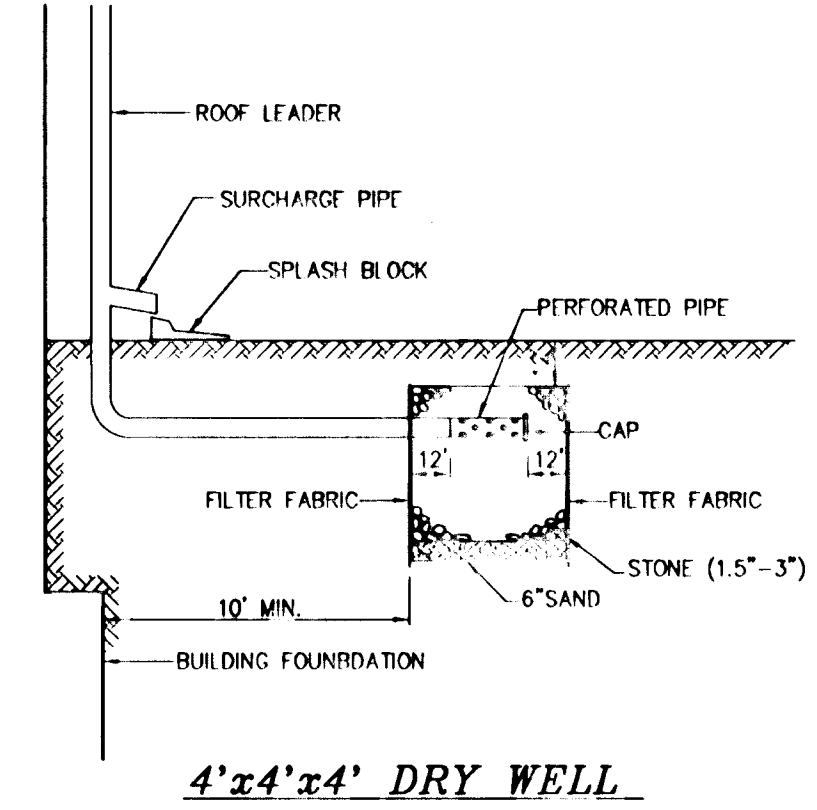
- AT LOCATIONS WHERE REMOVAL OF VEGETATION AND OBJECTIONABLE MATERIAL RESULTS IN AN OPENING GREATER THAN 100 INCHES IN WIDTH, THEY SHOULD BE BACKFILLED WITH SOIL COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE "STANDARD" MOISTURE DENSITY RELATIONSHIP TEST (ASTM D-998).
- CORE AND DIKE EMBANKMENT FILL AND BACKFILL SOILS SHOULD BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY (ASTM D-998).
- THE SPILLWAY ACCESS ROADS SHOULD BE DESIGNED AND CONSTRUCTED TO SUPPORT THE CONTACT TIRE PRESSURE AND AXLE LOAD EXERCISED BY THE SERVICE TRAFFIC ANTICIPATED. THE RECOMMENDED SUBGRADE SOIL WITH SUBSEQUENT SHEAR STRENGTH TO SUPPORT CONTACT PRESSURE OF 80 PSI AND 8 KIP AXLE LOAD, THE SUBGRADE IN THE ACCESS ROAD AREA SHOULD BE CONSTRUCTED WITH ON-SITE SANDY SOILS COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY (ASTM D-998) WITH A MINIMUM SCARIFIED CALIFORNIA BITUMING RATIO (CBR) OF 5.0.
- THE PRINCIPAL SPILLWAY STRUCTURE SHOULD BE FOUNDED ON ADEQUATE SOIL PRESSURES OF NO LESS THAN 5000 POUNDS PER SQUARE FOOT AND SHOULD BE VERIFIED DURING FOUNDATION CONSTRUCTION.

AUTUMN VIEW - SECTION 2
HOWARD COUNTY, MARYLAND
ITE PROJECT NO. 20-4018G

STORMWATER MANAGEMENT FACILITY

SUMMARY OF TEST PIT

TEST PIT	DEPTH (FEET)	SOIL DESCRIPTION	REMARKS
B-1	0.0 - 6.0	Olive green micaceous, fine SAND USC: SM USDA: LOAMY SAND	Topsoil: not present Groundwater not encountered.
	6.0 - 10.0	Light olive green fine SAND and weathered rock fragments USC: SM USDA: LOAMY SAND	
Bottom of Test Pit at 10.0 feet depth.			
Test Pit backfilled upon completion of observations.			
B-2	0.0 - 2.0	Yellowish Brown Clayey SAND USC: SC USDA: SANDY LOAM	Topsoil: not present Groundwater not encountered.
	2.0 - 10.0	Olive green fine SAND, trace mica, rock fragments USC: SM USDA: LOAMY SAND	
Bottom of Test Pit at 10.0 feet depth.			
Test Pit backfilled upon completion of observations.			
B-3	0.0 - 5.0	Yellowish brown clayey SAND USC: SC USDA: SANDY LOAM	Topsoil: not present Rock fragment below 4.0' depth.
	5.0 - 8.0	Olive green fine SAND USC: SM USDA: SANDY LOAM	Groundwater not encountered. Hard digging at 8.5 feet.
	8.0 - 8.5	Yellowish brown SAND and rock fragments USC: SM GP USDA: LOAMY SAND	
Backhoe refusal at 8.5 feet.			
Bottom of Test Pit at 8.5 feet.			



NOTE:
DRY WELLS ARE TO BE CONSTRUCTED UNDER THE SDP STAGE
LOTS: 29, 30, 31, 32, 33 - 2 DRY WELLS PER HOUSE
LOTS: 28, 34, 35, 36, 37, 38, 39, 40, 50, 56, 57, 58, 59,
60, 61, 62, 63, 64, 65 - 1 DRY WELL PER HOUSE.

DATE: JUNE 1995
PROJECT NO: 94031
DRAWN BY: M.P.
CHECKED BY: M.P.
SCALE: N.T.S.
DESIGNED BY: J.H.

TAX MAP 31, P/O PARCELS 13, BLOCK 3
AUTUMN VIEW - SECTION 2
HOWARD COUNTY
SECOND ELECTION DISTRICT
STORMWATER MANAGEMENT SPECIFICATIONS

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.

DATE: 12/2/95
SIGNATURE: IRVING TAYLOR
PRINTED NAME OF DEVELOPER: IRVING TAYLOR

BY THE ENGINEER:
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL, REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTICED THAT THE HOWARD SOIL CONSERVATION DISTRICT HAS REVIEWED AND APPROVED THIS PLAN. I HAVE ENGAGED A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DATE: 10-4-95
SIGNATURE: HIK MAT
PRINTED NAME OF ENGINEER: HIK MAT

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

DATE: 1/24/96
SIGNATURE: Patricia Enslin
PRINTED NAME OF ENGINEER: Patricia Enslin

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

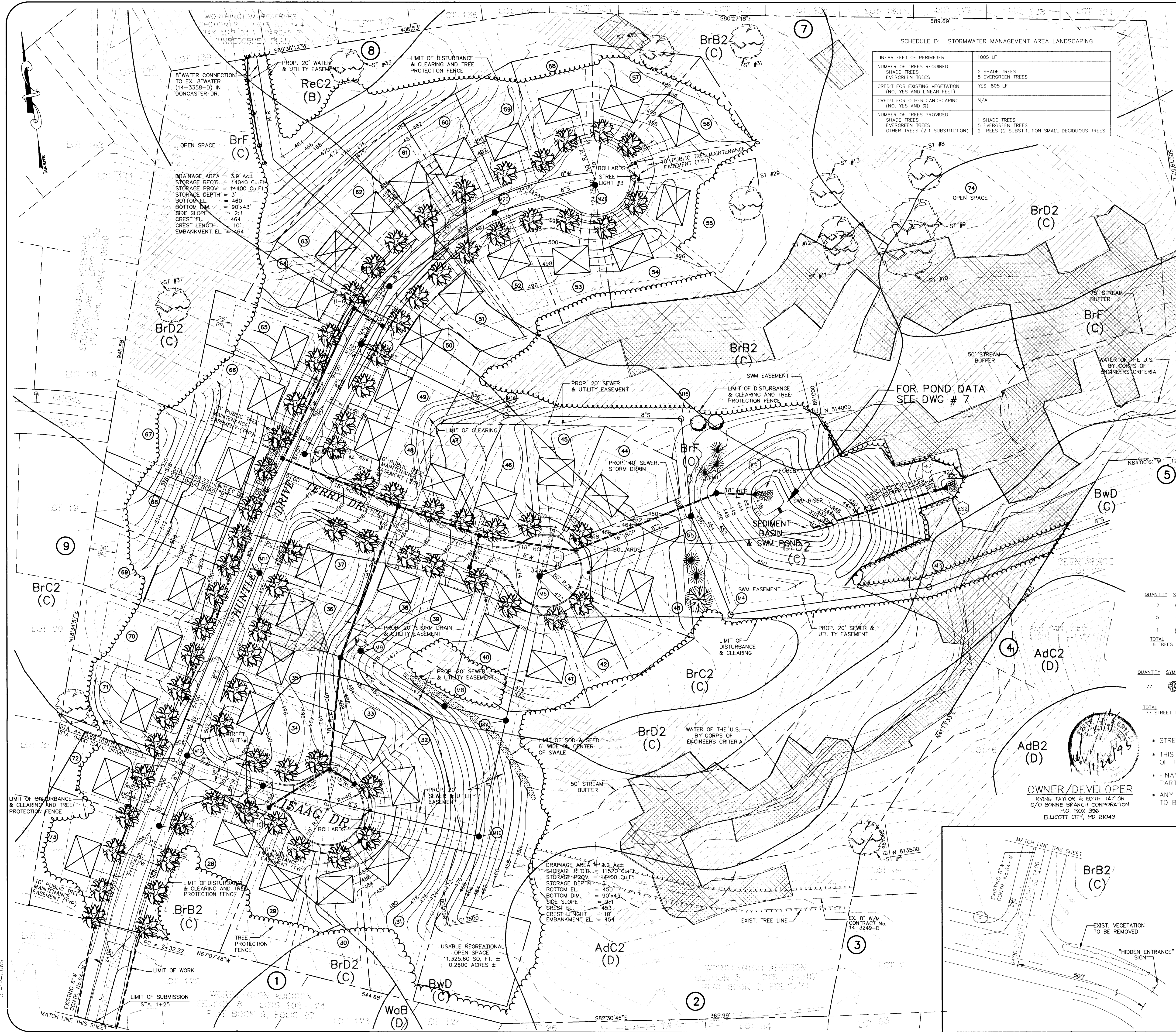
DATE: 1/24/96
SIGNATURE: Robert W. Zickman
PRINTED NAME OF ENGINEER: Robert W. Zickman

APPROVED: DEPARTMENT OF PUBLIC WORKS
DATE: 1-30-96
SIGNATURE: Andrew M. Danek
PRINTED NAME OF OFFICIAL: Andrew M. Danek

APPROVED: DEPARTMENT OF PLANNING AND ZONING
DATE: 2/6/96
SIGNATURE: Omar Muhammad
PRINTED NAME OF OFFICIAL: Omar Muhammad

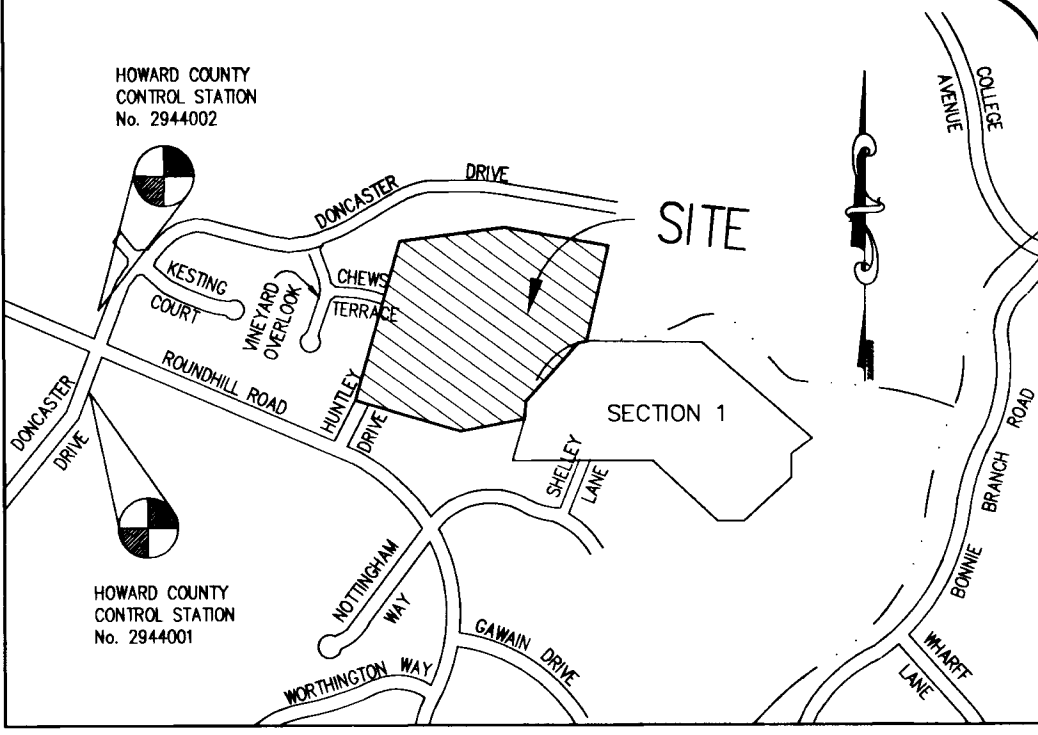
MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 397-0236 Balt. (301) 821-5521 Wash. (410) 397-0238 Fax

1687



SCHEDULE D: STORMWATER MANAGEMENT AREA LANDSCAPING

LINEAR FEET OF PERIMETER	1005 LF
NUMBER OF TREES REQUIRED	2 SHADE TREES 5 EVERGREEN TREES
CREDIT FOR EXISTING VEGETATION (NO, YES AND LINEAR FEET)	YES, 805 LF
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	N/A
NUMBER OF TREES PROVIDED	1 SHADE TREES 5 EVERGREEN TREES 2 TREES (2 SUBSTITUTION SMALL DECIDUOUS TREES)



VICINITY MAP SCALE: 1"=1000'

SCHEDULE A: PERIMETER LANDSCAPED EDGE

PERIMETER	PERIMETER 1	PERIMETER 2	PERIMETER 3	PERIMETER 4	PERIMETER 5	PERIMETER 6	PERIMETER 7	PERIMETER 8	PERIMETER 9	TOTAL PLANTING OBLIGATION
LINEAR FEET OF PERIMETER	SFD TO SFD - 544.68 LF	SFD TO SFD - 365.99 LF	SFD TO SFD - 185.00 LF	SFD TO SFD - 519.85 LF	SFD TO SFD - 120.91 LF	SFD TO SFD - 491.93 LF	SFD TO SFD - 689.69 LF	SFD TO SFD - 406.53 LF	SFD TO SFD - 945.58 LF	0
EXISTING TREES TO REMAIN	0	0	0	0	0	0	0	0	0	0
SHADE TREES	0	0	0	0	0	0	0	0	0	0
EVERGREEN TREES	0	0	0	0	0	0	0	0	0	0
SHRUBS	0	0	0	0	0	0	0	0	0	0

LANDSCAPE REQUIREMENT PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
2	(Symbol)	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	2 1/2" - 3" CAL.
5	(Symbol)	PINUS STROBUS	EASTERN WHITE PINE	2 1/2" - 3" CAL.
1	(Symbol)	QUERCUS RUBRA	NORTHERN RED OAK	2 1/2" - 3" CAL.
TOTAL 8 TREES (1 SHADE TREES, 2 SMALL DECIDUOUS TREES, 5 EVERGREEN TREES)				

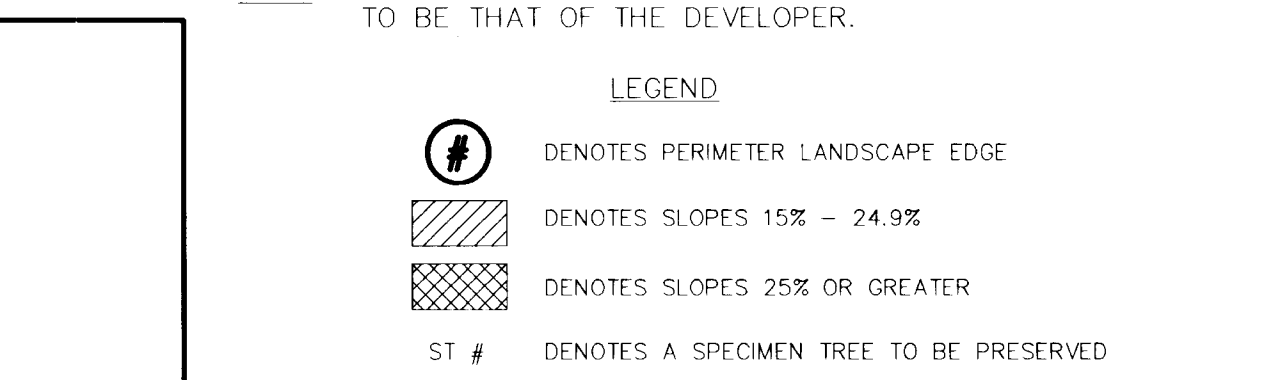
STREET TREE PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	BY THE DEVELOPER	COMMON NAME	SIZE
77	(Symbol)	ACER RUBRUM 'RED SUNSET'		RED SUNSET RED MAPLE	2 1/2" - 3" CAL.
TOTAL 77 STREET TREES					

GENERAL NOTES

- STREET TREE TO STREET LIGHT SPACING IS A 20' MINIMUM.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$700.00.
- ANY LANDSCAPING THAT OBSTRUCTS THE INTERSECTION SIGHT DISTANCE TO BE REMOVED OR RELOCATED.

NOTE: RESPONSIBILITY FOR THE INSTALLATION OF ALL TREES TO BE THAT OF THE DEVELOPER.



APPROVED: DEPARTMENT OF PUBLIC WORKS
Andrew M. Conner 1-30-96
 CHIEF BUREAU OF HIGHWAYS
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
Amita Srivastava 2/6/96
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH
M. P. ... 2/2/96
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

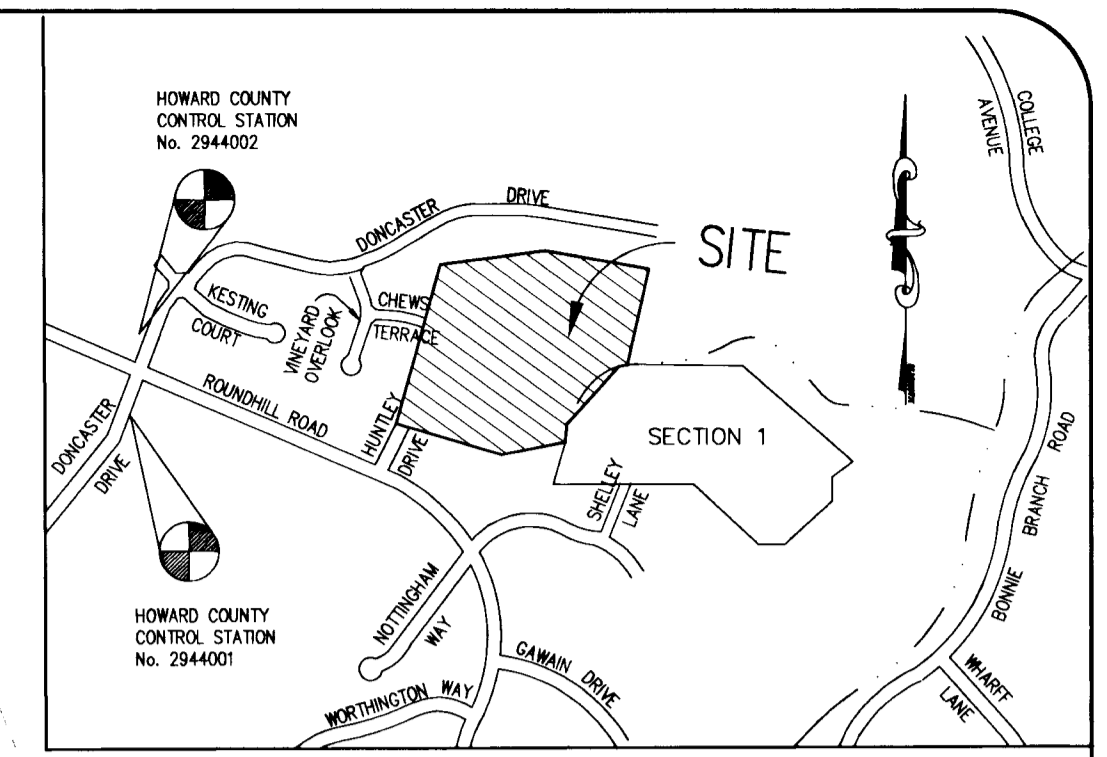
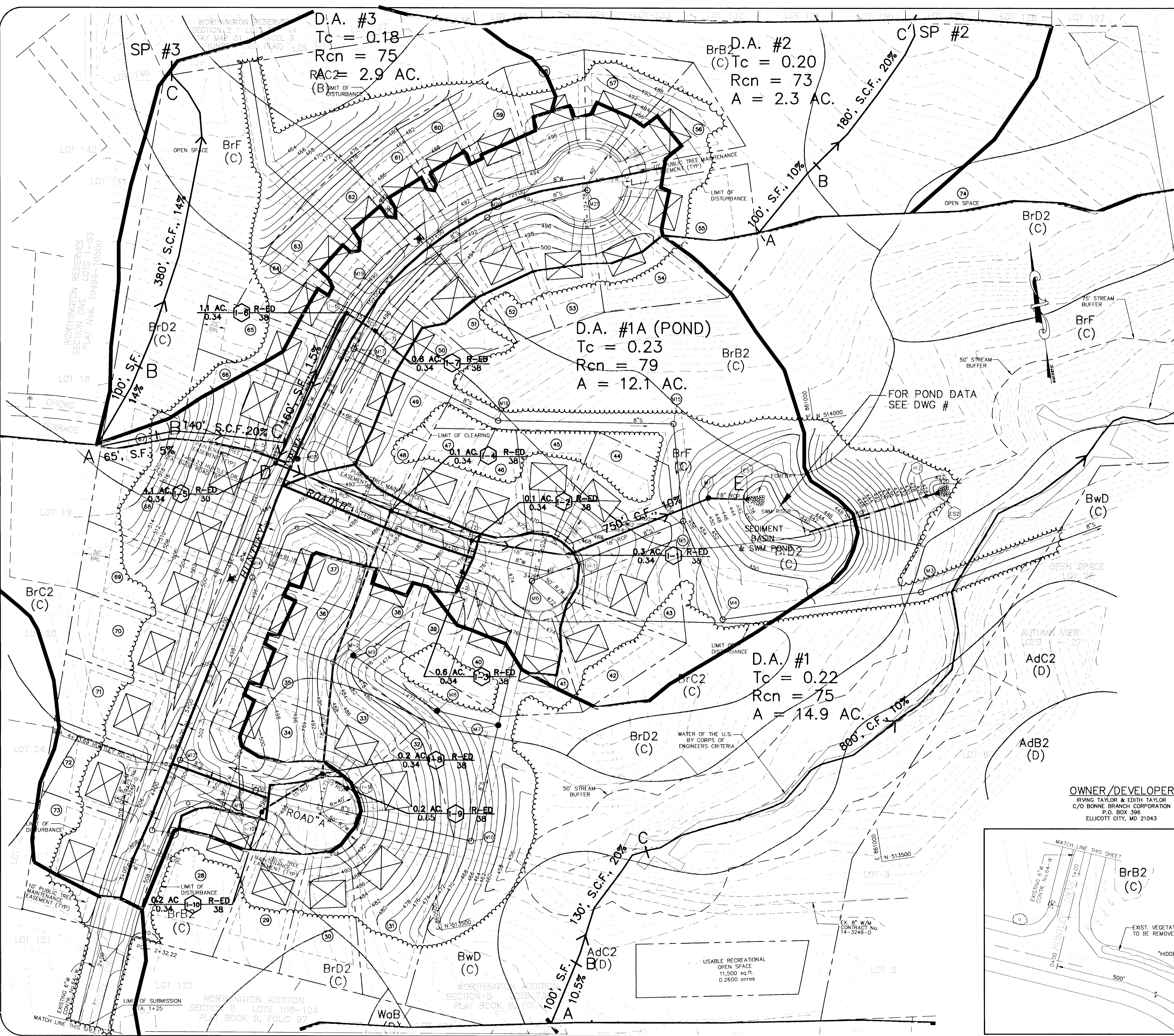
DATE: SEPT 1995
 PROJECT: 94031
 DRAWING: engineering
 MP / SJD
 SCALE: 1"=60'
 APPROVAL: RJH

STREET TREE LANDSCAPING NOTES REFERRED TO THE PLAN AND PRESERVED SPECIMEN TREES SHOWN

TAX MAP 31, P/O PARCEL 13, BLOCK 3
AUTUMN VIEW-SECT.2, LOTS: 28-74
 SECOND ELECTION DISTRICT HOWARD COUNTY
LANDSCAPE PLAN

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0286, Fax: (301) 621-5521, Wash. (410) 997-0298 Fax

1687



SOIL CLASSIFICATION

SOIL SYM	NAME	HYDROLOGIC GROUP
AdB2	ALDINO SILT LOAM	D
AdC2	ALDINO SILT LOAM	D
BrB2	BRANDYWINE LOAM	D
BrC2	BRANDYWINE LOAM	D
BrD2	BRANDYWINE LOAM	D
BrF	BRANDYWINE LOAM	D
BwD	BRANDYWINE VERY STONY LOAM	D
M1B2	MANOR LOAM	D
N6B2	NESHAMINY SILT LOAM	D
RnC2	RELAY SILT LOAM	D
WaB	WATCHUNG SILT LOAM	D

• SOILS SUBJECT TO HYDRIC CONDITIONS
 ** HYDRIC SOILS

LEGEND

POND/STUDY POINT DRAINAGE DIVIDE

INLET DRAINAGE DIVIDE

THIS PLAN IS FOR DRAINAGE AREA DELINEATION PURPOSES ONLY

AS-BUILT CERTIFICATION

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

SIGNATURE: _____ P.E. NO.: _____ DATE: _____

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES 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: *H. J. J.* DATE: 12/1/98

IRVING TAYLOR
 PRINTED NAME OF DEVELOPER

BY THE ENGINEER:

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL, REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTICED AND I CERTIFY 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: *Jacob Hikmat* DATE: 11/22/95
 R. JACOB HIKMAT
 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.

Patricia Engler DATE: 1/24/96
 USA - NATURAL RESOURCES CONSERVATION SERVICE

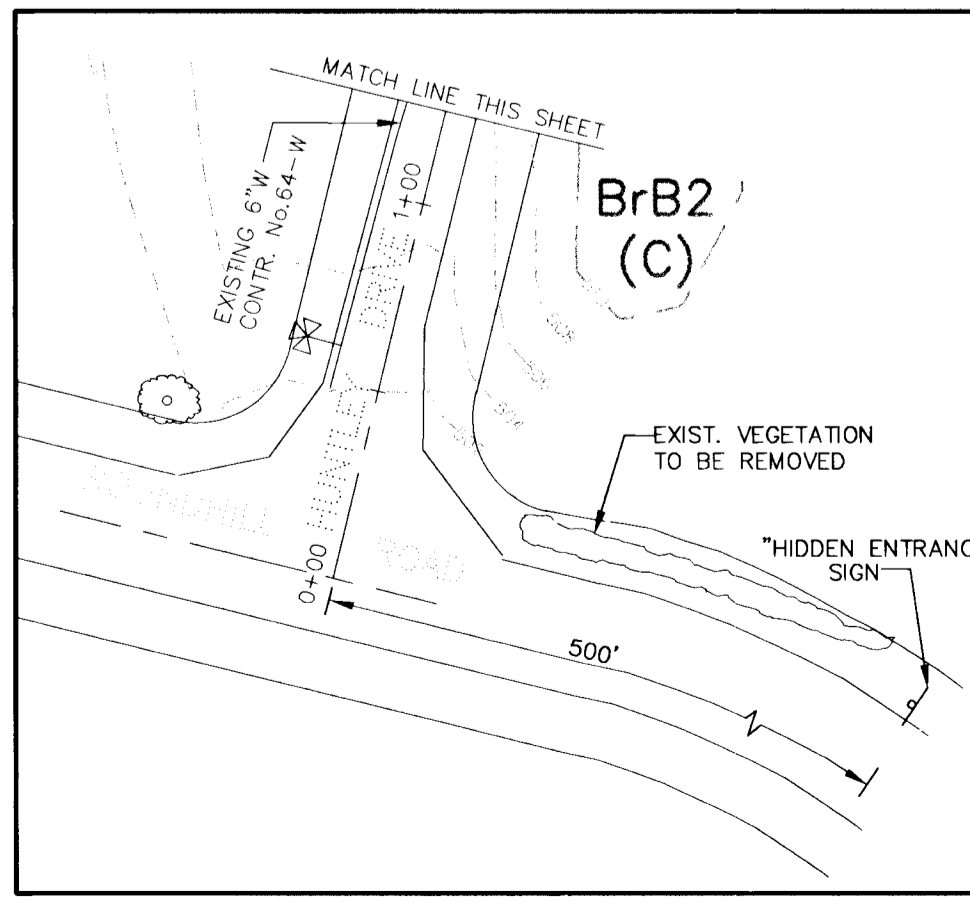
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Robert W. Zick DATE: 1/23/96
 HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS
Richard M. Smith DATE: 1-30-96
 CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Ann J. Jarmann DATE: 2/6/96
 CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH

Alfred J. Jarmann DATE: 2/6/96
 CHIEF, DEPARTMENT ENGINEERING DIVISION



DATE: 7/95
 PROJECT: 94031
 DRAWING: 1100
 SCALE: 1"=50'

DESIGNER: JT
 CHECKER: JT
 APPROVAL: JT

TAX MAP 31, P/O PARCEL 3, BLOCK 3
 AUTUMN VIEW-SECT.2, LOTS: 28-74
 HOWARD COUNTY
 SECOND ELECTION DISTRICT
 DRAINAGE AREA MAP

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, State 202, Ellicott City, Maryland 21042
 (410) 397-0256 Buit. (301) 621-5521 Wash. (410) 397-0258 Fax

1687



NOTE: FOREST CONSERVATION PLAN BASED ON FOREST STAND DELINEATION PREPARED BY EXPLORATION RESEARCH, INC., JULY 1993.

- ### LEGEND
- SLOPES > 25%
 - FOREST TO REMAIN (FOREST CONSERVATION AREA)
 - SIGNIFICANT TREE TO REMAIN CRITICAL ROOT ZONE
 - SIGNIFICANT TREE TO BE REMOVED
 - TREE PROTECTION FENCE (SEE DET. THIS SHEET)
 - "FOREST RETENTION AREA" SIGN (EXHIBIT K-13)

SOILS LEGEND

MARK NAME	HYDROLOGIC GROUP
AdB2 Aldino silt-loam	D
AdC2 Aldino silt-loam	D
BrB2 Brandywine loam	C
BrC2 Brandywine loam	C
BrD2 Brandywine loam	C
BrF Brandywine loam	C
BwD Brandywine very stony loam	C
MIB2 Manor loam	B
NeB2 Neshaminy silt-loam	B
ReC2 Relay silt-loam	B
WaB Watchung silt-loam	D

SIGNIFICANT TREES

MARK	TREE	CONDITION
T1	31" RED OAK	FAIR TO GOOD
T2	30" RED OAK	GOOD
T3	30" TULIP POPLAR	EXCELLENT
T4	31" TULIP POPLAR	EXCELLENT
T5	36" BEECH	FAIR
T6	30" TULIP POPLAR	FAIR TO GOOD
T7	30" TULIP POPLAR	FAIR
T8	31" TULIP POPLAR	GOOD
T9	35" TULIP POPLAR	GOOD
T10	34" TULIP POPLAR	GOOD
T11	33" RED OAK	FAIR
T12	34" TULIP POPLAR	FAIR
T13	32" TULIP POPLAR	FAIR
T14	30" TULIP POPLAR	GOOD
T15	39" TULIP POPLAR	FAIR
T16	37" TULIP POPLAR	GOOD
T17	33" TULIP POPLAR	FAIR
T18	30" TULIP POPLAR	GOOD
T19	34" TULIP POPLAR	FAIR TO GOOD
T20	30" TULIP POPLAR	FAIR TO GOOD
T21	30" TULIP POPLAR	FAIR TO GOOD
T22	30" TULIP POPLAR	FAIR TO GOOD
T23	44" TULIP POPLAR	FAIR TO GOOD
T24	34" TULIP POPLAR	FAIR TO GOOD
T25	33" RED OAK	EXCELLENT
T26	30" TULIP POPLAR	FAIR
T27	NOT USED	
T28	NOT USED	
T29	49" TULIP POPLAR	FAIR TO GOOD
T30	31" TULIP POPLAR	FAIR TO GOOD
T31	30" TULIP POPLAR	GOOD
T32	31" TULIP POPLAR	FAIR TO GOOD
T33	31" TULIP POPLAR	GOOD
T34	31" TULIP POPLAR	GOOD
T35	32" RED OAK	GOOD
T36	34" TULIP POPLAR	FAIR TO GOOD
T37	34" TULIP POPLAR	GOOD
T38	31" SCARLET OAK	FAIR

OWNER/DEVELOPER
 IRVING TAYLOR & EDITH TAYLOR
 C/O BONNE BRANCH CORPORATION
 P.O. BOX 396
 ELLICOTT CITY, MD 21043

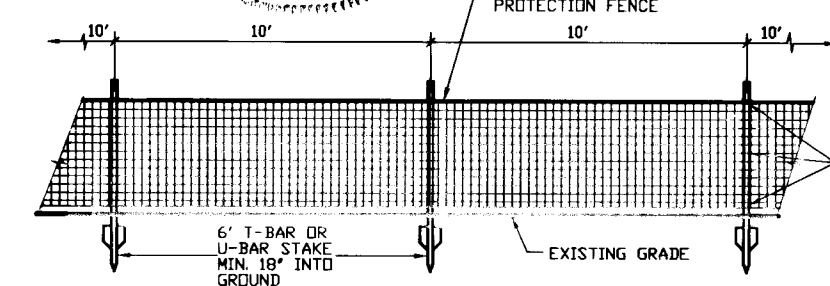
CONSERVATION CALCULATIONS

BASIC SITE DATA

GROSS SITE AREA = 26.4 AC
 AREA WITHIN 100 YR. FLOOD PLAIN = 0.0 AC
 NET TRACT AREA = 26.4 AC
 LAND USE CATEGORY = R-ED

BASIC SITE DATA

NET TRACT AREA = 26.4 AC
 REFORESTATION THRESHOLD (20% x 26.1 AC) = 5.3 AC
 EXISTING FOREST ON NET TRACT AREA = 26.4 AC
 FOREST AREAS TO BE CLEARED = 14.7 AC
 FOREST AREAS TO BE RETAINED = 11.7 AC
 FOREST AREAS CLEARED BELOW REFOREST. THRESHOLD = 0.0 AC
 FOREST AREAS RETAINED ABOVE REFOREST. THRESHOLD = 6.4 AC
 REFORESTATION FOR CLEARING ABOVE THRESHOLD = 3.7 AC
 CREDIT FOR FOREST AREAS RETAINED ABOVE THRESHOLD = 6.4 AC
 TOTAL REFORESTATION REQUIRED = 0.0 AC



APPROVED: DEPARTMENT OF PUBLIC WORKS
Richard M. Deneck 1-30-96
 CHIEF BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Gina Swinburn 2/6/96
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

John J. ... 2/2/96
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

PROJECT: 94031 DATE: NOV 95
 ILLUSTRATION: MP/RAS SCALE: 1" = 60'
 APPROVAL: J.H.

TAX MAP 31, P/O PARCEL 13, BLOCK 3
 AUTUMN VIEW-SECT.2, LOTS: 28-74
 SECOND ELECTION DISTRICT HOWARD COUNTY

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12 OF 12
 F-96-13