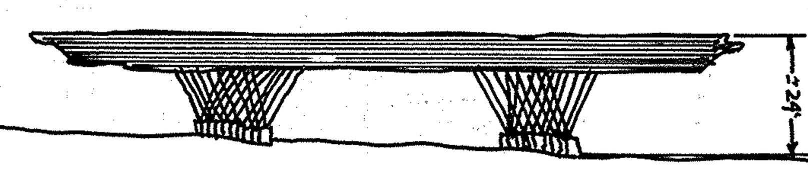
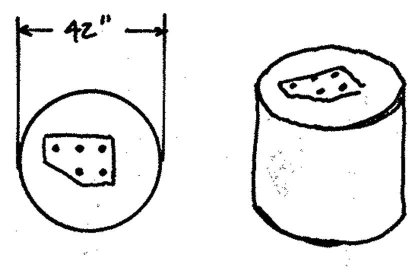
REVISED SITE DEVELOPMENT PLAN
BALTIMORE WASHINGTON AUTO EXCHANGE

LEGEND:
- EX. FIRE HYDRANT
- WATER VALVE
- WATER MANHOLE
- STORM DRAIN MANHOLE
- SEWER MANHOLE
- CLEANOUT
- CATCH BASIN
- LIGHT POLE
- POWER POLE
- TS — TRAFFIC SIGNAL VAULT
- GM — GAS METER
- GAS VALVE
- SIGN
- TREE
- T — TELE. PAD
- OHE — OVERHEAD ELECTRIC
- WETLANDS AREA
- PROPOSED FOREST RETENTION AREA
- EXISTING CONTOUR 2' INTERVAL
- EXISTING CONTOUR 10' INTERVAL
- PROPOSED CONTOUR 2' INTERVAL
- PROPOSED CONTOUR 10' INTERVAL
- + 624 — SPOT ELEVATION
- —SF—SF— SILT FENCE
- —SSF—SSF— SUPER SILT FENCE
- A-2 — BERM
- L.O.D. — LIMIT OF DISTURBANCE
- —x— PERIMETER FENCE (SEE DETAIL, SHEET 15)
- GUARD RAIL (USE HOWARD COUNTY STANDARD GUARDRAIL)

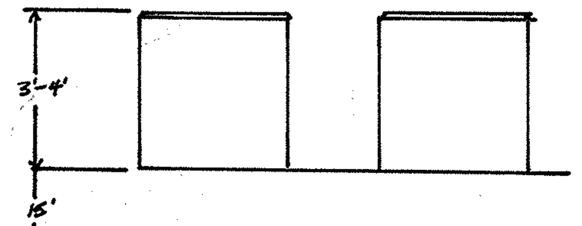
SHEET INDEX II		6
33A	AS-BUILT SWM PLAN	
33B	AS-BUILT SWM PLAN	
33C	AS-BUILT SWM DETAILS	
33D	AS-BUILT SWM DETAILS	
33E	AS-BUILT SWM STRUCTURE DETAILS	



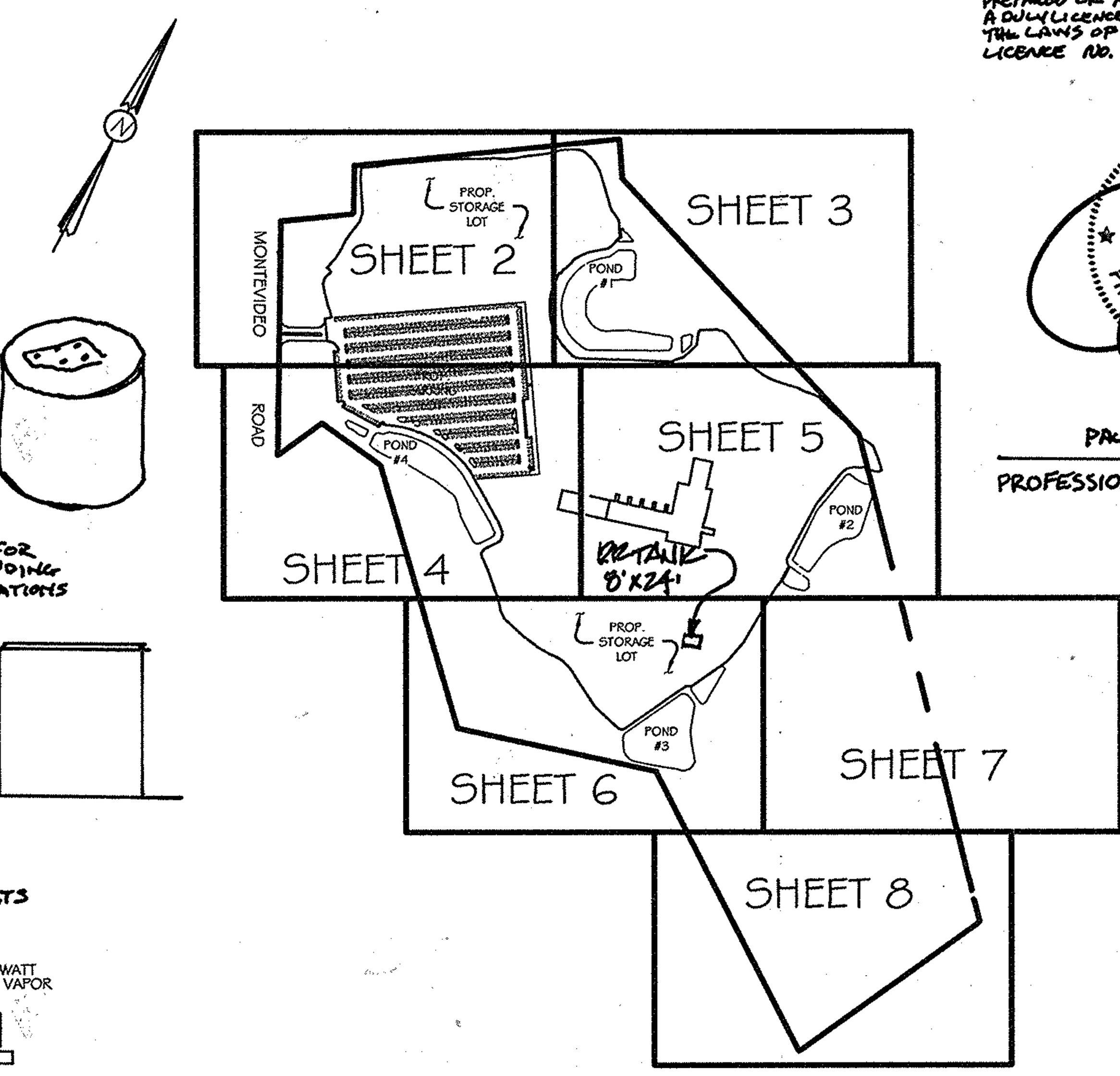
7 SOLAR CANOPY ELEVATION – NTS



SEE PERMIT DRAWINGS FOR ADDITIONAL DETAIL INCLUDING REINFORCEMENT SPECIFICATIONS



7 SOLAR CANOPY PIER DETAIL – NTS



PURPOSE STATEMENT

RED-LINE REVISION NO. 1: THE PURPOSE OF RED-LINE REVISION NO. 1, DATED 03/24/03, WAS TO REGRADE THE AREA BETWEEN SWM PONDS 2 AND 3, IN ACCORDANCE WITH WAIVER PETITION WP-02-56, APPROVED 04/02/02.

RED-LINE REVISION NO. 2: THE PURPOSE OF RED-LINE REVISION NO. 2, DATED 07/29/03, WAS TO LOCATE THE BUILDING THE PROPOSED BUILDING TO A DIFFERENT LOCATION THAN PREVIOUSLY APPROVED, AND ADD A PRIVATE SANITARY SEWER AND PRIVATE STORM DRAIN PROFILE TO THE PLANS.

12/09 - REVISION BY MESSICK AND ASSOCIATES TO ADD FUEL TANK PUMP ON SHEET 6 AS WELL AS UPDATE SHEETS 5 & 6 TO SHOW EXISTING PARKING LOT & MISC. SITE FEATURES FOR CONTEXT.

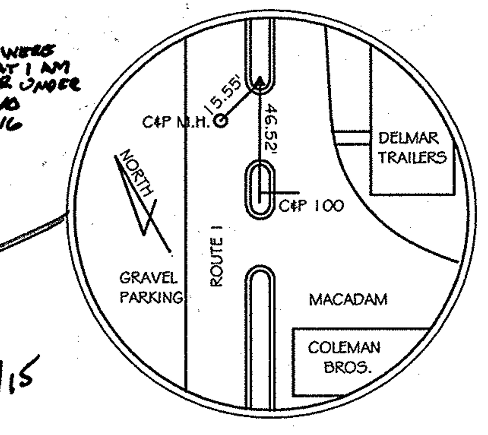
7 REDLINE REVISION NO 7. THE PURPOSE OF THE REDLINE REVISION DATED 9/8/15, WAS TO ADD A SOLAR CANOPY TO THE EXISTING PARKING LOT

7 PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENCED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENCE NO. 27020 EXP DATE 1/25/16

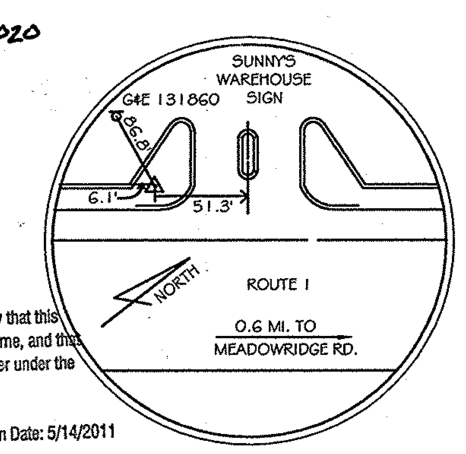
STATE OF MARYLAND PAUL G. CAVANAUGH No. 27020 PROFESSIONAL ENGINEER 10/2/15

REVISION 7 ONLY

PAUL G. CAVANAUGH
PROFESSIONAL ENGINEER NO. 27020



BENCHMARK LOCATION
NOT TO SCALE
43 B2



Professional Certification. I hereby certify that this document was prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 21591 Expiration Date: 5/14/2011

BENCHMARK LOCATION
NOT TO SCALE
43 B6

For Rev. #4 only

STATE OF MARYLAND WAYNE ... PROFESSIONAL ENGINEER 12/17/09

UNLESS OTHERWISE STATED ALL HOWARD COUNTY SURVEY CONTROLS CONSIST OF A STANDARD STAMPED (BRASS OR ALUMINUM) DISC SET ON CONCRETE (3' DEEP) COLUMN. USUALLY 1" OR 2" BELOW TERRAIN SURFACE.

SHEET INDEX I	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	PLAN VIEW
3	PLAN VIEW
4	PLAN VIEW
5	PLAN VIEW
6	PLAN VIEW
7	PLAN VIEW
8	PLAN VIEW
9	STORMWATER MANAGEMENT DETAILS & DRAINAGE AREA MAP
10	STORMWATER MANAGEMENT DETAILS
11	STORMWATER MANAGEMENT DETAILS
12	STORMWATER MANAGEMENT DETAILS
13	RISER STRUCTURE DETAILS
14	POND SPEC. NOTES / PIPE AND STRUCTURE SCHEDULES
14A	UTILITY PROFILES
14B	UTILITY PROFILES
15	GRADING AND SEDIMENT CONTROL PLAN
16	GRADING AND SEDIMENT CONTROL PLAN
17	GRADING AND SEDIMENT CONTROL PLAN
18	GRADING AND SEDIMENT CONTROL PLAN
19	GRADING AND SEDIMENT CONTROL PLAN
20	GRADING AND SEDIMENT CONTROL PLAN
21	GRADING AND SEDIMENT CONTROL PLAN
22	SEDIMENT CONTROL DETAILS
23	SEDIMENT CONTROL DETAILS/VEGETATIVE STABILIZATION
24	SEDIMENT CONTROL NOTES
25	FOREST STAND DELINEATION PLAN AND SOILS MAP
26	FOREST CONSERVATION PLAN
27	PERIMETER LANDSCAPE PLAN
28	MONTEVIDEO ROAD IMPROVEMENT PLAN
29	MONTEVIDEO ROAD IMPROVEMENT PLAN
30	ENTRANCE SEDIMENT CONTROL PLAN
31	REFORESTATION PLANTING PLAN (ROMITI PROPERTY)
32	OFF SITE REFORESTATION PLAN (SMITH PROPERTY)
33	OFF SITE REFORESTATION PLAN

SEE SHT INDEX II THIS SHT.

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT.
2. INSTALL NEW SEDIMENT & EROSION CONTROL MEASURES AND OBTAIN PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR TO PROCEED (1 WEEK)
3. CLEAR AND GRUB SITE TO LIMITS OF DISTURBANCE. (4 DAYS)
4. MASS GRADE SITE TO SUB-BASE AND INSTALL PERM. PERIMETER DIKES. USE DUST CONTROL METHODS PER MDE SPECS. (2 WEEKS)
5. INSTALL TEMPORARY SEEDING. (3 DAYS)
6. CONSTRUCT UTILITIES. (STORM DRAINS, WATER AND SEWER LINES)
7. INSTALL CURBS, SIDEWALKS AND SUB-BASE. (2 WEEKS)
8. CONSTRUCT BUILDINGS. (1 YEAR)
9. FINE GRADE SITE, INSTALL PERMANENT SEEDING AND LANDSCAPING, AND EROSION CONTROL MATTING (ECM). (3 WEEKS)
10. REMOVE SEDIMENT CONTROL DEVICES AS UPLAND AREAS ARE STABILIZED AND PERMISSION IS GRANTED BY E/S CONTROL INSPECTOR.

OPERATION AND MAINTENANCE SCHEDULE OF PRIVATELY OWNED AND MAINTAINED STORMWATER MANAGEMENT FACILITIES

ROUTINE MAINTENANCE:
1. FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHOULD BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE POND IS FUNCTIONING PROPERLY.
2. TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOWED A MINIMUM OF TWO (2) TIMES A YEAR, ONCE IN JUNE AND ONCE IN SEPTEMBER. OTHER SIDE SLOPES, MAINTENANCE ACCESS AND BUFFER AREAS SHOULD BE MOWED AS NEEDED.
3. DEBRIS AND LITTER NEXT TO OUTLET STRUCTURES SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.
4. VISIBLE SIGNS OF EROSION IN THE POND AND RIP-RAP OUTLETS SHALL BE REPAIRED AS SOON AS IT IS NOTICED.

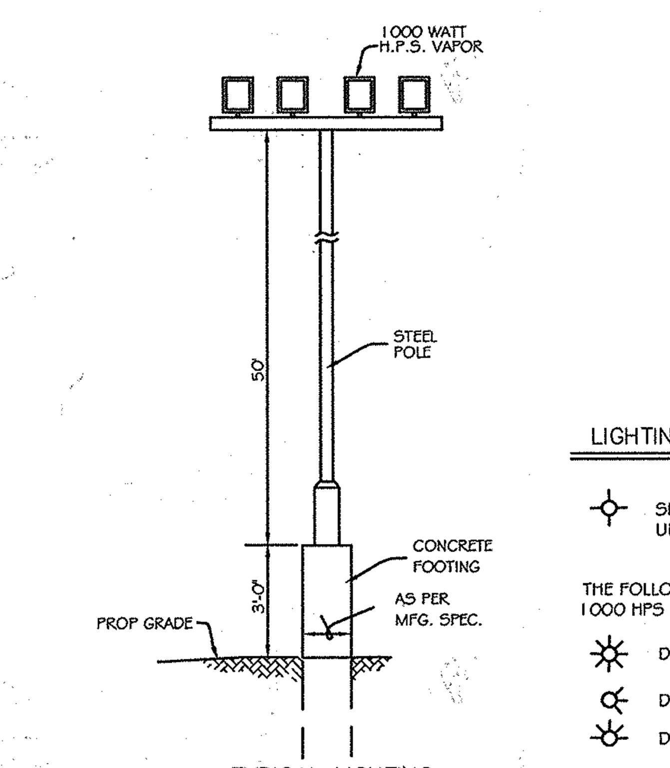
NON-ROUTINE MAINTENANCE:
1. STRUCTURAL COMPONENTS OF THE POND SUCH AS THE DAM, THE RISER AND PIPES SHALL BE REPAIRED UPON DETECTION OF ANY DAMAGE. THE COMPONENTS SHOULD BE INSPECTED DURING THE ROUTINE MAINTENANCE OPERATIONS.
2. SEDIMENT SHOULD BE REMOVED WHEN ITS ACCUMULATION SIGNIFICANTLY REDUCES THE DESIGN STORAGE, INTERFERES WITH THE FUNCTION OF THE RISER, UNDER DRAINS, WHEN DEEMED NECESSARY BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

GENERAL STORM DRAIN NOTES

1. ALL STORM DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE GENERAL CONDITIONS AND STANDARD SPECIFICATIONS OF HOWARD COUNTY, DEPARTMENT OF PUBLIC WORKS AND MARYLAND STATE HIGHWAY ADMINISTRATION (MSHA), UNLESS OTHERWISE NOTED.
2. TYPES OF STRUCTURES REFER TO THE LATEST STANDARD DETAILS OF MSHA AND MDE (SOIL EROSION AND SEDIMENT CONTROL), UNLESS OTHERWISE NOTED.
3. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF TRENCHING. IF THE CLEARANCES ARE LESS THAN SPECIFIED ON THIS PLAN OR TWELVE INCHES (12") WHICHEVER IS LESS, CONTACT THE ENGINEER AND THE OWNER OF THE OTHER INVOLVED UTILITY, BEFORE PROCEEDING WITH THE CONSTRUCTION.
4. ALL STORM DRAINS SHALL HAVE A MINIMUM OF ONE (1) FOOT OF COVER.
5. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

1. THE CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION DIVISION 24 HOURS IN ADVANCE OF COMMENCEMENT OF WORK AT (410) 313-1880.
2. PLEASE BE ADVISED THAT ANY PROJECT WHICH CREATES A DISTURBANCE OF FIVE (5) ACRES OR MORE WILL REQUIRE A "NOTICE OF INTENT TO COMPLY WITH GENERAL PERMIT FOR CONSTRUCTION ACTIVITY" (NOI). THE NOI IS A REQUIREMENT FROM THE EPA FOR CONSTRUCTION ACTIVITY FOR STORMWATER DISCHARGES AND IS REGULATED UNDER THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, SEDIMENT AND STORMWATER ADMINISTRATION (MDE/SSA). THE NOI IS TO BE COMPLETELY FILLED OUT AND SUBMITTED WITH THE APPROPRIATE FEES DIRECTLY TO THE MARYLAND DEPARTMENT OF THE ENVIRONMENT. THIS REGULATION BECOMES EFFECTIVE APRIL 15, 1994. FOR MORE INFORMATION CONTACT:

Maryland Department of the Environment
Sediment and Stormwater Administration
2500 Broening Highway
Baltimore, MD 21224



TYPICAL LIGHTING FIXTURE
NO SCALE

VICINITY MAP
SCALE: 1"=600'

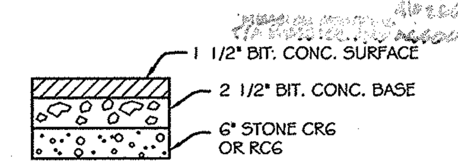
FOR REDLINE REVISION #4
MESSICK & ASSOCIATES
CONSULTING ENGINEERS
2120 RENARD COURT
ANNAPOLIS, MARYLAND 21401
410 266 3212
MESSICK GROUP T/A MESSICK AND ASSOC.

LIGHTING FIXTURE LEGEND

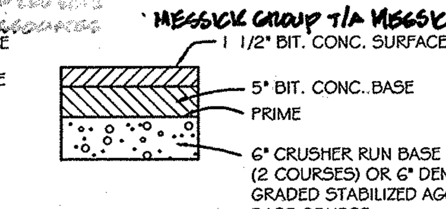
- SINGLE 450 HPS WALL PAK UNLESS OTHERWISE STATED

THE FOLLOWING LIGHTS ON 50' POLES TO BE 1000 HPS 6x2 NEMA, GE, OR EQUIVALENT

- DENOTES 8 LAMP CONFIG.
- DENOTES 3 LAMP CONFIG.
- DENOTES 4 LAMP CONFIG.



AUTO PAVING SECTION
NO SCALE



TRUCK/FIRE LANE SECTION
NO SCALE

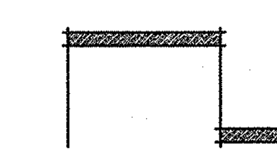
GENERAL NOTES

1. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST (5) FIVE WORKING DAYS PRIOR TO THE START OF WORK.
2. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
3. ALL EXTERIOR LIGHTING SHALL COMPLY WITH SECTION 134 OF THE ZONING REGULATIONS.
4. BOUNDARY SURVEY PERFORMED BY: PURDUM AND JESCHKE, LLC ON OR ABOUT MAY 14, 1999
5. EXISTING TOPOGRAPHY SHOWN HEREONWAS PREPARED BY POTOMAC AERIAL SURVEYS INC. AND BASED UPON AN AERIAL PHOTOGRAPH DATED APRIL 6, 1999.
6. HORIZONTAL AND VERTICAL CONTROL DATUM IS BASED ON HOWARD COUNTY GEODETIC CONTROL STATIONS:
   HOWARD COUNTY MONUMENT No. 43B2 N 551,654.993 E 1,378,176.951 Elev. 209.585'
   HOWARD COUNTY MONUMENT No. 43B6 N 550,601.597 E 1,376,866.071 Elev. 210.543'
7. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
8. THIS PLAN IS FOR BUILDING SITING AND LOT GRADING ONLY. IMPROVEMENTS SHOWN WITHIN THE RIGHTS-OF-WAY OF THIS S.D.P. ARE NOT USED FOR CONSTRUCTION. FOR CONSTRUCTION SEE APPROVED ROAD CONSTRUCTION PLANS AND / OR APPROVED WATER AND SEWER PLANS CONTRACT NO.
9. CONTRACTOR WILL CHECK SEWER HOUSE CONNECTION ELEVATION AT EASEMENT LINE PRIOR TO CONSTRUCTION.
10. SITE ANALYSIS DATA:
   A. TOTAL PROJECT AREA: 123.253 AC.±
   B. AREA OF PLAN SUBMISSION: 123.253 AC.±
   C. LIMIT OF DISTURBED AREA: 76.12 AC.± → REDLINE REVISION #3 LOD=0.23 AC LOD = 10...
   D. PRESENT ZONING: M-2
   E. PROPOSED USE FOR SITE AND STRUCTURES: VEHICLE AUCTION FACILITY AND STORAGE LOTS
   F. TOTAL FLOOR SPACE FOR VEHICLE SALES 46,200 SQ. FT.±
   G. MAXIMUM NUMBER OF EMPLOYESS ON SITE PER USE: 100
   H. NUMBER OF PARKING SPACES REQUIRED: 1,246
      VEHICLE SALES: 93
      OUTDOOR STORAGE: 1,153
   I. NUMBER OF PARKING SPACES PROVIDED:
      A. HANDICAPPED = 8
      B. OFFICE\ WAREHOUSE LOT = 1,238
   5 J. BUILDING COVERAGE OF SITE: ~~1.06~~ 1.16 AC.± AND ~~.0008%~~ 0.9% OF GROSS AREA

   STATE OF MARYLAND ANDREW A. PORTER No. 15838 REGISTERED PROFESSIONAL ENGINEER — for REV #5 only 5/14/13 and Rev #6 only 11/7/14
11. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISION OF 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 $ 8400.00. THIS AMOUNT IS BASED ON THE NUMBER OF SHADE TREES REQUIRED TIMES $300.00 PER TREE.
12. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
13. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
14. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
15. TOTAL AREA OF FLOODPLAIN: 41.33 AC.±.
   FLOODPLAIN ON SITE IS IN ZONE "A3" BASED ON FEMA MAP No. PANEL# 240044 0040 B.
   FLOODPLAIN ON PROJECT PART OF HOWARD COUNTY FLOODPLAIN STUDY D-4-1012
16. WETLANDS ON THIS SITE WERE DELINEATED BY WILDMAN ENVIRONMENTAL SERVICES
17. ALL EXTERIOR LIGHTING SHALL COMPLY WITH SECTION 134 OF THE ZONING REGULATIONS
18. THE FOREST CONSERVATION ORDINANCE HAS BEEN COMPLIED WITH BY PROVIDING 8.39 ACRES OF ON-SITE RETENTION AND 28.58 ACRES OF OFF-SITE REFORESTATION, 5.04 ACRES ON BRANTWOOD, SECTION ONE, PRESERVATION PARCEL "B" AND 23.54 ACRES ON THE ROMITI PROPERTY. SEE ATTACHED SHEETS 31 THRU 33.
   ON-SITE - PLATS 14488 TO 14493 - RECORDED 10/26/2000
   BRANTWOOD - PLAT 14494 - RECORDED 10/26/2000
   ROMITI PROPERTY - PLATS 14486 & 14487 - RECORDED 10/26/2000
19. WP-02-56, APPROVED 4/2/02, WAIVES SECTION 16.116(a)(2), SUBJECT TO THE FOLLOWING CONDITIONS:
   1. THE WAIVER PETITION APPROVAL PERTAINS ONLY TO THE LIMITS OF DISTURBANCE TO THE STREAM AND BUFFER AREA IDENTIFIED ON THE REVISED WAIVER PETITION PLAN EXHIBIT SUBMITTED ON 3/21/02 WHICH IS APPROXIMATELY 1.6 ACRES.
   2. COMPLIANCE WITH THE ENCLOSED COMMENTS FROM THE DEVELOPMENT ENGINEERING DIVISION DATED JANUARY 31, 2002. (LIMITATION TO 10' OF COVER OVER EXISTING WATER MAIN)
   3. ALL GRADING, CLEARING AND FILLING DISTURBANCES WITHIN THE STREAM AND REQUIRED BUFFER MUST BE THE MINIMUM NECESSARY TO COMPLETE THE PROPOSED WORK AND IS SUBJECT TO OBTAINING ALL NECESSARY WATER QUALITY CERTIFICATES AND PERMITS FROM THE MARYLAND DEPARTMENT OF THE ENVIRONMENT AND NATURAL RESOURCES AND/OR THE U.S. ARMY CORPS OF ENGINEERS, PRIOR TO COMMENCEMENT OF ANY GRADING AND FILLING DISTURBANCES. REFERENCE THE APPROVED PERMITS, CERTIFICATES OR TRACKING NUMBERS ON ALL FUTURE PLAN AND PERMIT SUBMITTALS INCLUDING THE RED-LINE REVISION TO SDP-00-63.
20. INACCORDANCE WITH WAIVER PETITION WP-02-56, APPROVED 4/02/02, THE FOLLOWING PERMITS HAVE BEEN OBTAINED:
   MDE NPDES PERMIT NO. 00H00005
   WETLAND PERMIT NO. 99-NT-0526/200060115
21. 7 ROUTINE PARKING LOT MAINTENANCE MAY BE PERFORMED WITHIN THE PROPERTY, INCLUDING PAVEMENT REPAIRS AND STRIPING.

WETLAND NOTE

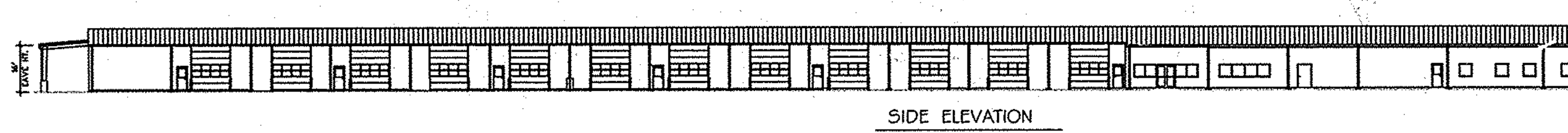
It is the applicant's responsibility to obtain any state permits, if required, for any construction activity covered by this plan which impacts a State regulated wetland. Any changes to plans for development whether provided by the State or initiated by the applicant to meet State requirements, must be approved by THE DEPARTMENT OF PLANNING AND ZONING.



STATE OF MARYLAND ROBERT T. JETER No. 31647 PROFESSIONAL ENGINEER 1-16-07
FOR 12/29/06 REVISION

STATE OF MARYLAND MICHAEL J. KAY No. 17788 REGISTERED PROFESSIONAL ENGINEER

FRONT ELEVATION
N.T.S.



SIDE ELEVATION
N.T.S.

DEVELOPER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan, 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 inspection by the Howard Soil Conservation District."

G. DAMON THAYER — 8/04/03 Date

ENGINEER'S CERTIFICATE

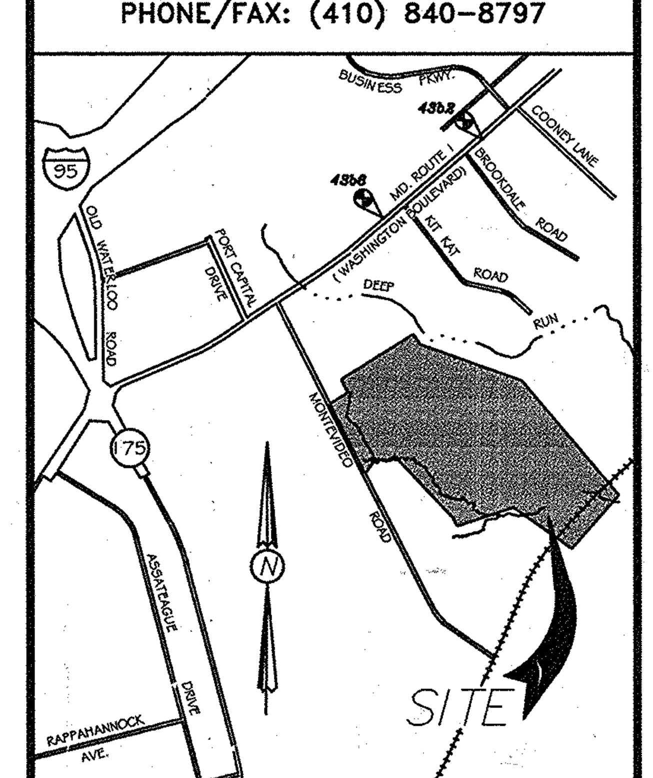
"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer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

MICHAEL J. KAY — 8/4/03 Date

ADDRESS CHART	
LOT / PARCEL #	STREET ADRESS
P. 371	7301 MONTEVIDEO DRIVE

PROJECT NAME			SECTION / AREA		LOT / PARCEL
BALTIMORE WASHINGTON AUTO EXCHANGE					371
DEED NO.	BLOCK NO.	ZONE	TAX ZONE	ELEC. DIST.	CENSUS TR.
4798/685	10	M-2	43	FIRST	6012
WATER CODE			SEWER CODE		
B-01			2221000		

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP
SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development HB — 9/5/03 Date

Chief, Development Engineering Division MAJ — 9/3/03 Date

Director, Department of Planning and Zoning — 9/5/03 Date

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A.-Natural Resources Conservation Service — Date

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements of HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD — Date

5/14/2013	5 INCREASED BLDG COVERAGE AREA & %
12-2009	REDLINE REV #4 FUEL TANK
12-29-06	RED-LINE REVISION NO. 3 - ROAD WIDENING
07/29/03	RED-LINE REVISION NO. 2: REVISED
	SHEETS 1,4,5,6,7,14A,14B,17,18 & 19
03/24/03	RED-LINE REVISION NO. 1
DATE	REVISIONS
11/7/2014	ADDED AS-BUILT POND 1 & POND 4 INFO 6

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: APRIL 17, 2000

9/28/15 — 7 REDLINE REVISION TO ADD SOLAR CANOPY

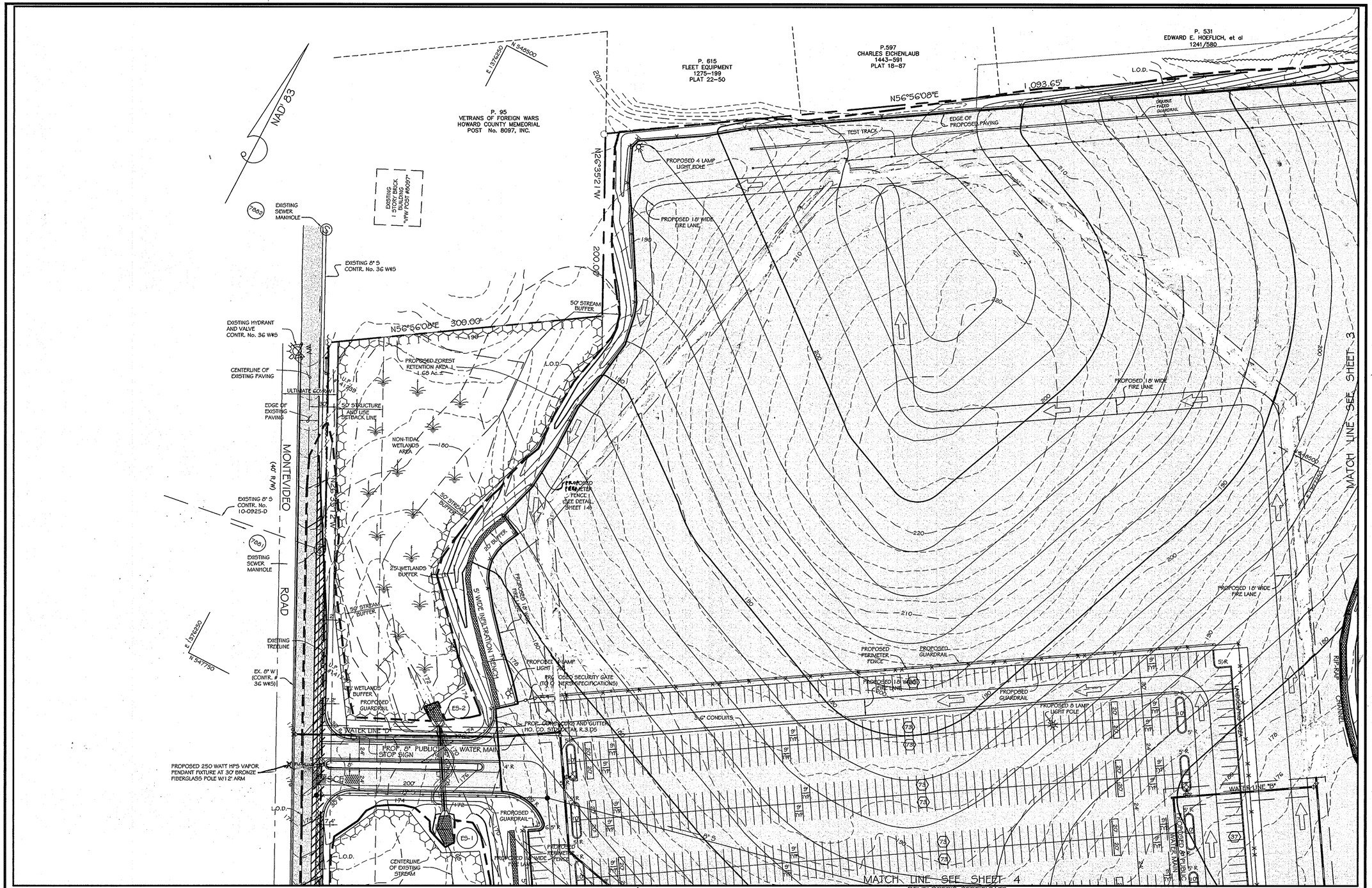
REVISED
COVER SHEET

SDP-00-63

OWNER / DEVELOPER
AA PROPERTY HOLDINGS
6205 PEACHTREE DUNWOODY RD
ATLANTA, GA 30328
L. 4798 F. 685

SHEET 1 OF 33

SDP-00-63



50' 0' 25' 50

1"= 50'

STATE OF MARYLAND
ANDREW A. PORTER
No. 19681
REGISTERED
PROFESSIONAL ENGINEER

Andrew A. Porter 9/11/13
for Rev #1 only

DEVELOPER'S CERTIFICATE

"We certify that all development and construction will be done according to this plan, 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 inspection by the Howard Soil Conservation District."

G. DAMON THAYER — Date 7/8/00

ENGINEER'S CERTIFICATE

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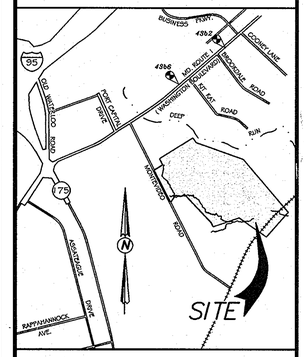
MICHAEL J. KAY — Date 7/8/00

ADDRESS CHART	
LOT / PARCEL #	STREET ADRESS
P. 371	7301 MONTEVIDEO ROAD

PROJECT NAME			SECTION / AREA	LOT / PARCEL
BALTIMORE WASHINGTON AUTO EXCHANGE				371
DEED NO. DRL / F	BLOCK NO.	ZONE	TAX ZONE	ELEC. DIST.	CENSUS TR.
4798/685	10	M-2	43	FIRST	6012
WATER CODE			SEWER CODE	
W-01			2221000	

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP
SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 11/2/00

Chief, Developmental Engineering Division — Date 10/11/00

Director, Department of Planning and Zoning — Date 11/2/00

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A.-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.

Howard SCD — Date

DATE	REVISIONS
9/11/13	1 REMOVE PORTION OF WATERLINE "A"

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: APRIL 17, 2000

SITE DEVELOPMENT PLAN SHEET

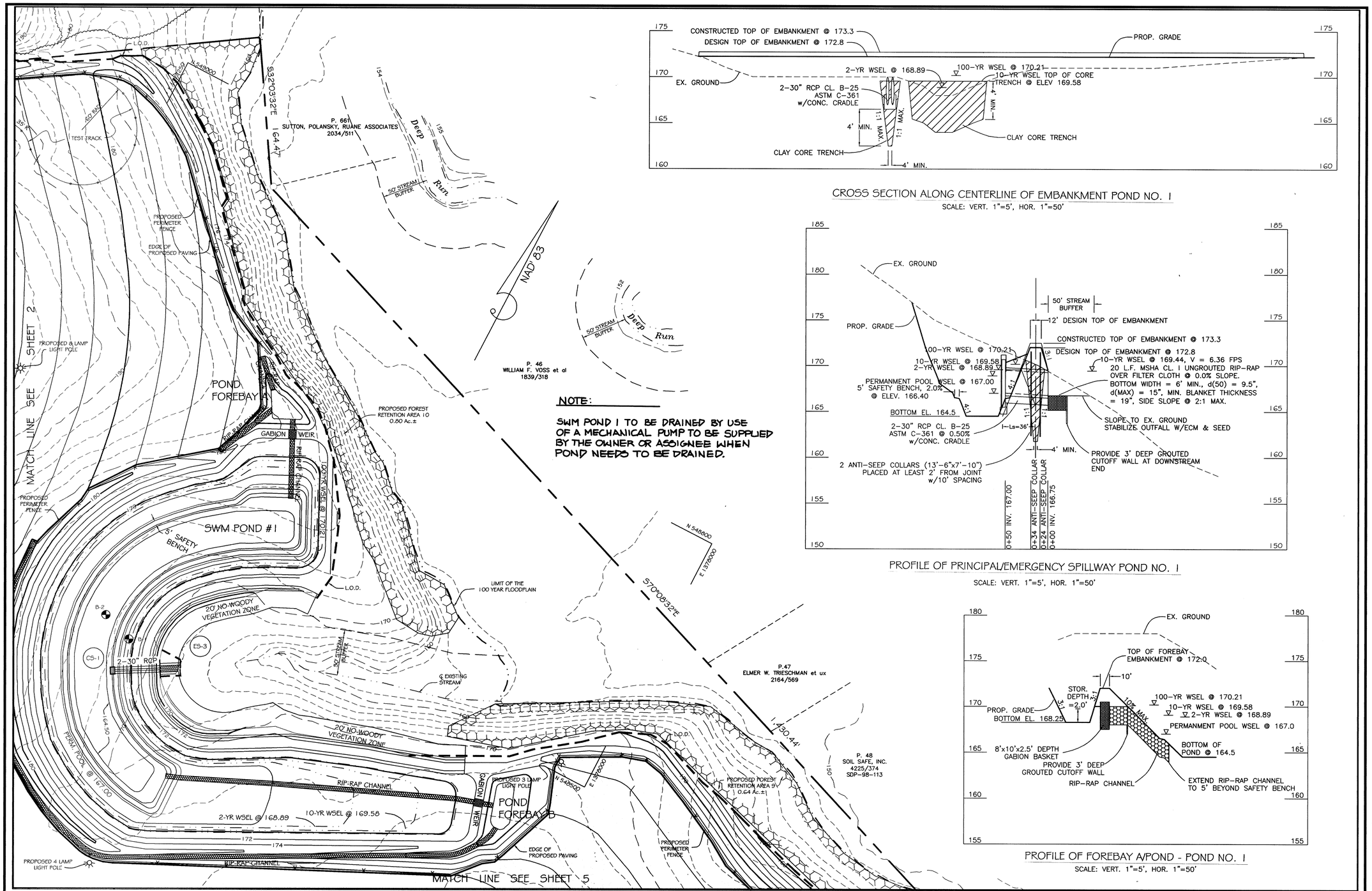
SDP-00-63

OWNER / DEVELOPER

AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4798 F. 685

SHEET 2 OF 33

SDP-00-63



CROSS SECTION ALONG CENTERLINE OF EMBANKMENT POND NO. 1

SCALE: VERT. 1"=5', HOR. 1"=50'

PROFILE OF PRINCIPAL/EMERGENCY SPILLWAY POND NO. 1

SCALE: VERT. 1"=5', HOR. 1"=50'

PROFILE OF FOREBAY A/POND - POND NO. 1

SCALE: VERT. 1"=5', HOR. 1"=50'

50' 0' 25' 50

1"= 50'

DEVELOPER'S CERTIFICATE

"We certify that all development and construction will be done according to this plan, 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 inspection by the Howard Soil Conservation District."

G. DAMON THAYER — 7/8/00 Date

ENGINEER'S CERTIFICATE

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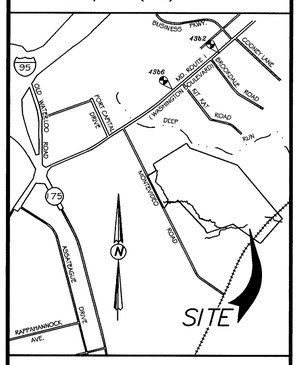
MICHAEL J. KAY — 7/8/00 Date

ADDRESS CHART	
LOT / PARCEL #	STREET ADRESS
P.371	7301 MONTEVIDEO ROAD

PROJECT NAME				SECTION / AREA	LOT / PARCEL
BALTIMORE WASHINGTON AUTO EXCHANGE					371
DEED NO. DRL / F	BLOCK NO.	ZONE	TAX ZONE	ELEC. DIST.	CENSUS TR.
4798/685	10	M-2	43	FIRST	6012
WATER CODE			SEWER CODE		
W-01			2221000		

THAYER & ASSOCIATES INC.

2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP

SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 11/1/00 Date

Chief, Development Engineering Division — 10/11/00 Date

Director, Department of Planning and Zoning — 11/2/00 Date

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A.-Natural Resources Conservation Service — 10/4/00 Date

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD — 10/4/00 Date

DATE	REVISIONS

BALTIMORE WASHINGTON AUTO EXCHANGE

VEHICLE AUCTION FACILITY AND STORAGE LOTS

TAX MAP No: 43 PARCEL: 371

FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: APRIL 17, 2000

SITE DEVELOPMENT PLAN SHEET

SDP-00-63

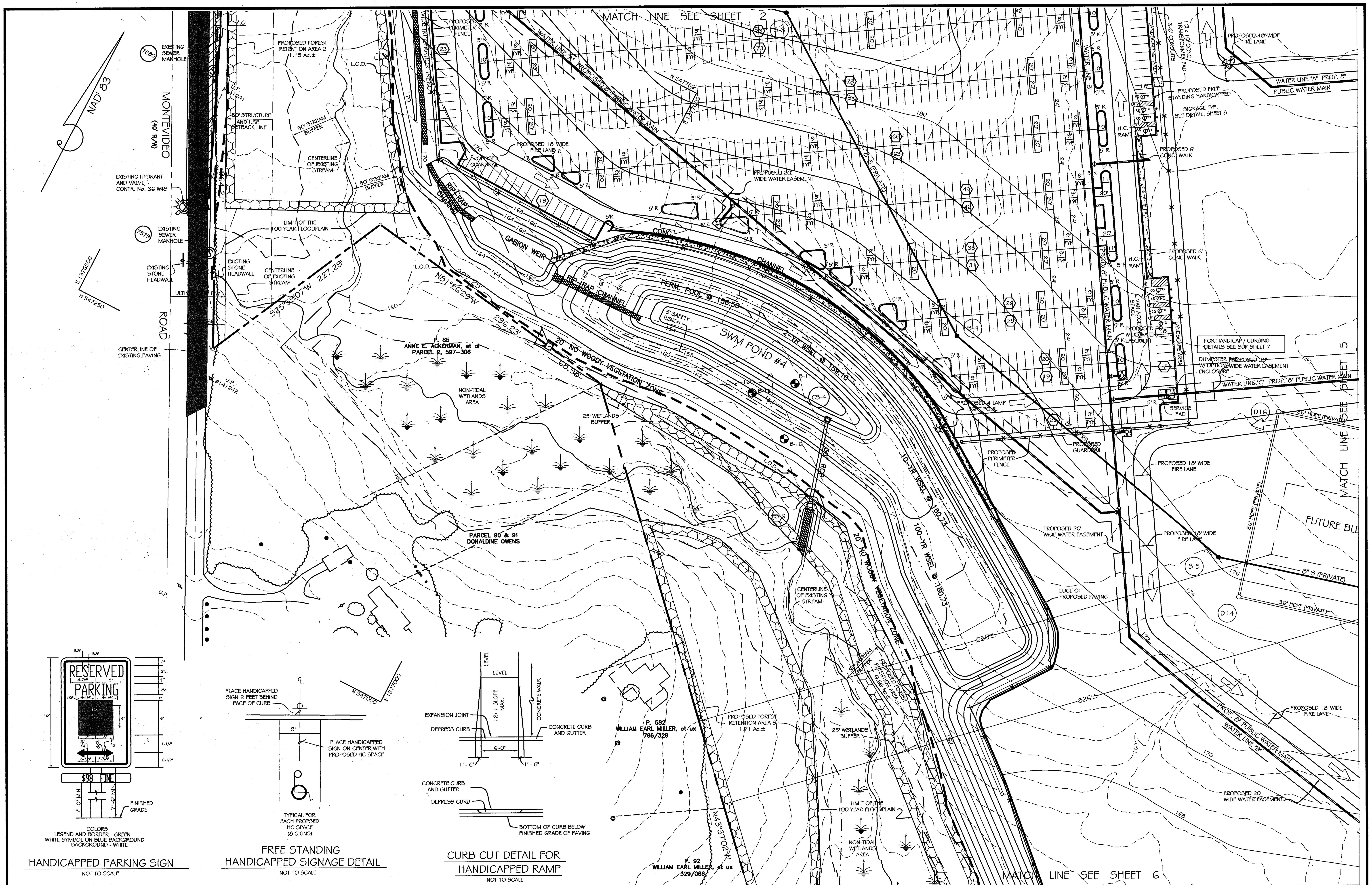
OWNER / DEVELOPER

AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4798 F. 685

SHEET 3 OF 33

SDP-00-63

[THAYER AUTO EXCHANGE] - [BWAE SDP BASE SHEET]



STATE OF MARYLAND — MICHAEL J. KAY — No. 17768 — REGISTERED PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE

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G. DAMON THAYER — 8/04/03 Date

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MICHAEL J. KAY — 8/04/03 Date

ADDRESS CHART	
LOT / PARCEL #	STREET ADRESS
P. 371	7301 MONTEVIDEO ROAD

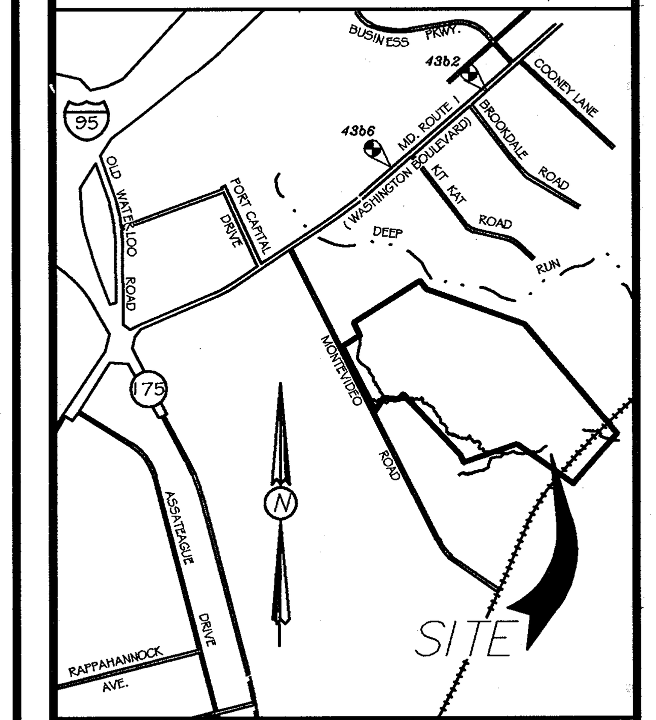
PROJECT NAME	SECTION / AREA	LOT / PARCEL
BALTIMORE WASHINGTON AUTO EXCHANGE		371

PLAT NO. DRL / F	BLOCK NO.	ZONE	TAX ZONE	ELEC. DIST.	CENSUS TR.
921 / 739	10	M-2	43	FIRST	6012

WATER CODE	SEWER CODE
*-**	*******

THAYER & ASSOCIATES INC.

2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP
SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 9/5/03 Date

Chief, Development Engineering Division — 9/3/03 Date

Director, Department of Planning and Zoning — 9-5-03 Date

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A.-Natural Resources Conservation Service — 8/27/03 Date

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD — 8/27/03 Date

DATE	REVISIONS
07/29/03	RED-LINE REVISION NO. 2
03/24/03	RED-LINE REVISION NO. 1

BALTIMORE WASHINGTON AUTO EXCHANGE

VEHICLE AUCTION FACILITY AND STORAGE LOTS

TAX MAP No: 43 PARCEL: 371

FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: APRIL 17, 2000

REVISED

SITE DEVELOPMENT PLAN SHEET

SDP-00-63

OWNER / DEVELOPER

AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211.3109
L. 4798 F. 685

SHEET 4 OF 33

MATCH LINE SEE SHEET 3

PROPOSED 18' WIDE FIRE LANE

WATER LINE "A"

PROP. 8" PUBLIC WATER MAIN

PROPOSED 20' WIDE WATER EASEMENT

L.O.D.

P. 48
SOIL SAFE, INC.
4225/374

NAD 83

PROPOSED PERIMETER FENCE

PROPOSED 8 LAMP LIGHT POLE

N 546250

E 1378600

EDGE OF PROPOSED PAVING

EDGE OF PAVING TO BE BUILT UNDER SDP-99-55

FUTURE PROPOSED ACCESS TO BROOKDALE FACILITY

NEW STRIPING

EXISTING 18' WIDE FIRE LANE

RELOCATED FENCE

SILT FENCE

NEW EDGE OF PAVEMENT

CONC. CHANNEL

10-YR WSEL @ 154.39

5' SAFETY BENCH

P. 50
AA PROPERTY HOLDINGS, INC.
4408/424

SWM BUILT UNDER SDP-99-55

PROPOSED 8 LAMP LIGHT POLE

SWM POND #2

CS-2

2-YR WSEL @ 151.00

PERMANENT POOL @ 145.29

100-YR WSEL @ 155.29

RIP-RAP CHANNEL

20' MIN. WOODY VEGETATION ZONE

GABION WEIR

LIMIT OF THE 100 YEAR FLOODPLAIN

EXISTING 20' WATER MAIN RIGHT OF WAY \ L.952 F.353

EX. WATER

EX. 16" W (CONTR. # 654-W)

L.O.D.

RIP-RAP CHANNEL

MATCH LINE SEE SHEET 7

PROPOSED 18' WIDE FIRE LANE

PROP. 8" PUBLIC WATER MAIN

WATER LINE "C"

PROPOSED 20' WIDE WATER EASEMENT

MATCH LINE SEE SHEET 4

+75.00

24" HDPE (PRIVATE)

+75.85

+75.80

6" RCP (TYP)

D18

D20

PROP BLDG
FF/ELEV. = 176.8

8"S (PRIVATE)

36" HDPE (PRIVATE)

8"S (PRIVATE)

S-6

S-7

S-8

N 547360

E 1377200

EXISTING CAR STORAGE

PROPOSED 18' WIDE FIRE LANE

PROPOSED 20' WIDE WATER EASEMENT

PROP. 8" W WATER LINE "B"

PROPOSED 20' WIDE WATER EASEMENT

PROP. 8" PUBLIC WATER MAIN

WATER LINE MAIN

D24

D23

D22

D21

POND FOREBAY

EXISTING CAR STORAGE

SEE SHEET 16 FOR RESTRIPING PLAN

CONTRACTOR SHALL VERIFY LOCATION OF STORM DRAIN PRIOR TO INSTALLING ANNADRAIN

SOLAR CANOPY PIER (TYP.) (SEE DETAIL SHT. 1 OF 33)

PROPOSED PERIMETER FENCE

EDGE OF PROPOSED PAVING

MATCH LINE SEE SHEET 6

50' 0' 25' 50
1"= 50'

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 27020 EXPIRATION JANUARY 3rd, 2016

PAUL G. CAVANAUGH
PROFESSIONAL ENGINEER NO. 27020

10/2/15
REVISION 7 ONLY

FOR REVISION REVISION #4
MESSICK & ASSOCIATES
CONSULTING ENGINEERS
2130 RENARD COURT
ANNAPOLIS, MARYLAND 21401
410 266-3272
MESSICK GROUP T/A MESSICK AND ASSOCIATES

Professional Certification. I hereby certify that this document was prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License No. 21591 Expiration Date: 5/14/2011

12/17/09
For Rev. #4 only

Andrew A. Parker
for REV #5 only 5/19/15 (BLDG ADDITION)

FOR 12/29/06 REVISION

DEVELOPER'S CERTIFICATE

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G. DAMON THAYER — 8/04/03 Date

ENGINEER'S CERTIFICATE

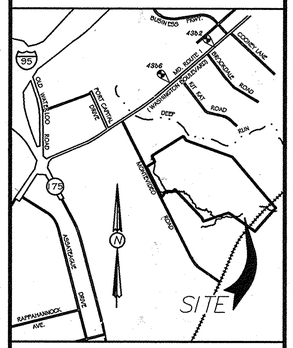
"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer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

MICHAEL J. KAY — 8/04/03 Date

ADDRESS CHART	
LOT / PARCEL #	STREET ADRESS
P. 371	7301 MONTEVIDEO ROAD

PROJECT NAME			SECTION / AREA		LOT / PARCEL
BALTIMORE WASHINGTON AUTO EXCHANGE					371
PLAT NO. DRL/F	BLOCK NO.	ZONE	TAX ZONE	ELEC. DIST.	CENSUS TR.
921/739	10	M-2	43	FIRST	6012
WATER CODE			SEWER CODE		
"-"			"-"		

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP
SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 9/5/03

Chief, Development Engineering Division — Date 9/5/03

Director, Department of Planning and Zoning — Date 9/5/03

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control

U.S.D.A.-Natural Resources Conservation Service — Date 8/27/03

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD — Date 8/27/03

DATE	REVISIONS
9/20/15	A REVISE REASON TO ADD SOLAR CANOPY
5/19/15	5 BUILDING ADDITION
12/09	REVISE REV #4 FUEL TABLE
12-29-06	RED-LINE REVISION NO. 3 - ROAD WIDENING
07/29/03	RED-LINE REVISION NO. 2
03/24/03	RED-LINE REVISION NO. 1

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: APRIL 17, 2000

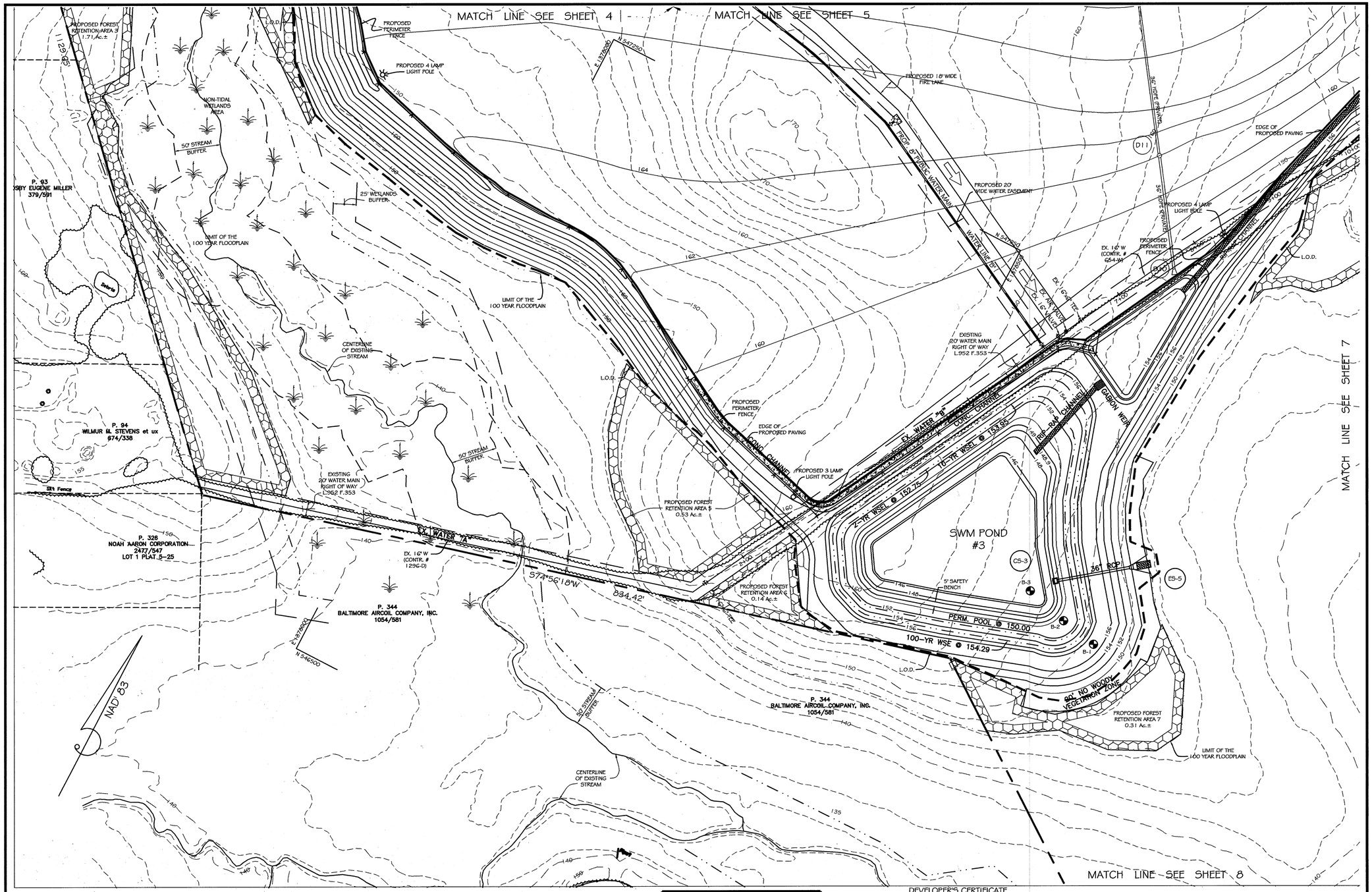
REVISED
SITE DEVELOPMENT PLAN SHEET

SDP-00-63

OWNER / DEVELOPER
AA PROPERTY HOLDINGS
6605 PEACHTREE DUNWOODY ROAD
ATLANTA, GA 30328
L. 4798 F. 685

SHEET 5 OF 33

[THAYER AUTO EXCHANGE] - [BWAE SDP BASE SHEET]



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MICHAEL J. KAY — 8/04/03 Date

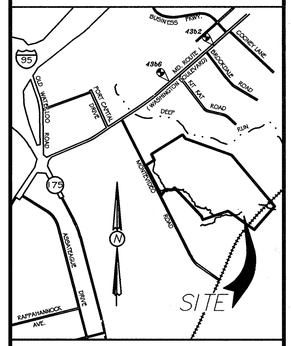
STATE OF MARYLAND — MICHAEL JOSEPH KAY — No. 17705 — REGISTERED PROFESSIONAL ENGINEER

ADDRESS CHART	
LOT / PARCEL #	STREET ADRESS
P. 371	7301 MONTEVIDEO ROAD

PROJECT NAME			SECTION / AREA		LOT / PARCEL
BALTIMORE WASHINGTON AUTO EXCHANGE					371
PLAT NO. DRL / F	BLOCK NO.	ZONE	TAX ZONE	ELEC. DIST.	CENSUS TR.
921 / 739	10	M-2	43	FIRST	6012
WATER CODE			SEWER CODE		
*.**			*******		

THAYER & ASSOCIATES INC.

2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP
SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 7/15/03

Chief, Development Engineering Division — Date 7/30/03

Director, Department of Planning and Zoning — Date 8/7/03

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U.S.D.A.-Natural Resources Conservation Service — Date 8/27/03

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Howard SCD — Date 8/27/03

07/29/03	RED-LINE REVISION NO. 2
03/24/03	RED-LINE REVISION NO. 1
DATE	REVISIONS

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS

TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: APRIL 17, 2000

REVISED
SITE DEVELOPMENT PLAN SHEET

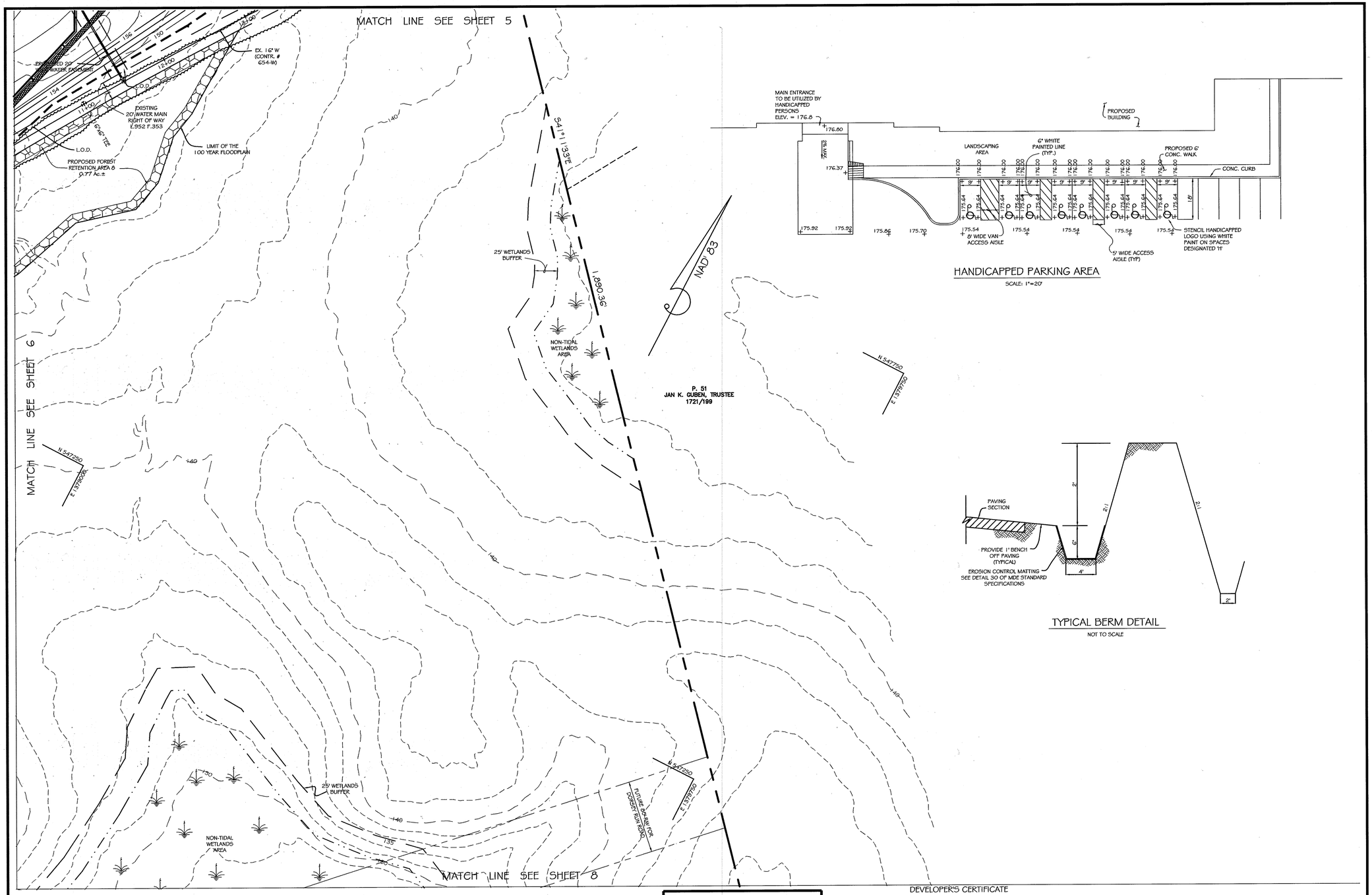
SDP-00-63

OWNER / DEVELOPER

AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4798 F. 685

SHEET 6 OF 33

[THAYER AUTO EXCHANGE] - [BWAE SDP BASE SHEET]



HANDICAPPED PARKING AREA

SCALE: 1"=20'

TYPICAL BERM DETAIL

NOT TO SCALE

DEVELOPER'S CERTIFICATE

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G. DAMON THAYER — 8/08/03 Date

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MICHAEL J. KAY — 8/08/03 Date

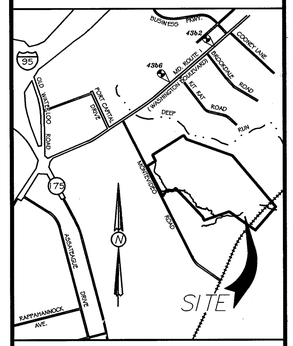
STATE OF MARYLAND — MICHAEL JOSEPH KAY — NO. 17781 — REGISTERED PROFESSIONAL ENGINEER

ADDRESS CHART	
LOT / PARCEL #	STREET ADRESS
P. 371	7301 MONTEVIDEO ROAD

PROJECT NAME			SECTION / AREA	LOT / PARCEL
BALTIMORE WASHINGTON AUTO EXCHANGE				371
PLAT NO. DRL/F	BLOCK NO.	ZONE	TAX ZONE	ELEC. DIST.	CENSUS TR.
921/739	10	M-2	43	FIRST	6012
WATER CODE			SEWER CODE	
*.**			*******	

THAYER & ASSOCIATES INC.

2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP

SCALE: 1"=2000'

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Chief, Division of Land Development — Date 9/5/03

Chief, Development Engineering Division — Date 9/3/03

Director, Department of Planning and Zoning — Date 9/7/03

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Howard SCD — Date

DATE	REVISIONS
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03/24/03	RED-LINE REVISION NO. 1

BALTIMORE WASHINGTON AUTO EXCHANGE

VEHICLE AUCTION FACILITY AND STORAGE LOTS

TAX MAP No: 43 PARCEL: 371

FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: APRIL 17, 2000

REVISED

SITE DEVELOPMENT PLAN SHEET

SDP-00-63

OWNER / DEVELOPER

AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4796 F. 685

SHEET 7 OF 33

[THAYER AUTO EXCHANGE] - [BWAE SDP BASE SHEET]

SDP-00-63

MATCH LINE SEE SHEET 6

MATCH LINE SEE SHEET 7

N54°16'52"W

Approx. Alignment

P. 572
BALTIMORE AIRCOIL COMPANY, INC.

P. 346
BALTIMORE AIRCOIL COMPANY, INC.
863/322

E 1379000
N 546250

NON-TIDAL WETLANDS AREA

FUTURE 80 R/W FOR DORSEY RUN ROAD

EXISTING 20' WATER MAIN RIGHT OF WAY L.952 F.353

EXISTING RIGHT OF WAY FOR INGRESS AND EGRESS TO THE SEWER RIGHT-OF WAY L.952 F.353

25' WETLANDS BUFFER

EXISTING RAILROAD TRACKS

Now or Formerly Baltimore & Ohio Railroad Right of Way

Howard County
Anne Arundel County

S41°11'33"E
50.62'

S26°57'28"W
914.20'

N54°16'52"W
350.00'

LOT No. 60
"LENNOX PARK"
PLAT BOOK 5-14

E 1380000
N 546250

NAD 83

50' 0' 25' 50
1"= 50'

DEVELOPER'S CERTIFICATE

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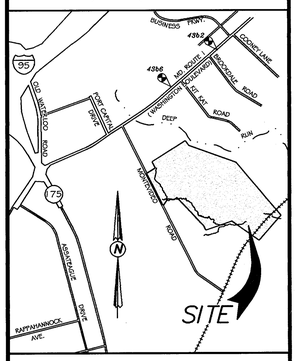
MICHAEL J. KAY — 7/8/00 Date

ADDRESS CHART	
LOT / PARCEL #	STREET ADRESS
P. 371	7301 MONTPELIER ROAD

PROJECT NAME			SECTION / AREA		LOT / PARCEL
BALTIMORE WASHINGTON AUTO EXCHANGE					371
DEED NO. DRL / F	BLOCK NO.	ZONE	TAX ZONE	ELEC. DIST.	CENSUS TR.
4798/685	10	M-2	43	FIRST	6012
WATER CODE			SEWER CODE		
B-01			2221000		

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP
SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 11/2/00 Date

Chief, Development Engineering Division — 10/11/00 Date

Director, Department of Planning and Zoning — 11/2/00 Date

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A. 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.

Howard SCD — Date

DATE	REVISIONS

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: APRIL 17, 2000

SITE DEVELOPMENT PLAN SHEET

SDP-00-63

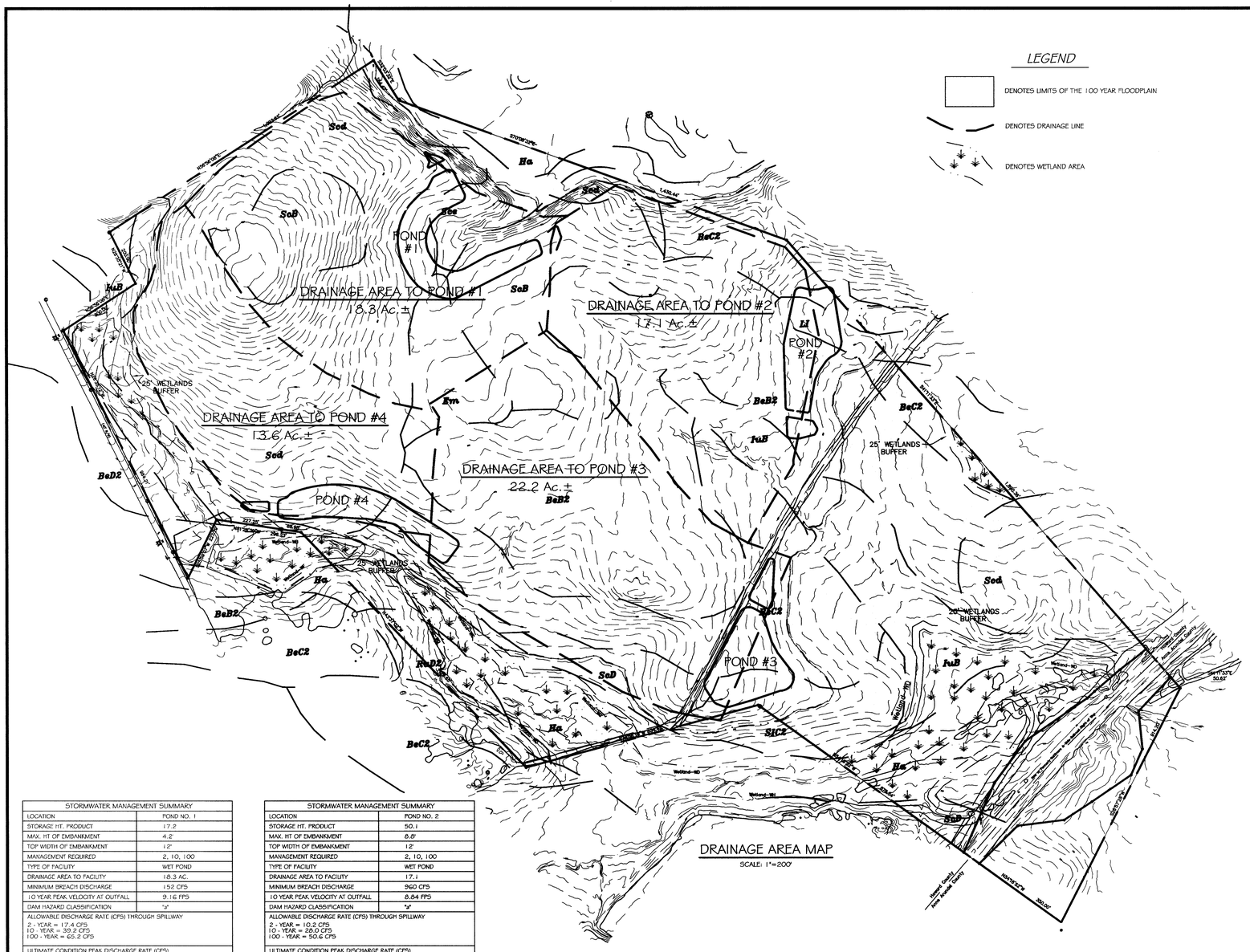
OWNER / DEVELOPER

AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4798 F. 685

SHEET 8 OF 33

SDP-00-63

[THAYER AUTO EXCHANGE] - [BWAE SDP BASE SHEET]



DRAINAGE AREA MAP

SCALE: 1"=200'

SOILS LEGEND

SOIL	NAME	CLASS
** BeB2	Beltsville silt loam, 1 to 5 percent slopes, moderately eroded	C
** BeC2	Beltsville silt loam, 5 to 10 percent slopes, moderately eroded	C
** Fm	Elkton silt loam	D
** Ha	Hatboro silt loam	D
* IuB	Iuka loam, local alluvium, 1 to 5 percent slopes	C
** Li	Leonardtown silt loam	D
ScB	Sandy and slayey land, gently sloping	?
ScD	Sandy and clayey land, moderately sloping	?
ScE	Sandy and clayey land, moderately steep	?
SlC2	Sassafras loam, 5 to 10 percent slopes, moderately eroded	B

NOTES:

* Hydric soils and/or contains hydric inclusions

** May contain hydric inclusions

† Generally only within 100-year floodplain areas

GENERAL NOTES

1. EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR (ASTM D-1557 OR AASHTO T-180)
2. CONSTRUCTED TOP OF EMBANKMENT VARIED AS TO SETTLE LEVEL TO DESIGN ELEVATION.

CLAY CUTOFF AND CORE TRENCH NOTES

APPROXIMATE BOTTOM OF CUTOFF TRENCH EXCAVATED TO MINIMUM OF 4 FEET DEPTH. MATERIALS TO BE USED SHOULD CONSIST OF SOILS CLASSIFIED AS GC, SC, CH OR CL PER ASTM D-2487 AND FREE OF ANY TOPSOIL OR ORGANIC MATERIAL. CORE SHALL EXTEND UP TO THE 10-YEAR WATER SURFACE ELEVATION AS INDICATED.

MINIMUM WITH = 4'
SIDE SLOPES 2:1 ABOVE GROUND
1:1 ABOVE GROUND

COMPACTION: ASTM D-2216 (95% OF STANDARD PROCTOR DENSITY)

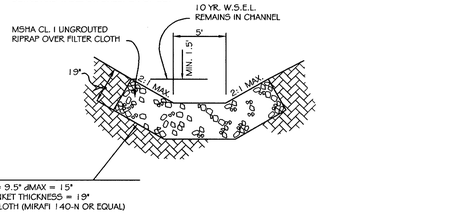
STORMWATER MANAGEMENT SUMMARY	
LOCATION	POND NO. 1
STORAGE HT. PRODUCT	17.2
MAX. HT OF EMBANKMENT	4.2'
TOP WIDTH OF EMBANKMENT	12'
MANAGEMENT REQUIRED	2, 10, 100
TYPE OF FACILITY	WET POND
DRAINAGE AREA TO FACILITY	18.3 AC.
MINIMUM BREACH DISCHARGE	152 CFS
10 YEAR PEAK VELOCITY AT OUTFALL	9.16 FPS
DAM HAZARD CLASSIFICATION	"a"
ALLOWABLE DISCHARGE RATE (CFS) THROUGH SPILLWAY 2 - YEAR = 17.4 CFS 10 - YEAR = 39.2 CFS 100 - YEAR = 65.2 CFS	
ULTIMATE CONDITION PEAK DISCHARGE RATE (CFS) 2 - YEAR = 65.1 CFS 10 - YEAR = 106.4 CFS 100 - YEAR = 151.5 CFS	
DISCHARGE RATE (CFS) THROUGH SPILLWAY WITH SWM	
FREQUENCY — PEAK RATE — WATER SURFACE ELEVATION	
2 - YEAR — 13.6 — 168.89	
10 - YEAR — 38.6 — 169.56	
100 - YEAR — 59.1 — 170.21	

STORMWATER MANAGEMENT SUMMARY	
LOCATION	POND NO. 2
STORAGE HT. PRODUCT	50.1
MAX. HT OF EMBANKMENT	6.8'
TOP WIDTH OF EMBANKMENT	12'
MANAGEMENT REQUIRED	2, 10, 100
TYPE OF FACILITY	WET POND
DRAINAGE AREA TO FACILITY	17.1
MINIMUM BREACH DISCHARGE	960 CFS
10 YEAR PEAK VELOCITY AT OUTFALL	8.84 FPS
DAM HAZARD CLASSIFICATION	"a"
ALLOWABLE DISCHARGE RATE (CFS) THROUGH SPILLWAY 2 - YEAR = 10.2 CFS 10 - YEAR = 28.0 CFS 100 - YEAR = 50.6 CFS	
ULTIMATE CONDITION PEAK DISCHARGE RATE (CFS) 2 - YEAR = 62.2 CFS 10 - YEAR = 102.1 CFS 100 - YEAR = 145.4 CFS	
DISCHARGE RATE (CFS) THROUGH SPILLWAY WITH SWM	
FREQUENCY — PEAK RATE — WATER SURFACE ELEVATION	
2 - YEAR — 9.7 — 153.37	
10 - YEAR — 27.8 — 154.39	
100 - YEAR — 50.6 — 155.29	

STORMWATER MANAGEMENT SUMMARY	
LOCATION	POND NO. 3
STORAGE HT. PRODUCT	75.0
MAX. HT OF EMBANKMENT	7.4'
TOP WIDTH OF EMBANKMENT	12'
MANAGEMENT REQUIRED	2, 10, 100
TYPE OF FACILITY	WET POND
DRAINAGE AREA TO FACILITY	22.2
MINIMUM BREACH DISCHARGE	883 CFS
10 YEAR PEAK VELOCITY AT OUTFALL	9.95 FPS
DAM HAZARD CLASSIFICATION	"a"
ALLOWABLE DISCHARGE RATE (CFS) THROUGH SPILLWAY 2 - YEAR = 14.4 CFS 10 - YEAR = 38.2 CFS 100 - YEAR = 68.4 CFS	
ULTIMATE CONDITION PEAK DISCHARGE RATE (CFS) 2 - YEAR = 69.3 CFS 10 - YEAR = 114.7 CFS 100 - YEAR = 164.3 CFS	
DISCHARGE RATE (CFS) THROUGH SPILLWAY WITH SWM	
FREQUENCY — PEAK RATE — WATER SURFACE ELEVATION	
2 - YEAR — 8.4 — 152.75	
10 - YEAR — 34.3 — 153.95	
100 - YEAR — 66.7 — 154.99	

STORMWATER MANAGEMENT SUMMARY	
LOCATION	POND NO. 4
STORAGE HT. PRODUCT	28.8
MAX. HT OF EMBANKMENT	5'
TOP WIDTH OF EMBANKMENT	12'
MANAGEMENT REQUIRED	2, 10, 100
TYPE OF FACILITY	WET POND
DRAINAGE AREA TO FACILITY	13.6
MINIMUM BREACH DISCHARGE	532 CFS
10 YEAR PEAK VELOCITY AT OUTFALL	11.84 FPS
DAM HAZARD CLASSIFICATION	"a"
ALLOWABLE DISCHARGE RATE (CFS) THROUGH SPILLWAY 2 - YEAR = 12.0 CFS 10 - YEAR = 27.8 CFS 100 - YEAR = 46.6 CFS	
ULTIMATE CONDITION PEAK DISCHARGE RATE (CFS) 2 - YEAR = 46.5 CFS 10 - YEAR = 79.2 CFS 100 - YEAR = 112.8 CFS	
DISCHARGE RATE (CFS) THROUGH SPILLWAY WITH SWM	
FREQUENCY — PEAK RATE — WATER SURFACE ELEVATION	
2 - YEAR — 7.1 — 159.10	
10 - YEAR — 22.1 — 160.00	
100 - YEAR — 43.3 — 160.73	

NOTE: FOR ADDITIONAL CONSTRUCTION SPECIFICATIONS NOT MENTIONED SEE RIP-RAP OUTFLOW PROTECTION DETAIL AND TABLE ON SHEET 24 OF 33.



TYPICAL SECTION RIPRAP OUTFALL CHANNEL

NOT TO SCALE

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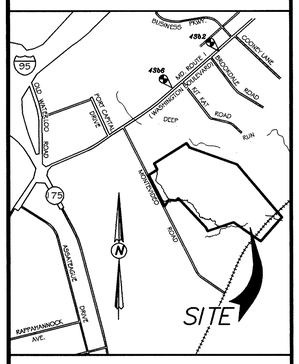
PHONE/FAX: (410) 840-8797



VICINITY MAP

SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

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Howard SCD — Date 10/4/00

DATE	REVISIONS

BALTIMORE WASHINGTON AUTO EXCHANGE

VEHICLE AUCTION FACILITY AND STORAGE LOTS

TAX MAP No: 43 PARCEL: 371

FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SCALE: 1"=200' DATE: JUNE 14, 2000

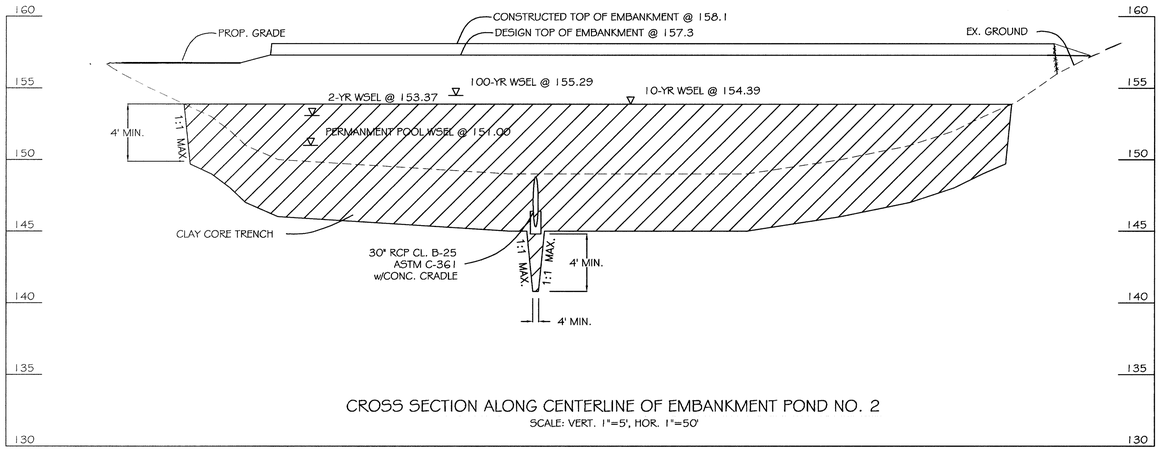
STORMWATER MANAGEMENT DETAILS AND DRAINAGE AREA MAP

SDP-00-63

OWNER / DEVELOPER

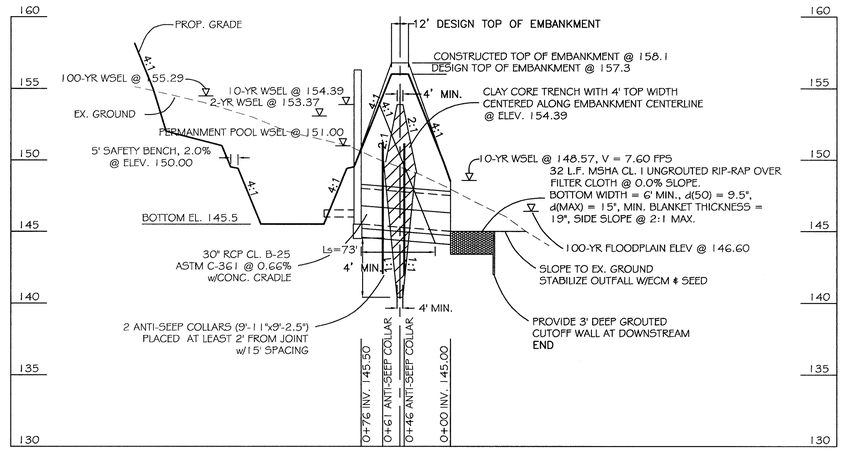
AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4798 F. 685

SHEET 9 OF 33



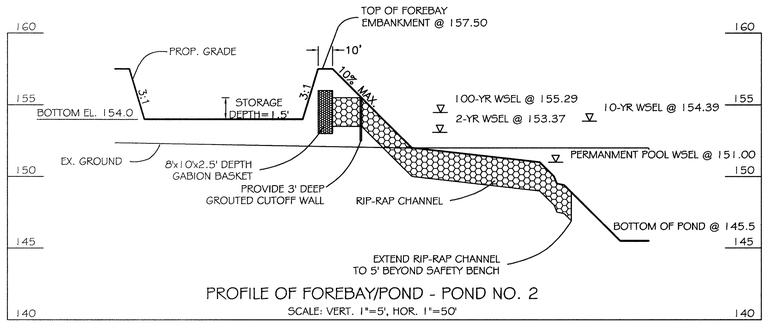
CROSS SECTION ALONG CENTERLINE OF EMBANKMENT POND NO. 2

SCALE: VERT. 1"=5', HOR. 1"=50'



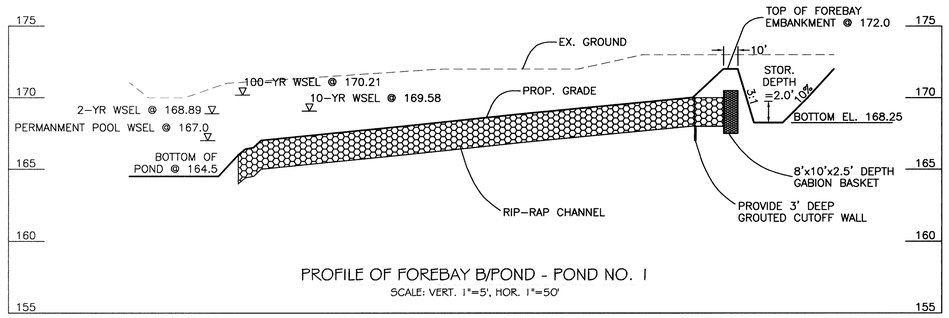
PROFILE OF PRINCIPAL/EMERGENCY SPILLWAY POND NO. 2

SCALE: VERT. 1"=5', HOR. 1"=50'



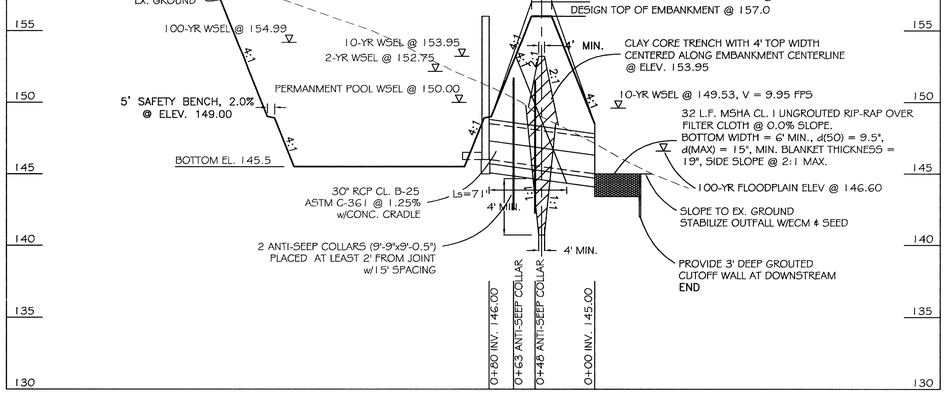
PROFILE OF FOREBAY/POND - POND NO. 2

SCALE: VERT. 1"=5', HOR. 1"=50'



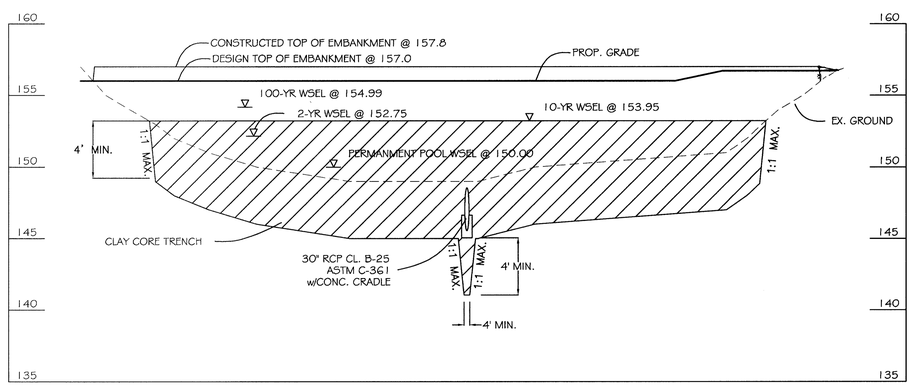
PROFILE OF FOREBAY B/POND - POND NO. 1

SCALE: VERT. 1"=5', HOR. 1"=50'



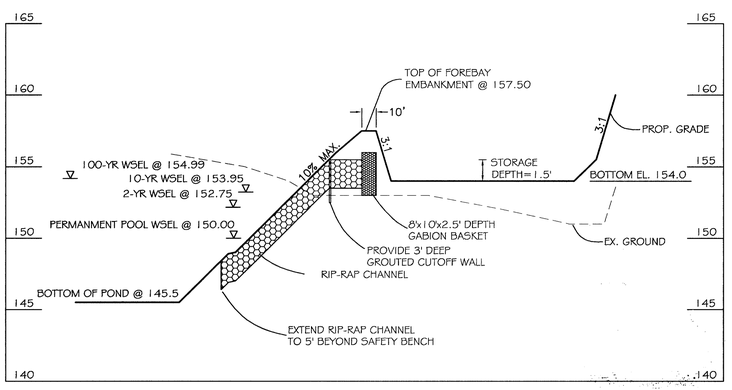
PROFILE OF PRINCIPAL/EMERGENCY SPILLWAY POND NO. 3

SCALE: VERT. 1"=5', HOR. 1"=50'



CROSS SECTION ALONG CENTERLINE OF EMBANKMENT POND NO. 3

SCALE: VERT. 1"=5', HOR. 1"=50'



PROFILE OF FOREBAY/POND - POND NO. 3

SCALE: VERT. 1"=5', HOR. 1"=50'

THAYER
&
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2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 11/2/00

Chief, Development Engineering Division — Date 10/31/00

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U.S.D.A. Natural Resources Conservation Service — Date 10/4/00

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Howard SCD — Date 10/6/00

DATE	REVISIONS

BALTIMORE WASHINGTON AUTO EXCHANGE

VEHICLE AUCTION FACILITY AND STORAGE LOTS

TAX MAP No: 43 PARCEL: 371

FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SCALE: 1"=200' DATE: APRIL 17, 2000

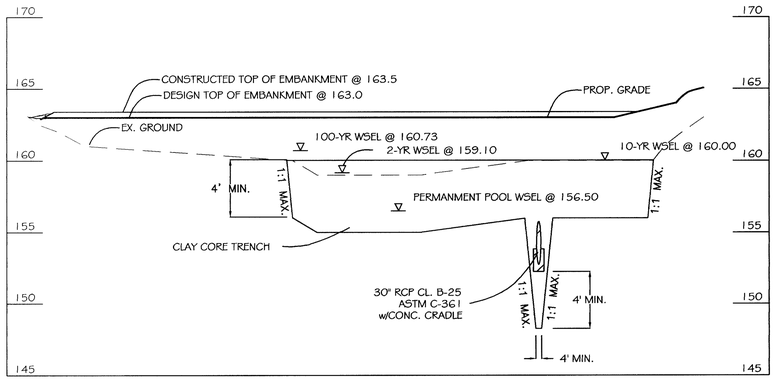
STORMWATER MANAGEMENT DETAILS

SDP-00-63

OWNER / DEVELOPER

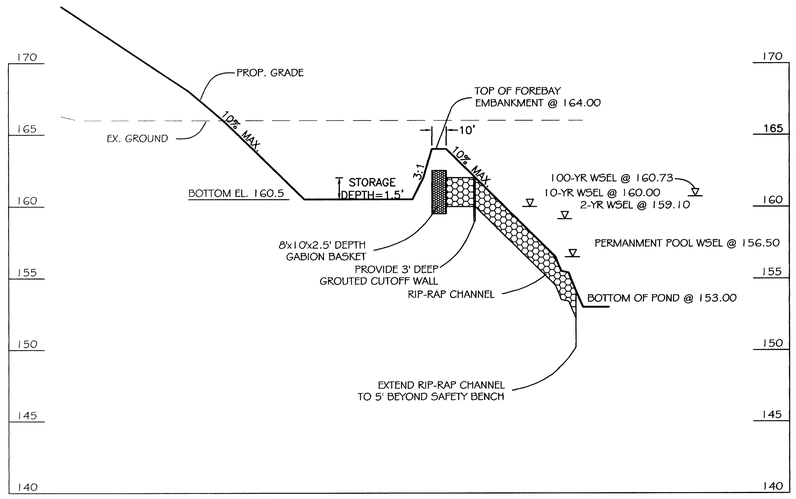
AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4798 F. 685

SHEET 10 OF 33



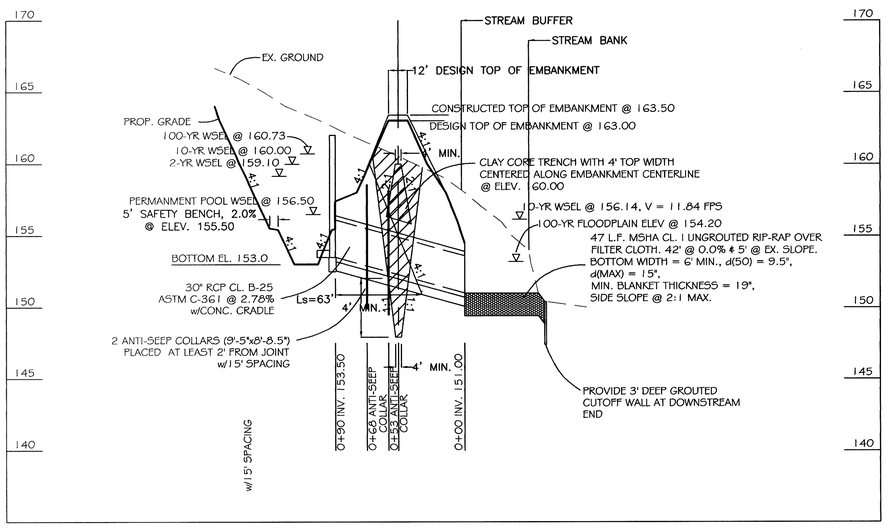
CROSS SECTION ALONG CENTERLINE OF EMBANKMENT POND NO. 4

SCALE: VERT. 1"=5', HOR. 1"=50'



PROFILE OF FOREBAY/POND - POND NO. 4

SCALE: VERT. 1"=5', HOR. 1"=50'

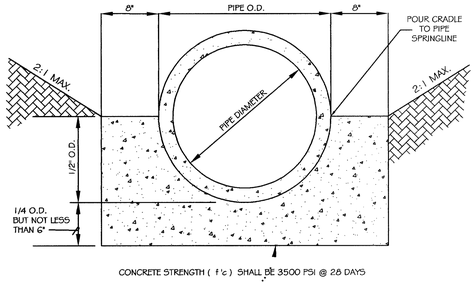


PROFILE OF PRINCIPAL/EMERGENCY SPILLWAY POND NO. 4

SCALE: VERT. 1"=5', HOR. 1"=50'

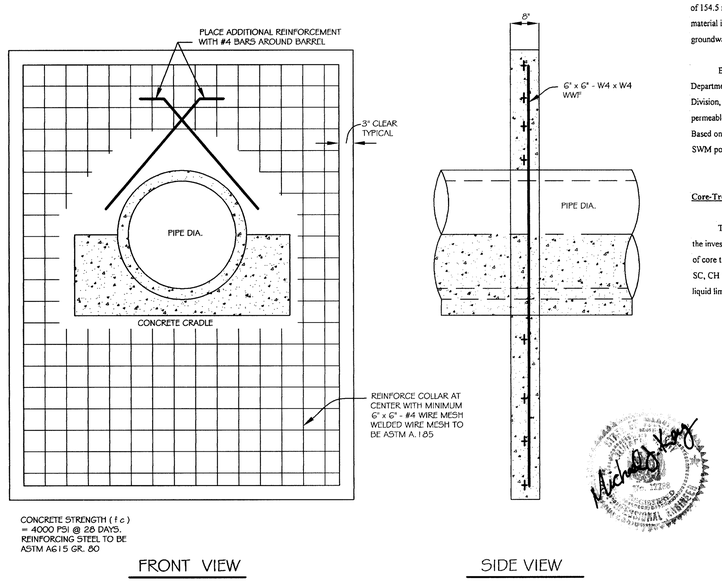
GENERAL NOTES

1. CONCRETE STRENGTH (f'c) = 4000 PSI @ 28 DAYS.
2. ALL REINFORCING STEEL TO BE ASTM A615 GR. 60.
3. ALL LAP REINFORCING TO BE 32 TIMES BAR DIAMETER (MINIMUM).
4. IF STRUCTURE IS PRECAST, SHOP DRAWINGS MUST BE APPROVED BY AN ENGINEER BEFORE CONSTRUCTION.
5. ALL CONCRETE EXPOSED EDGES MUST HAVE 3/4" x 3/4" CHAMFER OR AS DIRECTED.



CONCRETE CRADLE DETAIL

NOT TO SCALE



TYPICAL ANTI - SEEP COLLAR REINFORCEMENT DETAIL

NOT TO SCALE

GEOTECHNICAL RECOMMENDATIONS

CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations pertain to the construction of stormwater management ponds (ponds #1 through #4) within the proposed Baltimore-Washington Auto Exchange, located in Howard County, Maryland. The location of the proposed stormwater management ponds are shown in Figure 2. According to the proposed stormwater management pond drawings, pond constructions will be a combination of cut and fill operations with estimated 5 and 8 feet of cut and fill, respectively. Field borings and laboratory testing indicate that most of the pond embankment will be constructed over CL and/or SM materials.

Proposed Stormwater Management Pond #1

According to available field data, the bottom of the proposed SWM pond #1 at 156 msl will most likely be within the CL (clay loam) soil strata. The encountered CL (clay loam) material is considered impervious with anticipated infiltration rate of 0.09 in./hr. No groundwater table was recorded in any of the tested bore holes.

Based upon the "Standards and Specifications For Infiltration Practice", Maryland Department of Natural Resources, Water Resources Administration, Stormwater Management Division, soils with an infiltration rate of less than 0.52 inches per hour are considered impervious and any ponds within this soil criteria should be considered and designed as a wet pond.

Proposed Stormwater Management Pond #2

According to available field data, the bottom of the proposed SWM pond #2 at elevation of 146 msl. will most likely be within the SM (sand) soil strata. The encountered SM (sand) material is considered very permeable with anticipated infiltration rate of 8.27 in./hr. Groundwater table was recorded in all test bore holes within SWM pond #2.

Based upon the "Standards and Specifications For Infiltration Practice", Maryland Department of Natural Resources, Water Resources Administration, Stormwater Management Division, soils with an infiltration rate of greater than 0.52 inches per hour are considered permeable and any ponds within this soil criteria should be considered and designed as a dry pond. However, the presence of groundwater table at 7 feet at the completion of the drilling and 4 feet at 24-hour water table reading, dictate that the proposed SWM pond #2 should be considered and designed as a wet pond.

Proposed Stormwater Management Pond #3

According to available field data, the bottom of the proposed SWM pond #3 at 146.0 msl. will most likely be within the CL (clay loam) soil strata. The encountered CL (clay loam) material is considered impervious with anticipated infiltration rate of 0.09 in./hr. No groundwater table was recorded in any of the tested bore holes.

Based upon the "Standards and Specifications For Infiltration Practice", Maryland Department of Natural Resources, Water Resources Administration, Stormwater Management Division, soils with an infiltration rate of less than 0.52 inches per hour are considered impervious and any ponds within this soil criteria should be considered and designed as a wet pond.

Proposed Stormwater Management Pond #4

According to available field data, the bottom of the proposed SWM pond #4 at elevation of 154.5 msl. will most likely be within the SM (sand) soil strata. The encountered SM (sand) material is considered very permeable with anticipated infiltration rate of 8.27 in./hr. No groundwater table was recorded in any of the test bore holes within SWM pond #4.

Based upon the "Standards and Specifications For Infiltration Practice", Maryland Department of Natural Resources, Water Resources Administration, Stormwater Management Division, soils with an infiltration rate of greater than 0.52 inches per hour are considered permeable and any ponds within this soil criteria should be considered and designed as a dry pond. Based on available field and laboratory test data, it is our professional opinion that the proposed SWM pond # should be considered and designed as a dry pond.

Core-Trench

The in-situ soil as classified as sandy lean clay and lean clay (CL) within the footprint of the investigated area could be utilized as core trench material. There should be sufficient amount of core trench material available on the site. Core-trench materials should be classified as GC, SC, CH and/or CL in accordance with Unified Soil Classification System. Other soils with a liquid limit of over 30% and plasticity index of more 10% and 50% or more passing through sieve #200 could be used as a core trench materials, as long as the placement of core materials is supervised by the geotechnical engineer of record or his/her representative.

#200 could be used as a core trench materials, as long as the placement of core materials is supervised by the geotechnical engineer of record or his/her representative.

SITE PREPARATION

The following recommendations are made for the satisfactory performance of earthwork in order to attain the planned grade within the proposed construction of the stormwater management ponds. Based on our past experience, if construction of this pond commence between December 1 to April 1, there is a possibility that heavy construction equipment might sink into the loose and wet materials. We would like to suggest, the SWM ponds be constructed during dry seasons.

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

The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stone greater than 3 inches, frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification OC, SC, CH, or CL. Other materials as investigated and approved by geotechnical engineer of record may be used for construction of the embankment.

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

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 11/2/00

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U.S.D.A.-Natural Resources Conservation Service — Date 10/4/00

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Howard SCD — Date 10/6/00

DATE	REVISIONS

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: 1"=200' DATE: JANUARY 26, 2000

STORMWATER MANAGEMENT DETAILS

SDP-00-63

OWNER / DEVELOPER

AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211.3109
L. 4798 F. 685

SHEET 11 OF 33

MAFI ASSOCIATES, INC.

RECORD OF SOIL EXPLORATION

Project Name: Baltimore-Washington Auto Exchange
Project No.: 1199-03

Coordinates: N/A
Surf. Elev.: 150.0
Date Started: 11-10-99

Boring Location
Water Table
Date Finished: 11-11-99

Please see soil boring location map
Not encountered during or after drilling

Soil Boring: SB-1
Checked By: J.K.

Sample #	SOIL DESCRIPTION SURFACE	STRA.	DEPTH	CON.	SAMPLE BLOW #	LEGEND
S-1	Organic top soil	0-10"	0			
S-2	Mottled reddish brownish grey sandy lean clay, moist, stiff, moisture content 21.5%, "CL"	10"-10'	2.5			HAB
S-3	M.C. 19.5%, "CL"		5			HAB
S-4	M.C. 18.3%, trace of gravel, "CL"					HAB
S-5	M.C. 22.5%, "CL"		10			HAB
	END OF SOIL BORING AT 10 FEET		15			
			20			

SAMPLER TYPE: SPLIT SPOON UNLESS OTHERWISE NOTED; PT=PRESSED SHELBY TUBE; CA=CHRONOLOGY PLANT AUGER; RC=ROCK CORE; STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS

SAMPLE CONDITIONS: D=DISTURBED; U=UNDISTURBED; L=LOST

GROUND WATER DEPTH: AT COMPLETION 7 Feet; 24 hours AFTER 6 Feet; AFTER ____ Feet

BORING METHOD: HSA=Hollow Stem Augers; CFA=Cont. Flight Augers; HAB=Hand Auger Boring

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MAFI ASSOCIATES, INC.

RECORD OF SOIL EXPLORATION

Project Name: Baltimore-Washington Auto Exchange
Project No.: 1199-03

Coordinates: N/A
Surf. Elev.: 149.2
Date Started: 11-10-99

Boring Location
Water Table
Date Finished: 11-11-99

Please see soil boring location map
Not encountered during or after drilling

Soil Boring: SB-2
Checked By: J.K.

Sample #	SOIL DESCRIPTION SURFACE	STRA.	DEPTH	CON.	SAMPLE BLOW #	LEGEND
S-1	Organic top soil	0-10"	0			
S-2	Mottled reddish brownish grey sandy lean clay, moist, stiff, moisture content 22.4%, "CL"	10"-10'	2.5			HAB
S-3	M.C. 20.7%, "CL"		5			HAB
S-4	M.C. 19.2%, trace of gravel, "CL"					HAB
S-5	M.C. 18.9%, "CL"		10			HAB
	END OF SOIL BORING AT 10 FEET		15			
			20			

SAMPLER TYPE: SPLIT SPOON UNLESS OTHERWISE NOTED; PT=PRESSED SHELBY TUBE; CA=CHRONOLOGY PLANT AUGER; RC=ROCK CORE; STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS

SAMPLE CONDITIONS: D=DISTURBED; U=UNDISTURBED; L=LOST

GROUND WATER DEPTH: AT COMPLETION 5 Feet; 24 hours AFTER 3 Feet; AFTER ____ Feet

BORING METHOD: HSA=Hollow Stem Augers; CFA=Cont. Flight Augers; HAB=Hand Auger Boring

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MAFI ASSOCIATES, INC.

RECORD OF SOIL EXPLORATION

Project Name: Baltimore-Washington Auto Exchange
Project No.: 1199-03

Coordinates: N/A
Surf. Elev.: 155
Date Started: 11-10-99

Boring Location
Water Table
Date Finished: 11-11-99

Please see soil boring location map
Not encountered during or after drilling

Soil Boring: SB-3
Checked By: J.K.

Sample #	SOIL DESCRIPTION SURFACE	STRA.	DEPTH	CON.	SAMPLE BLOW #	LEGEND
S-1	Organic top soil	0-10"	0			
S-2	Mottled reddish brownish grey sandy lean clay, moist, stiff, moisture content 21.6%, "CL"	10"-10'	2.5			HAB
S-3	M.C. 23.7%, "CL"		5			HAB
S-4	M.C. 15.4%, trace of gravel, "CL"					HAG
S-5	M.C. 19.2%, "CL"		10			HAB
	END OF SOIL BORING AT 10 FEET		15			
			20			

SAMPLER TYPE: SPLIT SPOON UNLESS OTHERWISE NOTED; PT=PRESSED SHELBY TUBE; CA=CHRONOLOGY PLANT AUGER; RC=ROCK CORE; STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS

SAMPLE CONDITIONS: D=DISTURBED; U=UNDISTURBED; L=LOST

GROUND WATER DEPTH: AT COMPLETION ____ Feet; 24 hours AFTER ____ Feet; AFTER ____ Feet

BORING METHOD: HSA=Hollow Stem Augers; CFA=Cont. Flight Augers; HAB=Hand Auger Boring

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MAFI ASSOCIATES, INC.

RECORD OF SOIL EXPLORATION

Project Name: Baltimore-Washington Auto Exchange
Project No.: 1199-03

Coordinates: N/A
Surf. Elev.: 150.0
Date Started: 11-10-99

Boring Location
Water Table
Date Finished: 11-11-99

Please see soil boring location map
Not encountered during or after drilling

Soil Boring: SB-4
Checked By: J.K.

Sample #	SOIL DESCRIPTION SURFACE	STRA.	DEPTH	CON.	SAMPLE BLOW #	LEGEND
S-1	Organic top soil	0-10"	0			
S-2	Brown fine sand (SM), moist, medium dense, mottled, trace of clay, moisture content 18.8%, "SM"	10"-2.5'	2.5			HAB
S-3	White fine to medium course sand (SW), mixed, medium dense, moisture content 17.1%, "SM"	2.5'-10'	5			HAB
S-4	M.C. 30.9%, wet, "SM"					HAB
S-5	M.C. 30.4%, wet, "SM"		10			HAB
	END OF SOIL BORING AT 10 FEET		15			
			20			

SAMPLER TYPE: SPLIT SPOON UNLESS OTHERWISE NOTED; PT=PRESSED SHELBY TUBE; CA=CHRONOLOGY PLANT AUGER; RC=ROCK CORE; STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS

SAMPLE CONDITIONS: D=DISTURBED; U=UNDISTURBED; L=LOST

GROUND WATER DEPTH: AT COMPLETION 0 Feet; 24 hours AFTER 0 Feet; AFTER ____ Feet

BORING METHOD: HSA=Hollow Stem Augers; CFA=Cont. Flight Augers; HAB=Hand Auger Boring

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MAFI ASSOCIATES, INC.

RECORD OF SOIL EXPLORATION

Project Name: Baltimore-Washington Auto Exchange
Project No.: 1199-03

Coordinates: N/A
Surf. Elev.: 150.0
Date Started: 11-10-99

Boring Location
Water Table
Date Finished: 11-11-99

Please see soil boring location map
*Not encountered during or after drilling

Soil Boring: SB-5
Checked By: J.K.

Sample #	SOIL DESCRIPTION SURFACE	STRA.	DEPTH	CON.	SAMPLE BLOW #	LEGEND
S-1	Organic top soil	0-10"	0			
S-2	Brown fine sand (SM), moist, medium dense, mottled, trace of clay, moisture content 15.2%, "SM"	10"-3'	2.5			HAB
S-3	White fine to medium course sand (SW), mixed, medium dense, moisture content 21.3%, "SM"	3'-10'	5			HAB
S-4	M.C. 33.9%, wet, "SW"					HAB
S-5	M.C. 41.1%, wet, "SW"		10			HAB
	END OF SOIL BORING AT 10 FEET		15			
			20			

SAMPLER TYPE: SPLIT SPOON UNLESS OTHERWISE NOTED; PT=PRESSED SHELBY TUBE; CA=CHRONOLOGY PLANT AUGER; RC=ROCK CORE; STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS

SAMPLE CONDITIONS: D=DISTURBED; U=UNDISTURBED; L=LOST

GROUND WATER DEPTH: AT COMPLETION 7 Feet; 24 hours AFTER 6 Feet; AFTER ____ Feet

BORING METHOD: HSA=Hollow Stem Augers; CFA=Cont. Flight Augers; HAB=Hand Auger Boring

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MAFI ASSOCIATES, INC.

RECORD OF SOIL EXPLORATION

Project Name: Baltimore-Washington Auto Exchange
Project No.: 1199-03

Coordinates: N/A
Surf. Elev.: 150.0
Date Started: 11-10-99

Boring Location
Water Table
Date Finished: 11-11-99

Please see soil boring location map
*Not encountered during or after drilling

Soil Boring: SB-6
Checked By: J.K.

Sample #	SOIL DESCRIPTION SURFACE	STRA.	DEPTH	CON.	SAMPLE BLOW #	LEGEND
S-1	Organic top soil	0-10"	0			
S-2	Brown fine sand (SM), moist, medium dense, mottled, trace of clay, moisture content 19.2%, "SM"	10"-3'	2.5			HAB
S-3	White fine to medium course sand (SM), moist to wet medium dense, moisture content 31.7%, "SM"	3'-10'	5			HAB
S-4	M.C. 33.9%, wet, "SM"					HAB
S-5	M.C. 37.6%, wet, "SM"		10			HAB
	END OF SOIL BORING AT 10 FEET		15			
			20			

SAMPLER TYPE: SPLIT SPOON UNLESS OTHERWISE NOTED; PT=PRESSED SHELBY TUBE; CA=CHRONOLOGY PLANT AUGER; RC=ROCK CORE; STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS

SAMPLE CONDITIONS: D=DISTURBED; U=UNDISTURBED; L=LOST

GROUND WATER DEPTH: AT COMPLETION 5 Feet; 24 hours AFTER 3 Feet; AFTER ____ Feet

BORING METHOD: HSA=Hollow Stem Augers; CFA=Cont. Flight Augers; HAB=Hand Auger Boring

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MAFI ASSOCIATES, INC.

RECORD OF SOIL EXPLORATION

Project Name: Baltimore-Washington Auto Exchange
Project No.: 1199-03

Coordinates: N/A
Surf. Elev.: 148.5
Date Started: 11-10-99

Boring Location
Water Table
Date Finished: 11-11-99

Please see soil boring location map
Not encountered during or after drilling

Soil Boring: SB-7
Checked By: J.K.

Sample #	SOIL DESCRIPTION SURFACE	STRA.	DEPTH	CON.	SAMPLE BLOW #	LEGEND
S-1	Organic top soil	0-10"	0			
S-2	Brown sandy silt, moist, stiff, trace of clay, moisture content 14.2%, "ML"	10"-3'	2.5			HAB
S-3	Mottled reddish brownish yellowish tan lean clay, moist, stiff, moisture content 13.2%, "CL"	3'-10'	5			HAB
S-4	M.C. 14.7%, "CL"					HAB
S-5	M.C. 14.1%, "CL"		10			HAB
	END OF SOIL BORING AT 10 FEET		15			
			20			

SAMPLER TYPE: SPLIT SPOON UNLESS OTHERWISE NOTED; PT=PRESSED SHELBY TUBE; CA=CHRONOLOGY PLANT AUGER; RC=ROCK CORE; STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS

SAMPLE CONDITIONS: D=DISTURBED; U=UNDISTURBED; L=LOST

GROUND WATER DEPTH: AT COMPLETION 3 Feet; 24 hours AFTER 3 Feet; AFTER ____ Feet

BORING METHOD: HSA=Hollow Stem Augers; CFA=Cont. Flight Augers; HAB=Hand Auger Boring

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MAFI ASSOCIATES, INC.

RECORD OF SOIL EXPLORATION

Project Name: Baltimore-Washington Auto Exchange
Project No.: 1199-03

Coordinates: N/A
Surf. Elev.: 150.2
Date Started: 11-10-99

Boring Location
Water Table
Date Finished: 11-11-99

Please see soil boring location map
Not encountered during or after drilling

Soil Boring: SB-8
Checked By: J.K.

Sample #	SOIL DESCRIPTION SURFACE	STRA.	DEPTH	CON.	SAMPLE BLOW #	LEGEND
S-1	Organic top soil	0-10"	0			
S-2	Brown sandy silt, moist, stiff, trace of clay, moisture content 15.3%, "ML"	10"-3'	2.5			HAB
S-3	Mottled reddish brownish yellowish tan lean clay, moist, stiff, moisture content 15.8%, "CL"	3'-10'	5			HAB
S-4	M.C. 14.6%, "CL"					HAB
S-5	M.C. 15.9%, "CL"		10			HAB
	END OF SOIL BORING AT 10 FEET		15			
			20			

SAMPLER TYPE: SPLIT SPOON UNLESS OTHERWISE NOTED; PT=PRESSED SHELBY TUBE; CA=CHRONOLOGY PLANT AUGER; RC=ROCK CORE; STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS

SAMPLE CONDITIONS: D=DISTURBED; U=UNDISTURBED; L=LOST

GROUND WATER DEPTH: AT COMPLETION 0 Feet; 24 hours AFTER 3 Feet; AFTER ____ Feet

BORING METHOD: HSA=Hollow Stem Augers; CFA=Cont. Flight Augers; HAB=Hand Auger Boring

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MAFI ASSOCIATES, INC.

RECORD OF SOIL EXPLORATION

Project Name: Baltimore-Washington Auto Exchange
Project No.: 1199-03

Coordinates: N/A
Surf. Elev.: 149.7
Date Started: 11-10-99

Boring Location
Water Table
Date Finished: 11-11-99

Please see soil boring location map
Not encountered during or after drilling

Soil Boring: SB-9
Checked By: J.K.

Sample #	SOIL DESCRIPTION SURFACE	STRA.	DEPTH	CON.	SAMPLE BLOW #	LEGEND
S-	Organic top soil	0-10"	0			
S-2	Brown sandy silt, moist, stiff, trace of clay, moisture content 14.9%, "ML"	10"-2.5'	2.5			HAB
S-3	Mottled reddish brownish yellowish tan lean clay, moist, stiff, moisture content 13.6%, "CL"	2.5'-10'	5			HAB
S-4	M.C. 13.1%, "CL"					HAB
S-5	M.C. 14.7%, "CL"		10			HAB
	END OF SOIL BORING AT 10 FEET		15			
			20			

SAMPLER TYPE: SPLIT SPOON UNLESS OTHERWISE NOTED; PT=PRESSED SHELBY TUBE; CA=CHRONOLOGY PLANT AUGER; RC=ROCK CORE; STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS

SAMPLE CONDITIONS: D=DISTURBED; U=UNDISTURBED; L=LOST

GROUND WATER DEPTH: AT COMPLETION 5 Feet; 24 hours AFTER 3 Feet; AFTER ____ Feet

BORING METHOD: HSA=Hollow Stem Augers; CFA=Cont. Flight Augers; HAB=Hand Auger Boring

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MAFI ASSOCIATES, INC.

RECORD OF SOIL EXPLORATION

Project Name: Baltimore-Washington Auto Exchange
Project No.: 1199-03

Coordinates: N/A
Surf. Elev.: 155.0
Date Started: 11-10-99

Boring Location
Water Table
Date Finished: 11-11-99

Please see soil boring location map
Not encountered during or after drilling

Soil Boring: SB-10
Checked By: J.K.

Sample #	SOIL DESCRIPTION SURFACE	STRA.	DEPTH	CON.	SAMPLE BLOW #	LEGEND
S-1	Organic top soil	0-10"	0			
S-2	Brown silty clay, trace of sand, moist, stiff, moisture content 14.7%, "CL"	10"-3'	2.5			HAB
S-3	Light tannish silty sand, trace of gravel, moist, medium dense, moisture content 12.8%, "SM"	3'-10'	5			HAB
S-4	Light tannish silty sand, moist, medium dense, moisture content 12.9%, "SM"					HAB
S-5	M.C. 13.8%, "SM"		10			HAB
	END OF SOIL BORING AT 10 FEET		15			
			20			

SAMPLER TYPE: SPLIT SPOON UNLESS OTHERWISE NOTED; PT=PRESSED SHELBY TUBE; CA=CHRONOLOGY PLANT AUGER; RC=ROCK CORE; STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS

SAMPLE CONDITIONS: D=DISTURBED; U=UNDISTURBED; L=LOST

GROUND WATER DEPTH: AT COMPLETION 5 Feet; 24 hours AFTER 3 Feet; AFTER ____ Feet

BORING METHOD: HSA=Hollow Stem Augers; CFA=Cont. Flight Augers; HAB=Hand Auger Boring

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MAFI ASSOCIATES, INC.

RECORD OF SOIL EXPLORATION

Project Name: Baltimore-Washington Auto Exchange
Project No.: 1199-03

Coordinates: N/A
Surf. Elev.: 152.0
Date Started: 11-10-99

Boring Location
Water Table
Date Finished: 11-11-99

Please see soil boring location map
Not encountered during or after drilling

Soil Boring: SB-11
Checked By: J.K.

Sample #	SOIL DESCRIPTION SURFACE	STRA.	DEPTH	CON.	SAMPLE BLOW #	LEGEND
S-1	Organic top soil	0-10"	0			
S-2	Brown silty clay, trace of sand, moist, stiff, moisture content 13.1%, "CL"	10"-3'	2.5			HAB
S-3	Light tannish silty sand, trace of gravel, moist, medium dense, moisture content 11.3%, "SM"	3'-10'	5			HAB
S-4	Light tannish silty sand, moist, medium dense, moisture content 12.9%, "SM"					HAB
S-5	M.C. 14.2%, "SM"		10			HAB
	END OF SOIL BORING AT 10 FEET		15			
			20			

SAMPLER TYPE: SPLIT SPOON UNLESS OTHERWISE NOTED; PT=PRESSED SHELBY TUBE; CA=CHRONOLOGY PLANT AUGER; RC=ROCK CORE; STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS

SAMPLE CONDITIONS: D=DISTURBED; U=UNDISTURBED; L=LOST

GROUND WATER DEPTH: AT COMPLETION 5 Feet; 24 hours AFTER 3 Feet; AFTER ____ Feet

BORING METHOD: HSA=Hollow Stem Augers; CFA=Cont. Flight Augers; HAB=Hand Auger Boring

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MAFI ASSOCIATES, INC.

RECORD OF SOIL EXPLORATION

Project Name: Baltimore-Washington Auto Exchange
Project No.: 1199-03

Coordinates: N/A
Surf. Elev.: 153.2
Date Started: 11-10-99

Boring Location
Water Table
Date Finished: 11-11-99

Please see soil boring location map
Not encountered during or after drilling

Soil Boring: SB-12
Checked By: J.K.

Sample #	SOIL DESCRIPTION SURFACE	STRA.	DEPTH	CON.	SAMPLE BLOW #	LEGEND
S-1	Organic top soil	0-10"	0			
S-2	Brown silty clay, trace of sand, moist, stiff, moisture content 15.2%, "CL"	10"-3'	2.5			HAB
S-3	Light tannish silty sand, trace of gravel, moist, medium dense, moisture content 14.1%, "SM"	3'-10'	5			HAB
S-4	Light tannish silty sand, moist, medium dense, moisture content 14.8%, "SM"					HAB
S-5	M.C. 15.8%, "SM"		10			HAB
	END OF SOIL BORING AT 10 FEET		15			
			20			

SAMPLER TYPE: SPLIT SPOON UNLESS OTHERWISE NOTED; PT=PRESSED SHELBY TUBE; CA=CHRONOLOGY PLANT AUGER; RC=ROCK CORE; STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS

SAMPLE CONDITIONS: D=DISTURBED; U=UNDISTURBED; L=LOST

GROUND WATER DEPTH: AT COMPLETION 5 Feet; 24 hours AFTER 3 Feet; AFTER ____ Feet

BORING METHOD: HSA=Hollow Stem Augers; CFA=Cont. Flight Augers; HAB=Hand Auger Boring

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THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 11/2/00

Chief, Development Engineering Division — Date 10/11/00

Director, Department of Planning and Zoning — Date 11/2/00

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A.-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.

Howard SCD — Date

DATE	REVISIONS

BALTIMORE WASHINGTON AUTO EXCHANGE

VEHICLE AUCTION FACILITY AND STORAGE LOTS

TAX MAP No: 43 PARCEL: 371

FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SCALE: 1"=200' DATE: APRIL 17, 2000

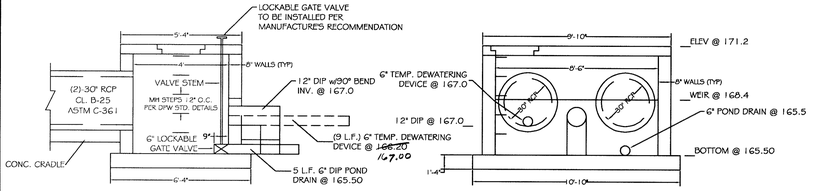
STORMWATER MANAGEMENT DETAILS

SDP-00-63

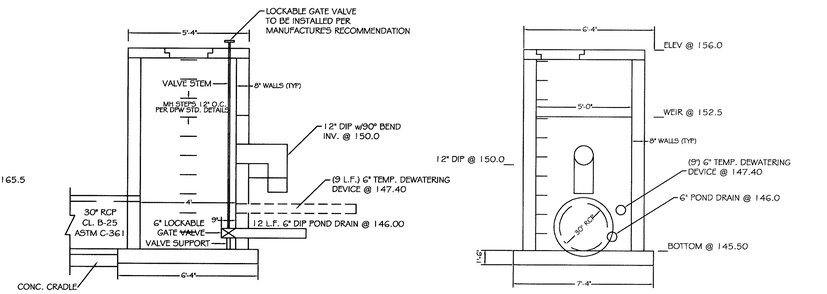
OWNER / DEVELOPER

AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4795 F. 685

SHEET 12 OF 33



RISER STRUCTURE POND NO. 1



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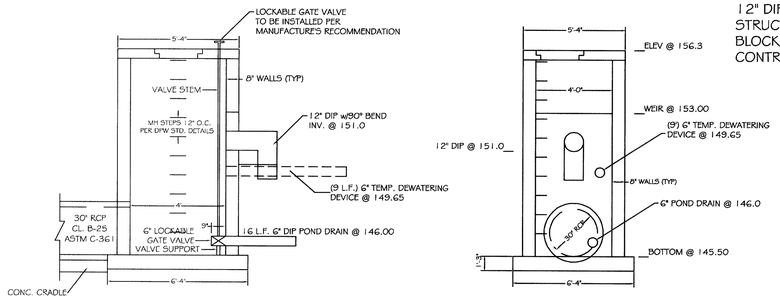
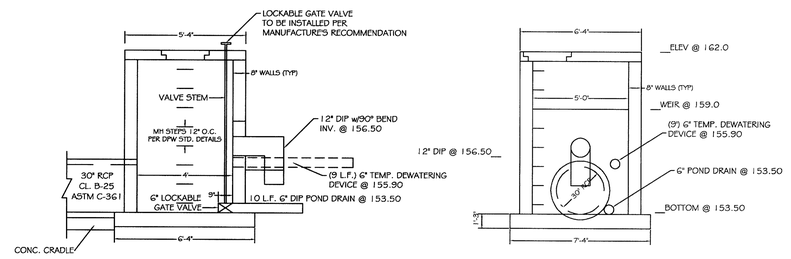


RISER STRUCTURE POND NO. 2

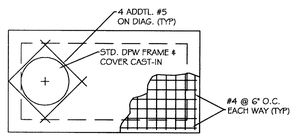
NOTE:
12" DIP ORIFICE AT EACH RISER STRUCTURE TO BE TEMPORARY BLOCKED DURING THE SEDIMENT CONTROL PHASE OF CONSTRUCTION



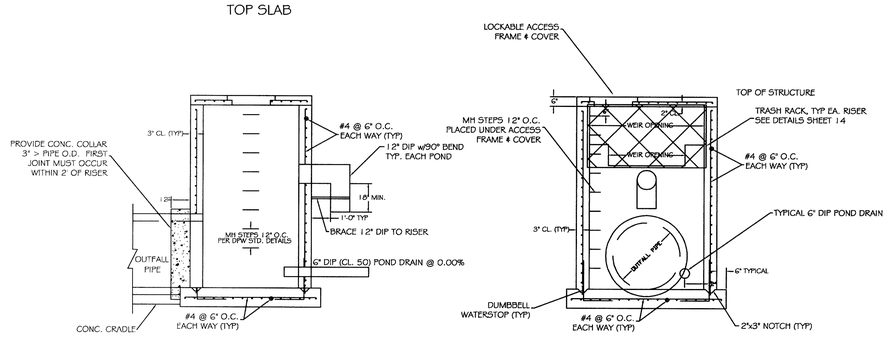
RISER STRUCTURE POND NO. 4

GENERAL NOTES

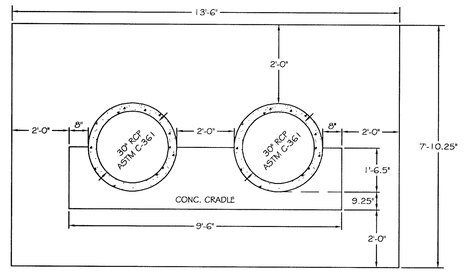
1. CONCRETE STRENGTH (f'c) = 4000 PSI @ 28 DAYS.
2. ALL REINFORCING STEEL TO BE ASTM A615 GR. 60.
3. ALL LAP REINFORCING TO BE 32 TIMES BAR DIAMETER (MINIMUM).
4. IF STRUCTURE IS PRECAST, SHOP DRAWINGS MUST BE APPROVED BY AN ENGINEER BEFORE CONSTRUCTION.
5. ALL CONCRETE EXPOSED EDGES MUST HAVE 3/4" x 3/4" CHAMFER OR AS DIRECTED.



TOP SLAB

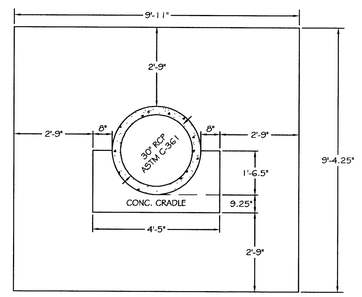


TYPICAL RISER STRUCTURE REINFORCEMENT DETAILS



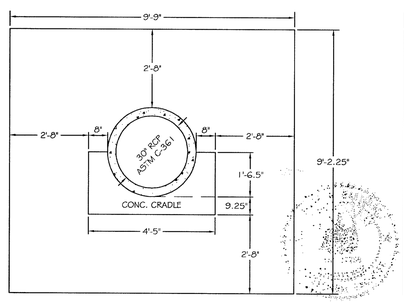
ANTI-SEEP COLLARS - POND NO. 1

NOT TO SCALE



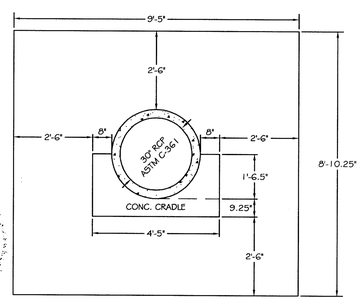
ANTI-SEEP COLLARS - POND NO. 2

NOT TO SCALE



ANTI-SEEP COLLARS - POND NO. 3

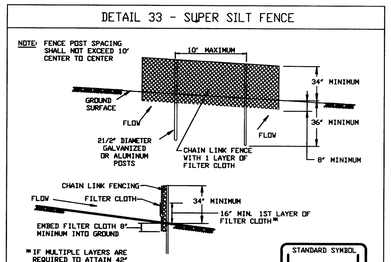
NOT TO SCALE



ANTI-SEEP COLLARS - POND NO. 4

NOT TO SCALE

DETAIL 33 - SUPER SILT FENCE



Construction Specifications

1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts.

2. Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.

3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24' at the top and mid section.

4. Filter cloth shall be embedded a minimum of 8" into the ground.

5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.

6. Maintenance shall be performed as needed and silt buildups removed when 'bulges' develop in the silt fence, or when silt reaches 50% of fence height

7. Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal/ft²/minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H - 26 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SUPER SILT FENCE

Design Criteria

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

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H - 26 - 3A	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 11/2/00

Chief, Development Engineering Division — Date 10/11/00

Director, Department of Planning and Zoning — Date 11/2/00

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A. Natural Resources Conservation Service — Date 10/6/00

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD — Date 10/6/00

DATE	REVISIONS

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS

TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: APRIL 17, 2000

RISER STUCTURE DETAILS

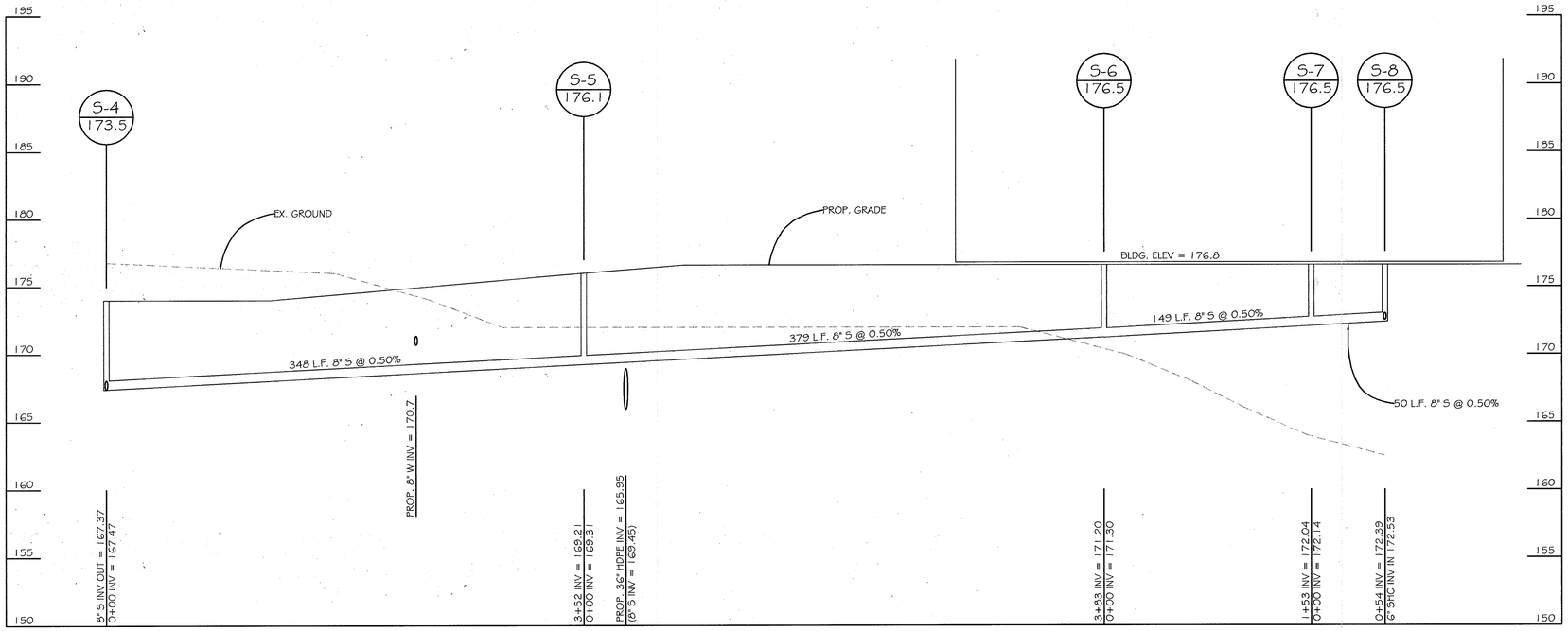
SDP-00-63

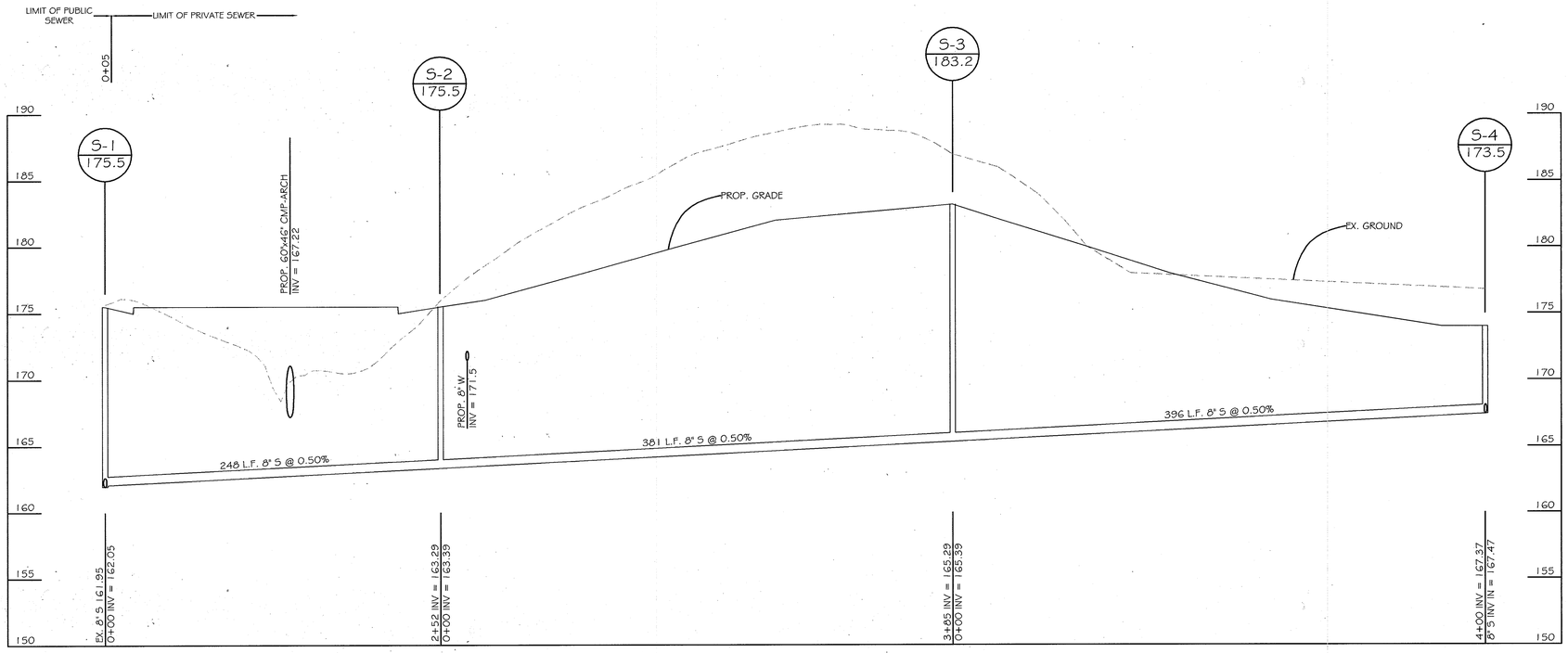
OWNER / DEVELOPER

AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4798 F. 685

SHEET 13 OF 33

SDP-00-63



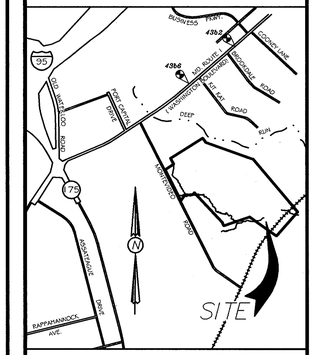


SANITARY SEWER PROFILE

SCALE: VERT. 1"=5'; HOR. 1"=50'

THAYER & ASSOCIATES INC.

2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP

SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 9/5/03

Chief, Development Engineering Division — Date 9/4/03

Director, Department of Planning and Zoning — Date 9/5/03

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A.-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.

Howard SCD — Date

DATE	REVISIONS
07/29/03	RED-LINE REVISION NO. 2: ADDED SHEET 14A
03/24/03	RED-LINE REVISION NO. 1

BALTIMORE WASHINGTON AUTO EXCHANGE

VEHICLE AUCTION FACILITY AND STORAGE LOTS

TAX MAP No: 43 PARCEL: 371

FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: APRIL 17, 2000

REVISED

UTILITY PROFILES

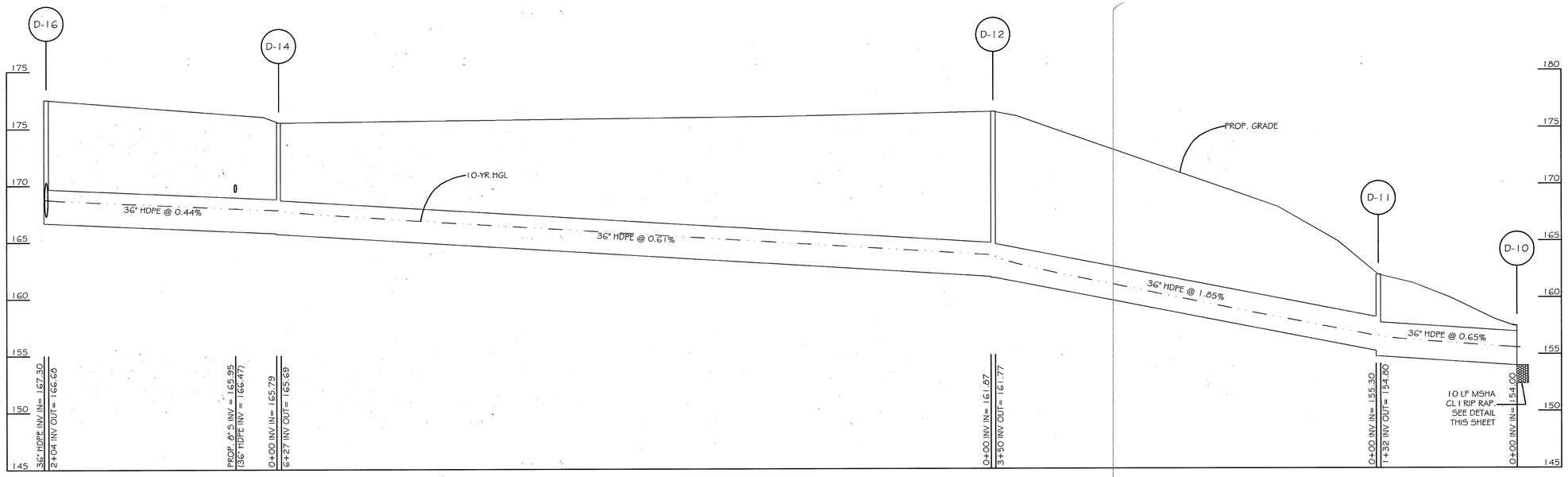
SDP-00-63

OWNER / DEVELOPER

AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4798 F. 685

SHEET 14A OF 33

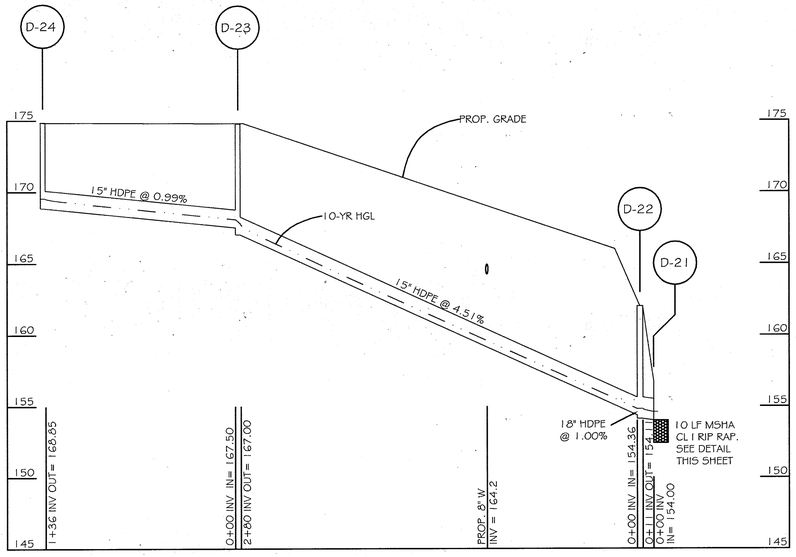
SDP-00-63

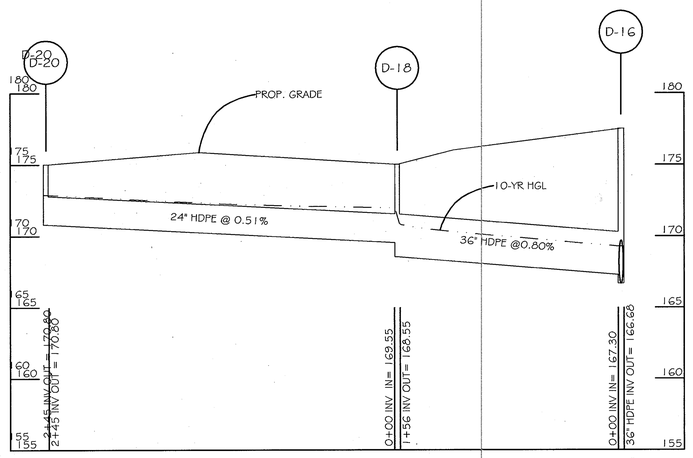


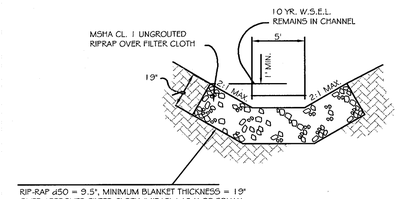
BONDED # / INSPECTED BY	NO.	TYPE	INV. IN	INV. OUT	TOP/RIM ELEV.	STANDARD DETAIL
PRIVATE	D-24	4'-0" STANDARD MANHOLE	N/A	168.85	174.85	G-5.12
	D-23	4'-0" STANDARD MANHOLE	167.50	167.00	174.75	G-5.12
	D-22	4'-0" STANDARD MANHOLE	154.36	154.11	162.00	G-5.12
	D-21	21" CONCRETE END SECTION	154.00	N/A	N/A	SD-5.51
	D-20	TYPE "S" INLET	N/A	170.80	175.00	SD-4.22
	D-18	TYPE "S" INLET	169.55	168.55	175.00	SD-4.22
	D-16	5'-0" STANDARD MANHOLE	167.30	166.68	177.50	G-5.13
	D-14	5'-0" STANDARD MANHOLE	165.79	165.69	175.50	G-5.13
	D-12	5'-0" STANDARD MANHOLE	161.87	161.77	176.40	G-5.13
	D-11	5'-0" SHALLOW MANHOLE	155.30	154.80	162.00	G-5.13
	D-10	36" CONCRETE END SECTION	154.00	N/A	N/A	SD-5.51

REMARKS:

FROM	TO	SIZE	TYPE	LENGTH
D-24	D-23	15"	HDPE	136 L.F.
D-23	D-22	15"	HDPE	280 L.F.
D-22	D-21	18"	HDPE	11 L.F.
D-20	D-18	24"	HDPE	245 L.F.
D-18	D-16	36"	HDPE	156 L.F.
D-16	D-14	36"	HDPE	204 L.F.
D-14	D-12	36"	HDPE	627 L.F.
D-12	D-11	36"	HDPE	338 L.F.
D-11	D-10	36"	HDPE	123 L.F.





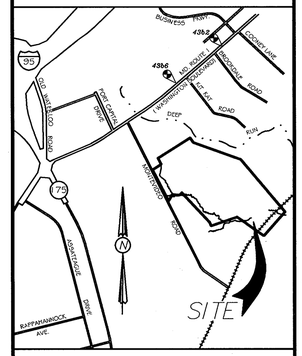


TYPICAL SECTION
RIPRAP OUTFALL CHANNEL
NOT TO SCALE

STORM DRAIN PROFILE
SCALE: VERT. 1"=5'; HOR. 1"=50'

STATE OF MARYLAND — MICHAEL R. MCCANN — No. 17781 — REGISTERED PROFESSIONAL ENGINEER

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP
SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 9/5/03

Chief, Development Engineering Division — Date 9/3/03

Director, Department of Planning and Zoning — Date 8/7/03

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A.-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.

Howard Soil — Date

DATE	REVISIONS
07/29/03	RED-LINE REVISION NO. 2: ADDED SHEET 14B
03/24/03	RED-LINE REVISION NO. 1

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: APRIL 17, 2000

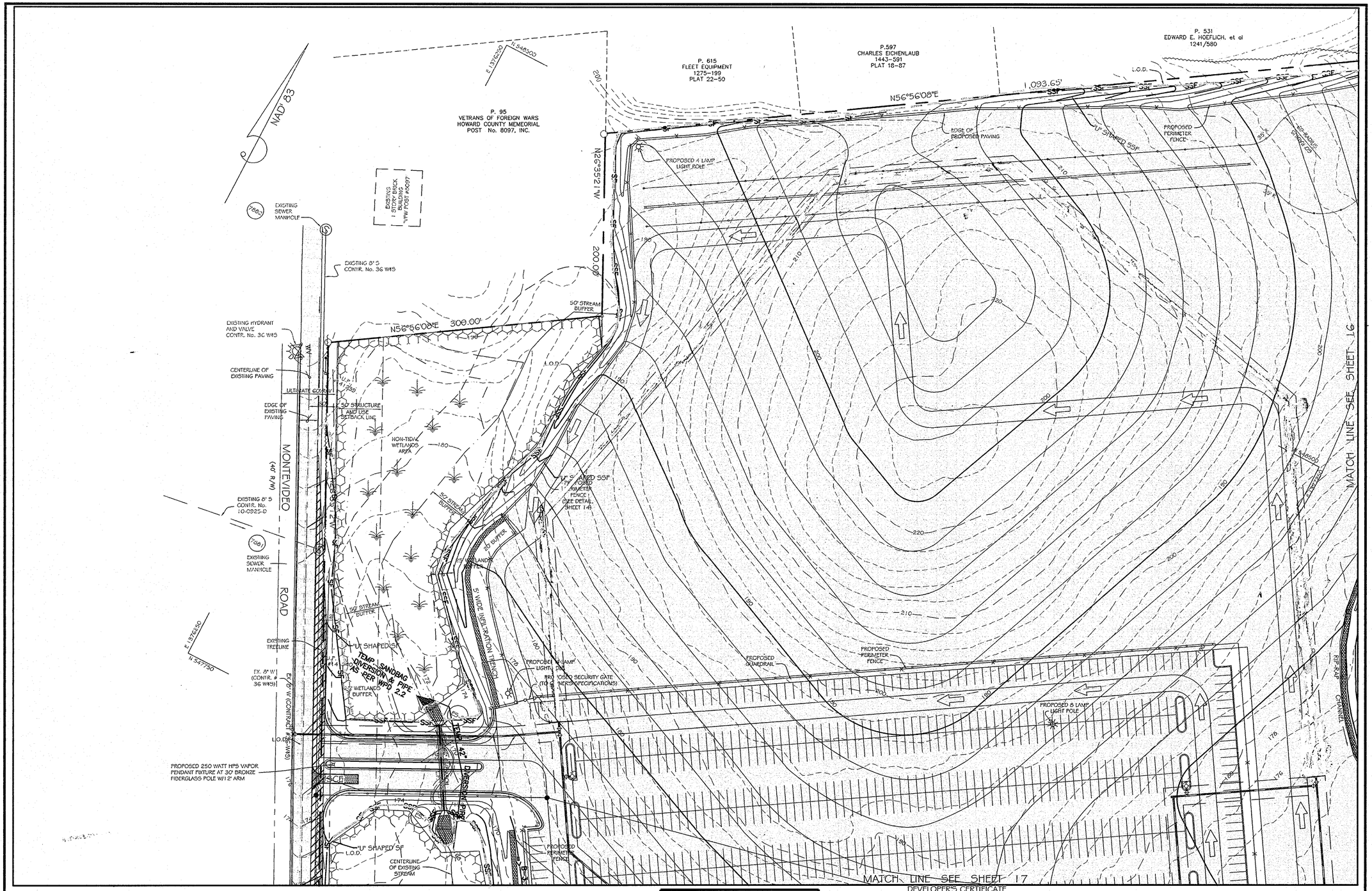
REVISED
UTILITY PROFILES

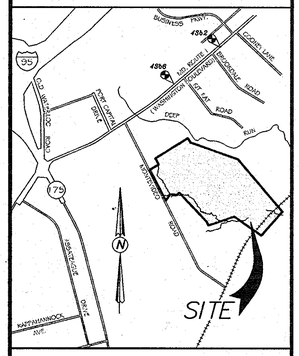
SDP-00-63

OWNER / DEVELOPER
AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4798 F. 685

SHEET 14B OF 33

SDP-00-63





VICINITY MAP
SCALE: 1"=2000'

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 11/2/00

Chief, Development Engineering Division — Date 10/11/00

Director, Department of Planning and Zoning — Date 11/2/00

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A.-Natural Resources Conservation Service — Date 10/4/00

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD — Date 10/4/00

DATE	REVISIONS
9/11/13	1 REMOVE PORTION OF WATERLINE "A"

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: APRIL 17, 2000

GRADING AND SEDIMENT CONTROL PLAN

SDP-00-63

OWNER / DEVELOPER
AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4798 F. 685

SHEET 15 OF 33

STATE OF MARYLAND — ANDREW A. PORTER — No. 18838 — REGISTERED PROFESSIONAL ENGINEER

Andrew A. Porter 9/11/13
for rev. #1 only

50' 0' 25' 50
1"= 50'

DEVELOPER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan, 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 inspection by the Howard Soil Conservation District."

G. DAMON THAYER — Date 7/8/00

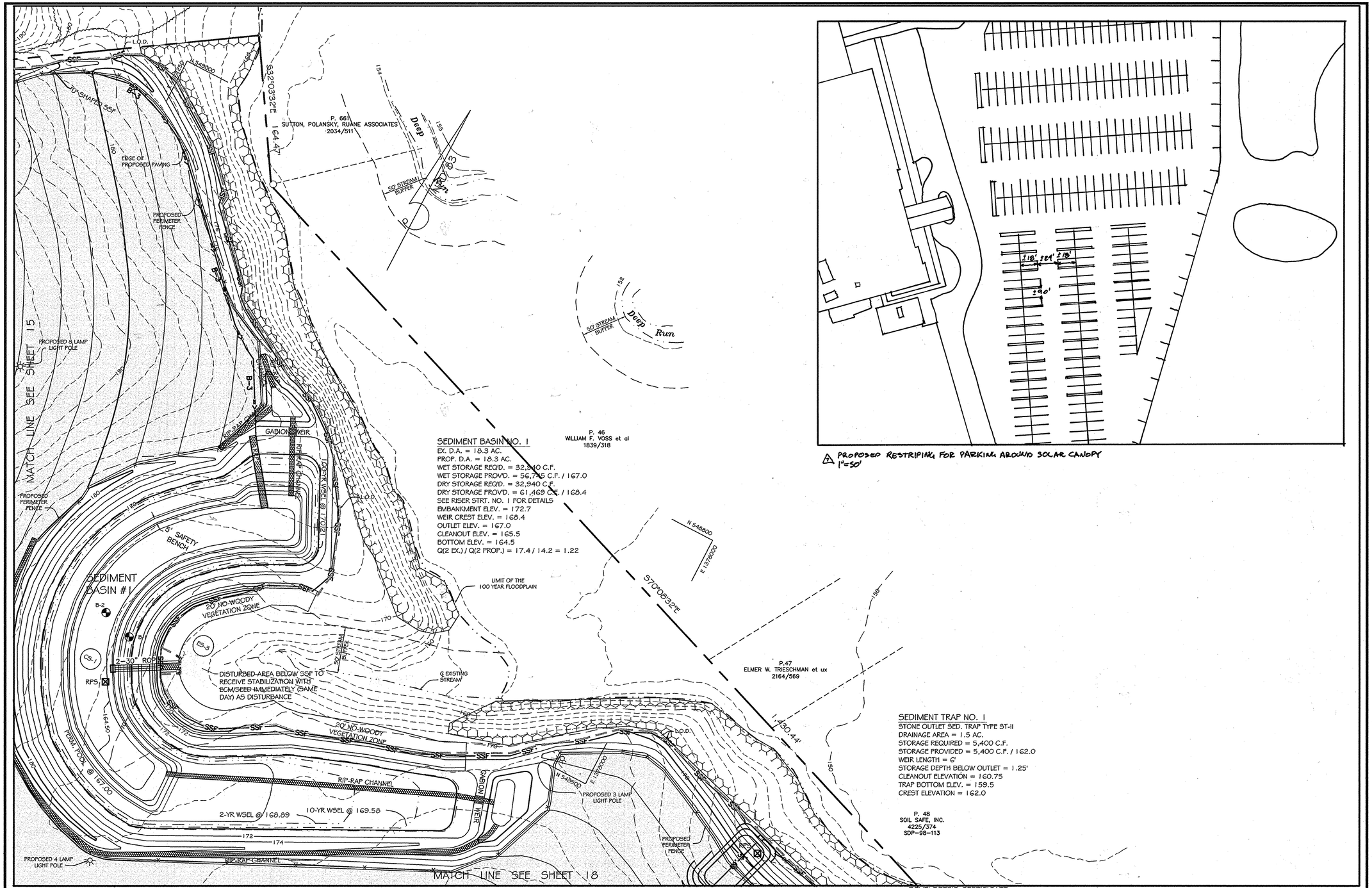
ENGINEER'S CERTIFICATE

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

MICHAEL J. KAY — Date 7/8/00

[THAYER AUTO EXCHANGE] - [BWAE GRDG AND SED CNTRL BASE SHEET]

SDP-00-63



SEDIMENT BASIN NO. 1

EX. D.A. = 18.3 AC.
PROP. D.A. = 18.3 AC.
WET STORAGE REQ'D. = 32,940 C.F.
WET STORAGE PROV'D. = 56,735 C.F. / 167.0
DRY STORAGE REQ'D. = 32,940 C.F.
DRY STORAGE PROV'D. = 61,469 C.F. / 168.4
SEE RISER STRT. NO. 1 FOR DETAILS
EMBANKMENT ELEV. = 172.7
WEIR CREST ELEV. = 168.4
OUTLET ELEV. = 167.0
CLEANOUT ELEV. = 165.5
BOTTOM ELEV. = 164.5
Q(2 EX.) / Q(2 PROP.) = 17.4 / 14.2 = 1.22

SEDIMENT TRAP NO. 1

STONE OUTLET SED. TRAP TYPE ST-II
DRAINAGE AREA = 1.5 AC.
STORAGE REQUIRED = 5,400 C.F.
STORAGE PROVIDED = 5,400 C.F. / 162.0
WEIR LENGTH = 6'
STORAGE DEPTH BELOW OUTLET = 1.25'
CLEANOUT ELEVATION = 160.75
TRAP BOTTOM ELEV. = 159.5
CREST ELEVATION = 162.0

⚠2 PROPOSED RESTRIPING FOR PARKING AROUND SOLAR CANOPY
1"=50'

50' 0' 25' 50
1"= 50'

⚠1 PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 27020 EXP. DATE 1/25/16

STATE OF MARYLAND — PAUL GREGORY CAVANAUGH — No. 27020 — REGISTERED PROFESSIONAL ENGINEER

10/2/15
REVISION 3 ONLY

PAUL G CAVANAUGH
PROFESSIONAL ENGINEER NO. 27020

STATE OF MARYLAND — MICHAEL JOSEPH KAY — No. 12788 — REGISTERED PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan, 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 Distrct with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

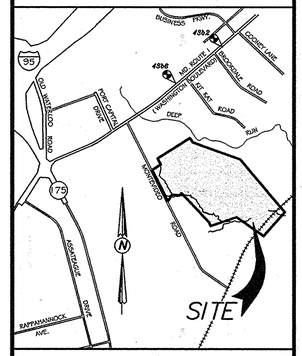
G. Damon Thayer — 7/8/00
G. DAMON THAYER — Date

ENGINEER'S CERTIFICATE

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

Michael J. Kay — 7/8/00
MICHAEL J. KAY — Date

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP
SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 10/2/00 Date
Chief, Development Engineering Division — 10/11/00 Dated
Director, Department of Planning and Zoning — 11/2/00 Date

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A.-Natural Resources Conservation Service — 10/4/00 Date

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD — 10/4/00 Date

DATE	REVISIONS
9/29/15	⚠2 REDLINE REVISION TO ADD SOLAR CANOPY

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: APRIL 17, 2000

GRADING AND SEDIMENT CONTROL PLAN

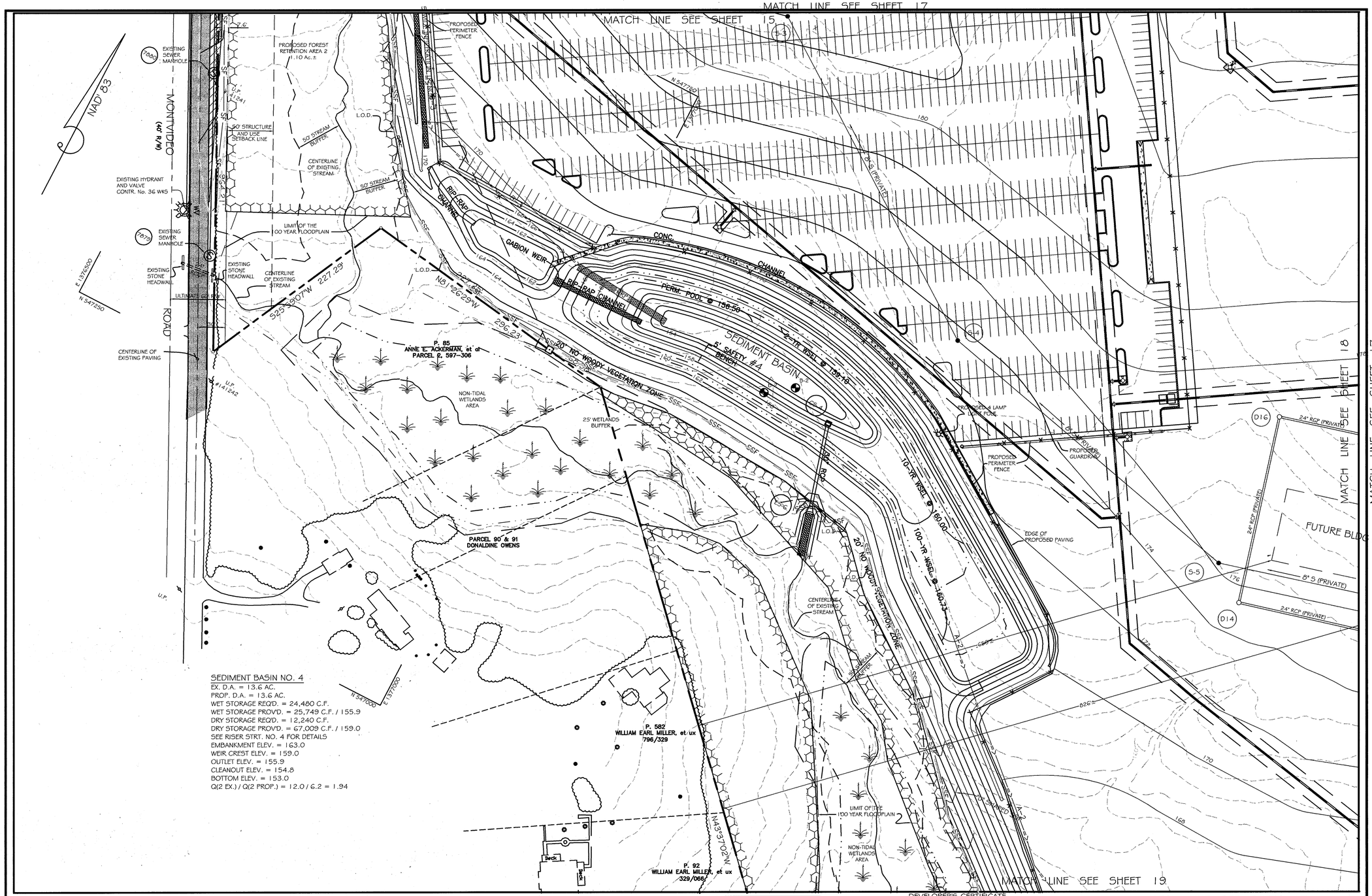
SDP-00-63

OWNER / DEVELOPER

AA PROPERTY HOLDINGS
⚠4 6205 PEACHTREE DUNWOODY DRIVE ATLANTA, GA 30328
L. 4798 F. 685

SHEET 16 OF 33

SDP-00-63



50' 0' 25' 50
1"= 50'

DEVELOPER'S CERTIFICATE

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G. DAMON THAYER — 8/04/03 Date

ENGINEER'S CERTIFICATE

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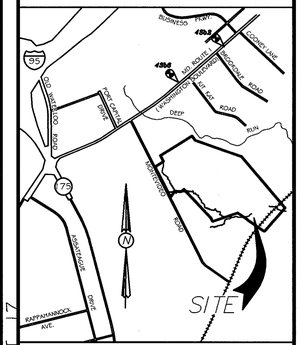
MICHAEL J. KAY — 8/4/03 Date

STATE OF MARYLAND — MICHAEL JOSEPH KAY — NO. 17788 — REGISTERED PROFESSIONAL ENGINEER

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP
SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 9/5/03

Chief, Development Engineering Division — Date 9/5/03

Director, Department of Planning and Zoning — Date 9/5/03

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A. Natural Resources Conservation Service — Date 8/27/03

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD — Date 8/27/03

DATE	REVISIONS
07/29/03	RED-LINE REVISION NO. 2
03/24/03	RED-LINE REVISION NO. 1

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: APRIL 17, 2000

REVISED
GRADING AND SEDIMENT CONTROL PLAN

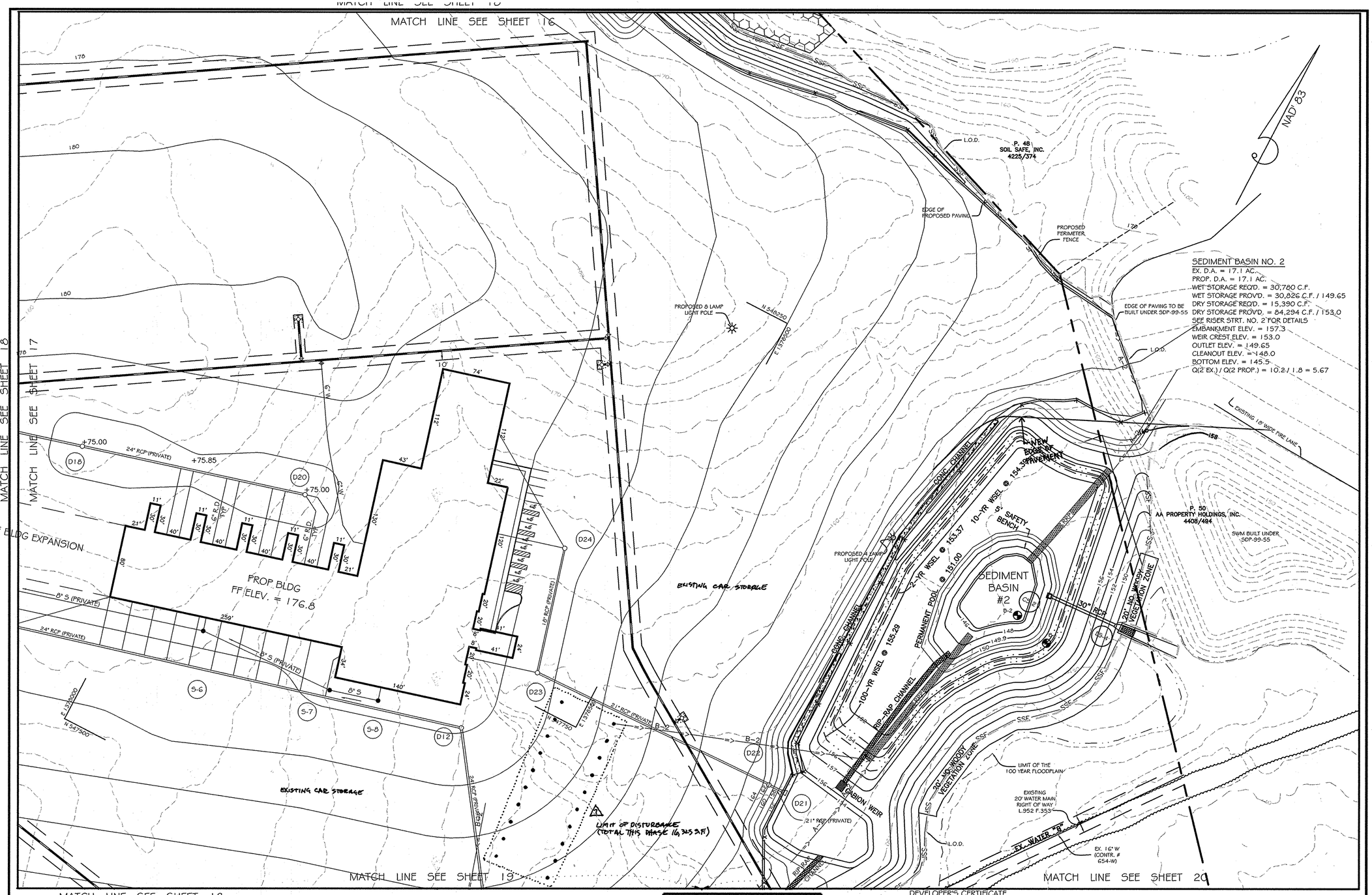
SDP-00-63

OWNER / DEVELOPER

AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4798 F. 685

SHEET 17 OF 33

[THAYER AUTO EXCHANGE] - [BWAE GRDG AND SED CNTRL BASE SHEET]



MATCH LINE SEE SHEET 18

MATCH LINE SEE SHEET 17

FUTURE BLDG EXPANSION

24" RCP (PRIVATE)

ET 17

MATCH LINE SEE SHEET 18

MATCH LINE SEE SHEET 19

MATCH LINE SEE SHEET 20

MATCH LINE SEE SHEET 18

△ PROFESSION CERTIFICATION:
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 27020 EXP. DATE 1/25/06

STATE OF MARYLAND — PAUL G. CAVANAUGH — No. 27020 — REGISTERED PROFESSIONAL ENGINEER

10/21/16 Revision 7 only

PAUL G CAVANAUGH
PROFESSIONAL ENGINEER NO 27020

STATE OF MARYLAND — ROBERT T. HEER — No. 21647 — PROFESSIONAL ENGINEER

11.16.07
FOR 12/24/06 REVISION

50' 0' 25' 50
1"= 50'

STATE OF MARYLAND — MICHAEL JOSEPH KAY — No. 21708 — REGISTERED PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE

"We certify that all development and construction will be done according to this plan, 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 inspection by the Howard Soil Conservation District."

G. DAMON THAYER — GS4-W — 8/06/03 Date

L.O.D.

ENGINEER'S CERTIFICATE

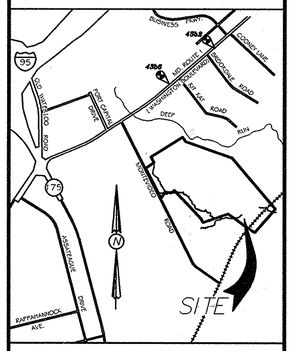
" I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer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

MICHAEL J. KAY — 8/4/03 Date

[THAYER AUTO EXCHANGE] - [BWAE GRDG AND SED CNTRL BASE SHEET]

THAYER & ASSOCIATES INC.

2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP
SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Cindy Hamilton — 9/5/03 Date — Issued HG

Chief, Development Engineering Division — 9/3/03 Date — MAT

Director, Department of Planning & Zoning — 9/5/03 Date

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A.-Natural Resources Conservation Service — 8/27/03 Date

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD — 8/27/03 Date

DATE	REVISIONS
9/28/15	△ REDLINE REVISION TO ADD SWM CHANGE
12-29-06	RED-LINE REVISION NO 3.-ROAD WIDENING
07/29/03	RED-LINE REVISION NO. 2
03/24/03	RED-LINE REVISION NO. 1

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: APRIL 17, 2000

REVISED
GRADING AND SEDIMENT CONTROL PLAN

SDP-00-63

OWNER / DEVELOPER

AA PROPERTY HOLDINGS
△ 6205 PEACHTREE DUNWOODY ROAD ATLANTA, GA 30328
L. 4796 F. 685

SHEET 18 OF 33

SDP-00-63

MATCH LINE SEE SHEET 17

MATCH LINE SEE SHEET 18

MATCH LINE SEE SHEET 19

MATCH LINE SEE SHEET 20

MATCH LINE SEE SHEET 21

P. 93
SBY EUGENE MILLER
379/591

P. 94
WILMUR M. STEVENS et ux
674/338

P. 326
NOAH AARON CORPORATION
2477/547
LOT 1 PLAT 5-25

P. 344
BALTIMORE AIRCOIL COMPANY, INC.
1054/581

NON-TIDAL WETLANDS AREA

50' STREAM BUFFER

25' WETLANDS BUFFER

LIMIT OF THE 100 YEAR FLOODPLAIN

CENTERLINE OF EXISTING STREAM

PROPOSED PERIMETER FENCE

PROPOSED 4 LAMP LIGHT POLE

PROPOSED 3 LAMP LIGHT POLE

EDGE OF PROPOSED PAVING

SILT FENCE

EXISTING 20" WATER MAIN RIGHT OF WAY L.952 F.353

EX. 16" W (CONTR. # 1296-D)

EX. 16" W (CONTR. # 654-W)

EX. WATER "A"

EX. WATER "B"

PROPOSED PERIMETER FENCE

L.O.D.

CONC. CHANNEL

GABION WEEP

7-YR WSEL @ 152.35

10-YR WSEL @ 153.95

PERM. POOL @ 150.00

100-YR WSE @ 154.29

5' SAFETY BENCH

36" RCP

24" RCP (PRIMARY)

30" RCP (PRIMARY)

S74°56'18"W 834.42'

N 547250

E 1378500

N 546300

E 1376500

NAD 83

SEDIMENT TRAP NO. 2

STONE OUTLET SED. TRAP TYPE ST-II
DRAINAGE AREA = 2.0 AC.
STORAGE REQUIRED = 7,200 C.F.
STORAGE PROVIDED = 7,200 C.F.
WEIR LENGTH = 5'
STORAGE DEPTH BELOW OUTLET = 1.6'
CLEANOUT ELEVATION = 146.4
TRAP BOTTOM ELEV. = 144.8
CREST ELEVATION = 148.0

SEDIMENT BASIN NO. 3

EX. D.A. = 22.2 AC.
PROP. D.A. = 22.2 AC.
WET STORAGE REQ'D. = 39,960 C.F.
WET STORAGE PROV'D. = 41,473 C.F. / 147.4
DRY STORAGE REQ'D. = 19,980 C.F.
DRY STORAGE PROV'D. = 178,593 C.F. / 153.0
SEE RISER STRT. NO. 3 FOR DETAILS
EMBANKMENT ELEV. = 157.0
WEIR CREST ELEV. = 152.5
OUTLET ELEV. = 147.4
CLEANOUT ELEV. = 146.5
BOTTOM ELEV. = 145.5
Q(2 EX.) / Q(2 PROP.) = 14.4 / 6.8 = 2.12

SEDIMENT BASIN #3

B-1 B-2 B-3

CS-1 CS-2 CS-3 FS-1 FS-2 FS-3

ANTI-SEEP COLLAR

ANTI-NO WOODY VEGETATION ZONE

50' STREAM BUFFER

LIMIT OF THE 100 YEAR FLOODPLAIN

50' 0' 25' 50
1"= 50'

DEVELOPER'S CERTIFICATE

"We certify that all development and construction will be done according to this plan, 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 inspection by the Howard Soil Conservation District."

G. DAMON THAYER — 8/04/03 Date

ENGINEER'S CERTIFICATE

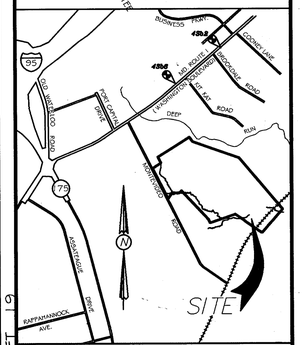
"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer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

MICHAEL J. KAY — 8/04/03 Date

STATE OF MARYLAND — MICHAEL JOSEPH KAY — No. 15785 — REGISTERED PROFESSIONAL ENGINEER

THAYER & ASSOCIATES L.O.D. INC.

2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP
SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 7/25/03

Chief, Development Engineering Division — Date 7/30/03

Director, Department of Planning and Zoning — Date 8/5/03

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A. Natural Resources Conservation Service — Date 8/27/03

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD — Date 8/27/03

DATE	REVISIONS
07/29/03	RED-LINE REVISION NO. 2
03/24/03	RED-LINE REVISION NO. 1

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS

TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: APRIL 17, 2000

REVISED
GRADING AND SEDIMENT CONTROL PLAN

SDP-00-63

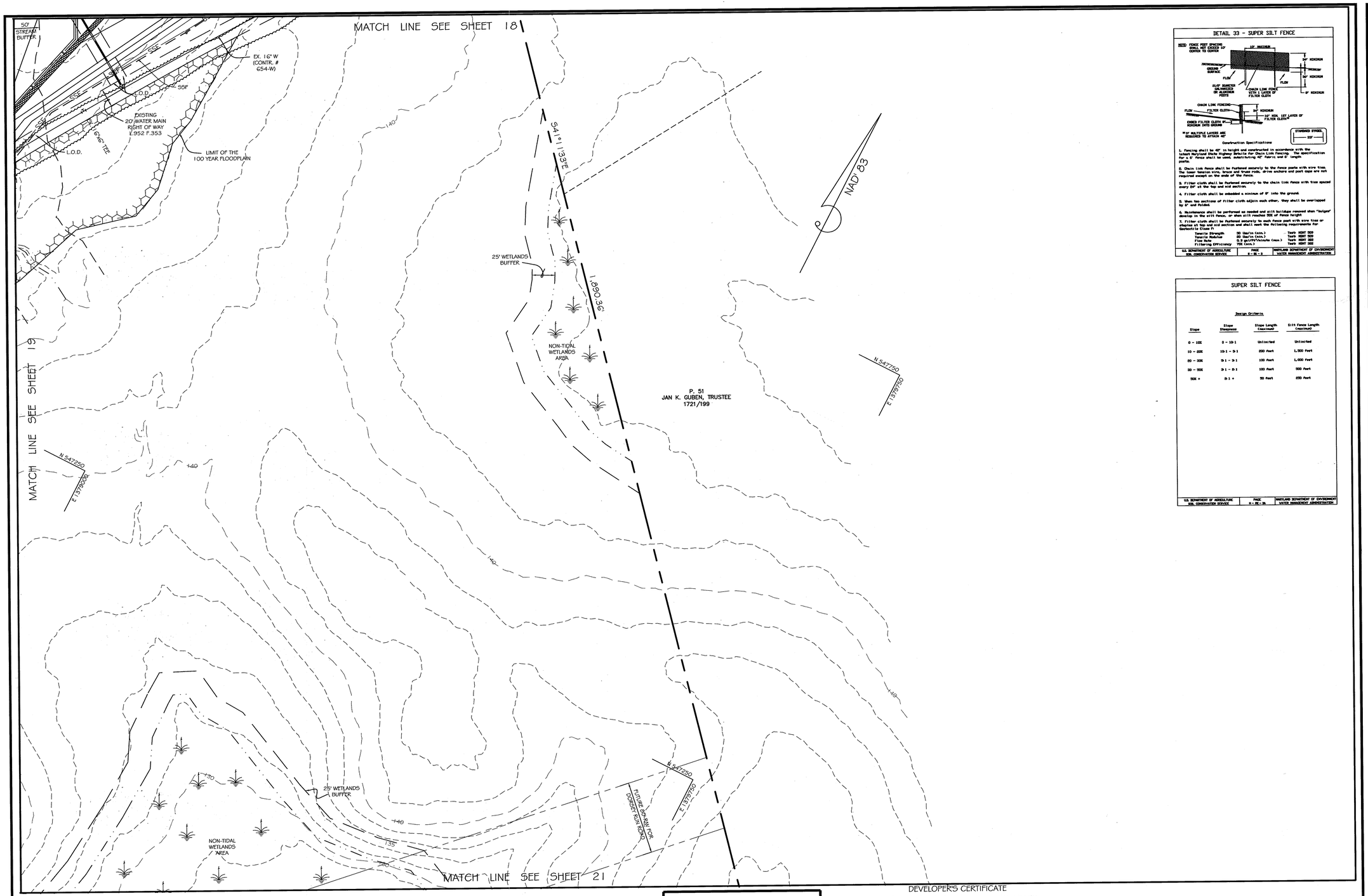
OWNER / DEVELOPER

AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4798 F. 685

SHEET 19 OF 33

SDP-00-63

[THAYER AUTO EXCHANGE] - [BWAE GRDG AND SED CNTRL BASE SHEET]



DETAIL 33 - SUPER SILT FENCE

Construction Specifications

1. Fencing shall be 40" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' Fence shall be used, substituting 42" fabric and 8' length posts.
2. Chain link fence shall be fastened securely to the fence posts with wire ties. The tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.
3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
4. Filter cloth shall be embedded a minimum of 8" into the ground.
5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
6. Maintenance shall be performed as needed and silt buildup removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height
7. Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	20 lbs/in Cmin.)	Tech MSMT 509
Tensile Modulus	20 lbs/in Cmin.)	Tech MSMT 509
Flow Rate	0.3 gal/ft²/minute Cmax.)	Tech MSMT 322
Filtering Efficiency	75% Cmin.)	Tech MSMT 322

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE | PAGE II - EC - 9 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SUPER SILT FENCE

Design Criteria

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

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE | PAGE II - EC - 36 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

STATE OF MARYLAND — MICHAEL JOSEPH KAY — No. 17788 — REGISTERED PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE

"We certify that all development and construction will be done according to this plan, 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 Distrct with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspection by the Howard Soil Conservation Distrct."

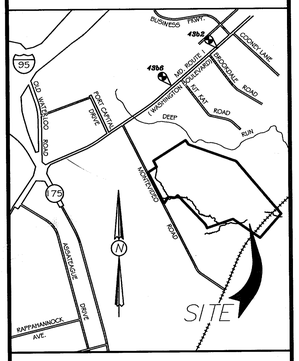
G. DAMON THAYER — Date 3/26/03

ENGINEER'S CERTIFICATE

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

MICHAEL J. KAY — Date 3/24/03

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP
SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 4/15/03

Chief, Developmental Engineering Division — Date 4/15/03

Director, Department of Planning and Zoning — Date 4/16/03

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A. Natural Resources Conservation Service — Date 4/3/03

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD — Date 4/3/03

For Stream Fill only

DATE	REVISIONS
03/24/03	RED-LINE REVISION NO. 1

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: APRIL 17, 2000

GRADING AND SEDIMENT CONTROL PLAN

SDP-00-63

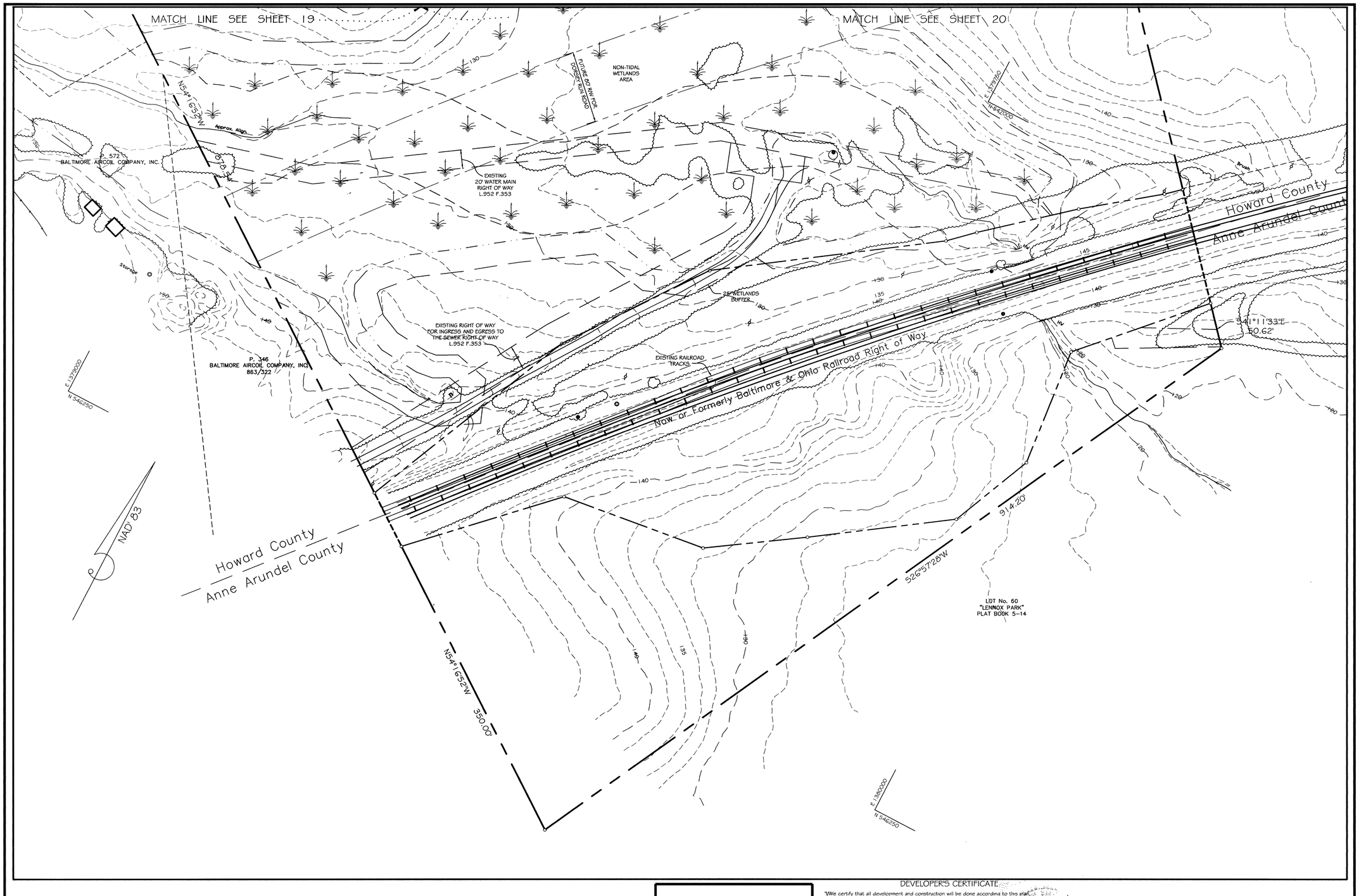
OWNER / DEVELOPER

AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4798 F. 685

Substitute
SHEET 20 OF 33

SDP-00-63

[THAYER AUTO EXCHANGE] - [BWAE GRDG AND SED CNTRL BASE SHEET]



50' 0' 25' 50
1"= 50'

DEVELOPER'S CERTIFICATE

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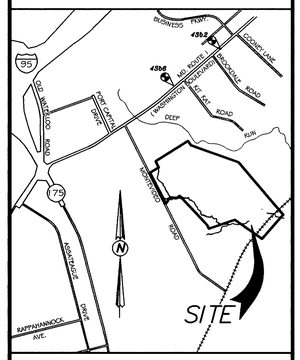
G. DAMON THAYER — Date 7/8/00

ENGINEER'S CERTIFICATE

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

MICHAEL J. KAY — Date 7/8/00

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP
SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 11/2/00

Chief, Development Engineering Division — Date 10/11/00

Director, Department of Planning and Zoning — Date 11/3/00

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A.-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.

Howard SCD — Date

DATE	REVISIONS

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: APRIL 17, 2000

GRADING AND SEDIMENT CONTROL PLAN

SDP-00-63

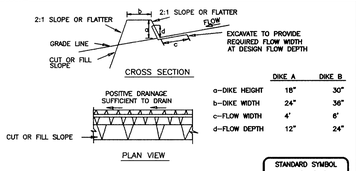
OWNER / DEVELOPER
AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4798 F. 685

SHEET 21 OF 33

[THAYER AUTO EXCHANGE] - [BWAE GRDG AND SED CNTRL BASE SHEET]

SDP-00-63

DETAIL 1 - EARTH DIKE



	DIKE A	DIKE B
a-DIKE HEIGHT	18"	30"
b-DIKE WIDTH	24"	36"
c-FLOW WIDTH	4'	6'
d-FLOW DEPTH	12"	24"

STANDARD SYMBOL: A-2, B-3

FLOW CHANNEL STABILIZATION GRADE 0.5% MIN. 10% MAX.

1. Seed and cover with straw mulch.
2. Seed and cover with Erosion Control Matting or line with sod.
3. 4" - 7" stone or recycled concrete equivalent pressed into the soil 7" minimum

Construction Specifications

1. All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.

2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.

3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity.

4. All trees, brush, stumps, obstructions, and other objectional material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.

5. The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.

6. Fill shall be compacted by earth moving equipment.

7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.

8. Inspection and maintenance must be provided periodically and after each rain event.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE A - 1 - 6	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

1.0 STANDARDS AND SPECIFICATIONS
FOR
EARTH DIKES

Definition

A temporary berm or ridge of soil, compacted, stabilized and located in such a manner as to direct water to a desired location.

Purpose

The purpose of the earth dike is to direct runoff to a sediment trapping device which reduces the potential for erosion and sedimentation. Earth dikes can also be used for diverting clean water away from disturbed areas.

Conditions Where Practice Applies

Earth dikes are often constructed across disturbed areas and around construction sites such as parking lots and subdivisions. The dikes shall remain in place until the disturbed areas are permanently stabilized.

Earth Dikes are constructed:

1. To divert sediment laden runoff from a disturbed area to a sediment trapping device.

2. Across disturbed areas to shorten overland flow distances.

3. To direct sediment laden water along the base of slopes to a trapping device.

4. To divert clear water from an undisturbed area to a stabilized outlet. Runoff shall be discharged at non-erosive rates

Table 1 Design Criteria

	Dike A	Dike B
Drainage Area	(See Table 2)	(See Table 2)
Slope (of dike)	(See Table 2)	(See Table 2)
Dike Height (a)	18 in.	30 in.
Dike Width (b)	24 in.	36 in.
Flow Width (c)	4 ft.	6 ft.
Flow Depth in Channel (d)	12 in.	24 in.
Side Slopes	2 : 1 or flatter	2 : 1 or flatter

A-1-1

Note: 1. For slopes or drainage areas other than specified on Table 2, an engineering design is required. If the slope of the earth dike or the drainage area contributing to the dike falls between values on Table 2, round up to the next higher slope or drainage area.

2. Stabilization of the earth dike shall be completed within seven days of installation.

Construction Specifications

1. All temporary earth dikes shall have uninterrupted positive grade to an outlet. Earth dikes having longitudinal slopes flatter than 1% should have spot elevations along the flow line.

2. Diverted runoff from disturbed areas shall be directed to a sediment trapping devices.

3. Diverted runoff from undisturbed areas shall outlet directly onto an undisturbed, stabilized area at a non-erosive velocity (≤ 4 fps for grass).

4. All trees, brush, stumps, and obstructions shall be removed and disposed of so as not to interfere with the proper functioning of the earth dike berm and flow channel.

5. The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.

6. Fill shall be compacted by earth moving equipment.

7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the earth dike berm and flow channel.

8. Inspection and maintenance must be provided periodically and after each rain event.

Stabilization

Stabilization of the earth dike shall be completed within 7 days of installation in accordance with the standards and specifications for Vegetative Practices (Section G). The earth dike flow channel shall be stabilized in accordance with Table 2, and the following criteria:

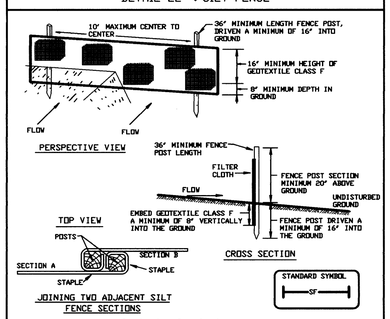
Flow Channel Stabilization

1. Seed and cover with straw mulch.
2. Seed and cover with Erosion Control Matting or line with sod.
3. 4" - 7" stone or recycled concrete equivalent pressed into the soil is a minimum 7" layer.

The earth dike type (A or B) and lining (1, 2, or 3) shall be shown on the plans using the standard symbol and A-1, or B-3, etc. Earth dike type and lining may vary along its length.

In highly erodible soils, as defined by the local approval agency, refer to the next higher slope grade for the type of stabilization needed.

DETAIL 22 - SILT FENCE



Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 11/2" x 11/2" square (minimum) cut, or 13/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot.

2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F1

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal ft²/ minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.

4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 16 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SILT FENCE

Silt Fence Design Criteria

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

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

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 16 - 3A	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

15.0 STANDARDS AND SPECIFICATIONS
FOR
SILT FENCE

Definition

Temporary barriers of woven geotextile fabric used to intercept, reduce velocity and filter runoff from disturbed areas.

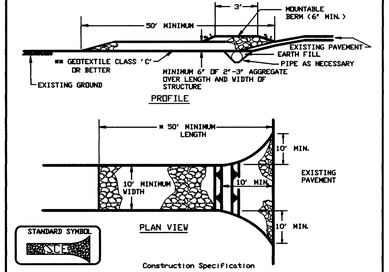
Purpose

Silt fences filter sediment from runoff so that deposition of transported sediment can occur. Silt fences can be used to intercept sheet flow only. They cannot be used as velocity checks in ditches or swales, or placed where they will intercept concentrated flow.

Conditions Where Practice Applies

Silt fence is limited to intercepting sheet flow runoff from limited distances according to slope. Silt fence provides filtering and velocity dissipation to promote gravity settling of sediments.

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



Construction Specification

1. Length - minimum of 50' (#30' for single residence lot).

2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.

3. Geotextile fabric (Filter cloth) shall be placed over the existing ground prior to placing stone. ##The plan approval authority may not require single family residences to use geotextile.

4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.

5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.

6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F - 17 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

17.0 STANDARDS AND SPECIFICATIONS
FOR
STABILIZED CONSTRUCTION ENTRANCE

Definition

A stabilized layer of aggregate that is underlain with Geotextile Class C[2]. Stabilized entrances are located at any point where traffic enters or leaves a construction site.

Purpose

Stabilized construction entrances reduce tracking of sediment onto streets or public rights-of-way and provide a stable area for entrance or exit from the construction site.

Conditions Where Practice Applies

1. Stabilized construction entrances shall be located at points of construction ingress and egress.

2. For single family residences, the entrance should be located at the permanent driveway.

3. Stabilized construction entrances should not be used on existing pavement.

Design Criteria

1. Length - minimum of 50' (30' for single residence lot).

2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.

3. Geotextile Class C shall be placed over the existing ground prior to placing stone. The plan approval authority may not require geotextile fabric for single family residences.

4. Stone - crushed aggregate (2" to 3")[2], or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.

5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped under the entrance to maintain positive drainage. Pipe installed under the construction entrance shall be protected with a mountable berm. The pipe shall be sized according to the drainage, with the min. diameter being 6". A pipe will not be necessary when the SCE is located at a high spot.

6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

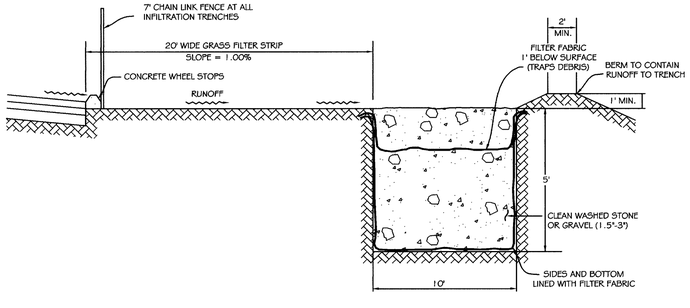
Maintenance

The entrance shall be maintained in a condition which will minimize tracking of sediment onto public rights-of-way. This may require adding stone or other repairs as conditions demand. All sediment spilled, dropped, or tracked onto public rights-of-way must be removed immediately by vacuum sweeping, scraping, or sweeping.

When necessary, wheels shall be cleaned or washed to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device. Daily inspection and maintenance is required.

Removal

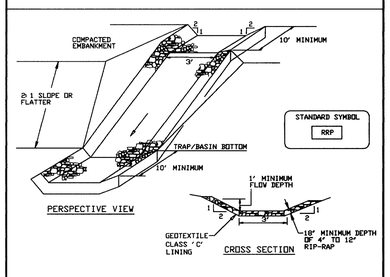
After construction is complete and the site is stabilized, the stabilized construction entrance will be removed and the area stabilized unless it will be used as an underlayment for a driveway.



WATER QUALITY INFILTRATION TRENCH

NOT TO SCALE

DETAIL 5 - RIP-RAP INFLOW PROTECTION



Construction Specifications

1. Rip-rap lined inflow channels shall be 1' in depth, have a trapezoidal cross section with 2:1 or flatter side slopes and 3' (min.) bottom width. The channel shall be lined with 4" - 12" rip-rap or SHA Class I[2] to a depth of 18".

2. Filter cloth shall be installed under all rip-rap. Filter cloth shall be Geotextile Class C.

3. Entrance and exit sections shall be installed as shown on the detail section.

4. Rip-rap used for the lining may be recycled for permanent outlet protection if the basin is to be converted to a stormwater management facility.

5. Gabion Inflow Protection may be substituted for Rip-rap Inflow Protection.

6. Rip-rap should blend into existing ground.

7. Rip-rap Inflow Protection shall be used where the slope is between 4:1 and 10:1. For slopes flatter than 10:1 use Earth Dike or Temporary Swale lining criteria.

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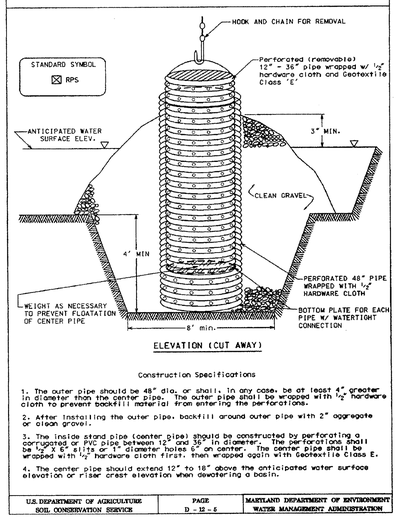
DETAIL 20A - REMOVABLE PUMPING STATION



ELEVATION (CUT AWAY)

Construction Specifications

1. The outer pipe should be 48" dia. or small. In any case, be at least 4" greater in diameter than the center pipe. The outer pipe shall be wrapped with ½" hardware cloth to prevent backfill material from entering the perforations.

2. After installing the outer pipe, backfill around outer pipe with 2" aggregate or clean gravel.

3. The inside stand pipe (center pipe) should be constructed by perforating a corrugated or PVC pipe between 12" and 36" in diameter. The perforations shall be ½" X 6" slits or 1" diameter holes 6" on center. The center pipe shall be wrapped with ½" hardware cloth first, then wrapped again with Geotextile Class E.

4. The center pipe should extend 12" to 18" above the anticipated water surface elevation or riser crest elevation when dewatering a basin.

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6.0 STANDARDS AND SPECIFICATIONS
FOR
RIP-RAP INFLOW PROTECTION

Definition

A temporary or permanent, lined drainageway installed to convey concentrated runoff into sediment traps and basins or down steep slopes as applicable. Rip-rap Inflow Protection consists of the installation of rock or recycled concrete equivalent in a flow channel for stabilization.

Purpose

The purpose of Rip-rap Inflow Protection is to provide stable conveyance of concentrated runoff down steep slopes, (i.e. into temporary sediment traps and basins) thereby preventing erosion of the flow channel.

Conditions Where Practice Applies

Rip-rap Inflow Protection is required where the slope of a drainage way contributing to a sediment trap or basin exceeds 10:1 but is less than 4:1. Runoff may be directed to the inflow device by means of dikes or swales.

Design Criteria

Rip-rap Inflow protection shall be 4"- 12" rip-rap (min.), underlain with Geotextile Class C[2] and placed from the ditch overfall elevation to the bottom of the trap or basin when the inflow slope is between 4:1 and 10:1. Slopes flatter than 10:1 shall be stabilized in accordance with Temporary Swale or Earth Dike criteria as applicable. For slopes steeper than 4:1, see Gabion Inflow Protection.

Construction Specifications

1. Rip-rap Inflow Protection shall be 1' in depth, have a trapezoidal cross section with 2:1 or flatter side slopes and a 3' minimum bottom width. The channel shall be lined with 4" - 12" rip-rap or SHA Class I[2] to a depth of 18".
2. Filter cloth shall be installed under all rip-rap. Filter cloth shall be Geotextile Class C.
3. Entrance and exit sections shall be installed as shown on the detail section.
4. Rip-rap used for the lining may be recycled for permanent outlet protection if the basin is to be converted to a stormwater management facility.
5. Gabion Inflow Protection may be substituted for Rip-rap Inflow Protection.
6. Rip-rap should blend into existing ground.
7. Rip-rap Inflow Protection shall be used where the slope is between 4:1 and 10:1. For slopes flatter than 10:1 use Earth Dike or Temporary Swale.

24.0 MATERIALS SPECIFICATIONS

Table 27 Geotextile Fabrics

CLASS	APPARENT OPENING SIZE MM. MAX.	GRAB TENSILE STRENGTH LB. MIN.	BURST STRENGTH PSI. MIN.
A	0.30	250	500
B	0.60	200	320
C	0.30	200	320
D	0.60	90	145
E	0.30	90	145
F (SILT FENCE)	0.40-0.80*	90	190

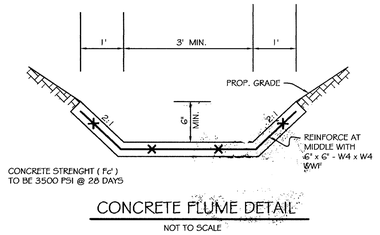
* US Std Sieve CW-02215

Table 28 Stone Size

	SIZE RANGE	D_{50}	D_{100}	AASHTO	WEIGHT
NUMBER 57*	3/8" - 1 1/2"	1/2"	1 1/2"	M-43	N/A
NUMBER 1	2" - 3"	2 1/2"	3"	M-43	N/A
RIP-RAP**	4" - 7"	5 1/2"	7"	N/A	N/A
CLASS I	N/A	9.5"	15"	N/A	150lb max
CLASS II	N/A	16"	24"	N/A	700lb max
CLASS III	N/A	23"	34"	N/A	2000lb max

* This classification is to be used on the inside face of stone outlets and check dams.

** This classification is to be used when ever small rip-rap is required. The State Highway Administration designation for this stone is Stone For Gabions (#905.01.04).



CONCRETE FLUME DETAIL

NOT TO SCALE

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 11/6/00

Chief, Development Engineering Division — Date 10/16/00

Director, Department of Planning and Zoning — Date 11/2/00

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A. - Natural Resources Conservation Service — Date 10/16/00

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD — Date 10/16/00

DATE	REVISIONS

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS

TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: APRIL 15, 2000

SEDIMENT CONTROL DETAILS

SDP-00-63

OWNER / DEVELOPER

AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4798 F. 665

SHEET 22 OF 33

STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

DEFINITION

Using vegetation as cover for barren soil to protect it from forces that cause erosion.

PURPOSE

Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and run-off to downstream areas, and improving wildlife habitat and visual resources.

CONDITIONS WHERE PRACTICE APPLIES

This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas. This specification is divided into Temporary Seeding, to quickly establish vegetative cover for short duration (Up to one year), and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary Soil Stockpiles, cleared areas being left idle between construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dams, cut and fill slopes and other areas at final grade, former stockpile and staging areas, etc.

EFFECTS ON WATER QUALITY AND QUANTITY

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration evaporation, transpiration, percolation, and groundwater recharge. Vegetation, over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth.
Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone.
Sediment control devices must remain in place during grading, seedbed preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS

A. Site Preparation
   i. Install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
   ii. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.
   iii. Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed area over 5 acres.
B. Soil Amendments (Fertilizer and Lime Specifications)
   i. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.
   ii. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee of the producer.
   iii. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 98-100% will pass through a #20 mesh sieve.
   iv. Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.
C. Seedbed Preparation
   i. Temporary Seeding
      a. Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth, but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
      b. Apply fertilizer and lime as prescribed on the plans.
      c. Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.
   ii. Permanent Seeding
      a. Minimum soil conditions required for permanent vegetative establishment:
         1. Soil pH shall be between 6.0 and 7.0.
         2. Soluble salts shall be less than 500 parts per million (ppm).
         3. The soil shall contain less than 40% clay, but enough fine grained material (>30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass or sericea lespedezas is to be planted, then a sandy soil (<30% silt plus clay) would be acceptable.
         4. Soil shall contain 1.5% minimum organic matter by weight.
         5. Soil must contain sufficient pore space to permit adequate root penetration.
         6. If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil.
      b. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3-5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.
      c. Apply soil amendments as per soil test or as included on the plans.
      d. Mix soil amendments into the top 3-5" of topsoil by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed and application. Where site conditions will not permit normal seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1-3" of soil should be loose and friable. Seedbed loosening may not be necessary on newly disturbed areas.

D. Seed Specifications
   i. All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job.
   Note: Seed tags shall be made available to the inspector to verify type and rate of seed used.
   ii. Inoculant - The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75°-80° F. can weaken bacteria and make the inoculant less effective.
E. Methods of Seeding
   i. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeded, or a cultipacker seeder.
      a. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen; maximum of 100 lbs. per acre total of soluble nitrogen; P2O5 (phosphorous); 200 lbs/ac; K20 (potassium): 200 lbs/ac.
      b. Lime - use only ground agricultural limestone, (Up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
      c. Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.
   ii. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
      a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 26 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.
      b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
   iii. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.
      a. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.
      b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
F. Mulch Specifications (in order of preference)
   i. Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonable bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.
   ii. Wood Cellulose Fiber Mulch (WCFM)
      a. WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
      b. WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.
      c. WCFM, including dye, shall contain no germination or growth inhibiting factors.
      d. WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
      e. WCFM material shall contain no elements or compounds at concentration levels that will be phytoli-toxic.
      f. WCFM must conform to the following physical requirements: fiber length to approximately 10 mm. , diameter approximately 1 mm., pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.
   Note: Only sterile straw mulch should be used in areas where one species of grass is desired.
G. Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding.
   i. If grading is completed outside of the seeding season, mulch along shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in accordance with these specifications.
   ii. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.
   iii. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons of water.
H. Securing Straw Mulch (Mulch Anchoring): Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of area and erosion hazard:
   i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of two (2) inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should be used on the contour if possible.
   ii. Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
   iii. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and crest of banks. The remainder of area should be applied uniform after binder application. Synthetic binders - such as Acrylic DLR (Agro-Tack), DCA-70 Petroset, Terra Tax II, Terra Tack AR, or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.
   iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 8' feet wide and 300 to 3,000 feet long.

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, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS:
APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1,000 SQ.FT.)

SEEDING:
FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 1 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./ACRE OF WEEPING LOVEGRASS (.07 LBS./1,000 SQ.FT. FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING:
APPLY 1 TO 2 TONS PER ACRE (70 TO 90 LBS./1,000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL./1,000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT ACRES ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1,000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

PERMANENT SEEDING NOTES

ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS:

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

SOIL AMENDMENTS:
APPLY TWO TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1,000 SQ.FT.) AND 600 LBS. PER ACRE 0-20-20 FERTILIZER (14 LBS./1,000 SQ.FT.) BEFORE SEEDING HARROW OR DISC. INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 38-0-0 UREAFORM FERTILIZER (9 LBS./1,000 SQ.FT.) AND 500 LBS. PER ACRE (11.5 LBS./1,000 SQ.FT.) OF 10-20-20 FERTILIZER.

SEEDING:
FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 100 LBS. PER ACRE (2.3 LBS./1,000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE, FOR THE PERIOD MAY 1 THROUGH JULY 31, SEED WITH 60 LBS/ACRE (1.4 LBS./1,000 SQ.FT.) KENTUCKY 31 TALL FESCUE AND 2 LBS. PER ACRE (0.05 LBS./1,000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 28. PROJECT SITE BY: OPTION (1) - TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING; OPTION (2) - USE SOD; OPTION (3) - SEED WITH 100 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH TWO TONS/ACRE WELL ANCHORED STRAW. ALL SLOPES SHOULD BE HYDROSEEDED.

MULCHING:
APPLY 1 TO 2 TONS PER ACRE (10 TO 90 LBS./1,000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING 200 GALLONS PER ACRE (5 GAL/1,000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT ACRES. ON SLOPES 8 FEET OR HIGHER USE 348 GALLONS PER ACRE (8 GAL/1,000 SQ.FT.) FOR ANCHORING.

MAINTENANCE:
INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

* FOR PUBLIC PONDS SUBSTITUTE CHEMUNG CROWNVETCH AT 15 LBS./ACRE AND KENTUCKY 31 TALL FESCUE AT 40 LBS/ACRE AS THE SEEDING REQUIREMENT. OPTIMUM SEEDING DATE FOR THIS MIXTURE IS MARCH 1 TO APRIL 30.

Table 25 Permanent Seeding for Low Maintenance Areas

MIX	SEED MIX (USE CERTIFIED[a] MATERIAL IF AVAILABLE)	PLANTING LBS/AC	PLANTING LBS/1000 SQ FT	SITE CONDITIONS	USDA HARDINESS ZONES[b]	RECOMMENDED PLANTING DATES[c] 3/1-5/15	3/15-6/1	5/16-8/14	6/2-7/31	8/1-10/1	8/15-10/15	8/15-11/15	NOTES
1	TALL FESCUE (75%), CANADA BLUEGRASS (10%), KENTUCKY BLUEGRASS (10%), REDTOP (5%)[e]	150	3.4	MOIST TO DRY	5b		X			X			A
					6a		X			X			
					6b	X					X		
					7a	X						X	
					7b	X						X	
2	KENTUCKY BLUEGRASS (50%), CREEPING RED FESCUE OR A HARD FESCUE (40%), REDTOP (10%)	150	3.4	MOIST TO MODERATELY DRY TO DRY	5b		X			X			B
					6a		X			X			
					6b	X					X		
3	TALL FESCUE (85%), PERENNIAL RYEGRASS (10%), KENTUCKY BLUEGRASS (5%)	125	2.9	MOIST TO DRY	5b		X			X			C
		15	.34		6A		X			X			
		10	.23		6B	X					X		
					7A	X						X	
					7B	X						X	
4	RED FESCUE OR CHEWINGS FESCUE (80%) PERENNIAL RYEGRASS (20%)	60	.92	MOIST TO DRY	5b		X			X			D
		60	.92		6a		X			X			
		15	.34		6b	X					X		
5	TALL FESCUE (85%) OR, PERENNIAL RYEGRASS (50%) PLUS CROWNVETCH OR FLATPEA	110	2.5	MOIST TO DRY	5b		X			X			E
		20	.46		6a		X			X			
		20	.46		6b	X					X		
		20	.46		7a	X						X	
					7b	X						X	
6	WEEPING LOVEGRASS (17%) SERICEA LESPEDEZA (83%)	4	.09	DRY TO VERY DRY	6a	X		X					F
		20	.46		7a	X		X					
					7b	X		X					

NOTES:
A/ USED BY SHA ON SLOPED AREAS. ADD A LEGUME FOR SLOPES > THAN 3:1.
B/ USED IN MEDIAN AREAS BY SHA. SHADE TOLERANT.
C/ POPULAR MIX - PRODUCES PERMANENT GROUNDCOVER QUICKLY. BLUEGRASS THICKENS STAND.
D/ BEST USE ON SHADY SLOPES NOT ON POORLY DRAINED CLAYS.
E/ USE ON LOW MAINTENANCE, STEEP SLOPES. USE TALL FESCUE IN DRAUGHTY COND. CROWN VETCH BEST FOR 5b, 6a, 6b.
F/ SUITABLE FOR SEEDING IN MID-SUMMER.

Table 25 Permanent Seeding for Low Maintenance Areas (Cont'd)

MIX	SEED MIX (USE CERTIFIED MATERIAL IF AVAILABLE)	PLANTING RATE LBS/AC	PLANTING RATE LBS/1000 SQ FT	SITE CONDITIONS	USDA HARDINESS ZONES	RECOMMENDED PLANTING DATES 3/1-5/15	3/15-6/1	5/16-8/14	6/2-7/31	8/1-10/1	8/15-10/15	8/15-11/15	NOTES
7	TALL FESCUE (85%) WEEPING LOVEGRASS (2%) PLUS SERICEA LESPEDEZA (15%)	110	2.5	DRY TO VERY DRY	5b		X		X	X			G
		3	.69		6a		X		X	X			
		20	.46		6b	X		X			X		
					7a	X		X				X	
					7b	X		X				X	
8	REED CANARYGRASS (75%) REDTOP (6%) PLUS BIRDSFOOT TREFOIL* (19%)	60	.92	WET TO MODERATELY DRY	5b		X			X			H
		3	.07		6a		X			X			
		10	.23		6b	X					X		
					7a	X						X	
					7b	X						X	
9	TALL FESCUE (86%) POA TRIVIALIS (7%) BIRDSFOOT TREFOIL (7%)	125	2.9	WET TO MODERATELY DRY	5b		X			X			I
		10	.23		6a		X			X			
		10	.23		6b	X					X		
10	TALL FESCUE (86%) HARD FESCUE (20%)	130	3.4	WET TO DRY	5b		X			X			J
		30	.69		6a		X			X			
					6b	X					X		
					7a	X						X	
					7b	X						X	
11	HARD FESCUE (100%)	1.75	1.7	MOIST TO DRY	5b		X			X			K
					6a		X			X			
					6b	X					X		
					7a	X						X	

NOTES: G/ WEEPING LOVEGRASS MAY BE SEEDED WITH TALL FESCUE IN MID-SUMMER. SERICEA LESPEDEZA IS BEST SUITED FOR ZONES 7a AND 7b.
H/ USE ON POORLY DRAINED SOILS - DITCHES OR WATERWAYS. BIRDSFOOT TREFOILS BEST FOR ZONES 5b, 6a, ABOVE 2,500 FT.
I/ USE IN AREAS OF MOIST SHADE. POA TRIVIALIS THRIVES IN WET SHADY AREAS.
J/ TALL FESCUE MAY BE SEEDED ALONE. THE HARD FESCUE PROVIDES BETTER SHADE TOLERANCE AND PRODUCES A BETTER STAND.
K/ LOW FERTILITY GRASS. REQUIRES INFREQUENT MOWING, GOOD COMPANION FOR WILDFLOWERS.

Table 26 Temporary Seeding Rates, Depths, and Dates

SPECIES	MINIMUM SEEDING RATES PER ACRE	MINIMUM SEEDING RATES LBS/1000 SQ.FT.	PLANTING DEPTH[d] INCHES	HARDINESS ZONES[n] AND SEEDING DATES [o] 7a and 7b 2/1-4/30	7a and 7b 5/1-8/14	7a and 7b 8/15-11/30	6b 3/1-4/30	6b 5/1-8/14	6b 8/15-11/15	6a and 5b 3/15-5/31	6a and 5b 6/1-7/31	6a and 5b 8/1-10/31
CHOOSE ONE:												
BARLEY	2.5 BU. (122 lbs)	2.80	1-2	X	-	BY 10/15	X	-	BY 10/15	X	-	BY 10/1
OATS	3 BU. (96 lbs)	2.21	1-2	X	-	-	X	-	-	X	-	-
RYE [m]	2.5 BU. (140 lbs)	3.22	1-2	X	-	X	X	-	X	X	-	X
BARLEY OR RYE PLUS FOXTAIL MILLET[e]	150 lbs	3.45	1	X X	X X	10/15 X	X X	X X	10/15 X	X X	X X	10/1 X
WEEPING LOVEGRASS[g]	4 lbs	.09	1/4 - 1/2	-	X	-	-	X	-	-	X	-
ANNUAL RYEGRASS	50 lbs	1.15	1/4 - 1/2	X	-	11/1	X	-	11/1	X	-	8/15
MILLET[i]	50 lbs	1.15	1/2	-	X	-	-	X	-	-	X	-

Table 21 Recommended Varieties of Grasses and Legumes for Disturbed Areas

Areas Receiving Low Maintenance[f]

Grasses	Varieties
Tall Fescue	Adventure, Apache, Arid, Bonanza, Falcon, Clemfine, Finelawn I, Houndog, Jaguar, Kentucky 31[j], Mustang, Olympic, Rebel II, Tribute
Perennial Ryegrass	All-Star, Blazer, Manhattan, Palmer, Pennant, Pennfine, Premier, Prelude, Regal, Repell
Kentucky Bluegrass	"Common", Kenblue, Victa, Ram I, Monopoly
Creeping Red Fescue	Pennlawn, Flyer
Hard Fescue	Aurora, Biljart, Reliant, Scaldis, Spartan, Waldina
Chewings Fescue	Longfellow, Victory, Jamestown
Canada Bluegrass	Reubens
Redtop	Streaker
Poa Trivialis	Laser, Sabre
Reed Canarygrass	Ioreed, Palaton, Rise
Weeping Lovegrass	Morpa, "Common"
Legumes	Variety
Crownvetch	Penngift, Chemung
Sericea Lespedeza	Interstate, Interstate 76, Appalow
Flatpea	Lathco
Birdsfoot Trefoil	Empire, Noreen, Viking

Table 22 Quality of Seed

LEGUMES	Minimum Seed Purity (%)	Minimum Germination(%)
Birdsfoot Trefoil	97	85
Crownvetch	98.5	80
Lespedeza, Sericea	98	85
Flatpea	98	80
GRASSES		
Bluegrass, Canada	90	80
Bluegrass, Kentucky	90	80
Fescue, red	98.5	85
Fescue, Chewings	98	85
Fescue, tall	98	90
Lovegrass, weeping	98	80
Redtop	92	80
Reed canarygrass	96	80
Ryegrass, Annual	95	85
Ryegrass, Perennial	98	90
OTHER ANNUALS		
Barley	98	90
Millet	99	80
Oats	99	90
Rye	98.5	85

NOTE: Seed containing prohibited or restricted noxious weeds is unacceptable.
Prohibited Noxious Weeds - Johnsongrass or Johnsongrass crosses, Canada thistle, and quackgrass.
Restricted Noxious Weeds - Wild garlic and wild onion, bermudagrass, annual bluegrass, corn cockle, dodder and bindweed.

Seed should contain less than 2.5% of weed seeds, however, 0% is desirable.

To calculate percent pure live seed, multiply germination times purity and divide by 100.

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797

APPROVED, DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 11/1/00

Chief, Development Engineering Division — Date 10/11/00

Director, Department of Planning and Zoning — Date 11/2/00

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A. Natural Resources Conservation Service — Date 10/9/00

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD — Date 10/9/00

DATE	REVISIONS

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: APRIL 17, 2000

SEDIMENT CONTROL NOTES AND TABLES FOR VEGETATIVE STABILIZATION

SDP-00-63

OWNER / DEVELOPER

AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4798 F. 685

SHEET 23 OF 33

21.0 STANDARD AND SPECIFICATIONS

FOR

TOPSOIL

Definition

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose

To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

Conditions Where Practice Applies

I. 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.

b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.

c. The original soil to be vegetated contains material toxic to plant growth.

d. The soil is so acidic that treatment with limestone is not feasible.

II. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications

I. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.

II. Topsoil Specifications - Soil to be used as topsoil must meet the following:

i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1½" in diameter.

ii. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.

iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

II. For sites having disturbed areas under 5 acres:

i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

III. For sites having disturbed areas over 5 acres:

i. 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 topsoil 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.

b. Organic content of topsoil shall be not less than 1.5 percent by weight.

c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.

d. No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientistand approved by the appopriate approval authority, may be used in lieu of natural topsoil.

ii. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

V. Topsoil Application

i. 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.

ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.

iii. Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.

iv. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

VI. Altenative for Permanent Seeding – Instead of applying the full amounts of lime and commercial fertilizer, composted sluge and amendments may be applied as specified below:

1. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendements and for sites having disturbed areas under 5 acres shall conform to the following requirements:

a. Composted sludge shall be suplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department Of The Environment under COMAR 26.04.06.

b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus and 0.2 percent potassium and have a PH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.

c. Composted sludge shall be applied at a rate of 1 ton/1000 square feet.

iv. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4lb/1000 square feet and 1/3 the normal lime application rate.

References: Guideline Specifications, Soil Preparation And Sodding. MD-VA, Pub #1, Cooperative Extension Service. University of Maryland And Virginia Polytech Institutes. Revised 1973.

30.0 DUST CONTROL

DEFINITION

CONTROLLING DUST BLOWING AND MOVEMENT ON CONSTRUCTION SITES AND ROADS.

PURPOSE

TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON AND OFF-SITE DAMAGE HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY.

CONDITIONS WHERE PRACTICE APPLIES

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT.

SPECIFICATIONS

TEMPORARY METHODS
1. MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRUMPED OR TACKED TO PREVENT BLOWING.
2. VEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.
3. TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12" APART, SPRING TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
4. IRRIGATION - THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED. AT NO TIME SHOULD BE SITE BE IRRIGATED TO THE POINT THAT RUNOFF BEGINS TO FLOW.
5. BARRIERS - SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 10 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING SOIL BLOWING.
6. CALCIUM CHLORIDE - APPLY AT RATES THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

PERMANENT METHODS
1. PERMANENT VEGETATION - SEE STANDARDS FOR PERMANENT VEGETATIVE COVER, AND PERMANENT STABILATION WITH SOD. EXISTING TREES OR LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.
2. TOPSOILING - COVERING WITH LESS EROSIVE SOIL MATERIALS. SEE STANDARDS FOR TOPSOILING.
3. STONE - COVER SURFACING WITH CRUSHED STONE OR COARSE GRAVEL.

REFERENCES
1. AGRICULTURE HANDBOOK 346. WIND EROSION FORCES IN THE UNITED STATES AND THEIR USE IN PREDICTING SOIL LOSS.
2. AGRICULTURE INFORMATION BULLETIN 354. HOW TO CONTROL WIND EROSION, USDA-ARS.

19.0 STANDARDS AND SPECIFICATIONS

FOR

LAND GRADING

Definition

Reshaping of the existing land surface in accordance with a plan as determined by engineering survey and layout.

Purpose

The purpose of a land grading specification is to provide for erosion control and vegetative establishment on those areas where the existing land surface is to be reshaped by grading according to plan.

Design Criteria

The grading plan should be based upon the incorporation of building designs and street layouts that fit and utilize existing topography and desirable natural surroundings to avoid extreme grade modifications. Information submitted must provide sufficient topographic surveys and soil investigations to determine limitations that must be imposed on the grading operation related to slope stability, effect on adjacent properties and drainage patterns, measures for drainage and water removal and vegetative treatment, etc.

Many counties have regulations and design procedures already established for land grading and cut and fill slopes. Where these requirements exist, they shall be followed. The plan must show existing and proposed contours of the area(s) to be graded. The plan shall also include practices for erosion control, slope stabilization, safe disposal of runoff water and drainage, such as waterways, lined ditches, reverse slope benches (include grade and cross section), grade stabilization structures, retaining walls, and surface and subsurface drains. The plan shall also include phasing of these practices. The following shall be incorporated into the plan:

1. Provisions shall be made to safely conduct surface runoff to storm drains, protected outlets or to stable water courses to insure that surface runoff will not damage slopes or other graded areas.

2. Cut and fill slopes that are to be stabilized with grasses shall not be steeper than 2:1. (Where the slope is to be mowed the slope should be no steeper than 3:1; 4:1 is preferred because of safety factors related to mowing steep slopes.) Slopes exceeding 2:1 shall require special design and stabilization considerations that shall be adequately shown on the plans.

3. Reverse benches shall be provided whenever the vertical interval (height) of any 2:1 slope exceeds 20 feet; for 3:1 slope it shall be increased to 30 feet and for 4:1 to 40 feet. Benches shall be located to divide the slope face as equally as possible and shall convey the water to a stable outlet. Soils, seeps, rock outcrops, etc., shall also be taken into consideration when designing benches.

a. Benches shall be a minimum of six-feet wide to provide for ease of maintenance.

b. Benches shall be designed with a reverse slope of 6:1 or flatter to the toe of the upper slope and with a minimum of one foot in depth. Bench gradient to the outlet shall be between 2 percent and 3 percent, unless accompanied by appropriate design and computations.

c. The flow length within a bench shall not exceed 800' unless accompanied by appropriate design and computations. For flow channel stabilization see temporary swale.

4. Surface water shall be diverted from the face of all cut and/or fill slopes by the use of earth dikes, ditches and swales or conveyed downslope by the use of a designed structure, except where:

a. The face of the slope is or shall be stabilized and the face of all graded slopes shall be protected from surface runoff until they are stabilized.

b. The face of the slope shall not be subject to any concentrated flows of surface water such as from natural drainageways, graded swales, downspouts, etc.

c. The face of the slope will be protected by special erosion control materials, to include, but not limited to: approved vegetative stabilization practices (see section G), rip-rap or other approved stabilization methods.

5. Cut slopes occurring in ripable rock shall be serrated as shown on the following diagram. These serrations shall be made with conventional equipment as the excavation is made. Each step or serration shall be constructed on the contour and will have steps cut at nominal two-foot intervals with nominal three-foot horizontal shelves. These steps will vary depending on the slope ratio or the cut slope. The nominal slope line is 1:1. These steps will weather and act to hold moisture, lime, fertilizer and seed thus producing a much quicker and longer lived vegetative cover and better slope stabilization. Overland flow shall be diverted from the top of all serrated cut slopes and carried to a suitable outlet.

6. Subsurface drainage shall be provided where necessary to intercept seepage that would otherwise adversely affect slope stability or create excessively wet site conditions.

7. Slopes shall not be created so close to property lines as to endanger adjoining properties without adequately protecting such properties against sedimentation, erosion, slippage, settlement, subsidence or other related damages.

8. Fill material shall be free of brush, rubbish, rocks, logs, stumps, building debris, and other objectionable material. It should be free of stones over two (2) inches in diameter where compacted by hand or mechanical tampers or over eight (8) inches in diameter where compacted by rollers or other equipment. Frozen material shall not be placed in the fill nor shall the fill material be placed on a frozen foundation.

9. Stockpiles, borrow areas and spoil shall be shown on the plans and shall be subject to the provisions of this Standard and Specifications.

10. All disturbed areas shall be stabilized structurally or vegetatively in compliance with 20.0 Standards and Specifications for Vegetative Stabilization.

SEDIMENT CONTROL & POND CONSTRUCTION

( ) 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 as "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard soil Conservation District."

G. Damon Thayer 7/8/00
Signature of Developer — Date
Print name below signature
G. Damon Thayer

( ) 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"

Michael J. Kay 7/8/00
Signature of Engineer — Date
Print name below signature
MICHAEL J. KAY

( ) 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] /GS. 10/4/00
USDA- Natural Resources Conservation Service — Date

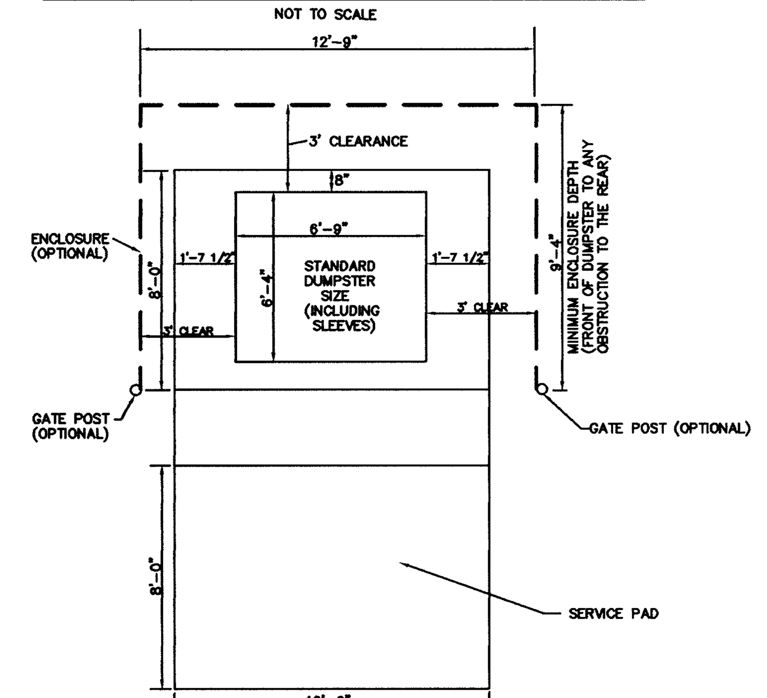
( ) These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District

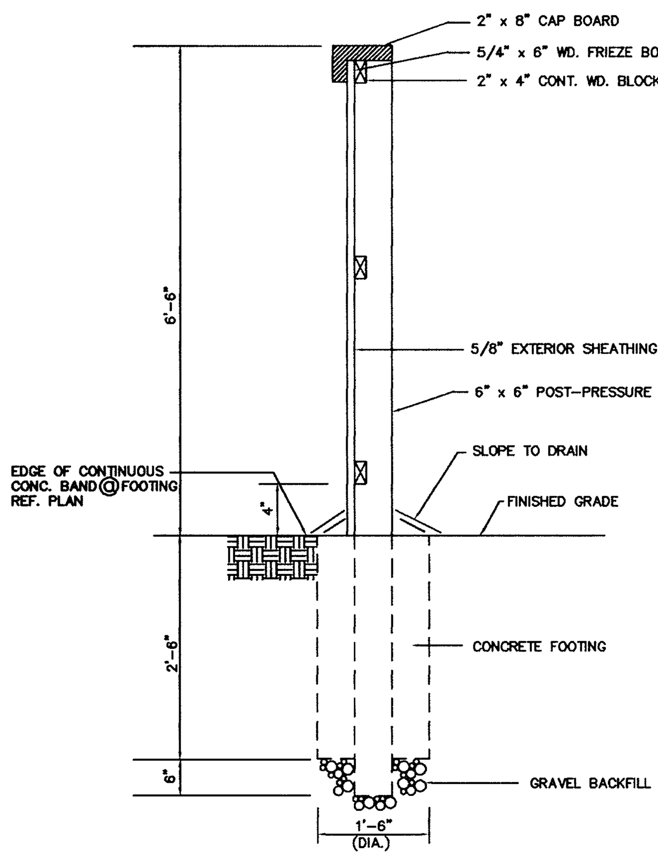
[signature] 10/4/00
Howard Soil Conservation District — Date

Michael J. Kay

SOLID WASTE OPTIONAL CONTAINER ENCLOSURE

NOT TO SCALE





SECTION – TRASH ENCLOSURE

NO SCALE

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 re-disturbance, 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 tha n 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 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding (Sec. 51), sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.

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	123.60 Acres
Area Disturbed	76.30 Acres
Area to be roofed or paved	58.0 Acres
Area to be vegetatively stabilized	18.3 Acres
Total Cut	578,344 Cu. Yds.
Offsite waste/borrow area location	248,006 Cu. Yds.

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 shall be back-filled and stabilized by the end of each work day, whichever is shorter.

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 ____________

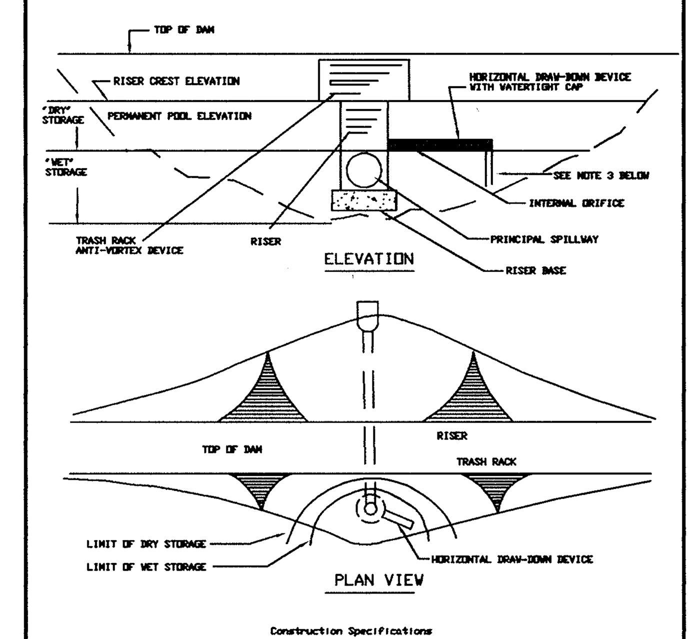
Certify means to state or declare a professional opinion based upon onsite inspections and material tests which are conducted during construction. The onsite inspections and material tests are those inspections and tests deemed sufficient and appropriate by commonly accepted engineering standards. Certify does not mean or imply a guarantee by the engineer nor does and 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 within USDA, SCS* Standards And Specifications For Ponds' (MD-378). The pond owner(s) and any heirs, successors, or assigns shall be responsible for the safety of the pond and the continued operation, surveillance, inspection, and maintenance thereof. The pond owner(s) shall promptly notify the Soil Conservation District of any unusual observations that may be indications of distress, such as seepage, turbid seepage, sliding or slumping.

NOTE: DRAW DOWN PIPE TO BE 9LF 6" PVC W/16 HOLES/FT.

BASIN DRAWDOWN SCHEMATIC
HORIZONTAL DRAW-DOWN DEVICE



Construction Specifications

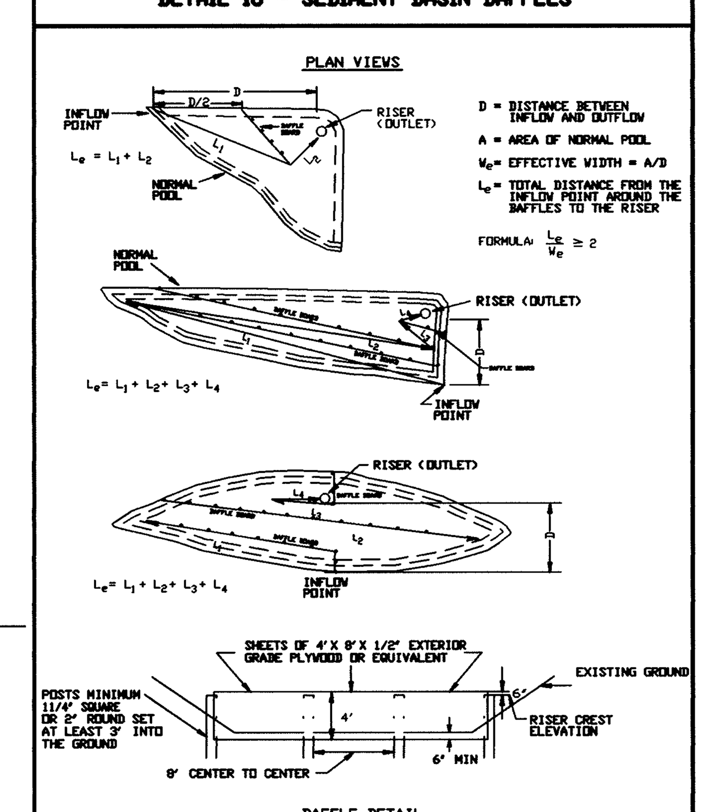
1. The total area of the perforations must be greater than 2 times the area of the internal orifice.

2. The perforated portion of the draw-down device shall be wrapped with 1/2" hardware cloth and geotextile fabric. The geotextile fabric shall meet the specifications for Geotextile Class E.

3. Provide support of draw-down device to prevent sagging and flotation. An acceptable preventative measure is to stake both sides of draw-down device with 1" steel angle, or 1" by 4" square or 2" round wooded posts set 3' minimum into the ground then joining them to the device by wrapping with 12 gauge minimum wire.

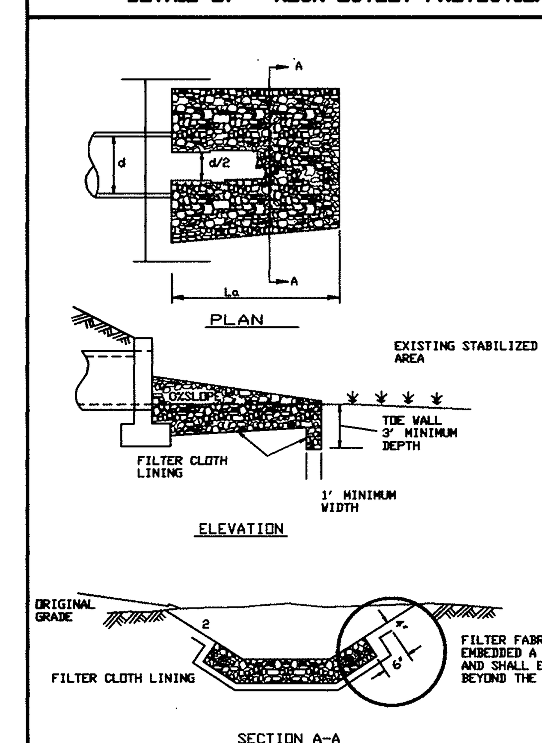
U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE C - 10 - 29	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 18 - SEDIMENT BASIN BAFFLES



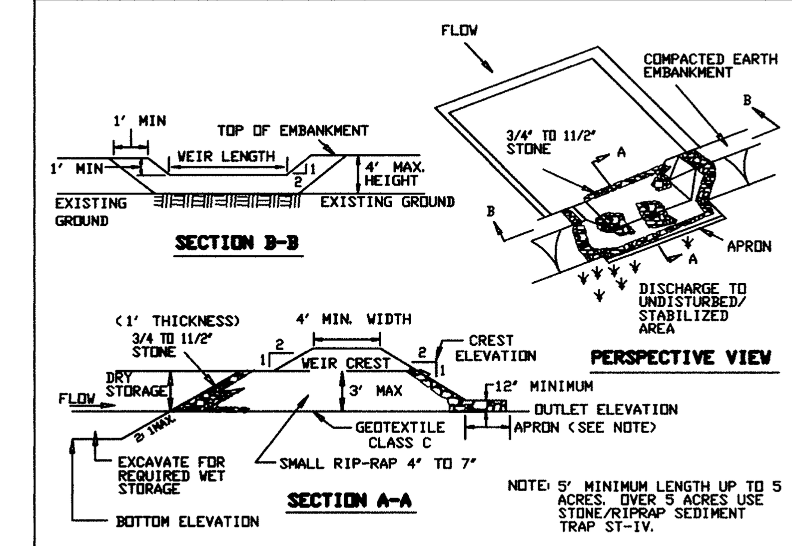
U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE C - 10 - 28	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 27 - ROCK OUTLET PROTECTION III



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F - 18 - 10	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 9 - STONE OUTLET SEDIMENT TRAP - ST II



Construction Specifications

1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.

2. The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.

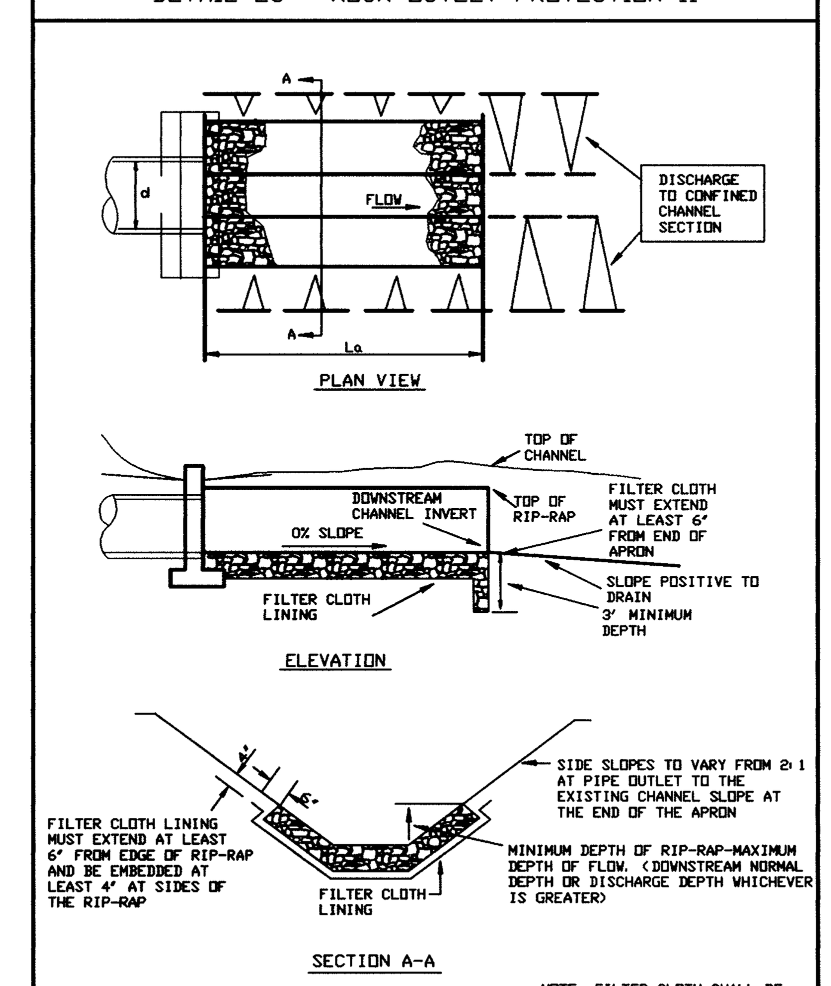
3. All cut and fill slopes shall be 2:1 or flatter.

4. The stone used in the outlet shall be small rip-rap 4" to 7" in size with a 1' thick layer of 3/4" to 11/2" washed aggregate placed on the upstream face of the outlet. Stone facing shall be as necessary to prevent clogging. Geotextile Class C may be substituted for the stone facing by placing it on the inside face of the stone outlet.

5. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to one half of the wet storage depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE C - 9 - 10	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 26 - ROCK OUTLET PROTECTION II



NOTE: FILTER CLOTH SHALL BE GEOTEXTILE CLASS C

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F - 18 - 9	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

ROCK OUTLET PROTECTION III

Construction Specifications

1. The subgrade for the filter, rip-rap, or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.

2. The rock or gravel shall conform to the specified grading limits when installed respectively in the rip-rap or filter.

3. Geotextile shall be protected from punching, cutting, or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of geotextile over the damaged part or by completely replacing the geotextile. All overlaps whether for repairs or for joining two pieces of geotextile shall be a minimum of one foot.

4. Stone for the rip-rap or gabion outlets may be placed by equipment. They shall be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stone for rip-rap or gabion outlets shall be delivered and placed in a manner that will ensure that it is reasonably homogeneous with the smaller stones and spalls filling the voids between the larger stones. Rip-rap shall be placed in a manner to prevent damage to the filter blanket or geotextile. Hand placement will be required to the extent necessary to prevent damage to the permanent works.

5. The stone shall be placed so that it blends in with the existing ground. If the stone is placed too high then the flow will be forced out of the channel and scour adjacent to the stone will occur.

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[signature] 11/2/00
Chief, Division of Land Development — Date

[signature] 10/11/00
Chief, Development Engineering Division — Date

[signature] 11/2/00
Director, Department of Planning and Zoning — Date

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

[signature] /GS. 10/4/00
U.S.D.A.-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.

[signature] 10/4/00
Howard SCD — Date

DATE	REVISIONS

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: APRIL 17, 2000

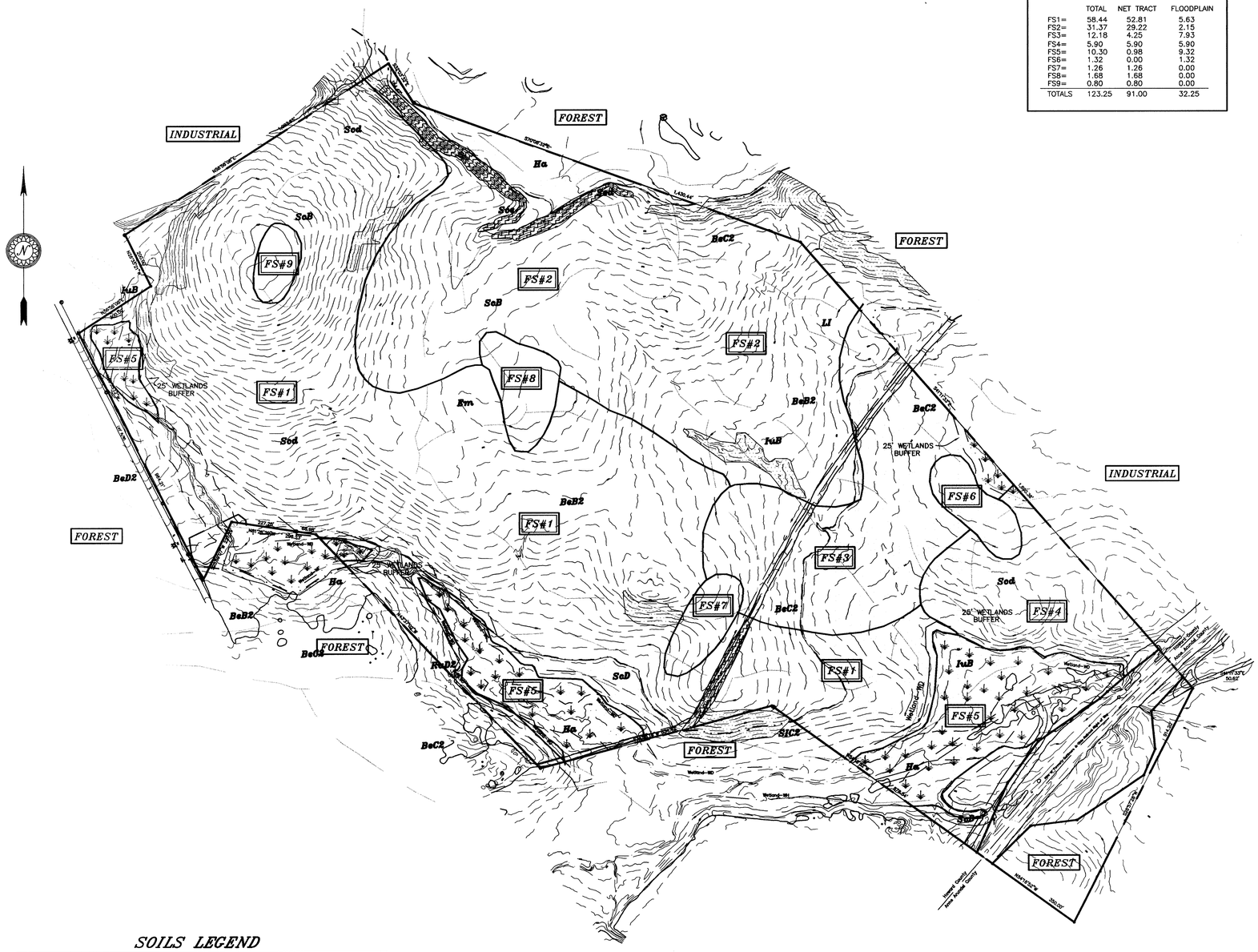
SEDIMENT CONTROL NOTES AND DETAILS

SDP-00-63

OWNER / DEVELOPER

AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211.3109
L. 4798 F. 685

SHEET 24 OF 33



AREA SUMMARY (ACRES±)			
	TOTAL	NET TRACT	FLOODPLAIN
FS1=	58.44	52.81	5.63
FS2=	31.37	29.22	2.15
FS3=	12.18	4.25	7.93
FS4=	5.90	5.90	5.90
FS5=	10.30	0.98	9.32
FS6=	1.32	0.00	1.32
FS7=	1.26	1.26	0.00
FS8=	1.68	1.68	0.00
FS9=	0.80	0.80	0.00
TOTALS	123.25	91.00	32.25

I. BASIC SITE DATA

GROSS SITE AREA	123.30 Ac.±
AREA WITHIN 100 YEAR FLOODPLAIN	41.33 Ac.±
AREA WITHIN EXISTING COUNTY WATER R/W	0.60 Ac.±
NET TRACT AREA	81.37 Ac.±
ZONING	M-2

II. INFORMATION FOR CALCULATIONS

A. NET TRACT AREA	81.37 Ac.±
B. FOREST CONSERVATION THRESHOLD (FCT) (15%xA)	12.20 Ac.±
C. AFFORESTATION THRESHOLD (15%xA)	N/A
D. EXISTING FOREST ON NET TRACT AREA	81.37 Ac.±
E. EXISTING FOREST ABOVE FCT	69.17 Ac.±
F. BREAK EVEN POINT (the amount of forest to be retained w/o mitigation) . {(E x 0.2) + B}	--------
G. FOREST TO BE RETAINED	--------
H. FOREST TO BE CLEARED	--------

III. REFORTESTATION CALCULATIONS

A. NET TRACT AREA	81.37 Ac.±
B. FOREST CONSERVATION THRESHOLD (FCT) (15%xA)	12.20 Ac.±
C. EXISTING FOREST ON NET TRACT AREA	81.37 Ac.±
D. EXISTING FOREST ABOVE FCT	69.17 Ac.±
E. FOREST AREAS TO BE CLEARED AND/OR NOT IN EASEMENT	--------
F. FOREST AREAS TO BE RETAINED IN EASEMENT	--------
G. FOREST AREAS CLEARED ABOVE FCT	--------
H. FOREST AREAS CLEARED BELOW FCT	--------
I. FOREST AREAS RETAINED ABOVE FCT	--------
J. REFORESTATION FOR CLEARING ABOVE FCT (I x 1/4)	--------
J. REFORESTATION FOR CLEARING BELOW FCT (J x 2)	--------
L. TOTAL REFORESTATION REQUIRED (I x 1/4) + (J x 2)	--------

LEGEND

- DENOTES LIMITS OF THE 100 YEAR FLOODPLAIN
- DENOTES FOREST STAND DELINEATION LINE
- DENOTES WETLAND AREA
- DENOTES LIMITS OF SLOPES 15% TO 25%
- DENOTES LIMITS SLOPES > 25%

SOILS LEGEND

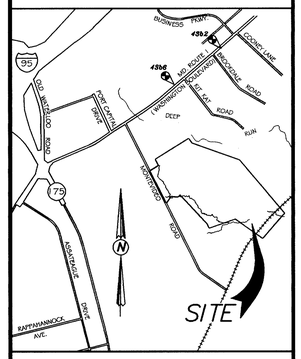
SOIL	NAME	CLASS
** BeB2	Beltsville silt loam, 1 to 5 percent slopes, moderately eroded	C
** BeC2	Beltsville silt loam, 5 to 10 percent slopes, moderately eroded	C
** Em	Elkton silt loam	D
** Ha	Hatboro silt loam	D
* IuB	Iuka loam, local alluvium, 1 to 5 percent slopes	C
** Ll	Leonardtown silt loam	D
ScB	Sandy and clayey land, gently sloping	?
ScD	Sandy and clayey land, moderately sloping	?
ScE	Sandy and clayey land, moderately steep	?
SlC2	Sassafras loam, 5 to 10 percent slopes, moderately eroded	B

NOTES:
- * Hydric soils and/or contains hydric inclusions
- ** May contain hydric inclusions
- † Generally only within 100-year floodplain areas

WILDMAN ENVIRONMENTAL SERVICES
4747 BONNIE BRANCH RD.
ELLICOTT CITY, MD 21043
PHONE: (410) 313-9999

Ronald O. Wildman 8/11/00
QUALIFIED PROFESSIONAL DATE

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP
SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 11/2/00

Chief, Development Engineering Division — Date 10/11/00

Director, Department of Planning and Zoning — Date 11/2/00

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A. Natural Resources Conservation Service — Date

Howard SCD — Date

DATE	REVISIONS

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: 1"=200' DATE: APRIL 17, 2000

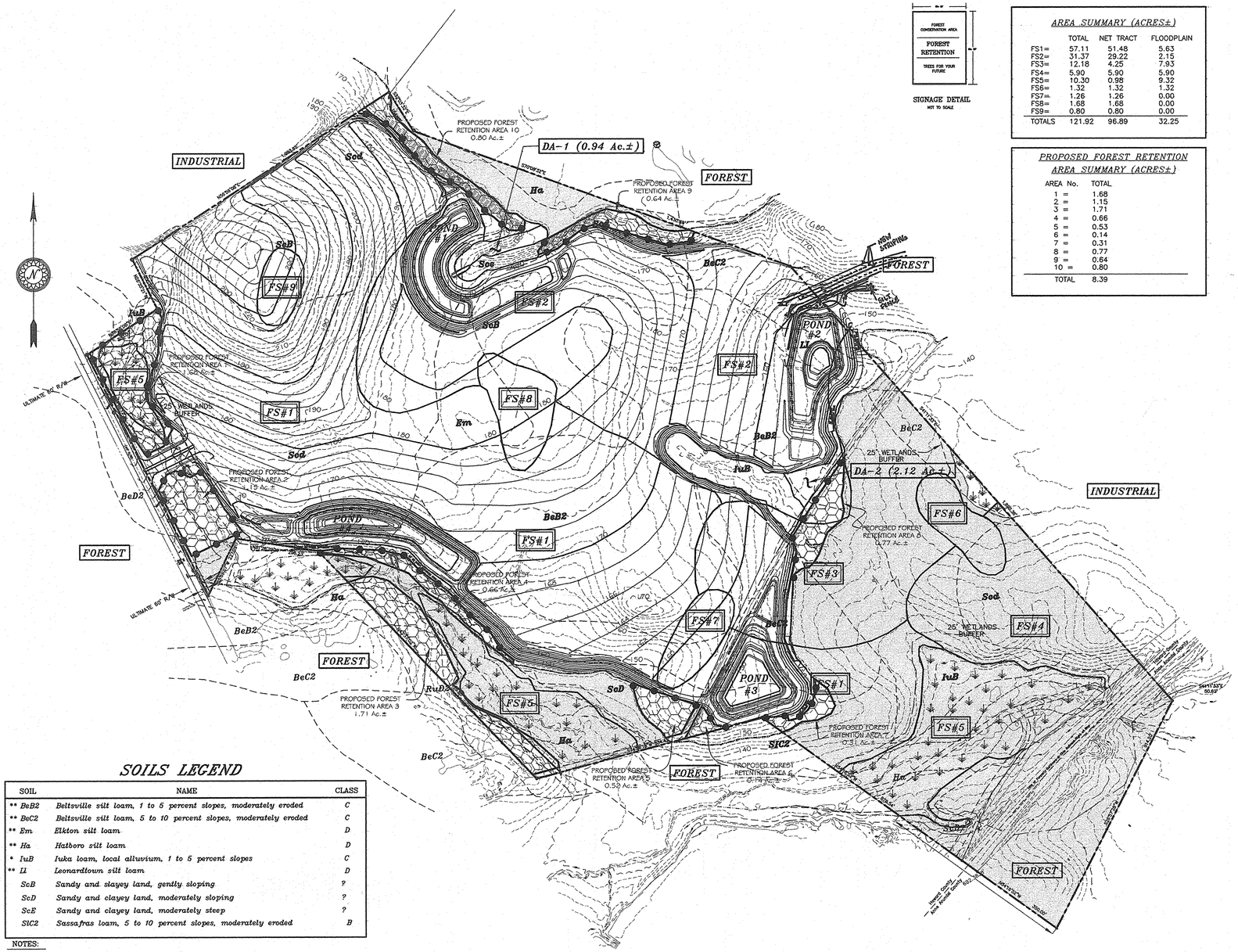
FOREST STAND DELINEATION PLAN WETLAND AND SOILS MAP

SDP-00-63

OWNER / DEVELOPER

AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4798 F. 685

SHEET 25 OF 33



FOREST CONSERVATION AREA
FOREST RETENTION
TREES FOR YOUR FUTURE

SIGNAGE DETAIL
NOT TO SCALE

AREA SUMMARY (ACRES±)

	TOTAL	NET TRACT	FLOODPLAIN
FS1=	57.11	51.48	5.63
FS2=	31.37	29.22	2.15
FS3=	12.18	4.25	7.93
FS4=	5.90	5.90	5.90
FS5=	10.30	0.98	9.32
FS6=	1.32	1.32	1.32
FS7=	1.26	1.26	0.00
FS8=	1.68	1.68	0.00
FS9=	0.80	0.80	0.00
TOTALS	121.92	96.89	32.25

PROPOSED FOREST RETENTION AREA SUMMARY (ACRES±)

AREA No.	TOTAL
1 =	1.68
2 =	1.15
3 =	1.71
4 =	0.66
5 =	0.53
6 =	0.14
7 =	0.31
8 =	0.77
9 =	0.64
10 =	0.80
TOTAL	8.39

I. BASIC SITE DATA

GROSS SITE AREA	123.25 Ac.±
AREA WITHIN 100 YEAR FLOODPLAIN	33.90 Ac.±
AREA WITHIN EXISTING COUNTY WATER R/W	0.60 Ac.±
AREA WITHIN COUNTY ROAD R/W	0.24 Ac.±
NET TRACT AREA	88.51 Ac.±
ZONING	M-2

II. INFORMATION FOR CALCULATIONS

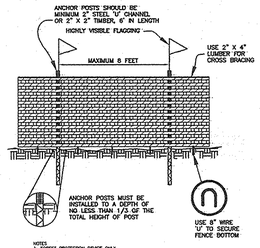
A. NET TRACT AREA	88.51 Ac.±
B. FOREST CONSERVATION THRESHOLD (FCT) (15%xA)	13.28 Ac.±
C. AFFORESTATION THRESHOLD (15%xA)	N/A
D. EXISTING FOREST ON NET TRACT AREA	88.51 Ac.±
E. EXISTING FOREST ABOVE FCT	75.23 Ac.±
F. BREAK EVEN POINT (the amount of forest to be retained w/o mitigation) - [(E x 0.2) + B]	28.33 Ac.±
G. FOREST TO BE RETAINED (EXCL. DA-1&2(*) STREAM w/BUFFER)	8.39 Ac.±
H. FOREST TO BE CLEARED AND/OR NOT IN AN EASEMENT	79.95 Ac.±

III. REFORTESTATION CALCULATIONS

A. NET TRACT AREA	88.51 Ac.±
B. FOREST CONSERVATION THRESHOLD (FCT) (15%xA)	13.28 Ac.±
C. EXISTING FOREST ON NET TRACT AREA	88.51 Ac.±
D. EXISTING FOREST ABOVE FCT	75.23 Ac.±
E. FOREST AREAS TO BE CLEARED AND/OR NOT IN EASEMENT	79.95 Ac.±
F. FOREST AREAS TO BE RETAINED IN EASEMENT	8.39 Ac.±
G. FOREST AREAS CLEARED ABOVE FCT	75.23 Ac.±
H. FOREST AREAS CLEARED BELOW FCT	4.89 Ac.±
I. FOREST AREAS RETAINED ABOVE FCT	0.00 Ac.±
J. REFORESTATION FOR CLEARING ABOVE FCT (I x 1/4)	18.80 Ac.±
J. REFORESTATION FOR CLEARING BELOW FCT (J x 2)	9.78 Ac.±
L. TOTAL REFORESTATION REQUIRED (I x 1/4) + (J x 2)	28.58 Ac.±

LEGEND

- DENOTES LIMITS OF THE 100 YEAR FLOODPLAIN
- DENOTES FOREST STAND DELINEATION LINE
- DENOTES WETLAND AREA
- DENOTES RETENTION AREA
- DENOTES LIMIT OF DISTURBANCE AND PROTECTIVE FENCE
- DENOTES FOREST RETENTION SIGNS



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

PROTECTIVE FENCE DETAIL
BLAZE ORANGE PLASTIC MESH
NO SCALE

SOILS LEGEND

SOIL	NAME	CLASS
** BeB2	Beltsville silt loam, 1 to 5 percent slopes, moderately eroded	C
** BeC2	Beltsville silt loam, 5 to 10 percent slopes, moderately eroded	C
** Em	Elkton silt loam	D
** Ha	Hatboro silt loam	D
* IuB	Iuka loam, local alluvium, 1 to 5 percent slopes	C
** Ll	Leonardtown silt loam	D
ScB	Sandy and clayey land, gently sloping	?
ScD	Sandy and clayey land, moderately sloping	?
ScE	Sandy and clayey land, moderately steep	?
SlC2	Sassafras loam, 5 to 10 percent slopes, moderately eroded	B

NOTES:
- * Hydric soils and/or contains hydric inclusions
- ** May contain hydric inclusions
- † Generally only within 100-year floodplain areas

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

OWNERS CERTIFICATION

A.A. Property Holdings, Inc., owner(s) of the property shown and described heron, hereby adopts this plan in consideration of the approval of this Forest Conservation Easement Plan by the Department of Planning and Zoning, to establish the Forest Conservation Easement(s)

Larry C. Reese, President — Date
A.A. Property Holdings, Inc.

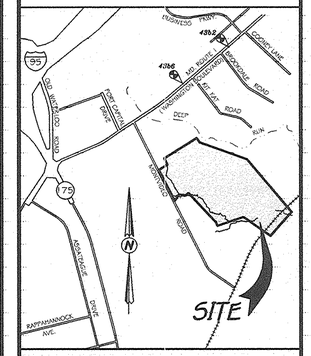
NO CLEARING, GRADING, DUMPING OR ANY OTHER ACTIVITIES NOT PERMITTED UNDER THE TERMS OF AN AGREEMENT AND/OR THE DEED OF FOREST CONSERVATION EASEMENT FOR THIS PROJECT ARE ALLOWED WITHIN ANY FOREST CONSERVATION EASEMENTS SHOWN ON THIS PLAN. AGREEMENT REFERING TO INSTALLATION AND MAINTENANCE AGREEMENTS.

NOTE
23.54 ACRES OF REFORESTATION REQUIREMENT WILL BE PROVIDED ON THE ROMITI FARM PROPERTY (Tax Map 2, Parcel 24). PLEASE REFER TO SHEET Nos. 31 AND 32 OF THIS SET. THE REMAINING OBLIGATION OF 5.04 ACRES WILL BE PROVIDED ON BRANTWOOD. PLEASE REFER TO SHEET No. 33.

WILDMAN ENVIRONMENTAL SERVICES
4747 BONNIE BRANCH RD.
ELLICOTT CITY, MD. 21043
PHONE: (410) 313-9999

Ronald B. Wildman 9/10/00
QUALIFIED PROFESSIONAL DATE:

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP
SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 11/2/00 Date
Chief, Development Engineering Division — 10/11/00 Date
Director, Department of Planning and Zoning — 11/2/00 Date

U.S.D.A. Natural Resources Conservation Service — Date
Howard SCD — Date

DATE	REVISIONS
12-29-06	RED-LINE REVISION NO. 8 - ROAD WIDENING

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: 1"=200' DATE: MAY 30, 2000

FOREST CONSERVATION PLAN
PLATS 14488 TO 14493

SDP-00-63

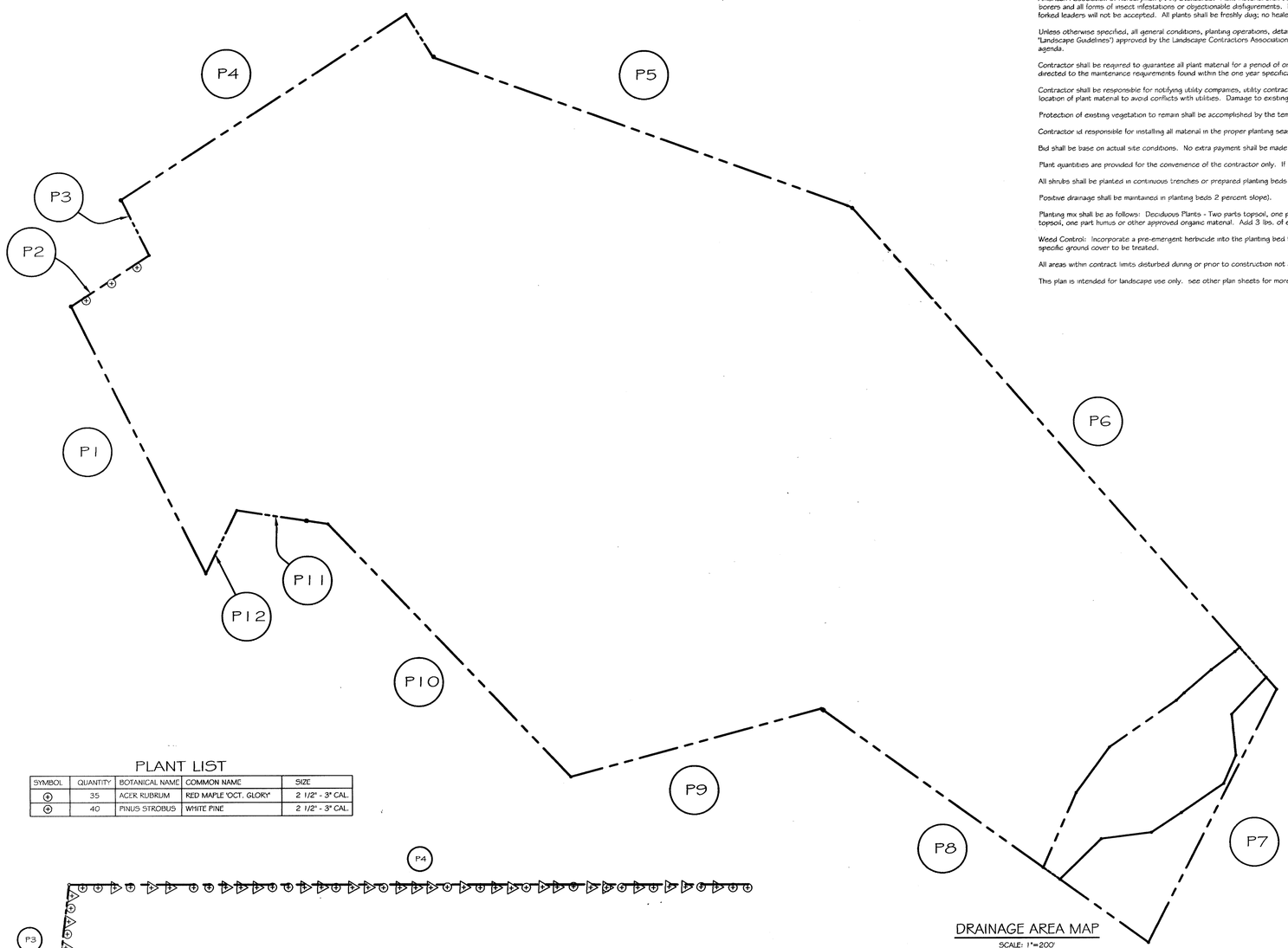
OWNER / DEVELOPER

AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4795 F. 685

SHEET 26 OF 33

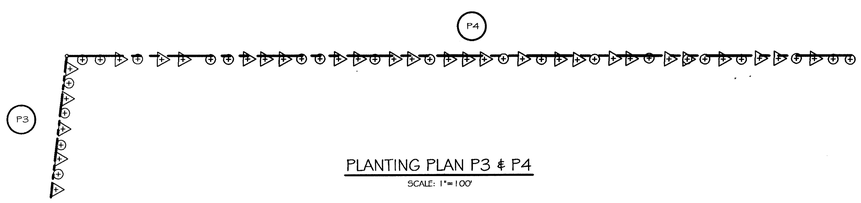
SDP-00-63

[THAYER AUTO EXCHANGE] - [EWAE FCON]



PLANT LIST

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE
⊕	35	ACER RUBRUM	RED MAPLE 'OCT. GLORY'	2 1/2" - 3" CAL.
⊕	40	PINUS STROBUS	WHITE PINE	2 1/2" - 3" CAL.



PLANTING PLAN P3 & P4

SCALE: 1"=100'

DRAINAGE AREA MAP

SCALE: 1"=200'

PLANTING SPECIFICATIONS

Plants, related material, and operations shall meet the detailed description as given on the plans and as described herein.

All plant material, unless otherwise specified, shall be nursery grown, uniformly branched, have a vigorous root system, and shall conform to the species, size, root and shape shown on the plant list and the American Association of Nurserymen (AAN) Standards. Plant material shall be healthy, vigorous, free from defects, decay, disfiguring roots, sun scald injuries, abrasions of the bark, plant disease, insect pest eggs, borers and all forms of insect infestations or objectionable disfigurements. Plant material that is weak or which has been cut back from larger grades to meet specified requirements will be rejected. Trees with forked leaders will not be accepted. All plants shall be freshly dug; no healed-in plants from cold storage will be accepted.

Unless otherwise specified, all general conditions, planting operations, details and planting specification shall conform to "Landscape Specification Guidelines for Baltimore-Washington Metropolitan Areas", (hereinafter "Landscape Guidelines") approved by the Landscape Contractors Association of Metropolitan Washington and the Potomac Chapter of the American Society of Landscape Architect, latest edition, including all agenda.

Contractor shall be required to guarantee all plant material for a period of one year after date of acceptance in accordance with the appropriate section of the Landscape Guidelines. Contractor's attention is directed to the maintenance requirements found within the one year specifications including watering and replacement of specified plant material.

Contractor shall be responsible for notifying utility companies, utility contractors and "Miss Utility" a minimum of 48 hours prior to beginning any work. Contractor may make minor adjustments in spacing and location of plant material to avoid conflicts with utilities. Damage to existing structure and utilities shall be repaired at the expense of the Contractor.

Protection of existing vegetation to remain shall be accomplished by the temporary installation of 4 foot high snow fence or blaze orange safety fence at the drip line.

Contractor id responsible for installing all material in the proper planting season for each plant type. All planting is to be completed within the growing season of completion of site construction.

Bid shall be base on actual site conditions. No extra payment shall be made for work arising from site conditions differing from those indicated on drawings and specifications

Plant quantities are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on plan and those shown on the plant list, the quantities on the plan take precedence

All shrubs shall be planted in continuous trenches or prepared planting beds and mulched with composted hardwood mulch as details and specified except where noted on plans.

Positive drainage shall be maintained in planting beds 2 percent slope).

Planting mix shall be as follows: Deciduous Plants - Two parts topsoil, one part well-rotted cow or horse manure. Add 3 lbs. of standard fertilizer per cubic yard of planting mix. Evergreen Plants - two parts topsoil, one part humus or other approved organic material. Add 3 lbs. of evergreen (acidic) fertilizer per cubic yard of planting mix. Topsoil shall conform to the Landscape Guidelines.

Weed Control: Incorporate a pre-emergent herbicide into the planting bed following recommended rates on the label. Caution: Be sure to carefully check the chemical used to assure its adaptability to the specific ground cover to be treated.

All areas within contract limits disturbed during or prior to construction not designated to receive plants and mulch shall be fine graded and seeded.

This plan is intended for landscape use only. see other plan sheets for more information on grading, sediment control, layout, etc.

GENERAL NOTES

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISION OF 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 $ 8400.00. THIS AMOUNT IS BASED ON THE NUMBER OF SHADE TREES REQUIRED TIMES $300.00 PER TREE.

THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

Developers/Builder's Certificate

I/We certify that the landscaping shown on this plan will be done according to the plan. Section 16.124 of the Howard County Code and the Howard County Landscape Manual. I/We further certify that upon completion a Certification of Landscape installation, accompanied by an executed one year guarantee of plant materials, will be submitted to the Department Of Planning And Zoning.

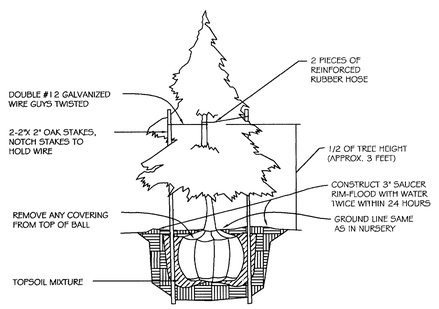
G. Duncan Thayer — 7/8/00

Name — Dated

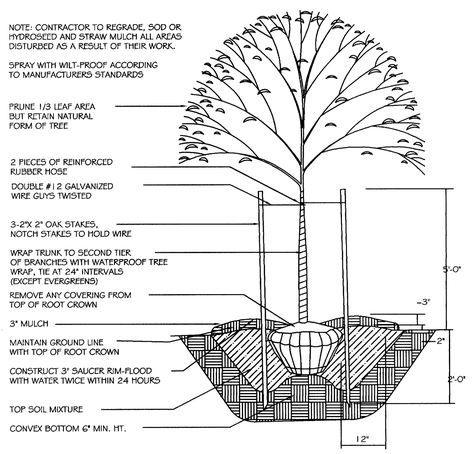
SCHEDULE A PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE REQUIRED/PROVIDED	TYPE 'A'	TYPE 'A'	TYPE 'A'	TYPE 'A'	TYPE 'A'	TYPE 'A'	TYPE 'A'	TYPE 'A'	TYPE 'A'	TYPE 'A'	TYPE 'B'	TYPE 'B'
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	965' (P1)	300' (P2)	200' (P3)	1,004 (P4)	1,600 (P5)	400' (P6)	1540' (P7)	915' (P8)	1,230' (P9)	835' (P10)	1,130 (P11)	524' (P12)
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES, 965'	YES, 300	NO	NO	YES, 1600	YES, 1400	YES, 1540	YES, 915	YES, 1230	YES, 835	YES, 1130	YES, 524
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS	0 0 0	0 0 0	4 0 0	17 0 0	0 0 0	7 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION) SHRUBS (10:1 SUBSTITUTION) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	0 0 0 0	3 0 0 0	4 5 0 0	20 25 0 0	0 0 0 0	8 10 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0

CREDIT FOR EXISTING WOODS ALONG ENTIRE TRACT OF LAND

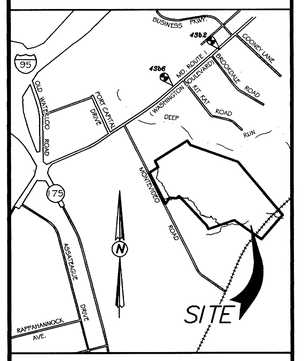


EVERGREEN PLANTING DETAIL



TREE PLANTING DETAIL

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP

SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 11/2/00 Date

Chief, Development Engineering Division/DPW — 10/31/00 Date

Director, Department of Planning and Zoning — 11/2/00 Date

G. Duncan Thayer

DATE	REVISIONS

BALTIMORE WASHINGTON AUTO EXCHANGE

VEHICLE AUCTION FACILITY AND STORAGE LOTS

TAX MAP No: 43 PARCEL: 371

FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SCALE: 1"=200' DATE: APRIL 17, 2000

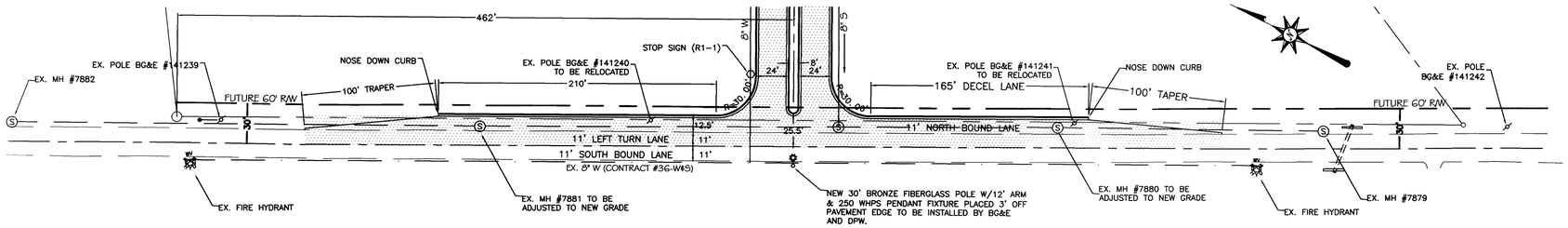
PERIMETER LANDSCAPING PLAN

SDP-00-63

OWNER / DEVELOPER

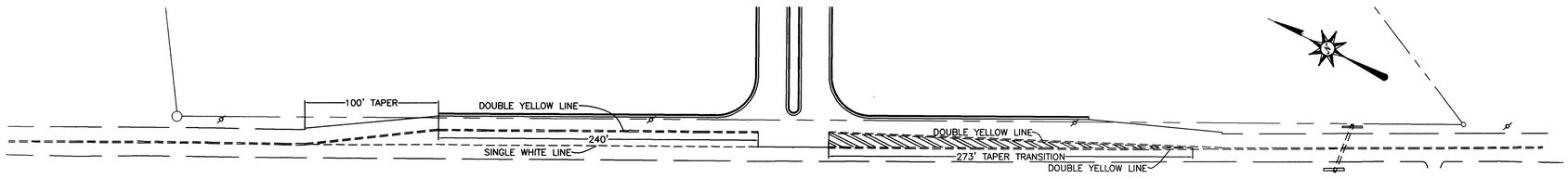
AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4798 F. 685

SHEET 27 OF 33



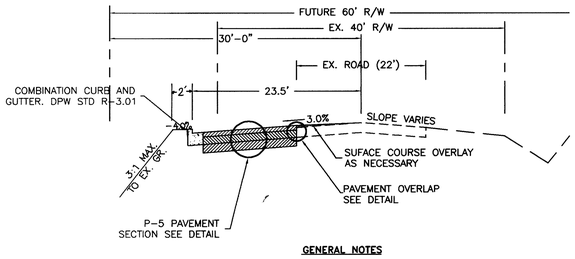
MONTEVIDEO ROAD IMPROVEMENT PLAN

SCALE: 1"=50'



MONTEVIDEO ROAD PAVEMENT MARKING PLAN

SCALE: 1"=50'

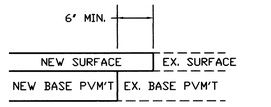


GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION AND HOWARD COUNTY DPW FOR MATERIALS AND METHODS OF CONSTRUCTION.

MONTEVIDEO ROAD TYPICAL SECTION

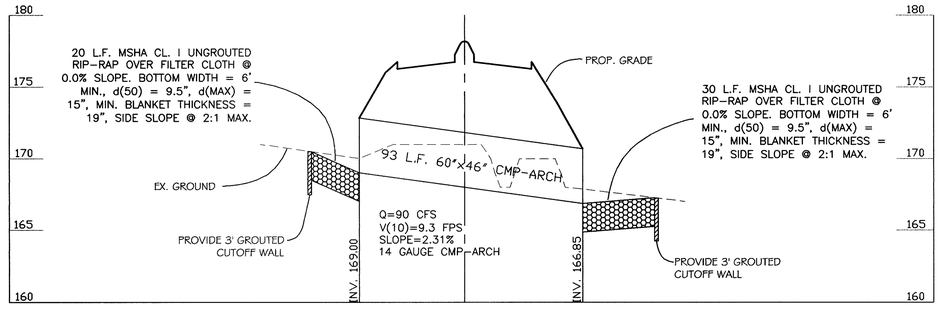
NOT TO SCALE



TO BE USED IN PAVEMENT WIDENING AREAS. OVERLAP BASE PAVING WITH SURFACE PAVING AS SHOWN ABOVE.

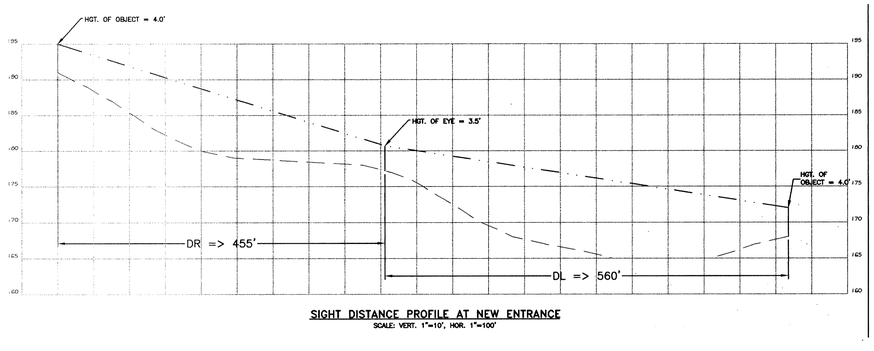
PAVEMENT OVERLAP DETAIL

NOT TO SCALE

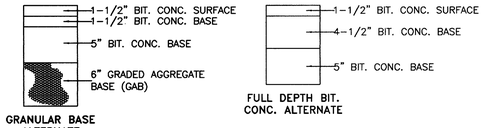


ENTRANCE CULVERT

SCALE: VER. 1=5', HOR. 1=30'

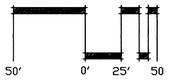


SIGHT DISTANCE PROFILE AT NEW ENTRANCE
SCALE: VERT. 1"=10', HOR. 1"=100'

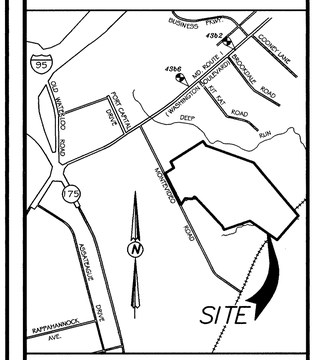


P-5 PAVEMENT SECTION ALONG MONTEVIDEO ROAD

NOT TO SCALE



THAYER
&
ASSOCIATES
INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP

SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 11/6/00

Chief, Development Engineering Division — Date 10/11/00

Director, Department of Planning and Zoning — Date 11/2/00

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A.-Natural Resources Conservation Service — Date 10/4/00

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD — Date 10/4/00

DATE	REVISIONS

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JANUARY 26, 2000

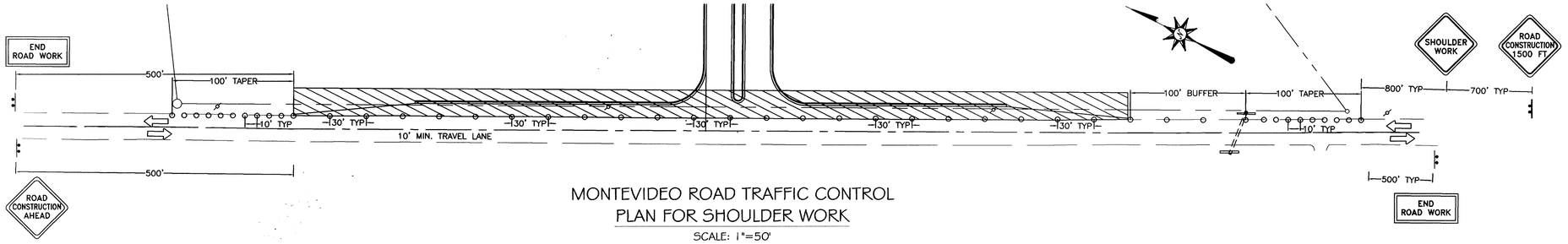
MONTEVIDEO ROAD IMPROVEMENT PLAN AND TRAFFIC CONTROL PLAN

SDP-00-63

OWNER / DEVELOPER

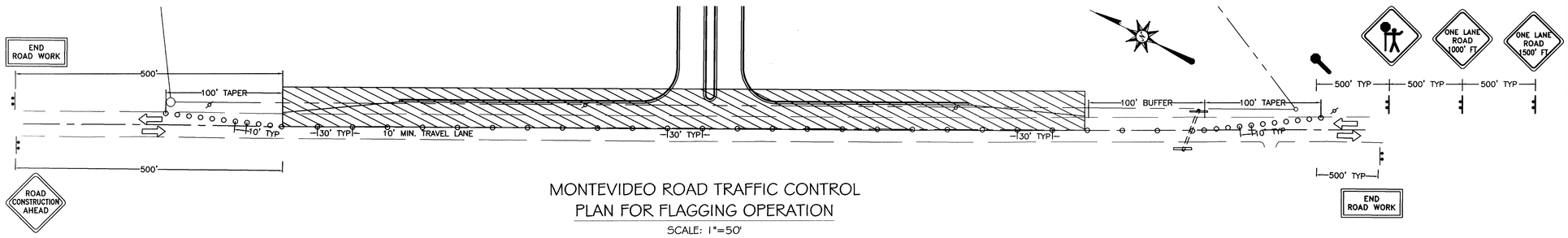
AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4798 F. 685

SHEET 28 OF 33



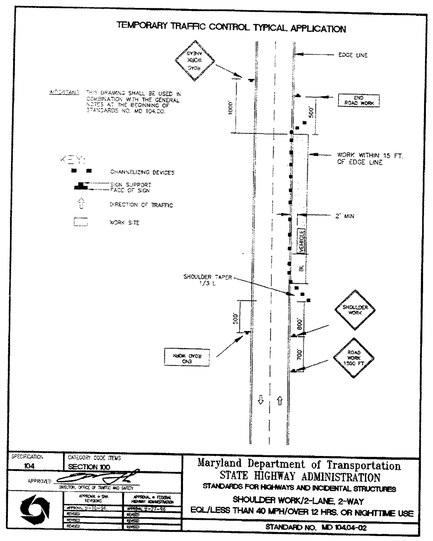
MONTEVIDEO ROAD TRAFFIC CONTROL
PLAN FOR SHOULDER WORK

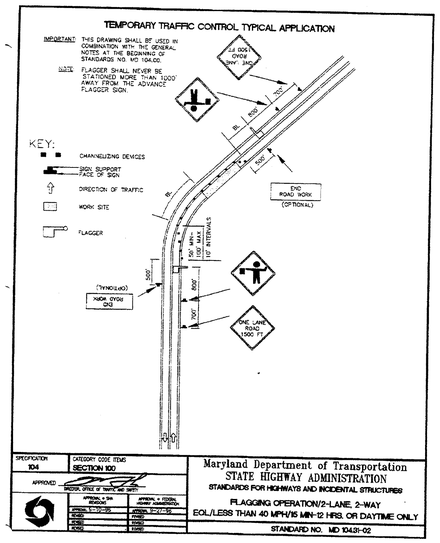
SCALE: 1"=50'



MONTEVIDEO ROAD TRAFFIC CONTROL
PLAN FOR FLAGGING OPERATION

SCALE: 1"=50'



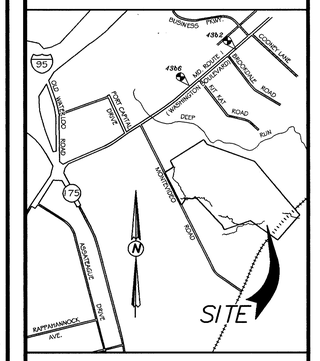


TRAFFIC CONTROL LEGEND

- DIRECTION OF TRAFFIC
- SIGN
- TRAFFIC DRUM OR CONE
- FLAGGER
- WORK AREA

50' 0' 25' 50
1"= 50'

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP
SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 11/6/00

Chief, Development Engineering Division — Date 11/1/00

Director, Department of Planning and Zoning — Date 11/2/00

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A.-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.

Howard SCD — Date

DATE	REVISIONS

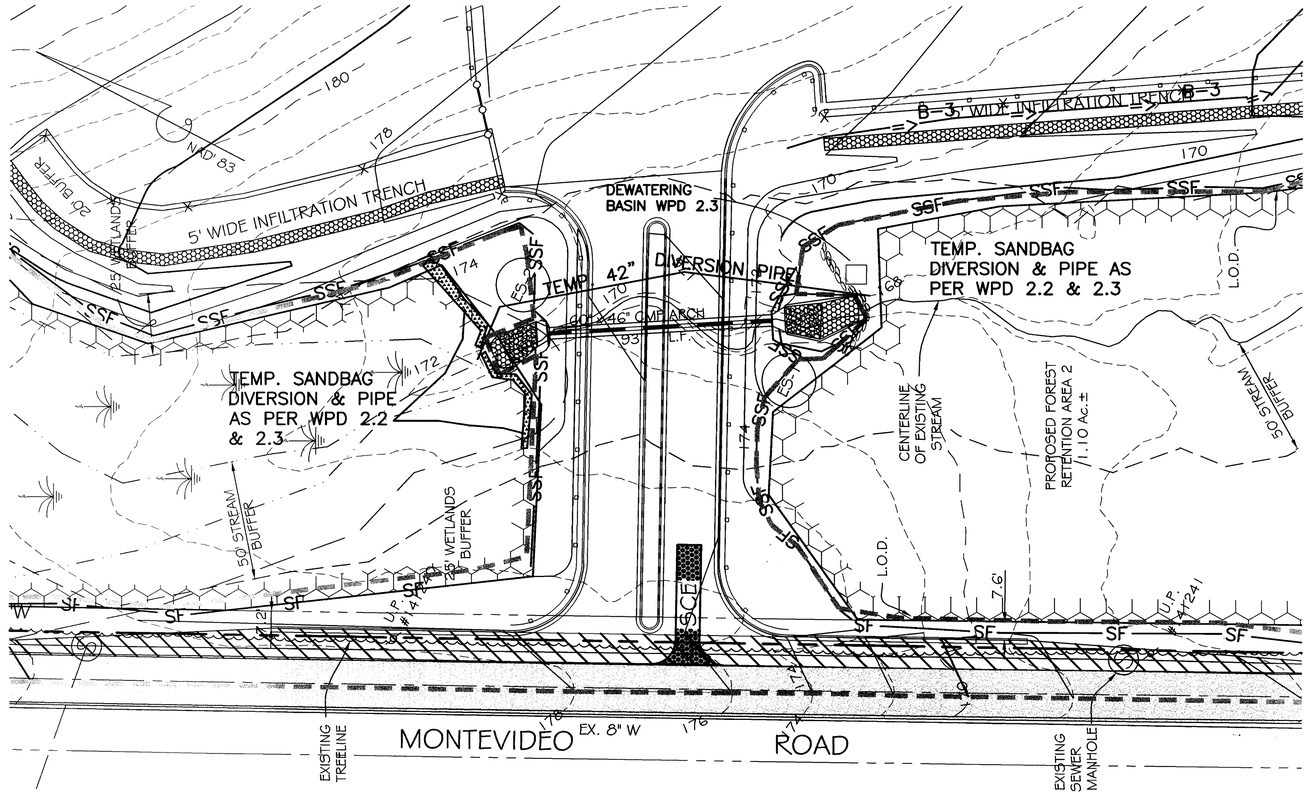
BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JANUARY 26, 2000

MONTEVIDEO ROAD IMPROVEMENT PLAN AND TRAFFIC CONTROL PLAN

SDP-00-63

OWNER / DEVELOPER
AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4798 F. 685

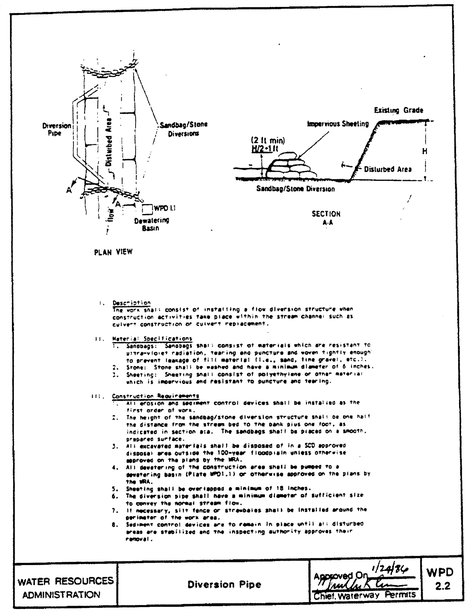
SHEET 29 OF 33



GRAPHIC SCALE

30' 0' 15' 30'

1"= 30'



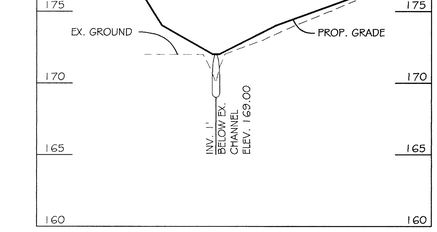
I. Description
The work shall consist of installing a flow diversion structure when construction activities take place within the stream channel such as culvert construction or culvert replacement.

II. Material Specifications
1. Sandbags: Sandbags shall consist of materials which are resistant to ultraviolet radiation, tearing and puncture and woven tightly enough to prevent leakage of fill material (i.e., sand, fine gravel, etc.).
2. Stone: Stone shall be washed and have a minimum diameter of 6 inches.
3. Sheeting: Sheeting shall consist of polyethylene or other material which is impervious and resistant to puncture and tearing.

III. Construction Requirements
1. All erosion and sediment control devices shall be installed as the first order of work.
2. The height of the sandbag/stone diversion structure shall be one half the distance from the stream bed to the bank plus one foot, as indicated in section A-A. The sandbags shall be placed on a smooth, prepared surface.
3. All excavated materials shall be disposed of in a SCD approved disposal area outside the 100-year floodplain unless otherwise approved on the plans by the WRA.
4. All dewatering of the construction area shall be pumped to a dewatering basin (Plate WPD1.11) or otherwise approved on the plans by the WRA.
5. Sheeting shall be overlapped a minimum of 18 inches.
6. The diversion pipe shall have a minimum diameter of sufficient size to convey the normal stream flow.
7. If necessary, silt fence or straw bales shall be installed around the perimeter of the work area.
8. Sediment control devices are to remain in place until all disturbed areas are stabilized and the inspecting authority approves their removal.

WATER RESOURCES ADMINISTRATION	Diversion Pipe	Approved On 1/24/96 Chief, Waterway Permits	WPD 2.2

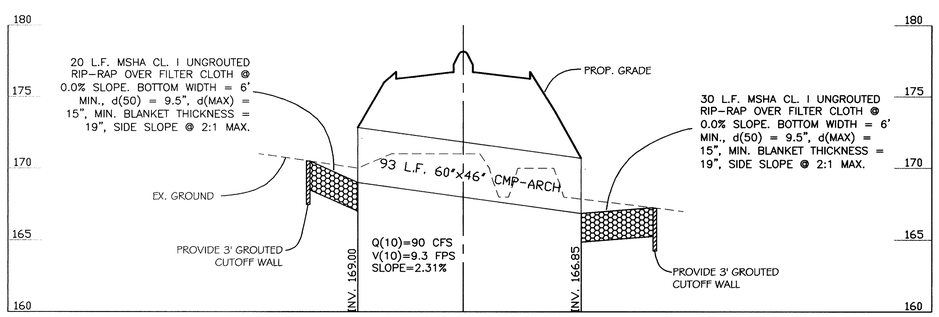
NOTE:
MODIFY "CONSTRUCTION REQUIREMENT #4" TO "DEWATERING BASIN (WDP 2.3)"



ENTRANCE CULVERT SECTION
SCALE: VER. 1=5', HOR. 1=50'

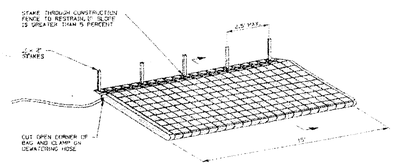
SEQUENCE OF CONSTRUCTION

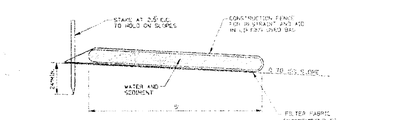
1. OBTAIN ALL REGULATORY CONSTRUCTION PERMITS.
2. CONDUCT A PRE-CONSTRUCTION MEETING ON-SITE WITH MDE AND HOWARD COUNTY INSPECTORS.
3. THE LIMITS OF DISTURBANCE AND TREE PROTECTION MUST BE FIELD MARKED PRIOR TO ANY LAND DISTURBANCE ACTIVITIES.
4. INSTALL TEMP. DIVERSION PIPE AND SANDBAG/STONE DIVERSION MEASURES.
5. CONSTRUCT NEW ENTRANCE CULVERT.
6. REMOVE TEMP. DIVERSION MEASURES AND ALLOW WATER TO PASS THROUGH THE NEWLY CONSTRUCTED CULVERT.
7. INSTALL SITE FENCE AND SUPER SILT FENCE AS SHOWN.
8. BEGIN GRADING OPERATION TO CONSTRUCT THE ENTRANCE IMPROVEMENTS.
9. STABILIZE ALL DISTURBED AREAS, AND WITH PERMISSION OF THE MDE AND HOWARD COUNTY INSPECTORS, REMOVE ANY REMAINING SEDIMENT CONTROL DEVICES.



ENTRANCE CULVERT
SCALE: VER. 1=5', HOR. 1=30'

07/25/2000 16:05 4104657483 HOWARD SCD PAGE 02



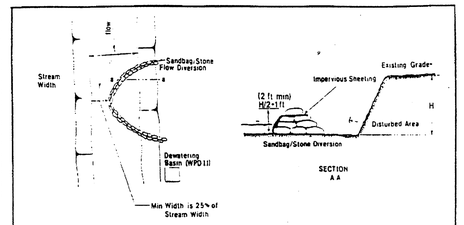


SECTION

NOTES:
1. FILTER BAG SHALL BE PLACED ON A SLOPING OR LEVEL, WELL GRADED VEGETATED SITE SUCH THAT WATER WILL FLOW AWAY FROM DRIVES AND ANY WORK AREAS.
2. WIDTH AND LENGTH SHALL BE AS SHOWN
3. THE FILTER BAG MUST BE STAKED IN PLACE AND SECURED TO THE PUMP DISCHARGE LINE.
4. FILTER BAG SHALL NOT BE USED FOR DISCHARGE FLOWS GREATER THAN 500 GPM.
5. DEVICE SHALL BE REMOVED AND DISPOSED OF AFTER BAG IS FILLED WITH SEDIMENT. SEDIMENT FROM BAG SHALL BE SPREAD IN AN UPLAND AREA.
6. FILTER FABRIC SHALL MEET THE FOLLOWING REQUIREMENTS FOR GEOTEXTILE CLASS F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal/ft²/min (min.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

FILTER BAG
TEMPORARY EROSION CONTROL MEASURE (FB)



I. Description
The work shall consist of installing flow diversions for the purpose of erosion control when construction activities take place within the stream channel such as bank stabilization or bridge aoutment construction.

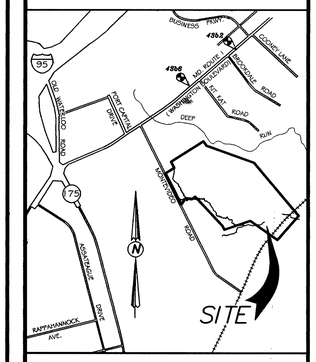
II. Material Specifications
1. Sandbags: Sandbags shall consist of materials which are resistant to ultraviolet radiation, tearing and puncture and woven tightly enough to prevent leakage of fill material (i.e., sand, fine gravel, etc.).
2. Stone: Stone shall be washed and have a minimum diameter of 6 inches.
3. Sheeting: Sheeting shall consist of polyethylene or other material which is impervious and resistant to puncture and tearing.

III. Construction Requirements
1. All erosion and sediment control devices shall be installed as the first order of work.
2. The diversion structure shall be installing from upstream to downstream.
3. The height of the diversion structure shall be one half the distance from stream bed to stream bank plus one foot, as indicated on the cross-section view.
4. All excavated material's shall be disposed of in a SCD approved disposal area outside the 100-year floodplain unless otherwise approved on the plans by the WRA.
5. All dewatering of the construction area shall be pumped to a dewatering basin prior to re-entering the stream.
6. Sheeting shall be overlapped such that the upstream portion covers the downstream portion with at least an 18-inch overlap.
7. Sediment control devices are to remain in place until all disturbed areas are stabilized in accordance with an approved sediment and erosion control plan and the inspecting authority approves their removal.

WATER RESOURCES ADMINISTRATION	Sandbag/Stone Diversion	Approved On 1/24/96 Chief, Waterway Permits	WPD 2.3

[THAYER AUTO EXCHANGE] - [BWAE ENTRANCE SED CNTRL]

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP
SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 11/2/00

Chief, Development Engineering Division — Date 10/31/00

Director, Department of Planning and Zoning — Date 11/2/00

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A.-Natural Resources Conservation Service — Date 10/4/00

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD — Date 10/4/00

DATE	REVISIONS

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: APRIL 17, 2000

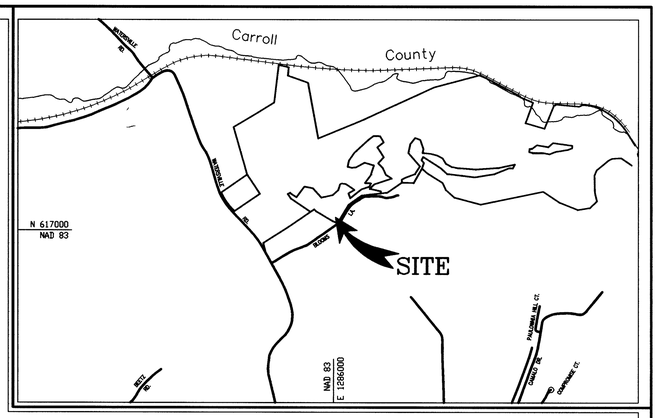
ENTRANCE SEDIMENT CONTROL PLAN

OWNER / DEVELOPER
AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4796 F. 685

SHEET 30 OF 33

SDP-00-63

LINE TABLE		
LINE	BEARING & DISTANCE	
L12	S54°30'03"W	126.67'
L13	S01°01'41"W	30.00'
L14	N68°58'18"W	74.20'
L15	N43°36'19"W	49.50'
L16	S00°46'18"W	141.40'



VICINITY MAP
SCALE: 1"=1200'

PATAPSCO RIVER (BOUNDARY LINE BETWEEN HOWARD AND CARROLL COUNTY)

LAND LOCATED IN CARROLL COUNNTY (36,814 SQ. FT.±)

B&O RAILROAD COMPANY
PLAT No. V.172/14 & V.172/15

PATAPSCO RIVER (BOUNDARY LINE BETWEEN HOWARD AND CARROLL COUNTY)

LAND LOCATED IN CARROLL COUNNTY (194,472 SQ. FT.±)

PROPOSED (PART 7) FOREST CONSERVATION EASEMENT (1.80 Acres±)

TAX MAP 2, PARCEL 61
ROMITI
L. , F.
185.6575 ACRES ±
HOWARD COUNTY = 184.8124 ACRES±
CARROLL COUNTY = 0.8451 ACRES±

PRESERVATION EASEMENT A 46.20 ACRES ±
EASEMENT TO BE HELD BY HOWARD COUNTY, MARYLAND AND THE HAYMEADOW ESTATES HOMEOWNERS ASSOCIATION, INC.

EX. PRESERVATION EASEMENT 55.25 ACRES (PLAT #13044)
EASEMENT HELD BY HOWARD COUNTY, MARYLAND, AND THE HAYMEADOW ESTATES HOMEOWNERS ASSOCIATION, INC.

EXISTING FOREST CONSERVATION EASEMENT PLAT No. 13931

EXISTING FOREST CONSERVATION EASEMENT PLAT No. 13731

EXISTING FOREST CONSERVATION EASEMENT PLAT No. 14172

EXISTING FOREST CONSERVATION EASEMENT PLAT No. 14172

POTENTIAL 25' WETLAND BUFFER

HAY MEADOW BRANCH

WATERSVILLE ROAD

BLOOMS ROAD

TAX MAP 2, PARCEL 16
COYNE
L.1135, F.388

TAX MAP 2, PARCEL 17
LISTON
L.561, F.521

TAX MAP 2, PARCEL 26
PRETTYMAN
L.2955, F.481

TAX MAP 2, PARCEL 25
L.3248, F.475

TAX MAP 2, PARCEL 17
JUSTICE SUBDIVISION
LOT 1
PLAT No. 3417

TAX MAP 2, PARCEL 17
BENNINGS
L.2677, F.269

TAX MAP 2, PARCEL 29
CONLEY
L.2895, F.597

PROPOSED (PART 9) FOREST CONSERVATION EASEMENT (15.14 Acres±)

PROPOSED (PART 8) FOREST CONSERVATION EASEMENT (6.60 Acres±)

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 11/2/00

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 10/11/00

DIRECTOR, DEPARTMENT OF PLANNING AND ZONING — DATE 11/2/00

~~HOWARD SCD~~ — ~~DATE~~

OWNERS CERTIFICATION

I/We Mr. Robert Romiti, Mr. Lorenzo Romiti and Ms. Theresa Romiti, owner(s) of the property shown and described heron, hereby adopts this plan in consideration of the approval of this Forest Conservation Easement Plan by the Department of Planning and Zoning, to establish the Forest Conservation Easement(s)

Robert Romiti 9/11/00 — DATE

Lorenzo Romiti 9/11/00 — DATE

Theresa Romiti 9/11/00 — DATE

NO CLEARING, GRADING, DUMPING OR ANY OTHER ACTIVITIES NOT PERMITTED UNDER THE TERMS OF AN AGREEMENT AND/OR THE DEED OF FOREST CONSERVATION EASEMENT FOR THIS PROJECT ARE ALLOWED WITHIN ANY FOREST CONSERVATION EASEMENTS SHOWN ON THIS PLAN. AGREEMENT REFERRING TO INSTALLATION AND MAINTENANCE AGREEMENTS.

OWNER/GRANTOR
MR. ROBERT ROMITI
MR. LORENZO ROMITI
MS. THERESA ROMITI
6723 HOUBIRD AVENUE
BALTIMORE, MARYLAND 21222

GRANTEE
AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4796 F. 685

AUTOCAD FILE NAME C:\Land Projects\THAYER AUTO EXCHANGE\BWAE MASTER OFFSITE PCE.dwg

DATE	NO.	REVISION

PROJECT:
BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: 1"=200' DATE: APRIL 17, 2000

TITLE:
OFF-SITE FOREST MITIGATION PLAN

AREA:
ROMITI FARM
TAX MAP, 2 PARCEL 24
HOWARD COUNTY MARYLAND
~~LIBER~~ ~~FOLIO~~ PLAT 14486-14487

TITLE:
BALTIMORE WASHINGTON AUTO EXCHANGE

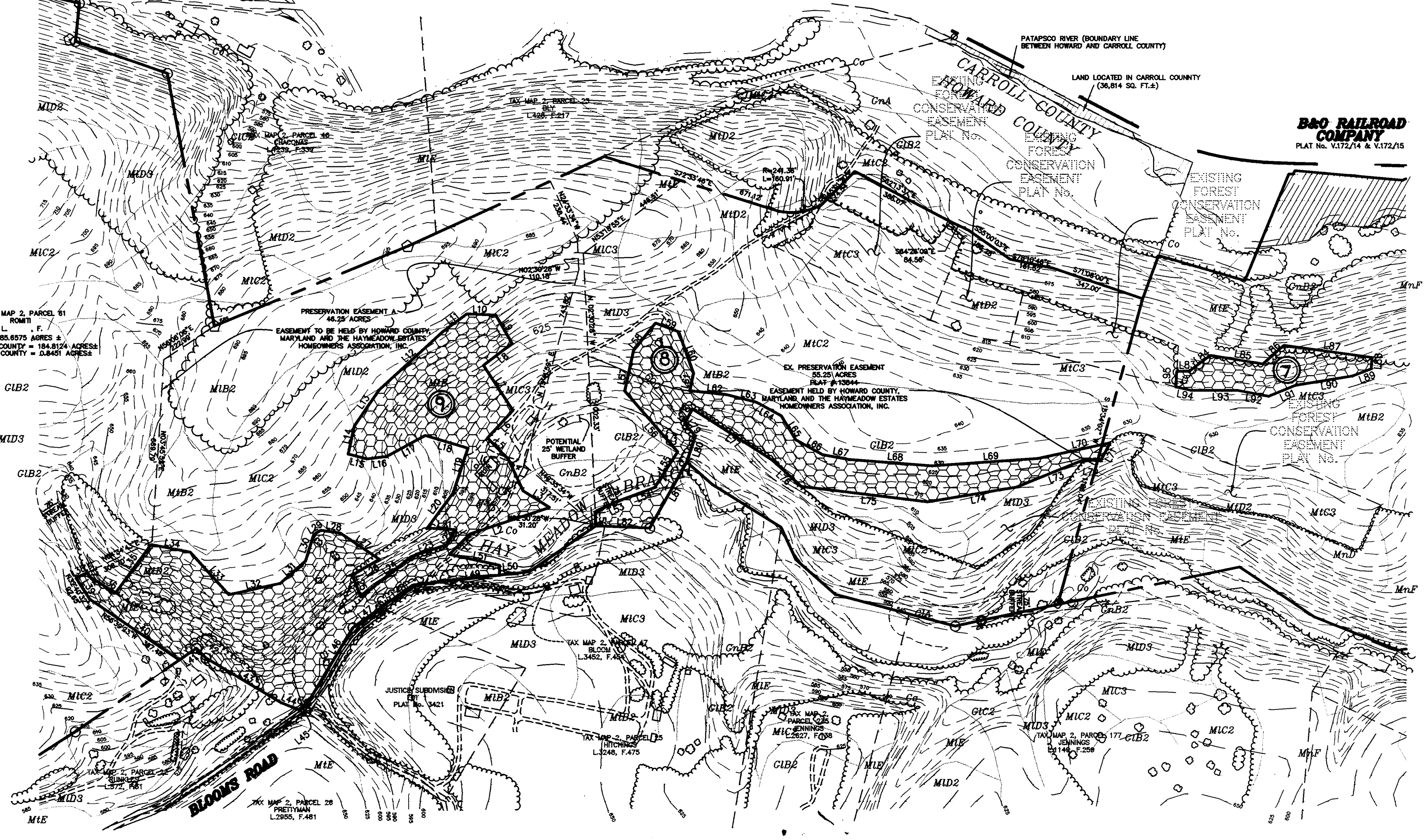
WILDMAN
ENVIRONMENTAL SERVICES
4747 BONNIE BRANCH RD.
ELLICOTT CITY, MD. 21043
PHONE: (410) 313-9999
FAX: (410) 313-9099
Ronald R. Wildman 9.12.00

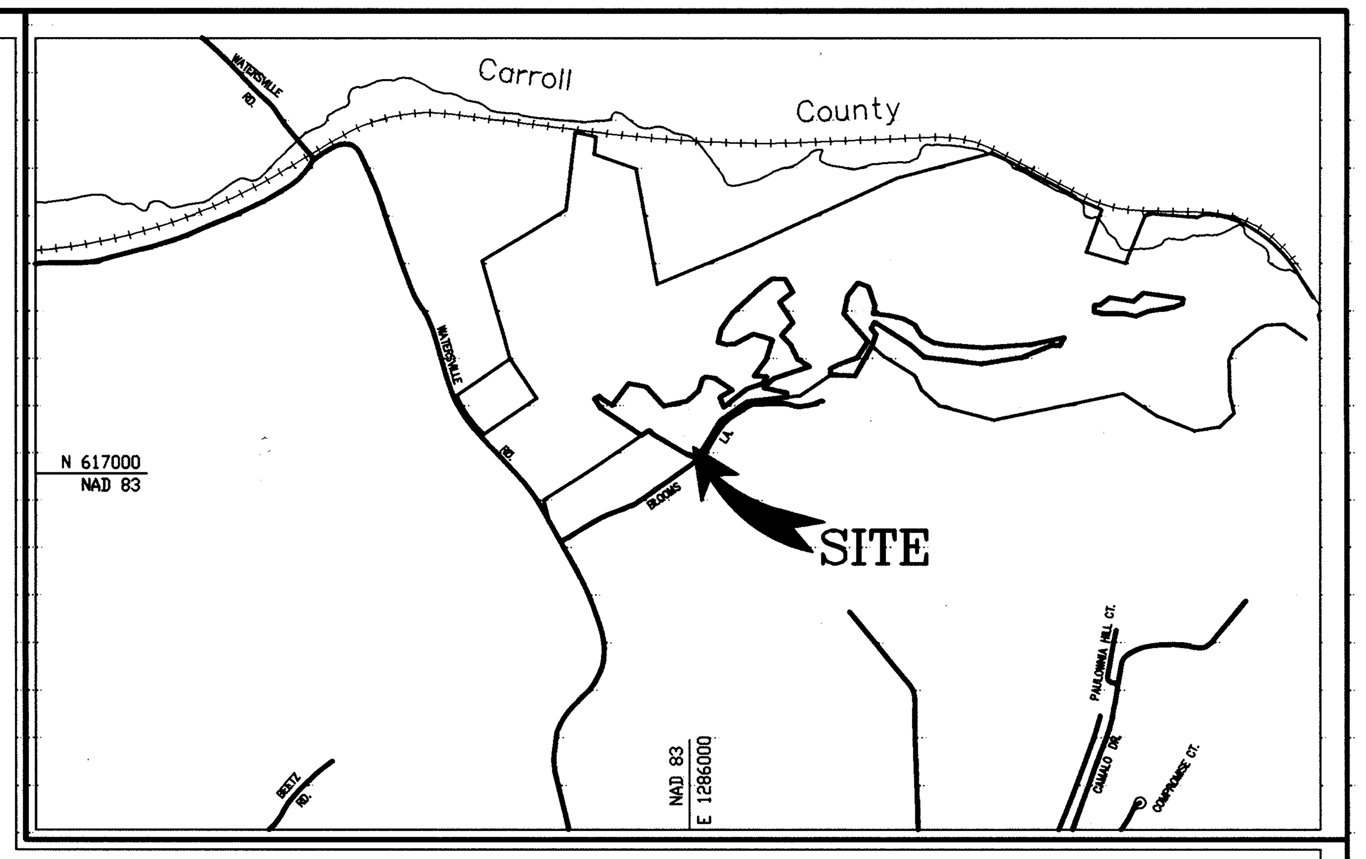
DESIGNED BY: R.B.W.	
DRAWN BY: J.E.P.	
PROJECT NO. 99301	
DATE: 4/17/00	
SCALE: 1"= 300'	
SHEET NO. 31 OF 33	

SDP-00-63

FOREST CONSERVATION EASEMENT SUMMARY TABULATION

LINE	BEARING	DISTANCE
L1	N 44°53'46" E	106.31
L2	N 71°35'44" E	308.23
L3	N 57°59'22" W	113.89
L4	N 25°09'52" W	128.69
L5	N 44°39'37" W	108.25
L6	N 42°34'49" E	137.61
L7	N 32°55'08" W	197.98
L8	N 52°17'25" E	132.98
L9	N 30°00'19" W	120.19
L10	N 87°36'38" W	105.82
L11	S 53°27'44" W	111.68
L12	S 47°22'39" W	315.51
L13	S 34°33'52" W	159.83
L14	S 12°36'58" W	106.54
L15	S 75°20'21" E	70.40
L16	N 83°21'53" E	72.88
L17	N 61°31'44" E	161.81
L18	S 73°25'49" E	163.17
L19	S 18°14'38" W	171.45
L20	S 36°25'44" W	161.37
L21	S 87°07'27" E	101.90
L22	S 27°30'53" W	62.44
L23	S 71°34'35" W	139.23
L24	S 51°16'22" W	236.46
L25	N 21°09'32" W	86.23
L26	N 60°01'23" E	114.89
L27	N 56°01'11" W	172.70
L28	N 81°40'50" W	72.83
L29	S 58°12'17" W	30.10
L30	S 17°10'16" W	100.84
L31	S 48°18'00" W	124.69
L32	S 77°35'15" W	192.95
L33	N 42°12'38" W	210.35
L34	N 78°55'14" W	146.39
L35	S 36°22'11" W	220.81
L36	N 57°35'05" W	113.67
L37	N 17°48'18" W	16.08
L38	S 64°34'43" W	48.18
L39	S 32°40'32" E	92.65
L40	S 55°39'23" E	397.48
L41	N 55°21'41" E	76.53
L42	S 43°38'19" E	49.50
L43	S 59°08'19" E	321.75
L44	S 68°08'19" E	74.25
L45	N 51°51'41" E	30.00
L46	N 30°51'41" E	333.28
L47	N 54°30'03" E	125.67
L48	N 54°42'38" E	144.51
L49	N 83°32'12" E	319.67
L50	DUE NORTH	35.96
L51	N 77°43'06" E	188.32
L52	N 02°30'28" W	50.00
L53	N 63°21'27" E	83.03
L54	N 69°48'13" E	153.79
L55	N 32°53'53" E	155.01
L56	N 40°56'46" W	295.36
L57	N 12°11'30" E	153.71
L58	N 38°39'58" E	129.07
L59	S 69°22'55" E	91.12
L60	S 19°23'36" E	162.05
L61	S 12°02'38" W	66.11
L62	S 83°55'26" E	134.55
L63	S 75°39'40" E	115.40
L64	S 61°09'23" E	102.86
L65	S 31°06'25" E	103.17
L66	S 61°09'58" E	111.94
L67	S 79°39'11" E	97.23
L68	S 85°35'58" E	307.25
L69	N 86°02'10" E	389.53
L70	N 77°46'11" E	271.48
L71	S 27°54'55" W	74.97
L72	N 85°04'29" W	59.39
L73	S 68°00'33" W	270.09
L74	S 80°40'07" W	330.20
L75	N 83°06'43" W	466.60
L76	N 47°47'40" W	143.37
L77	N 57°25'33" W	348.00
L78	S 28°29'25" W	60.53
L79	S 40°32'10" E	60.73
L80	S 18°28'58" W	99.90
L81	S 29°22'20" W	277.75
L82	N 87°28'03" W	198.00
L83	N 88°15'03" E	46.94
L84	N 53°01'23" E	96.48
L85	S 80°28'00" E	194.42
L86	N 48°10'00" E	103.80
L87	S 82°04'32" E	326.97
L88	S 04°24'07" W	41.98
L89	S 68°58'16" W	74.04
L90	S 80°37'29" W	212.47
L91	S 67°43'47" W	106.21
L92	N 79°18'55" W	116.74
L93	S 90°00'00" W	170.18
L94	N 77°11'00" W	56.95
L95	N 03°43'40" E	57.71





VICINITY MAP

SCALE: 1"=1200'

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SUPERVISION

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APPROVED: DEPARTMENT OF PLANNING AND ZONING

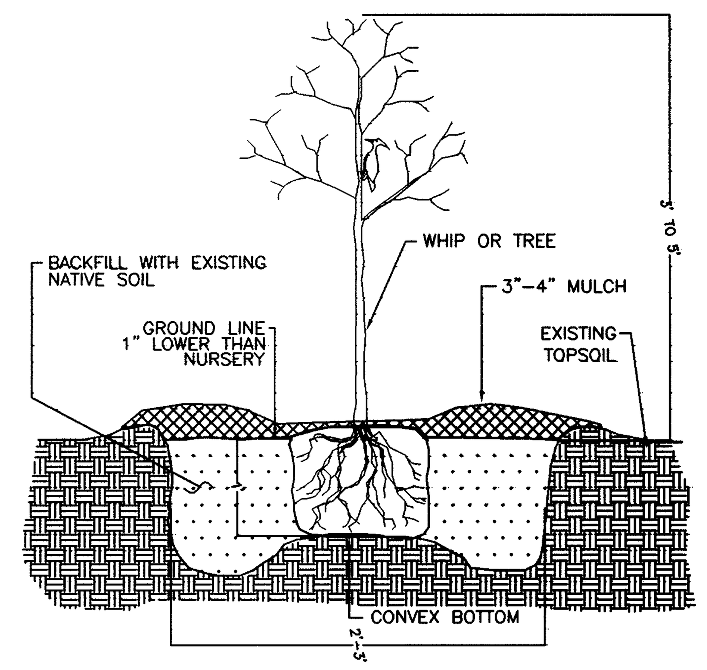
Richard Bloore (signature) — CHIEF, DIVISION OF LAND DEVELOPMENT	11/2/00 DATE
(signature) — CHIEF, DEVELOPMENT ENGINEERING DIVISION	10/11/00 DATE
(signature) — DIRECTOR, PLANNING AND ZONING	11/2/00 DATE

OWNER/GRANTOR

MR. ROBERT ROMITI
MR. LORENZO ROMITI
MS. THERESA ROMITI
6723 HOLIBIRD AVENUE
BALTIMORE, MARYLAND 21222

OWNER / DEVELOPER

AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211.3109
L. 4798 F. 685

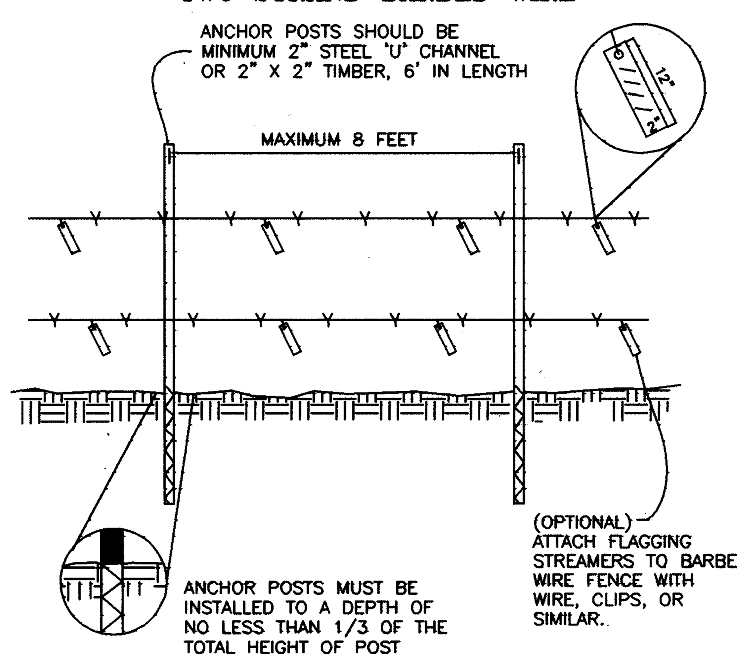


TREE PLANTING DETAIL

CONTAINER GROWN

PROTECTIVE FENCE DETAIL

TWO STRAND BARBED WIRE



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3. BOUNDARIES OF AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
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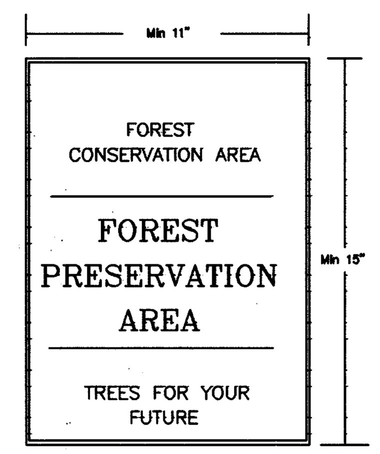
TO BE PLACED ALONG THE OUTER EDGE OF THE EASEMENTS ADJACENT TO OPEN AREAS INSIDE OF TRACT BOUNDARY

FOREST CONSERVATION EASEMENT AREA TABULATION

PART NO.	AREA
9	15.14 Ac.±
8	6.60 Ac.±
7	1.80 Ac.±



SIGNAGE DETAIL

NOT TO SCALE

General Notes

1) The Forest Conservation Easement Has Been Established As An Offsite Forest Mitigation Area, Per Section 16.1216 Of The Howard County 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.

2) (No.) Denotes Forest Conservation Easement.

REFORESTATION PLANT LIST

QTY.	SPECIES	SHADE TOL.	MOIST. REGIME	WET. STATUS	MIN.O.C. SPACING	SIZE & REMARKS
875	Prunus serotina Wild Black Cherry	I	M	FACU	10'	CONT/BROOT 3'-5' HEIGHT
875	Robinia pseudoacacia Black Locust	VI	D-M	FACU-	10'	CONT/BROOT 3'-5' HEIGHT
875	Quercus alba White Oak	MT	D-M	FACU-	10'	CONT/BROOT 3'-5' HEIGHT
875	Quercus rubra Red Oak	MT	D-M	UPL	10'	CONT/BROOT 3'-5' HEIGHT
875	Quercus palustris Pin Oak	T	M-W	FACW	10'	CONT/BROOT 3'-5' HEIGHT
875	Fraxinus americana White Ash	MT	D-M	FACU	10'	CONT/BROOT 3'-5' HEIGHT
875	Nyssa sylvatica Black Gum	T	M-W	FAC	10'	CONT/BROOT 3'-5' HEIGHT
875	Platanus occidentalis American Sycamore	i	D-W	FAC	10'	CONT/BROOT 3'-5' HEIGHT
875	Juglans nigra Black Walnut	VT	M	FACU	10'	CONT/BROOT 3'-5' HEIGHT
875	Liriodendron Tulipfera Yellow Poplar	I	M	FACU	10'	CONT/BROOT 3'-5' HEIGHT
875	Acer rubrum Red Maple	VT	D-W	FAC	10'	CONT/BROOT 3'-5' HEIGHT
875	Cercis canadensis Eastern Redbud	T	M	UPL	10'	CONT/BROOT 3'-5' HEIGHT

Quantities Of Individual Species And Species Composition May Change Depending On Availability At Time Of Planting. Total Quantity Of Trees For Entire Easement Area Will Not Change.

THIS PLAN IS FOR FOREST CONSERVATION EASEMENT PLANTING PURPOSES ONLY

PROJECT: **BALTIMORE WASHINGTON AUTO EXCHANGE**
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: 1"=200' DATE: APRIL 17, 2000

TITLE: OFF-SITE REFORESTATION PLAN

AREA: ROMITI FARM
TAX MAP, 2 PARCEL 24
HOWARD COUNTY MARYLAND
~~LIBER~~, ~~FOLIO~~ PLATS 14486 & 14487

TITLE: REFORESTATION PLANTING PLAN
DETAILS AND SPECIFICATIONS

WILDMAN
ENVIRONMENTAL SERVICES
4747 BONNIE BRANCH RD.
ELLICOTT CITY, MD. 21043
PHONE: (410) 313-9999
FAX: (410) 313-9099
Ronald B. Wildman (signature) 9.12.00

DESIGNED BY: R.B.W.
DRAWN BY: J.E.P.
PROJECT NO. BWAE
DATE: 4/17/00
SCALE: 1"= 300'
SHEET NO. OF
SDP SHEET NO. 32 OF 33

AUTOCAD FILE NAME C:\Land Projects\THAYER AUTO EXCHANGE\BWAE MASTER OFFSITE FCE2.dwg

SDP-00-63

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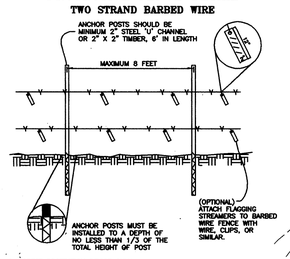

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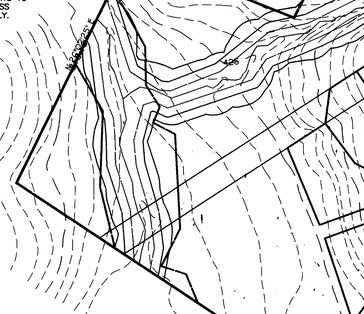
6. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.
7. BARBED WIRE SHOULD BE ATTACHED SECURELY TO POSTS.



SIGNAGE DETAIL

NOT TO SCALE

OWNERS CERTIFICATION

I/We David A. Carney and Laurence B. Raber, owner(s) of the property shown and described heron, hereby adopts this plan in consideration of the approval of this Forest Conservation Easement Plan by the Department of Planning and Zoning, to establish the Forest Conservation Easement(s)

David A. Carney, Trustee — 8.22.00
David A. Carney — DATE

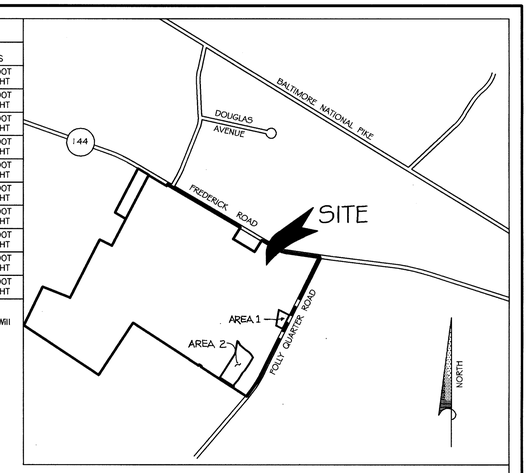
Laurence B. Raber, TRUSTEE — 8.22.00
Laurence B. Raber — DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING			
CHIEF, DIVISION OF LAND DEVELOPMENT	4/2/00 DATE	DIRECTOR, DEPARTMENT OF PLANNING AND ZONING	11/2/00 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION	10/11/00 DATE	~~HOWARD SCD~~	~~DATE~~

REFORESTATION PLANT LIST

QTY.	SPECIES	SHADE TOL.	MOIST. REGIME	WET. STATUS	MIN.O.C. SPACING	SIZE & REMARKS
175	Prunus serotina Wild Black Cherry	I	M	FACU	10'	CONT./BROOT 3'-5' HEIGHT
175	Robinia pseudoacacia Black Locust	VI	D-M	FACU-	10'	CONT./BROOT 3'-5' HEIGHT
175	Quercus alba White Oak	MT	D-M	FACU-	10'	CONT./BROOT 3'-5' HEIGHT
175	Quercus rubra Red Oak	MT	D-M	UPL	10'	CONT./BROOT 3'-5' HEIGHT
175	Fraxinus americana White Ash	MT	D-M	FACU	10'	CONT./BROOT 3'-5' HEIGHT
175	Nyssa sylvatica Black Gum	T	M-W	FAC	10'	CONT./BROOT 3'-5' HEIGHT
175	Platanus occidentalis American Sycamore	i	D-W	FAC	10'	CONT./BROOT 3'-5' HEIGHT
175	Juglans nigra Black Walnut	VT	M	FACU	10'	CONT./BROOT 3'-5' HEIGHT
175	Liriodendron Tulipfera Yellow Poplar	I	M	FACU	10'	CONT./BROOT 3'-5' HEIGHT
175	Acer rubrum Red Maple	VT	D-W	FAC	10'	CONT./BROOT 3'-5' HEIGHT

Quantities Of Individual Species And Species Composition May Change Depending On Availability At Time Of Planting. Total Quantity Of Trees For Entire Easement Area Will Not Change.



VICINITY MAP

SCALE: 1"=1200'

FOREST CONSERVATION EASEMENT AREA TABULATION

No.	AREA
5	0.91 Ac.±
6	4.13 Ac.±

TREE PLANTING DETAIL

CONTAINER GROWN

OWNER/GRANTOR	OWNER / DEVELOPER
BRANTWOOD, LLC EASEMENT HOLDERS: BRANTWOOD COMMUNITY ASSOCIATION, INC. HOWARD COUNTY, MD.	AA PROPERTY HOLDINGS 435 METROPLEX DRIVE NASHVILLE, TN 37211-3109 L. 4798 F. 685

General Notes

1) The Forest Conservation Easement Has Been Established As An Offsite Forest Mitigation Area, Per Section 16.1216 Of The Howard County 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.
2) (No.) Denotes Forest Conservation Easement.
3) ● ● ● Denotes Forest Preservation Signage

THIS PLAN IS FOR FOREST CONSERVATION EASEMENT PLANTING PURPOSES ONLY

NO CLEARING, GRADING, BUMPING OR ANY OTHER ACTIVITIES NOT PERMITTED UNDER THE TERMS OF AN AGREEMENT AND/OR THE DEED OF FOREST CONSERVATION EASEMENT FOR THIS PROJECT ARE ALLOWED WITHIN ANY FOREST CONSERVATION EASEMENTS SHOWN ON THIS PLAN.

DATE	NO.	REVISION

PROJECT:

BALTIMORE WASHINGTON AUTO EXCHANGE

VEHICLE AUCTION FACILITY AND STORAGE LOTS

TAX MAP No: 43 PARCEL: 371

FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

SCALE: 1"=200' DATE: APRIL 17, 2000

TITLE:

OFF-SITE FOREST MITIGATION PLAN

AREA:

BRANTWOOD - SECTION ONE

TAX MAPS 16 & 23 PARCELS 54, 214 & 390

HOWARD COUNTY MARYLAND

PLAT Nos. ~~[illegible]~~ 14494

TITLE:

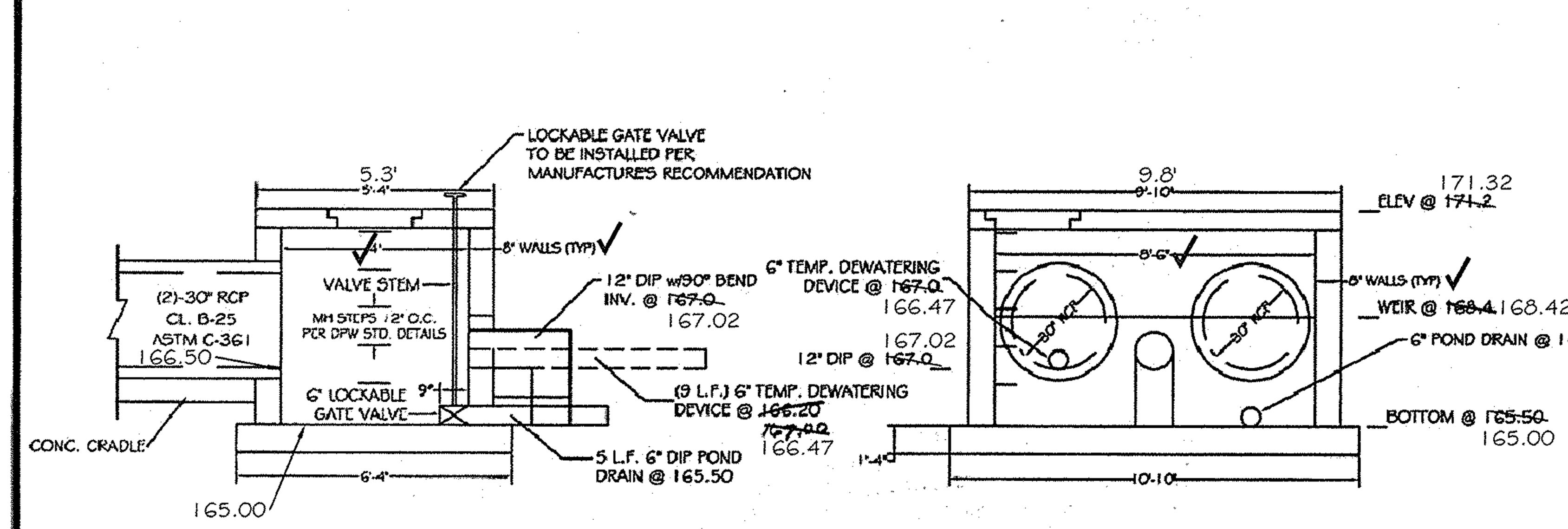
WILDMAN
ENVIRONMENTAL SERVICES
4747 BONNIE BRANCH RD.
ELLICOTT CITY, MD. 21043
PHONE: (410) 313-9599
FAX: (410) 313-9099

Ronald B. Wildman 9.12.00

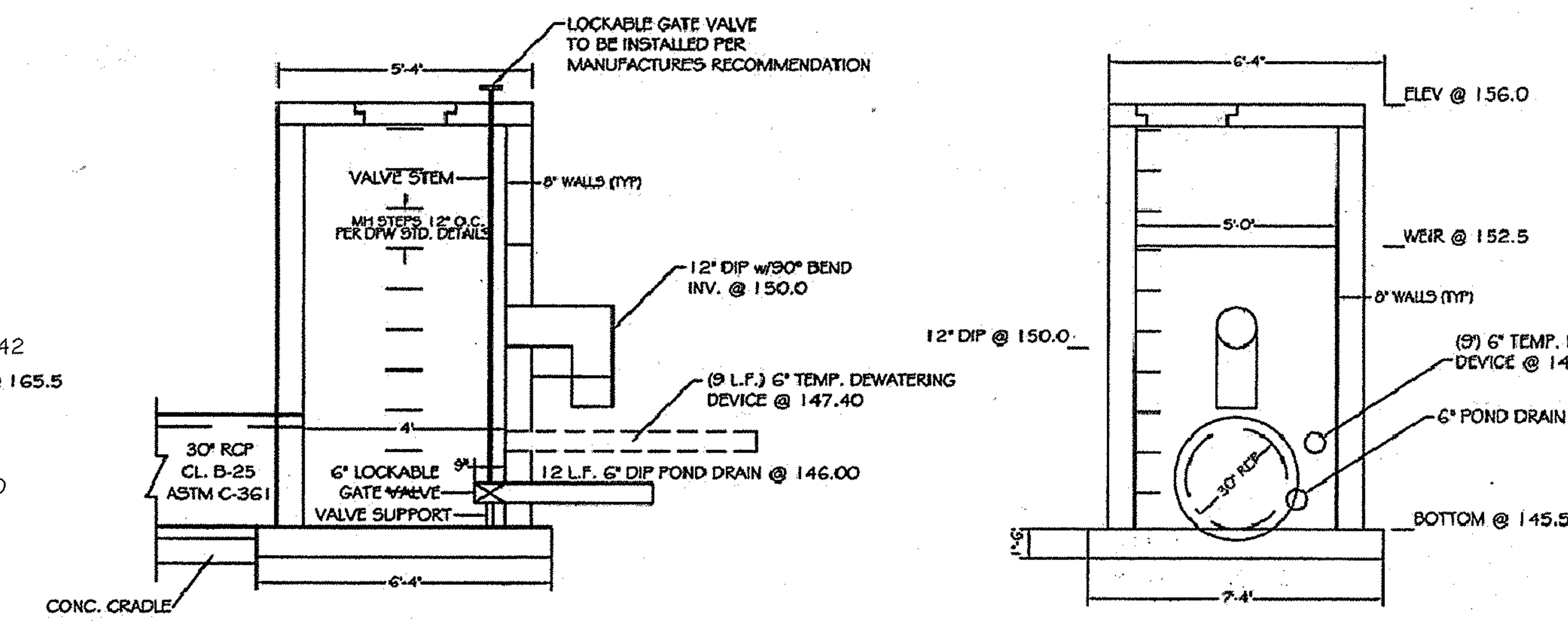
DESIGNED BY:	R.B.W.
DRAWN BY:	J.E.P.
PROJECT NO.	
DATE:	MAY 2000
SCALE:	1"= 200'
SHEET NO.	33 OF 33

BWAE OFFSITE FCE3 REVISED

SDP-00-63

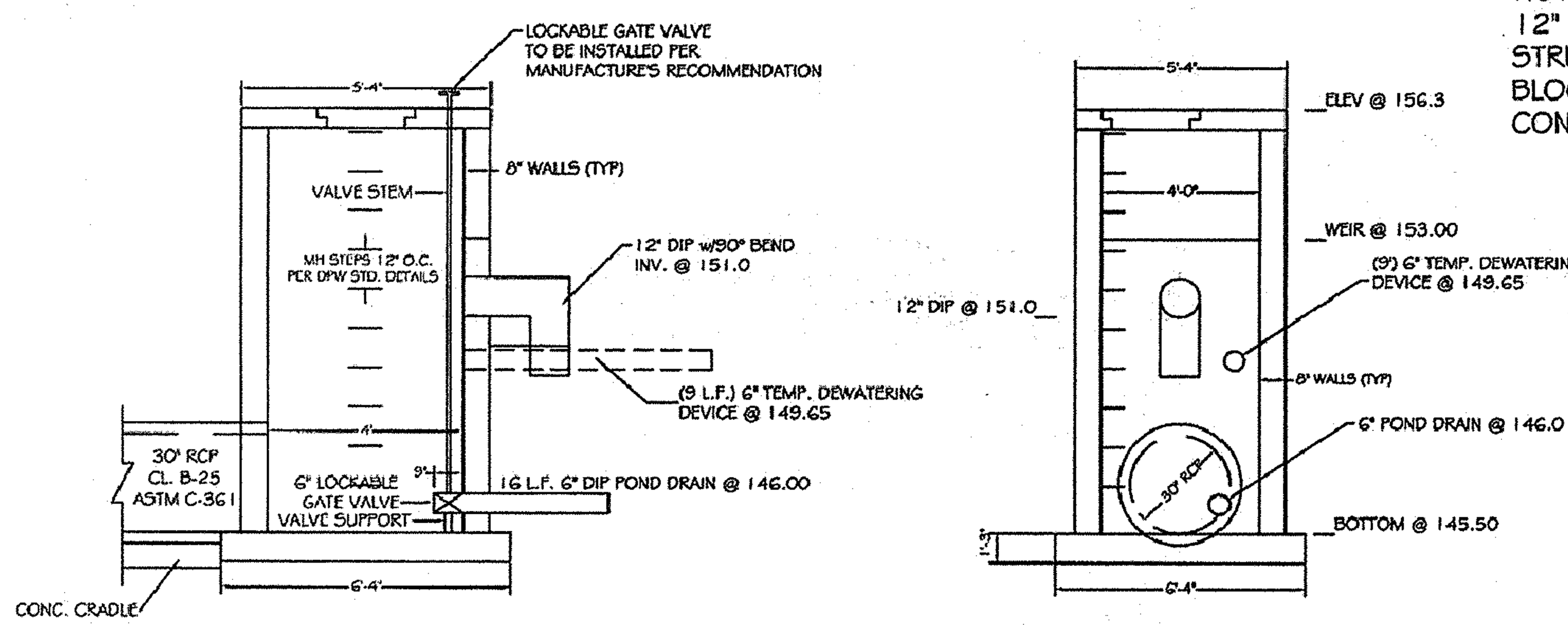


RISER STRUCTURE POND NO. 1

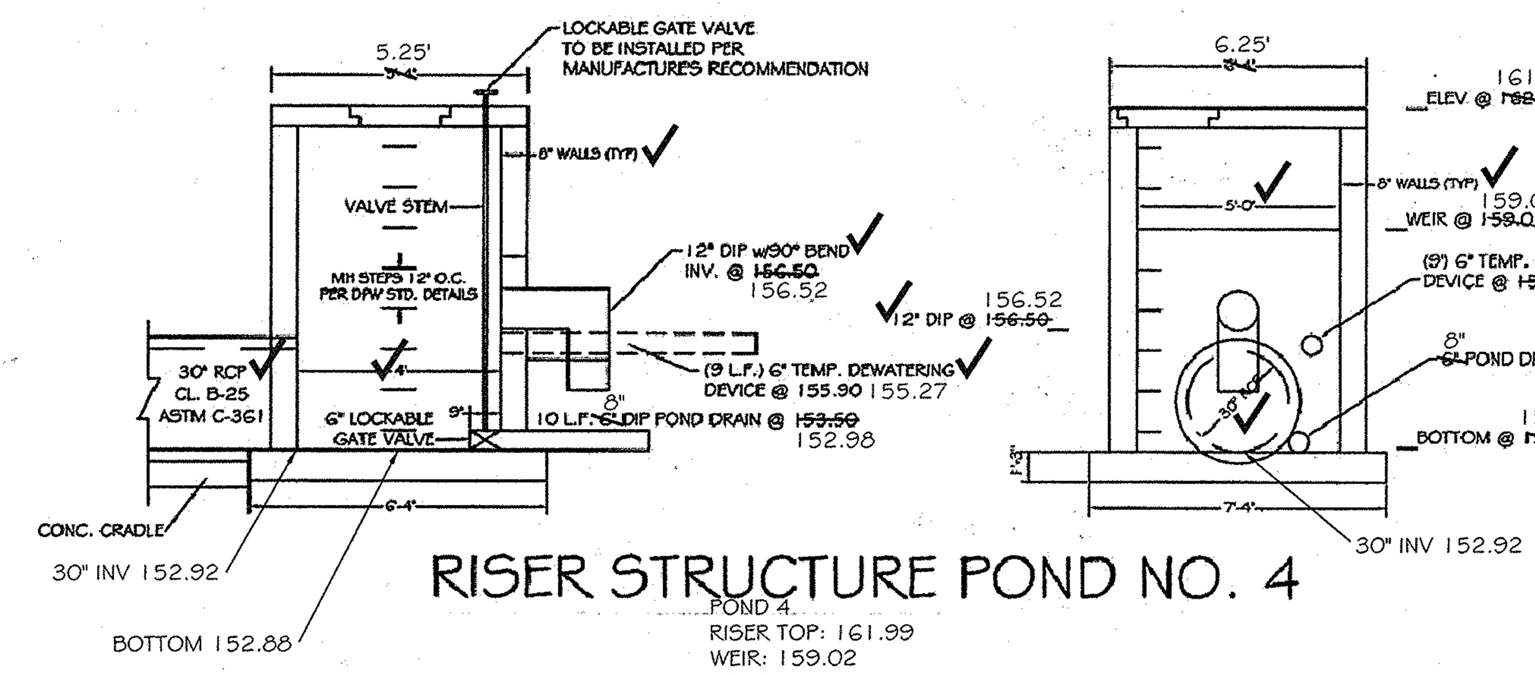


RISER STRUCTURE POND NO. 3

NOTE:
12" DIP ORIFICE AT EACH RISER STRUCTURE TO BE TEMPORARY BLOCKED DURING THE SEDIMENT CONTROL PHASE OF CONSTRUCTION



RISER STRUCTURE POND NO. 2



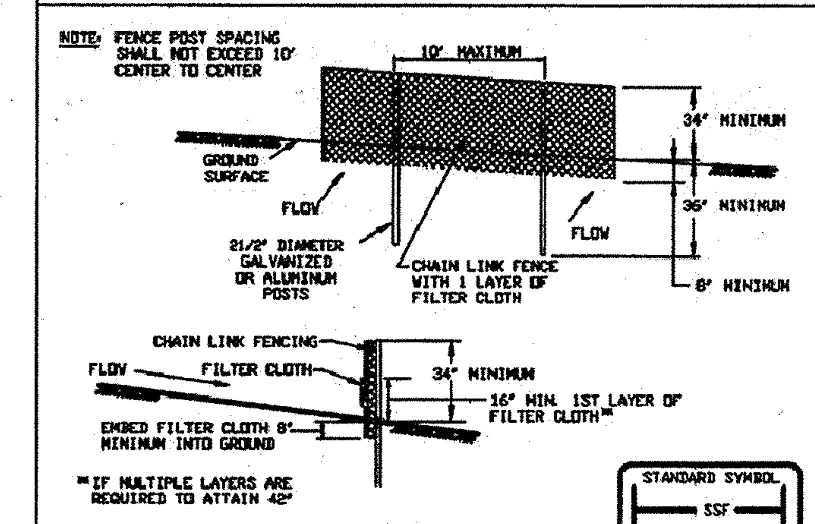
RISER STRUCTURE POND NO. 4

POND 4
RISER TOP: 161.99
WEIR: 159.02
BOTTOM: 152.88
6" METAL INV. 152.98
12" INV. 156.52
6" PVC INV. 155.27 (CAPPED ON OUTSIDE)
30" INV. 152.92

12" INV. BELOW 90° BEND: 156.07

~~30" INV. AT OUTFALL: 150.33~~

DETAIL 33 - SUPER SILT FENCE



Construction Specifications

1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts.

2. Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.

3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.

4. Filter cloth shall be embedded a minimum of 8" into the ground.

5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.

6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height.

7. Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal/ft²/minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H - 26 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SUPER SILT FENCE

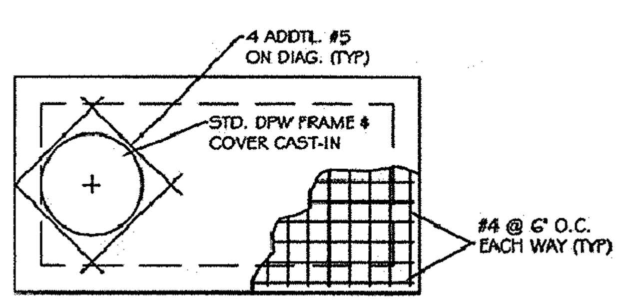
Design Criteria

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

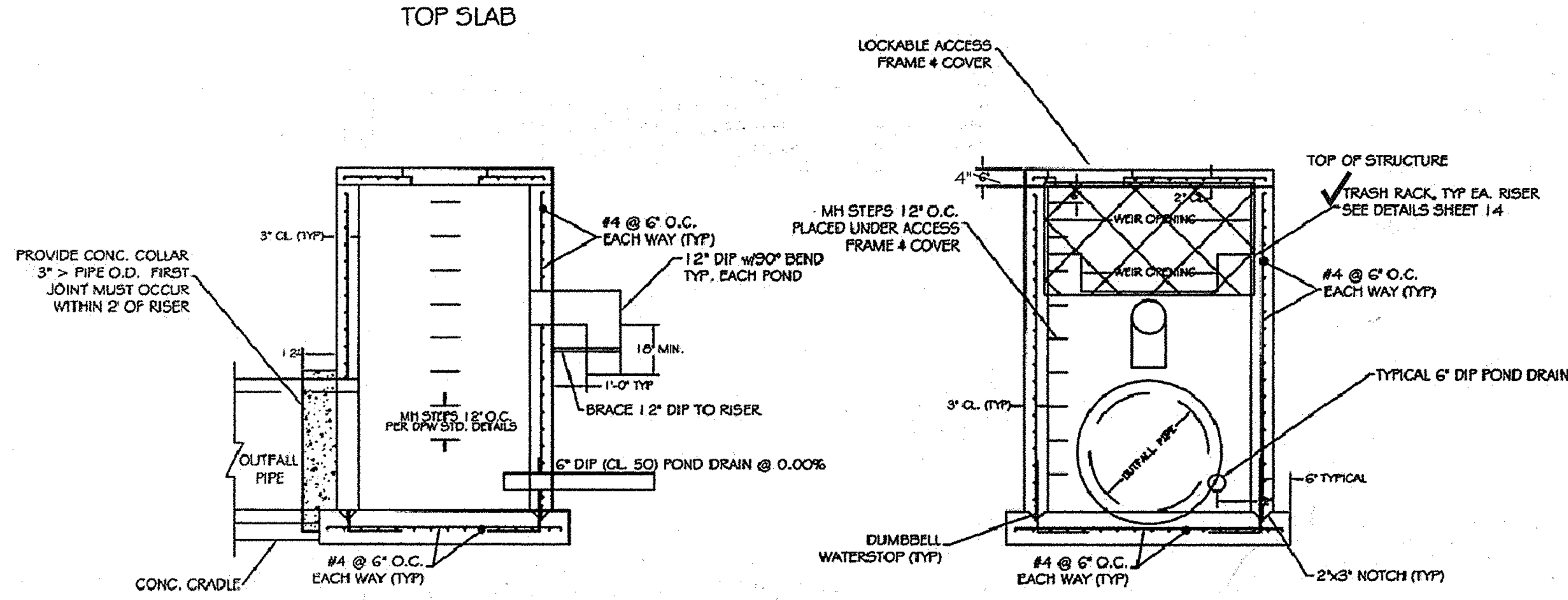
U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H - 26 - 3A	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

GENERAL NOTES

1. CONCRETE STRENGTH (f'c) = 4000 PSI @ 28 DAYS.
2. ALL REINFORCING STEEL TO BE ASTM A615 GR. 60.
3. ALL LAP REINFORCING TO BE 32 TIMES BAR DIAMETER (MINIMUM).
4. IF STRUCTURE IS PRECAST, SHOP DRAWINGS MUST BE APPROVED BY AN ENGINEER BEFORE CONSTRUCTION.
5. ALL CONCRETE EXPOSED EDGES MUST HAVE 3/4" x 3/4" CHAMFER OR AS DIRECTED.

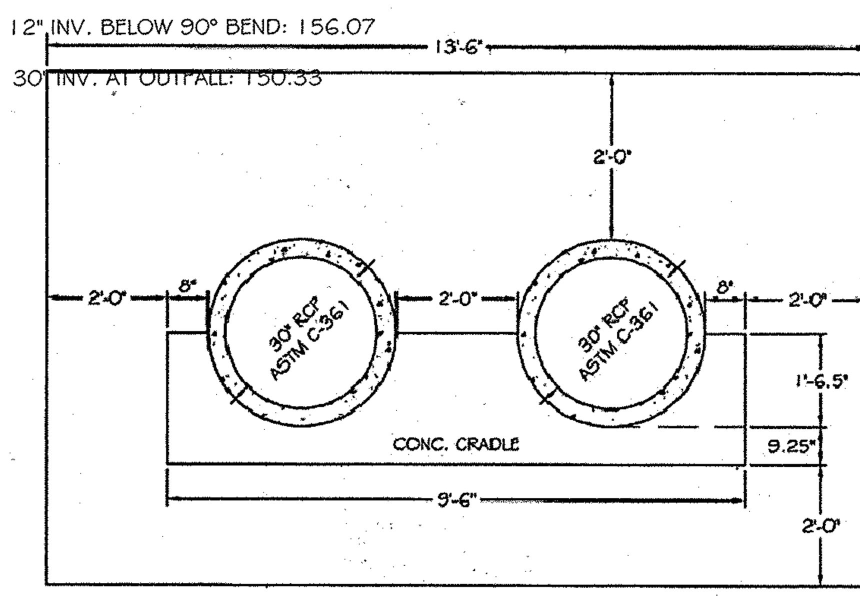


TOP SLAB



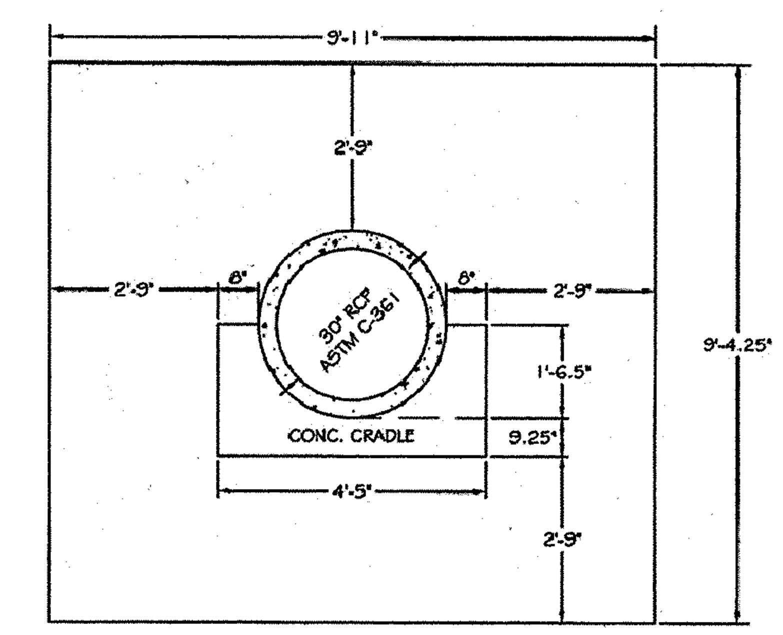
AS-BUILT SURVEY DATES:
2/3/14 TO 2/14/14, 8/15/14

TYPICAL RISER STRUCTURE REINFORCEMENT DETAILS



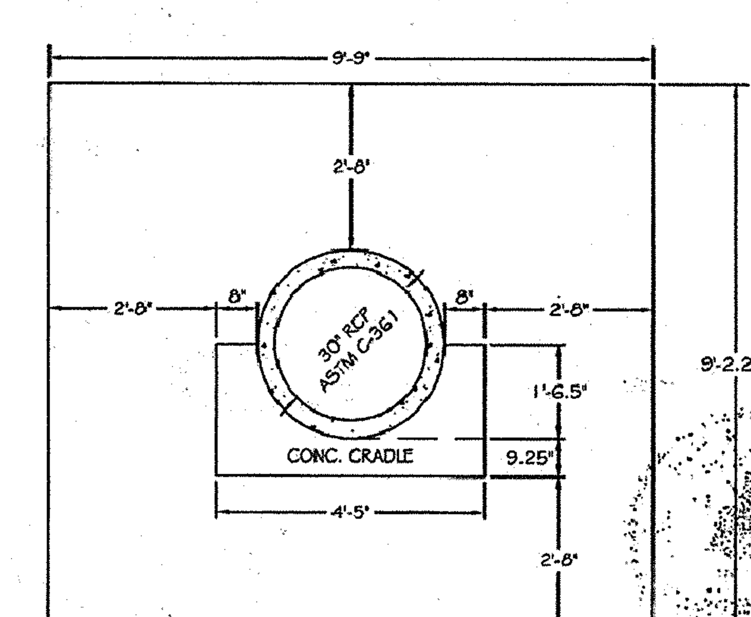
ANTI-SEEP COLLARS - POND NO. 1

NOT TO SCALE



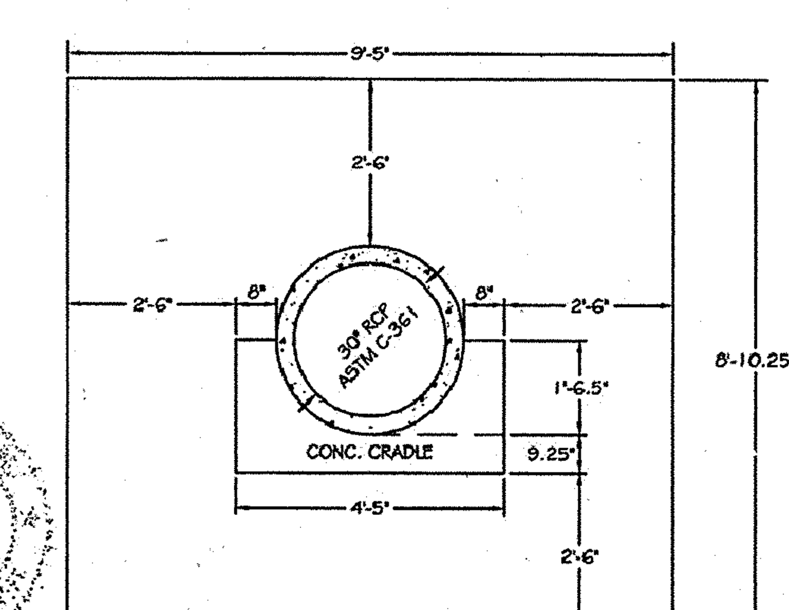
ANTI-SEEP COLLARS - POND NO. 2

NOT TO SCALE



ANTI-SEEP COLLARS - POND NO. 3

NOT TO SCALE



ANTI-SEEP COLLARS - POND NO. 4

NOT TO SCALE

AS-BUILT CERTIFICATION
I HEREBY CERTIFY, BY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS PLAN MEET THE CURRENT APPROVED PLANS AND SPECIFICATIONS.
G. SCOTT SHANABERGER
SHANABERGER & LANE
PROFESSIONAL LAND SURVEYOR #10849
LICENSE EXPIRATION DATE 4/2/2016

AS-BUILT CERTIFICATION
I hereby certify, by my seal, that the facilities shown on this plan were constructed as shown on this "AS-BUILT" plan and meet the Approved Plans and Specifications and is in accordance with the As-Built Report for Ponds #1 and #4 prepared by CIVIL DESIGN SERVICES, LC, dated September 17, 2014.
11/7/2014
Andrew A. Porter, PE #15,838 (license expiration date 12/17/15)

STATE OF MARYLAND ANDREW A. PORTER No. 15838 REGISTERED PROFESSIONAL ENGINEER

STATE OF ... MICHAEL J. ... No. 17788 REGISTERED ... ENGINEER

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797

THIS SHEET IS FOR AS-BUILTS OF STORMWATER MANAGEMENT PONDS #1 and #4 ONLY.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 11/2/00

Chief, Development Engineering Division — Date 10/11/00

Director, Department of Planning and Zoning — Date 11/2/00

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A.-Natural Resources Conservation Service — Date 10/4/00

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD — Date 10/4/00

DATE	REVISIONS

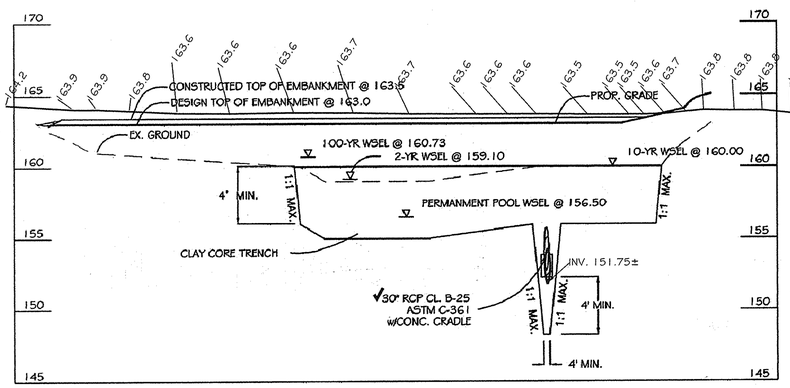
BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: APRIL 17, 2000

RISER STUCTURE DETAILS
AS-BUILTS
STORMWATER MANAGEMENT PONDS #1 and #4 ONLY

SDP-00-63

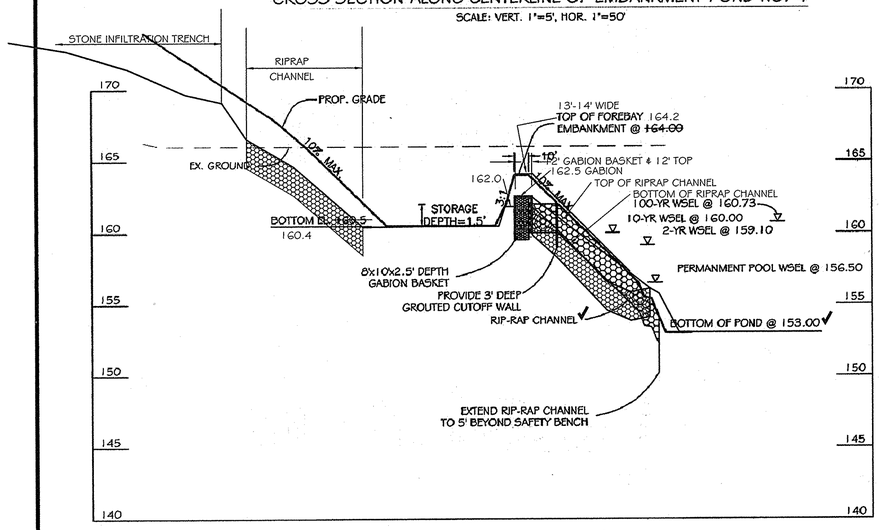
OWNER / DEVELOPER
AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211.3109
L. 4798 F. 685

THAYER AUTO EXCHANGE] - [BWAE RISER STRUCTURE DETAILS]



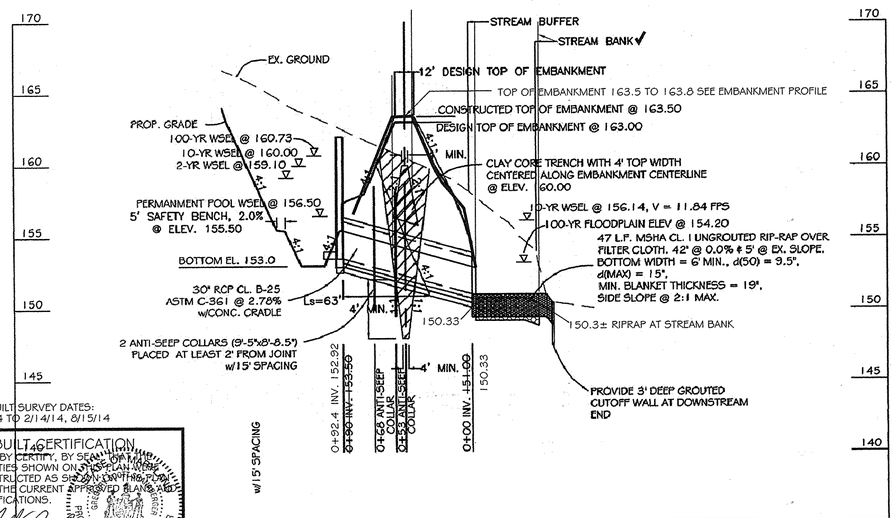
CROSS SECTION ALONG CENTERLINE OF EMBANKMENT POND NO. 4

SCALE: VERT. 1"=5', HOR. 1"=50'



PROFILE OF FOREBAY/POND - POND NO. 4

SCALE: VERT. 1"=5', HOR. 1"=50'



AS-BUILT SURVEY DATES:
2/3/14 TO 2/14/14, 8/15/14

AS-BUILT CERTIFICATION
I HEREBY CERTIFY, BY SEAL OF THIS PLAN, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THE APPROVED PLANS AND MEET THE CURRENT APPROVED PLANS AND SPECIFICATIONS.

G. SCOTT SHANABERGER
SHANABERGER & LANE
PROFESSIONAL LAND SURVEYOR #10849
LICENSE EXPIRATION DATE 4/2/2016

PROFILE OF PRINCIPAL/EMERGENCY SPILLWAY POND NO. 4

SCALE: VERT. 1"=5', HOR. 1"=50'

GENERAL NOTES

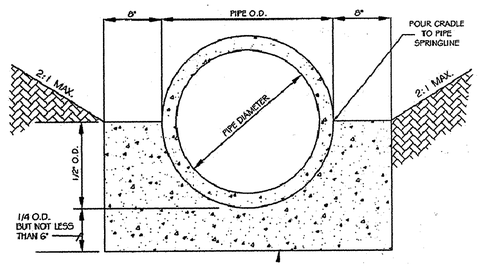
1. CONCRETE STRENGTH (f'c) = 4000 PSI @ 28 DAYS.
2. ALL REINFORCING STEEL TO BE ASTM A615 GR. 60.
3. ALL LAP REINFORCING TO BE 32 TIMES BAR DIAMETER (MINIMUM).
4. IF STRUCTURE IS PRECAST, SHOP DRAWINGS MUST BE APPROVED BY AN ENGINEER BEFORE CONSTRUCTION.
5. ALL CONCRETE EXPOSED EDGES MUST HAVE 3/4" x 3/4" CHAMFER OR AS DIRECTED.

AS-BUILT CERTIFICATION

I hereby certify, by my seal, that the facilities shown on this plan were constructed as shown on this "AS-BUILT" plan and meet the Approved Plans and Specifications and is in accordance with the As-Built Report for Ponds #1 and #4 prepared by CIVIL DESIGN SERVICES, LC, dated September 17, 2014.

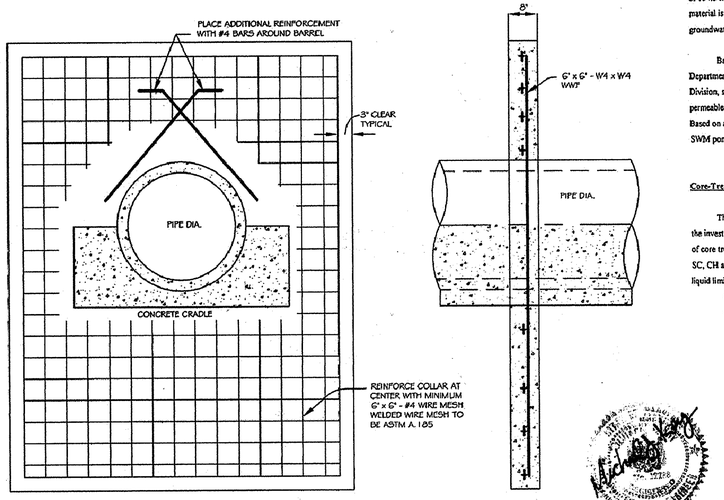
Andrew A. Porter, PE #15,838 (license expiration date 12/17/15)

11/7/2014



CONCRETE CRADLE DETAIL

NOT TO SCALE



TYPICAL ANTI - SEEP COLLAR REINFORCEMENT DETAIL

NOT TO SCALE

GEOTECHNICAL RECOMMENDATIONS

CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations pertain to the construction of stormwater management ponds (ponds #1 through #4) within the proposed Baltimore-Washington Auto Exchange, located in Howard County, Maryland. The location of the proposed stormwater management ponds are shown in Figure 2. According to the proposed stormwater management pond drawings, pond constructions will be a combination of cut and fill operations with estimated 5 and 8 feet of cut and fill, respectively. Field borings and laboratory testing indicate that most of the pond embankment will be constructed over CL and/or SM materials.

Proposed Stormwater Management Pond #1

According to available field data, the bottom of the proposed SWM pond #1 at 156 msl. will most likely be within the CL (clay loam) soil strata. The encountered CL (clay loam) material is considered impervious with anticipated infiltration rate of 0.09 in./hr. No groundwater table was recorded in any of the tested bore holes.

Based upon the "Standards and Specifications For Infiltration Practice", Maryland Department of Natural Resources, Water Resources Administration, Stormwater Management Division, soils with an infiltration rate of less than 0.52 inches per hour are considered impervious and any ponds within this soil criteria should be considered and designed as a wet pond.

Proposed Stormwater Management Pond #2

According to available field data, the bottom of the proposed SWM pond #2 at elevation of 146 msl. will most likely be within the SM (sand) soil strata. The encountered SM (sand) material is considered very permeable with anticipated infiltration rate of 8.27 in./hr. Groundwater table was recorded in all test bore holes within SWM pond #2.

Based upon the "Standards and Specifications For Infiltration Practice", Maryland Department of Natural Resources, Water Resources Administration, Stormwater Management Division, soils with an infiltration rate of greater than 0.52 inches per hour are considered permeable and any ponds within this soil criteria should be considered and designed as a dry pond. However, the presence of groundwater table at 7 feet at the completion of the drilling and 4 feet at 24-hour water table reading, dictate that the proposed SWM pond #2 should be considered and designed as a wet pond.

Proposed Stormwater Management Pond #3

According to available field data, the bottom of the proposed SWM pond #3 at 146.0 msl. will most likely be within the CL (clay loam) soil strata. The encountered CL (clay loam) material is considered impervious with anticipated infiltration rate of 0.09 in./hr. No groundwater table was recorded in any of the tested bore holes.

Based upon the "Standards and Specifications For Infiltration Practice", Maryland Department of Natural Resources, Water Resources Administration, Stormwater Management Division, soils with an infiltration rate of less than 0.52 inches per hour are considered impervious and any ponds within this soil criteria should be considered and designed as a wet pond.

Proposed Stormwater Management Pond #4

According to available field data, the bottom of the proposed SWM pond #4 at elevation of 154.5 msl. will most likely be within the SM (sand) soil strata. The encountered SM (sand) material is considered very permeable with anticipated infiltration rate of 8.27 in./hr. No groundwater table was recorded in any of the test bore holes within SWM pond #4.

Based upon the "Standards and Specifications For Infiltration Practice", Maryland Department of Natural Resources, Water Resources Administration, Stormwater Management Division, soils with an infiltration rate of greater than 0.52 inches per hour are considered permeable and any ponds within this soil criteria should be considered and designed as a dry pond. Based on available field and laboratory test data, it is our professional opinion that the proposed SWM pond # should be considered and designed as a dry pond.

Core-Trench

The in-situ soil as classified as sandy lean clay and lean clay (CL) within the footprint of the investigated area could be utilized as core trench material. There should be sufficient amount of core trench material available on the site. Core-trench materials should be classified as GC, SC, CH and/or CL in accordance with Unified Soil Classification System. Other soils with a liquid limit of over 30% and plasticity index of more 10% and 50% or more passing through sieve #200 could be used as a core trench materials, as long as the placement of core materials is supervised by the geotechnical engineer of record or his/her representative.

#200 could be used as a core trench materials, as long as the placement of core materials is supervised by the geotechnical engineer of record or his/her representative

SITE PREPARATION

The following recommendations are made for the satisfactory performance of earthwork, in order to attain the planned grade within the proposed construction of the stormwater management ponds. Based on our past experience, if construction of this pond commence between December 1 to April 1, there is a possibility that heavy construction equipment might sink into the loose and wet materials. We would like to suggest, the SWM ponds be constructed during dry seasons.

Area designated for embankment and structural work shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel beds s and sharp breaks shall be sloped to no steeper than 1

The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stone greater than 3 inches, 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. Other materials as investigated and approved by geotechnical engineer of record may be used for construction of the embankment.

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

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797

THIS SHEET IS FOR AS-BUILTS OF STORMWATER MANAGEMENT PONDS #1 and #4 ONLY.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 11/2/00

Chief, Development Engineering Division — Date 10/6/00

Director, Department of Planning and Zoning — Date 11/6/00

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A.-Natural Resources Conservation Service — Date 10/10/00

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The HOWARD SOIL CONSERVATION DISTRICT

Howard SCD — Date 10/6/00

DATE	REVISIONS

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: 1"=200' DATE: JANUARY 26, 2000

STORMWATER MANAGEMENT DETAILS

AS-BUILTS
STORMWATER MANAGEMENT PONDS #1 and #4 ONLY

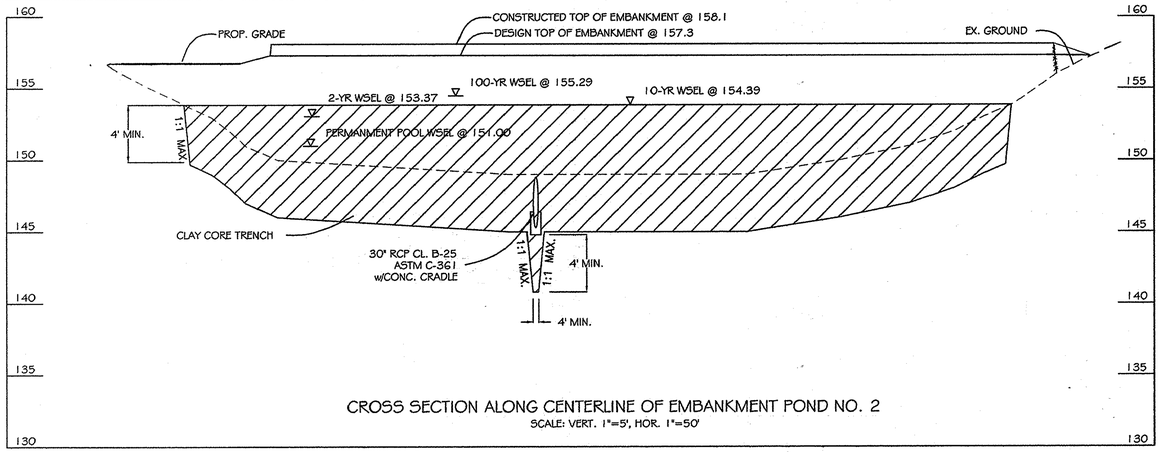
SDP-00-63

OWNER / DEVELOPER

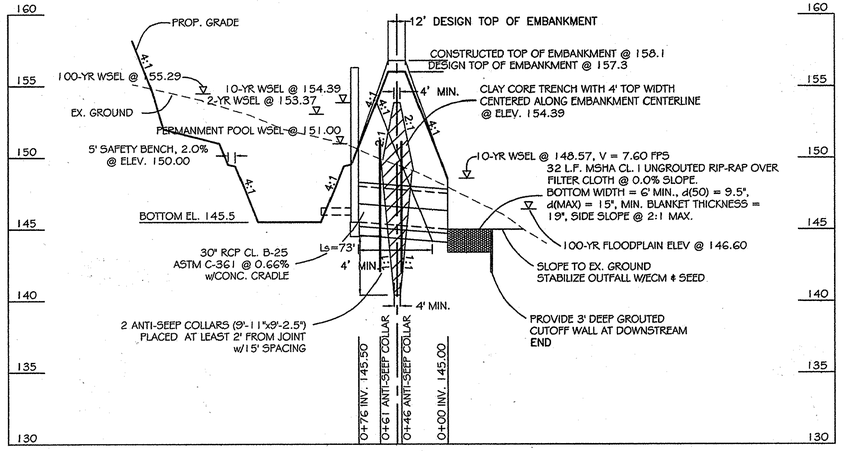
AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4795 F. 685

SHEET 33D OF 33

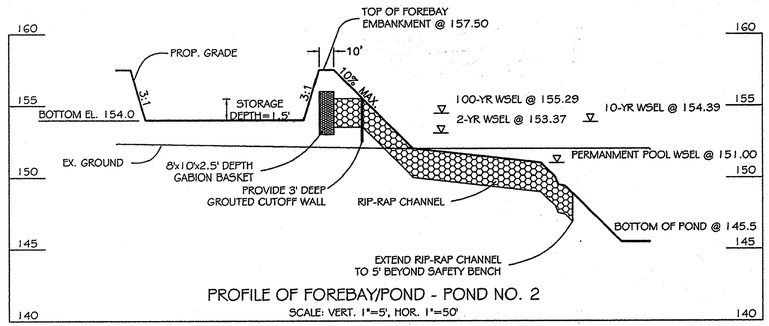
SDP-00-63



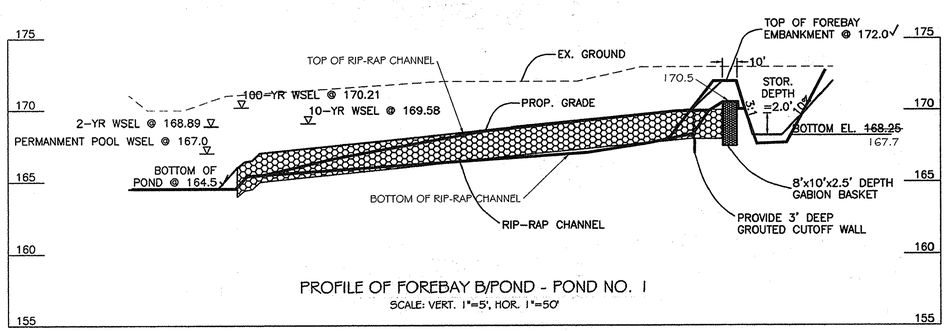
CROSS SECTION ALONG CENTERLINE OF EMBANKMENT POND NO. 2
SCALE: VERT. 1"=5', HOR. 1"=50'



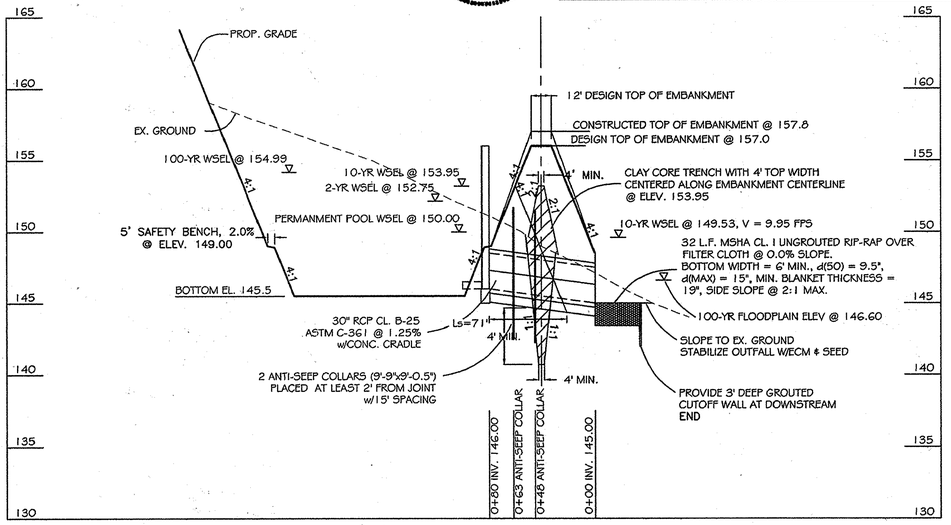
PROFILE OF PRINCIPAL/EMERGENCY SPILLWAY POND NO. 2
SCALE: VERT. 1"=5', HOR. 1"=50'



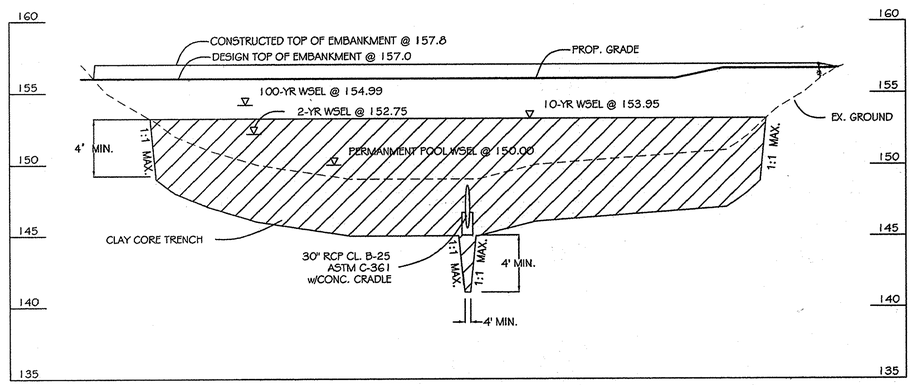
PROFILE OF FOREBAY/POND - POND NO. 2
SCALE: VERT. 1"=5', HOR. 1"=50'



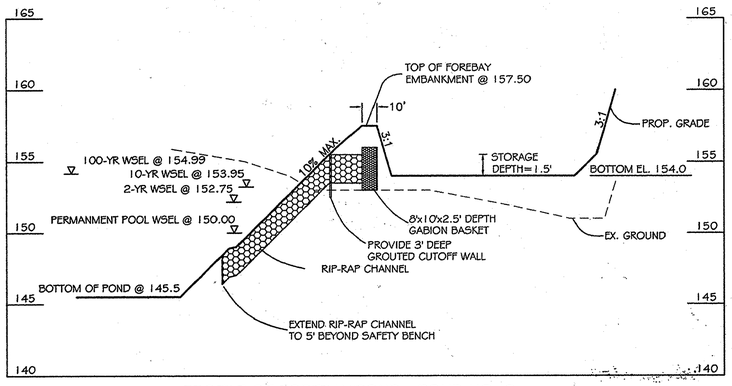
PROFILE OF FOREBAY B/POND - POND NO. 1
SCALE: VERT. 1"=5', HOR. 1"=50'



PROFILE OF PRINCIPAL/EMERGENCY SPILLWAY POND NO. 3
SCALE: VERT. 1"=5', HOR. 1"=50'



CROSS SECTION ALONG CENTERLINE OF EMBANKMENT POND NO. 3
SCALE: VERT. 1"=5', HOR. 1"=50'



PROFILE OF FOREBAY/POND - POND NO. 3
SCALE: VERT. 1"=5', HOR. 1"=50'

AS-BUILT CERTIFICATION

I hereby certify, by my seal, that the facilities shown on this plan were constructed as shown on this "AS-BUILT" plan and meet the Approved Plans and Specifications and is in accordance with the As-Built Report for Ponds #1 and #4 prepared by CIVIL DESIGN SERVICES, LC, dated September 17, 2014.

Andrew A. Porter, PE #15,838 (license expiration date 12/17/15)

STATE OF MARYLAND · ANDREW A. PORTER · NO. 15838 · REGISTERED PROFESSIONAL ENGINEER

AS-BUILT SURVEY DATES:
2/3/14 TO 2/14/14, 8/15/14

AS-BUILT CERTIFICATION

I HEREBY CERTIFY, BY SEAL, THAT THE FACILITIES SHOWN ON THIS DRAWING WERE CONSTRUCTED AS SHOWN ON THIS PLAN MEET THE CURRENT APPROVED PLANS AND SPECIFICATIONS.

G. SCOTT SHANABERGER
SHANABERGER & LANE
PROFESSIONAL LAND SURVEYOR #10849
LICENSE EXPIRATION DATE 4/2/2016

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 11/4/00

Chief, Development Engineering Division — Date 10/4/00

Director, Department of Planning and Zoning — Date 11/4/00

THIS SHEET IS FOR AS-BUILTS OF STORMWATER MANAGEMENT PONDS #1 and #4 ONLY.

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A.-Natural Resources Conservation Service — Date 10/6/00

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD — Date 10/6/00

DATE	REVISIONS

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS

TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: 1"=200' DATE: APRIL 17, 2000

STORMWATER MANAGEMENT DETAILS

AS-BUILTS
STORMWATER MANAGEMENT PONDS #1 and #4 ONLY

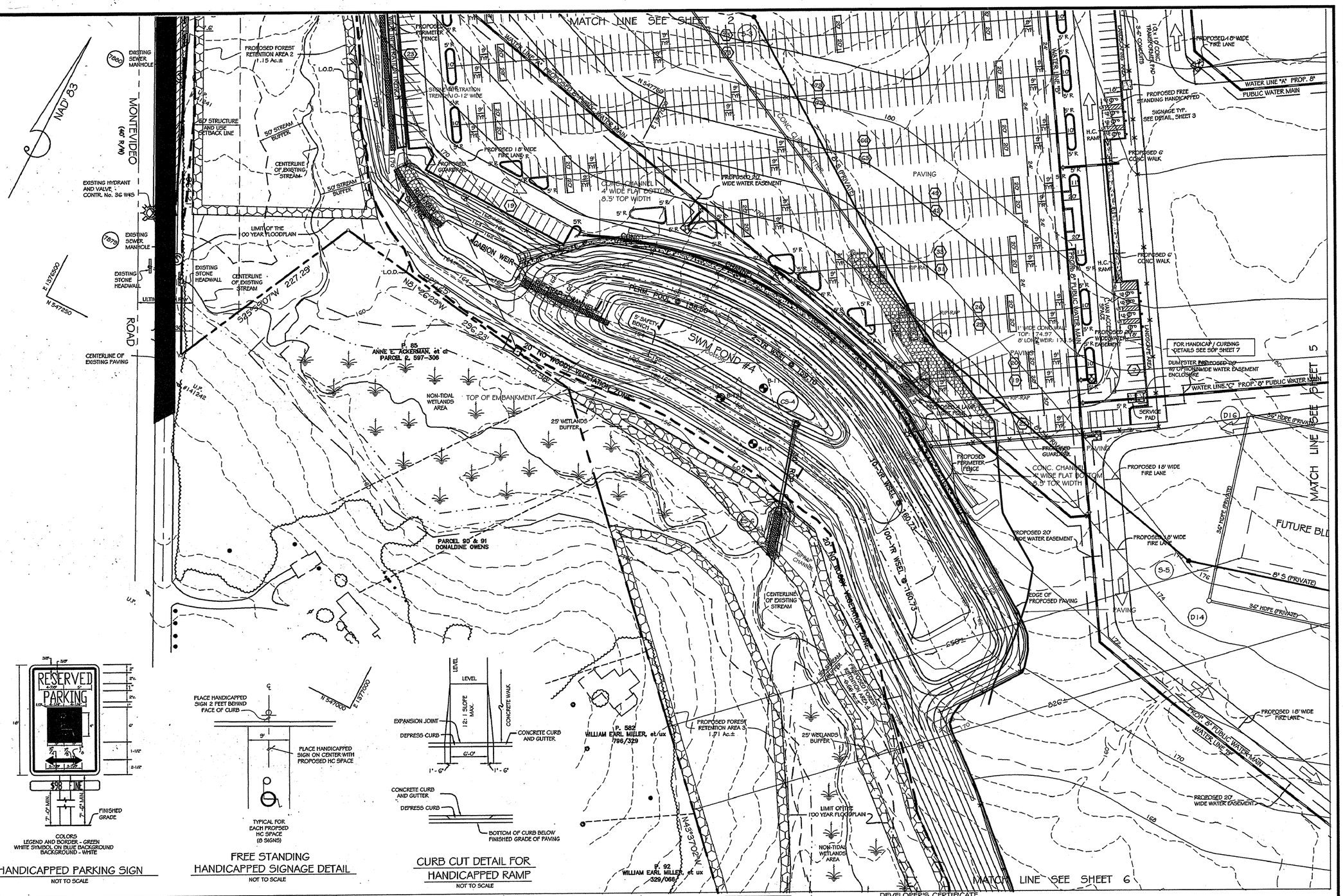
SDP-00-63

OWNER / DEVELOPER

AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4798 F. 685

SHEET 33C OF 33

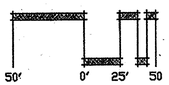
SDP-00-63



HANDICAPPED PARKING SIGN
NOT TO SCALE

FREE STANDING HANDICAPPED SIGNAGE DETAIL
NOT TO SCALE

CURB CUT DETAIL FOR HANDICAPPED RAMP
NOT TO SCALE



AS-BUILT SURVEY DATES:
2/3/14 TO 2/14/14, 8/15/14

AS-BUILT CERTIFICATION
I HEREBY CERTIFY, BY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS PLAN MEET THE CURRENT APPROVED PLANS AND SPECIFICATIONS.

G. SCOTT SHANABERGER, 10849
SHANABERGER & LANE
PROFESSIONAL LAND SURVEYOR #10849
LICENSE EXPIRATION DATE 4/2/2016

AS-BUILT CERTIFICATION
I hereby certify, by my seal, that the facilities shown on this plan were constructed as shown on this "AS-BUILT" plan and meet the Approved Plans and Specifications and is in accordance with the As-Built Report for Ponds #1 and #4 prepared by CIVIL DESIGN SERVICES, LC, dated September 17, 2014.

Andrew A. Porter, PE #15,838 (license expiration date 12/17/15)
11/7/2014

STATE OF MARYLAND ANDREW A. PORTER No. 15838 REGISTERED PROFESSIONAL ENGINEER

STATE OF MARYLAND MICHAEL J. KAY No. 17755 REGISTERED PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE
"I/We certify that all development and construction will be done according to this plan, 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 inspection by the Howard Soil Conservation District."

G. DAMON THAYER — Date 6/26/03

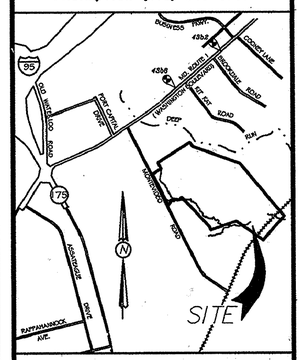
ENGINEER'S CERTIFICATE
"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have 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.

MICHAEL J. KAY — Date 6/26/03

ADDRESS CHART	
LOT / PARCEL #	STREET ADRESS
P. 371	7301 MONTEVIDEO ROAD

PROJECT NAME			SECTION / AREA	LOT / PARCEL
BALTIMORE WASHINGTON AUTO EXCHANGE				371
FLAT NO. DRL / F	BLOCK NO.	ZONE	TAX ZONE	ELEC. DIST.	CENSUS TR.
921 / 739	10	M-2	43	FIRST	6012
WATER CODE			SEWER CODE	
***			*******	

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP
SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — Date 9/5/03

Chief, Development Engineering Division — Date 9/2/03

Director, Department of Planning and Zoning — Date 9/5/03

THIS SHEET IS FOR AS-BUILTS OF STORMWATER MANAGEMENT PONDS #1 and #4 ONLY.

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A.-Natural Resources Conservation Service — Date 9/27/03

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The HOWARD SOIL CONSERVATION DISTRICT

Howard SCD — Date 8/27/03

DATE	REVISIONS
07/29/03	RED-LINE REVISION NO. 2
03/24/03	RED-LINE REVISION NO. 1

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS
TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: APRIL 17, 2000

REVISED
SITE DEVELOPMENT PLAN SHEET
AS-BUILTS
STORMWATER MANAGEMENT PONDS #1 and #4 ONLY

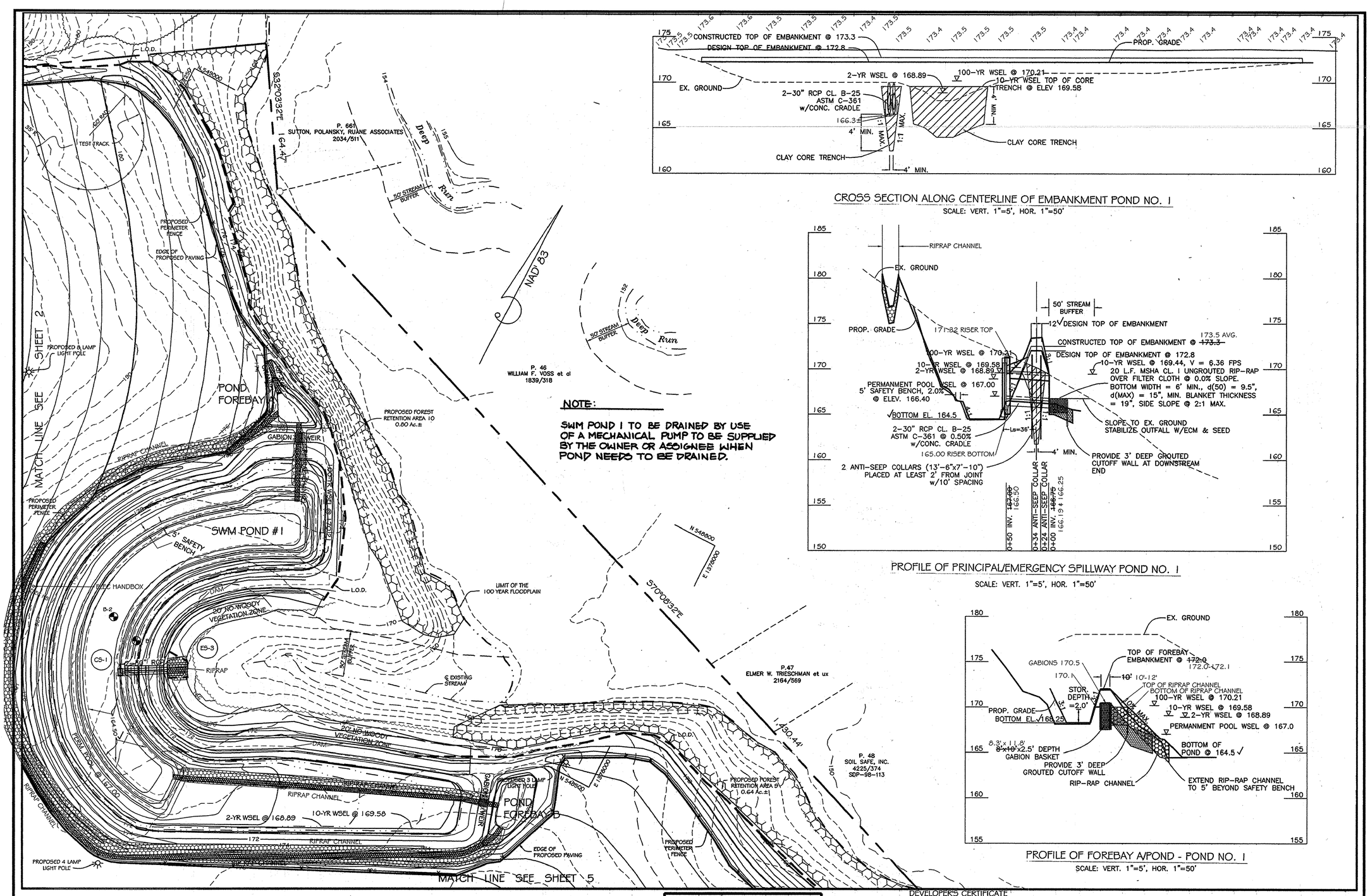
SDP-00-63

OWNER / DEVELOPER
AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L. 4798 F. 685

SHEET 33B OF 33

SDP-00-63

[THAYER AUTO EXCHANGE] - [BWAE SDP BASE SHEET]



NOTE:

SWM POND 1 TO BE DRAINED BY USE OF A MECHANICAL PUMP TO BE SUPPLIED BY THE OWNER OR ASSIGNEE WHEN POND NEEDS TO BE DRAINED.

CROSS SECTION ALONG CENTERLINE OF EMBANKMENT POND NO. 1

SCALE: VERT. 1"=5', HOR. 1"=50'

PROFILE OF PRINCIPAL/EMERGENCY SPILLWAY POND NO. 1

SCALE: VERT. 1"=5', HOR. 1"=50'

PROFILE OF FOREBAY A/POND - POND NO. 1

SCALE: VERT. 1"=5', HOR. 1"=50'

AS-BUILT SURVEY DATES:
2/3/14 TO 2/14/14, 8/15/14

AS-BUILT CERTIFICATION

I HEREBY CERTIFY, BY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS PLAN AND MEET THE CURRENT APPROVED PLANS AND SPECIFICATIONS.

G. SCOTT SHANABERGER
SHANABERGER & LANE
PROFESSIONAL LAND SURVEYOR #10849
LICENSE EXPIRATION DATE 4/2/2016

AS-BUILT CERTIFICATION

I hereby certify, by my seal, that the facilities shown on this plan were constructed as shown on this "AS-BUILT" plan and meet the Approved Plans and Specifications and is in accordance with the As-Built Report for Ponds #1 and #4 prepared by CIVIL DESIGN SERVICES, LC, dated September 17, 2014.

Andrew A. Porter 11/7/2014

Andrew A. Porter, PE #15,838 (license expiration date 12/17/15)

STATE OF MARYLAND ANDREW A. PORTER NO. 15838 REGISTERED PROFESSIONAL ENGINEER

50' 0' 25' 50
1"= 50'

DEVELOPER'S CERTIFICATE

"We certify that all development and construction will be done according to this plan, 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 Distrct with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspection by the Howard Soil Conservation Distrct."

G. DAMON THAYER 7/8/00 Date

ENGINEER'S CERTIFICATE

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

MICHAEL J. KAY 7/8/00 Date

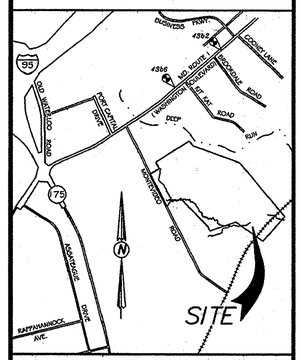
ADDRESS CHART	
LOT / PARCEL #	STREET ADRESS
P 371	7301 MONTEVIDEO ROAD

PROJECT NAME	SECTION / AREA	LOT / PARCEL
BALTIMORE WASHINGTON AUTO EXCHANGE		371

DEED NO. DRL / F	BLOCK NO.	ZONE	TAX ZONE	ELEC. DIST.	CENSUS TR.
4798/685	10	M-2	43	FIRST	6012

WATER CODE	SEWER CODE
8-01	2221000

THAYER & ASSOCIATES INC.
2868 CONSTELLATION WAY
FINKSBURG, MD 21048-2068
PHONE/FAX: (410) 840-8797



VICINITY MAP

SCALE: 1"=2000'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development — 11/16/00 Date

Chief, Development Engineering Division — 10/10/00 Date

Director, Department of Planning and Zoning — 11/28/00 Date

THIS SHEET IS FOR AS-BUILTS OF STORMWATER MANAGEMENT PONDS #1 and #4 ONLY.

These Plans Have Been Reviewed For The HOWARD SOIL CONSERVATION DISTRICT And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

U.S.D.A.-Natural Resources Conservation Service — 10/6/00 Date

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The HOWARD SOIL CONSERVATION DISTRICT

Howard SCD — 10/6/00 Date

DATE	REVISIONS

BALTIMORE WASHINGTON AUTO EXCHANGE
VEHICLE AUCTION FACILITY AND STORAGE LOTS

TAX MAP No: 43 PARCEL: 371
FIRST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: APRIL 17, 2000

SITE DEVELOPMENT PLAN SHEET

AS-BUILTS
STORMWATER MANAGEMENT PONDS #1 and #4 ONLY

SDP-00-63

OWNER / DEVELOPER

AA PROPERTY HOLDINGS
435 METROPLEX DRIVE
NASHVILLE, TN 37211-3109
L 4798 F. 685

SHEET 33A OF 33

SDP-00-63

[THAYER AUTO EXCHANGE] - [BWAE SDP BASE SHEET]