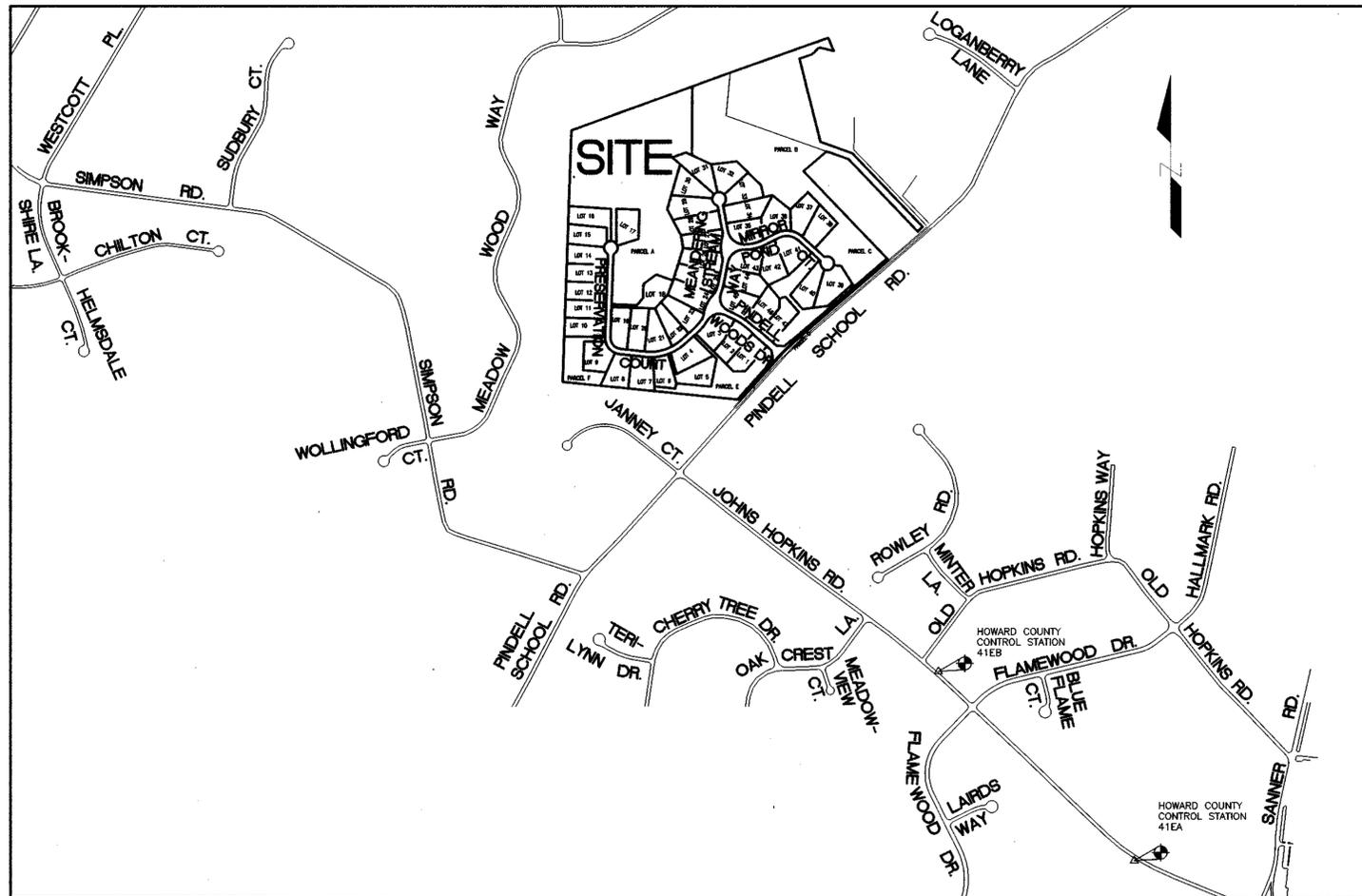


**GENERAL NOTES**

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1860 AT LEAST (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNINGS 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.
- 2 FOOT CONTOUR TOPOGRAPHY AND EXISTING CONDITIONS BASED ON AERIAL TOPOGRAPHIC SURVEY PREPARED BY VOGEL & ASSOC. ON SEPTEMBER 26, 2000.
- BENCHMARKS USED FOR THIS PROJECT ARE: 1) HOWARD COUNTY MONUMENT #41EA WITH ELEVATION 407.599', A STANDARD STAMPED DISC SET ON TO CONCRETE (3' DEEP) COLUMN WITH COORDINATES N 544825.804 AND E 1339217.456. 2) HOWARD COUNTY MONUMENT 41EB WITH ELEVATION 464.502', A STANDARD STAMPED DISC SET ON TO CONCRETE (3' DEEP) COLUMN WITH COORDINATES N 546222.250 AND E 1337778.163. THE COORDINATES SHOWN HEREON ARE BASED UPON HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM.
- WATER IS PRIVATE.
- SEWER IS PRIVATE FOR LOTS 1-5,7-21 & 23-47 SHARED PRIVATE SYSTEM FOR LOTS 6& 22.
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY LEE CUNNINGHAM & ASSOC. (APPROVED UNDER S-00-15).
- BACKGROUND INFORMATION:
  - A. SUBDIVISION NAME: PINDELL WOODS
  - B. TAX MAP NO.: 41
  - C. PARCEL NOS.: 274, 275 (LOT 1), & 484 (LOT 1)
  - D. ZONING: RR-DEO
  - E. ELECTION DISTRICT: 5TH
  - F. TOTAL TRACT AREA: 97.88 AC.±
  - G. NO. OF BUILDABLE LOTS: 47 + 1 BUILDABLE PRESERVATION PARCEL
  - H. NO. OF PRESERVATION PARCELS (NON-BUILDABLE): 5
  - I. NO. OF OPEN SPACE LOTS: 0
  - J. PRELIMINARY PLAN APPROVAL DATE: NOVEMBER 20, 2000
  - K. PREVIOUS FILE NOS.: S-00-15 AND P-01-06 F-76-92. B.A. 358-C
  - L. TOTAL AREA OF OPEN SPACE REQUIRED: (97.89 AC. x 5%) = 4.89 AC.±
  - M. TOTAL AREA OF H.O.A. PRESERVATION PARCELS PROVIDED: 10.028 AC.± (H.O.A. PRESERVATION PARCELS)
- REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE TO BE PROVIDED AT THE JUNCTION OF THE PIPE / FLAG STEM AND THE ROAD R/W AND NOT ONTO THE PIPE / FLAG STEM DRIVEWAY.
- NO CEMETERIES EXIST ON THE PROPERTY.
- ALL FILL AREAS WITHIN ROADWAYS AND UNDER STRUCTURES SHALL BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T-180. EXCEPT AS DETERMINED AS AN ESSENTIAL DISTURBANCE BY DPZ AND SOIL CONSERVATION DISTRICT FOR SWM POND #1
- THE WETLAND AND FOREST STAND DELINEATION WAS PREPARED BY WILLIAM T. BRIDGELAND, WILDLIFE BIOLOGIST ON MARCH 1, 2000 AND APPROVED UNDER APRIL 3, 2000.
- NOISE STUDY IS NOT APPLICABLE.
- NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE WETLAND S AND STREAM OR THEIR BUFFERS. IN ACCORDANCE WITH SECTION 16.116(c) OF THE SUBDIVISION REGULATIONS.
- STORMWATER MANAGEMENT FACILITIES:
  - EX. POND #1 ON PRESERVATION PARCEL A (BY RETENTION) PRIVATELY OWNED AND MAINTAINED.
  - POND #2 ON PRESERVATION PARCEL C (BY RETENTION) PRIVATELY OWNED AND MAINTAINED.
- MDE DAM SAFETY APPROVAL WAS GRANTED NOVEMBER 15,2000, SEE FILE NO. 00-XP-0119
- FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1200 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL FOR THIS SUBDIVISION WILL BE FULFILLED BY RETENTION OF EXISTING FOREST IN THE AMOUNT OF 28.26 ACRES AND 2.54 ACRES OF REFORESTATION FOR A TOTAL FOREST CONSERVATION EASEMENT AREA OF 30.80 ACRES. THE TOTAL SURETY AMOUNT FOR RETENTION IS \$123,000.00 AND ON SITE REFORESTATION IS \$32,175.00 FOR A TOTAL SURETY AMOUNT OF \$155,175.00, WHICH WILL BE PART OF THE OWNER'S DPW, DEVELOPERS AGREEMENT.
- MDE HAS ISSUED A NONTIDAL WETLANDS AND WATERWAYS LETTER OF AUTHORIZATION AND WATER QUALITY CERTIFICATION ON NOVEMBER 27, 2000, FILE # 00-NT-0452/200160102. SEE SHEET 36 OF 37.
- MDE WATER APPROPRIATION PERMIT H0006012 (01) WAS ISSUED NOVEMBER 20, 2000.
- PRESERVATION PARCELS "A" AND "B" ARE PRIVATELY OWNED. EASEMENT HOLDERS ARE HOWARD COUNTY, MD. AND PINDELL WOODS H.O.A. PRESERVATION PARCELS "C" THRU "F" ARE PRIVATELY OWNED BY THE PINDELL WOODS H.O.A. EASEMENT HOLDERS ARE HOWARD COUNTY, MD.
- THE SURETY FOR STREET TREES IS 233 TREES WHICH WILL BE PART OF DEVELOPER'S AGREEMENT THE SURETY AMOUNT FOR PERIMETER LANDSCAPING TREES IS 67 SHADE TREES x \$300 = \$20,100.00 56 EVERGREEN x \$150 = \$8,400.00
- PROVIDE 150 WATT NPS VAPOR PENDANT, MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE WITH 12' ARM AT PINDELL WOODS DRIVE STA. 0+48, 28 FT. RIGHT, 100 WATT NPS VAPOR "TRADITIONAIRE" POST TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE LOCATED AT PINDELL WOODS DRIVE STA. 5+93, 36 FT. RIGHT, STA. 5+95, 40 FT. LEFT, PRESERVATION COURT STA. 4+32, 16 FT. RIGHT, STA. 9+11, 13 FT. RIGHT, STA. 16+04, 19 FT. RIGHT, MEANDERING STREAM WAY STA. 4+15, 40 FT. RIGHT, STA. 4+84, 36 FT. LEFT, STA. 7+82, 18 FT. RIGHT, MIRROR POND COURT STA. 4+83, 13 FT. LEFT, AND STA. 7+82, 13 FT. RIGHT.
- DRIVEWAY CULVERT DESIGN IS SHOWN ON SHEET 11 OF 37. THE EXACT LOCATION OF DRIVEWAY WILL NOT BE KNOWN UNTIL HOUSES ARE SITED AS PART OF THE BUILDING PERMIT PROCESS.



**LOCATION MAP**

SCALE: 1" = 600'

**FINAL ROAD CONSTRUCTION, GRADING AND STORMWATER MANAGEMENT PLANS**

**PINDELL WOODS**

LOTS 1 THRU 47 AND PRESERVATION PARCELS A THRU F  
A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274

TAX MAP # 41, GRID 2, 3, 8 AND 9

5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND.

INDEX OF SHEETS	
SHEET #	DESCRIPTION
1	FINAL PLAN - COVER SHEET
2	PINDELL WOODS DRIVE PLAN AND PROFILE
3	PRESERVATION COURT PLAN AND PROFILE (STA.0+00 TO 7+50)
4	PRESERVATION COURT PLAN AND PROFILE (STA.7+50 TO CDS)
5	MEANDERING STREAM WAY PLAN AND PROFILE
6	MIRROR POND COURT PLAN AND PROFILE
7	TRAFFIC CALMING DEVICES DETAILS
7A	MISCELLANEOUS DETAILS
8	PINDELL SCHOOL ROAD PLAN AND PROFILE
9	PINDELL SCHOOL ROAD - ROAD CROSS SECTIONS
10	PINDELL SCHOOL ROAD - ROAD CROSS SECTIONS
11	PINDELL SCHOOL ROAD - ROAD CROSS SECTIONS
12	PINDELL SCHOOL ROAD - TRAFFIC CONTROL & STRIPING PLAN
13	STORM DRAIN PROFILES
14	STORM DRAIN PROFILES
15	STORM WATER MANAGEMENT POND #1 - PLAN AND DETAILS
16	STORM WATER MANAGEMENT POND #2 - PLAN AND DETAILS
17	STORM WATER MANAGEMENT POND SPECS. AND MISC. DETAILS
18	SWM - DRAINAGE AREA MAP (OFFSITE-EXISTING)
19	STORM WATER MANAGEMENT - DRAINAGE AREA MAP (EXISTING)
20	STORM WATER MANAGEMENT - DRAINAGE AREA MAP (EXISTING)
21	SWM - DRAINAGE AREA MAP (OFFSITE-DEVELOPED)
22	STORM WATER MANAGEMENT - DRAINAGE AREA MAP (DEVELOPED)
23	STORM WATER MANAGEMENT - DRAINAGE AREA MAP (DEVELOPED)
24	STORM DRAIN - DRAINAGE AREA MAP
25	STORM DRAIN - DRAINAGE AREA MAP
26	STORM DRAIN - DRAINAGE AREA MAP
27	GRADING AND SEDIMENT CONTROL PLAN
28	GRADING AND SEDIMENT CONTROL PLAN
29	GRADING AND SEDIMENT CONTROL PLAN
30	GRADING AND SEDIMENT CONTROL NOTES
31	SEDIMENT CONTROL DETAILS AND BORING LOGS
32	LANDSCAPE PLAN
33	LANDSCAPE PLAN
34	FOREST CONSERVATION PLAN
35	FOREST CONSERVATION PLAN
36	FOREST CONSERVATION TABULATIONS AND DETAILS

**DUE TO THE ADDITION OF SHEET 7A THE PLAN SET CONTAINS 37 SHEETS.**

TRAFFIC CONTROL SIGNS				
STREET NAME	CL. STATION	OFFSET	POSTED SIGN	SIGN CODE
PINDELL WOODS DR.	0+65	25' LEFT	STOP	R1-1
PINDELL WOODS DR.	2+50	18' LEFT	STOP AHEAD	W3-10
PINDELL WOODS DR.	2+50	18' RIGHT	SPEED LIMIT 25MPH	R2-1
PINDELL WOODS DR.	5+73	30' RIGHT	STOP	R1-1
PRESERVATION CT.	0+68	29' LEFT	YIELD	R1-2
PRESERVATION CT.	4+45	1' LEFT	KEEP RIGHT	R4-7
PRESERVATION CT.	5+20	1' LEFT	KEEP RIGHT	R4-7
PRESERVATION CT.	1+00	16' RIGHT	SPEED LIMIT 25MPH	R2-1
PRESERVATION CT.	12+80	0'	KEEP RIGHT	R4-7
PRESERVATION CT.	13+86	0'	KEEP RIGHT	R4-7
PRESERVATION CT.	2+76	16' RIGHT	SPEED LIMIT 25MPH	R2-1
PRESERVATION CT.	5+47	15' LEFT	KEEP RIGHT	R4-7
PRESERVATION CT.	7+86	15' RIGHT	SPEED LIMIT 20MPH	W1-1R
PRESERVATION CT.	11+25	15' LEFT	SPEED LIMIT 20MPH	W1-1L
MEANDERING STREAM WAY	0+67	28' RIGHT	YIELD	R1-2
MEANDERING STREAM WAY	3+83	28' LEFT	YIELD	R1-2
MEANDERING STREAM WAY	5+14	30' LEFT	YIELD	R1-2
MIRROR POND CT.	0+58	31' RIGHT	STOP	R1-1
MIRROR POND CT.	2+60	15' RIGHT	SPEED LIMIT 25MPH	R2-1

ROAD CLASSIFICATION		
ROAD NAME	CLASSIFICATION	R/W
PINDELL WOODS DR.	ACCESS STREET	40-50 FEET
PRESERVATION CT.	ACCESS PLACE	40 FEET
MEANDERING STREAM WAY	ACCESS PLACE	40 FEET
MIRROR POND CT.	ACCESS PLACE	40 FEET

\*50 FT. R/W AT MONUMENTAL ENTRANCE

MINIMUM LOT SIZE CHART			
LOT No.	GROSS AREA	PIPESTEM AREA	MINIMUM LOT SIZE
5	45,235 S.F.	3,211 S.F.	42,024 S.F.
16	43,079 S.F.	2,091 S.F.	40,988 S.F.
18	43,719 S.F.	3,719 S.F.	40,000 S.F.

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Charles M. Sanchez* 5-1-01  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Alexander* 5/16/01  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

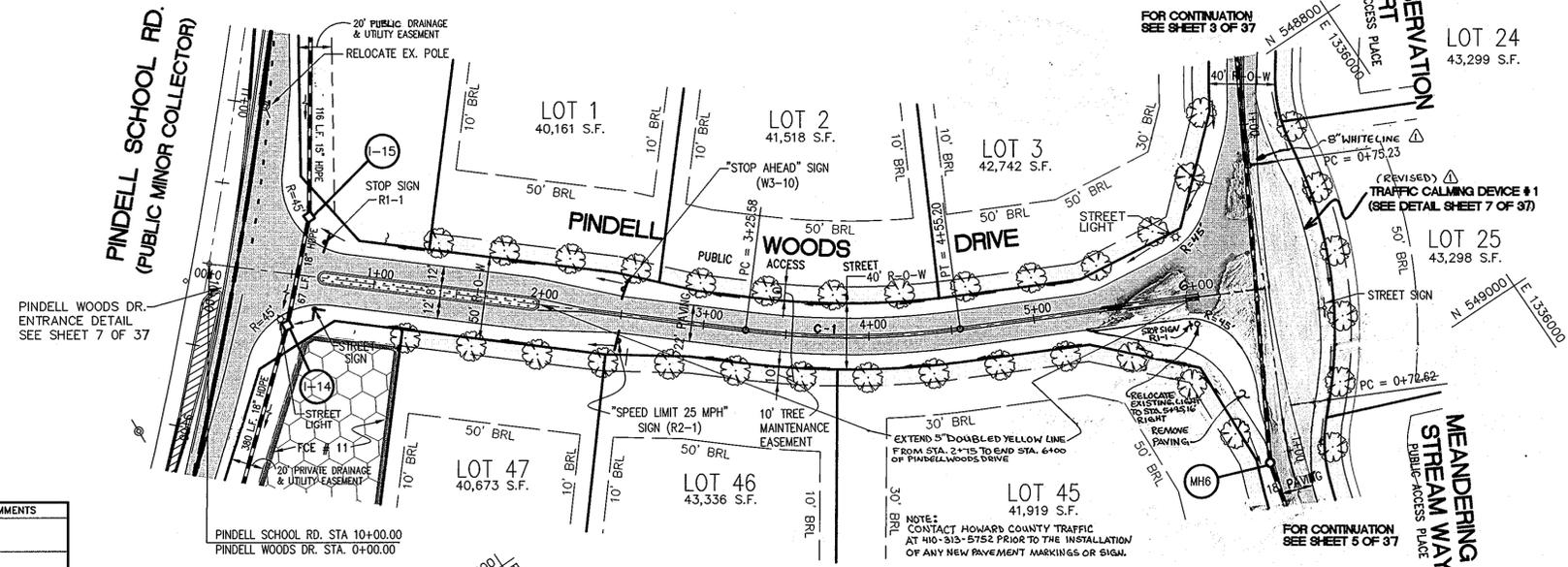
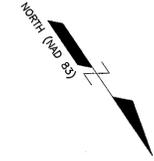
*John Cunningham* 5/11/01  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



NO.	DATE	REVISIONS
A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274		
PROJECT NAME		
<b>PINDELL WOODS</b>		
LOTS 1 THRU 47 AND PRESERVATION PARCELS A THRU F 5th ELECTION DISTRICT TAX MAP # 41, GRID 2, 3, 8 AND 9 PARCEL 275 (LOT 1), PARCEL 484 (LOT 1) AND PARCEL 274 HOWARD COUNTY, MARYLAND.		
TITLE	OWNERS: CLARENCE AND MARTHA CARVELL 7106 PINDELL SCHOOL ROAD FULTON, MD. 20759	
COVER SHEET	H Y REAL ESTATE JOINT VENTURE 1821 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852	
PREPARED BY:	MARSHALL P. TULIN 1821 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852	
AMERICAN LAND DEVELOPMENT AND ENGINEERING INC.	DEVELOPER: MOUNT VIEW, LLC. 6258 CARDINAL LA. COLUMBIA, MD. 21044	
DES. : JL/DCW/AVG	JOB :	SCALE :
DRW. : AVG/DTA/JNC	PROJ. :	AS SHOWN
CHK. : D.C.W.	DATE : 03/04/01	SHEET 1 OF 37



FOR REVISIONS CONSULT WITH DALE THOMPSON BUILDERS, INC. APPROVED BY HOWARD COUNTY, MARYLAND, AUGUST 15, 2008.



CURVE NO.	LENGTH	RADIUS	DELTA	TANGENT	CHORD	CHRD BEARING
C-1	129.62	500.00	14°51'13"	65.18	129.26	N56°18'29"W

DWG. NO.	STREET NAME	STATION	OFFSET	FIXTURE/POLE TYPE	COMMENTS
2	PINDELL WOODS DRIVE	0+45	28' R	150 WATT HPS VAPOR PENDANT (CUTOFF) MOUNTED AT 30' IN A BRONZE FIBERGLASS POLE USING 12' ARM.	
2	PINDELL WOODS DRIVE	5+93	36' R	100 WATT HPS VAPOR PREMIER POST-TOP MOUNTED AT 14' ON A BLACK FIBERGLASS POLE	
2	PINDELL WOODS DRIVE	5+95	40' R	100 WATT HPS VAPOR PREMIER POST-TOP MOUNTED AT 14' ON A BLACK FIBERGLASS POLE	
3	PRESERVATION COURT	4+32	16' R	100 WATT HPS VAPOR PREMIER POST-TOP MOUNTED AT 14' ON A BLACK FIBERGLASS POLE	
4	PRESERVATION COURT	9+11	13' R	100 WATT HPS VAPOR PREMIER POST-TOP MOUNTED AT 14' ON A BLACK FIBERGLASS POLE	
4	PRESERVATION COURT	16+04	19' R	100 WATT HPS VAPOR PREMIER POST-TOP MOUNTED AT 14' ON A BLACK FIBERGLASS POLE	
5	MEANDERING STREAM WAY	4+15	40' R	100 WATT HPS VAPOR PREMIER POST-TOP MOUNTED AT 14' ON A BLACK FIBERGLASS POLE	
5	MEANDERING STREAM WAY	4+85	36' L	100 WATT HPS VAPOR PREMIER POST-TOP MOUNTED AT 14' ON A BLACK FIBERGLASS POLE	
5	MEANDERING STREAM WAY	7+62	16' R	100 WATT HPS VAPOR PREMIER POST-TOP MOUNTED AT 14' ON A BLACK FIBERGLASS POLE	
6	MIRROR POND COURT	4+83	13' L	100 WATT HPS VAPOR PREMIER POST-TOP MOUNTED AT 14' ON A BLACK FIBERGLASS POLE	
6	MIRROR POND COURT	7+82	13' R	100 WATT HPS VAPOR PREMIER POST-TOP MOUNTED AT 14' ON A BLACK FIBERGLASS POLE	

STREET TREES PLANT SCHEDULE				
SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY	SIZE
	ACER RUBRUM	OCTOBER GLORY RED MAPLE	34	2-1/2" - 3" CAL.

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Richard M. Casale*  
 CHIEF, BUREAU OF HIGHWAYS 5-1-01 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Conrad Hamstra*  
 CHIEF, DIVISION OF LAND DEVELOPMENT 5/16/01 DATE

*Michael J. ...*  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION 5/11/01 DATE

NO. DATE REVISIONS

A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274

PROJECT NAME: **PINDELL WOODS**

TITLE: **ROAD PROFILE PINDELL WOODS DRIVE**

OWNERS: CLARENCE AND MARTHA CARVELL  
 7106 PINDELL SCHOOL ROAD  
 FULTON, MD. 20759  
 H Y REAL ESTATE JOINT VENTURE  
 1921 ROCKVILLE PKE, SUITE 300  
 ROCKVILLE, MD. 20852

PREPARED BY: AMERICAN LAND DEVELOPMENT AND ENGINEERING INC.  
 10749 BIRMINGHAM WAY  
 WOODSTOCK, MD 21169  
 TEL. (410) 465-7903  
 FAX. (410) 465-3845

DEVELOPER: MOUNT VIEW, L.L.C.  
 6258 CARDINAL LA.  
 COLUMBIA, MD. 21044

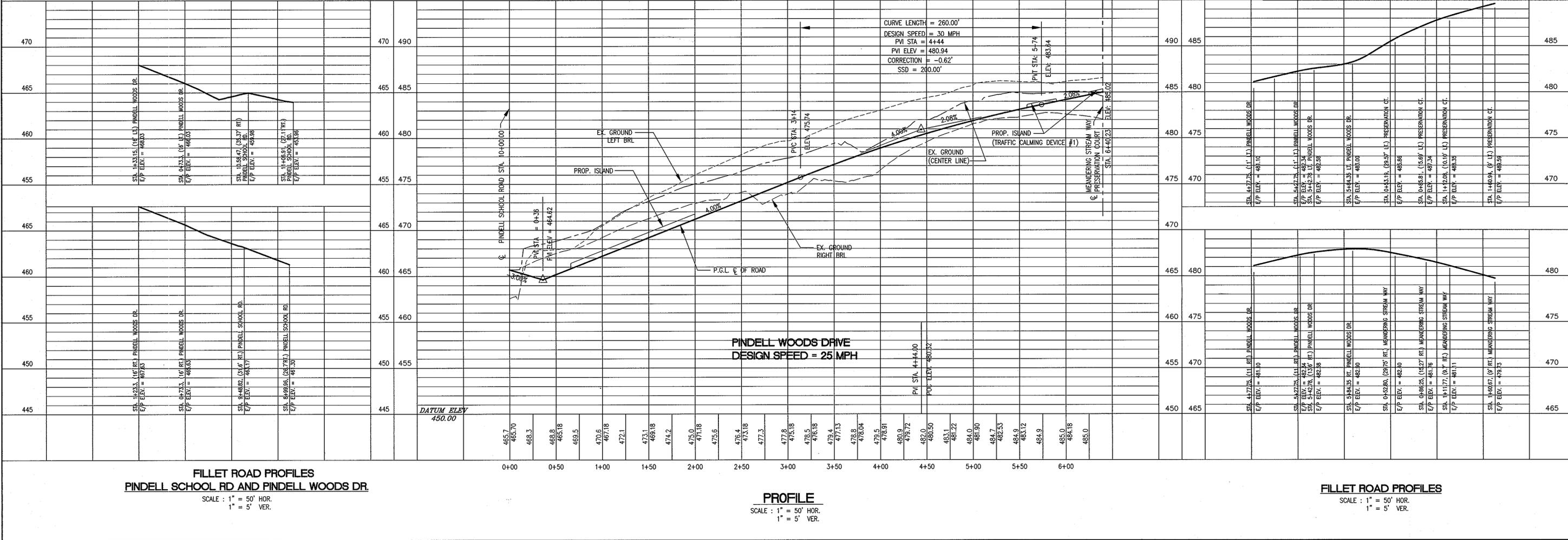
DES.: JL/DCW/AVG JOB: ROAD PROFILE

DRW.: AVG/DTA/INC PROJ.: PINDELL WOODS DRIVE

CHK.: D.C.W. DATE: 03/04/01

SCALE: 1" = 50'

SHEET 2 OF 37



FILLET ROAD PROFILES  
 PINDELL SCHOOL RD AND PINDELL WOODS DR.  
 SCALE: 1" = 50' HOR.  
 1" = 5' VER.

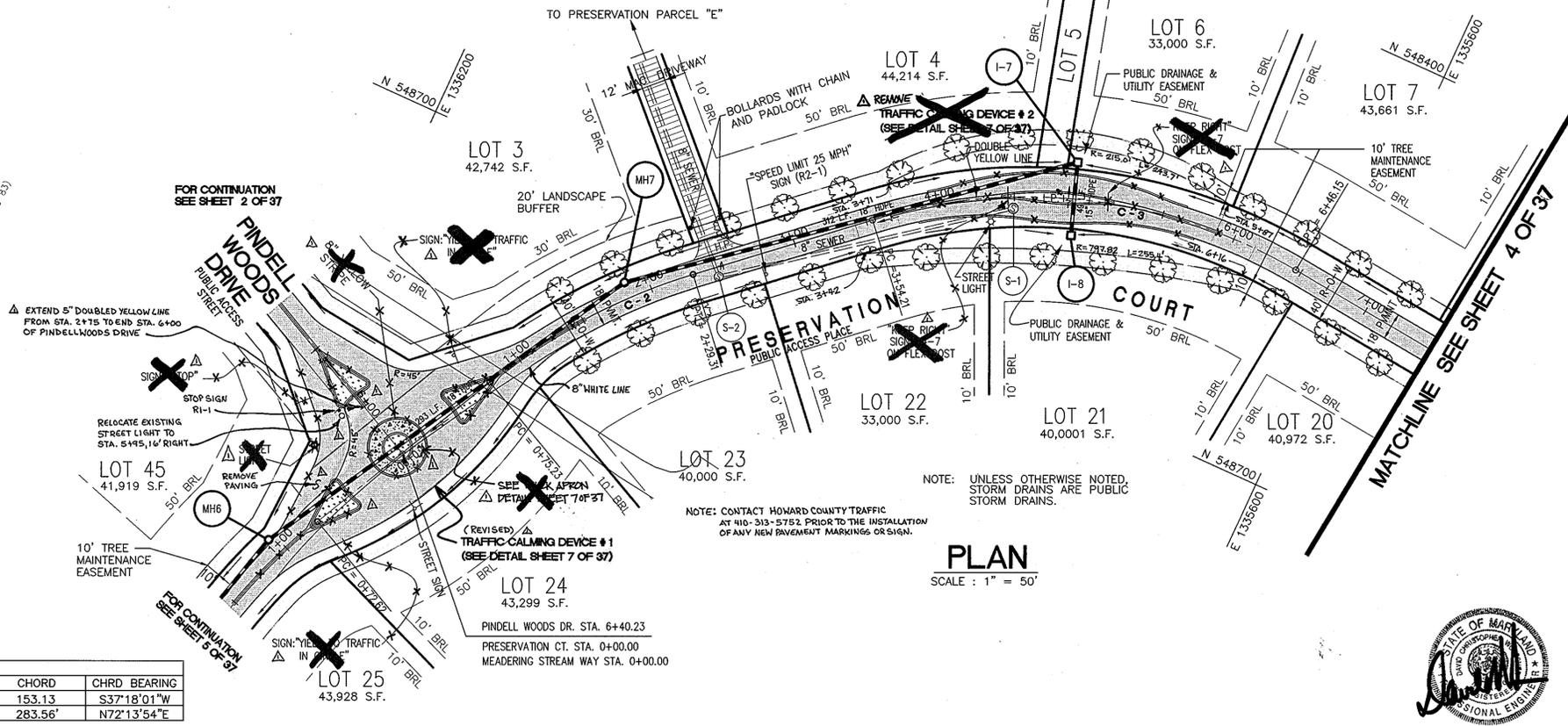
PROFILE  
 SCALE: 1" = 50' HOR.  
 1" = 5' VER.

FILLET ROAD PROFILES  
 SCALE: 1" = 50' HOR.  
 1" = 5' VER.



1-12-09  
 FOR REVISIONS SUBMITTED BY DALE THOMPSON  
 BUILDERS, INC. APPROVED BY HOWARD COUNTY  
 MARYLAND AUGUST 15, 2008.

STREET TREES PLANT SCHEDULE				
SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY	SIZE
	ACER RUBRUM	OCTOBER GLORY RED MAPLE	31	2-1/2" - 3" CAL.



CURVE TABLE						
CURVE NO.	LENGTH	RADIUS	DELTA	TANGENT	CHORD	CHRD BEARING
C-2	154.08	400.00	22°04'13"	78.01	153.13	S37°18'01"W
C-3	291.95	350.00	47°47'33"	155.07	283.56'	N72°13'54"E

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 Chief, Bureau of Highways  
 DATE: 5-1-01

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Chief, Division of Land Development  
 DATE: 5/16/01

APPROVED: Chief, Development Engineering Division  
 DATE: 5/16/01

NO. 1-9-09 DATE 1-9-09 REVISIONS  
 REVISIONS: REMOVE TRAFFIC CALMING DEVICE #2 AND REVISE TRAFFIC CALMING DEVICE #1 SEE SHEET 7 FOR DETAILS.

A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274

PROJECT NAME: **PINDELL WOODS**  
 LOTS 1 THRU 47 AND PRESERVATION PARCELS A THRU F  
 5th ELECTION DISTRICT TAX MAP # 41, GRID 2, 3, 8 AND 9  
 PARCEL 275 (LOT 1), PARCEL 484 (LOT 1) AND PARCEL 274  
 HOWARD COUNTY, MARYLAND.

TITLE: **ROAD PROFILE PRESERVATION COURT**

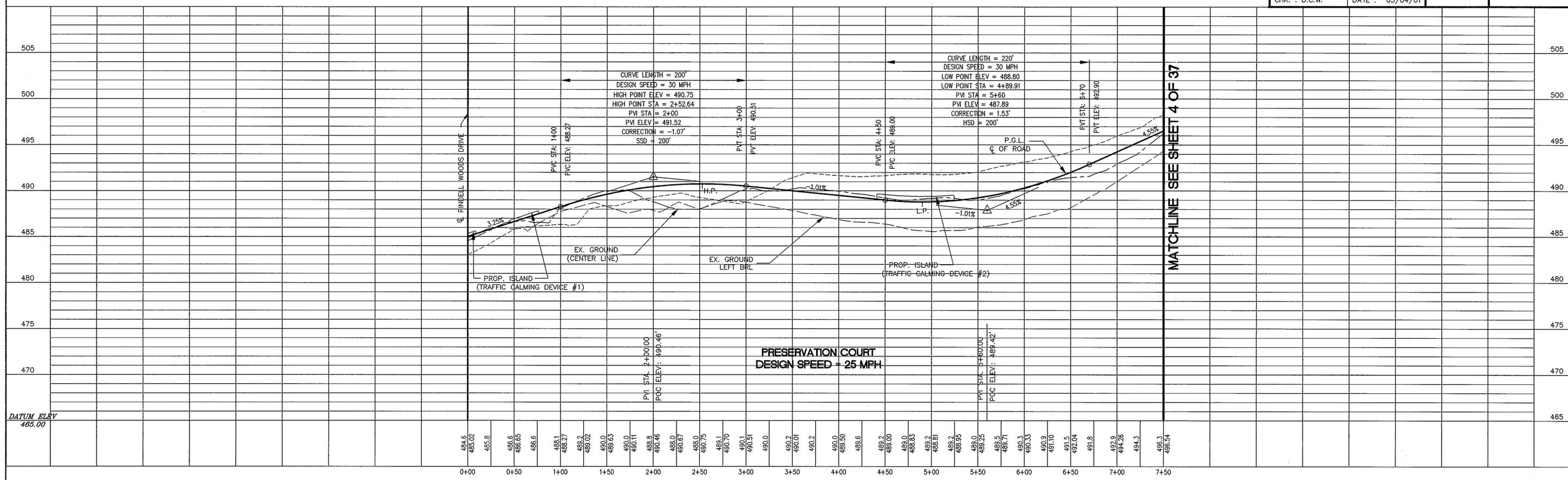
8-00-15 P-01-06 F-01-89

OWNERS: CLARENCE AND MARTHA CARVELL  
 7106 PINDELL SCHOOL ROAD  
 FULTON, MD. 20759  
 H Y REAL ESTATE JOINT VENTURE  
 11921 ROCKVILLE PIKE, SUITE 300  
 ROCKVILLE, MD. 20852  
 MARSHALL P. TULIN  
 11921 ROCKVILLE PIKE, SUITE 300  
 ROCKVILLE, MD. 20852  
 DEVELOPER: MOUNT VIEW, L.L.C.  
 6258 CARDINAL LA.  
 COLUMBIA, MD. 21044

PREPARED BY: AMERICAN LAND DEVELOPMENT AND ENGINEERING INC.  
 10749 BIRMINGHAM WAY  
 WOODSTOCK, MD 21168  
 TEL (410) 465-7803  
 FAX (410) 465-9845

DES.: JL/DCW/AVG JOB:  
 DRW.: AVG/DTA/JNC PROJ.:  
 CHK.: D.C.W. DATE: 03/04/01

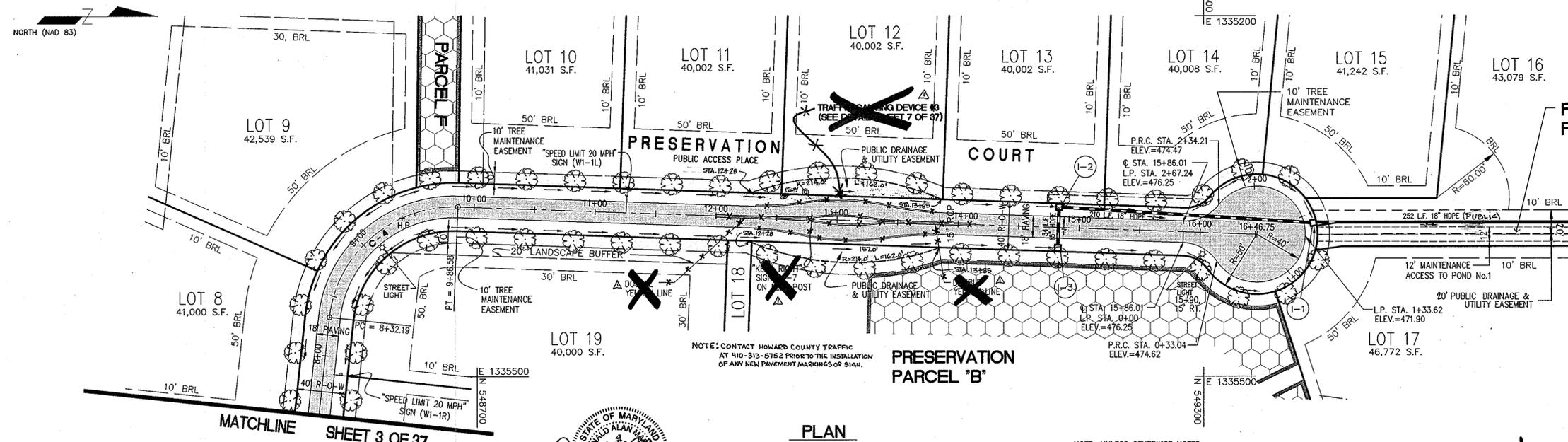
SCALE: 1" = 50'  
 SHEET 3 OF 37



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

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STREET TREES PLANT SCHEDULE				
SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY	SIZE
	ACER RUBRUM	OCTOBER GLORY RED MAPLE	49	2-1/2" - 3" CAL



**PRESERVATION PARCEL 'A'**

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Spoke* 5-1-01  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Craig Hunter* 5/16/01  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*William D. ...* 5/16/01  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

CURVE TABLE					
CURVE NO.	LENGTH	RADIUS	DELTA	TANGENT	CHRD BEARING
C-4	154.39	103.00	85°52'57"	95.85	N40°85'52"W



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

NOTE: UNLESS OTHERWISE NOTED, STORM DRAINS ARE PUBLIC STORM DRAINS



NO. 1-9-09 DATE REMOVE TRAFFIC CALMING DEVICE 3 AND REVISE CALMING DEVICE 1. SEE SHEET 1 FOR DETAILS REVISIONS

A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274

**PROJECT NAME**  
**PINDELL WOODS**

LOTS 1 THRU 47 AND PRESERVATION PARCELS A THRU F  
 5th ELECTION DISTRICT TAX MAP # 41, GRID 2, 3, 8 AND 9  
 PARCEL 275 (LOT 1), PARCEL 484 (LOT 1) AND PARCEL 274  
 HOWARD COUNTY, MARYLAND.

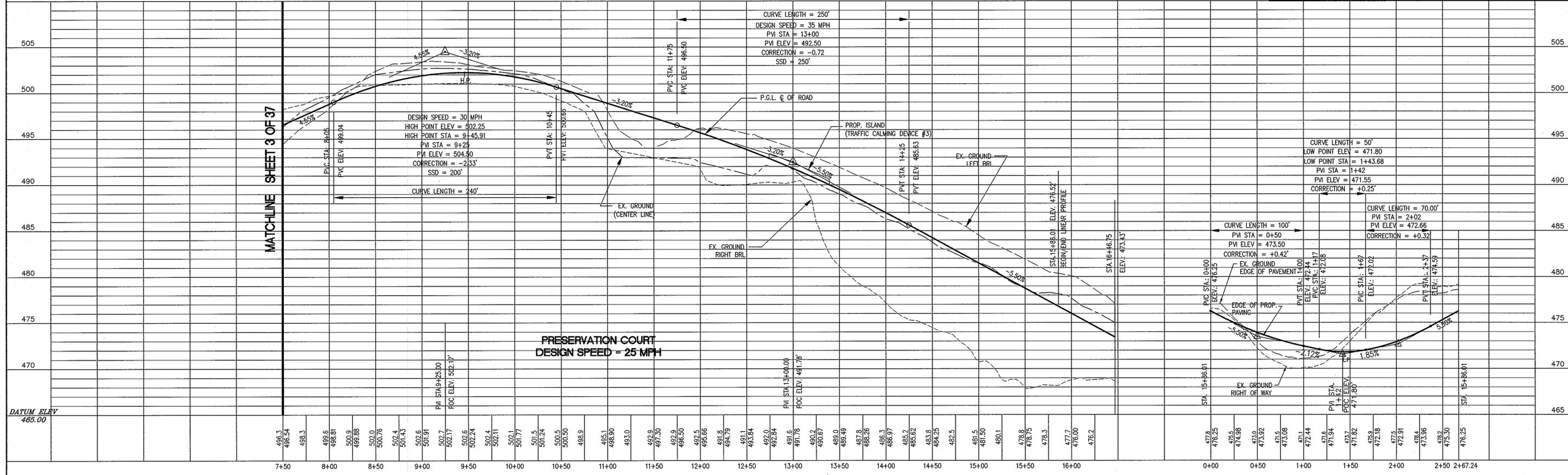
**TITLE**  
**ROAD PROFILE PRESERVATION COURT**

S-00-15 P-01-06 F-01-89

OWNERS: CLARENCE AND MARTHA CARVELL  
 7106 PINDELL SCHOOL ROAD  
 FULTON, MD. 20759  
 H Y REAL ESTATE JOINT VENTURE  
 1821 ROCKVILLE PIKE, SUITE 300  
 ROCKVILLE, MD. 20852  
 MARSHALL P. TULIN  
 1821 ROCKVILLE PIKE, SUITE 300  
 ROCKVILLE, MD. 20852  
 DEVELOPER: MOUNT VIEW, L.L.C.  
 6258 CARDINAL LA.  
 COLUMBIA, MD. 21044

PREPARED BY:  
 AMERICAN LAND DEVELOPMENT AND ENGINEERING INC.  
 10749 BIRMINGHAM WAY  
 WOODSTOCK, MD 21188  
 TEL (410) 465-7883  
 FAX (410) 465-3845

DES.: JL/DCW/AVG JOB: PRESERVATION COURT  
 DRW.: AVG/DTA/ANC PROJ.: ROAD PROFILE PRESERVATION COURT  
 CHK.: D.C.W. DATE: 03/04/01 SCALE: 1" = 50' SHEET 4 OF 37

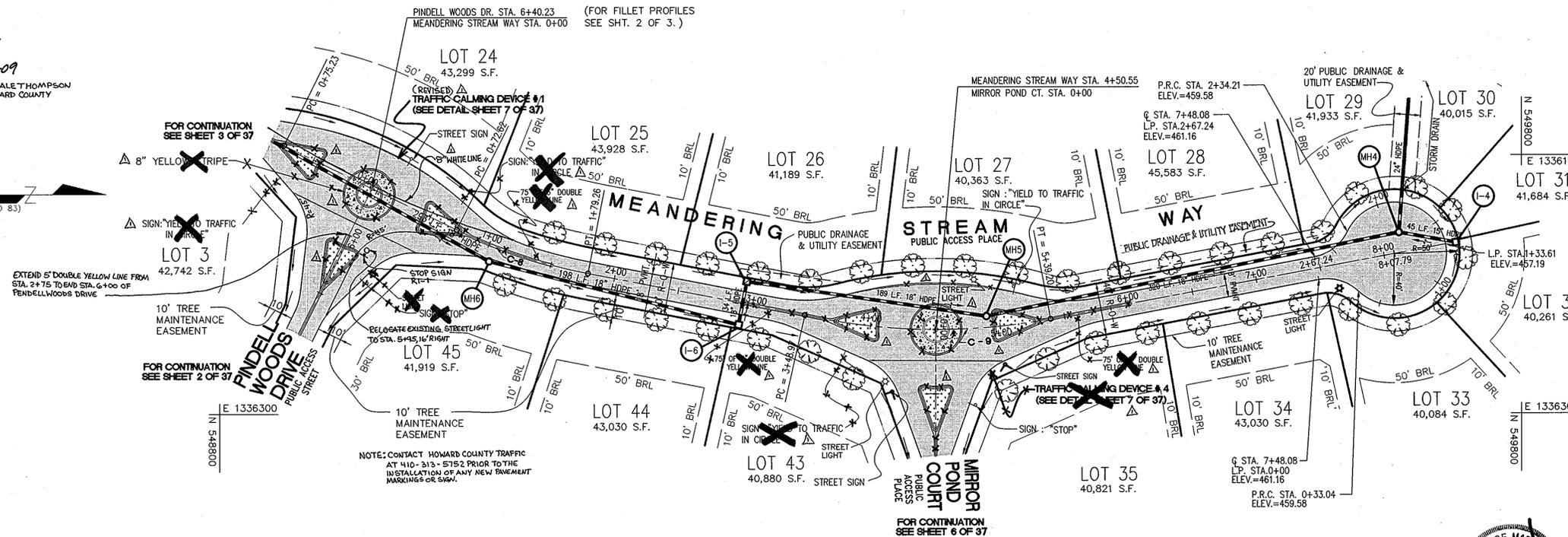


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FOR REVISIONS: DRAWING PREPARED BY DALE THOMPSON BUILDERS INC., APPROVED BY HOWARD COUNTY MARYLAND, AUGUST 15, 2008.

STREET TREES PLANT SCHEDULE				
SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY	SIZE
	ACER RUBRUM	OCTOBER GLORY RED MAPLE	38	2-1/2" - 3" CAL



CURVE NO.	LENGTH	RADIUS	DELTA	TANGENT	CHORD	CHRD BEARING
C-8	106.64	400.00	15°16'30"	53.64	106.32	N18°37'39"E
C-9	190.23	465.00	23°26'22"	96.46	188.91	N00°57'47"W

PLAN  
SCALE: 1" = 50'

NOTE: UNLESS OTHERWISE NOTED STORM DRAINS ARE PUBLIC STORM DRAINS.



APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Richard M. Casper*  
 CHIEF, BUREAU OF HIGHWAYS  
 DATE: 5-1-01

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Harvath*  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 5/16/01

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*John D. Williams*  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 5/16/01

NO. 1-9-09 DATE 8/15/09 REVISIONS  
 A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274

PROJECT NAME: **PINDELL WOODS**  
 LOTS 1 THRU 47 AND PRESERVATION PARCELS A THRU F  
 5th ELECTION DISTRICT TAX MAP # 41, GRID 2, 3, 8 AND 9  
 PARCEL 275 (LOT 1), PARCEL 484 (LOT 1) AND PARCEL 274  
 HOWARD COUNTY, MARYLAND.

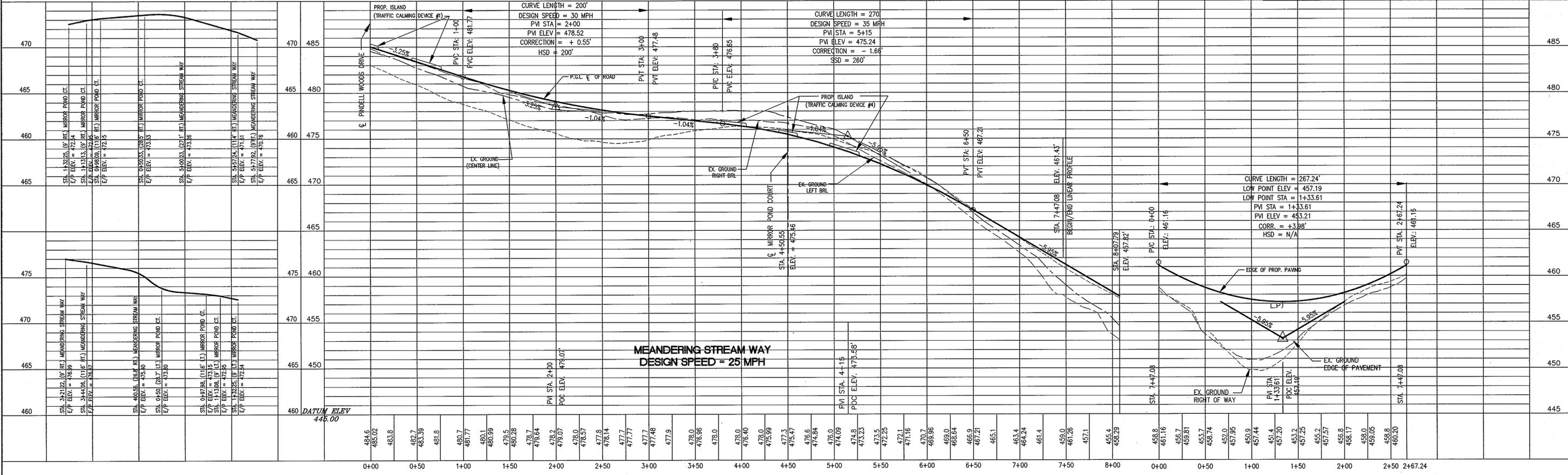
TITLE: **ROAD PROFILE MEANDERING STREAM WAY**  
 8-00-15 P-01-06 F-01-89

PREPARED BY: AMERICAN LAND DEVELOPMENT AND ENGINEERING INC.  
 10749 BIRMINGHAM WAY  
 WOODSTOCK, MD 21169  
 TEL: (410) 466-7903  
 FAX: (410) 466-3846

OWNERS: CLARENCE AND MARTHA CARVELL  
 7106 PINDELL SCHOOL ROAD  
 FULTON, MD. 20759  
 H Y REAL ESTATE JOINT VENTURE  
 1921 ROCKVILLE PKE, SUITE 300  
 ROCKVILLE, MD. 20852  
 MARSHALL P. TULIN  
 1921 ROCKVILLE PKE, SUITE 300  
 ROCKVILLE, MD. 20852  
 DEVELOPER: MOUNT VIEW, LLC  
 6258 CARDINAL LA.  
 COLUMBIA, MD. 21044

DES.: JL/DCW/AVG JOB:  
 DRW.: AVG/DTA/INC PROJ.:  
 CHK.: D.C.W. DATE: 03/04/01

SCALE: 1" = 50'  
 SHEET 5 OF 37



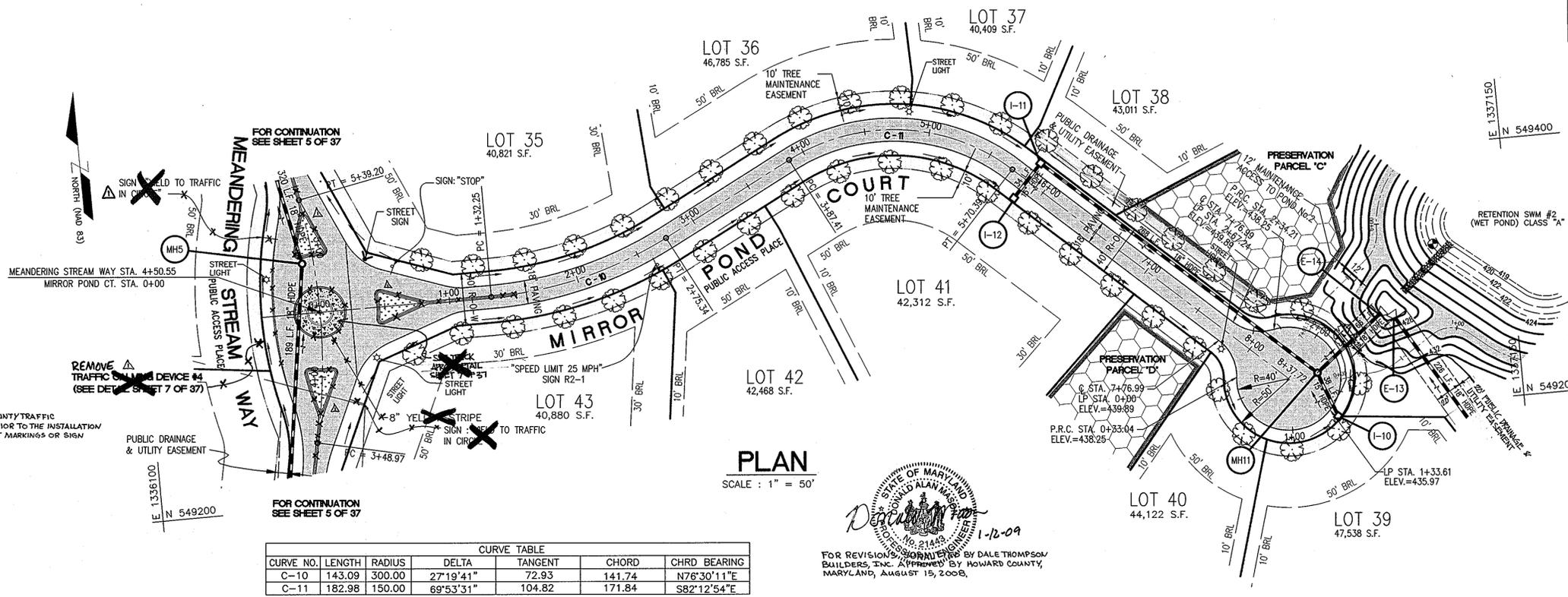
FILLET PROFILES  
 SCALE: 1" = 50' HOR.  
 1" = 5' VER.

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

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

H:\p\nd081\1\TMD\PLAN\PROFILE-4.dwg Mod Apr 04 15:21:31 2001

STREET TREES PLANT SCHEDULE				
SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY	SIZE
	ACER RUBRUM	OCTOBER GLORY RED MAPLE	44	2-1/2" - 3" CAL.



CURVE TABLE						
CURVE NO.	LENGTH	RADIUS	DELTA	TANGENT	CHORD	CHRD BEARING
C-10	143.09	300.00	27°19'41"	72.93	141.74	N76°30'11"E
C-11	182.98	150.00	69°53'31"	104.82	171.84	S82°12'54"E

STATE OF MARYLAND  
DALE THOMPSON  
REGISTERED PROFESSIONAL ENGINEER  
No. 21483  
1-12-09  
FOR REVISIONS/SUBMITTALS BY DALE THOMPSON BUILDERS, INC. APPROVED BY HOWARD COUNTY, MARYLAND, AUGUST 15, 2008.

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Clarence M. Carvell*  
CHIEF, BUREAU OF HIGHWAYS  
DATE: 5-1-01

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Clayton Hamilton*  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 5/16/01

*W. D. Downum*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 5/11/01

NO. 1-9-09 DATE 1-9-09 REVISIONS REMOVE TRAFFIC CALMING DEVICE #4. SEE SHEET 7 FOR DETAILS

A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274

PROJECT NAME **PINDELL WOODS**

LOTS 1 THRU 47 AND PRESERVATION PARCELS A THRU F  
5th ELECTION DISTRICT TAX MAP # 41, GRID 2, 3, 8 AND 9  
PARCEL 275 (LOT 1), PARCEL 484 (LOT 1) AND PARCEL 274  
HOWARD COUNTY, MARYLAND.

TITLE **ROAD PROFILE MIRROR POND COURT**

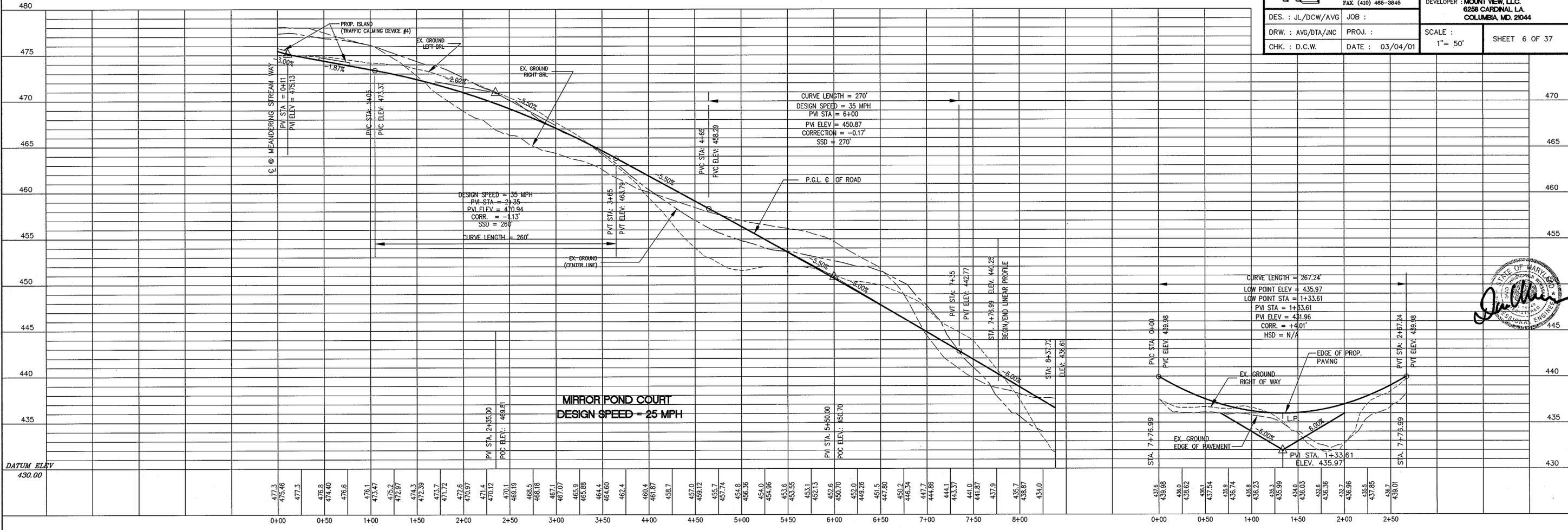
OWNERS: CLARENCE AND MARTHA CARVELL  
706 PINDELL SCHOOL ROAD  
FULTON, MD. 20759  
H Y REAL ESTATE JOINT VENTURE  
1921 ROCKVILLE PKE, SUITE 900  
ROCKVILLE, MD. 20852  
MARSHALL P. TULIN  
1921 ROCKVILLE PKE, SUITE 900  
ROCKVILLE, MD. 20852  
DEVELOPER: MOUNT VIEW, LLC.  
6258 CARDINAL LA.  
COLUMBIA, MD. 21044

PREPARED BY:  
AMERICAN LAND DEVELOPMENT AND ENGINEERING INC.  
10749 BIRMINGHAM WAY  
WOODSTOCK, MD 21153  
TEL. (410) 465-7993  
FAX. (410) 465-3845

DES.: JL/DCW/AVG JOB: ROAD PROFILE  
DRW.: AVG/DTA/JNC PROJ.: MIRROR POND COURT  
CHK.: D.C.W. DATE: 03/04/01

SCALE: 1" = 50'

SHEET 6 OF 37



STATE OF MARYLAND  
DALE THOMPSON  
REGISTERED PROFESSIONAL ENGINEER  
No. 21483  
1-12-09

H:\pindel1\FINAL\PLAN\PROFILE-5.dwg Mod Apr 11 14:06:10 2001

F-01-89

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S.D.A.—NATURAL RESOURCES CONSERVATION SERVICE DATE

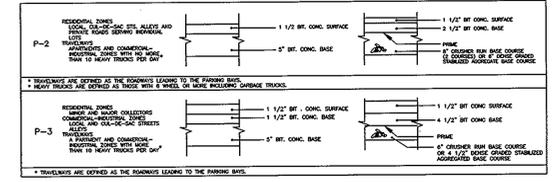
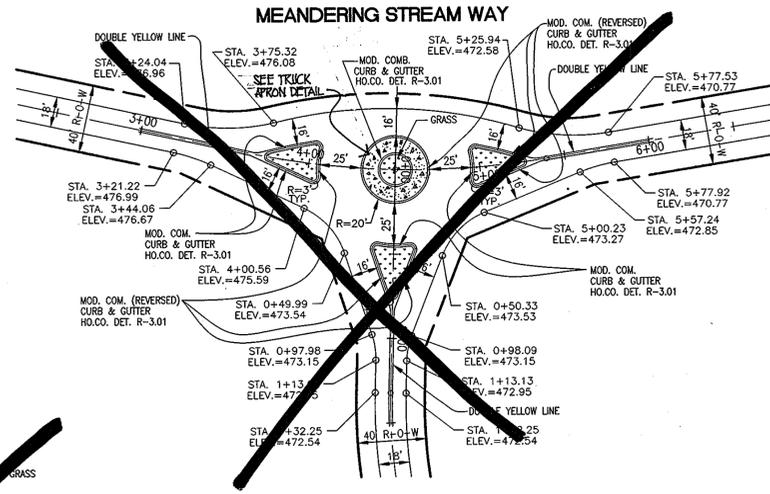
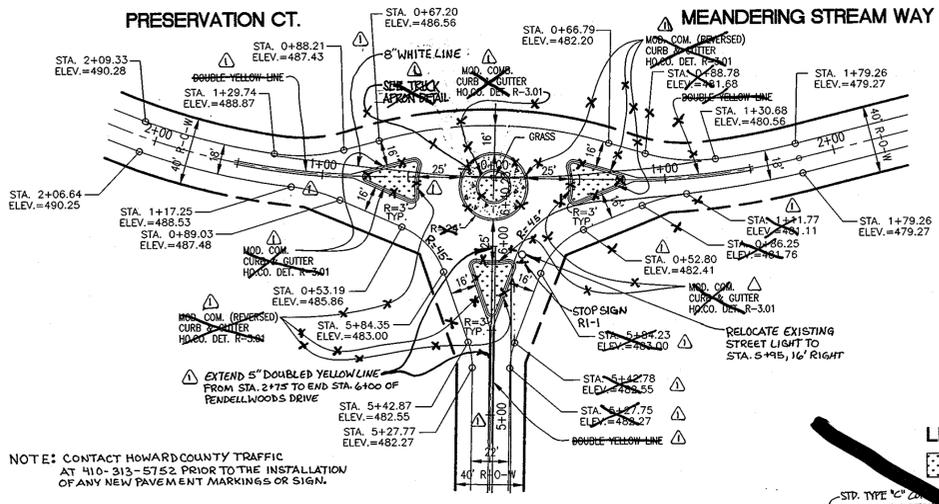
THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

DISTRICT HOWARD SOIL CONSERVATION DIST. DATE

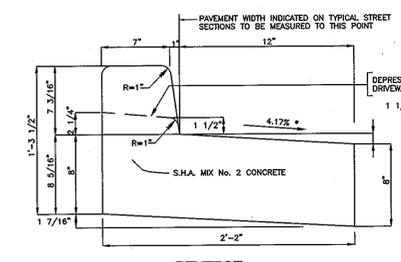
APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Richard M. Gault* 5/1/01  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Chris Hamilton* 5/16/01  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

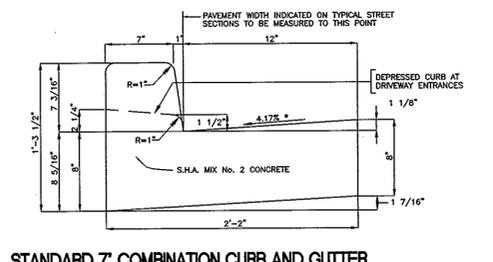
*Robert [unclear]* 5/11/01  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



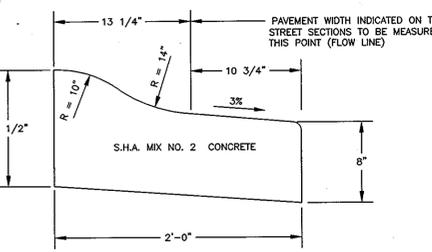
PAVING SECTIONS  
NOT TO SCALE



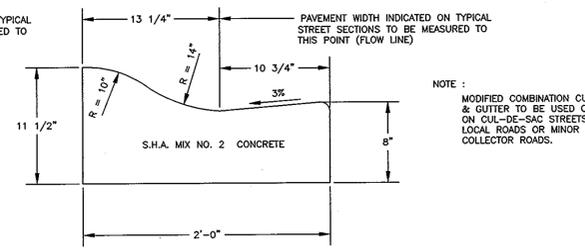
REVERSE  
STANDARD 7' COMBINATION CURB AND GUTTER  
NOT TO SCALE



STANDARD 7' COMBINATION CURB AND GUTTER  
NOT TO SCALE

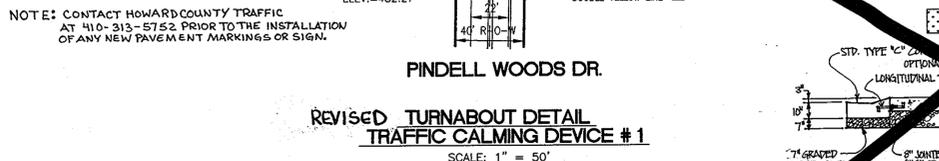


REVERSE  
MODIFIED COMBINATION CURB AND GUTTER  
NOT TO SCALE

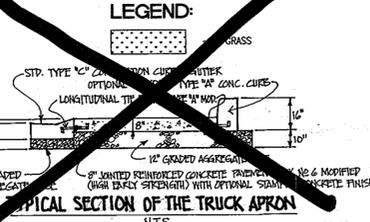


MODIFIED COMBINATION CURB AND GUTTER  
NOT TO SCALE

NOTE:  
MODIFIED COMBINATION CURB & GUTTER TO BE USED ONLY ON CUL-DE-SAC STREETS, LOCAL ROADS OR MINOR COLLECTOR ROADS.



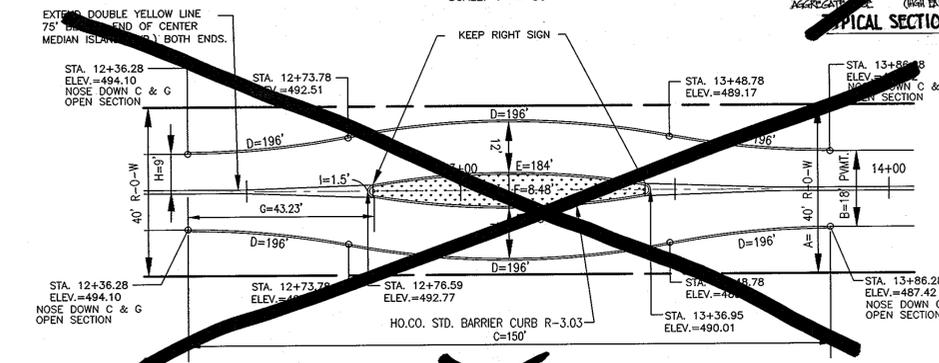
REVISED TURNABOUT DETAIL  
TRAFFIC CALMING DEVICE #1  
SCALE: 1" = 50'



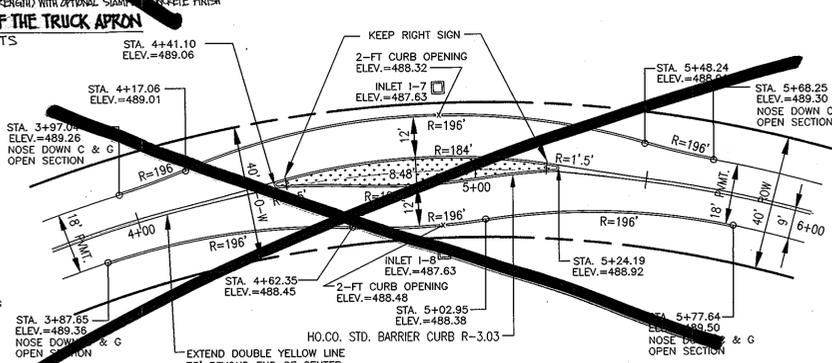
TYPICAL SECTION OF THE TRUCK APRON



TURNABOUT DETAIL  
TRAFFIC CALMING DEVICE #4

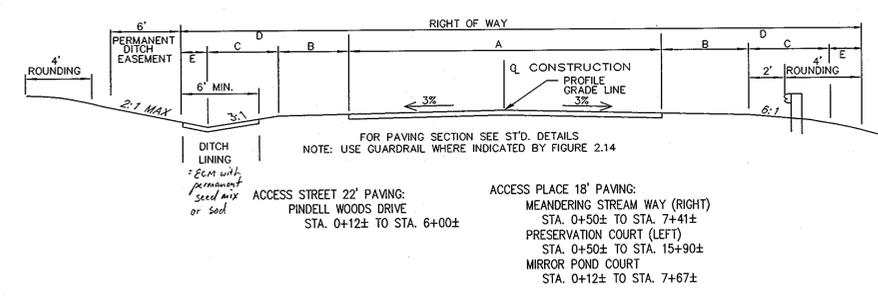


CENTRAL MEDIAN ISLAND  
TRAFFIC CALMING DEVICE #3  
NOT TO SCALE  
PER DETAILS SUPPLIED BY DED

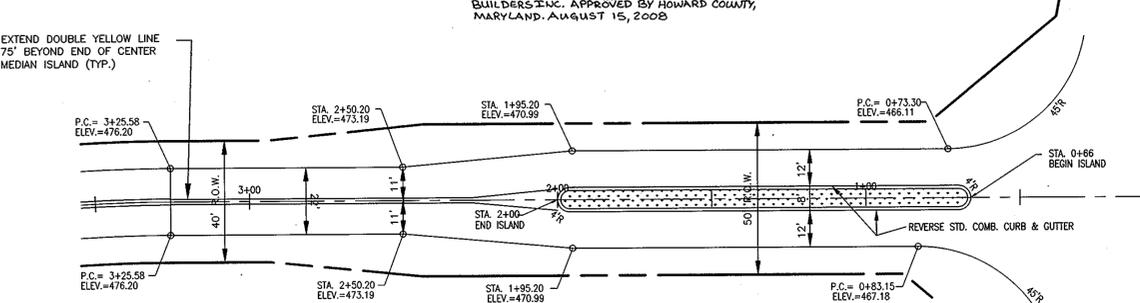


CENTRAL MEDIAN ISLAND  
TRAFFIC CALMING DEVICE #2  
NOT TO SCALE  
PER DETAILS SUPPLIED BY DED

CENTER MEDIAN ISLAND DIMENSIONS									
CLASSIFICATION	DESIGN SPEED	SECTION TYPE	A	B	C	D	E	F	G
PUBLIC ACCESS PLACE	35	OPEN	40	18	150	196	184	8.48	43.23

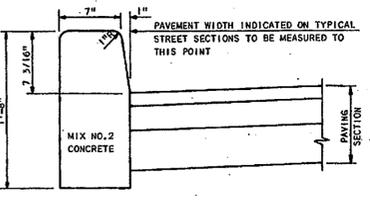


ENTRANCE DETAIL (PINDELL WOODS DRIVE)  
NOT TO SCALE

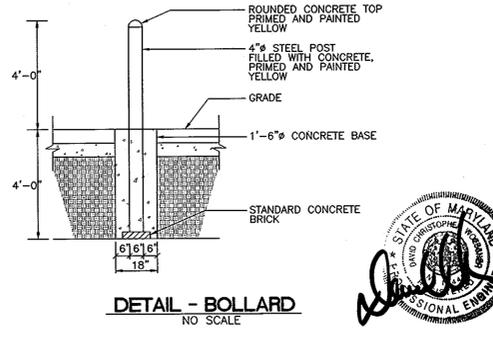


ROADWAY TYPICAL SECTIONS  
NOT TO SCALE

STREET	A	B	C	D	E	R/W	PAVING SECTION
PRESERVATION CT.	18'	4'	4'	11'	3'	40'	P-2
MEANDERING STREAM WAY	18'	4'	4'	11'	3'	40'	P-2
MIRROR POND CT.	18'	4'	4'	11'	3'	40'	P-2
PINDELL WOODS DR.	22'	4'	4'	9'	3'	40'	P-2
PINDELL SCHOOL RD.	24'	4'	4'	13'	5'	60'	P-3



STANDARD BARRIER CURB  
NOT TO SCALE



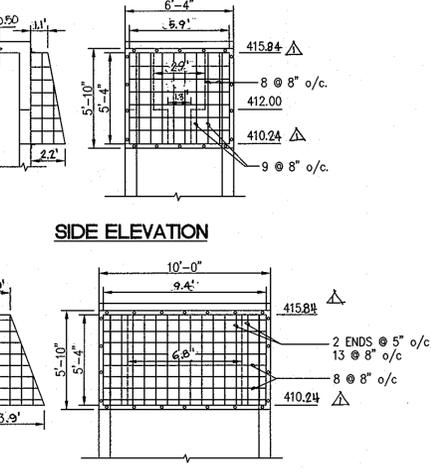
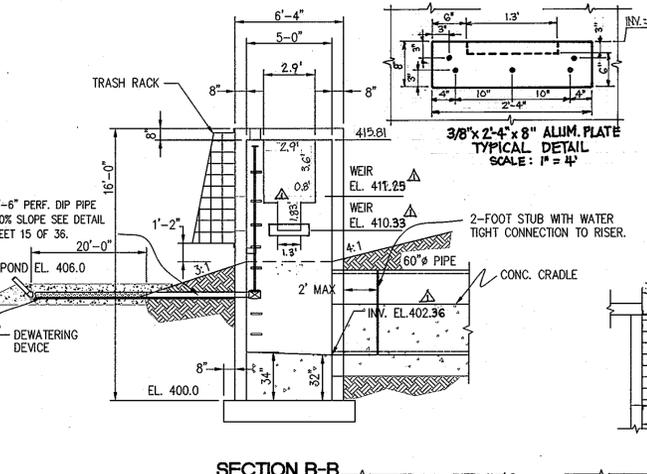
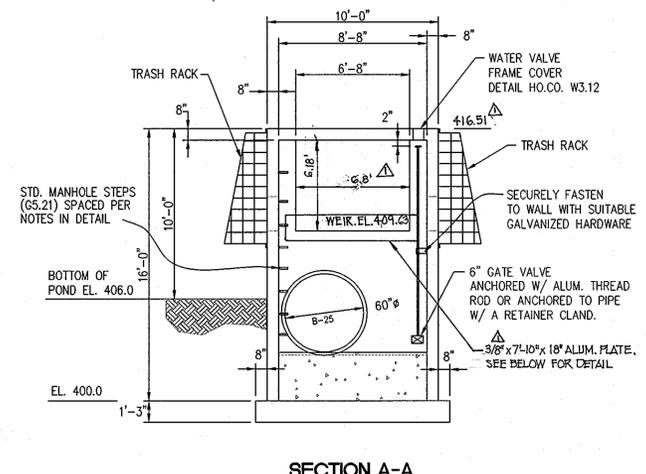
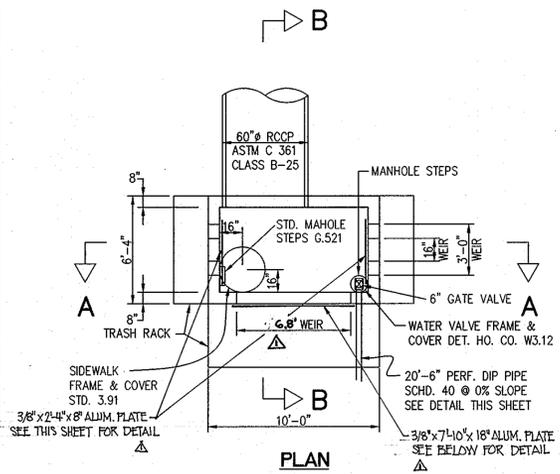
DETAIL - BOLLARD  
NOT TO SCALE

IMPROVEMENT ALONG PINDELL SCHOOL ROAD  
STA. 0+00 TO STA. 15+00  
NOT TO SCALE  
(HOWARD CO. DETAIL No. R-10.01)

STATE OF MARYLAND  
 JOHN W. ALAN, M.D.  
 PROFESSIONAL ENGINEER  
 No. 21443  
 12-09  
 FOR REVISIONS: CONSULT WITH DALE THOMPSON/  
 BUILDERS INC. APPROVED BY HOWARD COUNTY,  
 MARYLAND, AUGUST 15, 2008



1-9-09	REVISE TRAFFIC CALMING DEVICE 1, REMOVE CALMING DEVICE 2, 3 & 4 DELETE LEGEND, TRUCK APRON DETAIL, MOD. CURB AND GUTTER
NO. DATE REVISIONS	
A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274	
PROJECT NAME <b>PINDELL WOODS</b>	
TITLES: <b>TRAFFIC CALMING DEVICES AND DETAILS</b>	
OWNERS: CLARENCE AND MARTHA CARVELL 7106 PINDELL SCHOOL ROAD FULTON, MD. 20759	
DEVELOPER: MARSHALL P. TULIN 1821 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852	
PREPARED BY: AMERICAN LAND DEVELOPMENT AND ENGINEERING INC. 10749 BIRMINGHAM WAY ROCKVILLE, MD 20853 TEL (410) 465-7803 FAX (410) 465-3845	
DES.: JL/DCW/AVG	JOB:
DRW.: AVG/DTA/JNC	PROJ.:
CHK.: D.C.W.	DATE: 03/04/01
SCALE: AS SHOWN	
SHEET 7 OF 37	



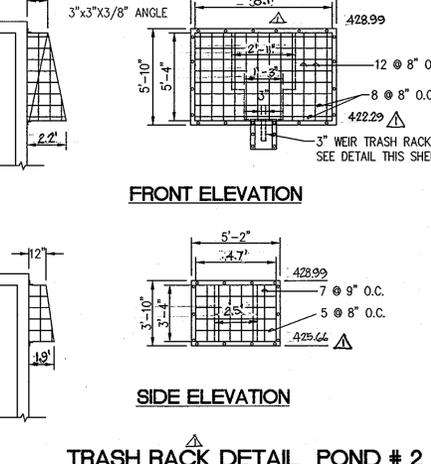
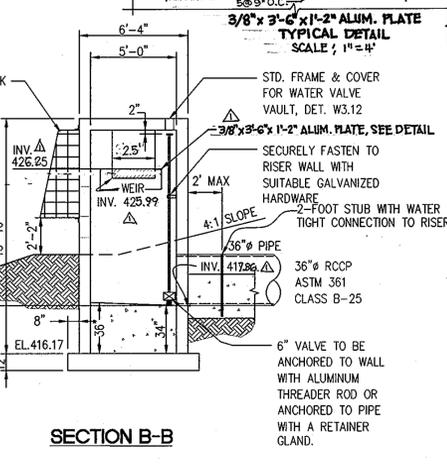
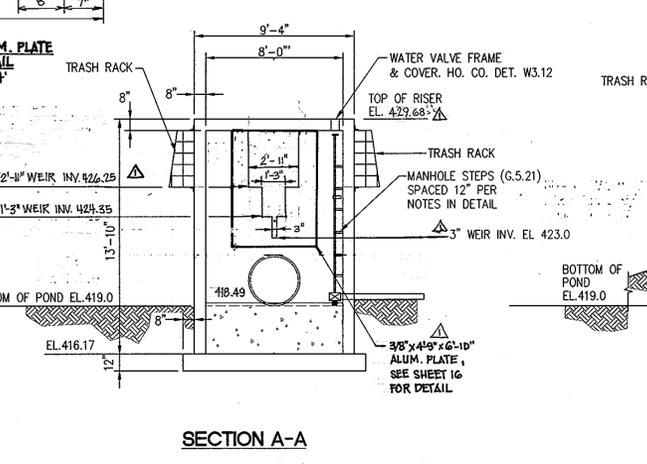
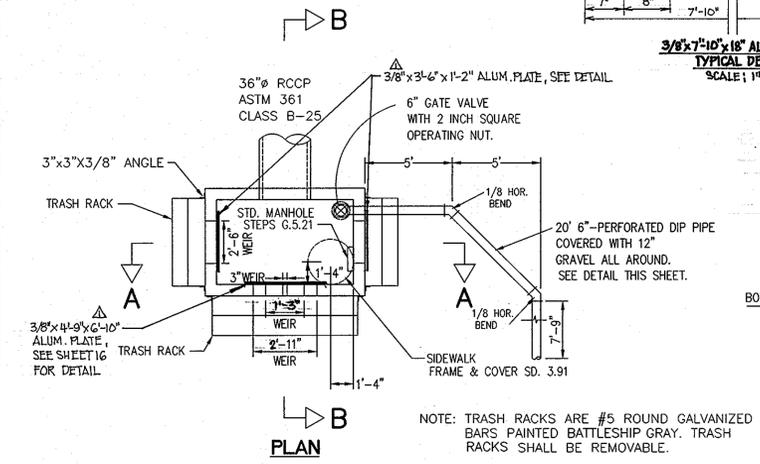
**ADS End Section Dimensions**

Pipe Diameter	Part No.	Dimensions, inches (mm)				
		A, ±1 (25)	B MAX	H, ±1 (25)	L, ±1/2 (13)	W, ±2 (50)
12.15 (300.375)	1210 NP	6.5 (165)	10 (254)	6.5 (165)	25 (635)	29 (738)
18 (450)	1810 NP	7.5 (190)	15 (380)	6.5 (165)	32 (812)	29 (890)
24 (600)	2410 NP	7.5 (190)	18 (450)	6.5 (165)	38 (960)	45 (1140)
30 (750)	3010 NP	10.5 (266)	NA	7.0 (178)	53 (1346)	68 (1725)
36 (900)	3610 NP	10.5 (266)	NA	7.0 (178)	53 (1346)	68 (1725)

**STRUCTURE DETAIL OF POND # 1**  
SCALE: 1" = 5'

**STRUCTURE DETAIL OF POND # 1**  
SCALE: 1" = 5'

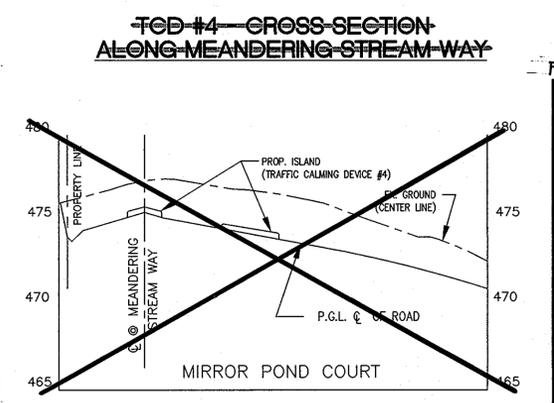
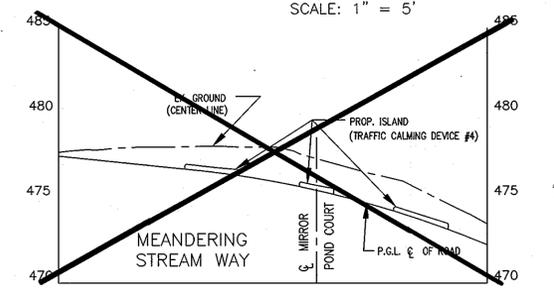
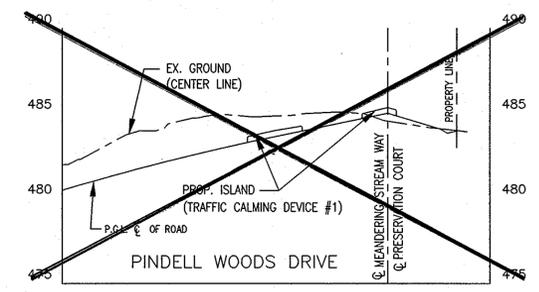
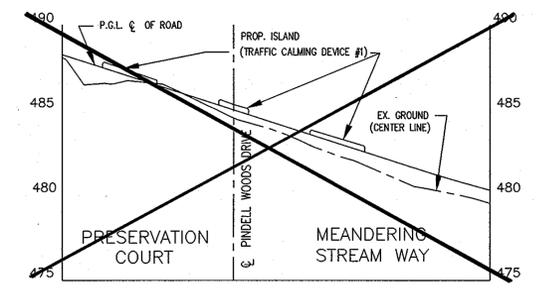
**TRASH RACK DETAIL POND # 1**  
SCALE: 1" = 5'



**STRUCTURE DETAIL OF POND # 2**  
SCALE: 1" = 5'

**STRUCTURE DETAIL OF POND # 2**  
SCALE: 1" = 5'

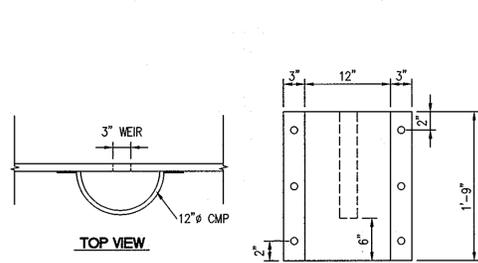
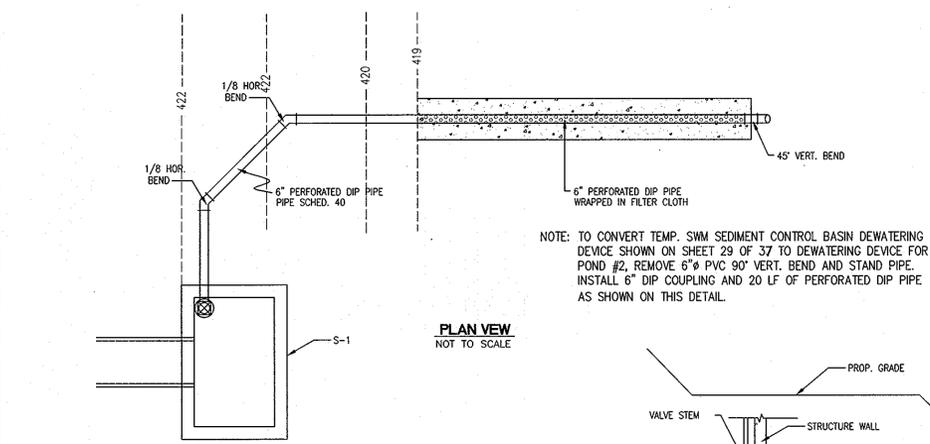
**TRASH RACK DETAIL POND # 2**  
SCALE: 1" = 5'



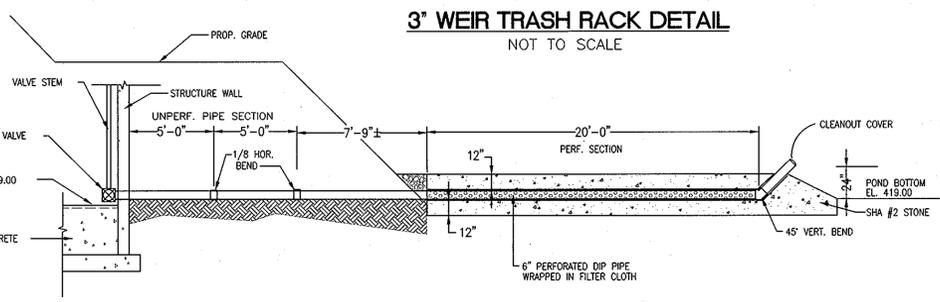
**TCD #1 - CROSS SECTION ALONG PINELL WOODS DRIVE**

SEAL & SIGNATURE IS FOR REVISION ONLY

NO. DATE REVISIONS		A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274	
PROJECT NAME <b>PINDELL WOODS</b>			
TITLES <b>MISCELLANEOUS DETAILS</b>			
PREPARED BY: AMERICAN LAND DEVELOPMENT AND ENGINEERING INC. 10749 BIRMINGHAM WAY WOODSTOCK, MD 21183 TEL (410) 465-7988 FAX (410) 465-3845		OWNERS: CLARENCE AND MARTHA CARVELL 7106 PINDELL SCHOOL ROAD FULTON, MD. 20759 H Y REAL ESTATE JOINT VENTURE 1921 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852	
DES.: JL/DCW/AVG		DEVELOPER: MOUNT VIEW, L.L.C. 6258 CARDINAL LA. COLUMBIA, MD. 21044	
DRW.: AVG/DTA/JNC		SCALE: AS SHOWN	
CHK.: D.C.W.		DATE: 03/04/01	
		SHEET 7A OF 37	



**3\"/>**



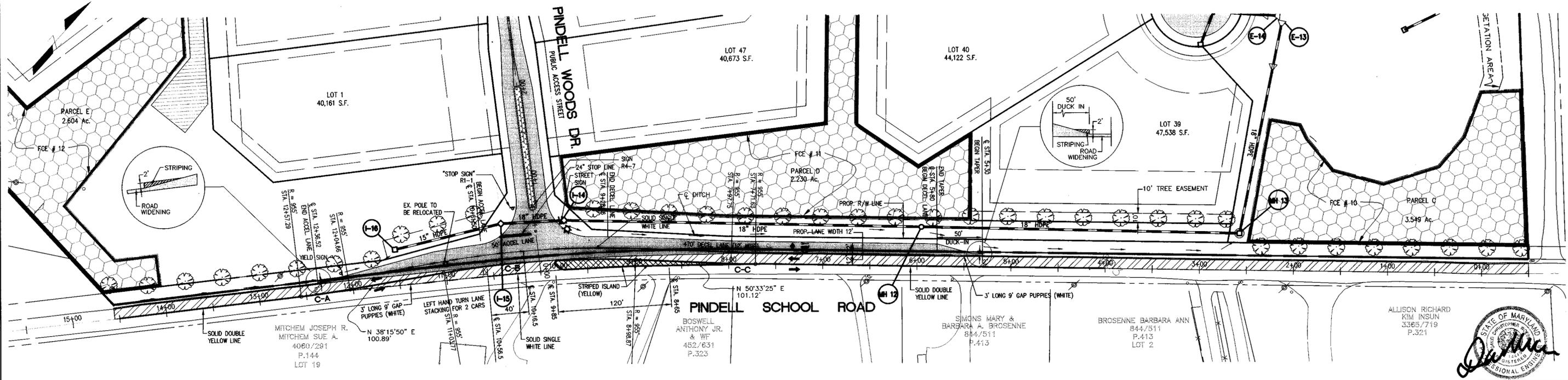
**DEWATERING DEVICE FOR POND # 2**

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 Chief, Bureau of Highways  
 DATE: 5/1/01

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Chief, Division of Land Development  
 DATE: 5/1/01

APPROVED: CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 5/1/01





**STREET TREE PLANT SCHEDULE**

SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY	SIZE
	ACER RUBRUM	OCTOBER GLORY RED MAPLE	37	2-1/2" - 3" CAL.

**CURVE TABLE**

CURVE NO.	LENGTH	RADIUS	DELTA	TANGENT	CHORD	CHRD BEARING
C-A	52.63	955.00	03°09'28"	26.32	52.63	N39°50'34"E
C-B	204.90	955.00	12°17'36"	102.85	204.51	N44°24'38"E
C-C	26.12	955.00	01°34'01"	13.06	26.12	N49°46'25"E

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

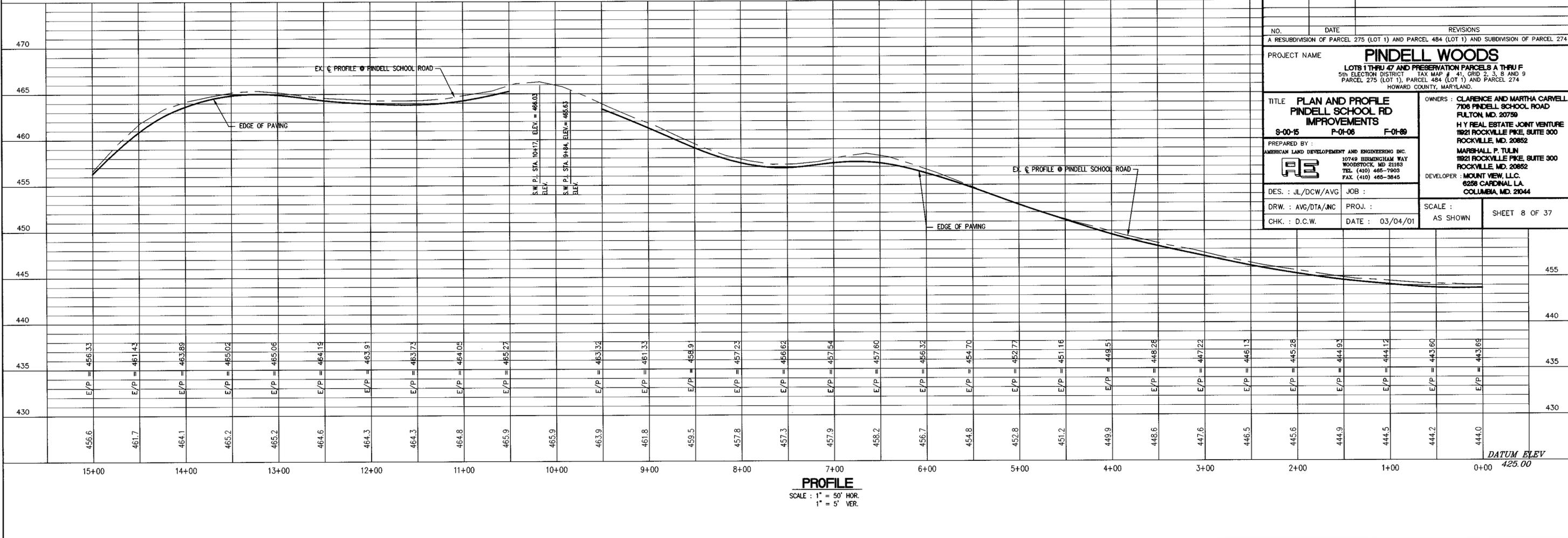
NOTE: PROPOSED IMPROVEMENT TO PINDELL SCHOOL ROAD PER HOWARD COUNTY DETAIL No. R-10.01. PLEASE SEE SHEET 7 OF 37.

**LEGEND :**  
NEW PAVING   
RESURFACING

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Allison Richard* 5-1-01  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Kim Insun* 5/6/01  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Michael...* 5/10/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

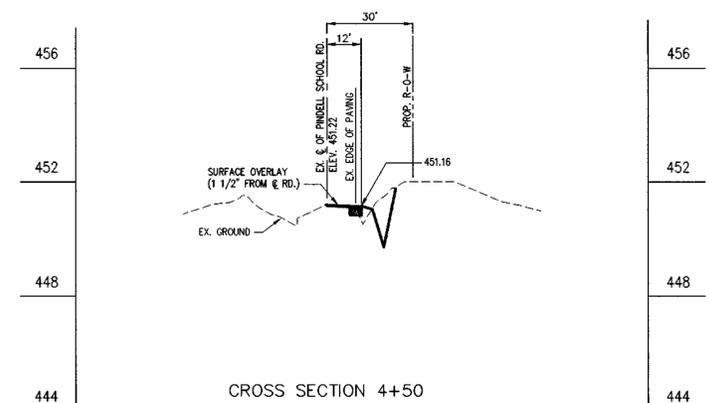
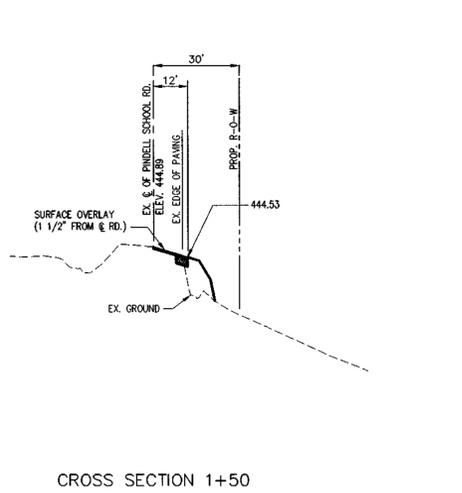
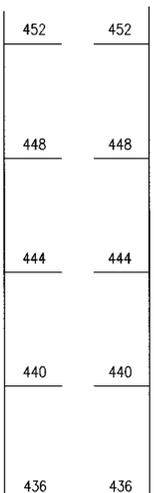
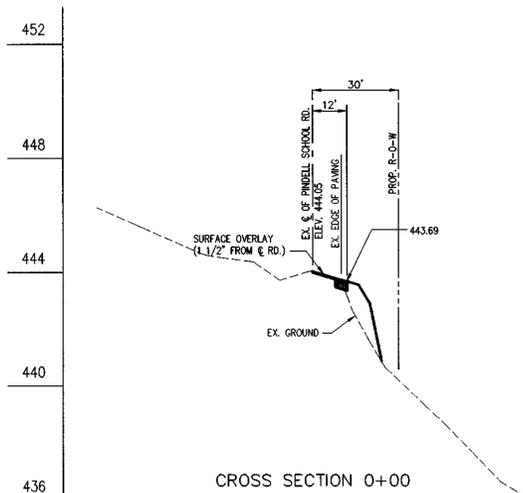
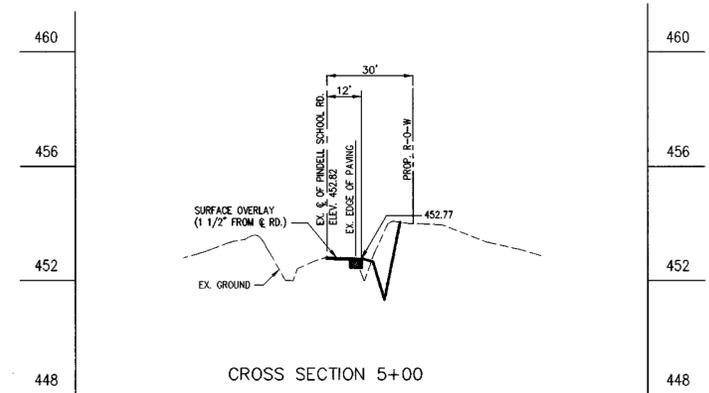
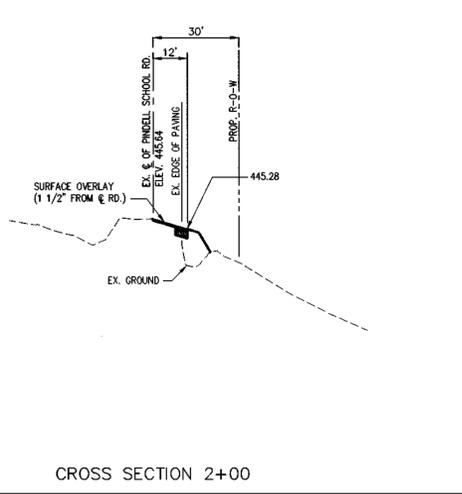
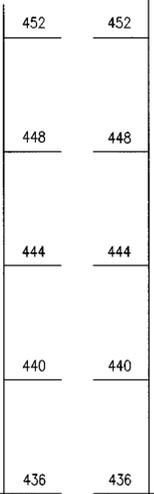
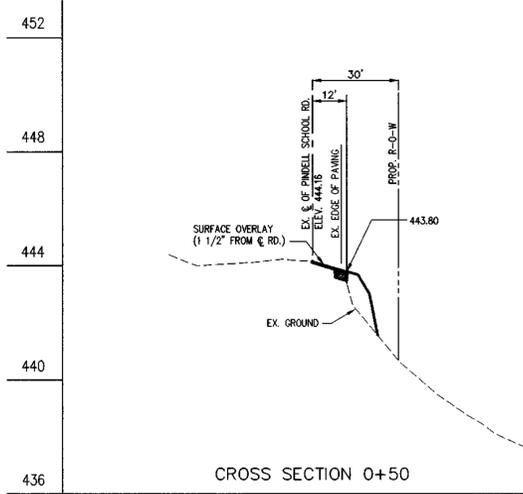
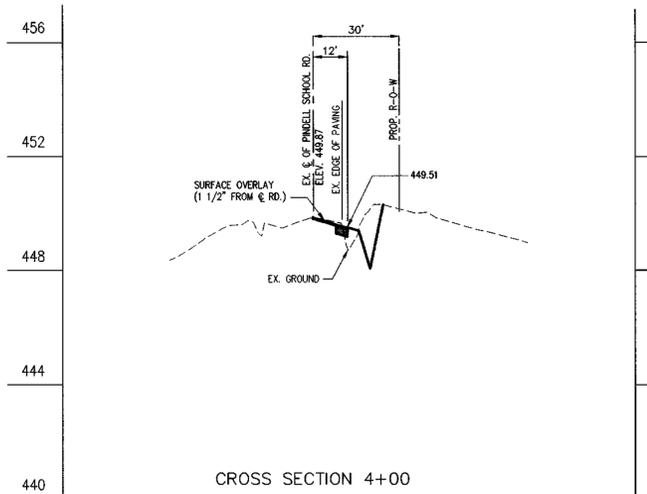
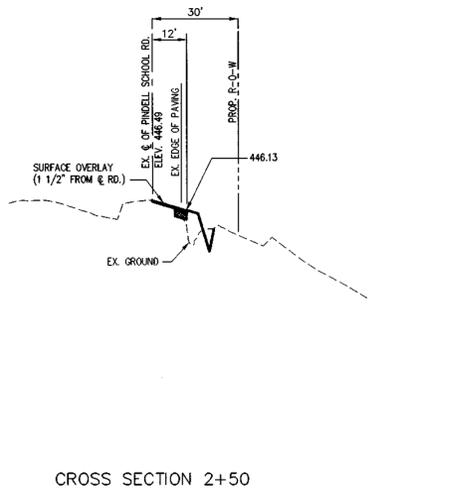
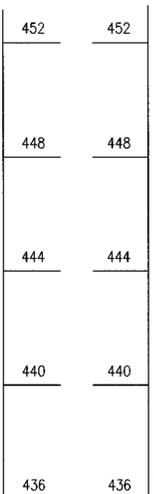
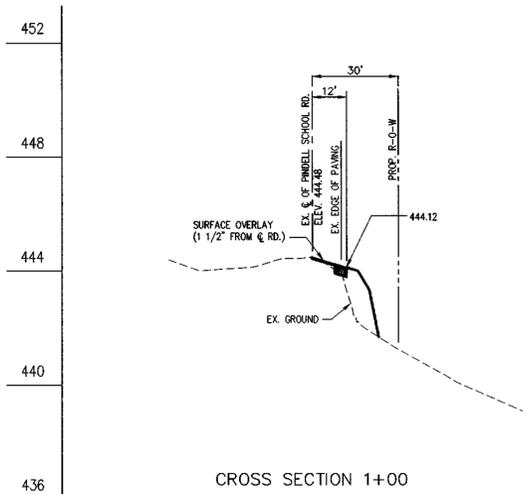


**PROFILE**  
SCALE: 1" = 50' HOR.  
1" = 5' VER.

NO.	DATE	REVISIONS
A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274		
PROJECT NAME <b>PINDELL WOODS</b>		
LOT 1 THRU 47 AND PRESERVATION PARCELS A THRU F 5th ELECTION DISTRICT TAX MAP # 41, GRID 2, 3, 8 AND 9 PARCEL 275 (LOT 1), PARCEL 484 (LOT 1) AND PARCEL 274 HOWARD COUNTY, MARYLAND.		
TITLE <b>PLAN AND PROFILE PINDELL SCHOOL RD IMPROVEMENTS</b>		OWNERS: CLARENCE AND MARTHA CARVELL 706 PINDELL SCHOOL ROAD FULTON, MD. 20759
PREPARED BY: AMERICAN LAND DEVELOPMENT AND ENGINEERING INC. 10749 BIRMINGHAM WAY WOODSTOCK, MD 21183 TEL (410) 486-7903 FAX (410) 486-3845		H Y REAL ESTATE JOINT VENTURE 1821 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852
DES.: JL/DCW/AVG		DEVELOPER: MOUNT VIEW, LLC. 8258 CARDINAL LA. COLUMBIA, MD. 21044
DRW.: AVG/DTA/MC	PROJ.:	SCALE: AS SHOWN
CHK.: D.C.W.	DATE: 03/04/01	SHEET 8 OF 37

H:\01r08\11\FINAL\PLAN\PINDELLSCHRD.dwg Thu Apr 12 15:54:49 2001

H:\0106811\TMAPL\PLAN\ROUSECTX.dwg Wed Apr 04 16:05:19 2001



APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Cagle* 5-7-01  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Kwanter* 5/16/01  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Albert J. ...* 5/11/01  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

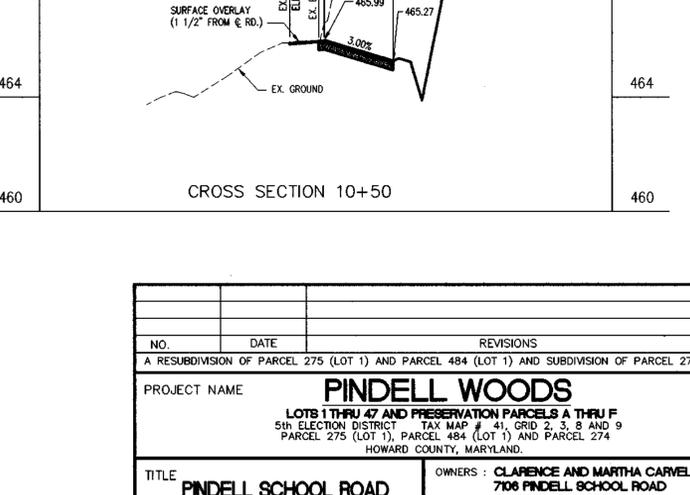
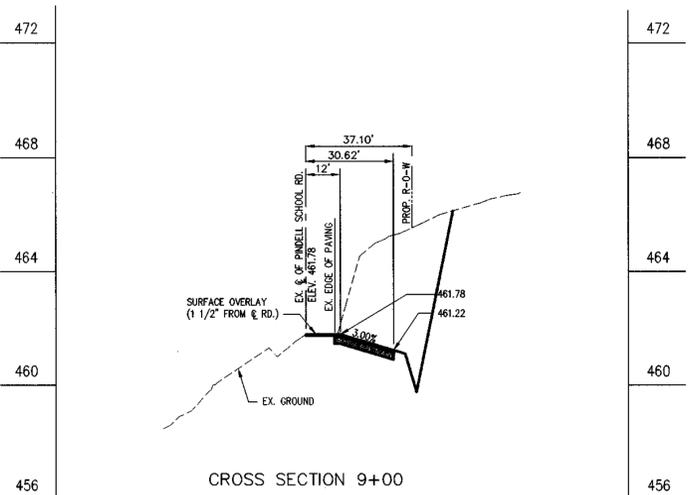
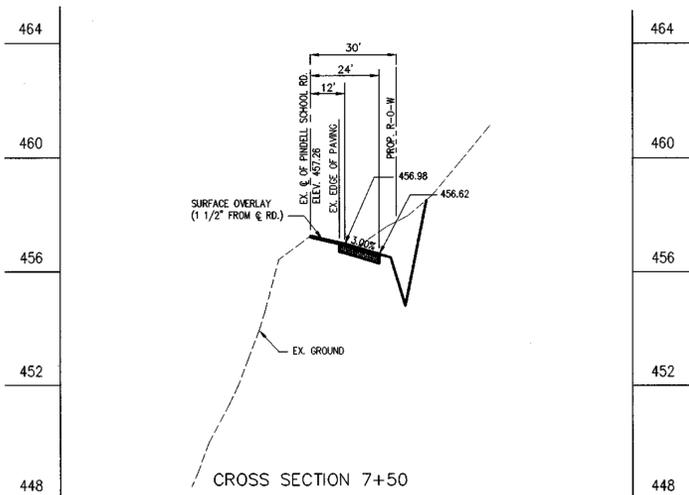
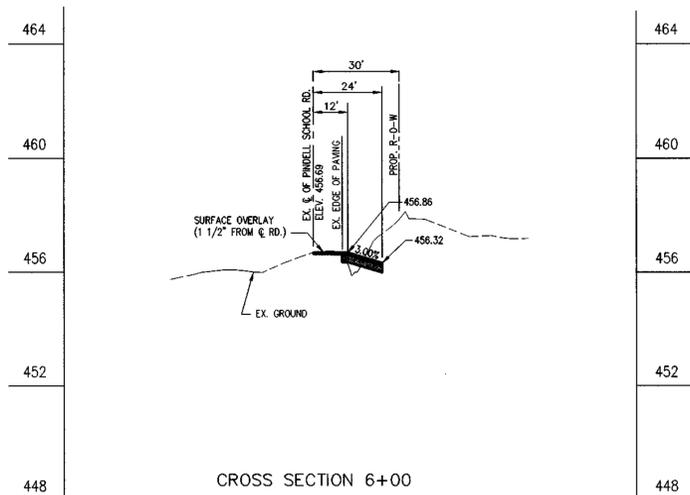
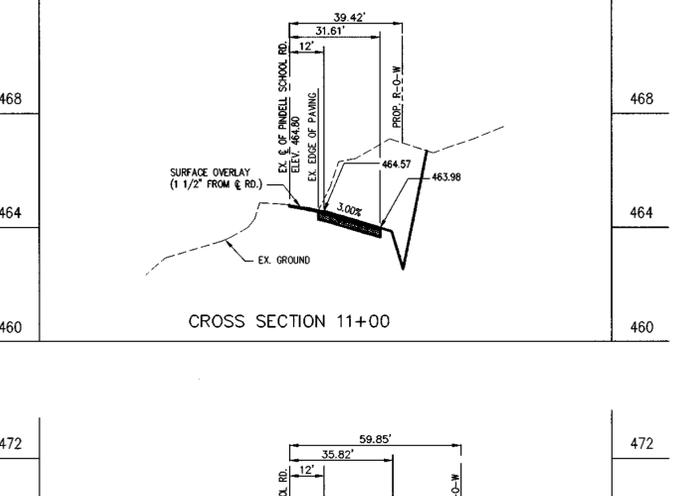
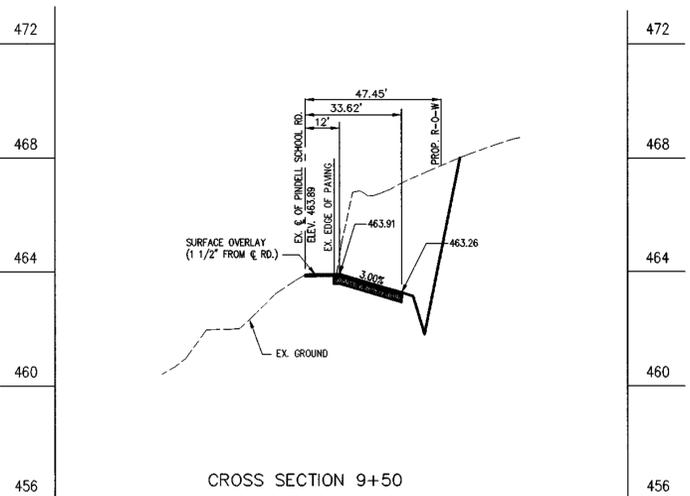
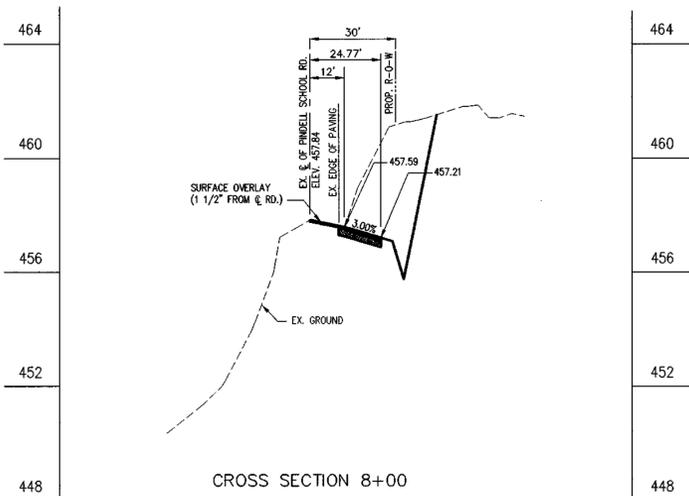
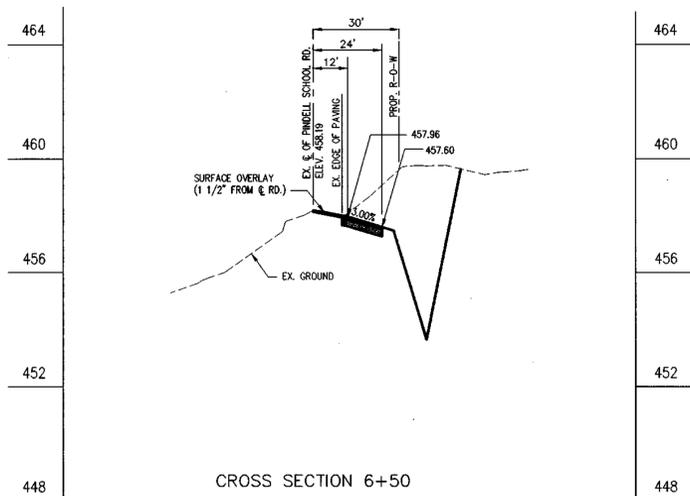
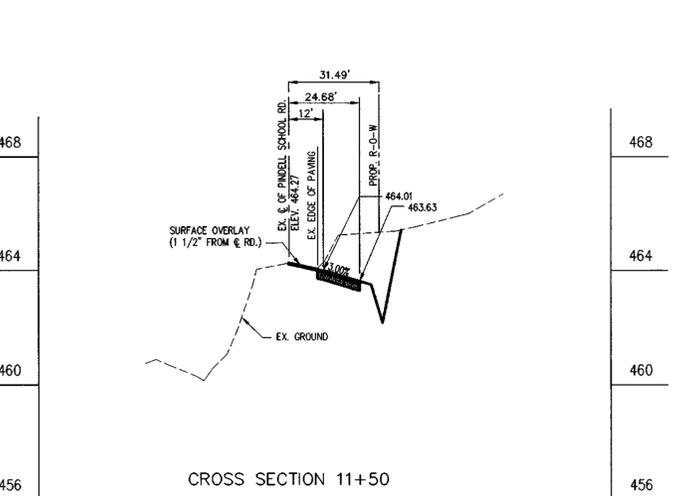
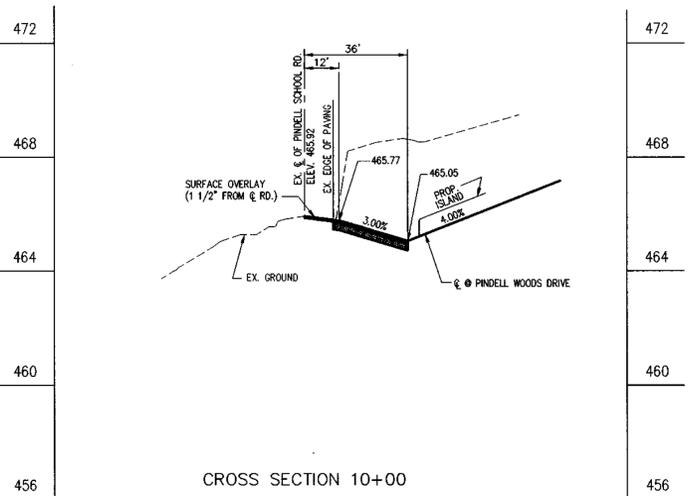
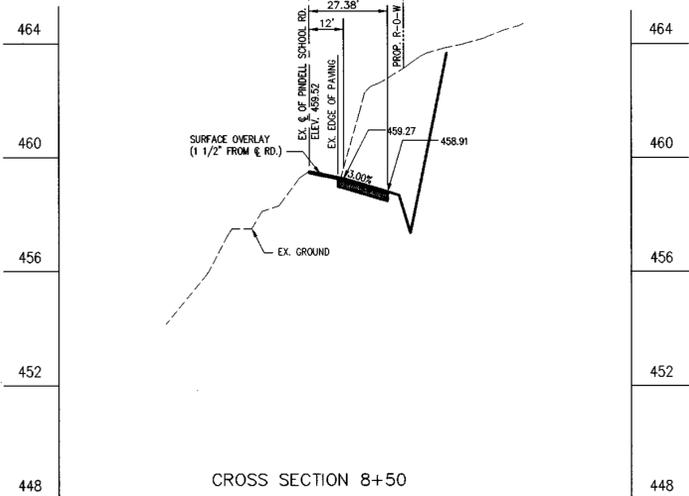
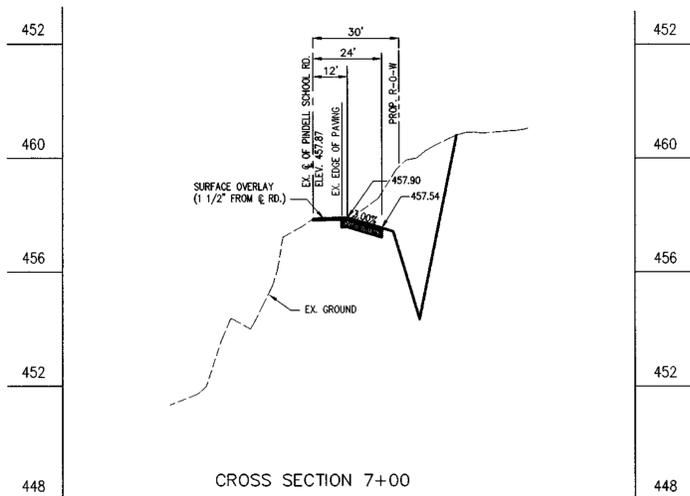
### SECTIONS

SCALE: 1" = 30' HORIZONTAL  
 1" = 3' VERTICAL

NOTE:  
 FOR STA. 2+50 TO STA. 5+50 USE  
 STABILIZATION MATTING OR SOD  
 DITCH LINING.



NO.	DATE	REVISIONS
A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274		
PROJECT NAME <b>PINDELL WOODS</b>		
LOTS 1 THRU 47 AND PRESERVATION PARCELS A THRU F 5th ELECTION DISTRICT TAX MAP # 41, GRID 2, 3, 8 AND 9 PARCEL 275 (LOT 1), PARCEL 484 (LOT 1) AND PARCEL 274 HOWARD COUNTY, MARYLAND.		
TITLE <b>PINDELL SCHOOL ROAD CROSS-SECTIONS</b>	OWNERS: CLARENCE AND MARTHA CARVELL 7106 PINDELL SCHOOL ROAD FULTON, MD. 20759 H Y REAL ESTATE JOINT VENTURE 1821 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852 MARSHALL P. TULIN 1821 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852 DEVELOPER: MOUNT VIEW, L.L.C. 6258 CARDINAL LA. COLUMBIA, MD. 21044	
PREPARED BY: AMERICAN LAND DEVELOPMENT AND ENGINEERING INC. 10749 BIRMINGHAM WAY WOODSTOCK, MD 21169 TEL. (410) 485-7000 FAX (410) 485-3845	DES.: JL/DCW/AVG JOB : DRW.: AVG/DTA/JNC PROJ. : CHK.: D.C.W. DATE: 03/04/01	SCALE: AS SHOWN SHEET 9 OF 37



APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Dauter* 5-1-01  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Hamstra* 5/6/01  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Patricia Williams* 5/16/01  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

## SECTIONS

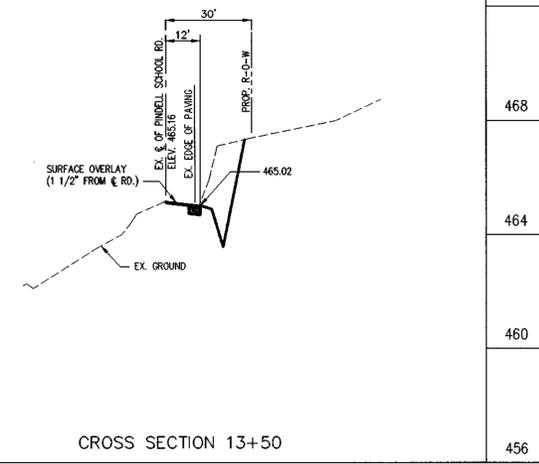
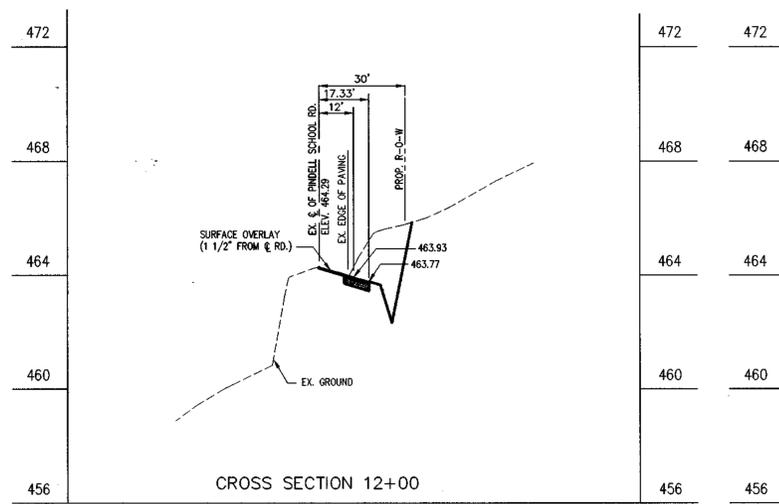
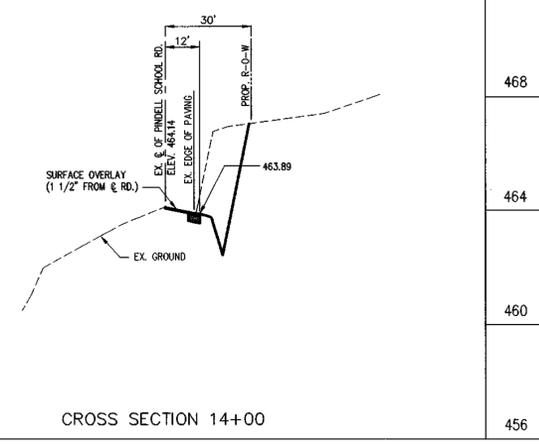
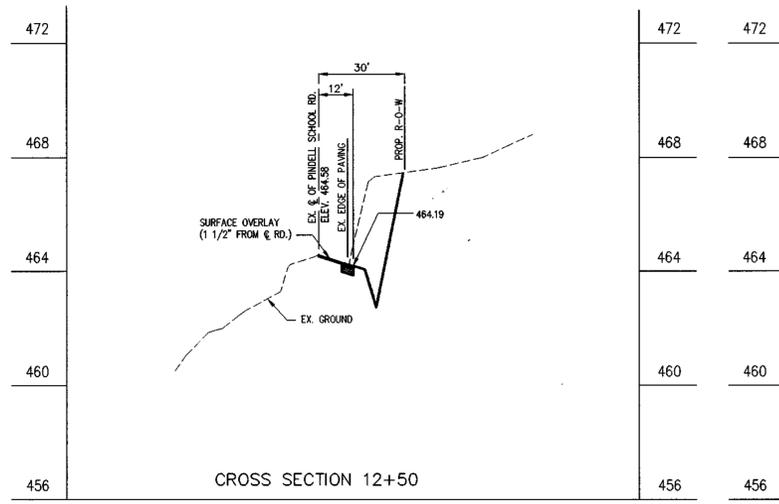
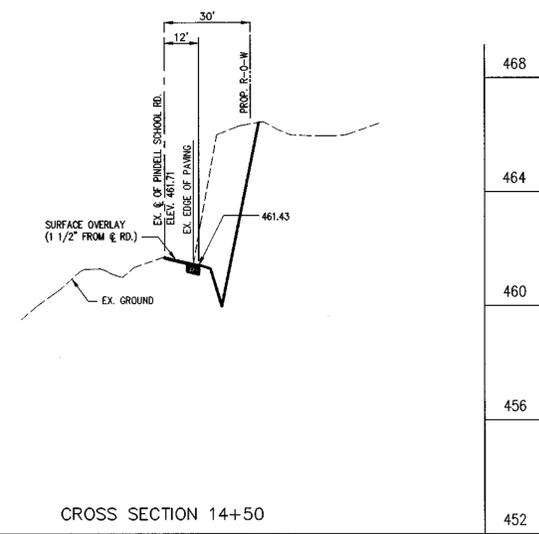
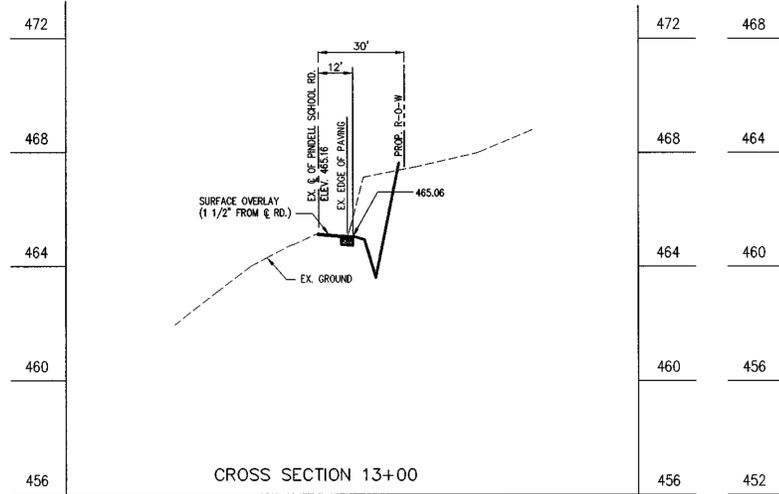
SCALE: 1" = 30' HORIZONTAL  
 1" = 3' VERTICAL

NOTE:  
 FOR STA. 6+00 TO STA. 11+50 USE  
 STABILIZATION MATTING OR SOD  
 DITCH LINING.



NO.	DATE	REVISIONS
A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274		
PROJECT NAME <b>PINDELL WOODS</b>		
LOTS 1 THRU 47 AND PRESERVATION PARCELS A THRU F 5th ELECTION DISTRICT TAX MAP # 41, GRID 2, 3, 8 AND 9 PARCEL 275 (LOT 1), PARCEL 484 (LOT 1) AND PARCEL 274 HOWARD COUNTY, MARYLAND.		
TITLE <b>PINDELL SCHOOL ROAD CROSS-SECTIONS</b>	OWNERS: CLARENCE AND MARTHA CARVELL 7106 PINDELL SCHOOL ROAD FULTON, MD. 20759	
PREPARED BY: AMERICAN LAND DEVELOPMENT AND ENGINEERING INC. 10749 BIRMINGHAM WAY WOODSTOCK, MD. 21163 TEL. (410) 465-7903 FAX. (410) 465-3845	H Y REAL ESTATE JOINT VENTURE 1921 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852	
DES.: JL/DCW/AVG	JOB:	DEVELOPER: MOUNT VIEW, L.L.C. 6256 CARDINAL LA. COLUMBIA, MD. 21044
DRW.: AVG/DTA/JNC	PROJ.:	SCALE: AS SHOWN
CHK.: D.C.W.	DATE: 03/04/01	SHEET 10 OF 37

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DRIVEWAY CULVERT DATA							
LOT NUMBERS	STREET GRADE	DISCHARGE Q <sub>10</sub> (CFS)	PIPE TYPE	PIPE CAPACITY (CFS)	FULL FLOW VELOCITY (FPS)	OUTFALL PROTECTION FOR CULVERT AND ROAD SIDE DITCH	REMARKS
1	4.00	3.42	15" CMP	7	5.70	COURSE GRAVEL	Q TO I-15
2	4.02	3.42	15" CMP	7	5.70	COURSE GRAVEL	Q TO I-15
3	2.08	3.42	15" CMP	5.05	4.11	SOLID SODDING	Q TO I-15
4	1.01	1.57	12" CMP	1.94	2.47	SOIL STABILIZATION MATTING OVER SEED & MULCH	Q TO I-7
5	1.01	1.57	12" CMP	1.94	2.47	SOIL STABILIZATION MATTING OVER SEED & MULCH	Q TO I-7
6	4.55	1.57	12" CMP	4.12	5.24	COURSE GRAVEL	Q TO I-7
7	4.55	1.57	12" CMP	4.12	5.24	COURSE GRAVEL	Q TO I-7
8	4.55	1.57	12" CMP	4.12	5.24	COURSE GRAVEL	Q TO I-7
9	4.55	1.57	12" CMP	3.45	5.24	COURSE GRAVEL	Q TO I-7
10	3.20	1.22	12" CMP	3.45	4.40	SOIL STABILIZATION MATTING OVER SEED & MULCH	Q TO I-2
11	3.20	1.22	12" CMP	3.45	4.40	SOIL STABILIZATION MATTING OVER SEED & MULCH	Q TO I-2
12	5.50	1.22	12" CMP	4.53	5.76	COURSE GRAVEL	Q TO I-2
13	5.50	1.22	12" CMP	4.53	5.76	COURSE GRAVEL	Q TO I-2
14	5.50	1.46	12" CMP	4.53	5.76	COURSE GRAVEL	Q TO I-1
15	5.50	1.46	12" CMP	4.52	5.76	COURSE GRAVEL	Q TO I-1
16	2.12	1.46	12" CMP	2.81	3.56	SOLID SODDING	Q TO I-1
17	1.85	1.46	12" CMP	2.63	3.34	SOLID SODDING	Q TO I-1
18	3.20	1.22	15" CMP	6.26	4.40	SOIL STABILIZATION MATTING OVER SEED & MULCH	Q TO I-8
19	3.20	2.31	12" CMP	3.45	4.40	SOIL STABILIZATION MATTING OVER SEED & MULCH	Q TO I-8
20	4.55	2.31	12" CMP	4.12	5.24	COURSE GRAVEL	Q TO I-8
21	4.55	2.31	12" CMP	4.12	5.24	COURSE GRAVEL	Q TO I-8
22	1.01	2.31	12" CMP	4.12	2.45	SOIL STABILIZATION MATTING OVER SEED & MULCH	Q TO I-8
23	1.01	1.53	12" CMP	1.94	2.47	SOIL STABILIZATION MATTING OVER SEED & MULCH	Q TO I-5
24	3.25	1.53	12" CMP	5.72	4.43	SOIL STABILIZATION MATTING OVER SEED & MULCH	Q TO I-5
25	3.25	1.53	12" CMP	5.72	4.43	SOIL STABILIZATION MATTING OVER SEED & MULCH	Q TO I-5
26	1.04	1.53	12" CMP	1.97	2.51	SOIL STABILIZATION MATTING OVER SEED & MULCH	Q TO I-5
27	5.95	4.13	12" CMP	4.71	6.00	COURSE GRAVEL	Q TO I-4
28	5.95	4.13	12" CMP	4.71	6.00	COURSE GRAVEL	Q TO I-4
29	5.95	4.13	12" CMP	4.71	6.00	COURSE GRAVEL	Q TO I-4
30	5.95	4.13	12" CMP	4.71	6.00	COURSE GRAVEL	Q TO I-4
31	2.00	4.13	15" CMP	4.95	4.03	SOLID SODDING	Q TO I-4
32	2.00	4.13	15" CMP	4.95	4.03	SOLID SODDING	Q TO I-4
33	5.95	4.13	12" CMP	4.71	5.99	COURSE GRAVEL	Q TO I-4
34	5.95	4.13	12" CMP	4.71	5.99	COURSE GRAVEL	Q TO I-4
35	5.95	4.13	12" CMP	4.71	5.99	COURSE GRAVEL	Q TO I-4
36	5.50	1.06	12" CMP	4.53	5.76	COURSE GRAVEL	Q TO I-11
37	6.00	1.06	12" CMP	4.76	6.02	COURSE GRAVEL	Q TO I-11
38	6.00	1.90	12" CMP	4.72	6.02	COURSE GRAVEL	Q TO I-10
39	1.00	1.90	12" CMP	1.93	2.46	SOIL STABILIZATION MATTING OVER SEED & MULCH	Q TO I-10
40	4.00	1.90	12" CMP	3.86	4.91	COURSE GRAVEL	Q TO I-10
41	5.50	1.35	12" CMP	4.53	5.76	COURSE GRAVEL	Q TO I-12
42	5.50	1.35	12" CMP	4.53	5.76	COURSE GRAVEL	Q TO I-12
43	1.04	1.35	12" CMP	1.97	2.51	SOIL STABILIZATION MATTING OVER SEED & MULCH	Q TO I-12
44	1.04	0.65	12" CMP	1.97	2.51	SOIL STABILIZATION MATTING OVER SEED & MULCH	Q TO I-6
45	3.25	0.65	12" CMP	3.48	4.43	SOIL STABILIZATION MATTING OVER SEED & MULCH	Q TO I-6
46	4.00	1.34	12" CMP	3.86	4.91	SOIL STABILIZATION MATTING OVER SEED & MULCH	Q TO I-14
47	4.00	1.34	12" CMP	3.86	4.91	SOIL STABILIZATION MATTING OVER SEED & MULCH	INLET I-14

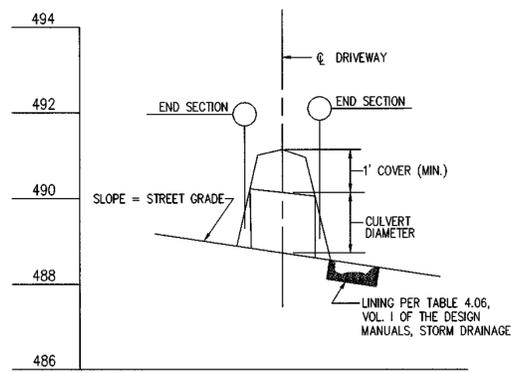


TABLE 4.06 LIMITING VELOCITIES FOR DITCHES AND CHANNELS		
Lining Type	Allowable Velocities (fps)	Remarks
Earth, without vegetation	1.0 to 3.0	USE SOIL STABILIZATION MATTING OVER SEED AND MULCH FOR CONSTRUCTION ITEMS
Seed & Mulch	2.5	-
Grains, Stiff Stemmed Grasses	2.0 to 3.0	-
Bunch Grass	2.0 to 4.0	-
Solid Sodding	4.0	-
Stiff Clay or Clay & Gravel	3.0 to 5.0	-
Fine Gravel	5.0	-
Well-established Grasses, short plant blades	5.0	-
Soil Stabilization Matting over Seed & Mulch	5.6	-
Shale & Rock	6.0	-
Course Gravel (Class I Riprap)	Varies	Refers to SHA 61.1-405.1
Riprap	Varies	Refers to SHA 61.1-405.1
Concrete Channel	No Maximum	-

Note: This chart based on SHA 61.1-405.0, dated 1994.

(1) OUTFALL PROTECTION PER TABLE 4.06, VOL. I OF THE DESIGN MANUALS.

NOTE: 10 YEAR DISCHARGE SHOWN ARE DISCHARGE TO DOWNSTREAM INLET.

PIPE SCHEDULE			
PIPE SIZE (IN.)	CLASS/TYPE	TOTAL LENGTH (FT.)	REMARKS
15	HDPE SMOOTH INTERIOR	315	
18	HDPE SMOOTH INTERIOR	2,962	
24	HDPE SMOOTH INTERIOR	1,069	
30	HDPE SMOOTH INTERIOR	168	

SECTIONS

SCALE: 1" = 30' HORIZONTAL  
1" = 3' VERTICAL

NOTE: FOR STA. 11+50 TO STA. 13+50 USE SEED AND MULCH DITCH LINING AND STABILIZATION MATTING OR SOD FROM STA. 13+50 TO STA. 14+50.

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APPROVED: DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 5/1/01  
CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*[Signature]* 5/1/01  
CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 5/1/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION



NO. \_\_\_\_\_ DATE \_\_\_\_\_ REVISIONS \_\_\_\_\_

A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274

PROJECT NAME: **PINDELL WOODS**

LOTS 1 THRU 47 AND PRESERVATION PARCELS A THRU F  
5th ELECTION DISTRICT TAX MAP # 41, GRID 2, 3, 8 AND 9  
PARCEL 275 (LOT 1), PARCEL 484 (LOT 1) AND PARCEL 274  
HOWARD COUNTY, MARYLAND.

TITLE: **PINDELL SCHOOL ROAD CROSS-SECTIONS**  
9-00-15 P-01-06 F-01-89

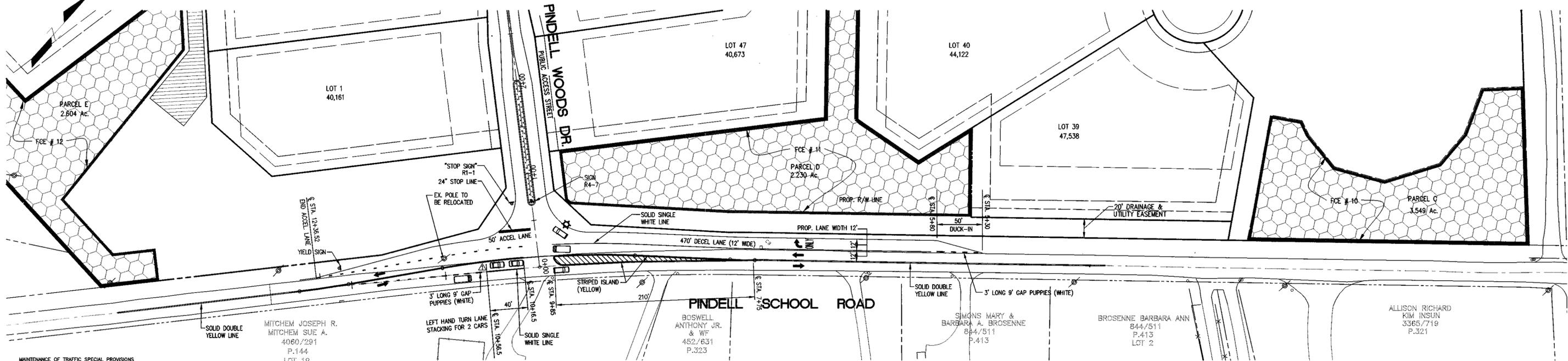
OWNERS: CLARENCE AND MARTHA CARVELL  
7106 PINDELL SCHOOL ROAD  
FULTON, MD. 20759  
H Y REAL ESTATE JOINT VENTURE  
1921 ROCKVILLE PIKE, SUITE 300  
ROCKVILLE, MD. 20852

PREPARED BY: AMERICAN LAND DEVELOPMENT AND ENGINEERING INC.  
10749 BIRMINGHAM WAY  
WOODSTOCK, MD 21163  
TEL. (410) 485-7903  
FAX. (410) 485-9845

DEVELOPER: MOUNT VIEW, LLC  
6258 CARDINAL LLA  
COLUMBIA, MD. 21044

DES.: JL/DCW/AVG JOB: \_\_\_\_\_  
DRW.: AVG/DTA/JNC PROJ.: \_\_\_\_\_  
CHK.: D.C.W. DATE: 03/04/01

SCALE: AS SHOWN SHEET 11 OF 37

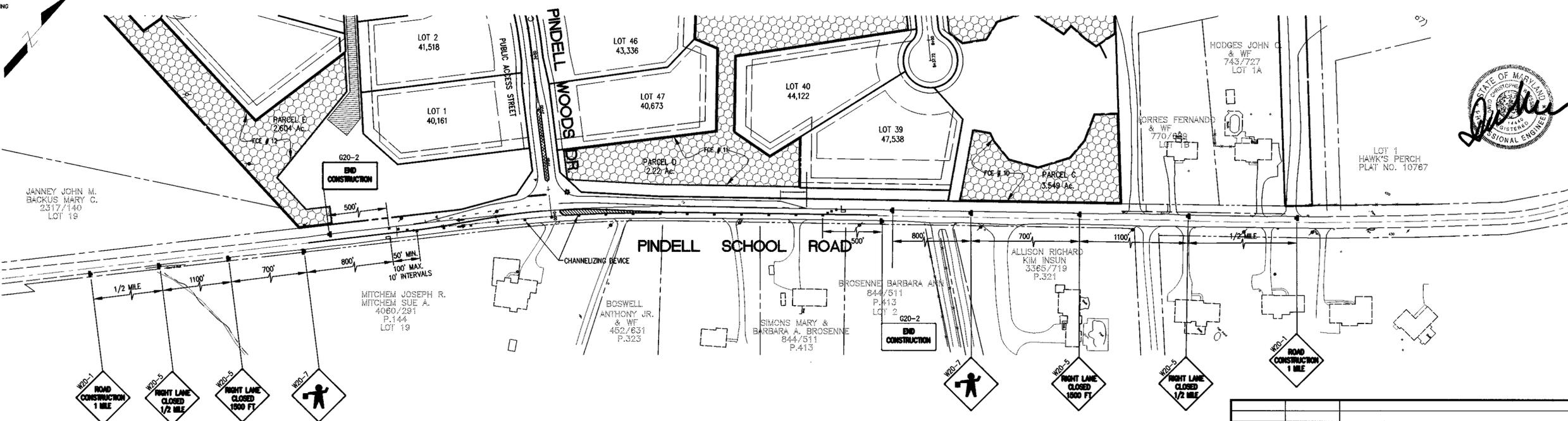


**STRIPING PLAN**  
SCALE: 1" = 50'

NOTES: 1. REMOVED EXISTING STRIPING AFFECTED BY NEW STRIPING LINES.  
2. ALL LANE DESIGNATION TO BE THERMOPLASTIC LINE STRIPING.  
3. FOR PROPOSED IMPROVEMENT TO PINDELL SCHOOL ROAD, SEE SHEET 8 OF 37.

- GENERAL**
- THE PURPOSE OF THIS PORTION OF THE SPECIAL PROVISION IS TO SET FOR THE TRAFFIC CONTROL REQUIREMENTS NECESSARY FOR THE SAFE AND EFFICIENT MAINTENANCE TO TRAFFIC WITHIN WORK AREAS, AND TO MINIMIZE ANY INCONVENIENCES TO THE TRAVELING PUBLIC AND THE CONTRACTOR AND/OR PERMITEE.
  - PROPERTY TRAFFIC CONTROL THROUGH WORK AREAS IS ESSENTIAL FOR INSURING THE SAFETY AND THAT OF HIGHWAY WORKERS HAS THE HIGHEST PRIORITY OF ALL TASKS WITHIN THIS PROJECT. THE PROPER APPLICATION OF THE APPROVED TRAFFIC CONTROL PLAN (TCP) WILL PROVIDE THE DESIRED LEVEL OF SAFETY.
  - THROUGHOUT THESE SPECIAL PROVISIONS, ANY MENTION OF THE TOP SHALL BE IMPLIED TO INCLUDE ANY COMBINATION OF TYPICAL TRAFFIC CONTROL STANDARDS WHICH FORM THE OVERALL TCP FOR THIS PROJECT WHICH HAS BEEN APPROVED BY THE APPROPRIATE HOWARD COUNTY HIGHWAY DEPARTMENT TRAFFIC ENGINEER.
  - THE CONTRACTOR AND/OR PERMITEE SHALL BE REQUIRED TO ADHERE TO THE PROVISIONS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) 1988 OR LATEST EDITION, ESPECIALLY PART VI, AND TO SECTION 814 OF THE MARYLAND DOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS (JANUARY, 1982 OR LATEST, INCLUDING ALL REVISIONS AND SUPPLEMENTS TO EACH).
  - THE CONTRACTOR AND/OR PERMITEE SHALL BE REQUIRED TO ADHERE TO THE REQUIREMENTS SET FORTH IN THESE SPECIAL PROVISIONS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ANY REQUEST TO MAKE MINOR CHANGES TO THE TOP OR THE SPECIAL PROVISIONS WITH REGARD TO THE TRAFFIC CONTROL ITEMS SHALL BE MADE IN WRITING TO THE ENGINEER A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE PROPOSED SCHEDULING CHANGE. THE CONTRACTOR AND/OR PERMITEE SHALL HAVE WRITTEN APPROVAL OF THE ENGINEER PRIOR TO THE IMPLEMENTATION OF ANY CHANGE.
  - NO WORK SHALL BEGIN ON ANY WORK ACTIVITY OR WORK PHASE UNTIL ALL REQUIRED TRAFFIC CONTROL PATTERNS AND DEVICES INDICATED ON THE TOP FOR THAT ACTIVITY OR PHASE UNTIL COMPLETELY AND CORRECTLY IN PLACE TO HAVE BEEN CHECKED FOR APPROVED USAGE.
  - GENERAL AND SPECIFIC WARNING SIGNS SHALL ONLY BE IN PLACES WHEN SPECIFIC OWNER TASKS AND ACTIVITIES ARE ACTUALLY UNDERWAY OR CONDITIONS EXIST THAT POSE A POTENTIAL HAZARD TO THE PUBLIC AND ANY ADDITIONAL SIGNING HAS BEEN APPROVED BY THE APPROPRIATE HOWARD COUNTY HIGHWAY DEPARTMENT TRAFFIC ENGINEER.  
NOTE: THE PRACTICE OF PLACING SIGNING AND OTHER TRAFFIC CONTROL DEVICES IN ADDITION TO THOSE INDICATED ON THE APPROVED TOP IS NOT PERMITTED.
  - THE CONTRACTOR AND/OR PERMITEE SHALL MAINTAIN IN NEW CONDITION AND MOVE WHEN NECESSARY OR AS DIRECTED BY THE ENGINEER. ALL TRAFFIC CONTROL DEVICES USED FOR THE GUIDANCE AND PROTECTION OF MOTORISTS, PEDESTRIANS, AND WORKERS.
  - ALL TRAFFIC CONTROL DEVICES REQUIRED BY THE TOP SHALL BE KEPT IN GOOD CONDITION FULLY PERFORMING AS SET FORTH IN THE TOP. THE MUTCD AND/OR SECTION 814 OF THE SPECIFICATIONS FOR REFLECTIVE DEVICES. A PARTICULAR DEVICE IS ASSUMED TO HAVE FAILED TO MEET MINIMUM OPERATIONAL STANDARDS WHEN THE DEVICE NO LONGER HAS RETRO-REFLECTANCE CAPABILITY OF AT LEAST 60% OF THE SPECIFIED MINIMUM VALUE OVER AT LEAST 90% OF THE VISIBLE REFLECTIVE SURFACE.
  - ALL TRAFFIC CONTROL DEVICES NOT REQUIRED FOR THE SAFE CONDUCT OF TRAFFIC SHALL BE PROMPTLY REMOVED, COMPLETELY COVERED, TURNED AWAY FROM TRAFFIC, OR OTHERWISE TAKE OUT OF SERVICE. IT IS INTENDED THAT NO TRAFFIC CONTROL DEVICES TO BE IN SERVICE WHEN THERE IS NO CLEAR CUT REASON FOR THE DEVICE.
  - THROUGHOUT THE WORK ACTIVITIES TRAFFIC SHALL BE MAINTAINED BY IMPLEMENTING THE APPROVED TOP. IN LIEU OF THE TOP PREPARED FOR THIS PROJECT AND/OR INDIVIDUAL TYPICAL TRAFFIC CONTROL STANDARDS, THE CONTRACTOR AND/OR PERMITEE HAS THE OPTION OF PREPARING AND SUBMITTING A TOP WHOLLY OR IN PART OF HIS OWN DESIGN FOLLOWING GUIDELINES SET FORTH IN THE MUTCD AND PRESCRIBED BY THE ADMINISTRATION. A TOP DEVELOPED BY THE CONTRACTOR AND/OR PERMITEE SHALL NOT BE IMPLEMENTED UNTIL ADVANCE WRITTEN APPROVAL IS OBTAINED FROM THE ENGINEER. TOP'S MAY BE IMPLEMENTED WITHIN A SINGLE PROJECT OR JOINTLY BETWEEN TWO OR MORE PROJECTS. IN SITUATIONS WHERE TOP'S ARE JOINTLY IMPLEMENTED, CARE SHALL BE EXERCISED TO PRESENT CORRECT AND NOT-CONFLICTING GUIDANCE TO THE TRAVELING PUBLIC.
  - THROUGHOUT THESE SPECIAL PROVISIONS, WHERE SPEED OF TRAFFIC IS NOTED - THIS MEANS THE POSTED SPEED OR PREVALENT TRAVEL SPEED, WHICHEVER IS HIGHER UNLESS OTHERWISE NOTED.
  - TRAFFIC SHALL BE MAINTAINED AT ALL TIMES THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT UNLESS OTHERWISE NOTED. NO TRAVEL LANE(S) OTHER THAN THOSE DESIGNATED FOR POSSIBLE CLOSURE IN THE TOP SHALL BE CLOSED WITHOUT OBTAINING PRIOR APPROVAL FROM THE ENGINEER. ALL INGRESS AND EGRESS TO THE WORK AREA BY THE CONTRACTOR AND/OR PERMITEE SHALL BE PERFORMED WITH THE FLOW OF TRAFFIC.

▲ LEFT HAND TURN LANE TO STACK 2 CAR BASED UPON 20 PEAK LEFT HAND TURNING MOVEMENT PER HOUR. ( 20/hr x 1/60min. = 1/0.75 = 1 CAR) 1 CAR STACKING REQUIRED 2 CARS STACKING PROVIDED SEE LEE CUNNINGHAM & ASSOCIATES REPORT.



**TEMPORARY TRAFFIC CONTROL PLAN**  
NOT TO SCALE

NOTE: FLAGGER SHALL NEVER BE STATIONED MORE THAN 1000' AWAY FROM THE ADVANCE FLAGGER SIGN.

IMPORTANT: THIS DRAWING SHALL BE USED IN COMBINATION WITH THE GENERAL NOTES AT THE BEGINNING OF STANDARDS NO. MD. 104.00

- KEY**
- SIGN
  - CHANNELIZING DEVICES
  - DIRECTION OF TRAFFIC
  - FLAGGER
  - WORK SITE

REMOVED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S.D.A. - NATURAL RESOURCES CONSERVATION SERVICE DATE

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

DISTRICT HOWARD SOIL CONSERVATION DIST. DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Paule* 5-1-01  
CHIEF, BUREAU OF HIGHWAYS DATE

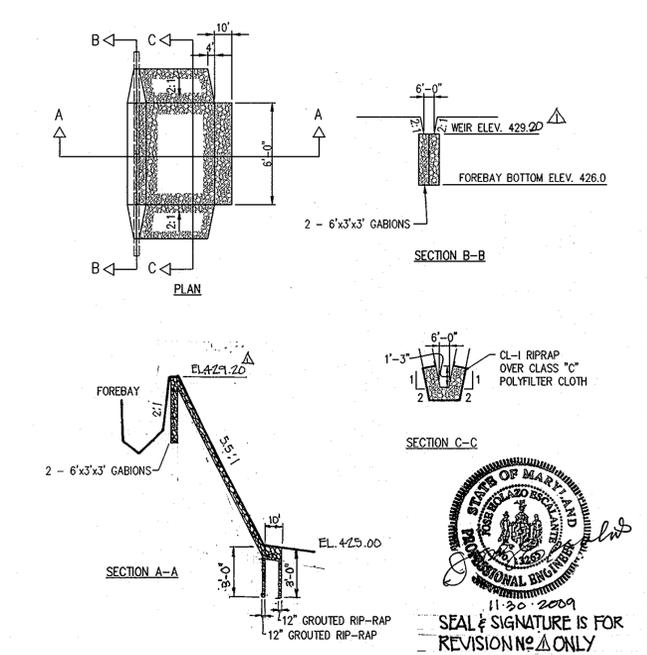
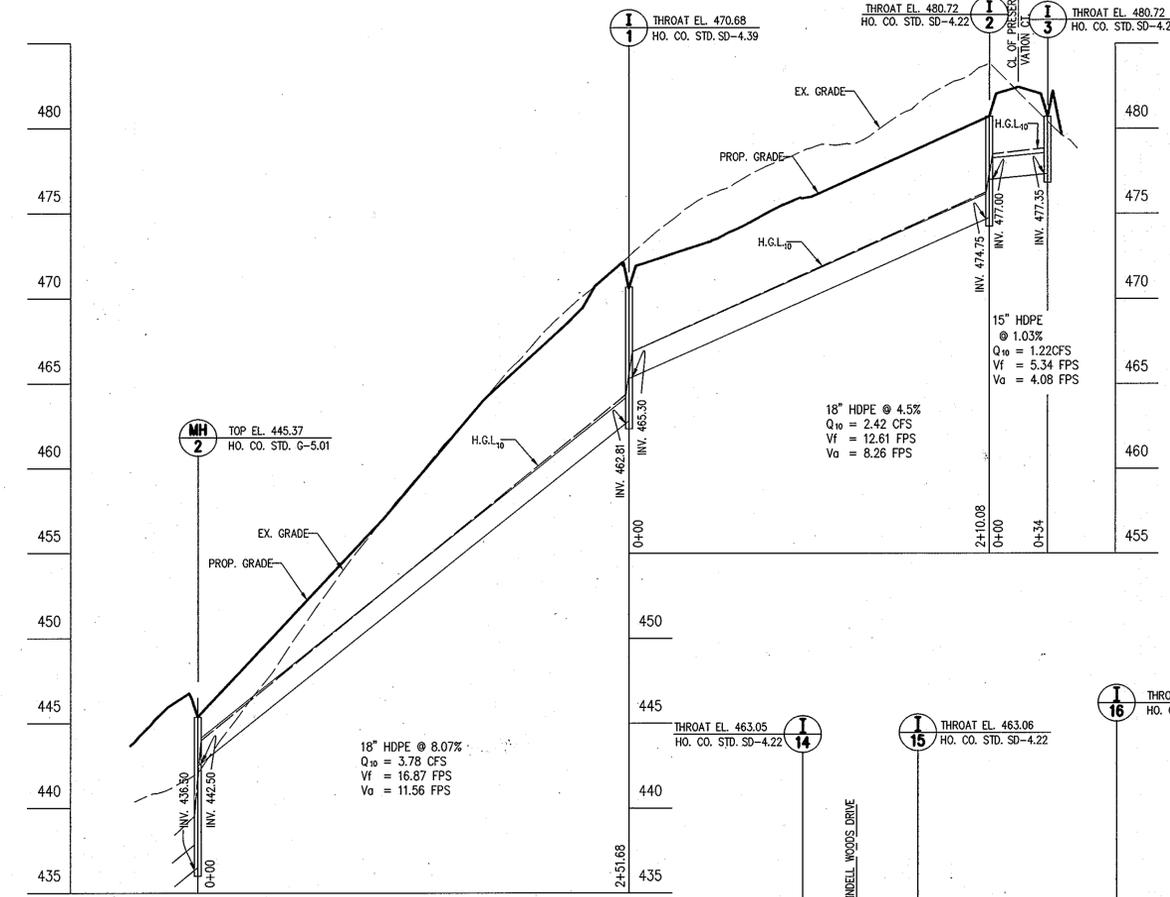
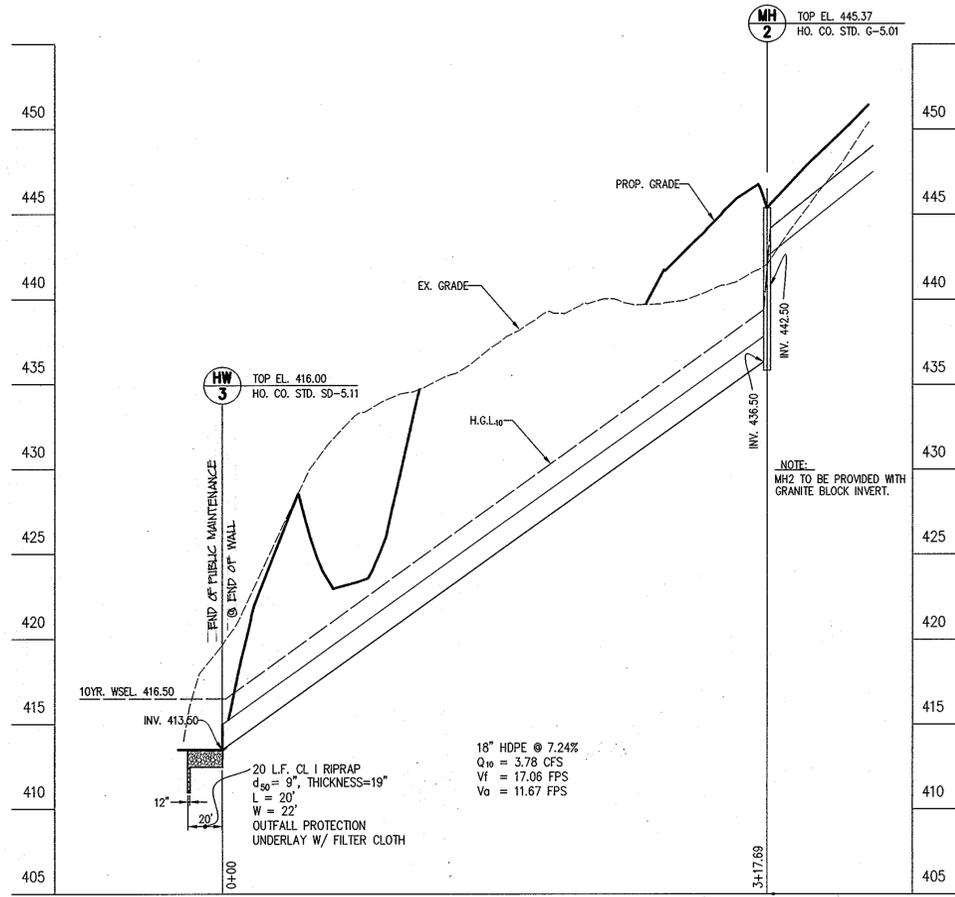
APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Condy Hamrick* 5/16/01  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Lee Cunningham* 5/11/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

NO.	DATE	REVISIONS
A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274		
PROJECT NAME <b>PINDELL WOODS</b>		
LOTS 1 THRU 47 AND PRESERVATION PARCELS A THRU F 5th ELECTION DISTRICT TAX MAP # 41, GRID 2, 3, 8 AND 9 PARCEL 275 (LOT 1), PARCEL 484 (LOT 1) AND PARCEL 274 HOWARD COUNTY, MARYLAND.		
TITLE <b>PINDELL SCHOOL ROAD TRAFFIC CONTROL AND STRIPING PLAN</b>		OWNERS: <b>CLARENCE AND MARTHA CARVELL</b> 706 PINDELL SCHOOL ROAD FULTON, MD. 20759 H Y REAL ESTATE JOINT VENTURE 1921 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852 MARSHALL P. TULIN 1921 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852
PREPARED BY: <b>AMERICAN LAND DEVELOPMENT AND ENGINEERING INC.</b>		DEVELOPER: <b>MOUNT VIEW, LLC.</b> 6258 CARDINAL LA. COLUMBIA, MD. 21044
DES.: JL/DCW/AVG	JOB :	SCALE :
DRW.: AVG/DTA/INC	PROJ. :	AS SHOWN
CHK.: D.C.W.	DATE: 03/04/01	SHEET 12 OF 37

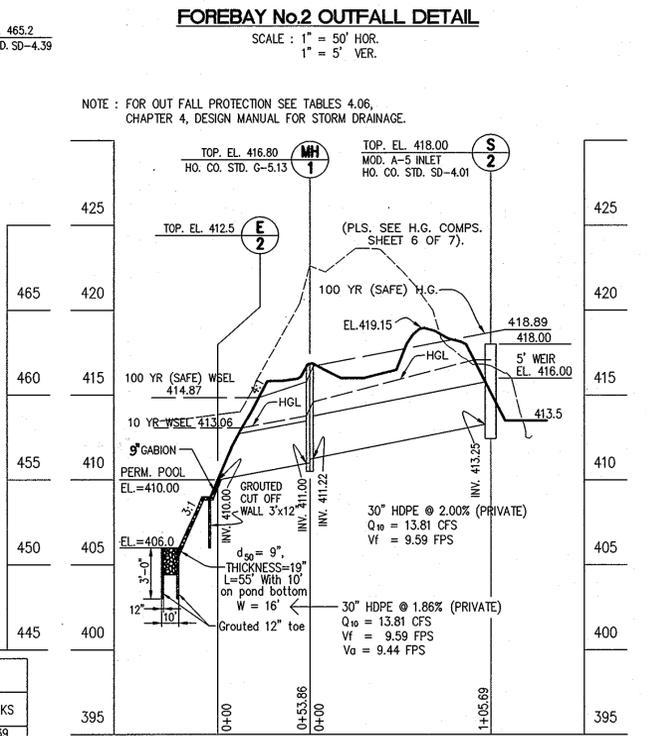
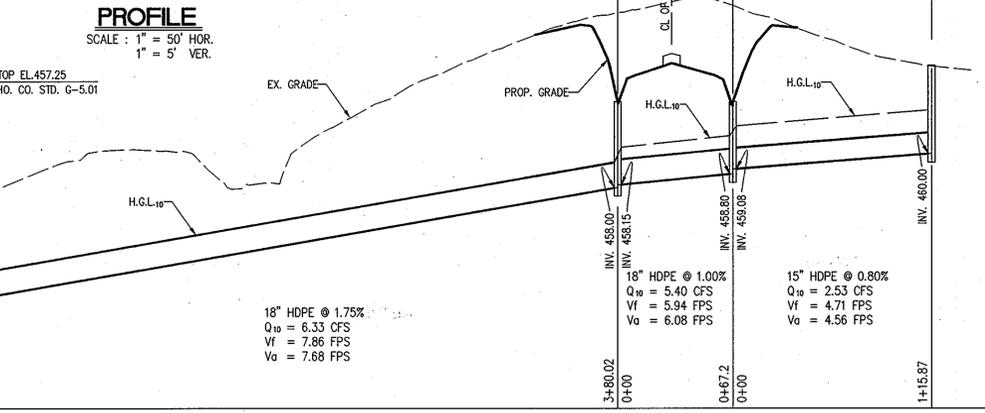
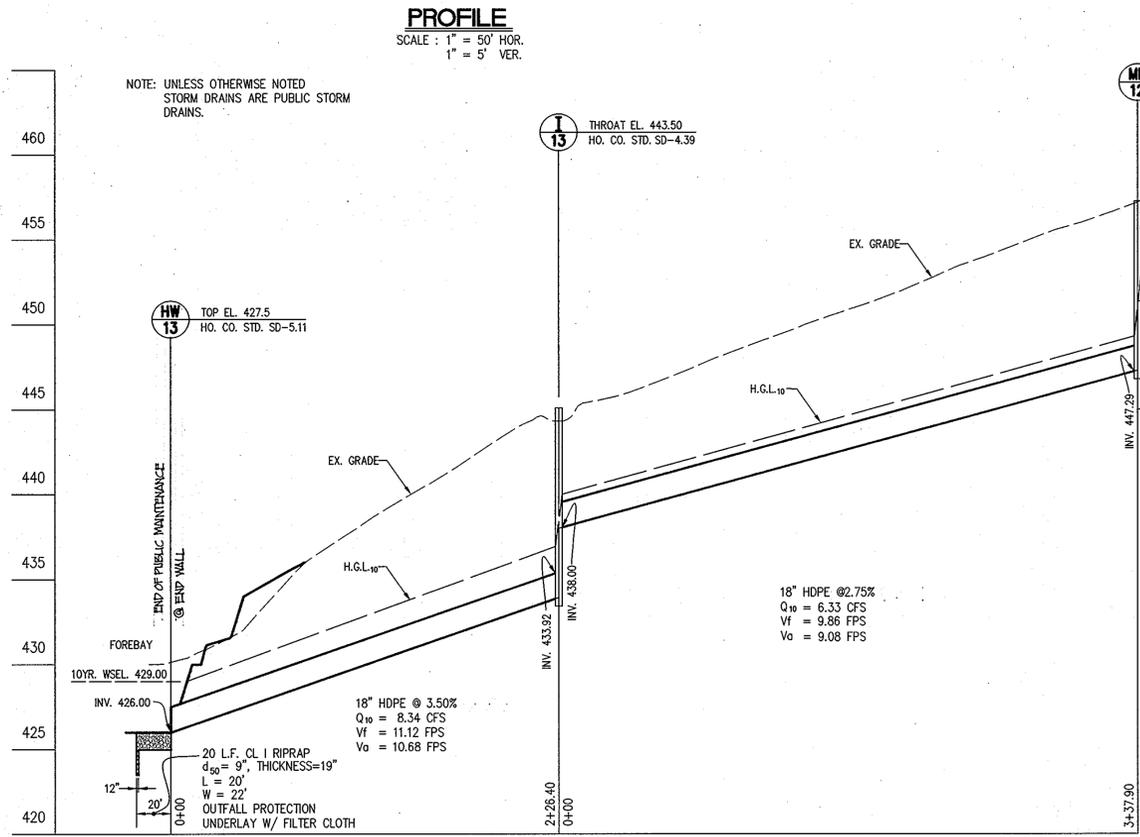






SEAL & SIGNATURE IS FOR REVISION NO. 2 ONLY

11.30.2009



STRUCTURE NO.	TOP ELEVATION	INV. IN	INV. OUT	ROAD NAME	ROAD STA.	OFFSET	TYPE	REMARKS
I-1	471.93	470.68	465.30	PRESERVATION CT.	N549390.3536, E1335372.3733	-	TYPE 'D' INLET	S.D. 4.39
I-2	481.97	480.72	477.00	PRESERVATION CT.	144-82.87	17' L	TYPE 'S' INLET	S.D. 4.22
I-3	481.97	480.72	477.35	PRESERVATION CT.	144-82.87	17' R	TYPE 'S' INLET	S.D. 4.22
I-4	456.99	455.74	452.50	MEANDERING STREAM WAY	N549749.5897, E1336167.8788	-	TYPE 'D' INLET	S.D. 4.39
I-5	477.01	475.76	471.50	MEANDERING STREAM WAY	3+00.35	17' L	TYPE 'S' INLET	S.D. 4.22
I-6	477.01	475.76	472.50	MEANDERING STREAM WAY	3+00.35	17' R	TYPE 'S' INLET	S.D. 4.22
I-7	488.88	487.63	483.65	PRESERVATION CT.	4+89.91	24.59' L	TYPE 'D' INLET	S.D. 4.39
I-8	488.88	487.63	484.14	PRESERVATION CT.	4+89.91	24.43' R	TYPE 'D' INLET	S.D. 4.39
I-10	435.39	434.14	431.64	MIRROR POND CT.	N549196.8618, E1337006.5344	-	TYPE 'D' INLET	S.D. 4.39
I-11	451.10	449.85	446.75	MIRROR POND CT.	5+84.78	17' L	TYPE 'S' INLET	S.D. 4.22
I-12	451.10	449.85	447.09	MIRROR POND CT.	5+84.78	17' R	TYPE 'S' INLET	S.D. 4.22
I-13	444.75	443.50	438.00	PINDELL SCHOOL RD	0+51.25	31.3' R	TYPE 'D' INLET	S.D. 4.39
I-14	464.30	463.05	458.15	PINDELL WOODS DRIVE	0+56.17	35.7' L	TYPE 'S' INLET	S.D. 4.22
I-15	464.30	463.05	458.80	PINDELL WOODS DRIVE	0+56.17	35.7' L	TYPE 'S' INLET	S.D. 4.22
I-16	466.25	465.00	460.00	PINDELL SCHOOL RD	N548463.9105, E1336512.4269	-	TYPE 'D' INLET	S.D. 4.39
MH 1	416.80	411.22	411.00	-	N549854.3736, E1335503.2397	-	STD. MANHOLE	G-5.13
MH 2	445.37	442.50	436.50	-	N549842.0291, E1335371.9030	-	STD. MANHOLE	G-5.01
MH 3	449.0	443.85	439.50	-	N549705.2575, E1335825.9105	-	STD. MANHOLE	G-5.01
MH 4	457.76	452.03	451.30	MEANDERING STREAM WAY	N549705.8590, E1336160.0211	-	STD. MANHOLE	G-5.01
MH 5	474.01	465.00	464.10	MEANDERING STREAM WAY	4+89.97	8.74' L	STD. MANHOLE	G-5.01
MH 6	481.25	478.07	476.90	MEANDERING STREAM WAY	1+04.68	12.36' R	STD. MANHOLE	G-5.01
MH 7	489.92	481.22	481.00	PRESERVATION CT.	1+85.18	10.78' L	STD. MANHOLE	G-5.01
MH 11	436.40	431.27	431.00	MIRROR POND CT.	N549231.8343, E1336993.6260	-	STD. MANHOLE	G-5.01
MH 12	457.25	451.35	447.29	PINDELL SCHOOL RD	N548853.9845, E1336914.3151	-	STD. MANHOLE	G-5.01
HW 1	-	-	401.28	-	N500073.0765, E1335481.0905	-	TYPE 'A' HEADWALL	S.D.-5.11
E 2	-	-	410.00	-	N549894.6774, E1335467.5115	-	END SECTION	S.D.-5.11
HW 3	-	-	413.50	-	N549850.3677, E1335610.3720	-	TYPE 'A' HEADWALL	S.D.-5.11
HW 4	-	-	414.00	-	N549857.3446, E1335640.5734	-	TYPE 'A' HEADWALL	S.D.-5.11
E 11	-	-	416.65	-	N549429.8199, E1337189.1670	-	END SECTION	S.D.-5.11
HW 13	-	-	426.00	-	N549286.9210, E1337057.0345	-	TYPE 'A' HEADWALL	S.D.-5.11
HW 14	-	-	426.00	-	N549272.8086, E1337045.1473	-	TYPE 'A' HEADWALL	S.D.-5.11
S-1	-	-	426.38	-	N550023.1877, E1335424.7685	-	SEE DETAIL SHT. 15/36	G-5.01
S-2	-	-	413.50	-	N549880.3731, E1335614.3174	-	MOD. TYPE A-5 INLET	S.D.-4.01
S-11	-	-	417.86	-	N549352.9825, E1337157.7292	-	SEE DETAIL SHT. 16/36	G-5.01

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 CHIEF, BUREAU OF HIGHWAYS  
 DATE: 5/1/01

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 5/1/01

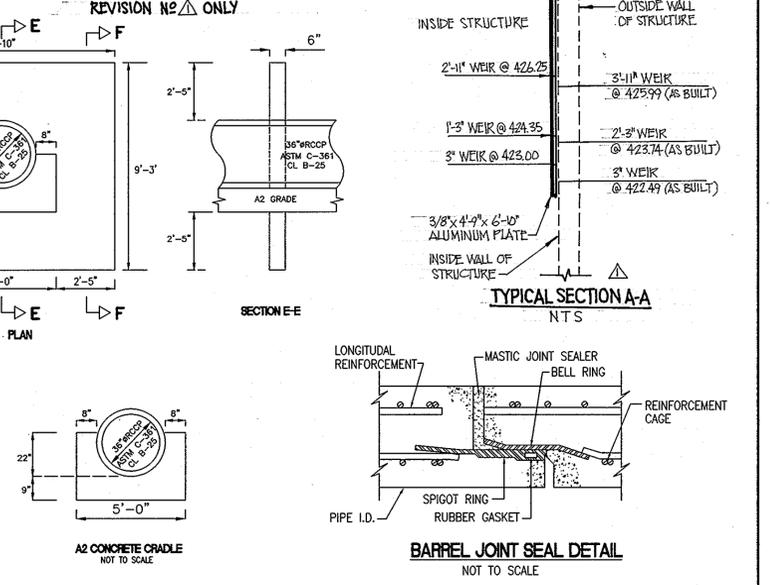
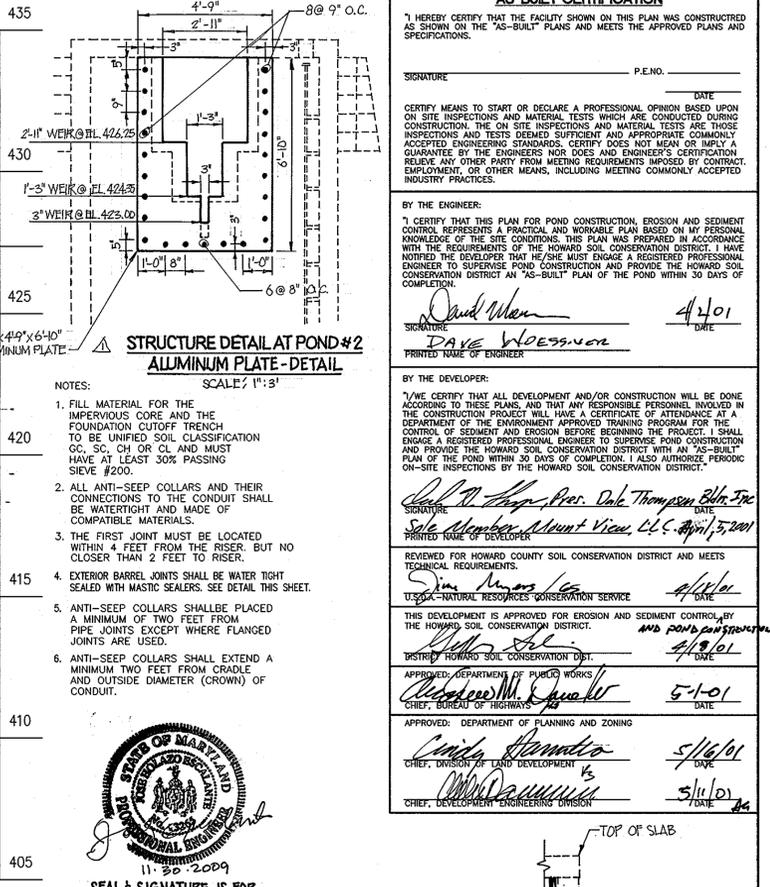
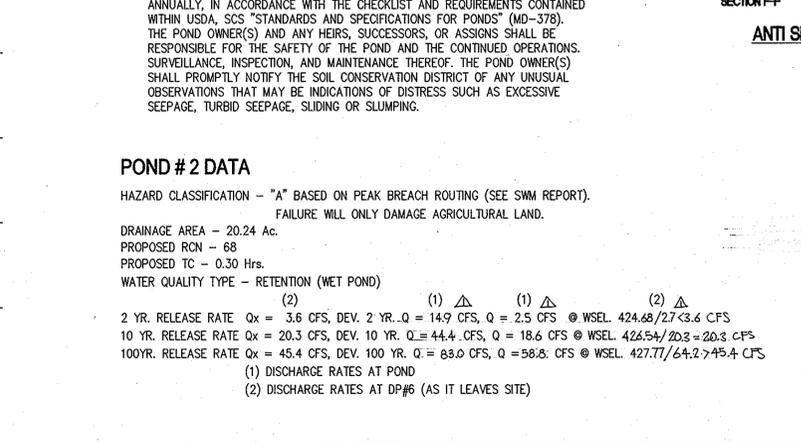
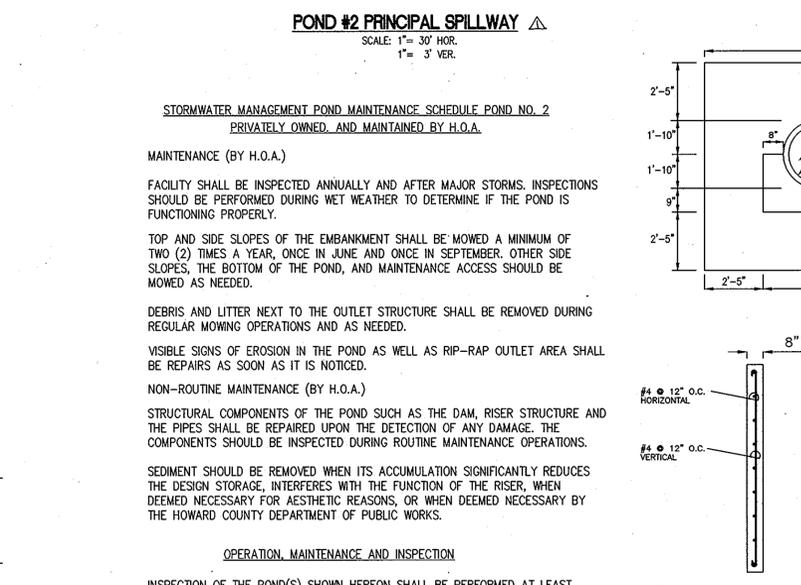
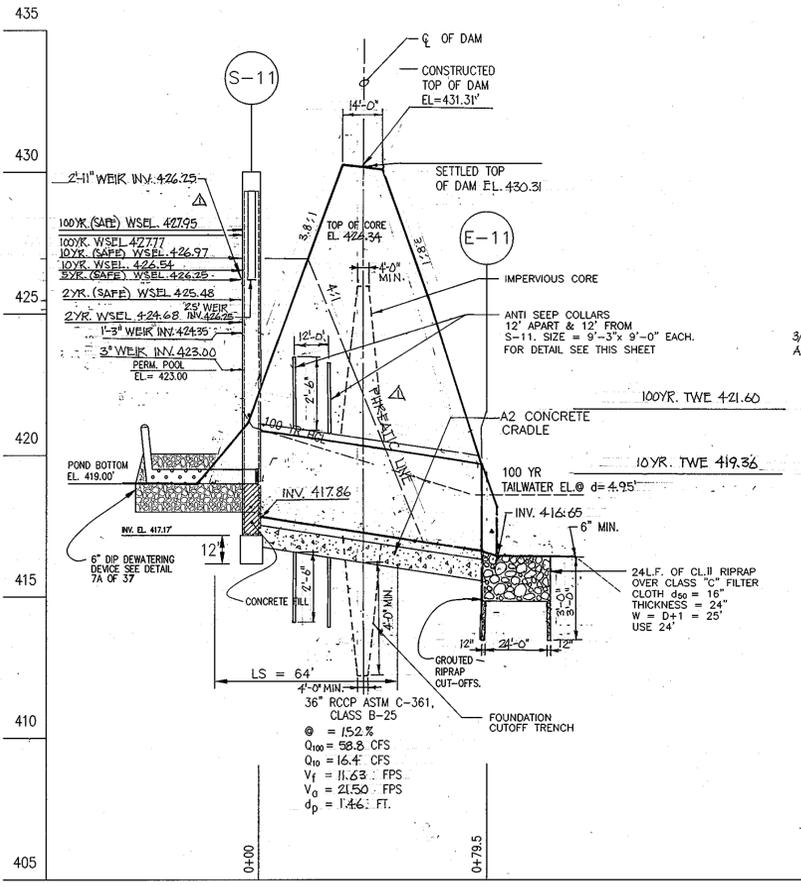
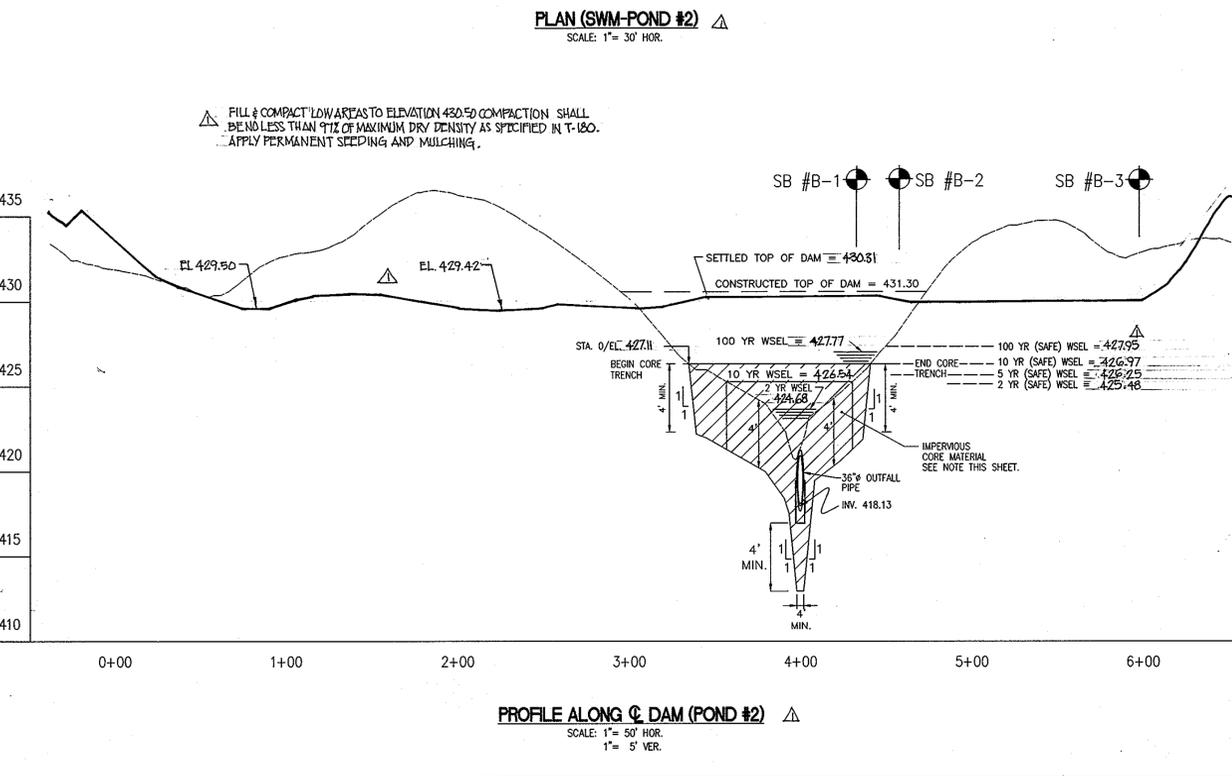
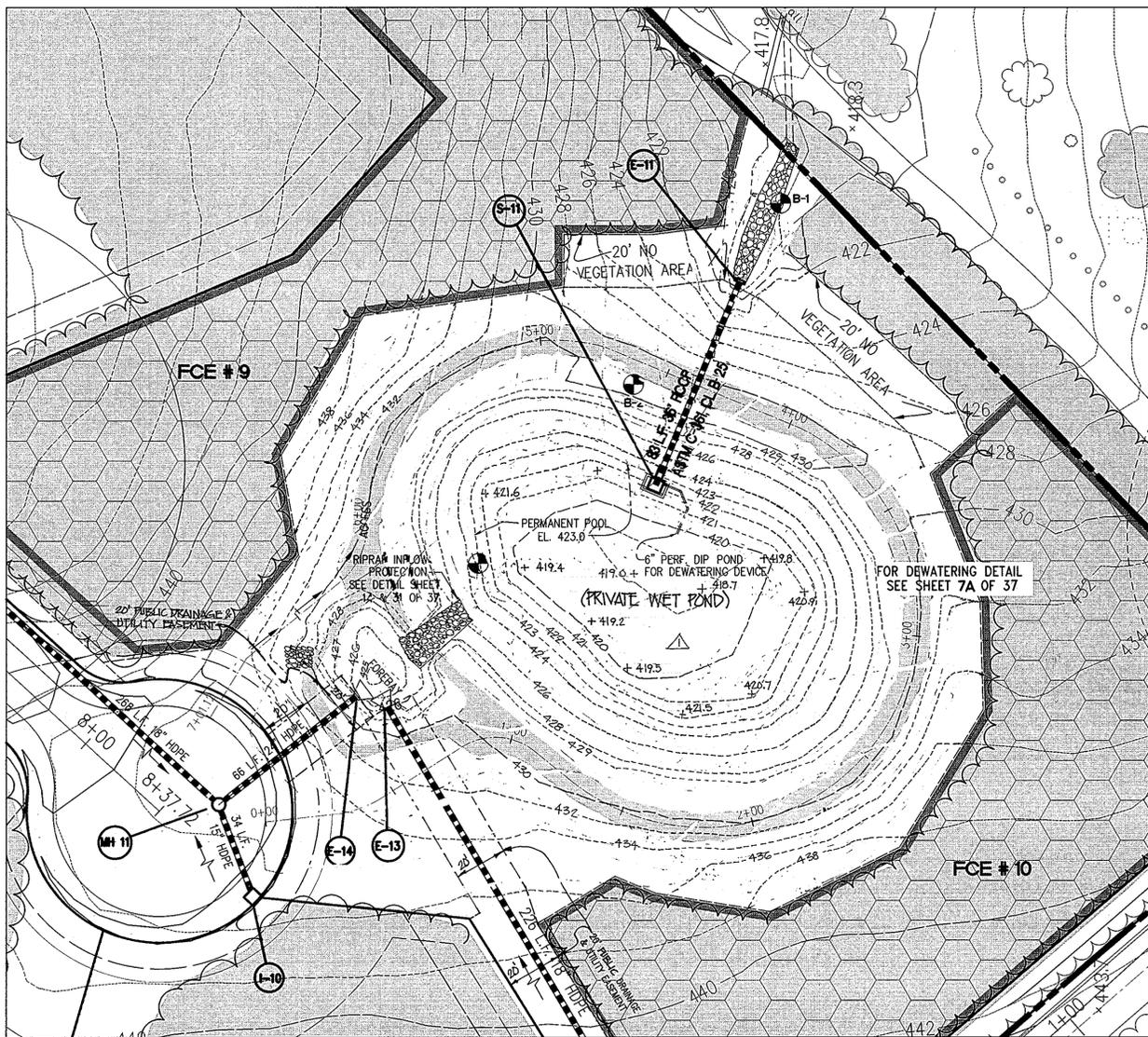
APPROVED: CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 5/1/01



NOTE: 1. FOR PIPE SCHEDULE SEE SHEET 11 OF 97.  
 2. EXISTING GROUND BASED ON JUNE 1, 2000 SURVEY BY VOGEL AND ASSOCIATES.

NO.	DATE	REVISIONS
1	11-30-09	REVISE INV. OUT FOR STRUCTURE HW-1, E-1, S-1 & S-11 REVISE RIPRAP OUTFALL, FOREBAY NO. 2 BASED ON SURVEY DATA
A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274		
PROJECT NAME: <b>PINDELL WOODS</b>		
TITLES: <b>STORM DRAIN PROFILES</b>		
PREPARED BY: AMERICAN LAND DEVELOPMENT AND ENGINEERING INC. 10749 BIRMINGHAM WAY WOODSTOCK, MD 21183 TEL: (410) 466-7908 FAX: (410) 466-5846		
OWNERS: CLARENCE AND MARTHA CARVELL 7106 PINDELL SCHOOL ROAD FULTON, MD. 20759 H Y REAL ESTATE JOINT VENTURE 1821 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852 MARSHALL P. TULIN 1821 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852 DEVELOPER: MOUNT VENTURE L.L.C. 6258 CARDINAL LA. COLUMBIA, MD. 21044		
DES.: J.L./DCW/AVG	JOB:	SCALE: AS SHOWN
DRW.: AVG/DTA/JNC	PROJ.:	SHEET 14 OF 37
CHK.: D.C.W.	DATE: 03/04/01	





NO.	DATE	REVISIONS
1	11-30-09	ADD NOTE TO FILL & COMPACT LOW AREAS IN POND PROFILE
2	11-30-09	SHOW AS BUILT CONGR. FOR POND #2 PLAN & PROFILE WSEL, ELEV. WEIR INV. POND 2 DATA & DETAIL OF ALUMIN. PLATE ONK AT POND #2 CONTROL STRUCT. PRV. SPILLWAY
A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274		
PROJECT NAME <b>PINDELL WOODS</b>		
LOTS 1 THRU 47 AND PRESERVATION PARCELS A THRU F 5TH ELECTION DISTRICT TAX MAP #41, GRID 2, 3, 8 AND 9 PARCEL 275 (LOT 1), PARCEL 484 (LOT 1) AND PARCEL 274 HOWARD COUNTY, MARYLAND.		
TITLE	OWNERS :	CLARENCE AND MARTHA CARWELL 7106 PINDELL SCHOOL ROAD FULTON, MD. 20759
<b>STORMWATER MANAGEMENT PLAN AND DETAILS - POND #2</b>		H Y REAL ESTATE JOINT VENTURE 1821 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852
PREPARED BY :		MARSHALL P. TULIN 1821 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852
AMERICAN LAND DEVELOPMENT AND ENGINEERING INC.		DEVELOPER : MOUNT VERN, LLC 6258 CARDINAL LA. COLUMBIA, MD. 21044
DES. : JL/DCW/AVG	JOB :	
DRW. : AVG/DTA/JNC	PROJ. :	SCALE : 1" = 50'
CHK. : D.C.W.	DATE : 03/04/01	SHEET 16 OF 37

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

BY THE 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 COUNTY DEPARTMENT OF PUBLIC WORKS. I HAVE NOTICED THE DEVELOPER HAS MET THE REQUIREMENTS OF A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD COUNTY DEPARTMENT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD COUNTY DEPARTMENT.

DAVE WESSNER  
DATE: 4/2/01

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 COUNTY DEPARTMENT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD COUNTY DEPARTMENT.

DAVE WESSNER  
DATE: 4/2/01

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

DATE: 4/2/01

U.S.D.A. - NATURAL RESOURCES CONSERVATION SERVICE

THIS DESIGN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY DEPARTMENT.

DATE: 4/2/01

DISTRICT SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS

DATE: 5-1-01

APPROVED: DEPARTMENT OF PLANNING AND ZONING

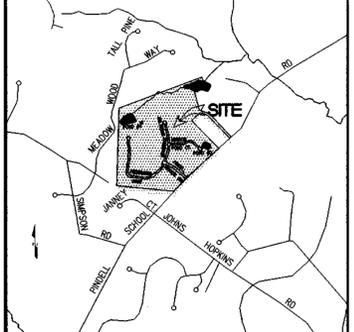
DATE: 5/16/01

DATE: 5/11/01

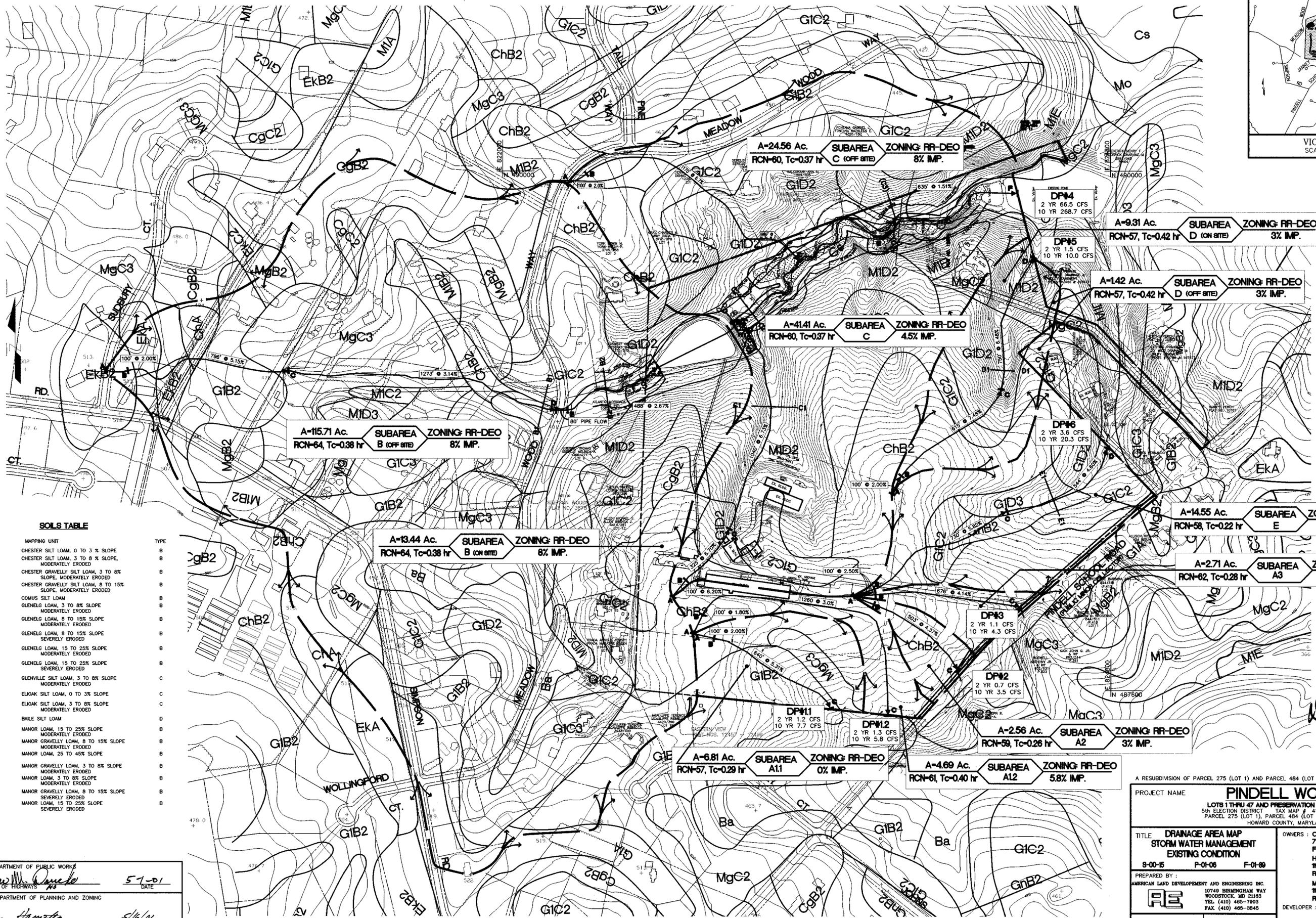


F-01-89





VICINITY MAP  
SCALE: 1" = 2000'



**SOILS TABLE**

SYMBOL	MAPPING UNIT	TYPE
CHA	CHESTER SILT LOAM, 0 TO 3% SLOPE	B
ChB2	CHESTER SILT LOAM, 3 TO 8% SLOPE, MODERATELY ERODED	B
CgB2	CHESTER GRAVELLY SILT LOAM, 3 TO 8% SLOPE, MODERATELY ERODED	B
CgC2	CHESTER GRAVELLY SILT LOAM, 8 TO 15% SLOPE, MODERATELY ERODED	B
Cs	COMUS SILT LOAM	B
GIB2	GLENELG LOAM, 3 TO 8% SLOPE MODERATELY ERODED	B
GIC2	GLENELG LOAM, 8 TO 15% SLOPE MODERATELY ERODED	B
GIC3	GLENELG LOAM, 8 TO 15% SLOPE SEVERELY ERODED	B
GID2	GLENELG LOAM, 15 TO 25% SLOPE MODERATELY ERODED	B
GID3	GLENELG LOAM, 15 TO 25% SLOPE SEVERELY ERODED	B
GnB2	GLENVILLE SILT LOAM, 3 TO 8% SLOPE MODERATELY ERODED	C
EKA	ELIOAK SILT LOAM, 0 TO 3% SLOPE	C
EKB2	ELIOAK SILT LOAM, 3 TO 8% SLOPE MODERATELY ERODED	C
Ba	BALE SILT LOAM	D
MID2	MANOR LOAM, 15 TO 25% SLOPE MODERATELY ERODED	B
MgC2	MANOR GRAVELLY LOAM, 8 TO 15% SLOPE MODERATELY ERODED	B
ME	MANOR LOAM, 25 TO 45% SLOPE	B
MgB2	MANOR GRAVELLY LOAM, 3 TO 8% SLOPE MODERATELY ERODED	B
MB2	MANOR LOAM, 3 TO 8% SLOPE MODERATELY ERODED	B
MgC3	MANOR GRAVELLY LOAM, 8 TO 15% SLOPE SEVERELY ERODED	B
MID3	MANOR LOAM, 15 TO 25% SLOPE SEVERELY ERODED	B

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daniels* 5/1/01 DATE  
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Andy Hamilton* 5/16/01 DATE  
 CHIEF, DIVISION OF LAND DEVELOPMENT

*Michael J. ...* 5/16/01 DATE  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

PLAN  
SCALE: 1" = 200'



A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274

**PROJECT NAME**  
**PINDELL WOODS**  
 LOTS 1 THRU 47 AND PRESERVATION PARCELS A THRU F  
 5th ELECTION DISTRICT TAX MAP 41, GRID 2, 3, 8 AND 9  
 PARCEL 275 (LOT 1), PARCEL 484 (LOT 1) AND PARCEL 274  
 HOWARD COUNTY, MARYLAND

**TITLE**  
 DRAINAGE AREA MAP  
 STORM WATER MANAGEMENT  
 EXISTING CONDITION  
 8-00-15 P-01-06 F-01-89

**OWNERS:** CLARENCE AND MARTHA CARVELL  
 706 PINDELL SCHOOL ROAD  
 FULTON, MD. 20759  
 H Y REAL ESTATE JOINT VENTURE  
 1921 ROCKVILLE PIKE, SUITE 300  
 ROCKVILLE, MD. 20852

**DEVELOPER:** MOUNT VIEW, LLC  
 6258 CARDINAL LA.  
 COLUMBIA, MD. 21044

**PREPARED BY:**  
 AMERICAN LAND DEVELOPMENT AND ENGINEERING INC.  
 10749 BIRMINGHAM WAY  
 WOODSTOCK, MD 21169  
 TEL: (410) 485-7903  
 FAX: (410) 485-8845

**DES.:** JL/DCW/AVG **JOB:**  
**DRW.:** AVG/DTA/JNC **PROJ.:**  
**CHK.:** D.C.W. **DATE:** 03/04/01

**SCALE:** 1" = 200' **SHEET 18 OF 37**

H:\p10611\FINAL\PLAN\SNDM1.dwg Mod Apr 04 17:52:20 2001

FOR OFF SITE SUBAREA B  
 DATA INCLUDING FLOW  
 PATH, SEE 200' SCALE DAM.

FOR OFF SITE SUBAREA C  
 DATA INCLUDING FLOW  
 PATH, SEE 200' SCALE DAM.

EASTERN VIEW  
 PLAT NOS. 12455 - 12458

SIMPSON WOODS, SECTION 3  
 PLAT NOS. 4563 - 4564

A-6.81 Ac. SUBAREA A1.1  
 RCN-57, Tc-0.29 hr  
 ZONING: RR-DEO  
 0% IMP.

A-13.44 Ac. SUBAREA E (ON SITE)  
 RCN-64, Tc-0.38 hr  
 ZONING: RR-DES  
 0% IMP.

A-41.41 Ac. SUBAREA C  
 RCN-60, Tc-0.37 hr  
 ZONING: RR-DEO  
 6% IMP.

A-4.69 Ac. SUBAREA A1.2  
 RCN-61, Tc-0.40 hr  
 ZONING: RR-DEO  
 5.8% IMP.

A-2.56 Ac. SUBAREA A2  
 RCN-59, Tc-0.26 hr  
 ZONING: RR-DEO  
 3% IMP.

- LEGEND:**
- SOILS MAPPING UNIT
  - EXISTING CONTOURS
  - PROPERTY LINE
  - EXISTING TREELINE
  - TREE LINE TO REMAIN
  - 100-YR FLOODPLAIN
  - 75' STREAM BUFFER
  - 25' WETLAND BUFFER
  - WETLAND
  - EXISTING INDIVIDUAL SEPTIC AREA
  - EX. WELL LOCATION
  - 25% OR GREATER SLOPE
  - 15%-24.9% SLOPE

JANNEY JOSEPH C.  
 BACKUS HENRY C.  
 LOT 12  
 ZONE R-R

HITCHCOCK JOSEPH  
 MITCHELL SHIRLEY A.  
 SUBP 231  
 LOT 14  
 ZONE R-R

BALDZAK STEPHEN J.  
 BALDZAK ANN M.  
 1004/508  
 LOT 7  
 ZONE R-R

FONTANA GABRIEL J.  
 FONTANA KATHLEEN E.  
 4325/182  
 LOT 8  
 ZONE R-R

**OPERATION, MAINTENANCE, AND INSPECTION**

Inspection of the pond shown hereon shall be performed at least annually, in accordance with the checklist and requirements contained within USDA, SCS Standards and Specifications For Ponds (MD378). The pond owner(s) and their heirs, successors, or assigns shall be responsible for the safety of the pond and the continued operation, surveillance, inspection, and maintenance thereof. The pond owner(s) shall promptly notify the Soil Conservation District of any unusual observations that may be indications of distress such as excessive seepage, turbid seepage, sliding or slumping.

Operation and Maintenance Schedule of Privately Owned and Maintained Stormwater Management Facility Wet Pond

Top and side slopes of the embankment shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes and maintenance access should be mowed as needed.

Debris and litter next to the outlet structure shall be removed during regular mowing operations and as needed.

When deemed necessary for aesthetic reasons, sediment should be removed from the pond. Approval of the Department of Public Works is required.

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daniels* 5-1-01  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Andy Hladik* 5/1/01  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Michael J. ...* 5/1/01  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**PLAN**  
 SCALE: 1" = 100'



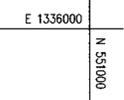
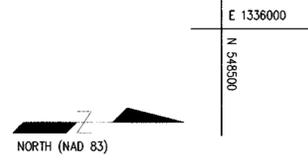
A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274	
PROJECT NAME <b>PINDELL WOODS</b>	
TITLES 1 THRU 47 AND PRESERVATION PARCELS A THRU F 5th ELECTION DISTRICT TAX MAP # 41, GRID 2, 3, 8 AND 9 PARCEL 275 (LOT 1), PARCEL 484 (LOT 1) AND PARCEL 274 HOWARD COUNTY, MARYLAND.	
TITLE <b>STORM WATER MANAGEMENT DRAINAGE AREA MAP EXISTING CONDITION</b> 8-00-05 P-01-06 F-01-89	OWNERS: CLARENCE AND MARTHA CARVELL 7106 PINDELL SCHOOL ROAD FULTON, MD. 20759 H Y REAL ESTATE JOINT VENTURE 1921 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852 MARSHALL P. TULIN 1921 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852 DEVELOPER: MOUNT VIEW, L.L.C. 6258 CARDINAL LA. COLUMBIA, MD. 21044
DES.: JL/DCW/AVG	JOB: 8-00-05 P-01-06 F-01-89
DRW.: AVC/DTA/INC	PROJ.:
CHK.: D.C.W.	DATE: 03/04/01
SCALE: 1" = 100'	SHEET 19 OF 37

BALCERZAK STEPHEN J.  
BALCERZAK ANN M.  
1004/508  
LOT 7  
ZONE R-R

FONTANA GABRIEL J.  
FONTANA KATHLEEN E.  
4325/182  
LOT 8  
ZONE R-R

COONTS STEPHEN P.  
COONTS DEBORAH B.  
3761/713  
ZONE R-R

FREDERICK HENRY F.  
FREDERICK CHARLINE M.  
2981/045  
P.464  
ZONE R-R



A=2.71 Ac. SUBAREA A3 ZONING RR-DEO 10% IMP.  
RCN-62, Tc=0.28 hr

A=41.41 Ac. SUBAREA C ZONING RR-DEO 6% IMP.  
RCN-60, Tc=0.37 hr

A=14.55 Ac. SUBAREA E ZONING RR-DEO 2% IMP.  
RCN-58, Tc=0.22 hr

A=1.42 Ac. SUBAREA D (OFF SITE) ZONING RR-DEO 3% IMP.  
RCN-57, Tc=0.42 hr

A=9.31 Ac. SUBAREA D (ON SITE) ZONING RR-DEO 3% IMP.  
RCN-57, Tc=0.42 hr

FOR OFF SITE SUBAREA C DATA INCLUDING FLOW PATH. SEE 200' SCALE DAM.

**OPERATION, MAINTENANCE, AND INSPECTION**  
Inspection of the pond shown herein shall be performed at least annually, in accordance with the checklist and requirements contained within USDA, SCS Standards and Specifications For Ponds (MD378). The pond owner(s) and their heirs, successors, or assigns shall be responsible for the safety of the pond and the continued operation, surveillance, inspection, and maintenance thereof. The pond owner(s) shall promptly notify the Soil Conservation District of any unusual observations that may be indications of distress such as excessive seepage, turbid seepage, sliding or slumping.

- LEGEND:**
- SOILS MAPPING UNIT
  - EXISTING CONTOURS
  - PROPERTY LINE
  - EXISTING TREELINE
  - TREE LINE TO REMAIN
  - 100-YR FLOODPLAIN
  - 75' STREAM BUFFER
  - 25' WETLAND BUFFER
  - WETLAND
  - EXISTING INDIVIDUAL SEPTIC AREA
  - EX. WELL LOCATION
  - 25% OR GREATER SLOPE
  - 15%-24.9% SLOPE

Operation and Maintenance Schedule of Home Owners Association Owned and Maintained Stormwater Management Facility Wet Pond

Top and side slopes of the embankment shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes and maintenance access should be mowed as needed.

Debris and litter next to the outlet structure shall be removed during regular mowing operations and as needed.

When deemed necessary for aesthetic reasons, sediment should be removed from the pond. Approval of the Department of Public Works is required.

**PLAN**  
SCALE: 1" = 100'

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daniels* 5-1-01  
CHIEF, BUREAU OF HIGHWAYS

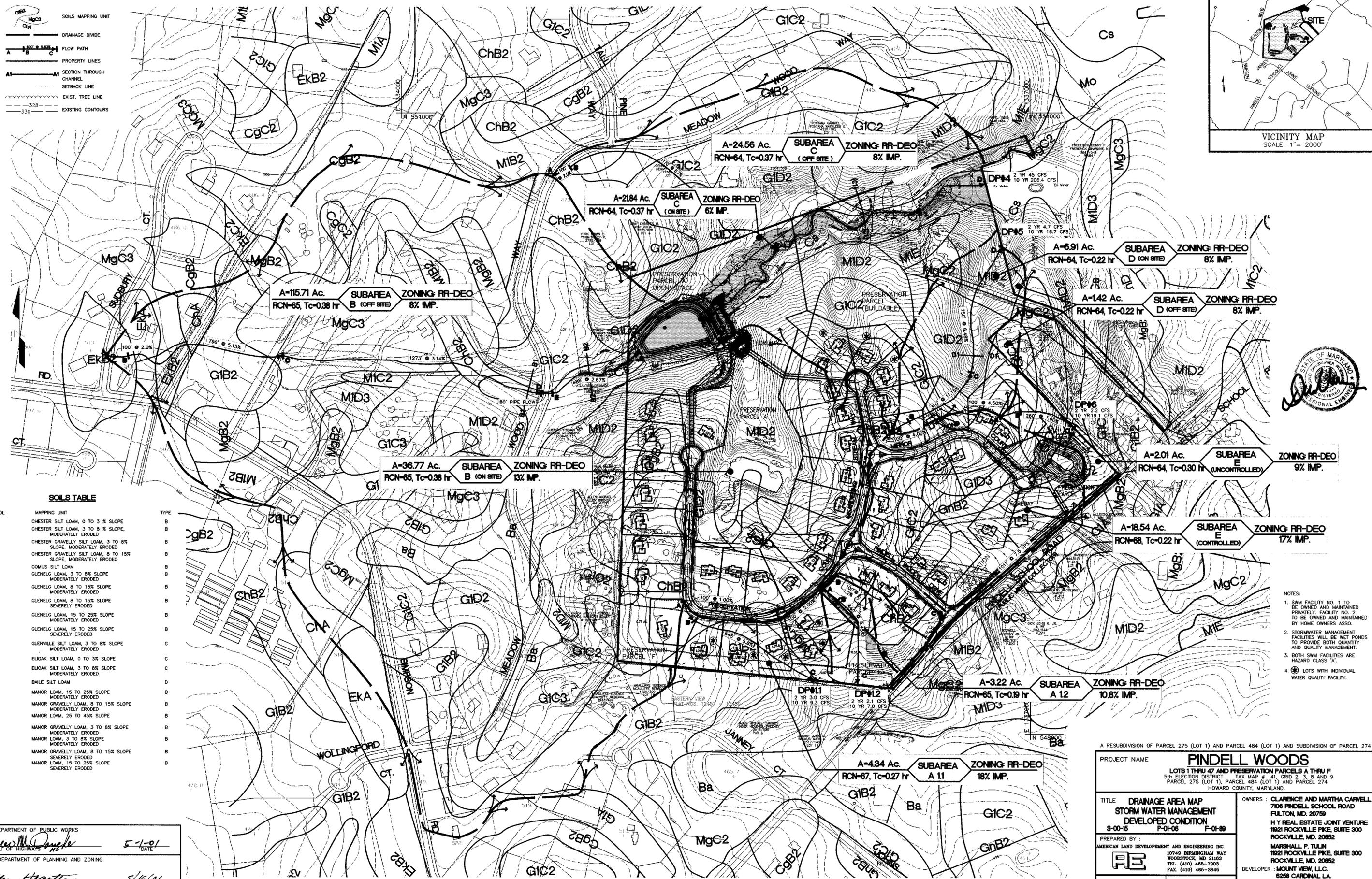
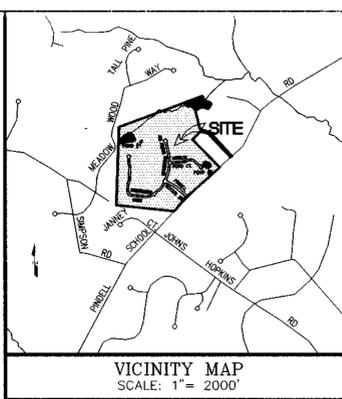
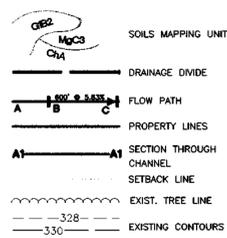
APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Gandy Hamilton* 5/1/01  
CHIEF, DIVISION OF LAND DEVELOPMENT

*William J. ...* 5/1/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

PROJECT NAME <b>PINDELL WOODS</b>		OWNERS: CLARENCE AND MARTHA CARVELL 7106 PINDELL SCHOOL ROAD FULTON, MD. 20759 H Y REAL ESTATE JOINT VENTURE 1921 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852 MARSHALL P. TULIN 1921 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852 DEVELOPER: MOUNT VIEW, LLC. 6258 CARDINAL LA. COLUMBIA, MD. 21044	
TITLE <b>STORM WATER MANAGEMENT DRAINAGE AREA MAP EXISTING CONDITION</b>		PREPARED BY: AMERICAN LAND DEVELOPMENT AND ENGINEERING INC. 10749 BIRMINGHAM WAY WOODSTOCK, MD 21163 TEL (410) 465-7993 FAX (410) 465-9845	
DES.: JL/DCW/AVG	JOB :	SCALE :	SHEET 20 OF 37
DRW.: AVG/DTA/JNC	PROJ. :	1" = 100'	
CHK.: D.C.W.	DATE: 03/04/01		

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**LEGEND**



**SOILS TABLE**

SYMBOL	MAPPING UNIT	TYPE
ChA	CHESTER SILT LOAM, 0 TO 3% SLOPE	B
ChB2	CHESTER SILT LOAM, 3 TO 8% SLOPE, MODERATELY ERODED	B
CgB2	CHESTER GRAVELLY SILT LOAM, 3 TO 8% SLOPE, MODERATELY ERODED	B
CgC2	CHESTER GRAVELLY SILT LOAM, 8 TO 15% SLOPE, MODERATELY ERODED	B
Cs	COMUS SILT LOAM	B
G1B2	GLENELG LOAM, 3 TO 8% SLOPE, MODERATELY ERODED	B
G1C2	GLENELG LOAM, 8 TO 15% SLOPE, MODERATELY ERODED	B
G1C3	GLENELG LOAM, 8 TO 15% SLOPE, SEVERELY ERODED	B
G1D2	GLENELG LOAM, 15 TO 25% SLOPE, MODERATELY ERODED	B
G1D3	GLENELG LOAM, 15 TO 25% SLOPE, SEVERELY ERODED	B
GnB2	GLENEVL SILT LOAM, 3 TO 8% SLOPE, MODERATELY ERODED	C
EKA	ELIOAK SILT LOAM, 0 TO 3% SLOPE	C
EKB2	ELIOAK SILT LOAM, 3 TO 8% SLOPE, MODERATELY ERODED	C
Bo	BAILE SILT LOAM	D
MID2	MANOR LOAM, 15 TO 25% SLOPE, MODERATELY ERODED	B
MgC2	MANOR GRAVELLY LOAM, 8 TO 15% SLOPE, MODERATELY ERODED	B
MIE	MANOR LOAM, 25 TO 45% SLOPE	B
MgB2	MANOR GRAVELLY LOAM, 3 TO 8% SLOPE, MODERATELY ERODED	B
MIB2	MANOR LOAM, 3 TO 8% SLOPE, MODERATELY ERODED	B
MgC3	MANOR GRAVELLY LOAM, 8 TO 15% SLOPE, SEVERELY ERODED	B
MID3	MANOR LOAM, 15 TO 25% SLOPE, SEVERELY ERODED	B



- NOTES:**
- SWM FACILITY NO. 1 TO BE OWNED AND MAINTAINED PRIVATELY. FACILITY NO. 2 TO BE OWNED AND MAINTAINED BY HOME OWNERS ASSO.
  - STORMWATER MANAGEMENT FACILITIES WILL BE WET PONDS TO PROVIDE BOTH QUANTITY AND QUALITY MANAGEMENT.
  - BOTH SWM FACILITIES ARE HAZARD CLASS A.
  - LOTS WITH INDIVIDUAL WATER QUALITY FACILITY.

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daniels*  
 CHIEF, BUREAU OF HIGHWAYS  
 DATE: 5-1-01

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cathy Hamilton*  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 5/16/01

*John P. ...*  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 5/16/01

A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274.

**PROJECT NAME: PINDELL WOODS**

LOTS 1 THRU 47 AND PRESERVATION PARCELS A THRU F  
 5th ELECTION DISTRICT TAX MAP # 41, GRID 2, 8 AND 9  
 PARCEL 275 (LOT 1), PARCEL 484 (LOT 1) AND PARCEL 274  
 HOWARD COUNTY, MARYLAND.

**TITLE: DRAINAGE AREA MAP**  
**STORM WATER MANAGEMENT**  
**DEVELOPED CONDITION**  
 9-00-05 P-01-06 F-01-09

**OWNERS:** CLARENCE AND MARTHA CARVELL  
 7106 PINDELL SCHOOL ROAD  
 FULTON, MD. 20759  
 H Y REAL ESTATE JOINT VENTURE  
 1821 ROCKVILLE PIKE, SUITE 300  
 ROCKVILLE, MD. 20852

**DEVELOPER:** MOUNT VIEW, L.L.C.  
 6258 CARDINAL LA.  
 COLUMBIA, MD. 21044

**DES.:** JL/DCW/AVG  
**DRW.:** AVG/DTA/JNC  
**CHK.:** D.C.W.

**PROJ.:**  
**DATE:** 03/04/01

**SCALE:** 1" = 200'

**SHEET 21 OF 37**

**PLAN**  
 SCALE: 1" = 200'

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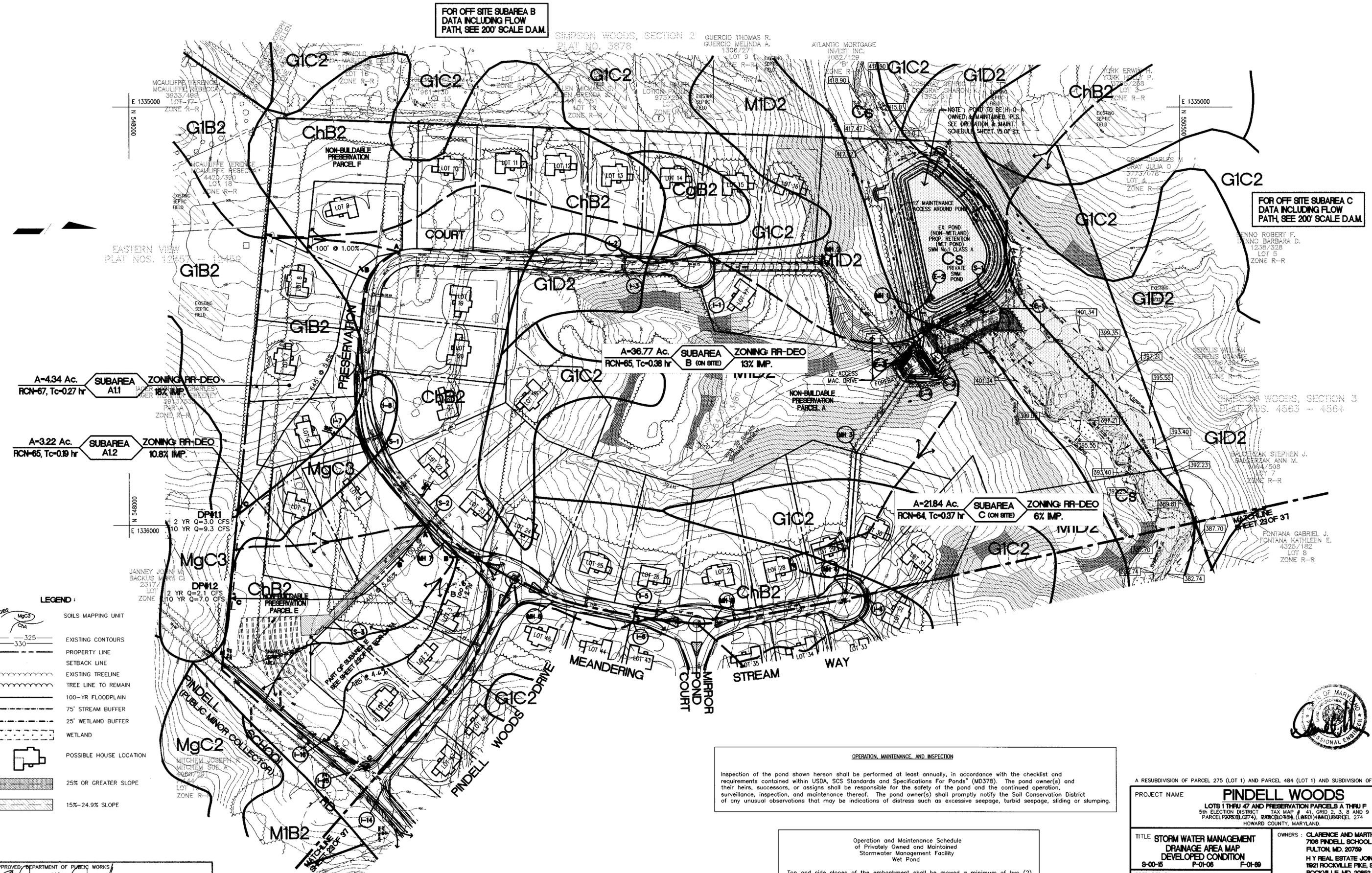
FOR OFF SITE SUBAREA B  
DATA INCLUDING FLOW  
PATH, SEE 200' SCALE DAM.

SIMPSON WOODS, SECTION 2  
PLAT NO. 3878

GUERCIO THOMAS R.  
GUERCIO MELINDA A.  
1306/271  
LOT 9  
ZONE R-R

ATLANTIC MORTGAGE  
INVEST. INC.  
1082/428  
7/12  
ZONE R-R

FOR OFF SITE SUBAREA C  
DATA INCLUDING FLOW  
PATH, SEE 200' SCALE DAM.



A=4.34 Ac. SUBAREA A11 ZONING: RR-DEO  
RCN-67, Tc=0.27 hr 18% IMP.

A=3.22 Ac. SUBAREA A12 ZONING: RR-DEO  
RCN-65, Tc=0.19 hr 10.8% IMP.

A=36.77 Ac. SUBAREA B (ON SITE) ZONING: RR-DEO  
RCN-65, Tc=0.38 hr 13% IMP.

A=2.184 Ac. SUBAREA C (ON SITE) ZONING: RR-DEO  
RCN-64, Tc=0.37 hr 6% IMP.

- LEGEND:**
- MgC3 SOILS MAPPING UNIT
  - 325 EXISTING CONTOURS
  - 330 PROPERTY LINE
  - SETBACK LINE
  - EXISTING TREELINE
  - TREE LINE TO REMAIN
  - 100-YR FLOODPLAIN
  - 75' STREAM BUFFER
  - 25' WETLAND BUFFER
  - WETLAND
  - POSSIBLE HOUSE LOCATION
  - 25% OR GREATER SLOPE
  - 15%-24.9% SLOPE

**OPERATION, MAINTENANCE, AND INSPECTION**

Inspection of the pond shown hereon shall be performed at least annually, in accordance with the checklist and requirements contained within USDA, SCS Standards and Specifications For Ponds\* (MD378). The pond owner(s) and their heirs, successors, or assigns shall be responsible for the safety of the pond and the continued operation, surveillance, inspection, and maintenance thereof. The pond owner(s) shall promptly notify the Soil Conservation District of any unusual observations that may be indications of distress such as excessive seepage, turbid seepage, sliding or slumping.

Operation and Maintenance Schedule of Privately Owned and Maintained Stormwater Management Facility Wet Pond

Top and side slopes of the embankment shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes and maintenance access should be mowed as needed.

Debris and litter next to the outlet structure shall be removed during regular mowing operations and as needed.

When deemed necessary for aesthetic reasons, sediment should be removed from the pond. Approval of the Department of Public Works is required.

**PLAN**  
SCALE: 1" = 100'

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daniels* 5-1-01  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Hamilton* 5/1/01  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*John D. Williams* 5/1/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274

**PROJECT NAME**  
**PINDELL WOODS**

LOTS 1 THRU 47 AND PRESERVATION PARCELS A THRU F  
5th ELECTION DISTRICT TAX MAP # 41, GRID 2, 3, 8 AND 9  
PARCEL 275 (LOT 1), PARCEL 484 (LOT 1), PARCEL 274  
HOWARD COUNTY, MARYLAND.

**TITLE** STORM WATER MANAGEMENT  
DRAINAGE AREA MAP  
DEVELOPED CONDITION  
8-00-15 P-01-06 F-01-89

**OWNERS:** CLARENCE AND MARTHA CARVELL  
7106 PINDELL SCHOOL ROAD  
FULTON, MD. 20759  
H Y REAL ESTATE JOINT VENTURE  
1821 ROCKVILLE PIKE, SUITE 300  
ROCKVILLE, MD. 20852  
MARSHALL P. TULIN  
1821 ROCKVILLE PIKE, SUITE 300  
ROCKVILLE, MD. 20852  
DEVELOPER: MOUNT VIEW, LLC.  
6258 CARDINAL LA.  
COLUMBIA, MD. 21044

**PREPARED BY:**  
AMERICAN LAND DEVELOPMENT AND ENGINEERING INC.  
**AE** 10749 BIRMINGHAM WAY  
WOODBRIDGE, MD 21158  
TEL: (410) 485-7903  
FAX: (410) 485-3845

**DES.:** JL/DCW/AVG **JOB:**  
**DRW.:** AVG/DTA/JNC **PROJ.:**  
**CHK.:** D.C.W. **DATE:** 03/04/01

**SCALE:** 1" = 100' **SHEET 22 OF 37**



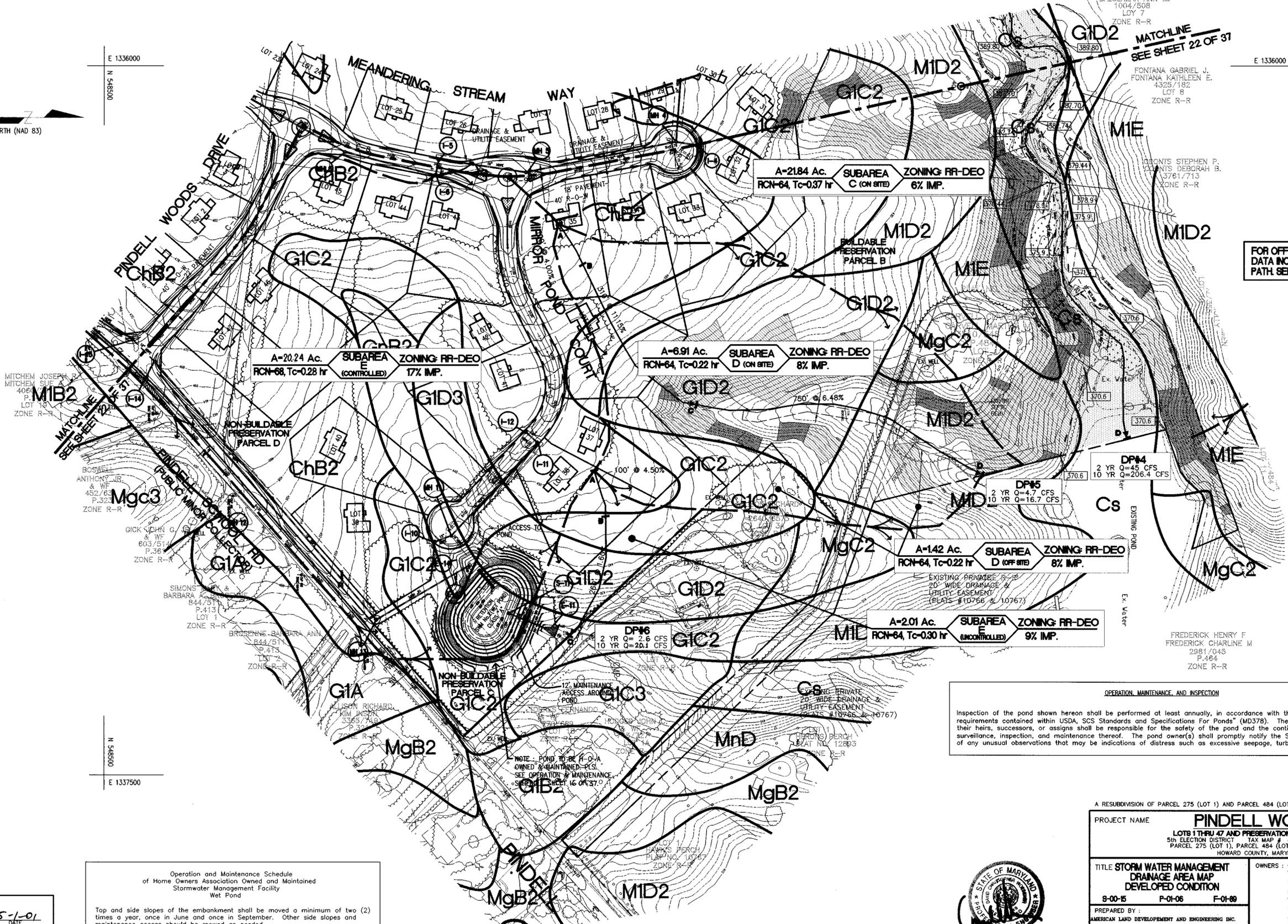
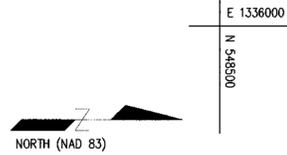
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BALCERZAK STEPHEN J.  
BALCERZAK ANN M.  
1004/508  
LOT 7  
ZONE R-R

FONTANA GABRIEL J.  
FONTANA KATHLEEN E.  
4325/182  
LOT 8  
ZONE R-R

COONITS STEPHEN P.  
COONITS DEBORAH B.  
3761/713  
ZONE R-R

FREDERICK HENRY F.  
FREDERICK CHARLINE M.  
2881/045  
P.484  
ZONE R-R



A=2184 Ac. SUBAREA ZONING: RR-DEO  
RCN-64, Tc=0.37 hr C (ON SITE) 6% IMP.

A=20.24 Ac. SUBAREA ZONING: RR-DEO  
RCN-68, Tc=0.28 hr E (CONTROLLED) 17% IMP.

A=6.91 Ac. SUBAREA ZONING: RR-DEO  
RCN-64, Tc=0.22 hr D (ON SITE) 8% IMP.

A=142 Ac. SUBAREA ZONING: RR-DEO  
RCN-64, Tc=0.22 hr D (OFF SITE) 8% IMP.

A=2.01 Ac. SUBAREA ZONING: RR-DEO  
RCN-64, Tc=0.30 hr E (UNCONTROLLED) 9% IMP.

FOR OFF SITE SUBAREA C  
DATA INCLUDING FLOW  
PATH SEE 200' SCALE DAM.

**OPERATION, MAINTENANCE, AND INSPECTION**  
Inspection of the pond shown herein shall be performed at least annually, in accordance with the checklist and requirements contained within USDA, SCS Standards and Specifications For Ponds (MD378). The pond owner(s) and their heirs, successors, or assigns shall be responsible for the safety of the pond and the continued operation, surveillance, inspection, and maintenance thereof. The pond owner(s) shall promptly notify the Soil Conservation District of any unusual observations that may be indications of distress such as excessive seepage, turbid seepage, sliding or slumping.

NOTE: POND TO BE 14'-0" A OWNED & MAINTAINED - PCS. SEE OPERATION & MAINTENANCE SCHEDULE SHEET 16 OF 37.

- LEGEND:**
- 325 --- EXISTING CONTOURS
  - 330 --- PROPERTY LINE
  - --- SETBACK LINE
  - --- EXISTING TREELINE
  - --- TREE LINE TO REMAIN
  - --- 100-YR FLOODPLAIN
  - --- 75' STREAM BUFFER
  - --- 75' WETLAND BUFFER
  - --- WETLAND
  - --- POSSIBLE HOUSE LOCATION
  - --- 25% OR GREATER SLOPE
  - --- 15%-24.9% SLOPE

Operation and Maintenance Schedule  
of Home Owners Association Owned and Maintained  
Stormwater Management Facility  
Wet Pond

Top and side slopes of the embankment shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes and maintenance access should be mowed as needed.

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When deemed necessary for aesthetic reasons, sediment should be removed from the pond. Approval of the Department of Public Works is required.

**PLAN**  
SCALE: 1" = 100'

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Orselle* 5-1-01  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Spitzer* 5/1/01  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Robert...* 5/1/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274	
PROJECT NAME: <b>PINDELL WOODS</b>	
LOTS 1 THRU 47 AND PRESERVATION PARCELS A THRU F 5th ELECTION DISTRICT TAX MAP # 41, GRID 2, 3, 8 AND 9 PARCEL 275 (LOT 1), PARCEL 484 (LOT 1) AND PARCEL 274 HOWARD COUNTY, MARYLAND.	
TITLE: <b>STORM WATER MANAGEMENT DRAINAGE AREA MAP DEVELOPED CONDITION</b>	OWNERS: CLARENCE AND MARTHA CARVELL 7106 PINDELL SCHOOL ROAD FULTON, MD. 20759 H Y REAL ESTATE JOINT VENTURE 1821 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852
8-00-05 P-01-06 F-01-09	PREPARED BY: AMERICAN LAND DEVELOPMENT AND ENGINEERING INC. 10749 BIRMINGHAM WAY WOODSTOCK, MD 21183 TEL (410) 465-7008 FAX (410) 465-9845
DES.: JL/DCW/AVG	DEVELOPER: MOUNT VIEW, LLC 6258 CARDINAL LA. COLUMBIA, MD. 21044
DRW.: AVG/DTA/JNC	SCALE: 1" = 100'
CHK.: D.C.W.	JOB: SHEET 23 OF 37
DATE: 03/04/01	

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

DISTRICT: HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Robert M. Caputo* 5-1-01  
 CHIEF, BUREAU OF HIGHWAYS DATE

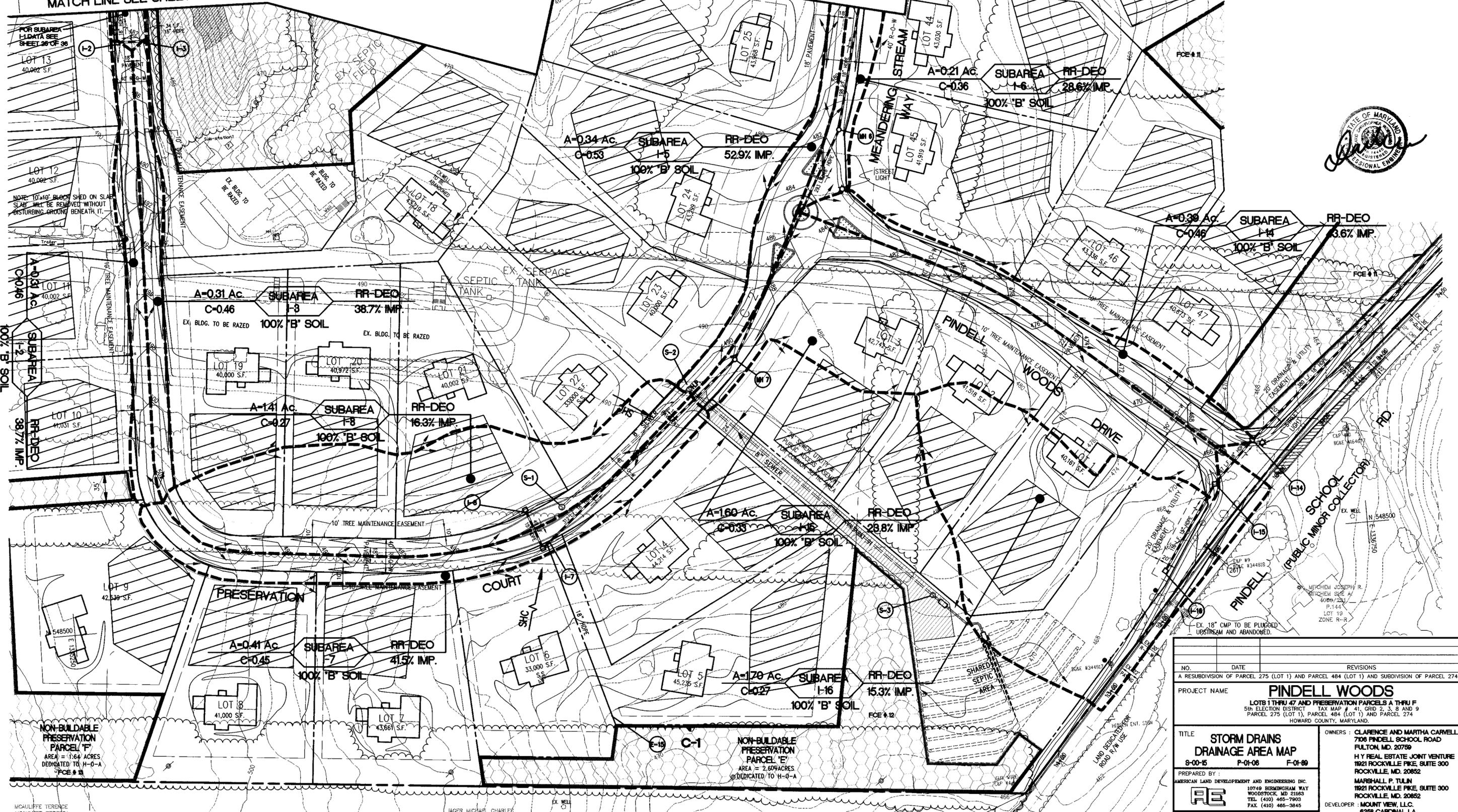
APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Chris Samaha* 5/6/01  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*John J. ...*  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



MATCH LINE SEE SHEET 25 OF 37

MATCH LINE SEE SHEET 25 OF 37



FOR SUBAREA 1-1 DATA SEE SHEET 26 OF 38

NOTE: 10'x10' BLOCK SHED ON SLAB SHALL NOT BE REMOVED WITHOUT DISTURBING GROUND BENEATH IT.

NON-BUILDABLE PRESERVATION PARCEL 'F'  
 AREA = 1.64 ACRES  
 DEDICATED TO H-0-A  
 FCE # 13

MCMAULIFFE TERENCE  
 MCMAULIFFE REBECCA  
 4420/330  
 LOT 18  
 ZONE R-R

EASTERN VIEW  
 PLAT NOS. 12457 - 12459

JAGER MICHAEL CHARLES  
 JAGER HEATHER SWEENEY  
 3913/1835  
 PAR A  
 ZONE R-R

JANNEY JOHN AL  
 BACKUS MARY C.  
 2317/140  
 LOT 19  
 ZONE R-R

NOTE: ALL LOT GRADING IS CONCEPTUAL AND IS NOT PROPOSED UNDER THIS SUBMISSION.

NO.	DATE	REVISIONS
A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274		
PROJECT NAME <b>PINDELL WOODS</b>		
LOTS 1 THRU 47 AND PRESERVATION PARCELS A THRU F 5th ELECTION DISTRICT TAX MAP # 41, GRID 2, 3, 8 AND 9 PARCEL 275 (LOT 1), PARCEL 484 (LOT 1) AND PARCEL 274 HOWARD COUNTY, MARYLAND.		
TITLE <b>STORM DRAINS DRAINAGE AREA MAP</b>		OWNERS: CLARENCE AND MARTHA CARVELL 7106 PINDELL SCHOOL ROAD FULTON, MD. 20769 H Y REAL ESTATE JOINT VENTURE 1921 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852 MARSHALL P. TULIN 1921 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852 DEVELOPER: MOUNT VIEW, LLC. 6258 CARDINAL LA. COLUMBIA, MD. 21044
8-00-15	P-01-06	F-01-09
PREPARED BY: AMERICAN LAND DEVELOPMENT AND ENGINEERING INC. 10749 BIRMINGHAM WAY WOODSTOCK, MD 21163 TEL: (410) 465-7983 FAX: (410) 465-9845		
DES.: JL/DCW/AVG	JOB :	SCALE :
DRW.: AVG/DTA/JNC	PROJ. :	1" = 50'
CHK.: D.C.W.	DATE: 03/04/01	SHEET 24 OF 37

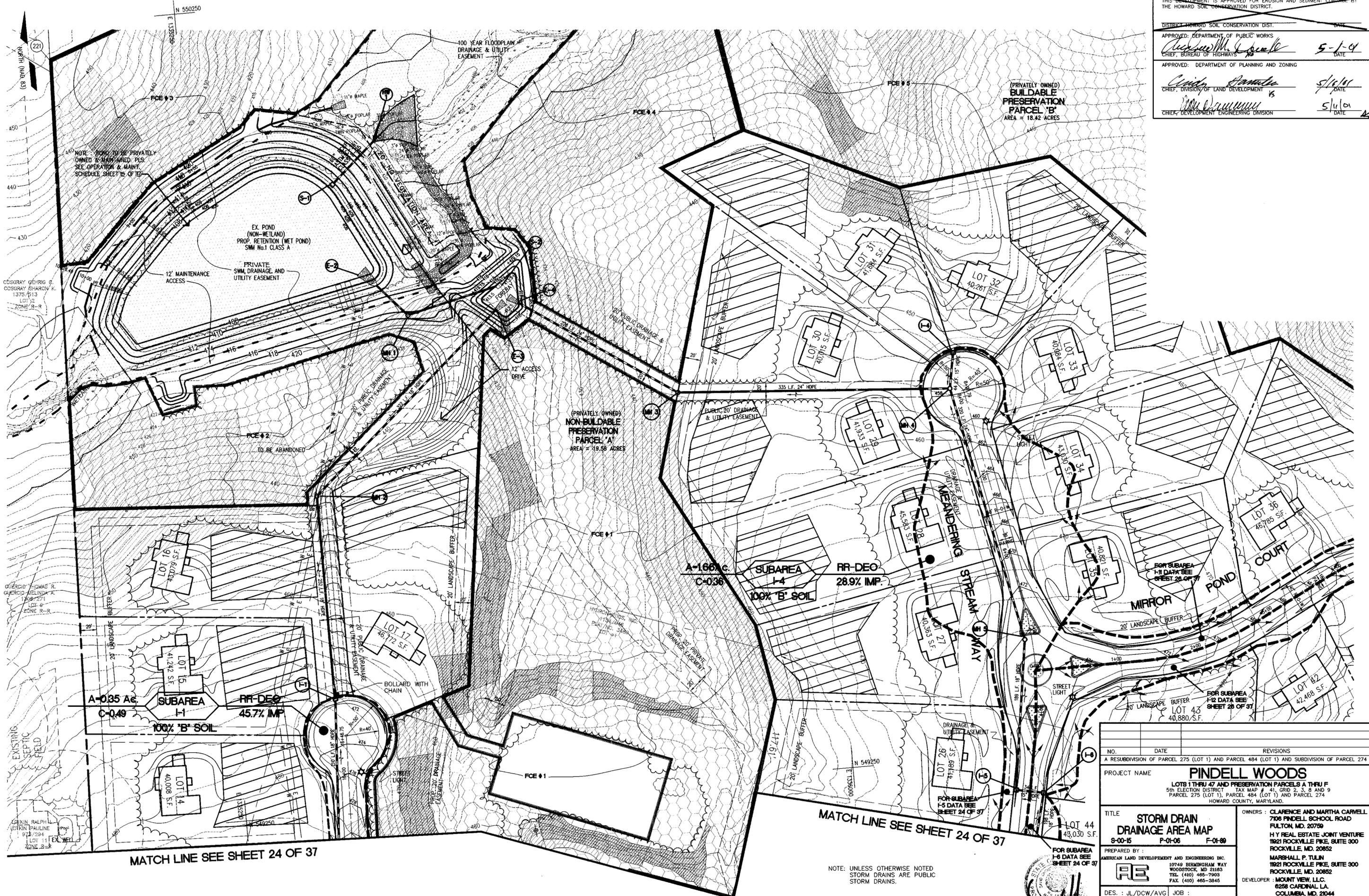
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F-01-89

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

DISTRICT HOWARD SOIL CONSERVATION DIST. DATE  
 APPROVED: DEPARTMENT OF PUBLIC WORKS  
 CHIEF, BUREAU OF HIGHWAYS DATE 5-1-04  
 APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE 5/16/01  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 5/16/01

(PRIVATELY OWNED)  
**BUILDABLE  
 PRESERVATION  
 PARCEL 'B'**  
 AREA = 18.42 ACRES



NOTE: POND TO BE PRIVATELY OWNED & MAINTAINED. PLS. SEE OPERATION & MAINT. SCHEDULE SHEET 15 OF 37

COSGRAY GERRIG C.  
 COSGRAY SHARON K.  
 1378 P-113  
 LOT 12  
 ZONE R-R

GUERDIE THOMAS R.  
 GUERDIE MELINDA A.  
 1306 P-271  
 LOT 9  
 ZONE R-R

LEKIN RALPH L.  
 LEKIN PAULINE  
 912 P-284  
 LOT 11 EX. WELL  
 ZONE R-R

(PRIVATELY OWNED)  
**NON-BUILDABLE  
 PRESERVATION  
 PARCEL 'A'**  
 AREA = 19.58 ACRES

A-166%  
 C-036  
 SUBAREA I-4  
 100% 'B' SOIL  
 RR-DEO  
 28.9% IMP.

A-035 Ac  
 C-049  
 SUBAREA I-1  
 100% 'B' SOIL  
 RR-DEO  
 45.7% IMP.

NO. DATE REVISIONS  
 A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274

**PROJECT NAME**  
**PINZELL WOODS**  
 LOTS 1 THRU 47 AND PRESERVATION PARCELS A THRU F  
 5th ELECTION DISTRICT TAX MAP # 41, GRID 2, 3, 8 AND 9  
 PARCEL 275 (LOT 1), PARCEL 484 (LOT 1) AND PARCEL 274  
 HOWARD COUNTY, MARYLAND.

**TITLE**  
**STORM DRAIN  
 DRAINAGE AREA MAP**  
 9-00-15 P-01-06 F-01-08

**OWNERS:** CLARENCE AND MARTHA CARVELL  
 7106 PINZELL SCHOOL ROAD  
 FULTON, MD. 20759  
 H Y REAL ESTATE JOINT VENTURE  
 11921 ROCKVILLE PIKE, SUITE 300  
 ROCKVILLE, MD. 20852  
 MARSHALL P. TULIN  
 11921 ROCKVILLE PIKE, SUITE 300  
 ROCKVILLE, MD. 20852  
**DEVELOPER:** MOUNT VIEW, L.L.C.  
 6258 CARDINAL LA.  
 COLUMBIA, MD. 21044

PREPARED BY:  
**AE**  
 AMERICAN LAND DEVELOPMENT AND ENGINEERING INC.  
 10749 BIRMINGHAM WAY  
 WOODSTOCK, MD 21183  
 TEL (410) 465-7903  
 FAX (410) 465-3846

DES.: JL/DCW/AVG JOB:  
 DRW.: AVG/DTA/JNC PROJ.:  
 CHK.: D.C.W. DATE: 03/04/01 SCALE: 1" = 50' SHEET 25 OF 37

NOTE: UNLESS OTHERWISE NOTED  
 STORM DRAINS ARE PUBLIC  
 STORM DRAINS.

NOTE: ALL LOT GRADING IS CONCEPTUAL AND  
 IS NOT PROPOSED UNDER THIS SUBMISSION.

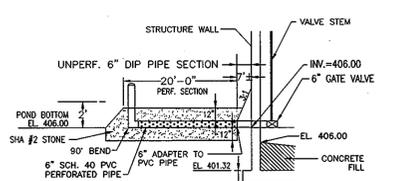
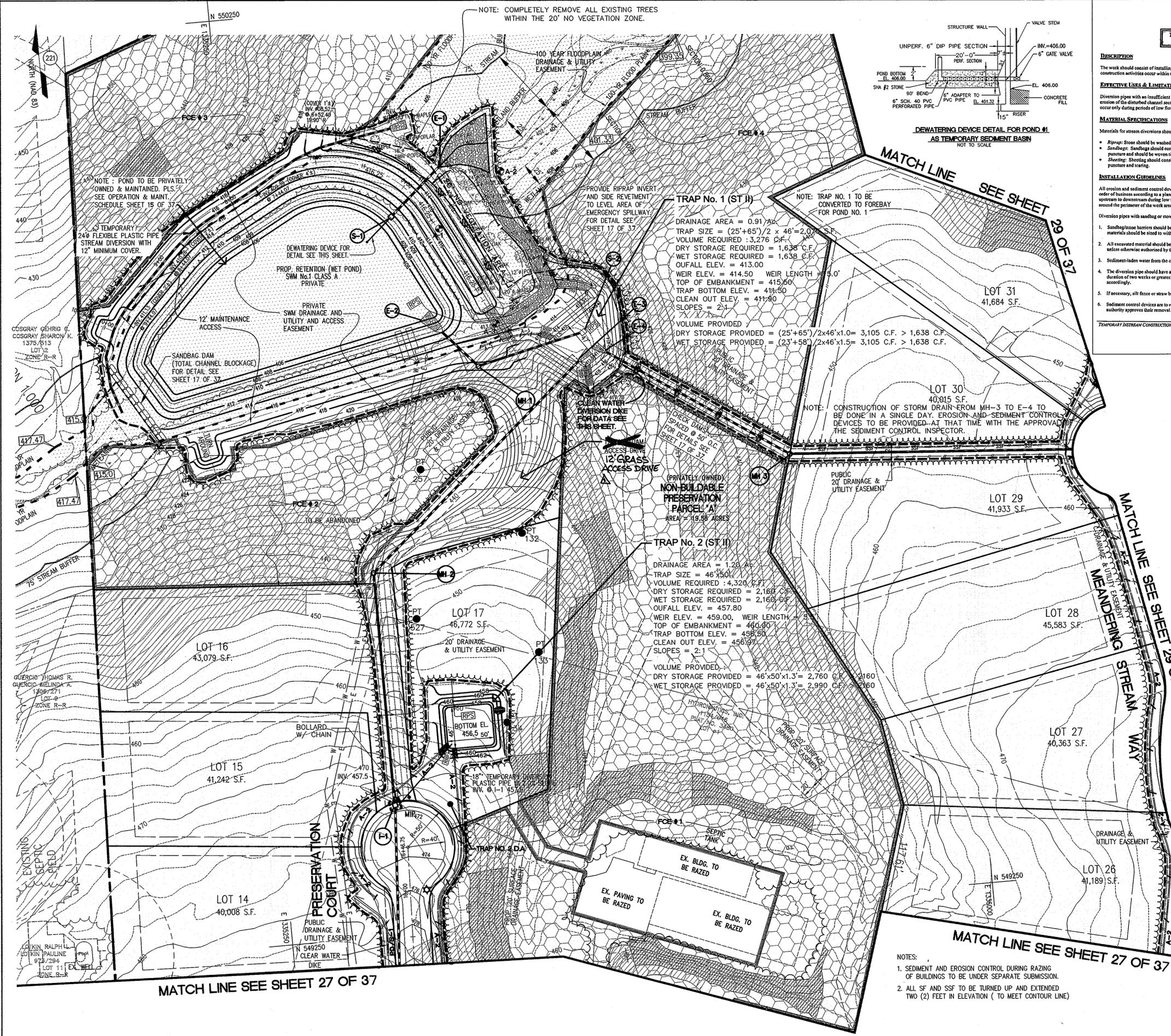


MATCH LINE SEE SHEET 24 OF 37

MATCH LINE SEE SHEET 24 OF 37

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**MGWC 1.4: DIVERSION PIPE**

**Temporary measure for dewatering in-channel construction sites**

**DESCRIPTION**  
 The work should consist of installing flow diversion pipes in combination with sandbag or stone diversions when construction activities occur within the stream channel.

**EFFECTIVE USES & LIMITATIONS**  
 Diversion pipes with an insufficient flow capacity can cause the channel diversion to fail thereby resulting in severe erosion of the disturbed channel section under construction. Therefore, in-channel construction activities should occur only during periods of low flow.

**MATERIAL SPECIFICATIONS**  
 Materials for stream diversions should meet the following requirements:  
 • Riprap: Stone should be washed and have a minimum diameter of 6 inches (15 centimeters).  
 • Sandbags: Sandbags should consist of materials which are resistant to ultra-violet radiation, tearing, and puncture and should be woven tightly enough to prevent leakage of fill material (i.e., sand, fine gravel, etc.).  
 • Sheeting: Sheeting should consist of polyethylene or other material which is impervious and resistant to puncture and tearing.

**INSTALLATION GUIDELINES**  
 All erosion and sediment control devices including mandatory dewatering basins should be installed as the first order of business according to a plan approved by the WMA or local authority. Installation should proceed from upstream to downstream during low flow conditions. If necessary, silt fence or straw bales should be installed around the perimeter of the work area.

Diversion pipes with sandbag or stone barriers should be completed as follows (refer to Detail 1.4):  
 1. Sandbag/stone barriers should be sized and installed as detailed in MGWC 1.5: Sandbag/Stone Diversion. The materials should be stored to withstand backflow velocity.  
 2. All excavated material should be deposited and stabilized in an approved area outside the 100-year floodplain and otherwise authorized by the WMA.  
 3. Sediment-laden water from the construction area should be pumped to a dewatering basin.  
 4. The diversion pipe should have a minimum capacity sufficient to convey the 2-year flow for projects with a duration of two weeks or greater. For projects of shorter duration, the capacity of the pipe can be reduced accordingly.  
 5. If necessary, silt fence or straw bales should be installed around the perimeter of the work area.  
 6. Sediment control devices are to remain in place until all disturbed areas are stabilized and the inspecting authority approves their removal.

**TEMPORARY INSTREAM CONSTRUCTION MEASURES**      **MARYLAND DEPARTMENT OF THE ENVIRONMENT WATERWAY CONSTRUCTION GUIDELINES**  
 PGW 1.4-1      PGW 1.4-2

**ENGINEER'S CERTIFICATE**  
 I, HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*David Wilson*      *A/J/01*  
 SIGNATURE OF ENGINEER      DATE

**DEVELOPER'S CERTIFICATE**  
 I, HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

*David Wilson*      *Solo Developer, Mount View LLC*  
 SIGNATURE OF DEVELOPER      DATE

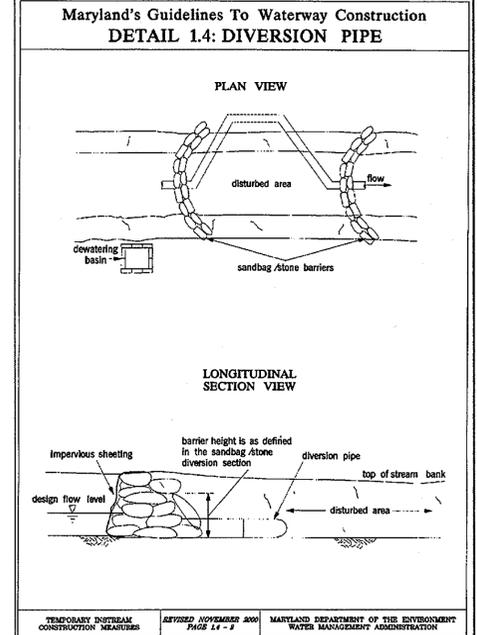
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
*John Myers*      *4/18/01*  
 U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE      DATE

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*John Myers*      *4/18/01*  
 DISTRICT/HOWARD SOIL CONSERVATION DISTRICT      DATE

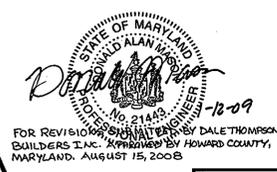
APPROVED: DEPARTMENT OF PUBLIC WORKS  
*William M. Sauer*      *5-1-01*  
 CHIEF, BUREAU OF HIGHWAYS      DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Wanda Samuels*      *5/16/01*  
 CHIEF, DIVISION OF LAND DEVELOPMENT      DATE

*Wanda Samuels*      *5/16/01*  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION      DATE



**CLEAR WATER DIVERSION DIKE DATA**  
 DRAINAGE AREA = 17.46 AC.  
 C FACTOR = 0.19, Tc = 15.2 MIN.  
 I<sub>2</sub> = 3.78, Q<sub>2</sub> = 12.56 CFS  
 USE A-3 DIKE:  
 WITH 4"-7" (STONE PRESSED 7" (MIN.) INTO GROUND  
 AREA = 1/2 x 1 x 4 = 2.0 S.F.  
 WP = 4.0, R = 2/4 = 0.5'  
 S = 6.45%, n = 0.045  
 V = 1.486/0.045 x 0.5<sup>2/3</sup> x 0.0645<sup>1/2</sup> = 5.3 FPS



FOR REVISIONS CONTACT DALE THOMPSON BUILDERS INC. APPROVED BY HOWARD COUNTY, MARYLAND, AUGUST 15, 2008



NO.	DATE	REVISIONS
1-9-CR		CHANGE ACCESS DRIVE FROM MACADAM TO GRASS
A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274		
PROJECT NAME: <b>PINDELL WOODS</b>		
TITLES: <b>GRADING AND SEDIMENT CONTROL PLAN</b>		
8-00-15	P-01-06	F-01-89
PREPARED BY: AMERICAN LAND DEVELOPMENT AND ENGINEERING INC. 10748 BIRMINGHAM WAY WOODSTOCK, MD 21183 TEL: (410) 485-7008 FAX: (410) 485-3845		
OWNERS: CLARENCE AND MARTHA CARWELL 7106 PINDELL SCHOOL ROAD FULTON, MD. 20759 H Y REAL ESTATE JOINT VENTURE 1921 ROCKVILLE PKE, SUITE 300 ROCKVILLE, MD. 20852		
DEVELOPER: MOUNT VIEW, L.L.C. 6258 CARDINAL LA. COLUMBIA, MD. 21044		
DES.: JL/DCW/AVG	JOB:	
DRW.: AVG/DTA/JNC	PROJ.:	SCALE: 1" = 50'
CHK.: D.C.W.	DATE: 03/04/01	SHEET 28 OF 37





**STANDARD SEDIMENT CONTROL NOTES:**

- A minimum of 48 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (313-1855).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 Maryland Standards and Specifications for Soil Erosion and Control.
- Following initial soil disturbance or redistribution, permanent or temporary temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1; b) 14 days for all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with vol. 1, chapter 12, of the Howard County Design Manual, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 Maryland Standards and Specifications for soil erosion and sediment control for permanent seedings (sec. 51) 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.
- 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.
- Site analysis:
 

total area of site	97.89 acres
area disturbed	6.75 acres
area to be roofed or paved	1.78 acres
area to be vegetatively stabilized	4.97 acres
total cut	5,700 cu. yds
total fill	4,700 cu. yds
offsite waste/borrow area location	ON SITE
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading, either building or grading inspection approval may not be authorized until this initial approval by the inspection agency is made.

**PERMANENT SEEDING NOTES**

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, unless previously loosened.

Soil Amendments: In lieu of soil test recommendations, use the following schedules:

- Preferred - apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq. ft.) and 600 lbs per acre 10-10-10 fertilizer (1400/1000 sq. ft.) before seeding. Harrow or disc into upper three inches of soil, at time of seeding, apply 400lbs per acre 30-0-0 ureaform fertilizer (9lbs/1000 sq. ft.).
- Acceptable - apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq. ft.) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq. ft.) before seeding. Harrow or disc into upper three inches of soil, at time of the following schedules:
  - Seeding - For the periods March 1 thru April 30, and Aug. 1 thru Oct. 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 tall fescue, for the period May 1 thru July 31, seed with 60 lbs Kentucky 31 tall fescue, per acre and 2 lbs per acre (.05 lbs/1000sq. ft.) of weeping lovegrass during the period of Oct. 16 thru Feb. 28, protect site by option (1) 2 tons per acre of well-anchored straw mulch and seed as soon as possible in the spring, option (2) use sod, option (3) seed with 60 lbs/acre Kentucky 31 tall fescue and mulch with 2 tons/acre well-anchored straw.
  - Mulching - Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/100 sq. ft.) of unrattled small grain straw immediately after seeding, anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas on slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq. ft.) for anchoring.
  - Maintenance - Inspect all seeded areas and make needed repairs, replacements and reseedings in temporary seeding notes sq. ft. for the period Nov. 16 thru Feb. 28, protect site by applying 2 tons per acre of well-anchored straw mulch and seed as soon as possible in the spring, or used sod.

**TEMPORARY SEEDING NOTES**

Apply to graded or cleared areas likely to be redistributed where a short-term vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, unless previously loosened.

Soil amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.).

Seeding: For periods March 1 thru April 30 and from August 15 thru Nov. 15, seed with 2 1/2 bushel per acre of annual rye (3.2 lbs/1000 sq. ft.) for the period May 1 thru Aug. 14, seed with 3 lbs per acre of weeping lovegrass (.07lbs/1000 sq. ft.).

Mulching: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/100 sq. ft.) of unrattled small grain straw immediately after seeding, anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas, on slopes, 8 ft. or higher, use 348 gal per acre (8 gal/1000 sq. ft.) for anchoring, refer to the 1983 Maryland Standards and Specifications For Soil Erosion and Sediment Control for rate and methods not covered.

**20.0 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 practice 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 Slopes, cleared areas being left before construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dams, cut and fill slopes and other areas of final grade, former stockpiles and sloping areas, etc.

**EFFECTS OF WATER QUALITY AND QUANTITY**

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of run-off, 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 run-off 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, seeded preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

**SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS**

**A. Site Preparation**

- Install erosion and sediment control structures (either temporary or permanent) such as diversion, grade stabilization structures, berms, waterways, or sediment control basins.
- Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.
- 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)**

- 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 analysis.
- 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.
- Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total 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.
- Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.

**C. Seedbed Preparation**

**i. Temporary Seeding**

- Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable cultural 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.
- Apply fertilizer and lime as prescribed on the plans.
- In incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.

**ii. Permanent Seeding**

- Minimum soil conditions required for permanent vegetative establishment:
  - Soil pH shall be between 6.0 and 7.0.
  - Soluble salts shall be less than 500 parts per million (ppm).
  - 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 loess or loesslike soils to be planted, then a sandy soil (<30% silt plus clay) would be acceptable.
  - Soil shall contain 1.5% minimum organic matter by weight.
  - Soil must contain sufficient pore space to permit adequate root penetration.
  - If these conditions cannot be met by soil on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil.
- 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.
- Apply soil amendments as per soil test or as included on the plans.
- 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**

- 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 must be made available to the inspector to verify type and rate of seed used.
- 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 in 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. Temperature above 75-80°F. can weaken bacteria and make the inoculant less effective.

**E. Methods of Seeding**

- Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeded, or a cut/packer seeder.
  - 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: 200 (phosphorus); 200 lbs/acre; 100 (potassium); 200 lbs/acre.
  - 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.
- Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.
- Dry Seeding: This includes use of conventional drop or broadcast spreaders.
  - Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 265 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.
  - Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
  - Drill or Cut/packer Seeding: Mechanized seeders that apply and cover seed with soil.
    - Cut/packer seeders are required to bury the seed in such a fashion so as provide at least 1/4 inch of soil covering. Seedbeds must be firm after planting.
    - Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seed rate in each direction.

**F. Mulch Specifications (in order of preference)**

- 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.
- Wood Cellulose Fiber Mulch (WCFM)
  - WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
  - 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.
  - WCFM, including dye, shall contain no germination or growth inhibiting factors.
  - 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 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 seedings.

- WCFM material shall contain no elements or compounds at concentration levels that will be phytotoxic.
- 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.
- Matching Seeded Areas - Mulch shall be applied to all graded areas immediately after seeding.
  - If grading is completed outside of the seeding season, mulch alone 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.
  - 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.
  - 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.
- 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:
  - A mulch anchoring tool is a tractor draw 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.
  - Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 lbs./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.
  - Application of liquid binders should be heavier at the edges where wind catches much, such as in valleys and crest of banks. The remainder of area should appear uniform after binder application. Synthetic binders - such as Acrylic DLR (Ago-Tock), DCA-70 Petrosol, Terra Top II, Terra Tack All or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.
  - Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' wide and 300 to 3,000 feet long.

**CONSTRUCTION AND MATERIAL SPECIFICATIONS**

- Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCA in cooperation with Maryland Agricultural Experiment Station.
- Topsoil Specifications - Soil to be used as topsoil must meet the following:
  - Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, logs, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.
  - Topsoil must be free of plants or plant parts such as Bermuda grass, quack grass, Johnsongrass, nut sedge, poison ivy, thistle, or others as specified.
  - Where the subsoil is either highly acidic or composed of heavy clay, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
- For sites having disturbed areas under 5 acres:
  - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.
- For sites having disturbed areas over 5 acres:
  - On soil meeting topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
    - pH for 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 prescribed to raise the pH to 6.5 or higher.
    - Organic content of topsoil shall be not less than 1.5 percent by weight.
    - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
    - No 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 phytotoxic materials.
  - Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate authority, may be used in lieu of natural topsoil.
  - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

**INCREMENTAL STABILIZATION - CUT SLOPES**

- All cut slopes shall be dressed, prepared, seeded and mulched as the work progresses. Slopes shall be excavated and stabilized in equal increments not to exceed 15'.
- Construction sequence (Refer to Figure 3 below):
  - Excavate and stabilize all temporary swales, side ditches, or berms that will be used to convey runoff from the excavation.
  - Perform Phase 1 excavation, dress, and stabilize.
  - Perform Phase 2 excavation, dress, and stabilize. Overseed Phase 1 as necessary.
  - Perform final phase excavation, dress, and stabilize. Overseed previously seeded areas as necessary.
- Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing out of the seeding season will necessitate the application of temporary stabilization.

**INCREMENTAL STABILIZATION OF EMBANKMENTS - FILL SLOPES**

- Embankments shall be constructed in lifts as prescribed on the plans.
- Slopes shall be stabilized immediately when the vertical height of the multiple lifts reaches 15', or when the grading operation ceases as prescribed in the plans.
- At the end of each day, temporary berms and pipe slope drains should be constructed along the top edge of the embankment to intercept surface runoff and convey it down the slope in a non-erosive manner to a sediment trapping device.
- Construction sequence: Refer to Figure 4 (below).
  - Excavate and stabilize all temporary swales, side ditches, or berms that will be used to divert runoff around the fill. Construct slope sill fences on low side of fill as shown in Figure 5, unless other methods shown on the plans address this area.
  - Place Phase 1 embankment, dress, and stabilize.
  - Place Phase 2 embankment, dress, and stabilize.
  - Place final phase embankment, dress, and stabilize. Overseed previously seeded areas as necessary.
- Note: Once the placement of fill has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.

**CONSTRUCTION SPECIFICATIONS**

- The area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
- The fill material for the embankment shall be free of roots or other woody vegetation or as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by troweling with equipment while it is being constructed. Maximum height of embankment shall be 4', measured at centerline of embankment.
- All cut and fill slopes shall be 2:1 or flatter.
- Elevation of the top of any dike directing water into trap must equal or exceed the height of trap embankment.
- Storage area provided shall be figured by computing the volume measured from top of excavation. (For storage requirements see Table 9).
- Geotextile Class C shall be placed over the bottom and sides of the outlet channel prior to placement of stones. Section of fabric must overlap of outlet with section nearest the entrance placed on top. Fabric shall be embedded at least 6" into existing ground at entrance of outlet channel.
- 4"-7" stone shall be used to construct the weir and 4"-12" or Class 1 rip-rap shall be used to construct the outlet channel.
- Outlet - An outlet shall include a means of conveying the discharge in an erosion free manner to an existing stable channel. Protection against scour at the discharge point shall be provided as necessary.
- Outlet channel must have positive drainage from the trap.
- Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 of the wet storage depth of the trap (900 cu/oc). Removed sediment shall be deposited in a suitable area and in such manner that it will not erode.
- The structure shall be inspected periodically after each rain and repaired as needed.
- Construction of traps shall be carried out in such manner that sediment pollution is abated. Once constructed, the top and outside face of the embankment shall be established with seed and mulch. Points of concentrated inflow shall be protected in accordance with Grade Stabilization Structure criteria. The remainder of the interior slopes should be stabilized (one time) with seed and mulch upon trap completion and monitored and maintained erosion free during the life of the trap.
- The structure shall be dewatered by approved methods, removed and the area stabilized when the drainage area has been properly stabilized.

**STANDARDS AND SPECIFICATIONS FOR TOPSOIL**

**DEFINITION**

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

**PURPOSE**

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

**CONDITIONS WHERE PRACTICE APPLIES**

- This practice is limited to areas having 2:1 or flatter slopes where:
  - Features of the exposed subsoil present material is not adequate to produce vegetative growth.
  - The material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
  - The original soil to be vegetated contains material toxic to plant growth.
  - The soil is so acidic that treatment with limestone is not feasible.
- For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

**CONSTRUCTION AND MATERIAL SPECIFICATIONS**

- Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCA in cooperation with Maryland Agricultural Experiment Station.
- Topsoil Specifications - Soil to be used as topsoil must meet the following:
  - Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, logs, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.
  - Topsoil must be free of plants or plant parts such as Bermuda grass, quack grass, Johnsongrass, nut sedge, poison ivy, thistle, or others as specified.
  - Where the subsoil is either highly acidic or composed of heavy clay, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
- For sites having disturbed areas under 5 acres:
  - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.
- For sites having disturbed areas over 5 acres:
  - On soil meeting topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
    - pH for 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 prescribed to raise the pH to 6.5 or higher.
    - Organic content of topsoil shall be not less than 1.5 percent by weight.
    - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
    - No 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 phytotoxic materials.
  - Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate authority, may be used in lieu of natural topsoil.
  - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

**SEQUENCE OF CONSTRUCTION**

- Obtain Grading Permit and MDE Permit. 1 day
- Notify Howard County Construction Inspection Division (410 313-1880) at least five (5) working days prior to starting work. 1 day
- Install Stabilized Construction Entrance, Tree Protection Fence and Tree Conservation Signs. 3 days
- Install Silt Fence and Super Silt Fence where shown. 3 days
- Construction, clear water Diversion Dikes, and Perimeter Swales as shown on the plans. 1 wk
- Construct Sediment Traps 1, 2, and 5 and SMM Facility No.2. Block outlet structure of SMM Facility No.2 per detail to serve as a temp SMM for the subarea. 4 wk
- Construct perimeter dikes/swales. 1 wk
- After obtaining permission from Sediment Control Inspector. Clear and grub and grade site within limit of disturbance shown for the construction of the roadways. 1 wk
- Construct all roads. 5 wks
- Construct storm drain systems. Construct the storm drain system from inlet 1-15 to E-13 and from inlet 1-12 to E-14. Construct the storm drain system from inlet 1-13 to HW-3. At inlet 1-1 provide an 18" diversion plastic pipe to trap No. 2 with invert of 457.5 and a slope of 2%. Temporarily build manhole to this invert. Construct storm drain system from inlet 1-8 to HW-4. At manhole MH-4 provide an 18" diversion plastic pipe to trap No. 5 with invert at 441.5. Temporarily build up manhole to invert. 4 wks
- Stream shall be closed at the time embankment is being reconstructed. However, closure shall not be between March 1 and June 15 of each year. If continuous clear weather for seven (7) working days is forecast, install sandbag and clear water diversion pipe and breach existing pond. 3 wks
- Remove existing embankment for SMM Pond No. 1. During the removal of the existing embankment, the Geotechnical Engineer shall be present to determine the location of the existing ground line. Prior to constructing proposed embankment and structure, construct emergency spillway shown on sheet 17 of 36. Construct embankment, anti-seep collar, outlet structure and dewatering device in accordance with the Pond Construction Specifications on Sheet 17 of 36. After obtaining permission from the Sediment Inspector construct the rest of pond. 3 wks
- Sediment shall be removed from the sediment traps when the cleanout elevations have been reached. 2 days
- The contractor shall inspect and provide necessary maintenance of the sediment and erosion control structures shown on these plans after each rainfall and on a daily basis. 1 day
- After the areas draining into Sediment Traps No. 1 and 4 have been permanently seeded, mulched and stabilized construct the last 40 feet of storm drains for E-3, E-12, and E-4, remove plug for downstream pipe invert of inlets 1-1, through 1-3, inlets 1-4 through 1-8 and inlets 1-9 and inlets 1-13 through 1-16. With permission from sediment inspectors convert the traps into Forebays for SMM Nos. 1 and 2. Convert ponds 1 & 2 as permanent SMM facilities. Convert temporary dewatering devices for each pond to permanent dewatering devices by removing PVC adapters and pipes and connecting DIP pipes to the devices. 3 days
- Seed and mulch and stabilize all disturb areas. Clean and flush the storm drain systems. 1 wk
- Upon approval of the Sediment Control Inspector, remove all sediment and erosion control devices. 3 days

**ENGINEER'S CERTIFICATE**

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*[Signature]* DATE: 4/2/01

**DEVELOPER'S CERTIFICATE**

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORITY TO PERFORM ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

*[Signature]* DATE: 4/16/01

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE: 4/18/01

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT. DATE: 4/18/01

DISTRICT/HOWARD SOIL CONSERVATION DIST. DATE: 5-1-01

APPROVED: DEPARTMENT OF PUBLIC WORKS DATE: 5/16/01

CHIEF, BUREAU OF HIGHWAYS DATE: 5/16/01

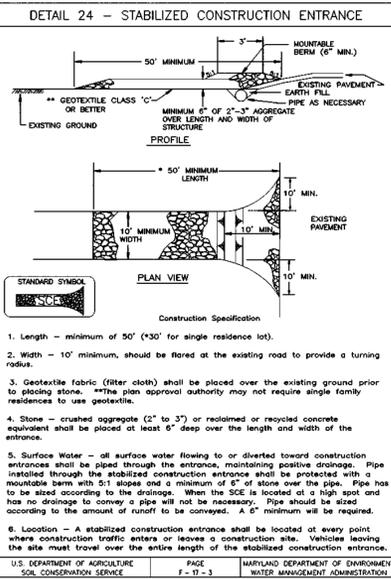
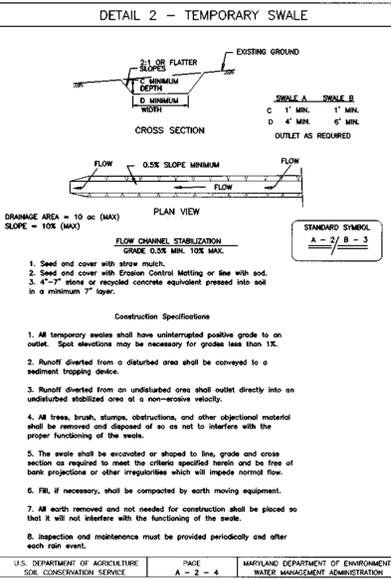
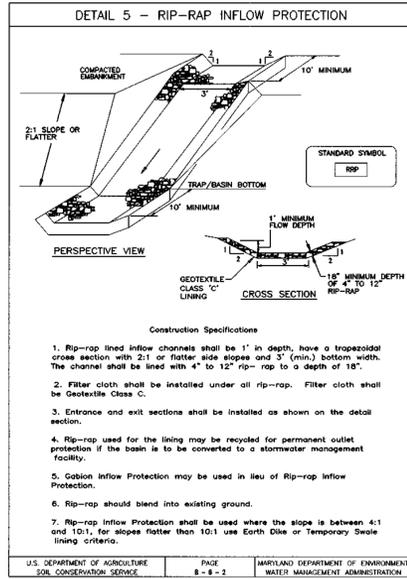
APPROVED: DEPARTMENT OF PLANNING AND ZONING DATE: 5/16/01

CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 5/16/01

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 5/16/01

**S.O.S.T. NOS. 1-5**

- THE AREA UNDER THE EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
- THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR OTHER WOODY VEGETATION AS WELL AS OVERSIZED STONES, ROCKS, ORGANIC MATERIAL, OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
- THE TOTAL TRAP VOLUME AS MEASURED FROM THE BOTTOM TO WEIR ELEVATION SHALL BE 3600 CU. YD. PER ACRE OF DRAINAGE AREA (SEE TABLE 1). THE TOP OF EMBANKMENT MUST BE  $\geq$  1' ABOVE THE RISER CREST ELEVATION.
- SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF OF THE NET STORAGE DEPTH OF THE TRAP (900 CU/AC). THE SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
- THE STRUCTURE SHALL BE INSPECTED PERIODICALLY AND AFTER EACH RAIN AND REPAIRS MADE AS NECESSARY.
- CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE ABATED. ONCE CONSTRUCTED, THE TOP AND OUTSIDE FACE OF THE EMBANKMENT SHALL BE STABILIZED WITH SEED AND MULCH. POINTS OF CONCENTRATED INFLOW SHALL BE PROTECTED IN ACCORDANCE WITH GRADE STABILIZATION STRUCTURE CRITERIA. THE REMAINDER OF THE INTERIOR SLOPES SHOULD BE STABILIZED (ONE TIME) WITH SEED AND MULCH UPON TRAP COMPLETION AND MONITORED AND MAINTAINED EROSION FREE DURING THE LIFE OF THE TRAP.
- THE STRUCTURE SHALL BE REMOVED AND AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
- ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
- FILL MATERIAL AROUND THE PIPE SPILLWAY SHALL BE HAND COMPACTED IN 4" LAYERS. A MINIMUM OF 2" OF HAND-COMPACTED BACKFILL



### BORING A-1

HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

Project Name: **Pindeell Woods SWIS**  
Location: **Howard County, Maryland**

ELEV.	SOIL DESCRIPTION	SPRNG. DEPTH	SCALE	CON.	SAMPLE BLOW#	NO.	REMARKS	BORING & SAMPLING NOTES
217.3	Surface	0.0	1:1	1	1	1	1"	Topsoil
217.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	2	1	2	1"	Groundwater encountered at 12.7' while drilling
216.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	3	1	3	1"	Caved in at 10.8' at Completion
216.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	4	1	4	1"	Caved in at 10.8' after 24 hours
215.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	5	1	5	1"	
215.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	6	1	6	1"	
214.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	7	1	7	1"	
214.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	8	1	8	1"	
213.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	9	1	9	1"	
213.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	10	1	10	1"	
212.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	11	1	11	1"	
212.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	12	1	12	1"	
211.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	13	1	13	1"	
211.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	14	1	14	1"	
210.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	15	1	15	1"	
210.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	16	1	16	1"	
209.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	17	1	17	1"	
209.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	18	1	18	1"	
208.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	19	1	19	1"	
208.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	20	1	20	1"	

### BORING A-1

HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

Project Name: **Pindeell Woods SWIS**  
Location: **Howard County, Maryland**

ELEV.	SOIL DESCRIPTION	SPRNG. DEPTH	SCALE	CON.	SAMPLE BLOW#	NO.	REMARKS	BORING & SAMPLING NOTES
217.3	Surface	0.0	1:1	1	1	1	1"	Topsoil
217.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	2	1	2	1"	Groundwater encountered at 12.7' while drilling
216.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	3	1	3	1"	Caved in at 10.8' at Completion
216.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	4	1	4	1"	Caved in at 10.8' after 24 hours
215.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	5	1	5	1"	
215.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	6	1	6	1"	
214.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	7	1	7	1"	
214.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	8	1	8	1"	
213.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	9	1	9	1"	
213.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	10	1	10	1"	
212.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	11	1	11	1"	
212.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	12	1	12	1"	
211.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	13	1	13	1"	
211.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	14	1	14	1"	
210.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	15	1	15	1"	
210.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	16	1	16	1"	
209.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	17	1	17	1"	
209.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	18	1	18	1"	
208.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	19	1	19	1"	
208.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	20	1	20	1"	

### ENGINEER'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*David W. Thompson*  
DATE: 4/16/01

### DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

*David W. Thompson, Pres. Dale Thompson, Sec. 4/16/01*  
DATE: 4/16/01

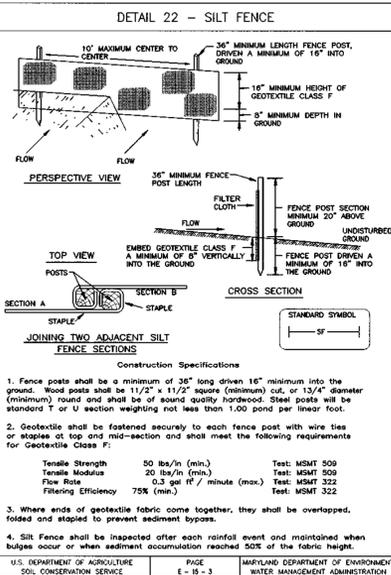
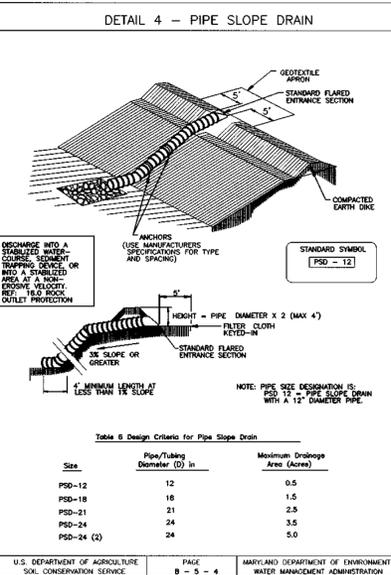
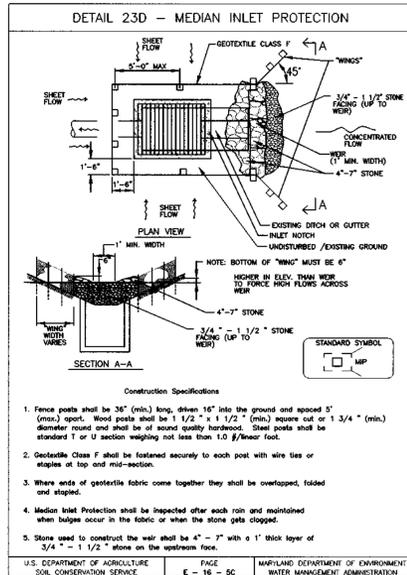
SIGNATURE OF DEVELOPER: *Jim Rogers* DATE: 4/16/01  
U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE

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

*John J. ...* DATE: 4/16/01  
DISTRICT HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Chief, Bureau of Highways* DATE: 5-1-01

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Chief, Development Engineering Division* DATE: 5/16/01



### BORING B-2

HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

Project Name: **Pindeell Woods SWIS**  
Location: **Howard County, Maryland**

ELEV.	SOIL DESCRIPTION	SPRNG. DEPTH	SCALE	CON.	SAMPLE BLOW#	NO.	REMARKS	BORING & SAMPLING NOTES
217.3	Surface	0.0	1:1	1	1	1	1"	Topsoil
217.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	2	1	2	1"	Groundwater encountered while drilling
216.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	3	1	3	1"	Caved in at 11.7' at Completion
216.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	4	1	4	1"	Caved in at 11.2' after 24 hours
215.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	5	1	5	1"	
215.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	6	1	6	1"	
214.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	7	1	7	1"	
214.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	8	1	8	1"	
213.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	9	1	9	1"	
213.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	10	1	10	1"	
212.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	11	1	11	1"	
212.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	12	1	12	1"	
211.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	13	1	13	1"	
211.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	14	1	14	1"	
210.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	15	1	15	1"	
210.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	16	1	16	1"	
209.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	17	1	17	1"	
209.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	18	1	18	1"	
208.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	19	1	19	1"	
208.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	20	1	20	1"	

### BORING B-3

HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

Project Name: **Pindeell Woods SWIS**  
Location: **Howard County, Maryland**

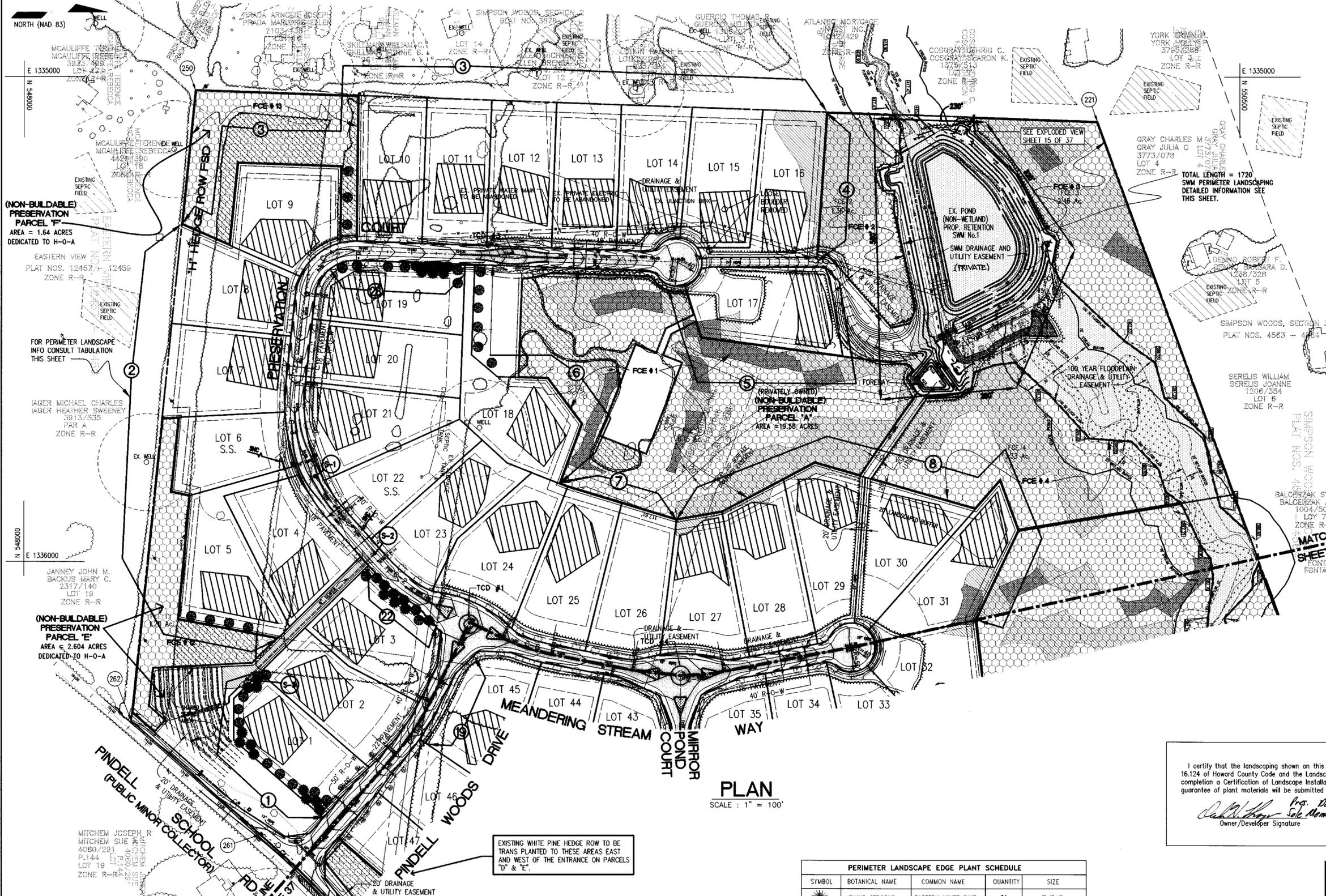
ELEV.	SOIL DESCRIPTION	SPRNG. DEPTH	SCALE	CON.	SAMPLE BLOW#	NO.	REMARKS	BORING & SAMPLING NOTES
217.3	Surface	0.0	1:1	1	1	1	1"	Topsoil
217.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	2	1	2	1"	Groundwater encountered while drilling
216.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	3	1	3	1"	Caved in at 11.7' at Completion
216.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	4	1	4	1"	Caved in at 11.2' after 24 hours
215.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	5	1	5	1"	
215.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	6	1	6	1"	
214.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	7	1	7	1"	
214.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	8	1	8	1"	
213.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	9	1	9	1"	
213.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	10	1	10	1"	
212.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	11	1	11	1"	
212.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	12	1	12	1"	
211.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	13	1	13	1"	
211.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	14	1	14	1"	
210.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	15	1	15	1"	
210.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	16	1	16	1"	
209.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	17	1	17	1"	
209.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	18	1	18	1"	
208.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	19	1	19	1"	
208.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	20	1	20	1"	

### BORING B-1

HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

Project Name: **Pindeell Woods SWIS**  
Location: **Howard County, Maryland**

ELEV.	SOIL DESCRIPTION	SPRNG. DEPTH	SCALE	CON.	SAMPLE BLOW#	NO.	REMARKS	BORING & SAMPLING NOTES
217.3	Surface	0.0	1:1	1	1	1	1"	Topsoil
217.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	2	1	2	1"	Groundwater encountered while drilling
216.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	3	1	3	1"	Caved in at 11.7' at Completion
216.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	4	1	4	1"	Caved in at 11.2' after 24 hours
215.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	5	1	5	1"	
215.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	6	1	6	1"	
214.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	7	1	7	1"	
214.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	8	1	8	1"	
213.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	9	1	9	1"	
213.0	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	10	1	10	1"	
212.5	Light gray, medium sand, silty clay, trace rock and roots (SA)	0.0	1:1	11	1	11	1"	
212.0	Light							



**LANDSCAPE LEGEND:**

- PROPOSED WELL SITE
- REFORESTATION AREA
- EXISTING GROUND
- PROPOSED GRADE
- CL EX. STREAM
- 75' STREAM BUFFER
- 25' WETLAND BUFFER
- LIMIT OF WETLANDS
- FLOODPLAIN LIMITS
- LOT NUMBER
- PROPOSED LIGHT POLE  
SEE SHT. OF FOR LEGEND
- EXISTING TREES
- TREES TO REMAIN
- ORANGE BLAZE TREE PROTECTION

**(NON-BUILDABLE) PRESERVATION PARCEL "F"**  
 AREA = 1.64 ACRES  
 DEDICATED TO H-O-A

**(NON-BUILDABLE) PRESERVATION PARCEL "E"**  
 AREA = 2.604 ACRES  
 DEDICATED TO H-O-A

NOTE: 1. ALL OF PRESERVATION PARCEL "A" EXCLUDING SWM FACILITY, THE RECTANGULAR AREA EAST OF LOT #17 AND THE 100-YEAR FLOOD PLAINS WILL BE ENCUMBERED BY A FOREST CONSERVATION EASEMENT.

2. THE HEDGE ROW ON LOTS 4-9 CONSISTS OF 25' PINES AND WILL BE RELOCATED TO BUFFERS ONE (1) AND 12, 14 AND 18 IN ADDITION TO THOSE SHOWN AS PART OF THE REQUIRED LANDSCAPING.

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Richard M. Savelle* 5-1-01  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Chris Hamilton* 5/1/01  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*William D. ...* 5/1/01  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

EXISTING WHITE PINE HEDGE ROW TO BE TRANS PLANTED TO THESE AREAS EAST AND WEST OF THE ENTRANCE ON PARCELS "D" & "E".

**PLAN**  
 SCALE: 1" = 100'

I certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of Howard County Code and the Landscape Manual. I 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.

*Carol ...* Mrs. Dale Thompson, Blais, Inc. April 5, 2001  
 Owner/Developer Signature Date

**NOTES**

(1). This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and the Landscape Manual.

(2). Financial Surety for the required Perimeter Landscaping will be posted as part of the DPW Developers Agreement for 67 shade trees and 56 pine trees in the amount of \$28,500.

**PERIMETER LANDSCAPE EDGE PLANT SCHEDULE**

SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY	SIZE
	PINUS STROBUS	EASTERN WHITE PINE	24	6'-8" HT
	ACER RUBRUM	OCTOBER GLORY RED MAPLE	33	2-1/2" - 3" CAL.

**SCHEDULE "A" PERIMETER LANDSCAPE EDGE (TOTAL)**

Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Linear Feet of Roadway Frontage/Perimeter	2415	8466
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	400 (2015)	7331 (11,35)
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)		NO
Number of Plants Required		
Shade Trees	42	22 (120)
Evergreen Trees	53	0
Shrubs	0	0
Shade Trees	42	22
Evergreen Trees	53	0
Other Trees (2:1 substitution) (10:1 substitution)	0	0

**SCHEDULE "D" STORMWATER MANAGEMENT AREA LANDSCAPING**

	SWM#1	SWM#2
Linear Feet of Perimeter	1720'	1010'
Number of Trees Required		
Shade Trees 1:50	35	21
Evergreen Trees 1:40	43	26
Credit for Existing Vegetation* (No, Yes, and %)	Yes 100%	Yes 880' (120)
Credit for Other Landscaping (No, Yes and %)		
Number of Trees Provided		
Shade Trees	0	3
Evergreen Trees	0	3
Other Trees (2:1 substitution)	0	0

**SCHEDULE "A" PERIMETER LANDSCAPE EDGE THIS SHEET ONLY**

PERIMETER	CATEGORY (Properties/Roadways)	Landscape Type	Linear Feet of Roadway Frontage/Perimeter	Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	Number of Plants Required			Number of Plants Provided		
						Shade Trees	Evergreen Trees	Shrubs	Shade Trees	Evergreen Trees	Shrubs
1	ROADWAY	B	415	0 (415)	0	9	11	0	9	11	0
2	PROPERTIES	A	1115	930 (185)	0	4	0	0	4	0	0
3	PROPERTIES	A	1510	1360 (150)	0	3	0	0	3	0	0
4	PROPERTIES	A	310	310	0	0	0	0	0	0	0
5	PROPERTIES	A	590	590	0	0	0	0	0	0	0
6	PROPERTIES	A	610	280 (330)	0	6	0	0	6	0	0
7	PROPERTIES	A	251	251	0	0	0	0	0	0	0
8	PROPERTIES	A	1040	1040	0	0	0	0	0	0	0
22	ROADWAY	B	250	0 (250)	0	5	6	0	5	6	0
23	ROADWAY	B	270	0 (270)	0	6	7	0	6	7	0
TOTAL	PROPERTIES	A	5426	4761 (665)	0	13	0	0	13	0	0
TOTAL	ROADWAY	B	935	0 (935)	0	20	24	0	20	24	0

\*The forest surrounding the pond consists of mature hardwoods and pines for exceeding the number required.

NO. DATE REVISIONS

A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274

PROJECT NAME: **PINELL WOODS**  
 LOTS 1 THRU 47 AND PRESERVATION PARCELS A THRU F  
 5th ELECTION DISTRICT TAX MAP # 41, GRID 2, 3, 8 AND 9  
 PARCEL 275 (LOT 1), PARCEL 484 (LOT 1) AND PARCEL 274  
 HOWARD COUNTY, MARYLAND.

TITLE: **LANDSCAPE PLAN**  
 8-00-05 P-01-06 F-01-89

PREPARED BY: AMERICAN LAND DEVELOPMENT AND ENGINEERING INC.  
 10749 BIRMINGHAM WAY WOODSTOCK, MD 21188  
 TEL: (410) 465-7993 FAX: (410) 465-3845

OWNERS: CLARENCE AND MARTHA CARVELL  
 7106 PINELL SCHOOL ROAD FULTON, MD. 20759  
 H Y REAL ESTATE JOINT VENTURE  
 11921 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852

DEVELOPER: MOUNT VIEW, L.L.C.  
 6258 CARDINAL LA. COLUMBIA, MD. 21044

DES.: JL/DCW/AVG JOB: SCALE: 1" = 100'

DRW.: AVG/DTA/JNC PROJ.: SHEET 32 OF 37

CHK.: D.C.W. DATE: 03/04/01



LINE TABLE (FCE) NO. 1

CURVE	LENGTH	RADIUS
C1	42.63	725
C2	198.83	029033' E
C3	2318	26.00
C4	83.53	50.00
C5	50.00	50.00
C6	64.23	S 72°16'03" E
C7	64.49	S 26°18'37" E
C8	54.29	S 68°37'01" E
C9	45.88	S 21°22'59" E
C10	200.00	S 08°37'01" E
C11	100.00	S 21°22'59" E
C12	200.00	S 68°37'01" W
C13	42.12	S 21°22'59" W
C14	48.84	N 88°37'01" W
C15	58.63	S 26°18'37" W
C16	35.64	S 72°16'03" E
C17	28.15	N 07°29'22" E
C18	139.04	N 07°29'22" E
C19	13.49	N 48°31'38" E
C20	17.38	S 58°52'02" E
C21	33.58	N 47°12'57" E
C22	219.26	S 56°32'33" E
C23	97.32	S 15°39'05" W
C24	216.15	S 27°29'05" E
C25	95.08	S 09°29'01" W
C26	117.65	S 17°11'57" W
C27	116.20	S 16°33'28" W
C28	18.19	S 21°31'18" W
C29	131.58	S 09°38'48" W
C30	116.63	S 53°22'21" W
C31	60.96	S 02°00'37" W
C32	502.85	N 87°59'23" W
TOTAL AREA = 5.447 Ac.		

LINE TABLE (FCE) NO. 2

LINE	LENGTH	BEARING
L34	290.09	S 86°04'41" E
L35	136.67	S 02°00'33" W
L36	20.84	S 48°30'46" W
L37	15.77	S 74°48'56" W
L38	18.18	N 79°46'56" W
L39	24.59	S 88°00'08" W
L40	25.18	S 78°25'42" W
L41	50.52	N 20°21'49" W
L42	39.94	S 79°18'58" W
L43	23.54	S 07°30'08" E
L44	41.48	N 88°01'13" W
L45	210.09	S 77°36'57" W
L46	33.74	N 87°20'13" W
L47	40.06	N 127°48' W
L48	207.32	N 48°31'52" E
L49	15.42	N 00°00'00" W
TOTAL AREA = 1.360 Ac.		

LINE TABLE (FCE) NO. 3

LINE	LENGTH	BEARING
L50	903.27	S 69°53'47" W
L51	80.17	N 42°24'41" E
L52	78.04	N 75°23'28" E
L53	73.65	N 78°59'31" E
L54	111.77	N 43°33'38" E
L55	74.05	N 75°22'58" E
L56	78.62	N 35°35'00" E
L57	182.90	N 43°27'51" E
L58	33.31	N 61°53'54" E
L59	51.30	S 79°20'24" E
L60	27.66	N 44°28'53" E
L61	129.18	N 62°19'08" E
L62	124.98	N 44°31'15" E
L63	33.94	N 85°27'17" E
L64	256.45	S 02°00'05" W
TOTAL AREA = 2.458 Ac.		

LINE TABLE (FCE) NO. 4

LINE	LENGTH	BEARING
L65	725.09	N 15°39'05" E
L66	204.28	S 58°32'35" E
L67	67.94	S 01°37'34" E
L68	27.86	S 33°57'20" E
L69	35.27	S 81°29'36" E
L70	46.73	S 19°58'03" E
L71	42.52	S 08°55'43" E
L72	100.97	S 43°10'57" W
L73	119.28	S 47°42'59" W
L74	86.97	S 04°21'36" W
L75	79.43	S 44°03'55" W
L76	48.28	S 72°05'28" W
L77	40.51	S 73°26'20" W
L78	341.26	N 08°30'44" W
L79	101.28	N 69°57'27" E
L80	76.86	N 48°47'58" W
TOTAL AREA = 2.693 Ac.		

LINE TABLE (FCE) NO. 12

LINE	LENGTH	BEARING
L185	610.74	N 84°13'13" W
L186	35.40	N 02°51'27" W
L187	153.29	S 84°13'13" E
L188	38.85	N 17°38'38" E
L189	256.29	S 84°48'16" E
L190	208.49	N 10°50'52" E
L191	74.70	S 44°51'20" E
L192	203.74	S 02°38'56" E
L193	78.83	S 84°13'13" E
L194	45.05	N 41°32'00" E
L195	35.00	N 48°27'34" E
L196	62.88	N 41°32'14" E
TOTAL AREA = 1.20 Ac.		

LINE TABLE (FCE) NO. 13

LINE	LENGTH	BEARING
L197	290.08	N 89°16'12" W
L198	290.08	N 89°16'12" W
L199	35.32	133.00
L200	147.15	S 89°16'20" E
L201	210.98	N 02°00'37" E
L202	171.05	N 84°13'13" W
L203	108.22	N 23°53'23" E
L204	278.57	S 84°13'13" E
TOTAL AREA = 1.633 Ac.		

(NON-BUILDABLE) PRESERVATION PARCEL 'F'  
AREA = 1.64 ACRES  
DEDICATED TO H-O-A

(NON-BUILDABLE) PRESERVATION PARCEL 'E'  
AREA = 2.604 ACRES  
DEDICATED TO H-O-A

NOTE TO CONTRACTOR: THIS PLAN IS FOR FOREST CONSERVATION ANALYSIS ONLY. TREE SAVE AREAS ARE ANTICIPATED BASED UPON FUTURE LOT GRADING. ALL GRADING, CLEARING, SEDIMENT CONTROL AND TREE PROTECTION IS SHOWN ON THE THE GRADING/SEDIMENT CONTROL SHEETS.

NOTE: TREE PROTECTION FENCE IS SHOWN WHERE IT IS ANTICIPATED. IN NO EVENT WILL CLEARING BE ALLOWED WITHIN THE F.C.E. AREA.

**PLAN**  
SCALE: 1" = 100'

FOREST CONSERVATION AREA TABULATION

Easement No.	Non-Wooded Floodplain/Wetlands	Wooded Retention Area	Reforestation Area	Total Easement Area
FC # 1	0 Ac.±	4.93 Ac.±	0.52 Ac.±	5.45 Ac.±
FC # 2	0 Ac.±	1.36 Ac.±	0 Ac.±	1.36 Ac.±
FC # 3	0 Ac.±	2.46 Ac.±	0 Ac.±	2.46 Ac.±
FC # 4	0 Ac.±	2.69 Ac.±	0 Ac.±	2.69 Ac.±
FC # 5	0 Ac.±	9.44 Ac.±	0 Ac.±	9.44 Ac.±
FC # 6	0 Ac.±	1.32 Ac.±	0 Ac.±	1.32 Ac.±
FC # 7	0 Ac.±	0.88 Ac.±	0 Ac.±	0.88 Ac.±
FC # 8	0 Ac.±	0.48 Ac.±	0 Ac.±	0.48 Ac.±
FC # 9	0 Ac.±	1.29 Ac.±	0 Ac.±	1.29 Ac.±
FC # 10	0 Ac.±	0.71 Ac.±	0 Ac.±	0.71 Ac.±
FC # 11	0 Ac.±	0.96 Ac.±	0.93 Ac.±	1.89 Ac.±
FC # 12	0 Ac.±	0.87 Ac.±	0.33 Ac.±	1.20 Ac.±
FC # 13	0 Ac.±	0.87 Ac.±	0.76 Ac.±	1.63 Ac.±
TOTAL		28.26 Ac.±	2.54 Ac.±	30.80 Ac.±

- LEGEND:**
- REFORESTATION AREA
  - EXISTING GROUND
  - PROPOSED GRADE
  - CL EX. STREAM
  - 75' STREAM BUFFER
  - 25' WETLAND BUFFER
  - LIMIT OF WETLANDS
  - FLOODPLAIN LIMITS
  - PROPOSED LIGHT POLE SEE SHT. OF FOR LEGEND
  - EXISTING TREES
  - TREES TO REMAIN
  - ORANGE BLAZE TREE PROTECTION
  - FCE
  - FOREST RETENTION AREA SIGNAGE @ 100' SPACING
  - FOREST CONSERVATION AREA SIGNAGE

NO.	DATE	REVISIONS
A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274		
PROJECT NAME <b>PINDELL WOODS</b>		
LOTS 1 THRU 47 AND PRESERVATION PARCELS A THRU F 5th ELECTION DISTRICT TAX MAP # 41, GRID 2, 3, 8 AND 9 PARCEL 275 (LOT 1), PARCEL 484 (LOT 1) AND PARCEL 274 HOWARD COUNTY, MARYLAND.		
TITLE	OWNERS: CLARENCE AND MARTHA CARVELL 7106 PINDELL SCHOOL ROAD FULTON, MD. 20759 H Y REAL ESTATE JOINT VENTURE 11921 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852	
PREPARED BY:	MARSHALL P. TULIN 11921 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852	
DEVELOPER:	MOUNT VIEW, L.L.C. 6258 CARDINAL LA. COLUMBIA, MD. 21044	
DES.: JL/DCW/AVG	JOB:	SCALE: 1" = 100'
DRW.: AVG/DTA/ANC	PROJ.:	SHEET 34 OF 37
CHK.: D.C.W.	DATE: 03/04/01	

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Davelle* 5-1-01  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Chris H. Hester* 5/16/01  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*John D. Williams* 5/16/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

H:\DTP\011\TMAPL\AVG\FSD\01.dwg Wed Apr 11 08:59:35 2001

*D. Williams*

LINE	LENGTH	BEARING
L81	341.26	S 09°30'44" E
L82	51.83	S 65°30'46" W
L83	40.14	S 64°46'07" W
L84	23.02	S 33°34'40" W
L85	15.06	S 59°01'16" W
L86	41.88	S 82°35'58" W
L87	80.45	N 82°34'53" W
L88	56.86	N 87°24'32" W
L89	93.29	S 33°34'40" W
L90	173.61	N 09°32'42" E
L91	783.81	N 70°22'41" W
L92	224.25	N 49°21'35" E
L93	132.30	N 43°41'25" W
L94	83.45	N 45°36'45" E
L95	182.10	N 45°36'45" E
L96	168.88	S 51°05'29" E
L97	64.29	N 77°37'04" E
L98	91.02	S 13°32'28" E
L99	248.19	S 45°34'22" E
L100	189.00	N 83°22'40" E
L101	209.27	S 64°44'10" E
TOTAL AREA = 9.441 Ac.		

LINE	LENGTH	BEARING
L149	284.48	S 41°07'07" W
L150	151.06	S 40°52'29" E
L151	45.68	N 70°46'46" E
L152	108.48	S 39°39'53" E
L153	166.68	S 63°52'25" W
L154	227.25	S 45°31'03" W
L155	75.53	N 47°16'09" W
L156	326.36	N 39°27'36" E
L157	138.26	N 40°52'29" W
L158	78.30	S 82°37'51" E
L159	67.03	S 16°11'44" W
L160	95.00	N 41°08'39" W
L161	298.79	N 49°02'33" E
L162	167.12	N 51°19'25" E
L163	6.93	S 88°46'44" E
L164	53.13	S 48°52'51" E
TOTAL AREA = 1.886 Ac.		

LINE	LENGTH	BEARING
L102	184.00	N 05°32'56" E
L103	101.88	N 86°18'38" E
L104	59.16	S 85°36'42" E
L105	60.46	N 82°46'58" E
L106	42.21	N 71°40'05" E
L107	292.20	S 09°24'10" W
L108	245.00	N 70°22'41" W
TOTAL AREA = 1.320		

LINE	LENGTH	BEARING
L109	300.00	S 70°29'59" W
L110	125.88	S 09°24'10" E
L111	95.34	N 38°25'45" E
L112	114.78	N 87°32'26" E
L113	95.24	S 87°06'28" E
L114	101.68	S 05°32'14" W
TOTAL AREA = 0.884 Ac.		

LINE	LENGTH	BEARING
L115	101.68	N 05°32'14" E
L116	11.69	S 77°24'20" E
L117	74.22	N 33°02'43" E
L118	68.65	N 89°40'12" E
L119	85.36	S 46°52'27" E
L120	26.07	S 87°40'51" E
L121	31.80	S 85°02'41" E
L122	278.25	S 69°53'47" W
TOTAL AREA = 0.476		

LINE	LENGTH	BEARING
L123	83.45	N 45°36'45" E
L124	439.89	S 43°41'25" E
L125	43.78	S 14°15'11" W
L126	25.87	S 82°46'24" W
L127	33.20	N 85°50'11" W
L128	20.00	S 00°09'49" W
L129	75.85	S 81°49'37" W
L130	61.26	S 30°25'31" W
L131	38.39	S 09°07'28" W
L132	45.48	S 38°10'59" W
L133	33.29	S 85°25'37" W
L134	127.76	N 47°11'59" E
L135	166.32	N 67°04'11" E
L136	79.90	N 42°04'44" E
L137	352.37	N 44°30'11" W
TOTAL AREA = 1.289 Ac.		

LINE	LENGTH	BEARING
L138	298.79	S 46°04'31" W
L139	133.42	N 31°40'59" W
L140	35.00	N 58°17'34" E
L141	16.73	S 67°12'00" E
L142	43.44	S 80°44'58" E
L143	54.86	N 63°17'49" E
L144	60.68	N 03°38'31" E
L145	40.96	N 31°02'26" E
L146	52.11	N 21°08'35" W
L147	44.95	N 46°03'26" E
L148	168.35	S 43°41'25" E
TOTAL AREA = 0.713 Ac.		

LINE	LENGTH	BEARING
L149	284.48	S 41°07'07" W
L150	151.06	S 40°52'29" E
L151	45.68	N 70°46'46" E
L152	108.48	S 39°39'53" E
L153	166.68	S 63°52'25" W
L154	227.25	S 45°31'03" W
L155	75.53	N 47°16'09" W
L156	326.36	N 39°27'36" E
L157	138.26	N 40°52'29" W
L158	78.30	S 82°37'51" E
L159	67.03	S 16°11'44" W
L160	95.00	N 41°08'39" W
L161	298.79	N 49°02'33" E
L162	167.12	N 51°19'25" E
L163	6.93	S 88°46'44" E
L164	53.13	S 48°52'51" E
TOTAL AREA = 1.886 Ac.		

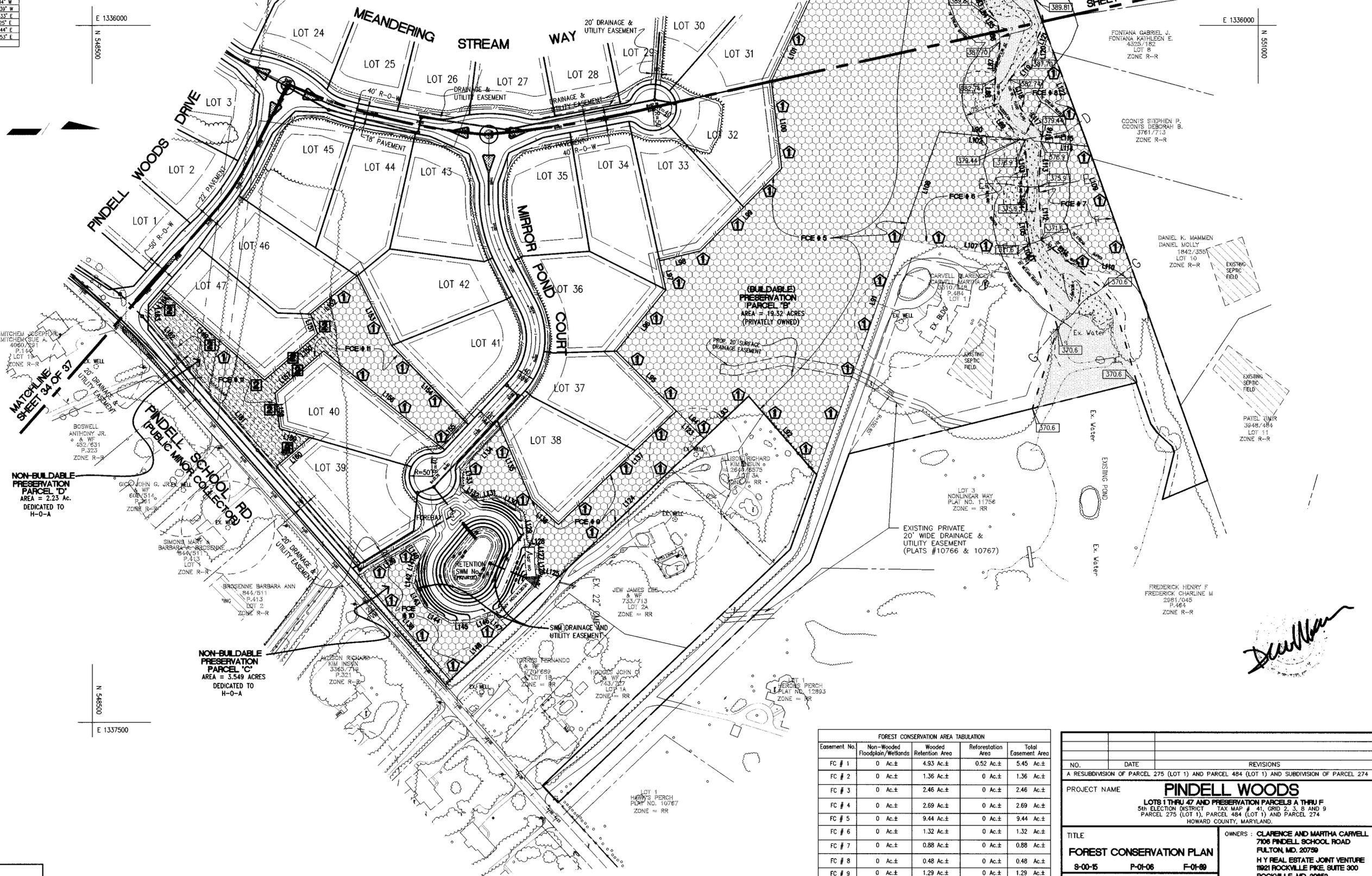
**LEGEND:**

- REFORESTATION AREA
- 325- EXISTING GROUND
- PROPOSED GRADE
- CL EX. STREAM
- 75' STREAM BUFFER
- 25' WETLAND BUFFER
- LIMIT OF WETLANDS
- FLOODPLAIN LIMITS
- PROPOSED LIGHT POLE  
SEE SHT. OF FOR LEGEND
- EXISTING TREES
- TREES TO REMAIN
- ORANGE BLAZE TREE PROTECTION
- FCE
- FOREST RETENTION AREA SIGNAGE @ 100' SPACING
- FOREST CONSERVATION AREA SIGNAGE

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Richard M. Dwyer* 5-01-01  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Walter J. ...* 5/16/01  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Robert ...* 5/16/01  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



FOREST CONSERVATION AREA TABULATION				
Easement No.	Non-Wooded Floodplain/Wetlands	Wooded Retention Area	Reforestation Area	Total Easement Area
FC # 1	0 Ac.±	4.93 Ac.±	0.52 Ac.±	5.45 Ac.±
FC # 2	0 Ac.±	1.36 Ac.±	0 Ac.±	1.36 Ac.±
FC # 3	0 Ac.±	2.46 Ac.±	0 Ac.±	2.46 Ac.±
FC # 4	0 Ac.±	2.69 Ac.±	0 Ac.±	2.69 Ac.±
FC # 5	0 Ac.±	9.44 Ac.±	0 Ac.±	9.44 Ac.±
FC # 6	0 Ac.±	1.32 Ac.±	0 Ac.±	1.32 Ac.±
FC # 7	0 Ac.±	0.88 Ac.±	0 Ac.±	0.88 Ac.±
FC # 8	0 Ac.±	0.48 Ac.±	0 Ac.±	0.48 Ac.±
FC # 9	0 Ac.±	1.29 Ac.±	0 Ac.±	1.29 Ac.±
FC # 10	0 Ac.±	0.71 Ac.±	0 Ac.±	0.71 Ac.±
FC # 11	0 Ac.±	0.96 Ac.±	0.93 Ac.±	1.89 Ac.±
FC # 12	0 Ac.±	0.87 Ac.±	0.33 Ac.±	1.20 Ac.±
FC # 13	0 Ac.±	0.87 Ac.±	0.76 Ac.±	1.63 Ac.±
TOTAL		28.26 Ac.±	2.54 Ac.±	30.80 Ac.±

NO.		DATE		REVISIONS	
A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274					
PROJECT NAME <b>PINDELL WOODS</b>					
LOTS 1 THRU 47 AND PRESERVATION PARCELS A THRU F 5th ELECTION DISTRICT TAX MAP # 41, GRID 2, 3, 8 AND 9 PARCEL 275 (LOT 1), PARCEL 484 (LOT 1) AND PARCEL 274 HOWARD COUNTY, MARYLAND.					
TITLE		OWNERS: CLARENCE AND MARTHA CARVELL 7106 PINDELL SCHOOL ROAD FULTON, MD. 20790			
FOREST CONSERVATION PLAN		H Y REAL ESTATE JOINT VENTURE 1921 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852			
8-0-15 P-0-06 F-0-09		MARSHALL P. TULIN 1921 ROCKVILLE PIKE, SUITE 300 ROCKVILLE, MD. 20852			
PREPARED BY:		DEVELOPER: MOUNT VIEW, LLC. 6258 CARDINAL LA. COLUMBIA, MD. 21044			
AMERICAN LAND DEVELOPMENT AND ENGINEERING INC. 10749 BIRMINGHAM WAY WOODSTOCK, MD 21183 TEL: (410) 465-7903 FAX: (410) 465-3845		DES.: JL/DCW/AVG		JOB:	
DRW.: AVG/DTA/JNC		PROJ.:		SCALE: 1" = 100'	
CHK.: D.C.W.		DATE: 03/04/01		SHEET 35 OF 37	

**PLAN**  
SCALE: 1" = 100'

APPENDIX E FOREST CONSERVATION WORKSHEET	
I. BASIC SITE DATA	Acres (1/100)
GROSS SITE AREA	97.8
AREA WITHIN 100 YEAR FLOODPLAIN	5.9
AREA WITHIN PRESERVATION PARCEL	0.6
(IF APPLICABLE)	
NET TRACT AREA	92.0
LAND USE CATEGORY (R-BLD, R-MRD, R-S, C/O, I)	R-EMD
II. INFORMATION FOR CALCULATIONS	
A. NET TRACT AREA	92.0
B. REFORESTATION THRESHOLD (25 % A)	23.0
C. AFFORESTATION MINIMUM (20 % A)	18.4
D. EXISTING FOREST ON NET TRACT AREA	29.5
E. FOREST AREAS TO BE CLEARED	21.2
F. FOREST AREAS TO BE RETAINED	28.3
III. DETERMINING REQUIREMENTS: AFFORESTATION OR REFORESTATION	
1. REFORESTATION	
If existing forest areas equal or exceed the afforestation minimum (if D equals or is more than C) and clearing of forest areas is proposed, reforestation requirements may apply.	
GO TO SECTION IV	
If existing forest areas exceed the afforestation minimum (if D equals or is more than C) and no clearing of existing forest resources is proposed, no reforestation is required. No further calculations are needed.	
2. AFFORESTATION	
If existing forest areas are less than the afforestation minimum (if D is less than C), afforestation applies.	
GO TO SECTION V	
IV. REFORESTATION CALCULATIONS	
A. Net Tract Area	92.0
B. Reforestation Threshold (25 % A)	23.0
C. Existing Forest on Net Tract Area	29.5
D. Forest Areas to be Cleared	31.2
E. Forest Areas to be Retained	28.3
F. Forest Areas Cleared Above Reforestation Threshold (C - E, if E equals or is greater than B, Alternate 1)	31.2
(C - E, if E is less than B, Alternate 2)	
G. Forest Areas Cleared Below Reforestation Threshold (D - F, if applicable)	0.0
H. Forest Areas Retained Above Reforestation Threshold (E - B, Reforestation Credit, if applicable)	5.3
SELECT THE ALTERNATIVE THAT APPLIES:	
1. CLEARING ABOVE THE THRESHOLD ONLY	
If forest areas to be retained equal or are greater than the reforestation threshold (if F equals or is greater than B), the following calculations apply:	
Reforestation for clearing above threshold	7.8
F x 1/4	
Credits for forest areas retained above threshold	5.3
H - Reforestation Credit	
Total Reforestation required	2.5
(F x 1/4) - H	
2. CLEARING BELOW THE THRESHOLD	
If forest areas to be retained are less than the reforestation threshold (if F is less than B), the following calculations apply:	
Reforestation for clearing above threshold	F x 1/4
Reforestation for clearing below threshold	G x 2
Total Reforestation required	(F x 1/4) + (G x 2)
Since clearing occurs below the threshold, no forest retention credit is possible.	
V. AFFORESTATION CALCULATIONS	N/A
TOTAL EASEMENT AREA = 28.3 Ac. + 2.5 Ac. (REFORESTATION) = 30.8 Ac. (REQUIRED)	
30.8 Ac. (PROVIDED)	

The area of stream buffer/forestation planting shall be protected during construction per the following:

**FOREST PROTECTION PROCEDURES - Pre-construction Phase**

Stress Reduction and Protection of Specimens  
Trees Isolated from Forest Retention Areas  
and General Forest Retention Areas  
(As They May Apply)

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

Isolated Specimen Trees - 1.5 feet of protective radius per inch of DBH

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

- Construction activities expressly prohibited within the preservation areas are:

Placing or stockpiling backfill or top soil in protected areas  
Felling trees into protected areas  
Driving construction equipment into or through protected areas  
Burning in or close proximity to protected areas  
Stacking or storing supplies of any kind  
Concrete wash-off areas

Conducting trenching operations  
Grading beyond the limits of disturbance  
Parking vehicles or construction equipment  
Removal of root mat or topsoil

Siting and construction of Utility lines  
Access roads  
Improvised surfaces  
Storm water management  
Devices

Shaping Areas  
Protective Fencing (see Figure "Protective Fencing") shall be the responsibility of the general contractor.

The general contractor shall affix signs to the fencing at 2' minimum intervals indicating that these areas are "Forest Retention Area" or "Specimen Tree" (see Figure "Signage"). The general contractor shall take great care to assure the retention areas are not violated and that root systems are protected from smothering, flooding, excessive wetting from de-watering operations, off-site runoff, spillage and drainage or solutions containing materials hazardous to tree roots.

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

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

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

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

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

**PLANTING PLAN**

The tree species selected are consistent with the mixed upland oak association native to the soils. The County Manual recommends a planting density of 100 stems per acre if 1' stock is planted, and the schedule below meets that recommendation. Species will be randomly mixed and planted approximately 20' apart from other plantings. Straight rows should be avoided to simulate a more natural arrangement. The total number of plants will be 508 trees based up 2.54 Ac. at 200 trees/Acres.

(PIONEER)		(CLIMAX)	
TULIP POPLAR	DOM.	BLACK OAK	DOM.
BLACK CHERRY	(UNDERSTORY)	N. RED OAK	DOM.
FLOWERING DOGWOOD	(UNDERSTORY)	BLACK GUM	(UNDERSTORY)
		RED MAPLE	(UNDERSTORY)
		WHITE OAK	DOM.

2" CALIPERS TREES @ 100/ACRE	QTY.
WHITE OAK	15
BLACK OAK	15
N. RED OAK	15
TULIP POPLAR	15
BLACK CHERRY	10
RED MAPLE	10
BLACK GUM	10
FLOWERING DOGWOOD	10
QUERCUS ALBA	15
QUERCUS VELUTINA	15
QUERCUS RUBRA	15
LIRIODENDRON TULIPIFERA	15
PRUNUS SEROTINA	10
ACER RUBRUM	10
NYSSA SYLVATICA	10
CORNUS FLORIDA	10

**OTHER PLANTING INSTRUCTIONS**

Plant material should be obtained from a reputable nursery and ordered 3 to 6 months before desired delivery. Delivery should be arranged to occur as close to planting time as possible, and stock should be protected from direct sun and drying until planting. Planting dates are October through May, with spring months preferred. (Suggested supplier: Silva Native Nursery & Seed Co., New Freedom, PA, (717) 227-0486)

Stock should be inspected before planting for signs of damage, disease, or insect infestation, vigor, and size. Damaged or inferior plants should be replaced.

Upon planting container grown stock, plants should be removed from the container and the soil gently loosened from the roots. If roots encircle the root ball, or are J-shaped or kninked, consider replacement. Do not trim roots on-site.

The planting field should be dug and backfilled with the native soil. Rake the surface and cover the disturbed area with approximately 4 inches of mulch, but avoid burying the base of the stem to prevent fungal rot. Water immediately to settle the soil around the roots.

**MAINTENANCE AND PROTECTION OF PLANTED AREA**

Soils should be tested to determine the need for fertilizer. If fertilizer is needed, it should be applied at the testing lab's recommended rates after the first growing season (late fall or early spring). Organic or slow-release fertilizers are preferred.

Watering should be planned to compensate for deficient rainfall. New plantings need water once a week for the first growing season. The second year, watering may only be necessary in July and August, and in subsequent years only water during drought periods. Watering should be done slowly enough to permit deep soaking of the root zone.

Monitor the young trees for several years for health, insect damage, and invasive vines. Replace dead and dying trees. The survival rate shall be a minimum of 90% of the plantings after the first growing season, and 75% after the second season. Do not spray insecticides unless it has been determined that an infestation with the potential to threaten the survival of the trees is present. Control invasive vines manually, or by careful and selective use of appropriate herbicide.

Post protective signage that states that this area is a Forest Conservation Area and trees have been planted for reforestation. An effort should be made to inform and gain the cooperation of the adjacent residents to monitor and protect the plantings.

**FOREST PROTECTION PLAN**

The forest conservation and reforestation areas will need to be protected from injury during the land clearing and construction process, and from any future land use changes. Long-term protection will require placing the forest in a permanent, recorded, non-developable open space or conservation easement. The legal document establishing this protection will be required for final FCP approval.

**CONSTRUCTION PHASE**

Protective measures during the construction stage will focus on protecting the critical root zone of the retained trees along the new forest edge. The final LDD line will be staked in the field by a qualified professional who will determine which individual trees will be saved, and the extent of the critical root zone based on trees species and size. The resulting boundary will be fenced with approved fencing and posted as a tree preservation area, and no disturbance to the vegetation within the retention area will be allowed, except that which may be necessary to manage the health of the trees, such as thinning, pruning, or vine control. Any grading and construction that will occur uphill from the forest will require sediment control measures such as a silt fence or other device that will prevent siltation in the critical root zone of retained trees.

**TWO-YEAR POST-CONSTRUCTION MANAGEMENT PROGRAM**

Howard County requires the developer to commit to a minimum of two years of responsibility for the management of the Forest Conservation Area. The program must be supervised by a qualified professional. The obligations include: periodic (beginning and end of growing season) inspection of the condition of the forest; necessary management such as maintenance of fencing and signage, treatment or removal of damaged or dying trees, or invasive plant control; education of new land owners or occupants about allowable activities and future responsibilities for the forest; and a final inspection and certification that the forest is intact and the conditions of the FCP have been met submitted to the County. Upon review of the final certification, the County will notify the developer of release from all future obligations, and their transferal to the owner.

Prepared by: **William Bridgeland**  
MD DNR Qualified Professional

**NOTE TO CONTRACTOR:**

- FOR DEAD OR DISEASED TREES, THE CONTRACTOR MAY REMOVE THE SAME.
- TREES ARE TO BE PLACED IN A RANDOM PATTERN TO CREATE A NATURAL EFFECT. THEY ARE TO BE MIXED IN THE RATIOS DESCRIBED ABOVE AND THEY ARE TO BE SPACED APPROXIMATELY 20 FEET APART.

**FOREST CONSERVATION EASEMENT STANDARD NOTES:**

The forest Conservation Easement has been established to fulfill the requirements of Section 16.1200 of the Howard County Code, Forest Conservation Act. No Clearing, grading or construction is permitted within the Forest Conservation Easement; however forest management practices as defined in the Deed of Forest Conservation Easement are allowed.



**MARYLAND DEPARTMENT OF THE ENVIRONMENT**  
2500 Broening Highway • Baltimore, Maryland 21224  
(410) 631-3000 • 1-800-633-6101 • http://www.mde.state.md.us

Patric N. Ghendrieh  
Governor

Janet T. Nishize  
Secretary

November 27, 2000

Paul Revella  
Mount View, LLC  
6258 Cardinal Lane  
Columbia, Maryland 21044

Application Tracking Number 00-NF-0452/2001/60102  
Project: MOUNT VIEW LLC/POND VIEW EST./SWM POND - Howard County  
Contact Person/Telephone/Fax: David Boelner/(410)631-4179/(410)631-8047

Dear Mr. Revella:

The Nontidal Wetlands and Waterways Division of the Water Management Administration (WMA) has received sufficient information to make a final decision on the joint Federal/State application for the project listed above. A favorable decision has been made to issue a Nontidal Wetlands and Waterways Letter of Authorization (LOA) and Water Quality Certification (WQC) for the proposed activity. Prior to issuance of the LOA and WQC this office will need the following items addressed:

- Submit two copies of the final construction plans for the project. The plans must include the limits of any nontidal wetlands, nontidal wetland buffers, and waters of the State (including the 100-year floodplain), limits of disturbance, "Best Management Practices for Working in Nontidal Wetlands" (attached), a sequence of construction, and approved erosion and sediment control plans. The copies of the plans will be reviewed and, once approved, distributed to the Compliance Program of the WMA and to the applicant as an attachment to the LOA and WQC.

Once the information is received and determined sufficient, the LOA and WQC will be issued. The LOA and WQC will authorize the applicant to conduct the activity specified if the conditions of the authorization and certification and the attached best management practices are met.

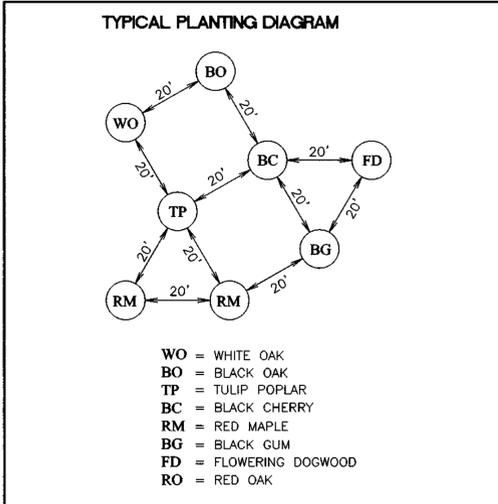
If you have any questions, I may be reached at (410)631-4179.

Sincerely,  
*David B. Boelner*  
David B. Boelner, Project Manager  
WMA, Nontidal Wetlands and Waterways Division

Attachment  
C: Jack Damm - U.S. Army Corps of Engineers

"Together We Can Clean Up"

- BEST MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, AND 100-YEAR FLOODPLAINS**
- No excess fill, construction material, or debris shall be stockpiled or stored in nontidal wetlands, nontidal wetland buffers, waterways, or the 100-year floodplain.
  - Place materials in a location and manner which does not adversely impact surface or subsurface water flow into or out of nontidal wetlands, nontidal wetland buffers, waterways, or the 100-year floodplain.
  - Do not use the excavated material as backfill if it contains waste metal products, unignited debris, toxic material, or any other deleterious substance. If additional backfill is required, use clean material free of waste metal products, unignited debris, toxic material, or any other deleterious substance.
  - Place heavy equipment on mats or suitably operate the equipment to prevent damage to nontidal wetlands, nontidal wetland buffers, waterways, or the 100-year floodplain.
  - Repair and maintain any serviceable structure or fill to there is no permanent loss of nontidal wetlands, nontidal wetland buffers, or waterways, or permanent modification of the 100-year floodplain in excess of that lost under the originally authorized structure or fill.
  - Rectify any nontidal wetlands, wetland buffers, waterways, or 100-year floodplain temporarily impacted by any construction.
  - All stabilization in the nontidal wetland and nontidal wetland buffer shall consist of the following species: Annual Ryegrass (*Lolium multiflorum*), Miller (*Setaria italica*), Barley (*Hordeum sp.*), Oats (*Avena sp.*), and/or Rye (*Secale cereale*). These species will allow for the stabilization of the site while also allowing for the voluntary revegetation of natural wetland species. Other non-permanent vegetation may be acceptable, but must be approved by the Nontidal Wetlands and Waterways Division. Kentucky 31 fescue shall not be utilized in wetland or buffer areas. The area should be seeded and mulched to reduce erosion after construction activities have been completed.
  - After installation has been completed, make post-construction grades and elevations the same as the original grades and elevations in temporarily impacted areas.
  - To protect aquatic species, in-stream work is prohibited as determined by the classification of the stream:
    - Use 1 waters: In-stream work shall not be conducted during the period March 1 through June 15, inclusive, during any year.
  - Stormwater runoff from impervious surfaces shall be controlled to prevent the washing of debris into the waterway.
  - Culverts shall be constructed and any riprap placed so as not to obstruct the movement of aquatic species, unless the purpose of the activity is to impound water.



**FOREST PROTECTION PROCEDURES - Construction Phase**  
Forest and tree conditions should be monitored during construction and corrective measures taken when appropriate.

The following shall be monitored:

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

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

The following measures shall be taken:

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

REQUIRED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S.D.A. - NATURAL RESOURCES CONSERVATION SERVICE \_\_\_\_\_ DATE \_\_\_\_\_

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

DISTRICT HOWARD SOIL CONSERVATION DIST. \_\_\_\_\_ DATE \_\_\_\_\_

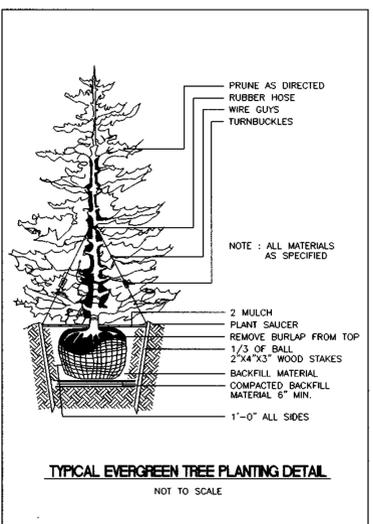
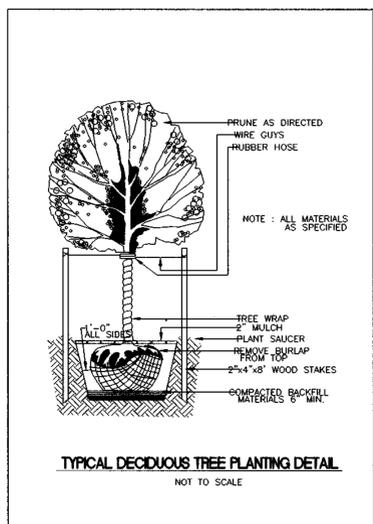
APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Christopher M. Dangle* 5-1-01  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Hamilton* 5/16/01  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

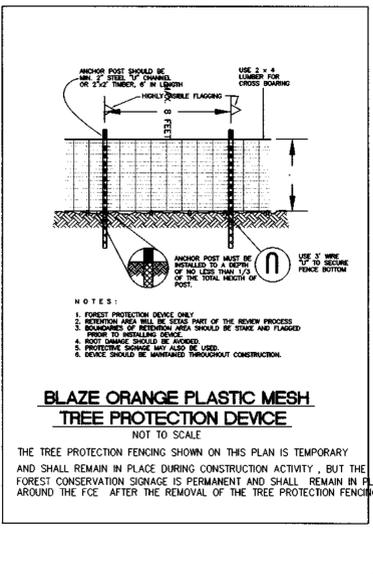
*Mike Deussen* 5/16/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**FOREST CONSERVATION EASEMENT STANDARD NOTES:**

The forest Conservation Easement has been established to fulfill the requirements of Section 16.1200 of the Howard County Code, Forest Conservation Act. No Clearing, grading or construction is permitted within the Forest Conservation Easement; however forest management practices as defined in the Deed of Forest Conservation Easement are allowed.



- FCE NOTES**
- ANY FOREST CONSERVATION EASEMENT (FCE) AREA SHOWN HEREON IS SUBJECT TO PROTECTIVE COVENANTS WHICH MAY BE FOUND IN THE LAND RECORDS OF HOWARD COUNTY WHICH RESTRICT THE DISTURBANCE AND USE OF THESE AREAS.
  - FORESTED AREAS OCCURRING OUTSIDE OF THE FCE SHALL NOT BE CONSIDERED PART OF THE FCE AND SHALL NOT BE SUBJECT TO PROTECTIVE LAND COVENANTS.
  - LIMITS OF DISTURBANCE SHALL BE RESTRICTED TO AREAS OUTSIDE THE LIMIT OF TEMPORARY FENCING OR THE FCE BOUNDARY, WHICHEVER IS GREATER.
  - THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENT, EXCEPT AS PERMITTED BY HOWARD COUNTY DPZ.
  - NO STOCKPILES, PARKING AREAS, EQUIPMENT CLEANING AREAS, ETC. SHALL OCCUR WITHIN AREAS DESIGNATED AS FOREST CONSERVATION EASEMENTS.
  - TEMPORARY FENCING SHALL BE USED TO PROTECT FOREST RESOURCES DURING CONSTRUCTION. THE FENCING SHALL BE PLACED ALONG ALL FCE BOUNDARIES WHICH OCCUR WITHIN 15 FEET OF THE PROPOSED LIMITS OF DISTURBANCE.
  - PERMANENT SIGNAGE SHALL BE PLACED 50-100' APART ALONG THE BOUNDARIES OF ALL AREAS INCLUDED IN FOREST CONSERVATION EASEMENTS.



**SIGNAGE**

Min. 11" x Min. 11" x Min. 15"

**FOREST CONSERVATION CREDIT:**  
(2 L.S. EVERGREENS) (225 S.F./TREE) = 450 S.F.  
(3 L.S. SHADE TREES) (400 S.F./TREE) = 1,200 S.F.  
TOTAL CREDIT = 1,650 S.F.  
= 0.038 Ac.

NOTE:  
FINANCIAL SURETY FOR FOREST CONSERVATION OBLIGATION WILL BE POSTED WITH THE DEVELOPER'S AGREEMENT FOR 28.26 ACRES OF RETENTION = \$ 123,100.00 PLUS (+) 2.5 ACRES OF REFORESTATION = 108,900 SQ. FT. = 1,650 SQ. FT. (CREDIT) = 107,250 SQ.FT. = \$ 32,175.00 FOR A TOTAL FOREST SURETY AMOUNT OF \$ 155,275.00".

**DUE TO THE ADDITION OF SHEET 37A THE PLAN SET CONTAINS 37 SHEETS.**

NO.	DATE	REVISIONS

A RESUBDIVISION OF PARCEL 275 (LOT 1) AND PARCEL 484 (LOT 1) AND SUBDIVISION OF PARCEL 274

PROJECT NAME: **PINDELL WOODS**  
LOTS 1 THRU 47 AND PRESERVATION PARCELS A THRU F  
5th ELECTION DISTRICT TAX MAP # 41, GRID 2, 3, 8 AND 9  
PARCEL 275 (LOT 1), PARCEL 484 (LOT 1) AND PARCEL 274  
HOWARD COUNTY, MARYLAND.

TITLE: **FINAL LANDSCAPE AND FOREST CONSERVATION TABULATION AND DETAILS**  
8-00-15 P-01-06 F-01-89

OWNERS: CLARENCE AND MARTHA CARVELL  
706 PINDELL SCHOOL ROAD  
FULTON, MD. 20759  
H Y REAL ESTATE JOINT VENTURE  
1921 ROCKVILLE PIKE, SUITE 300  
ROCKVILLE, MD. 20852  
MARSHALL P. TULIN  
1921 ROCKVILLE PIKE, SUITE 300  
ROCKVILLE, MD. 20852  
DEVELOPER: MOUNT VIEW, LLC  
6258 CARDINAL LA.  
COLUMBIA, MD. 21044

PREPARED BY: AMERICAN LAND DEVELOPMENT AND ENGINEERING INC.  
10749 BIRMINGHAM WAY  
WOODSTOCK, MD 21183  
TEL (410) 465-7903  
FAX (410) 465-3846

DES.: JL/DCW/AVG JOB :  
DRW.: AVG/DTA/JNC PROJ. :  
CHK.: D.C.W. DATE : 03/04/01

SCALE : AS SHOWN SHEET 36 OF 37