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SITE DEVELOPMENT PLAN

BRENTWOOD MANOR EXPANSION

SITES 1 - 43

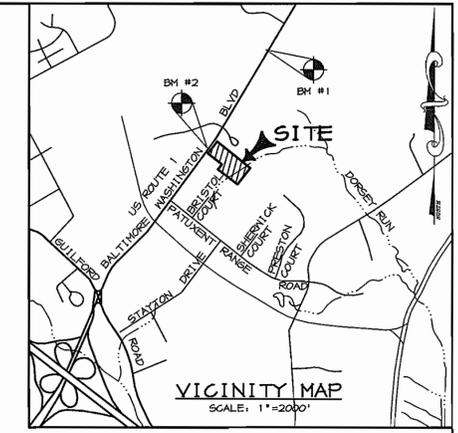
6TH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

BENCHMARKS

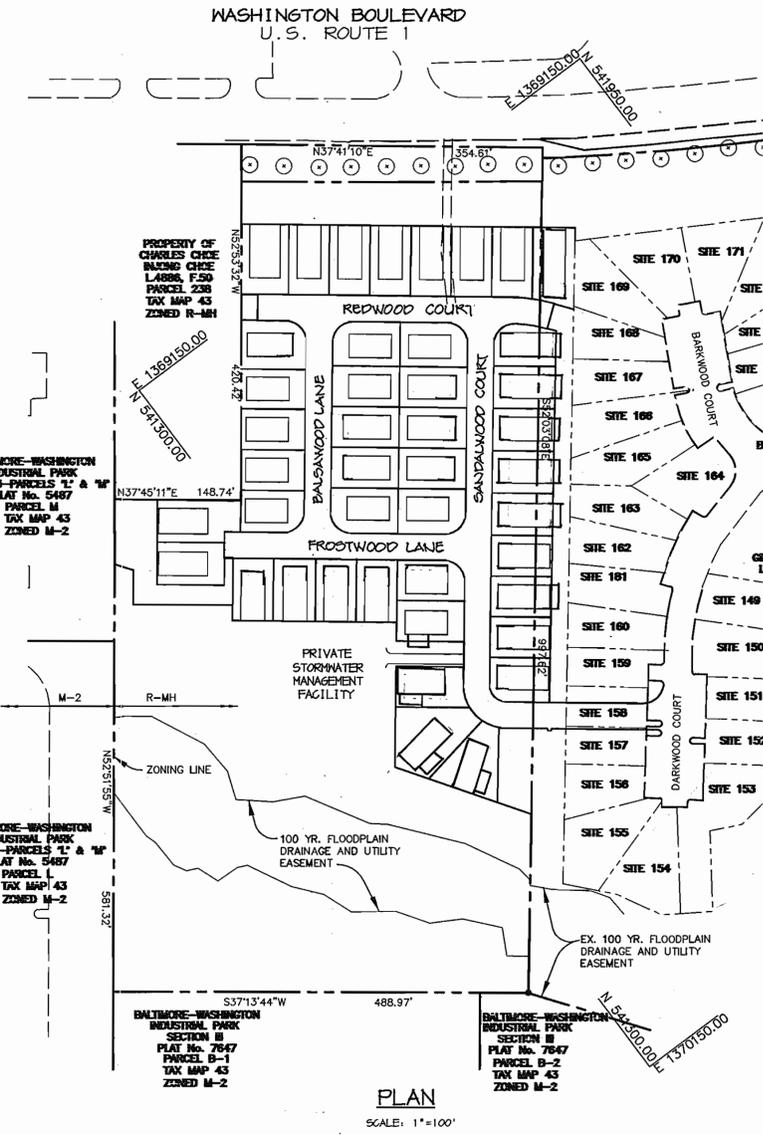
BENCHMARK #1
 HOWARD COUNTY SURVEY CONTROL
 STATION: 4366
 N 544,111.545 E 1,370,560.825
 ELEVATION: 220.116
 CONCRETE MONUMENT ON S.E. SIDE OF ROUTE 1, S.W. OF ROUTE 175.

BENCHMARK #2
 HOWARD COUNTY SURVEY CONTROL
 STATION: 4364
 N 541,747.060 E 1,369,154.441
 ELEVATION: 241.692
 CONCRETE MONUMENT ON N.E. SIDE OF ROUTE 1, NORTH OF BRIDGE ON ROUTE 1 OVER R.R. SPUR.



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) 313-1880 AT LEAST FIVE (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 SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB AND FACE OF BUILDING UNLESS OTHERWISE NOTED.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY RIEMER MUEGGE & ASSOC., INC. DATED MARCH, 2000.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 48DB AND 43GA WERE USED FOR THIS PROJECT.
- WATER IS PUBLIC. CONTRACT NO. 24-3967-D
- SEWER IS PUBLIC. SEWER DRAINAGE AREA: DORSEY CONTRACT NO. 24-3967-D
- THE STORMWATER MANAGEMENT QUANTITY AND WATER QUALITY PROPOSED FOR THIS SITE IS PROVIDED VIA A MICROPOOL EXTENDED DETENTION FACILITY AND A BIORETENTION AREA, RESPECTIVELY. THE FACILITIES WILL BE PRIVATELY OWNED & MAINTAINED.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
- A 100-YEAR FLOODPLAIN STUDY HAS BEEN APPROVED BY HOWARD COUNTY DEVELOPMENT ENGINEERING DIVISION ON AUG. 9, 2001.
- A TRAFFIC STUDY HAS BEEN PREPARED BY THE TRAFFIC GROUP INC DATED SEPT 2000
- A NOISE STUDY HAS BEEN PREPARED BY RM A DIV. OF PHR&A DATED FEB. 2000
- A GEOTECHNICAL STUDY HAS BEEN PREPARED BY H.C.E., DATED SEPT. 29, 2000.
- THE BOUNDARY SURVEY FOR THIS PROJECT HAS BEEN PREPARED BY RIEMER MUEGGE & ASSOC., APRIL, 2000.
- SUBJECT PROPERTY ZONED R-MH PER 10-18-93 COMPREHENSIVE ZONING PLAN.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- SEE DEPARTMENT OF PLANNING AND ZONING FILE NOS: SDP-88-195, F-88-242, WP-88-99, S-86-69, VP-86-126, WP-91-15, VP-87-48.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T180.
- THE PAVEMENT DETAILS SHOWN FOR THIS SITE REFLECT THE HOWARD COUNTY STANDARD PAVEMENT SECTIONS AND ARE NOT BASED ON SITE SPECIFIC CONDITIONS. PRIOR TO PAYING THE FINAL PAVEMENT SECTIONS SHALL BE DETERMINED BY A QUALIFIED GEOTECHNICAL ENGINEER BASED ON IN-SITU TESTING OF THE FINISHED SUBGRADE.
- ALL LIGHTING IS TO BE DIRECTED/REFLECTED AWAY FROM ADJACENT PUBLIC ROADS AND RESIDENTIALLY ZONED PROPERTIES, AND BE IN ACCORDANCE WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS.
- THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 18.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION THRU PLACEMENT OF FOREST RETENTION EASEMENTS (1.88 AC.) LOCATED WITHIN THE PROPERTY OF GIBERT A. MOXLEY, TAX MAP 43, GRID 20, PARCEL 233, AS SHOWN ON THESE PLANS, AND VIA OFF-SITE REFORESTATION PLANTING OF 1.45 AC. LOCATED ON THE LISTON FARM PROPERTY, TAX MAP 2, GRIDS 15 AND 21, PARCEL 17, L. 5672, F. 0492 (SEE SHEET 18).
- FOR FOREST CONSERVATION EASEMENT METES & BOUNDS, SEE GRANT OF EASEMENT PLAT RECORDED IN THE LAND RECORDS OF HOWARD COUNTY AS PLAT NO. 10206-10207 FOR ON-SITE AND PLAT NO. 10206 FOR OFF-SITE.
- ALLOCATIONS FOR THE 43 UNITS IN THIS DEVELOPMENT WERE REPLACEMENT MOBILE UNIT ALLOCATIONS MADE AVAILABLE IN ACCORDANCE WITH COUNCIL BILL 51-2002.



SITE TABULATION

BRENTWOOD MANOR EXPANSION- PARCEL 233

1. GROSS AREA OF TRACT	9.95
2. ZONING OF TRACT	R-MH
3. AREA OF STEEP SLOPES	0 AC
4. AREA OF FLOODPLAIN	1.16 AC
5. NET AREA	8.79 AC
6. NUMBER OF D.U. PERMITTED @ 80U./NET AREA	70
7. NUMBER OF D.U. PROPOSED	43
8. DENSITY PROPOSED PER NET ACRE	4.89 D.U./NET ACRE
9. OPEN SPACE REQUIRED (25% GROSS ACRE)	2.49 AC
10. OPEN SPACE PROVIDED	5.3% = 5.28 AC
11. AREA OF RECREATION OPEN SPACE REQUIRED	175 SF/UNIT = 7675 SF
12. AREA OF RECREATION OPEN SPACE PROVIDED	2 SP/UNIT = 86
13. PARKING REQUIRED	2 SP/UNIT = 86
14. PARKING PROVIDED	2 SP/UNIT = 86

EXISTING BRENTWOOD MANOR- PARCEL A (SDP-88-195)

1. GROSS AREA OF TRACT	43.318 AC
2. AREA OF M-2 ZONING	2.55 AC
3. AREA OF R-MH ZONING	40.77 AC
4. AREA OF FLOOD PLAIN & STEEP SLOPES	7.76 AC
5. NET AREA	32.99 AC
6. NUMBER OF D.U. PERMITTED @ 80U./NET AREA	264
7. NUMBER OF D.U. PROPOSED	182*
8. DENSITY PROPOSED PER NET ACRE	5.5 D.U./NET ACRE
9. OPEN SPACE REQUIRED (20% GROSS ACRE)	8.14 AC
10. OPEN SPACE PROVIDED	33.8% = 13.78 AC
11. AREA OF RECREATION OPEN SPACE REQUIRED	4.07 AC
12. AREA OF RECREATION OPEN SPACE PROVIDED	6.00 AC
13. PARKING REQUIRED	380 SP
14. PARKING PROVIDED	405 SP

* INCLUDES 174 MOBILE HOMES, (2) ONE BEDROOM APARTMENTS & 6 EFFICIENCIES.

TOTALS FOR BRENTWOOD MANOR- PARCELS A & 233

1. GROSS AREA OF TRACT (R-MH)	50.72 AC
2. AREA OF FLOOD PLAIN & STEEP SLOPES	8.94 AC
3. NET AREA	41.78 AC
4. NUMBER OF D.U. PERMITTED @ 8 D.U./NET AREA	334
5. NUMBER OF D.U. PROPOSED	223
6. DENSITY PROPOSED PER NET ACRE	5.24 D.U./NET ACRE
7. OPEN SPACE REQUIRED	10.63 AC
8. OPEN SPACE PROVIDED	19.06 AC
9. AREA OF RECREATION OPEN SPACE REQUIRED	4.24 AC
10. AREA OF RECREATION OPEN SPACE PROVIDED	6.10 AC
11. PARKING REQUIRED	466 SP
12. TOTAL PARKING PROVIDED (AFTER REMOVAL OF 9 EXISTING SPACES ON PARCEL A FOR THIS PLAN)	482 SP

AS-BUILT CERTIFICATION

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Frank A. Layth 1/18/03
 DIRECTOR DATE

Chief, Development Engineering Division 7/27/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cinda Hamstra 1/16/03
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

8/23/07 1 REVISED BUILDING SIZES
 DATE NO. REVISION

Domenick Colangelo 7/25/07
 DOMENICK COLANGELO #21200 DATE

ADDRESS CHART		ADDRESS CHART	
SITE NUMBER	STREET ADDRESS	SITE NUMBER	STREET ADDRESS
1	8002 REDWOOD COURT	24	8442 SANDALWOOD COURT
2	8300 REDWOOD COURT	25	8406 SANDALWOOD COURT
3	8210 REDWOOD COURT	26	8404 SANDALWOOD COURT
4	8214 REDWOOD COURT	27	8400 SANDALWOOD COURT
5	8218 REDWOOD COURT	28	8408 SANDALWOOD COURT
6	8222 REDWOOD COURT	29	8402 SANDALWOOD COURT
7	8226 REDWOOD COURT	30	8418 SANDALWOOD COURT
8	8230 REDWOOD COURT	31	8414 SANDALWOOD COURT
9	8412 BALSALWOOD LANE	32	8410 SANDALWOOD COURT
10	8410 BALSALWOOD LANE	33	8408 SANDALWOOD COURT
11	8408 BALSALWOOD LANE	34	8407 SANDALWOOD COURT
12	8406 BALSALWOOD LANE	35	8411 SANDALWOOD COURT
13	8404 BALSALWOOD LANE	36	8416 SANDALWOOD COURT
14	8402 BALSALWOOD LANE	37	8410 SANDALWOOD COURT
15	8404 BALSALWOOD LANE	38	8207 FORESTWOOD LANE
16	8408 BALSALWOOD LANE	39	8211 FORESTWOOD LANE
17	8412 BALSALWOOD LANE	40	8215 FORESTWOOD LANE
18	8416 BALSALWOOD LANE	41	8219 FORESTWOOD LANE
19	8420 BALSALWOOD COURT	42	8223 FORESTWOOD LANE
20	8424 BALSALWOOD COURT	43	8227 FORESTWOOD LANE
21	8428 BALSALWOOD COURT		
22	8432 BALSALWOOD COURT		
23	8436 BALSALWOOD COURT		

PROJECT NAME:	BRENTWOOD MANOR EXPANSION	SECT./AREA:	233
BLOCK #:	401, F. 556	PARCEL:	233
ZONE:	R-MH	ELECT. DIST.:	6 TH
TAX MAP NO.:	43	CENSUS TRACT:	6064.01
WATER CODE:	B-02	SEWER CODE:	3170000

OWNER/DEVELOPER

BRENTWOOD MANOR MOBILE HOME PARK
 8241 WASHINGTON BOULEVARD
 JESSUP, MARYLAND 20794
 301-453-2344

PROJECT

BRENTWOOD MANOR EXPANSION

AREA

6th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 PARCEL 233, TAX MAP 43, GRID 20
 ZONED R-MH

TITLE

TITLE SHEET

Patton Harris Rust & Associates, pc
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

7.28.03
 DATE

DESIGNED BY: CJR
 DRAWN BY: DAM
 PROJECT NO: 00082/
 SDP1.DWG
 DATE: JULY 23, 2003
 SCALE: AS SHOWN
 DRAWING NO. 1 OF 18

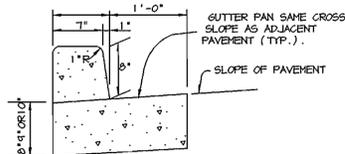
CHRISTOPHER J. REID #19949

NOTES:

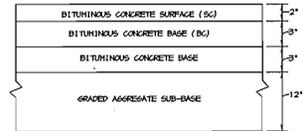
1. ALL RADI ARE 5' UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS ARE TO FACE OF CURB OR BUILDING UNLESS OTHERWISE NOTED.
3. ALL LIGHTS TO BE DIRECTED/ REFLECTED AWAY FROM ADJACENT PUBLIC ROADS AND RESIDENTIAL PROPERTIES.
4. ALL ON-SITE ROADS ARE PRIVATE.
5. STD*REV - STANDARD TO REVERSE CURB TRANSITION.
6.  S.C.E.
7.  M.S.H.A. PAVING
8.  P-2 PAVING (HO.CO. DETAIL R-2.01)
9.  CONCRETE SIDEWALK (HO.CO. DETAIL R-3.05)
10.  LIGHTS

LEGEND

- 450 — EXISTING 10' CONTOURS
- 448 --- EXISTING 2' CONTOURS
- 450 — PROPOSED 10' CONTOURS
- 448 --- PROPOSED 2' CONTOURS
- — — PROPOSED CURB & GUTTER
- — — PROPOSED STORM DRAIN
- — — EXISTING TREETLINE
- — — PROPOSED TREETLINE



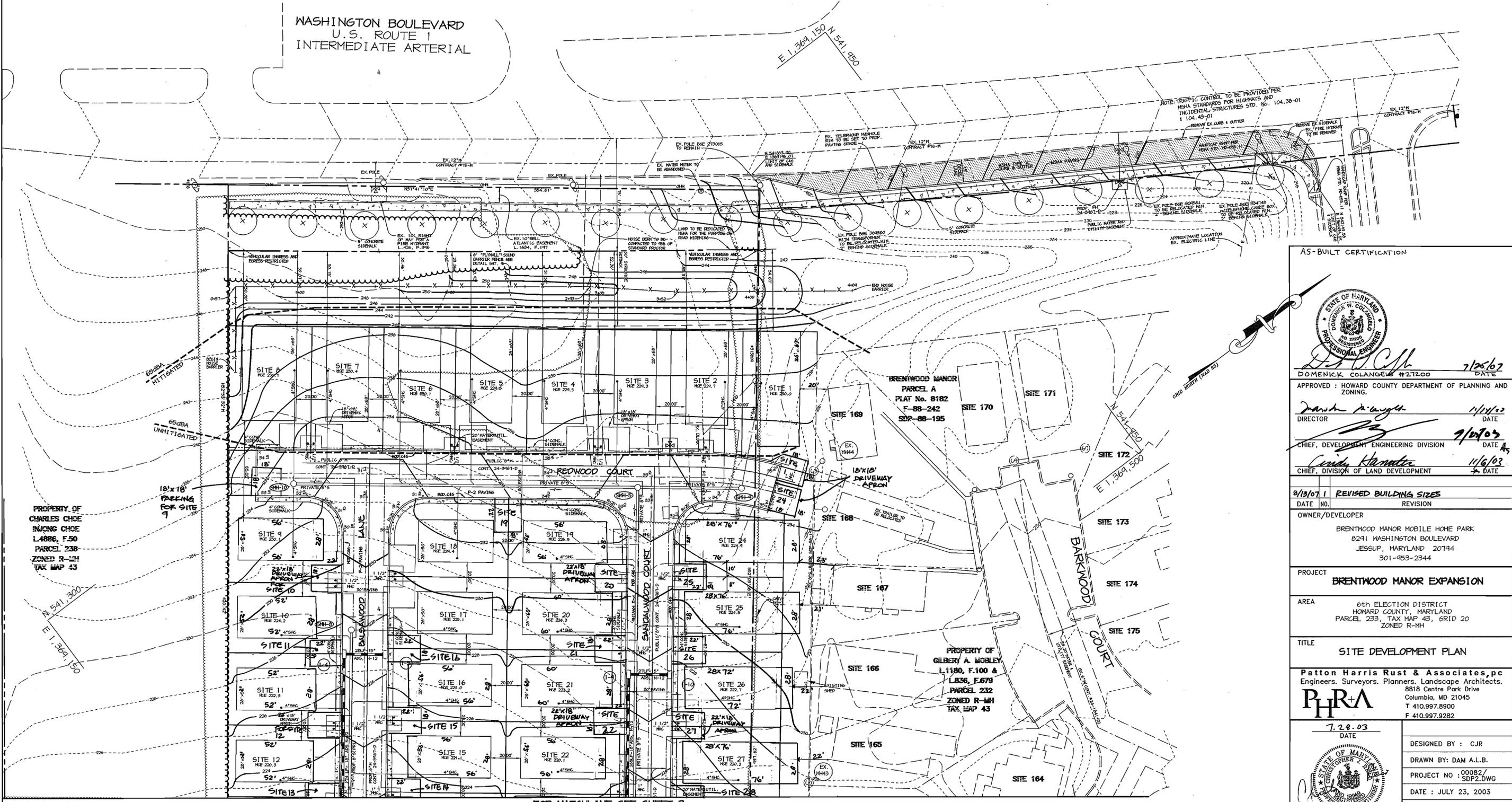
**M.S.H.A. TYPE 'A'
CURB AND GUTTER**
NO SCALE



M.S.H.A. PAVING SECTION
NO SCALE

STREET TREES

SYMBOL	QTY	NAME	SIZE
	18	Platanus x acerfolia London Planetree	2.5 - 3' cal.



AS-BUILT CERTIFICATION



Dominic Colangelo
DOMINICK COLANGELO #21200 DATE 7/28/03
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
Danish Knight 11/14/02 DATE
DIRECTOR
Chris Hamilton 9/20/03 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION
Chris Hamilton 11/6/03 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT

8/13/07 REVISED BUILDING SIZES
DATE NO. REVISION

OWNER/DEVELOPER
BRENTWOOD MANOR MOBILE HOME PARK
8241 WASHINGTON BOULEVARD
JESSUP, MARYLAND 20714
301-453-2344

PROJECT
BRENTWOOD MANOR EXPANSION

AREA
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PARCEL 233, TAX MAP 43, GRID 20
ZONED R-MH

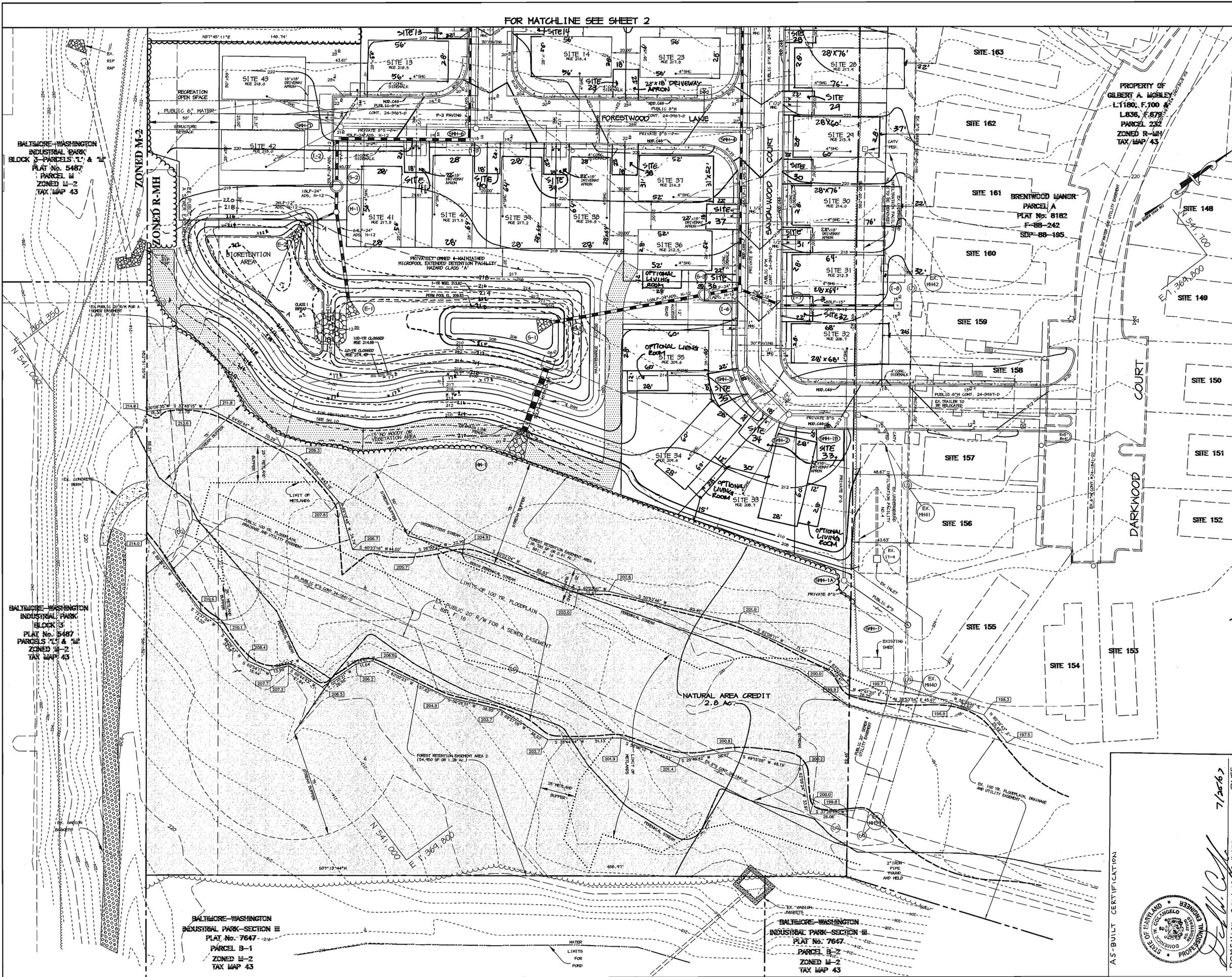
TITLE
SITE DEVELOPMENT PLAN

Patton Harris Rust & Associates, pc
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

7.28.03 DATE

DESIGNED BY : CJR
DRAWN BY: DAM A.L.B.
PROJECT NO : 00082/SDP2.0WG
DATE : JULY 23, 2003
SCALE : 1" = 30'
DRAWING NO. 2 OF 18
CHRISTOPHER J. REID #19949

FOR MATCHLINE SEE SHEET 2



NOTES:

1. ALL RADII ARE 5' UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS ARE TO FACE OF CURB OR BUILDING UNLESS OTHERWISE NOTED.
3. ALL LIGHTS TO BE DIRECTED/ REFLECTED AWAY FROM ADJACENT PUBLIC ROADS AND RESIDENTIAL PROPERTIES.
4. ALL ON-SITE ROADS ARE PRIVATE.
5. * STD/REV - STANDARD TO REVERSE CURB TRANSITION.
6. P-2 PAVING (HO.CO. DETAIL R-2.01)
7. CONCRETE SIDEWALK (HO.CO. DETAIL R-3.05)
8. NATURAL CREDIT AREA
9. LIGHTS

LEGEND

- 450 --- EXISTING 10' CONTOURS
- 448 --- EXISTING 2' CONTOURS
- 450 --- PROPOSED 10' CONTOURS
- 448 --- PROPOSED 2' CONTOURS
- --- PROPOSED CURB & GUTTER
- --- PROPOSED STORM DRAIN
- --- EXISTING TREELINE
- --- PROPOSED TREELINE

SNMF #1

SUMMARY CHART DA TO DESIGN POINT				
STORM	1 YR.	10 YR.	100 YR.	
EXISTING DISCHARGE (CF)	3	12	24	
PROPOSED DISCHARGE (CF)	0.33	31.07	46.20	
ELEVATION (FEET)	213.42	214.43*	214.66*	
STORAGE (ACRE-Feet)	0.62	0.75	0.81	

* CLOGGED CONDITIONS

SNMF #1 SUMMARY CHART

DRAINAGE AREA	7.6 AC.
REV. REQUIRED	4816 CF
REV. PROVIDED	4960 CF
NOV. REQUIRED	16553 CF
NOV. PROVIDED	16553 CF
CPV. REQUIRED	26512 CF
CPV. PROVIDED	27004 CF

FACILITY CONSISTS OF A BIORETENTION AREA TO PROVIDE REV. THE BIORETENTION AREA OVERFLOW IS DIRECTLY INTO MAIN MICROPOOL EXTENDED DETENTION POND. NOV. AND CPV. ARE PROVIDED VIA SEPARATE EXTENDED DETENTION OFFICES. Q_p AND Q_f ARE NOT REQUIRED IN THIS FACILITY. THE NATURAL AREA CREDIT WAS TAKEN TO REDUCE NOV. THE TOTAL CREDIT ACREAGE IS 2.8 AC.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Mark A. Goff 1/14/00
DIRECTOR DATE

Chris Hamstra 4/6/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

9/13/01 REVISED BUILDING SIZES
DATE NO. REVISION

OWNER/DEVELOPER
BRENTWOOD MANOR MOBILE HOME PARK
8241 WASHINGTON BOULEVARD
JESSUP, MARYLAND 20794
301-453-2344

PROJECT
BRENTWOOD MANOR EXPANSION

AREA
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PARCEL 233 TAX MAP 43, GRID 20
ZONED R-1H

TITLE
SITE DEVELOPMENT PLAN

Patton Harris Rust & Associates, pc
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

7.2.8.03
DATE

DESIGNED BY: CJR
DRAWN BY: DAM
PROJECT NO: 00082/SDF3.DWG
DATE: JULY 23, 2003
SCALE: 1" = 30'
DRAWING NO. 3 OF 18

STATE OF MARYLAND
ENGINEER
DOMENICK COLANGELO #21210
DATE 7/20/03

STATE OF MARYLAND
PROFESSIONAL ENGINEER
CHRISTOPHER J. REID #19949

BALTIMORE-WASHINGTON INDUSTRIAL PARK BLOCK 5 PARCELS 1, 1' & 1" PLAT No. 5487 PARCELS 1, 1' & 1" ZONED R-2 TAX MAP 43

BALTIMORE-WASHINGTON INDUSTRIAL PARK BLOCK 5 PARCELS 1, 1' & 1" PLAT No. 5487 PARCELS 1, 1' & 1" ZONED R-2 TAX MAP 43

BALTIMORE-WASHINGTON INDUSTRIAL PARK SECTION III PLAT No. 7647 PARCEL B-1 ZONED R-2 TAX MAP 43

BALTIMORE-WASHINGTON INDUSTRIAL PARK SECTION III PLAT No. 7647 PARCEL B-2 ZONED R-2 TAX MAP 43

AS-BUILT CERTIFICATION

LEGEND

- LIMIT OF DISTURBANCE
- EARTH DIKE
- SSF --- SUPER SILT FENCE
- SF --- SILT FENCE
- SOILS DIVIDE
- INLET DRAINAGE AREA DIVIDE
- SCSCE STABILIZED CONSTRUCTION ENTRANCE
- RIPRAP INFLOW PROTECTION
- RPS REMOVABLE PUMPING STATION
- SPOT ELEVATIONS ALONG EARTH DIKES

SOIL CHART

SYMBOL	DESCRIPTION
C1C3	CHILLUM GRAVELLY LOAM, 5 TO 10 PERCENT SLOPES, SEVERELY ERODED
EVC	EVESBORO LOAMY SAND, 5 TO 15 PERCENT SLOPES
Fa	FALLSINGTON LOAM
IuB	IUKA LOAM, LOCAL ALLUVIUM, 1 TO 5 PERCENT SLOPES
S1B2	SASSAFRAS GRAVELLY SANDY LOAM, 1 TO 5 PERCENT SLOPES, MODERATELY ERODED
S1C2	SASSAFRAS GRAVELLY SANDY LOAM, 5 TO 10 PERCENT SLOPES, MODERATELY ERODED
S1D2	SASSAFRAS GRAVELLY SANDY LOAM, 10 TO 15 PERCENT SLOPES, MODERATELY ERODED
WoB2	WOODSTOWN SANDY LOAM, 1 TO 5 PERCENT SLOPES, MODERATELY ERODED

DRAINAGE DATA

INLET NOS.	AREA IN ACRES	'C' FACTOR	PERCENT IMPERVIOUS
*2	0	N/A	N/A
3	1.27	0.50	47
4	0.82	0.41	32
5	0.50	0.59	56
6	0.57	0.61	63
7	0.53	0.57	57
8	0.66	0.43	30
9	0.67	0.57	54
10	0.20	0.66	70
EX IT-4	0.63	0.51	48

*DRAINAGE AREA TO 1-2 IS INSIGNIFICANT (INCLUDED IN 1-3)

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

Chad J Reid
 ENGINEER
 DATE 7-28-03

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

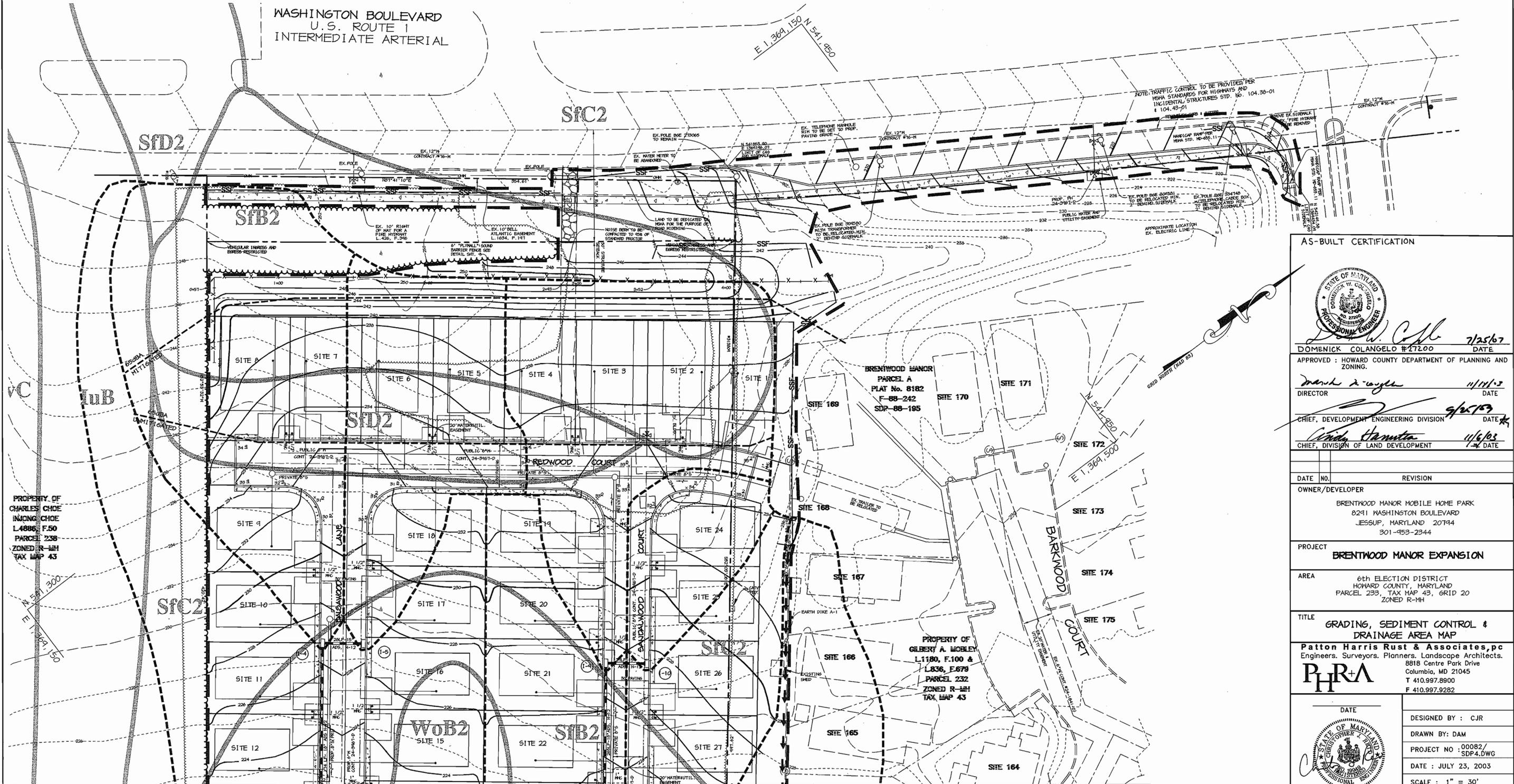
Domenick Colangelo
 DEVELOPER
 DATE 7-28-03

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

Jim Mays
 NATURAL RESOURCES/CONSERVATION SERVICE
 DATE 11/3/07

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

Christopher J. Reid
 HOWARD SOIL CONSERVATION DISTRICT
 DATE 11/3/03



AS-BUILT CERTIFICATION

Domenick Colangelo
 DOMENICK COLANGELO #27200
 PROFESSIONAL ENGINEER
 DATE 7/25/07

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
Mark A. Wagoner
 DIRECTOR
 DATE 11/11/03

Chris Hamata
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE 9/25/07

Chris Hamata
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE 11/6/03

DATE	NO.	REVISION

OWNER/DEVELOPER
 BRENTWOOD MANOR MOBILE HOME PARK
 8291 WASHINGTON BOULEVARD
 JESSUP, MARYLAND 20794
 301-453-2344

PROJECT
BRENTWOOD MANOR EXPANSION

AREA
 6th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 PARCEL 233, TAX MAP 43, GRID 20
 ZONED R-1M

TITLE
GRADING, SEDIMENT CONTROL & DRAINAGE AREA MAP

Patton Harris Rust & Associates, pc
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

Christopher J. Reid
 CHRISTOPHER J. REID #19949

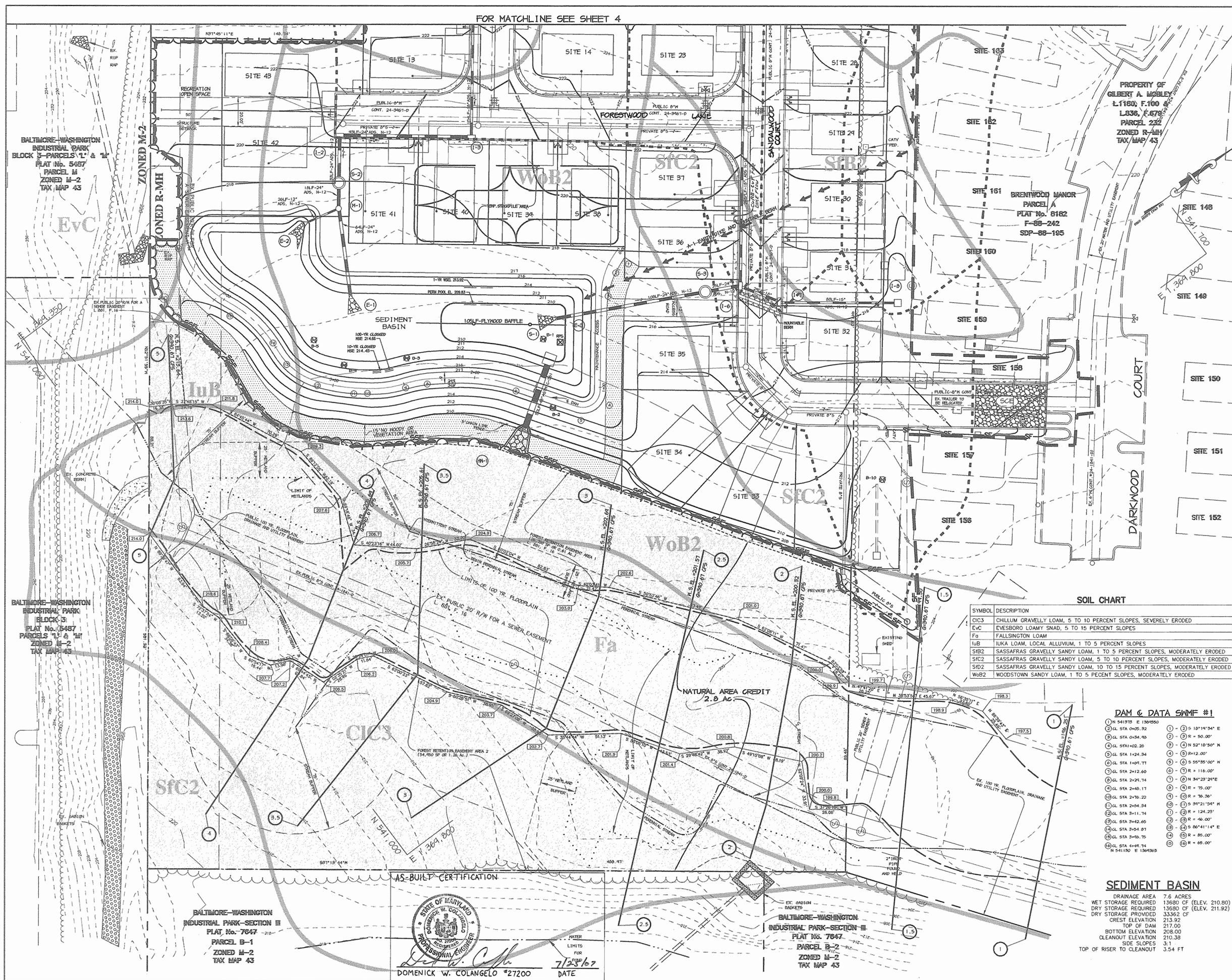
DATE
 DESIGNED BY : CJR
 DRAWN BY: DAM
 PROJECT NO : 00082/SDP4.DWG
 DATE : JULY 23, 2003
 SCALE : 1" = 30'
 DRAWING NO. 4 OF 18

FOR MATCHLINE SEE SHEET 5

FOR MATCH-LINE SEE SHEET 4

LEGEND

- LIMIT OF DISTURBANCE
- EARTH DIKE
- SUPER SILT FENCE
- SILT FENCE
- SOILS DIVIDE
- INLET DRAINAGE AREA DIVIDE
- STABILIZED CONSTRUCTION ENTRANCE
- RIPRAP INFLOW PROTECTION
- REMOVABLE PUMPING STATION
- SPOT ELEVATIONS ALONG EARTH DIKES



PROPERTY OF
GILBERT A. WOBLEY
L.1160, F.100
L.836, F.679
PARCEL 253
ZONED R-MH
TAX MAP 43

BALTIMORE-WASHINGTON
INDUSTRIAL PARK
BLOCK 5-PARCELS 1' & 2'
PLAT No. 5487
PARCEL 11
ZONED M-2
TAX MAP 43

BALTIMORE-WASHINGTON
INDUSTRIAL PARK
BLOCK 3
PLAT No. 5487
PARCELS 1' & 2'
ZONED M-2
TAX MAP 43

BALTIMORE-WASHINGTON
INDUSTRIAL PARK-SECTION II
PLAT No. 7047
PARCEL B-1
ZONED M-2
TAX MAP 43

BALTIMORE-WASHINGTON
INDUSTRIAL PARK-SECTION II
PLAT No. 7047
PARCEL B-2
ZONED M-2
TAX MAP 43



DOMENICK W. COLANGELO #27200
DATE 7/23/03

SOIL CHART

SYMBOL	DESCRIPTION
CIC3	CHILLUM GRAVELLY LOAM, 5 TO 10 PERCENT SLOPES, SEVERELY ERODED
Evc	EVESBORO LOAMY SAND, 5 TO 15 PERCENT SLOPES
Fa	FALLSINGTON LOAM
IuB	IUKA LOAM, LOCAL ALLUVIUM, 1 TO 5 PERCENT SLOPES
SIB2	SASSAFRAS GRAVELLY SANDY LOAM, 1 TO 5 PERCENT SLOPES, MODERATELY ERODED
SFC2	SASSAFRAS GRAVELLY SANDY LOAM, 5 TO 10 PERCENT SLOPES, MODERATELY ERODED
SD2	SASSAFRAS GRAVELLY SANDY LOAM, 10 TO 15 PERCENT SLOPES, MODERATELY ERODED
WoB2	WOODSTOWN SANDY LOAM, 1 TO 5 PERCENT SLOPES, MODERATELY ERODED

DAM & DATA SWMF #1

① N 341°15' E 136.950	⑩ - ⑩ 5 10'14" 94' E
② GL STA 0+25.92	⑪ - ⑪ R = 50.00'
③ GL STA 0+34.95	⑫ - ⑫ N 52°10'50" W
④ GL STA 0+42.34	⑬ - ⑬ R = 12.00'
⑤ GL STA 1+24.34	⑭ - ⑭ S 55°55'00" W
⑥ GL STA 1+49.77	⑮ - ⑮ R = 110.00'
⑦ GL STA 2+12.60	⑯ - ⑯ N 34°23'21"E
⑧ GL STA 2+21.74	⑰ - ⑰ R = 75.00'
⑨ GL STA 2+40.17	⑱ - ⑱ R = 76.36'
⑩ GL STA 2+70.22	⑲ - ⑲ S 24°21'54" W
⑪ GL STA 2+84.34	⑳ - ⑳ R = 124.25'
⑫ GL STA 3+11.74	㉑ - ㉑ R = 40.00'
⑬ GL STA 3+42.65	㉒ - ㉒ S 60°41'14" E
⑭ GL STA 3+54.87	㉓ - ㉓ R = 85.00'
⑮ GL STA 3+55.75	㉔ - ㉔ R = 65.00'
⑯ GL STA 4+49.74	
⑰ N 54°11'00" E 136.950	

SEDIMENT BASIN

DRAINAGE AREA	7.6 ACRES
WET STORAGE REQUIRED	13680 CF (ELEV. 210.80)
DRY STORAGE REQUIRED	13680 CF (ELEV. 211.92)
DRY STORAGE PROVIDED	33362 CF
CREST ELEVATION	213.92
TOP OF DAM	217.00
BOTTOM ELEVATION	208.00
CLEANOUT ELEVATION	210.38
SIDE SLOPES	3:1
TOP OF RISER TO CLEANOUT	3.54 FT

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

Gilbert A. Wobley 7-28-03
DEVELOPER DATE

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

Christopher J. Reid 7-28-03
ENGINEER DATE

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

Jim Meyer 9/15/03
NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John S. Smith 9/15/03
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
David S. Eagle 11/11/03
DIRECTOR DATE

Cindy Hamstra 11/16/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	NO.	REVISION

OWNER/DEVELOPER
BRENTWOOD MANOR MOBILE HOME PARK
8291 WASHINGTON BOULEVARD
JESSUP, MARYLAND 20794
301-453-2344

PROJECT
BRENTWOOD MANOR EXPANSION

AREA
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PARCEL 253, TAX MAP 43, GRID 20
ZONED R-MH

TITLE
GRADING, SEDIMENT CONTROL & DRAINAGE AREA MAP

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7-28-03
DATE

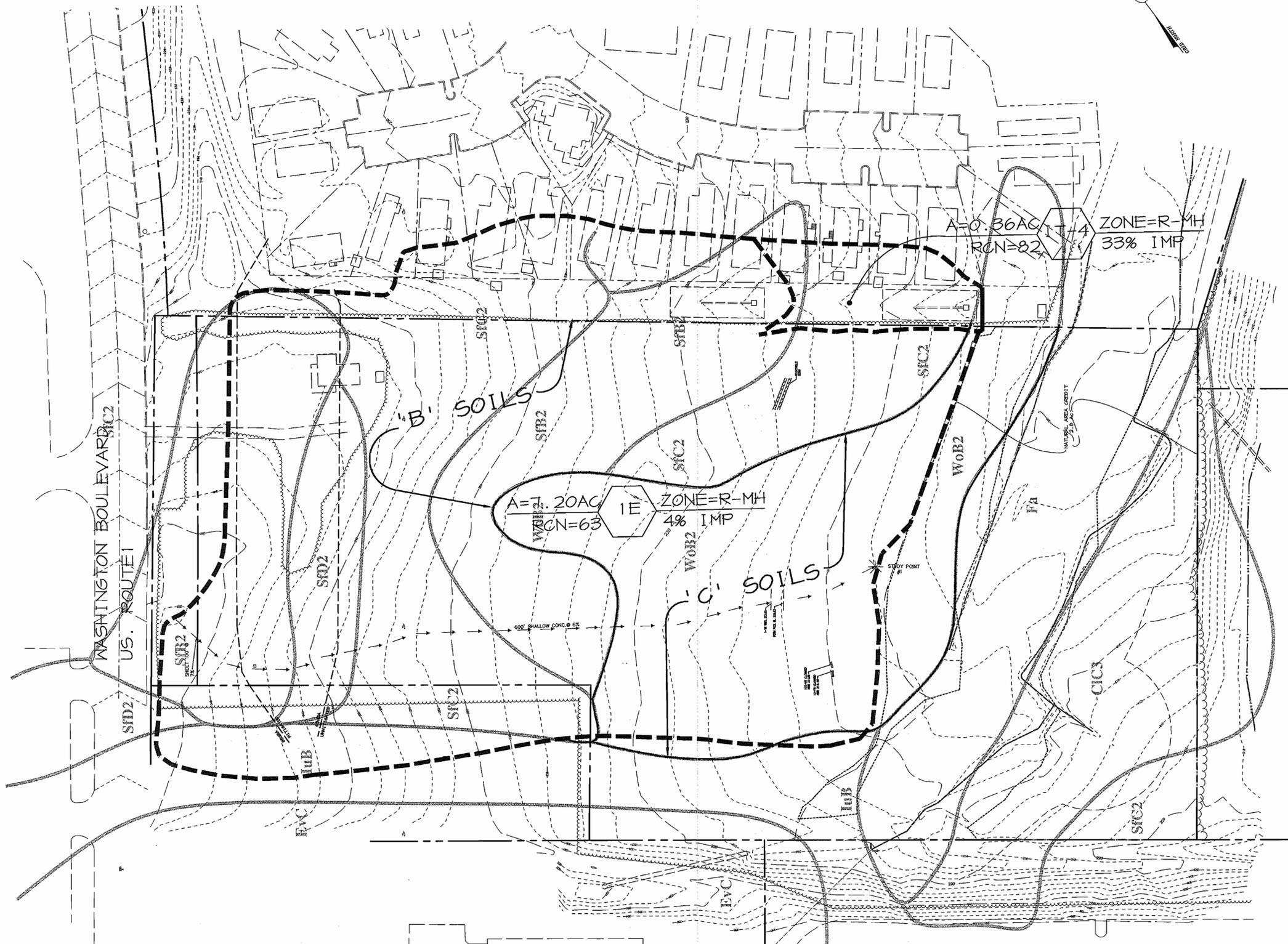
DESIGNED BY : CJR
DRAWN BY: DAM
PROJECT NO : 00082 / SDP5.DWG
DATE : JULY 23, 2003
SCALE : 1" = 30'

CHRISTOPHER J. REID #19949
DRAWING NO. 5 OF 18

LEGEND

- DRAINAGE DIVIDE
- SOIL BOUNDARY
- - - EX. STREAM
- TIME OF CONC. FLOW PATH
- ~ EX. TREELINE

AREA RCN DA ZONE % IMP TR-55 DATA



AS-BUILT CERTIFICATION	
<i>Christopher J. Reid</i> DOMENICK COLANGELO #27200 DATE 7/25/03	
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>Mark D. Lyle</i> 11/14/02 DIRECTOR DATE	
<i>Greg Hamilton</i> 9/25/03 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE	
<i>Greg Hamilton</i> 11/6/02 CHIEF, DIVISION OF LAND DEVELOPMENT DATE	
DATE NO.	REVISION
OWNER/DEVELOPER	
BRENTWOOD MANOR MOBILE HOME PARK 8241 WASHINGTON BOULEVARD JESSUP, MARYLAND 20794 301-453-2344	
PROJECT	
BRENTWOOD MANOR EXPANSION	
AREA	
6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND PARCEL 233, TAX MAP 43, GRID 20 ZONED R-MH	
TITLE	
EXISTING SWM DRAINAGE AREA MAP	
Patton Harris Rust & Associates, pc Engineers, Surveyors, Planners, Landscape Architects. 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282	
7-28-03 DATE	
CHRISTOPHER J. REID #19949	
DESIGNED BY :	CJR
DRAWN BY :	A.L.B.
PROJECT NO :	00082/ EXDA.DWG
DATE :	JULY 23, 2003
SCALE :	1" = 50'
DRAWING NO. :	6 OF 18

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LEGEND

- DRAINAGE DIVIDE
- SOIL BOUNDARY
- EX. STREAM
- TIME OF CONC. FLOW PATH
- EX. TREELINE
- PR. TREELINE
- NATURAL AREA CREDIT

AREA RCN DA ZONE % IMP TR-55 DATA

AS-BUILT CERTIFICATION

Domenick Colangelo 7/25/03
 DOMENICK COLANGELO #27200 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Mark A. Longo 11/14/02
 DIRECTOR DATE

John J. ... 9/27/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Christy Hamilton 11/6/03
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO.	REVISION

OWNER/DEVELOPER
 BRENTWOOD MANOR MOBILE HOME PARK
 8291 WASHINGTON BOULEVARD
 JESSUP, MARYLAND 20794
 301-453-2344

PROJECT
 BRENTWOOD MANOR EXPANSION

AREA
 6th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 PARCEL 233, TAX MAP 43, GRID 20
 ZONED R-MH

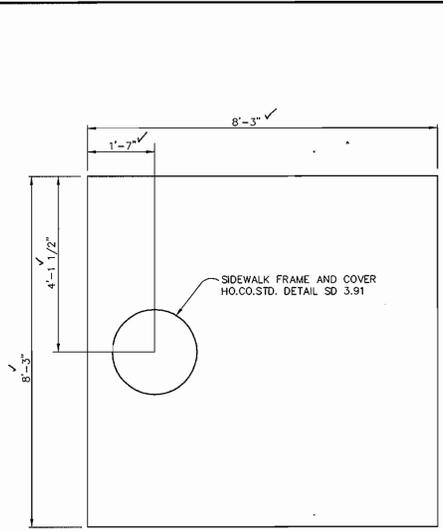
TITLE
 PROPOSED SWM
 DRAINAGE AREA MAP

Patton Harris Rust & Associates, pc
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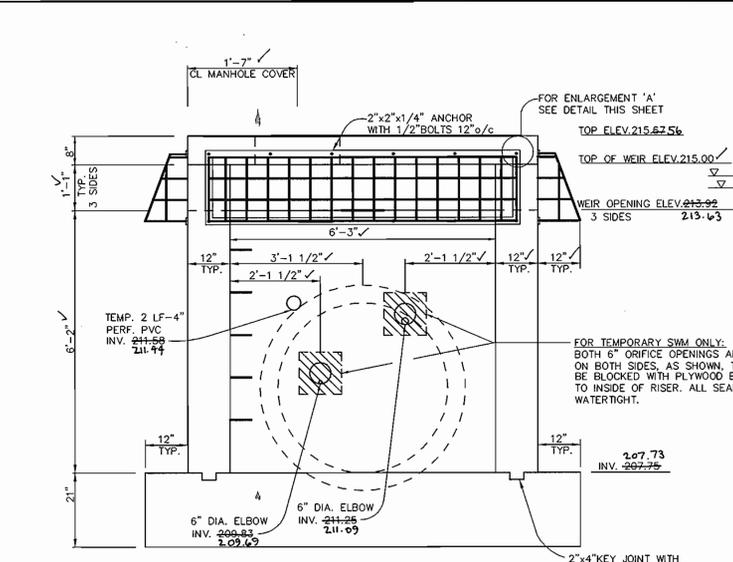
7.28.03
 DATE

Christopher J. Reid
 CHRISTOPHER J. REID #19949

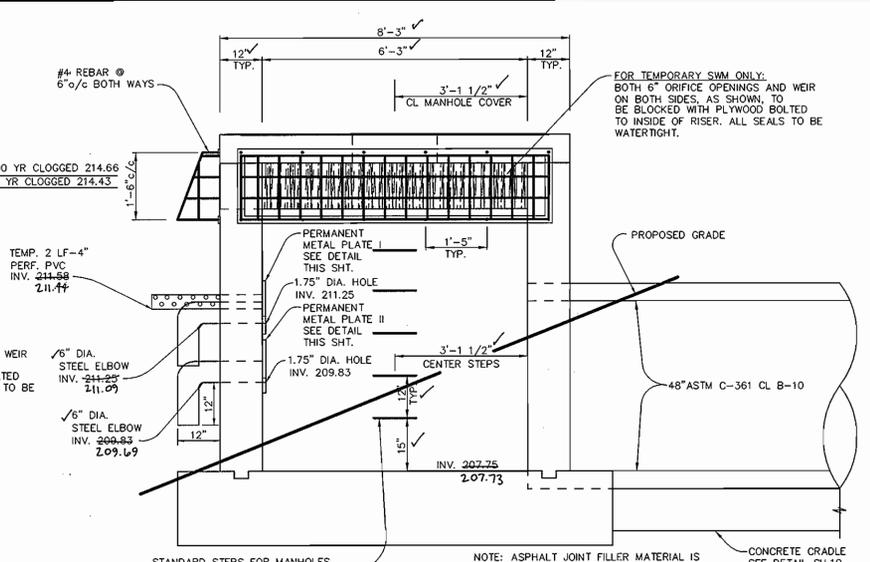
DESIGNED BY :	CJR
DRAWN BY :	A.L.B.
PROJECT NO :	00082/PRDA.DWG
DATE :	JULY 23, 2003
SCALE :	1"=50'
DRAWING NO. :	7 OF 18



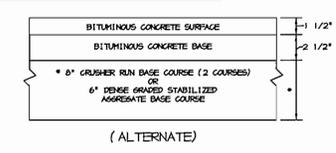
S-1 TOP VIEW
SCALE: 1"=2'



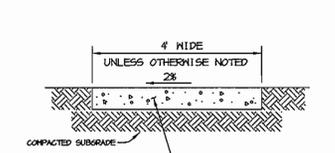
FRONT VIEW



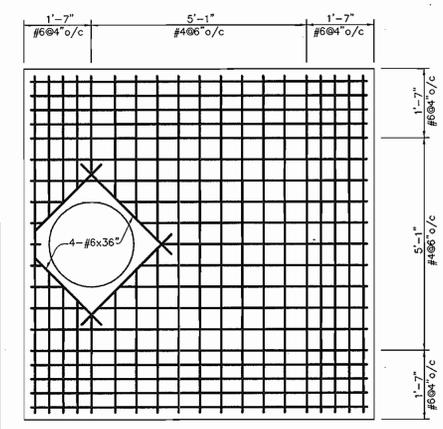
SIDE VIEW



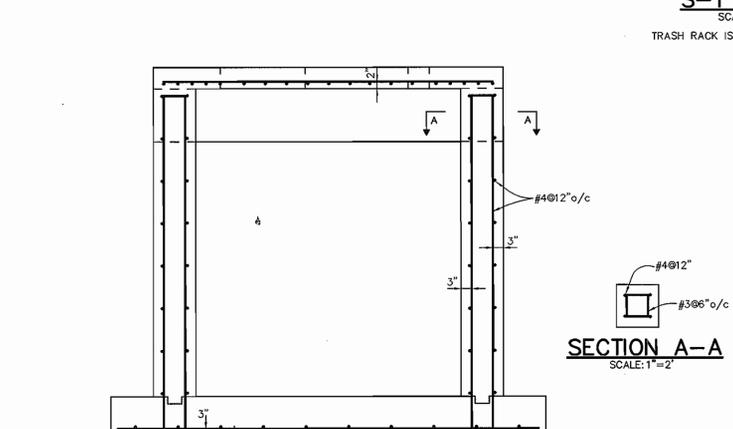
P-2 PAVING
NO SCALE



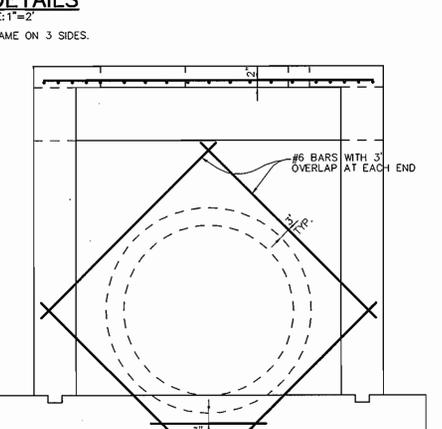
SIDEWALK DETAIL
NO SCALE



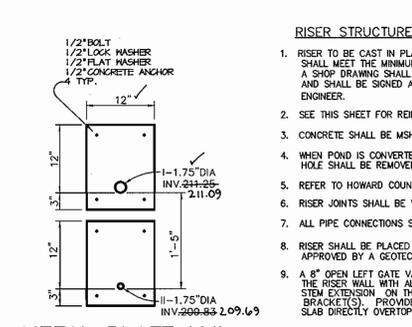
REBAR IN TOP SLAB
SCALE: 1"=2'



REBAR LAYOUT FOR ALL SIDES
SCALE: 1"=2'



REBAR LAYOUT FOR PIPE OPENING
SCALE: 1"=2'



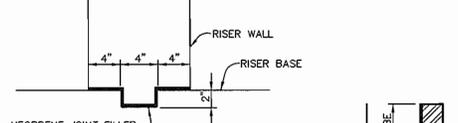
METAL PLATE I&II
SCALE: 1"=2'

RISER STRUCTURE NOTES FOR S-1

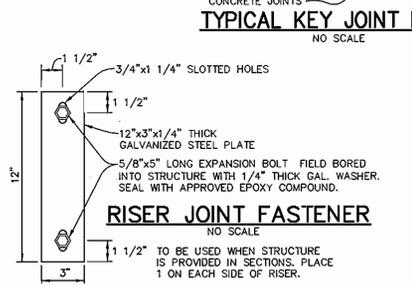
- RISER TO BE CAST IN PLACE. SHOP DRAWINGS FOR THIS CONCRETE STRUCTURE SHALL MEET THE MINIMUM ASTM REQUIREMENTS FOR CAST IN PLACE STRUCTURES. A SHOP DRAWING SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO FABRICATION AND SHALL BE SIGNED AND SEALED BY A MARYLAND REGISTERED PROFESSIONAL ENGINEER.
- SEE THIS SHEET FOR REINFORCEMENT DETAILS.
- CONCRETE SHALL BE MSHA MIX NO. 3 (f=3,500 PSI MINIMUM)
- WHEN POND IS CONVERTED INTO A PERMANENT FACILITY, THE DRAWDOWN DEVICE HOLE SHALL BE REMOVED.
- REFER TO HOWARD COUNTY STD. G-5.21 FOR MANHOLE STEP DETAILS.
- RISER JOINTS SHALL BE WATERTIGHT USING NEOPRENE GASKETS.
- ALL PIPE CONNECTIONS SHALL PROVIDE RUBBER GASKET FOR WATERTIGHTNESS.
- RISER SHALL BE PLACED ON A FIRMLY COMPACTED SUBGRADE AND SHALL BE APPROVED BY A GEOTECHNICAL ENGINEER.
- A 8" OPEN LEFT GATE VALVE (AWWA C-153, CL 350) SHALL BE CONNECTED TO THE RISER WALL WITH ALL-THREADED ROD AND A FLANGE JOINT. PROVIDE A STEM EXTENSION ON THE GATE VALVE AND FIRMLY SECURE TO RISER WALL WITH BRACKET(S). PROVIDE A STANDARD VALE BOX AND COVER IN THE TOP SLAB DIRECTLY OVERTOP THE GATE VALVE.

REMOVABLE TRASH RACK NOTES:

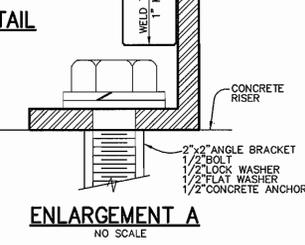
- STEEL TO CONFORM TO ASTM A-36. #5 BARS TO BE SMOOTH. SEE DETAIL FOR SPACING.
- ALL REBAR TO BE WELDED AT ALL INTERSECTIONS.
- ALL BENDS TO BE 2" RADIUS. 2" x 2" ANGLE IRON AND 1/2" DIAMETER ANCHOR BOLTS TO BE USED FOR TRASH RACK FRAME.
- GALVANIZE TRASH RACK AFTER FABRICATION AND PAINT BATTLESHIP GRAY.



TYPICAL KEY JOINT DETAIL
NO SCALE



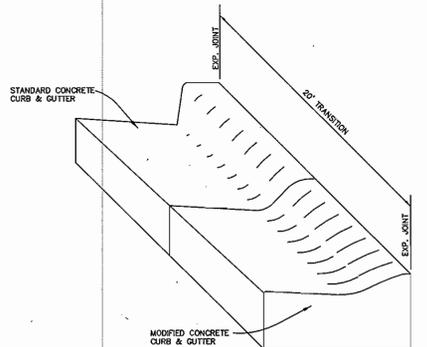
RISER JOINT FASTENER
NO SCALE



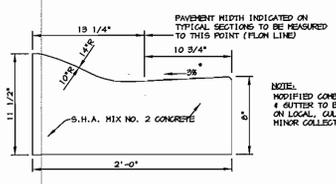
ENLARGEMENT A
NO SCALE

NOTES:
1. SLAB REINFORCING WILL BE 1" CLEAR FROM BOTTOM AND 2" CLEAR FROM SIDES.
2. MIX NO. 2 CONCRETE.

NOTES:
I. GENERAL
A. HEIGHT OF BARRIER SHALL BE BASED ON ACOUSTIC REQUIREMENTS.
B. BARRIER WALLS HAVING A HEIGHT (H) NOT INDICATED IN THE TABLES SHALL BE CONSTRUCTED AS SHOWN IN THE NEXT HIGHER HEIGHT CATEGORY.
II. SIDING
A. 2x WOOD DECKING MATERIAL SHALL BE UTILIZED TO SPAN HORIZONTALLY BETWEEN POSTS. DESIGN CRITERIA IS BASED ON AN ALLOWABLE BENDING STRESS OF 1400 LBS. PER SQ. IN. AND 33% INCREASE IN STRESS FOR WIND LOADS AS CONSIDERED APPROPRIATE. DECKING SHALL BE MDS.
B. SIDING IN CONTACT WITH THE GROUND AND FOR A DISTANCE OF 6" ABOVE GRADE SHALL BE TREATED WITH WOOD PRESERVATIVE.
III. POST
A. WOOD POST SHALL BE UTILIZED OF THE SPACING INDICATED ON THE SCHEDULE. DESIGN CRITERIA IS BASED ON AN ALLOWABLE BENDING STRESS OF 1400 LBS. PER SQ. IN. AND A 33% INCREASE FOR WIND LOADINGS.
B. POST EMBEDDED IN CONCRETE SHALL BE TREATED WITH A WOOD PRESERVATIVE IN THE AREA OF EMBEDMENT AND 12" ABOVE GRADE.
IV. CONCRETE
A. CONCRETE IN THE PIERS SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 2500 LBS. PER SQ. IN.
B. CONCRETE SHALL BE PLACED IN DRILLED PIERS UTILIZING THE EARTH AS THE FORMS.
V. FOUNDATIONS
A. THE DRILLED PIERS HAVE BEEN DESIGNED UTILIZING AN ALLOWABLE PASSIVE PRESSURE OF 300 LBS. PER SQ. FT. AND THE FOLLOWING FORMULA:
 $D = \sqrt{\frac{1.452M}{P}}$
M = MOMENT AT TOP OF DRILLED PIER (FT./LBS.)
P = ALLOWABLE PASSIVE PRESSURE (300 LBS. PER SQ. FT.)
d = DIAMETER OF PIER (FT.)
D = DEPTH OF PIER (FT.)
VI. ALTERNATE #1 (PRESERVATIVE TREATMENT) ALTERNATE #1 REPRESENTS THE ADDITIONAL COST FACTOR FOR TREATING THE BASIC WOOD STRUCTURE INDICATED ON THIS REFERENCE PLAN. THE NECESSITY FOR TREATMENT AND THE TYPE OF PRESERVATIVE WILL BE SUBJECT TO LOCAL CONDITIONS. ALL TREATMENTS SHALL CONFORM TO ANPA STANDARD C-14.
VII. ALTERNATE #2 (PAINTING) ALTERNATE #2 REPRESENTS THE ADDITIONAL COST FACTOR REQUIRED TO PAINT ONE SIDE OF THE BASIC WOOD STRUCTURE SHOWN ON THIS REFERENCE PLAN. PAINTING SHALL CONSIST OF 3 APPLICATIONS OF PAINT. 2 COATS OF LATEX BASE PAINT CONFORMING TO FEDERAL SPECIFICATION TT-P-00256 SHALL BE APPLIED OVER A PRIMER COAT CONFORMING TO FEDERAL SPECIFICATION TT-P-00250.
VIII. ALTERNATE #3 (STAINING) ALTERNATE #3 REPRESENTS THE ADDITIONAL COST FACTOR REQUIRED TO STAIN ONE SIDE OF THE BASIC WOOD STRUCTURE. STAIN SHALL CONSIST OF 2 COATS OF SEMI-TRANSPARENT SEALER STAIN APPLIED IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.
IX. ALTERNATE #4 (PRESERVATIVE TREATMENT) SHALL BE UTILIZED FOR THIS PROJECT.

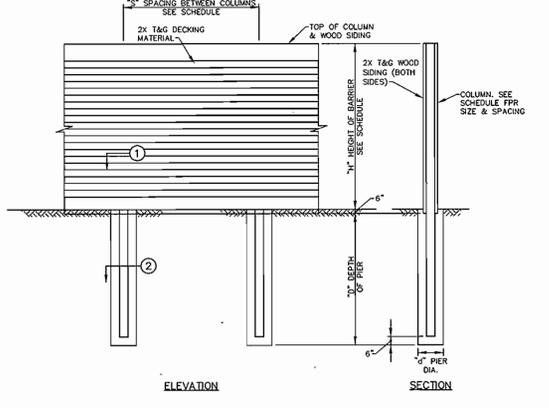


CONCRETE CURB AND GUTTER TRANSITION
NO SCALE



MODIFIED COMBINATION CURB AND GUTTER

* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AND IN THE SAME DIRECTION AS THE PAVEMENT. MATCH PAVEMENT CROSS SLOPE WHEN CURB IS LOCATED ON THE LOW SIDE OF SUPERELEVATED SECTION AND THE RATE OF SUPERELEVATION IS GREATER THAN 3% FOR MODIFIED CURB AND GUTTER.



NOISE WALL DETAIL
NOT TO SCALE

SCHEDULE				
40 #/sq HORIZONTAL LOADING				
H	S	D	d	POST SIZE
5'	8"	6"	12"	4X8
10'	8"	8"	18"	6X12
15'	8"	10"	24"	8X15
20'	6"	10"	30"	10X16

NOTE: THE PROPOSED NOISE WALL IS PRIVATELY OWNED AND SHALL BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION. THE NOISE WALL SHALL BE INSPECTED AND REPAIRED AS NECESSARY AT A MINIMUM OF ONCE A YEAR.

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

Christopher J. Reid
DEVELOPER
7-28-03
DATE

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

Chad S. Rea
ENGINEER
7-28-03
DATE

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

Jim Hughes
NATURAL RESOURCES CONSERVATION SERVICE
9/15/03
DATE

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

Scott S. Smith
HOWARD SOIL CONSERVATION DISTRICT
9/15/03
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Derek A. Wright
DIRECTOR
11/14/02
DATE

Chris Hamilton
CHIEF, DEVELOPMENT ENGINEERING DIVISION
9/27/03
DATE

Chris Hamilton
CHIEF, DIVISION OF LAND DEVELOPMENT
11/6/03
DATE

DATE	NO.	REVISION

OWNER/DEVELOPER
BRENTWOOD MANOR MOBILE HOME PARK
8291 WASHINGTON BOULEVARD
JESSUP, MARYLAND 20794
301-453-2344

PROJECT
BRENTWOOD MANOR EXPANSION

AREA
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PARCEL 233, TAX MAP 43, GRID 20
ZONED R-MH

TITLE
STORMWATER MANAGEMENT DETAILS
Patton Harris Rust & Associates, pc
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

7-28-03
DATE

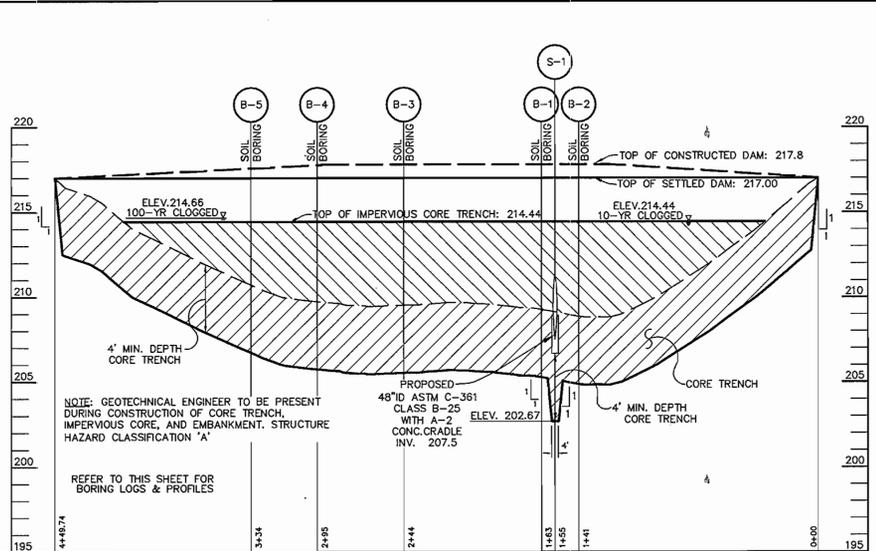
DESIGNED BY: CJR
DRAWN BY: DAM
PROJECT NO. 00082/
SDP9.DWG
DATE: JULY 23, 2003
SCALE: AS SHOWN
DRAWING NO. 9 OF 18

CHRISTOPHER J. REID #19948

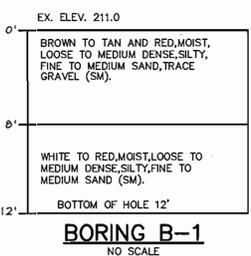
SDP-01-95

AS-BUILT CERTIFICATION
Christopher J. Reid
7/25/07
DATE
DOVERICK COLANGELO #21240

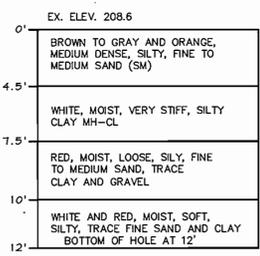




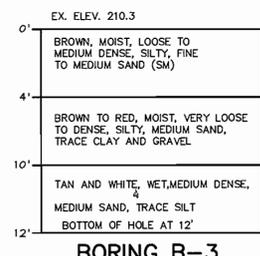
PROFILE ALONG CENTERLINE OF EMBANKMENT



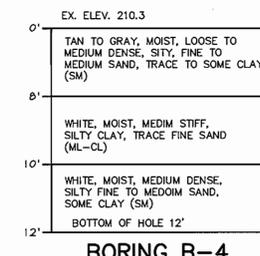
BORING B-1
NO SCALE



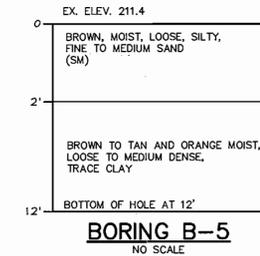
BORING B-2
NO SCALE



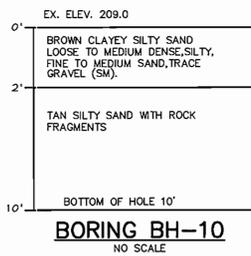
BORING B-3
NO SCALE



BORING B-4
NO SCALE

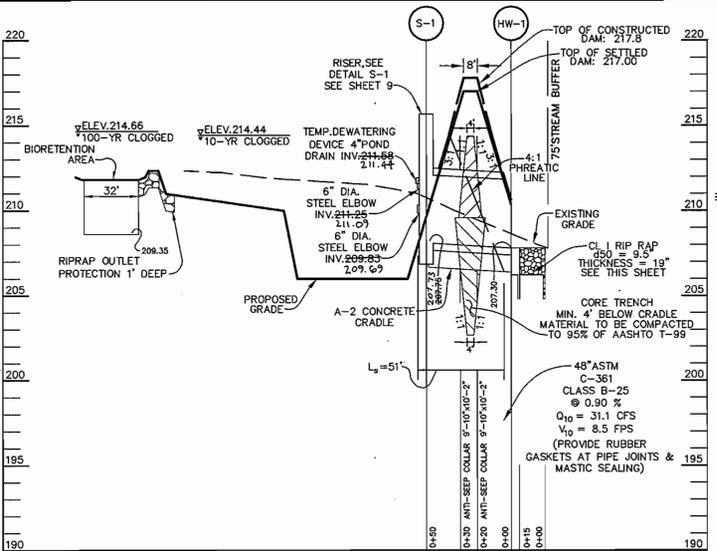


BORING B-5
NO SCALE

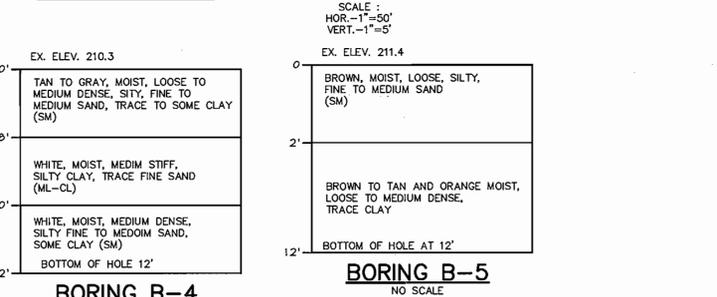


BORING BH-10
NO SCALE

MATERIAL	SPECIFICATIONS	SIZE	NOTES
Plantings	SEE LANDSCAPE PLAN SHEET	n/a	See Landscape Plan Sheet
Planting Soil (2.5' to 4' deep)	sand 35 - 60 % silt 30 - 55 % clay 10 - 25 %	n/a	USDA soil types loamy sand, sandy loam or loam
Mulch	shredded hardwood		Aged 6 months, minimum
Pea Gravel Diaphragm and Curtain Drain	pea gravel: ASTM-D-448 ornamental stone: washed cobbles	pea gravel: No. 6 stone: 2" to 5"	
Geotextile	Class "C" - apparent opening size (ASTM-D-4751), grab tensile strength (ASTM-D-4632), puncture resistance (ASTM-D-4822)	n/a	For use as necessary beneath underdrains only
Gravel	AASHTO M-43	0.375" to 0.75"	
Sand	AASHTO M-6 or ASTM C-33	0.02" to 0.04"	Sand substitutions such as Diabase and Graystone #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.



PROFILE THRU BIORETENTION AND PRINCIPAL SPILLWAY



BORING B-1
NO SCALE

BORING B-2
NO SCALE

BORING B-3
NO SCALE

BORING B-4
NO SCALE

BORING B-5
NO SCALE

BORING BH-10
NO SCALE

BORING B-1
NO SCALE

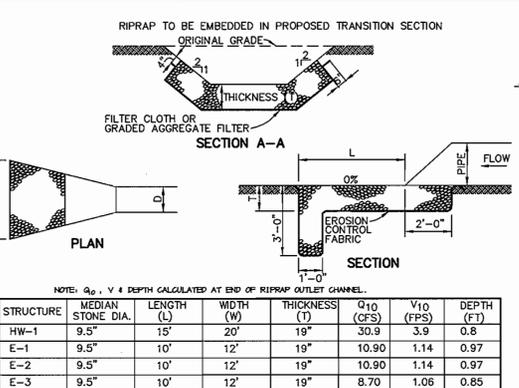
BORING B-2
NO SCALE

BORING B-3
NO SCALE

BORING B-4
NO SCALE

BORING B-5
NO SCALE

BORING BH-10
NO SCALE



RIPRAP OUTLET PROTECTION DETAIL
NO SCALE

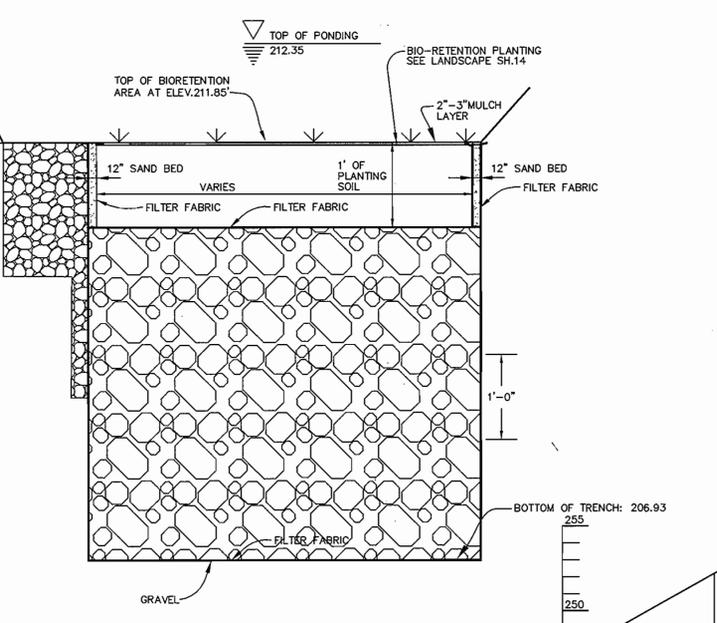
- CONSTRUCTION SPECIFICATIONS**
1. THE SUBGRADE FOR THE FILTER, RIP-RAP, OR GABION SHALL BE PREPARED TO THE REQUIRED LINES AND GRADES. ANY FILL REQUIRED IN THE SUBGRADE SHALL BE COMPACTED TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
 2. THE ROCK OR GRAVEL SHALL CONFORM TO THE SPECIFIED GRADING LIMITS WHEN INSTALLED RESPECTIVELY IN THE RIP-RAP OR FILTER.
 3. GEOTEXTILE CLASS C OR BETTER SHALL BE PROTECTED FROM PUNCHING, CUTTING, OR TEARING. ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE SHALL BE REPAIRED BY PLACING ANOTHER PIECE OF GEOTEXTILE FABRIC OVER THE DAMAGED WHETHER FOR REPAIRS OR FOR JOINING TWO PIECES OF GEOTEXTILE FABRIC SHALL BE A MINIMUM OF ONE FOOT.
 4. STONE FOR THE RIP-RAP OR GABION OUTLETS MAY BE PLACED BY EQUIPMENT. THEY SHALL BE CONSTRUCTED TO THE FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. THE STONE FOR RIP-RAP OR GABION OUTLETS SHALL BE DELIVERED AND PLACED IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENEOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. RIP-RAP SHALL BE PLACED IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE FABRIC-HAND PLACEMENT WILL BE REQUIRED TO THE EXTENT NECESSARY TO PREVENT DAMAGE TO THE PERMANENT WORKS.
 5. THE STONE SHALL BE PLACED SO THAT IT BLENDS IN WITH THE EXISTING GROUND. IF THE STONE IS PLACED TOO HIGH THEN THE FLOW WILL BE FORCED OUT OF THE CHANNEL AND SCOUR ADJACENT TO THE STONE WILL OCCUR.

RIPRAP OUTLET PROTECTION DETAIL
NO SCALE

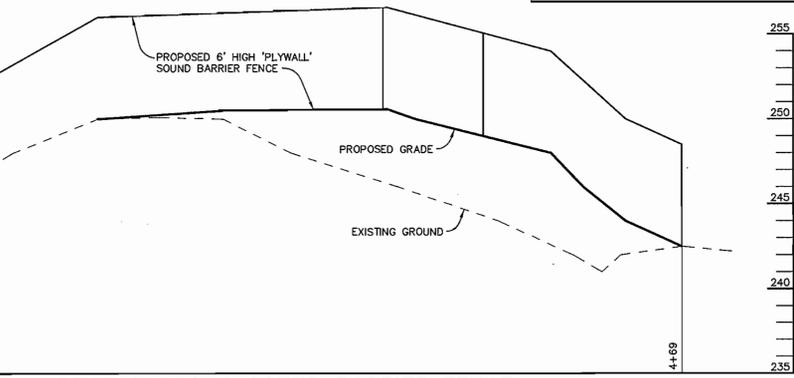
BIO-RETENTION AREAS OPERATION AND MAINTENANCE GUIDELINES

1. ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING.
2. SCHEDULE OF PLANTING INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASE VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRDS.
3. AREAS DEVOID OF MULCH SHOULD BE RE-MULCHED ON ANNUAL BASIS. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
4. SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE A MONTH AND AFTER HEAVY STORMS.

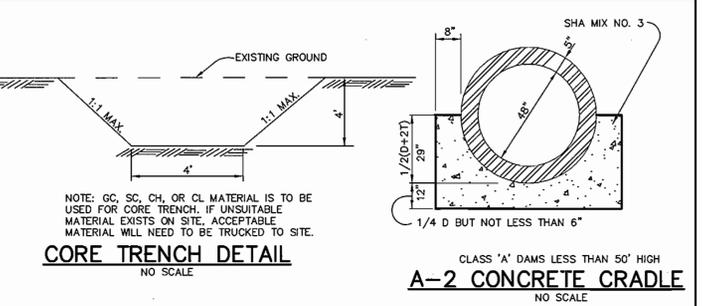
BIO-RETENTION AREAS OPERATION AND MAINTENANCE GUIDELINES



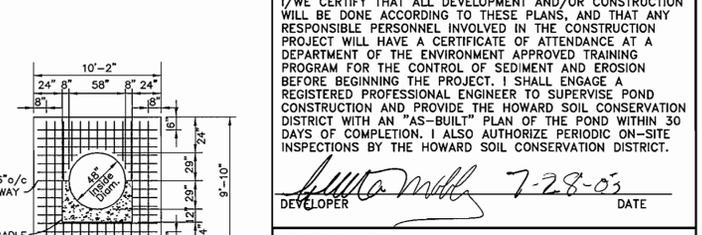
BIORETENTION SECTION A-A



PROFILE ALONG SOUND BARRIER FENCE



CORE TRENCH DETAIL
NO SCALE



CONCRETE ANTI-SEEP COLLAR
NO SCALE

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

Christopher J. Reid 7-28-03
DEVELOPER DATE

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

Christopher J. Reid 7-28-03
ENGINEER DATE

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

Jim Meyer 9/15/03
NATURAL RESOURCES CONSERVATION SERVICE DATE

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

Christopher J. Reid 9/15/03
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Mark A. ... 11/11/03
DIRECTOR DATE

... 9/25/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

... 11/6/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER/DEVELOPER
BRENTWOOD MANOR MOBILE HOME PARK
8291 WASHINGTON BOULEVARD
JESSUP, MARYLAND 20794
301-453-2344

PROJECT
BRENTWOOD MANOR EXPANSION

AREA
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PARCEL 233, TAX MAP 43, GRID 20
ZONED R-MH

TITLE
STORMWATER MANAGEMENT
DETAILS & PROFILES

Patton Harris Rust & Associates, pc
Engineers, Surveyors, Planners, Landscape Architects.
PHRA
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

7-28-03
DATE
DESIGNED BY : CJR
DRAWN BY: DAM
PROJECT NO : 00082/
SDP10.DWG
DATE : JULY 23, 2003
SCALE : AS SHOWN
DRAWING NO. 10 OF 18

CHRISTOPHER J. REID #19949
SDP-01-95

MD-378 STANDARDS AND SPECIFICATIONS

SELECTIONS

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

SITE PREPARATION

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative.

EARTH FILL

Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 8" frozen or other objectionable materials.

Placement - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8-inch thick layers.

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tire or vibratory roller.

When required by the reviewing agency the minimum required density shall not be less than 95% maximum dry density with a moisture content within +/- 2% of the optimum.

Cutoff Trench - The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans.

Embankment Core - The core shall be parallel to the centerline of the embankment as shown on the plans. The top width of the core shall be a minimum of four feet.

STRUCTURE BACKFILL

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness.

Structure backfill may be flowable fill meeting the requirements of Maryland Department of Transportation, State Highway Administration Specifications for Construction and Materials, Section 313 as modified.

PIPE CONDUITS

All pipes shall be circular in cross section. Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe:

1. Materials - (Polymer Coated Steel Pipe) - Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10mil) on both sides.

Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specifications M-274 with watertight coupling bands or flanges.

Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specifications M-190 or M-211 with watertight coupling bands or flanges.

2. Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material and coated as the pipe.

3. Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal.

All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled on adequate number of corrugations to accommodate the band width.

Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length.

Backfilling shall conform to "Structure Backfill."

Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Reinforced Concrete Pipe - All of the following criteria shall apply for reinforced concrete pipe:

1. Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361.

Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding/cradle for their entire length. This bedding/cradle shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 30% of its outside diameter with a minimum thickness of 6 inches.

3. Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material.

4. Backfilling shall conform to "Structure Backfill."

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Plastic Pipe - The following criteria shall apply for pipe:

1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1784 or ASTM D-2241. Corrugated High Density Polyethylene (HDPE) pipe, couplings and fittings shall conform to the following:

2. Joints and connections to anti-seep collars shall be completely watertight.

3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length.

4. Backfilling shall conform to Structure "Backfill".

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

CONCRETE - Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 414, Mix No. 3.

ROCK RIPRAP - Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 311.

Geotextile shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 921.09, Class C.

CARE OF WATER DURING CONSTRUCTION

All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works.

STABILIZATION

All borrow areas shall be graded to provide proper drainage and left in a stable condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Natural Resources Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized.

Refer to the 2000 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

TEMPORARY SEEDING NOTES

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

Seeded Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

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

Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushels per acre of annual ryegrass (3 lbs. per 1000 sq.ft.) before seeding.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 80 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

PERMANENT SEEDING NOTES

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

Seeded Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

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

1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 800 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.) before seeding.

2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 100-10-10 fertilizer (23 lbs. per 1000 sq.ft.) before seeding.

Seeding: For the period March 1 thru April 30 and from August 1 thru October 15, seed with 60 lbs. per acre Kentucky 31 Tall Fescue and mulch with 2 tons per acre well anchored straw.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 80 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding.

Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseedings.

STANDARD SEDIMENT CONTROL NOTES

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (513-1855).

2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.

3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) CALENDAR DAYS FOR ALL PERMETER SEDIMENT CONTROL STRUCTURES, DIKES, FENCE AND SLOPES, AND ALL SLOPE STEEPER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THE PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.

5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SOIL TREATMENT AND MULCHING (SEC. 5).

6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSON FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

7. SITE ANALYSIS: TOTAL AREA OF SITE 9.95 ACRES

AREA TO BE ROOFED OR PAVED 7.7 ACRES

AREA TO BE VEGETATIVELY STABILIZED 3.2 ACRES

TOTAL CUT 6.4 ACRES

TOTAL FILL 2000 CU. YARDS

OFFSITE WASTE AREA LOCATION TO HAVE ACTIVE GRADING PERMIT.

8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERMETER EROSION AND SEDIMENT CONTROLS.

11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

12. SITE GRADING WILL BEGIN ONLY AFTER ALL PERMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.

13. SEDIMENT WILL BE REMOVED FROM TRAPS WHEN ITS DEPTH REACHES CLEAN OUT ELEVATION SHOWN ON THE PLANS.

14. CUT AND FILL QUANTITIES PROVIDED UNDER SITE ANALYSIS DO NOT REPRESENT BID QUANTITIES. THESE QUANTITIES DO NOT DISTINGUISH BETWEEN TOPSOIL, STRUCTURAL FILL OR EMBANKMENT MATERIAL, NOR DO THEY REFLECT CONSIDERATION OF UNDERCUTTING OR REMOVAL OF UNSUITABLE MATERIAL.

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

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

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 with 2:1 or flatter slopes where: a. The texture of the exposed subsoil/parent material is not adequate to provide vegetative growth.

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

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

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

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.

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

i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority.

ii. Topsoil shall be free of plants or plant parts such as bermuda grass, quackgrass, phanerogams, nutcase, poison ivy, thistle, or others as specified.

iii. Where 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.

iv. For sites having disturbed areas under 5 acres: A. Place topsoil over a lowly soil amendments as specified in 20.0 Vegetative Stabilization - B section 1 - Vegetative Stabilization Methods and Materials.

v. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:

a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, organic lime shall be prescribed to raise pH to 6.5 or higher.

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

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

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

vi. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - B section 1 - Vegetative Stabilization Methods and Materials.

vii. When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Sit Fence and Sediment Traps and Basins.

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

ix. Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage.

x. Alternative for Permanent Seeding - instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:

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

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

b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0.

c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.

d. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.

EMBANKMENT AND CUT-OFF TRENCH CONSTRUCTION RECOMMENDATIONS

THE SITE SHOULD BE STRIPPED OF TOPSOIL AND ANY OTHER UNSUITABLE MATERIALS FROM THE EMBANKMENT OR STRUCTURE AREA IN ACCORDANCE WITH SOIL CONSERVATION GUIDELINES. AFTER STRIPPING OPERATIONS HAVE BEEN COMPLETED, THE EXPOSED SUBGRADE MATERIALS SHOULD BE PROFFERED WITH A LOADED DUMP TRUCK OR SIMILAR EQUIPMENT IN THE PRESENCE OF A GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE FOR AREAS THAT ARE NOT ACCESSIBLE TO A DUMP TRUCK, THE EXPOSED MATERIALS SHOULD BE OBSERVED AND TESTED BY A GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE.

A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER SHOULD BE PRESENT TO MONITOR THE PLACEMENT AND COMPACTON OF FILL FOR THE EMBANKMENT AND CUT OFF TRENCH, IN ACCORDANCE WITH MARYLAND SOIL CONSERVATION SPECIFICATION 378 SOILS CONSIDERED SUITABLE FOR THE CENTER OF EMBANKMENT AND CUT OFF TRENCH SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION CC, SC, CH, OR CL, PER MD 378. CONSIDERATION MAY BE GIVEN TO THE USE OF OTHER MATERIALS IN THE EMBANKMENT IF DESIGN AND CONSTRUCTION ARE SUPERVISED BY A GEOTECHNICAL ENGINEER.

EXPLORATION WITH TEST PITS AND ADDITIONAL LABORATORY TESTING CAN BE CONDUCTED PRIOR TO CONSTRUCTION TO IDENTIFY AND QUANTIFY POTENTIAL BORROW AREAS. ALL FILL MATERIALS MUST BE PLACED AND COMPACTED IN ACCORDANCE WITH MD SCS 378 SPECIFICATIONS.

OPERATION, MAINTENANCE AND INSPECTION

INSPECTION OF THE PONDS SHOWN HEREON SHALL BE PERFORMED AT LEAST ONCE ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, SCS "STANDARDS AND SPECIFICATION FOR PONDS" (4037B). THE PONDS OWNER AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE PONDS AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION, AND MAINTENANCE THEREOF.

ROUTINE MAINTENANCE: 1. FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHOULD BE PERFORMED DURING WEATHER TO DETERMINE IF THE POND IS FUNCTIONING PROPERLY.

2. TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOVED A MINIMUM OF TWO (2) TIMES A YEAR, ONCE IN JUNE AND ONCE IN SEPTEMBER. OTHER SIDE SLOPES, THE BOTTOM OF THE POND, AND MAINTENANCE ACCESS SHOULD BE MOVED AS NEEDED.

3. DEBRIS AND LITTER NEXT TO THE OUTLET STRUCTURE SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.

4. VISIBLE SIGNS OF EROSION IN THE POND AS WELL AS RIPRAP OUTLET AREA SHALL BE REPAIRED AS SOON AS IT IS NOTICED.

NON-ROUTINE MAINTENANCE: 1. STRUCTURAL COMPONENTS OF THE POND SUCH AS THE DAM, THE RISER, AND THE PIPES SHALL BE REPAIRED UPON THE DETECTION OF ANY DAMAGE.

2. SEDIMENT SHOULD BE REMOVED WHEN ITS ACCUMULATION SIGNIFICANTLY REDUCES THE DESIGN STORAGE, INTERFERE WITH THE FUNCTION OF THE RISER, WHEN DEEMED NECESSARY FOR AESTHETIC REASONS, OR WHEN DEEMED NECESSARY BY THE HOWARD COUNTY'S DEPARTMENT OF PUBLIC WORKS.

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT.

2. INSTALL STABILIZED CONSTRUCTION ENTRANCE, SEDIMENT BASIN, SILT FENCE, TREE PROTECTION FENCE AND SUPER SILT FENCE. INSTALL EARTH DIKES AFTER SEDIMENT BASIN HAS BEEN INSTALLED. CLEAR AREAS ONLY AS NEEDED TO INSTALL SEDIMENT CONTROL MEASURES. (3 WEEKS)

3. UPON APPROVAL OF SEDIMENT CONTROL INSPECTOR PROCEED TO CLEAR AND GRUB AREAS WITHIN THE LIMITS OF DISTURBANCE. (5 DAYS)

4. ROUGH GRADE SITE. AS GRADING PROGRESSES, ALL EARTH DIKES ARE TO BE MAINTAINED AND ADJUSTED TO PROVIDE POSITIVE DRAINAGE TO THE SEDIMENT BASIN. STABILIZE IN ACCORDANCE WITH THE TEMPORARY SEEDING NOTES. (10 DAYS)

5. AS SUBGRADE ELEVATIONS ARE REACHED INSTALL UTILITIES. DURING THE INSTALLATION OF UTILITIES, EARTH DIKES THAT NEED TO BE DISTURBED FOR PLACEMENT OF UTILITIES WILL BE REPAIRED AND MAINTAINED IMMEDIATELY UPON PLACEMENT OF UTILITY.

6. INSTALL CURB & GUTTER AND PAVE ROADS. (5 WEEKS)

7. FINE GRADE WHERE NECESSARY. INSTALL SIDEWALKS, LANDSCAPING AND NOISE BARRIER FENCE. STABILIZE AND DISTURBED AREA IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES. (3 DAYS)

8. AFTER ALL AREAS HAVE BEEN STABILIZED AND WITH THE PERMISSION OF THE HOWARD COUNTY SEDIMENT INSPECTOR REMOVE SEDIMENT CONTROLS AND CONVERT SEDIMENT BASIN TO SYMF.

9. REMOVE SEDIMENT AND PLACE ON A SITE WITH APPROVED SEDIMENT CONTROL. GRADE IN FOREBAY. INSTALL BIO-RETENTION AREA.

10. STABILIZE IN ACCORDANCE WITH PERMANENT SEEDING NOTES.

11. REMOVE REMAINING SEDIMENT CONTROL MEASURES AND STABILIZE ANY AREAS DISTURBED BY THEIR REMOVAL IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES.

BY THE DEVELOPER: I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT.

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

Signature: [Handwritten Signature] DATE: 7-28-03

DEVELOPER DATE

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

Signature: [Handwritten Signature] DATE: 7-28-03

ENGINEER DATE

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

Signature: [Handwritten Signature] DATE: 9/15/03

NATURAL RESOURCE CONSERVATION SERVICE DATE

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

Signature: [Handwritten Signature] DATE: 9/15/03

HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Signature: [Handwritten Signature] DATE: 4/14/02

DIRECTOR DATE

Signature: [Handwritten Signature] DATE: 9/28/03

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Signature: [Handwritten Signature] DATE: 4/6/02

CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER/DEVELOPER BRENTWOOD MANOR MOBILE HOME PARK 8241 WASHINGTON BOULEVARD JESSUP, MARYLAND 20794 301-453-2344

PROJECT BRENTWOOD MANOR EXPANSION

AREA 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND PARCEL 233, TAX MAP 43, GRID 20 ZONED R-MH

TITLE SEDIMENT CONTROL NOTES

Patton Harris Rust & Associates, p.c. Engineers, Surveyors, Planners, and Landscape Architects. 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282

Signature: [Handwritten Signature] DATE: 7-28-03

DESIGNED BY: CJR

DRAWN BY: DAM A.L.B.

PROJECT NO: 00082/SDP11.DWG

DATE: JULY 23, 2003

SCALE: AS SHOWN

DRAWING NO. 11 OF 18

CHRISTOPHER J. REID #19949

AS-BUILT CERTIFICATION

Signature: [Handwritten Signature] DATE: 7/28/03

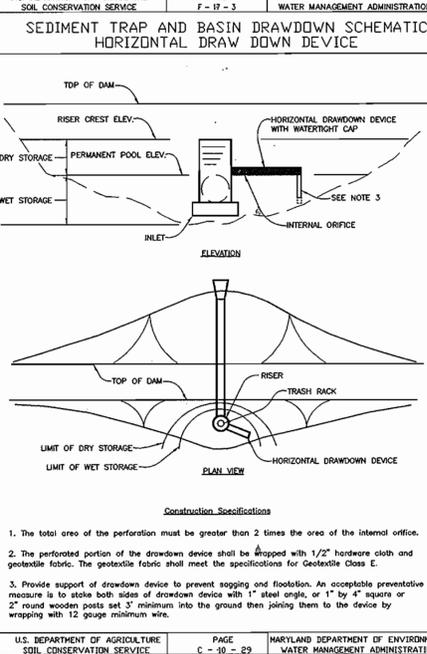
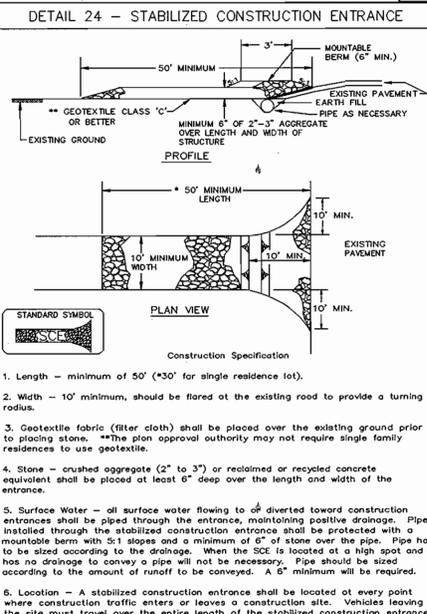
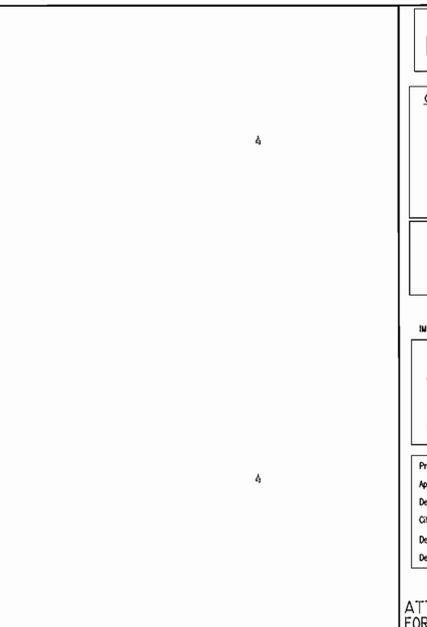
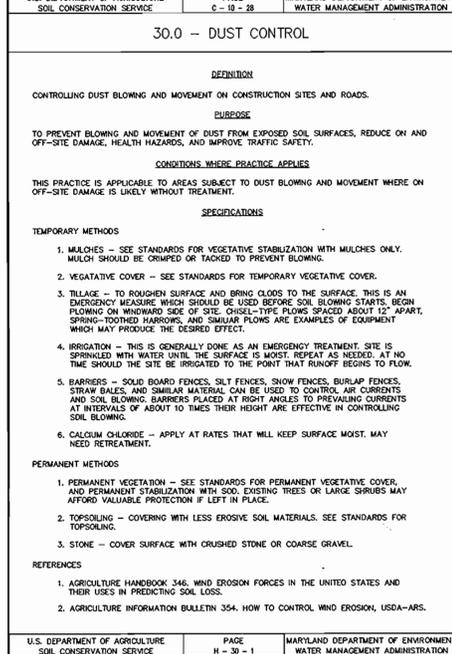
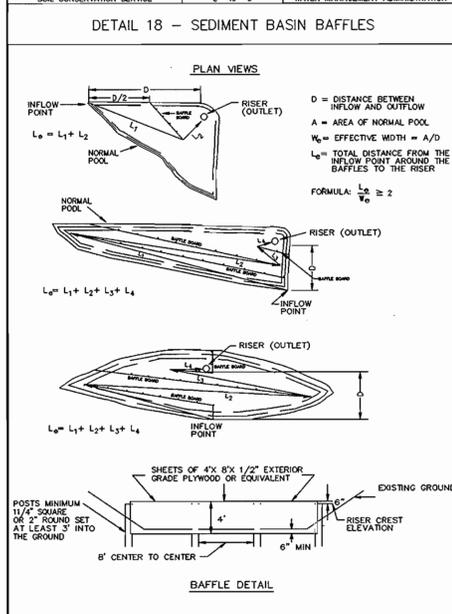
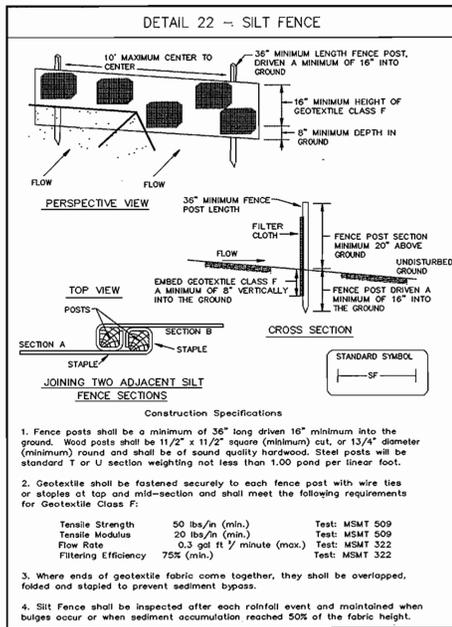
Signature: [Handwritten Signature]

Signature: [Handwritten Signature]

Signature: [Handwritten Signature]

Signature: [Handwritten Signature]

SDP-01-95



Precast Concrete Order Request Form

DR. BY: EPOM
DATE: 3-17-98
SCALE: 1/4" = 1'-0"
DWG. # STC 3600

Contractor Information

Name: _____
Address: _____
City: _____
State: _____
Zip Code: _____
Contact: _____
Phone: _____
Fax: _____

Owner Information

Name: _____
Phone: _____
Fax: _____

Stormceptor Model

900	3500	4500
1200	4500	6000
1800	6000	7200
2400	7200	

Insert Size

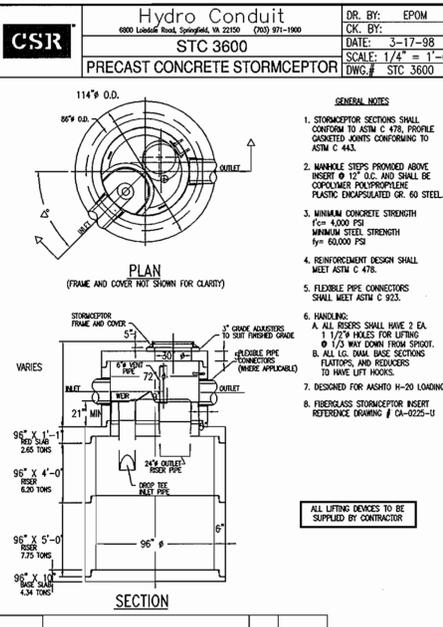
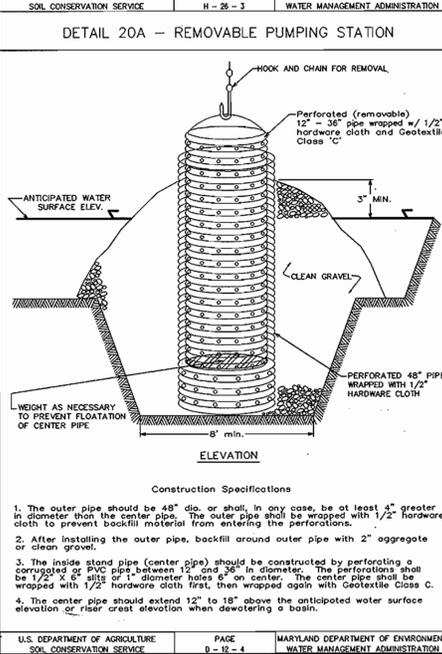
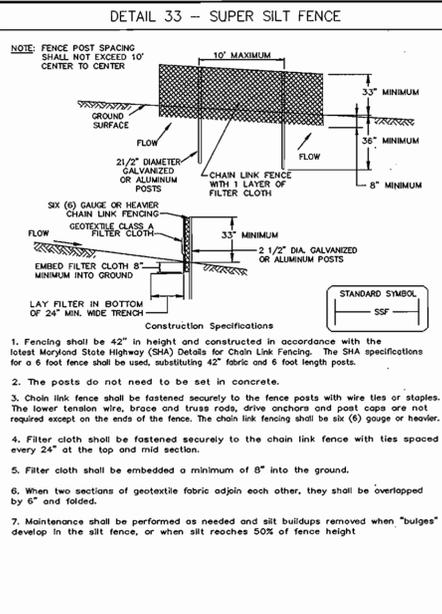
SINGLE INLET DISC
MULTIPLE INLET DISC
CUSTOM

Module Number

Top Elevation (ft)	S-2
Inlet Pipe Invert (ft)	215.00
Outlet Pipe Invert (ft)	213.30
Pipe Type	ADS,N-12
Inlet Pipe Inside Diameter (in)	24"
Inlet Pipe Outside Diameter (in)	27.8"
Outlet Pipe Inside Diameter (in)	24"
Outlet Pipe Outside Diameter (in)	27.8"

Please draw orientation of inlet and outlet pipes on diagram along with the pipe inside diameter (in), and invert elevation (ft). Clearly mark inlet pipes with an "I" and outlet pipes with an "O". Please provide the inlet/outlet pipe angle in degrees.

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



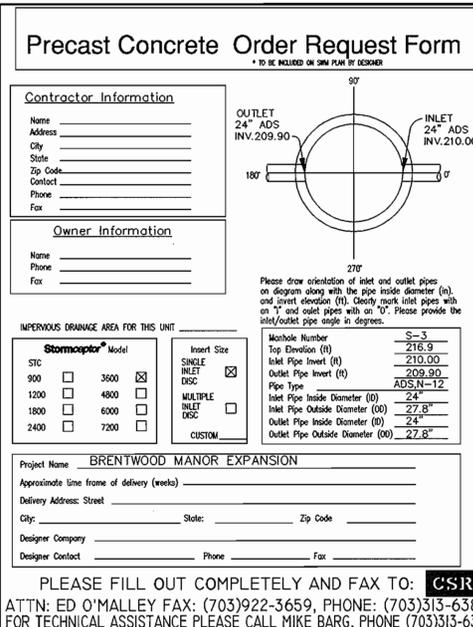
OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED STORMCEPTOR WATER QUALITY DEVICE

- The Stormceptor water quality structure shall be periodically inspected and cleaned to maintain operation and function. The owner shall inspect the Stormceptor unit yearly at a minimum, utilizing the Stormceptor Inspection/Monitoring Form. Inspections shall be done minimum, utilizing the Stormceptor Inspection/Monitoring Form. When the sediment depths exceed the level specified in Table 6 of the Stormceptor Technical Manual, the unit must be cleaned.
- The Stormceptor water quality structure shall be checked and cleaned immediately after petroleum spills. The owner shall contact the appropriate regulatory agency.
- The maintenance of the Stormceptor unit shall be done using a vacuum truck which will remove the water, sediment, debris, floating hydrocarbons and other materials in the unit. Proper cleaning and disposal of the removed materials and liquid must be followed by the owner.
- The inlet and outlet pipes shall be checked for any obstructions at least once every six months. If obstructions are found the owner shall have them removed. Structural parts of the Stormceptor unit shall be repaired as needed.
- The owner shall retain and make the Stormceptor Inspection/Monitoring Forms available to the Howard County officials upon their request.

STRUCTURE SCHEDULE

STRUCTURE	TYPE	LOCATION	INV. IN	INV. OUT	TOP	REMARKS
1-2	S	N 541,263.77 E 1,369,370.04	214.00 (24")	213.90 (24")	221.60	HOCO STD. DETAIL SD 4.22
1-3	DOUBLE S	N 541,336.70 E 1,369,426.43	215.40 (18")	214.90 (24")	219.10	HOCO STD. DETAIL SD 4.23
1-4	DOUBLE S	N 541,443.13 E 1,369,286.51	222.60 (15")	222.35 (18")	226.34	HOCO STD. DETAIL SD 4.23
1-5	DOUBLE S	N 541,466.87 E 1,369,304.85	-	222.90 (15")	226.34	HOCO STD. DETAIL SD 4.23
1-6	DOUBLE S	N 541,424.55 E 1,369,621.35	212.00 (18")	210.30 (24")	216.30	HOCO STD. DETAIL SD 4.23
1-7	DOUBLE S	N 541,441.73 E 1,369,648.19	211.20 (15")	210.45 (18")	216.00	HOCO STD. DETAIL SD 4.23
1-8	S	N 541,506.51 E 1,369,647.80	-	211.70 (15")	215.00	HOCO STD. DETAIL SD 4.22
1-9	DOUBLE S	N 541,586.45 E 1,369,411.70	223.60 (15")	223.35 (18")	227.10	HOCO STD. DETAIL SD 4.23
1-10	DOUBLE S	N 541,610.19 E 1,369,430.12	-	223.80 (15")	227.10	HOCO STD. DETAIL SD 4.23
S-1	-	N 541,287.74 E 1,369,582.82	-	-	215.30	SEE SHEET
E-1	24" END SECTION	N 541,202 E 1,369,465	211.30 (24")	-	-	ADS N-12
E-2	12" END SECTION	N 541,208 E 1,369,404	211.85 (12")	-	-	ADS N-12
E-3	24" END SECTION	N 541,307 E 1,369,562	206.80 (24")	-	-	ADS N-12
HM-1	48" TYPE A HEADWALL	N 541,245.45 E 1,369,610.60	207.80 (48")	-	-	HOCO STD. DETAIL SD 5.11
S-2	STC 3600	N 541,244.06 E 1,369,345.32	213.30 (24")	213.20 (24")	213.70	SEE THIS SHEET
S-3	STC 3600	N 541,403.41 E 1,369,610.64	210.00 (24")	209.90 (24")	217.41	SEE THIS SHEET
M-1	4" MH	N 541,239.07 E 1,369,409.50	213.02 (24")	212.92 (24")	212.00	ADS N-12
SMH-1A	4" MH	N 541,361.19 E 1,369,828.52	198.30 (8")	198.20 (8")	205.30	HOCO STD. DETAIL 6 5.12
SMH-1B	4" MH	N 541,431.60 E 1,369,787.34	203.50 (4")	203.07 (8")	211.94	HOCO STD. DETAIL 6 5.12
SMH-2	4" MH	N 541,400.10 E 1,369,712.90	204.84 (4")	204.54 (8")	213.10	HOCO STD. DETAIL 6 5.12
SMH-3	4" MH	N 541,394.65 E 1,369,669.84	206.24 (4")	205.96 (8")	214.60	HOCO STD. DETAIL 6 5.12
SMH-4	4" MH	N 541,446.34 E 1,369,530.21	211.23 (8")	211.13 (8")	221.00	HOCO STD. DETAIL 6 5.12
SMH-5	4" MH	N 541,667.36 E 1,369,316.82	224.30 (8")	224.20 (8")	233.60	HOCO STD. DETAIL 6 5.12
SMH-6	4" MH	N 541,346.06 E 1,369,421.97	212.28 (8")	212.18 (8")	219.70	HOCO STD. DETAIL 6 5.12
SMH-7	4" MH	N 541,271.19 E 1,369,364.13	213.04 (4")	213.04 (4")	222.00	HOCO STD. DETAIL 6 5.12
SMH-8	4" MH	N 541,497.72 E 1,369,277.43	221.21 (4")	219.88 (8")	227.64	HOCO STD. DETAIL 6 5.12
SMH-9	4" MH	N 541,722.26 E 1,369,354.00	226.12 (4")	225.71	234.60	HOCO STD. DETAIL 6 5.12
SMH-10	4" MH	N 541,485.77 E 1,369,176.34	225.82 (4")	225.82 (4")	233.00	HOCO STD. DETAIL 6 5.12

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



PIPE SCHEDULE

PIPE LENGTH	SIZE	TYPE
25	12"	ADS N-12
138	15"	ADS N-12
468	18"	ADS N-12
341	24"	ADS N-12
50'	48"	ASTM

AS-BUILT CERTIFICATION

STATE OF MARYLAND PROFESSIONAL ENGINEER

DOMENICK COLANGELO #27200

7/25/03 DATE

BY THE DEVELOPER:

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

DEVELOPER: *Sunita Mohr* 7-28-03 DATE

BY THE ENGINEER:

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

ENGINEER: *Chris Leo* 7-28-03 DATE

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

NATURAL RESOURCES CONSERVATION SERVICE 9/5/03 DATE

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

HOWARD SOIL CONSERVATION DISTRICT 9/5/03 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR: *Frank A. ...* 11/14/03 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION 11/16/03 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT 11/6/03 DATE

DATE NO. REVISION

OWNER/DEVELOPER

BRENTWOOD MANOR MOBILE HOME PARK
8291 WASHINGTON BOULEVARD
JESSUP, MARYLAND 20794
301-453-2344

PROJECT

BRENTWOOD MANOR EXPANSION

AREA

6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PARCEL 233, TAX MAP 43, GRID 20
ZONED R-MH

TITLE

SEDIMENT CONTROL DETAILS

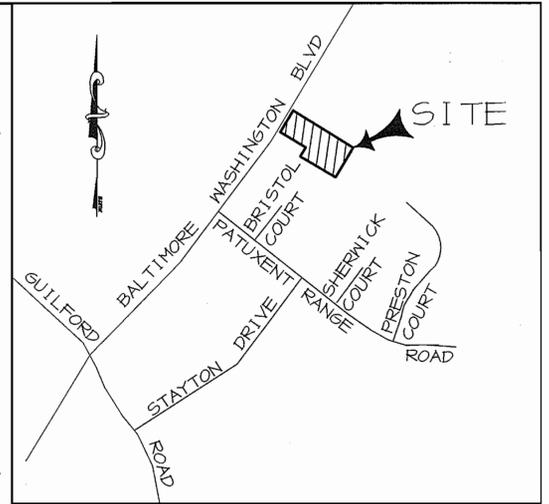
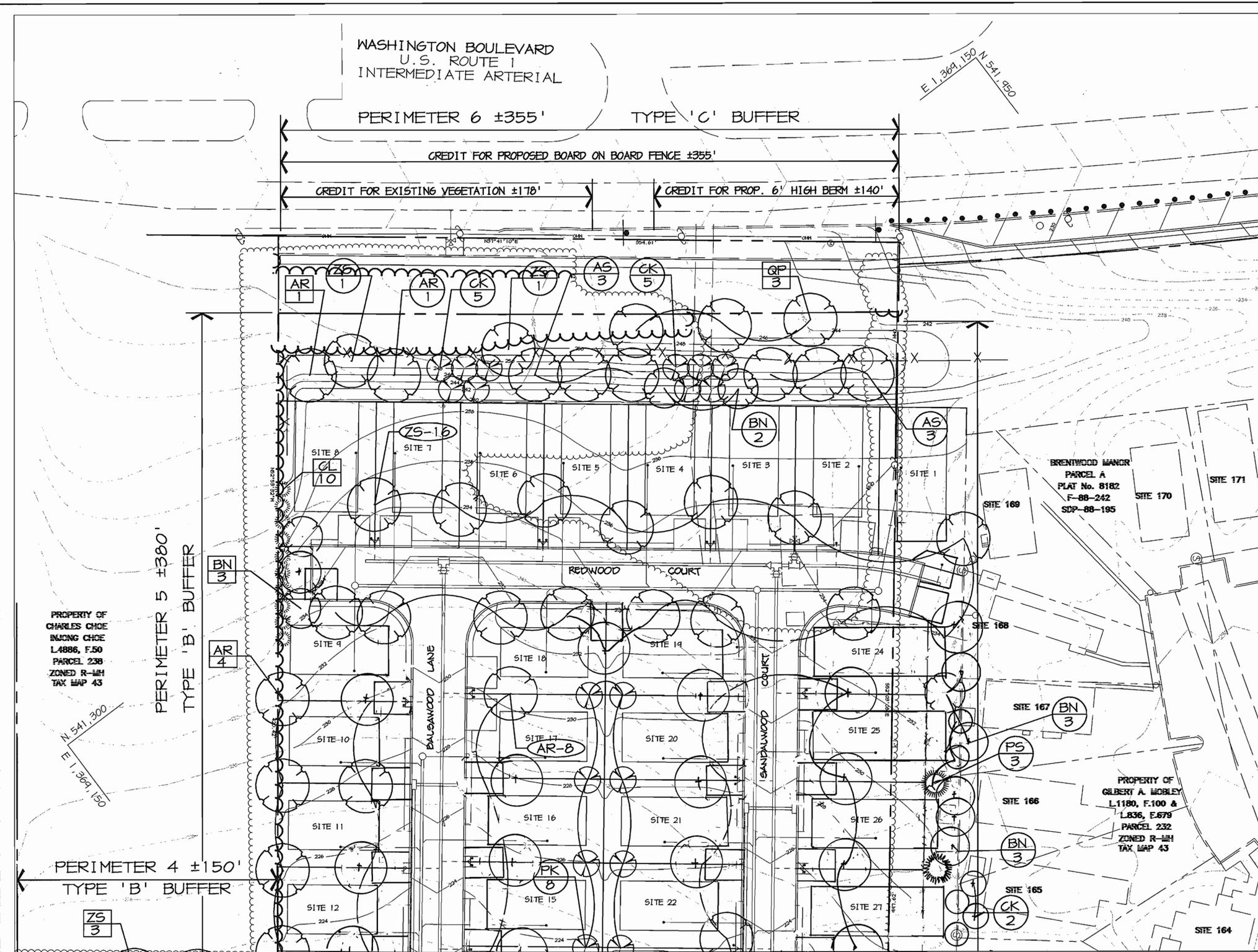
Patton Harris Rust & Associates, pc
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

7-28-03 DATE

DESIGNED BY: CJR
DRAWN BY: DAM
PROJECT NO: 00082/
SDP12.DWG
DATE: JULY 23, 2003
SCALE: AS SHOWN
DRAWING NO. 12 OF 18

CHRISTOPHER J. REID #19949

SDP-01-95



VICINITY MAP
SCALE: 1" = 2000'

PLANT LIST REFERENCE KEY	
SYMBOL	SCIENTIFIC / COMMON NAME
AP	Acer platanoides / Norway Maple
AR	Acer rubrum / Red Maple
AS	Acer saccharum / Sugar Maple
BN	Betula nigra 'Heritage' / Heritage River Birch
CK	Cornus kousa / Kousa Dogwood
CL	X Cupressocyparis leylandi / Leyland Cypress
PA	Picea abies / Norway spruce
PS	Pinus strobus / White Pine
PK	Prunus serrulata 'Kwanzan' / Kwanzan Cherry
ZS	Zelkova serrata / Japanese Zelkova

FOR ACTUAL PLANT LIST, SEE SHEET 15

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

David T. Dows 11/16/03
DIRECTOR DATE

Chris Hamstra 9/25/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Chris Hamstra 11/6/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

8/19/07 | REVISED BUILDING SIZES
DATE NO. REVISION

OWNER/DEVELOPER
BRENTWOOD MANOR MOBILE HOME PARK
8241 WASHINGTON BOULEVARD
JESSUP, MARYLAND 20794
301-953-2344

PROJECT
BRENTWOOD MANOR EXPANSION

AREA
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PARCEL 233, TAX MAP 43, GRID 20
ZONED R-1M4

TITLE
LANDSCAPE PLAN
LSCP-1

Patton Harris Rust & Associates, pc
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

7-28-03
DATE

DESIGNED BY: AJL
DRAWN BY: AJL
PROJECT NO: 00082 / LSCP-1.DWG
DATE: JULY 23, 2003
SCALE: 1" = 30'
DRAWING NO. 13 OF 18

David T. Dows
DAVID T. DOWS 6830

PLANTING LEGEND	
PROP. SHADE TREE	
PROP. EVERGREEN TREE	
PROP. TREELINE	
PROP. RECREATIONAL OPEN SPACE	
EXISTING SHADE TREE	
EXISTING PLANTS	
EXISTING TREELINE	
PERIMETER LANDSCAPE PLANTS	
RESIDENTIAL DEVELOPMENT PLANTS	
S.M.H. LANDSCAPE PLANTS	
STREET TREES	

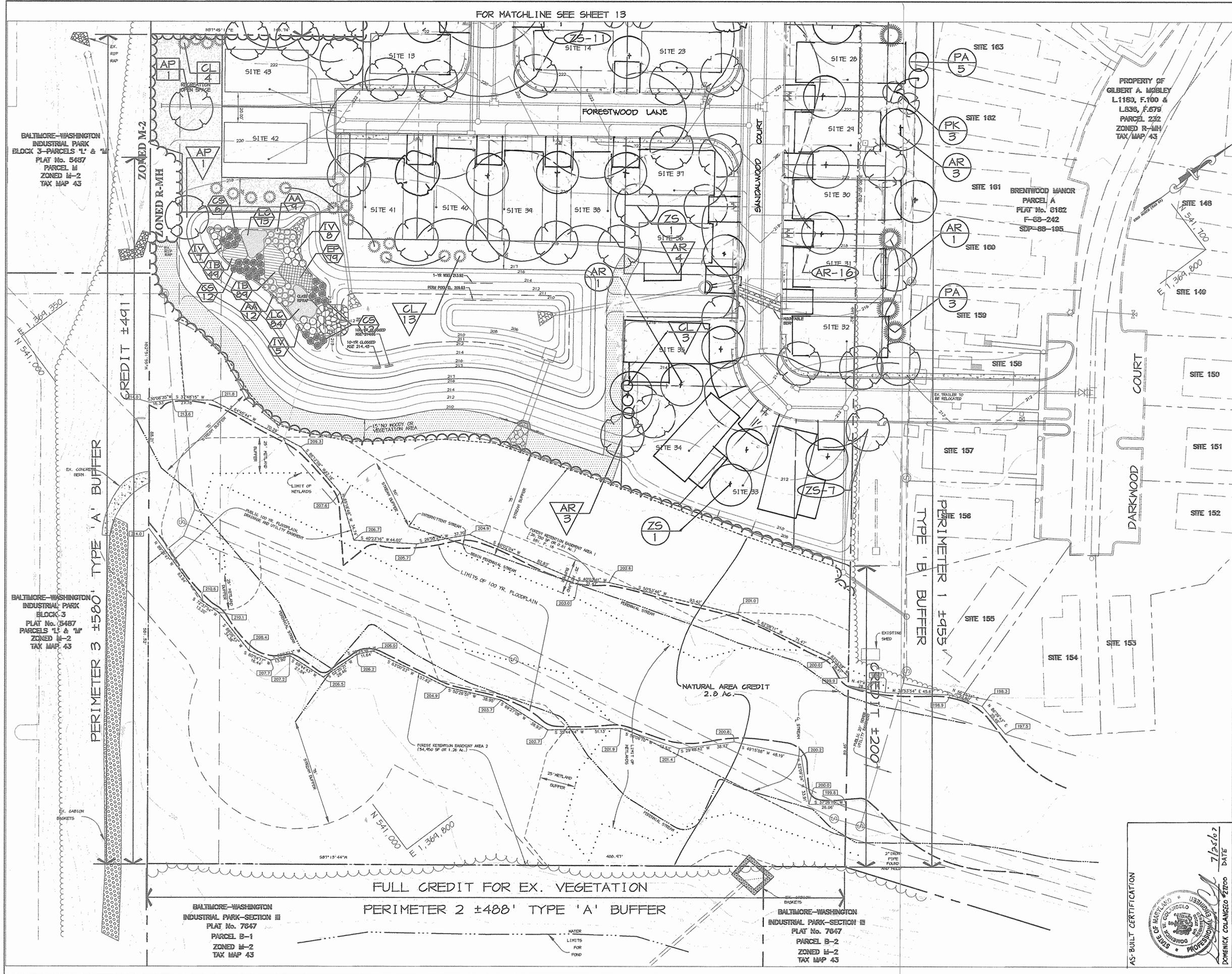
AS-BUILT CERTIFICATION

Domenick Colangelo
DOMENICK COLANGELO #27200
7/25/07
DATE

NOTE:
SEE SHEET 15 FOR PLANTING DETAILS, NOTES AND SPECIFICATIONS.

FOR MATCHLINE SEE SHEET 14

FOR MATCHLINE SEE SHEET 13



PLANTING LEGEND

PROP. SHADE TREE	
PROP. EVERGREEN TREE	
PROP. TREELINE	
PROP. RECREATIONAL OPEN SPACE	
EXISTING SHADE TREE	
EXISTING PLANTS	
EXISTING TREELINE	
PERIMETER LANDSCAPE PLANTS	
RESIDENTIAL DEVELOPMENT PLANTS	
S.M.H. LANDSCAPE PLANTS	
STREET TREES	

PLANT LIST REFERENCE KEY

SYMBOL	SCIENTIFIC / COMMON NAME
AP	Acer platanoides / Norway Maple
AR	Acer rubrum / Red Maple
AS	Acer saccharum / Sugar Maple
BN	Betula nigra 'Heritage' / Heritage River Birch
CK	Cornus kousa / Kousa Dogwood
CL	X Cupressocyparis leylandii / Leyland Cypress
PA	Picea abies / Norway spruce
PS	Pinus strobus / White Pine
PK	Prunus serrulata 'Kwanzan' / Kwanzan Cherry
ZS	Zelkova serrata / Japanese Zelkova

NOTE:
SEE SHEET 15 FOR PLANTING DETAILS, NOTES, AND SPECIFICATIONS.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Director DATE: 7/14/03

Chief, Development Engineering Division DATE: 7/14/03

Chief, Division of Land Development DATE: 7/16/03

8/13/01 REVISED BUILDING SIZES

OWNER/DEVELOPER: BRENTWOOD MANOR MOBILE HOME PARK, 8241 WASHINGTON BOULEVARD, JESSUP, MARYLAND 20744, 301-453-2344

PROJECT: BRENTWOOD MANOR EXPANSION

AREA: 6th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND, PARCEL 233, TAX MAP 43, GRID 20, ZONED R-MH

TITLE: LANDSCAPE PLAN LSCP-2

Patton Harris Rust & Associates, pc
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

DESIGNED BY: AJL
DRAWN BY: AJL
PROJECT NO: 00082/LSCP-2.DWG
DATE: JULY 23, 2003
SCALE: 1" = 30'
DRAWING NO. 14 OF 18

AS-BUILT CERTIFICATION

DOMENICK COLANGELO 7/23/03 DATE

STATE OF MARYLAND PROFESSIONAL ENGINEER

BALTIMORE-WASHINGTON INDUSTRIAL PARK-SECTION III
PLAT No. 7047
PARCEL B-1
ZONED M-2
TAX MAP 43

BALTIMORE-WASHINGTON INDUSTRIAL PARK-SECTION III
PLAT No. 7047
PARCEL B-2
ZONED M-2
TAX MAP 43

FULL CREDIT FOR EX. VEGETATION
PERIMETER 2 ±488' TYPE 'A' BUFFER

PERIMETER 3 ±500' TYPE 'A' BUFFER

PERIMETER 1 ±455' TYPE 'B' BUFFER

BALTIMORE-WASHINGTON INDUSTRIAL PARK BLOCK 3-PARCELS 'L' & 'M'
PLAT No. 5487
PARCEL M
ZONED M-2
TAX MAP 43

BALTIMORE-WASHINGTON INDUSTRIAL PARK BLOCK 3
PLAT No. 5487
PARCELS 'L' & 'M'
ZONED M-2
TAX MAP 43

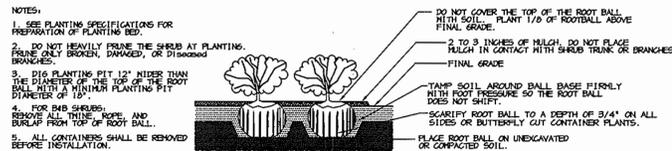
PLANTING SPECIFICATIONS

- PLANTS, RELATED MATERIAL, AND OPERATIONS SHALL MEET THE DETAILED DESCRIPTION, AS GIVEN ON THE PLANS AND AS DESCRIBED HEREIN. WHERE DISCREPANCIES EXIST BETWEEN STANDARDS & GUIDELINES REFERENCED WITHIN THESE SPECIFICATIONS AND THE HOWARD COUNTY LANDSCAPE MANUAL, THE LATTER TAKES PRECEDENCE.
- ALL PLANT MATERIAL, UNLESS OTHERWISE SPECIFIED, THAT IS NOT NURSERY GROWN, UNIFORMLY BRANCHED, DOES NOT HAVE A VIGOROUS ROOT SYSTEM, AND DOES NOT CONFORM TO THE MOST RECENT EDITION OF THE AMERICAN ASSOCIATION OF NURSERYMEN (AAN) STANDARDS SHALL BE REJECTED. PLANT MATERIAL THAT IS NOT HEALTHY, VIGOROUS, FREE FROM DEFECTS, DECAY, DISFIGURING ROOTS, SUNSCALD INJURIES, ABRASIONS OF THE BARK, PLANT DISEASE, INSECT PEST EGGS, BORERS AND ALL FORMS OF INSECT INFESTATIONS OR OBJECTIONABLE DISFIGUREMENTS WILL BE REJECTED. PLANT MATERIAL THAT IS WEAK OR WHICH HAS BEEN CUT BACK FROM LARGER GRADES TO MEET SPECIFIED REQUIREMENTS WILL BE REJECTED. TREES WITH FORKED LEADERS WILL BE REJECTED. ALL B & B PLANTS SHALL BE FRESHLY DUG; NO HEALED-IN PLANTS OR PLANTS FROM COLD STORAGE WILL BE ACCEPTED.
- UNLESS OTHERWISE SPECIFIED, ALL GENERAL CONDITIONS, PLANTING OPERATIONS, DETAILS AND PLANTING SPECIFICATIONS SHALL CONFORM TO THE MOST RECENT EDITION OF THE "LANDSCAPE SPECIFICATION GUIDELINES BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF MD, DC, & VA", (HEREINAFTER "LANDSCAPE GUIDELINES") APPROVED BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF METROPOLITAN WASHINGTON AND THE POTOMAC CHAPTER OF THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS.
- CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER DATE OF ACCEPTANCE IN ACCORDANCE WITH THE APPROPRIATE SECTION ON THE LANDSCAPE GUIDELINES. CONTRACTOR'S ATTENTION IS DIRECTED TO THE MAINTENANCE REQUIREMENTS FOUND WITHIN THE ONE YEAR SPECIFICATIONS INCLUDING WATERING AND REPLACEMENT OF SPECIFIED PLANT MATERIAL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL RELEVANT AND APPROPRIATE UTILITY COMPANIES, UTILITY CONTRACTORS, AND "MISS UTILITY" A MINIMUM OF 48 HOURS PRIOR TO THE BEGINNING OF ANY WORK. CONTRACTOR MAY MAKE MINOR ADJUSTMENTS IN SPACING AND LOCATION OF PLANT MATERIAL TO AVOID CONFLICTS WITH UTILITIES. MAJOR CHANGES WILL REQUIRE THE APPROVAL OF THE LANDSCAPE ARCHITECT. DAMAGE TO EXISTING STRUCTURE AND UTILITIES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
- PROTECTION OF EXISTING VEGETATION TO REMAIN SHALL BE ACCOMPLISHED VIA THE TEMPORARY INSTALLATION OF 4 FOOT HIGH SNOW FENCE AT THE DRIP LINE, SEE DETAIL.
- CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL MATERIAL IN THE PROPER PLANTING SEASON FOR EACH PLANT TYPE. ALL PLANTING IS TO BE COMPLETED WITHIN GROWING SEASON OF COMPLETION OF SITE CONSTRUCTION. DO NOT PLANT PINUS STROBUS OR XOPRESSOCYPARIS LEYLANDII BETWEEN NOVEMBER 15 AND MARCH 15. LANDSCAPE PLANTS ARE NOT TO BE INSTALLED BEFORE SITE IS GRADED TO FINAL GRADE.
- CONTRACTOR TO REGRADE, FINE GRADE, SOD, HYDROSEED AND STRAW MULCH ALL AREAS DISTURBED BY THEIR WORK.
- BID SHALL BE BASED ON ACTUAL SITE CONDITIONS. NO EXTRA PAYMENT SHALL BE MADE FOR WORK ARISING FROM ACTUAL SITE CONDITIONS DIFFERING FROM THOSE INDICATED ON DRAWINGS AND SPECIFICATIONS.
- PLANT QUANTITIES ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IF DISCREPANCIES EXIST BETWEEN QUANTITIES SHOWN ON PLAN AND THOSE SHOWN ON THE PLANT LIST, THE QUANTITIES ON THE PLAN TAKE PRECEDENCE. WHERE DISCREPANCIES ON THE PLAN EXIST BETWEEN THE SYMBOLS AND THE CALLOUT LEADER, THE NUMBER OF SYMBOLS TAKE PRECEDENCE.
- ALL SHRUBS AND GROUND COVER AREAS SHALL BE PLANTED IN CONTINUOUS PLANTING BEDS, PREPARED AS SPECIFIED, UNLESS OTHERWISE INDICATED ON PLANS. (SEE SPECIFICATION 13). BEDS TO BE MULCHED WITH MINIMUM 2" AND MAXIMUM 3" OF COMPOSTED, DOUBLE-SHREDDED HARDWOOD MULCH THROUGHOUT.
- POSITIVE DRAINAGE SHALL BE MAINTAINED ON PLANTING BEDS (MINIMUM 2 PERCENT SLOPE).
- BED PREPARATION SHALL BE AS FOLLOWS: TILL INTO A MINIMUM DEPTH OF 6" 1 YARD OF COMPRO OR LEAFGRO PER 200 SF OF PLANTING BED, AND 1 YARD OF TOPSOIL PER 100 SF OF BED. ADD 3 LBS OF STANDARD 5-10-5 FERTILIZER PER CUBIC YARD OF PLANTING MIX AND TILL. ERICACEOUS PLANTS (AZALEAS, RHODODENDRONS, ETC.) TOP DRESS AFTER PLANTING WITH IRON SULFATE OR COMPARABLE PRODUCT ACCORDING TO PACKAGE DIRECTIONS. TAXUS BACCATA 'REPANDENS' (ENGLISH KEEPING YEW): TOP DRESS AFTER PLANTING WITH 1/4 TO 1/2 CUP LIME EACH.
- PLANTING MIX: FOR TREES NOT IN A PREPARED BED, MIX 50% COMPRO OR LEAFGRO WITH 50% SOIL FROM TREE HOLE TO USE AS BACKFILL, SEE TREE PLANTING DETAIL.
- NEED & INSECT CONTROL: INCORPORATE A PRE-EMERGENT HERBICIDE INTO THE PLANTING BED FOLLOWING RECOMMENDED RATES ON THE LABEL. FOR TREE PLANTING, APPLY A PRE-EMERGENT ON TOP OF SOIL AND ROOT BALL BEFORE MULCHING. CAUTION: FOR AREAS TO BE PLANTED WITH A GROUND COVER, BE SURE TO CAREFULLY CHECK THE CHEMICAL USED TO ASSURE ITS ADAPTABILITY TO THE SPECIFIC GROUND COVER TO BE TREATED. MAINTAIN THE MULCH WEED-FREE FOR THE EXTENT OF THE WARRANTY PERIOD. UNDER NO CIRCUMSTANCES IS A PESTICIDE CONTAINING CHLORPYRIFOS TO BE USED AS A MEANS OF PEST CONTROL.
- WATER: ALL PLANT MATERIAL PLANTED SHALL BE WATERED THOROUGHLY THE DAY OF PLANTING. ALL PLANT MATERIAL NOT YET PLANTED SHALL BE PROPERLY PROTECTED FROM DRYING OUT UNTIL PLANTED. AT A MINIMUM, WATER UNPLANTED PLANT MATERIAL DAILY AND AS NECESSARY TO AVOID DESICCATION.
- PRUNING: DO NOT HEAVILY PRUNE TREES AND SHRUBS AT PLANTING. PRUNE ONLY BROKEN, DEAD, OR DISEASED BRANCHES.
- ALL AREAS WITHIN CONTRACT LIMITS DISTURBED DURING OR PRIOR TO CONSTRUCTION NOT DESIGNATED TO RECEIVE PLANTS AND MULCH SHALL BE FINE GRADED, GRASS SEED PLANTED, AND COVERED WITH STRAW MULCH.

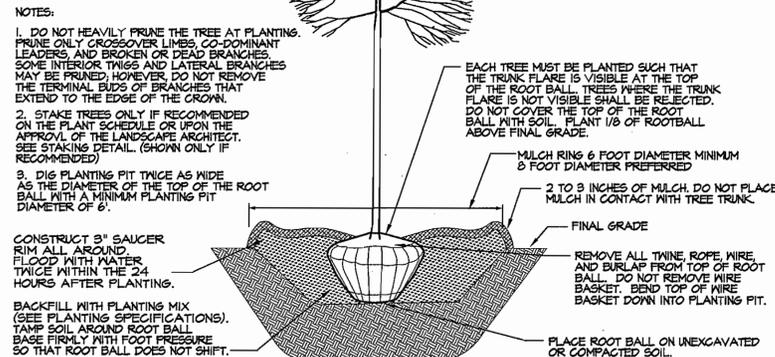
SCHEDULE A - PERIMETER LANDSCAPE EDGE						
PERIMETER	ADJACENT TO PERIMETER PROPERTIES					ADJACENT TO ROADWAYS
	1*	2**	3	4	5	6***
LANDSCAPE TYPE	B	A	A	B	B	C
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	±955'	±488'	±580'	±150'	±380'	±355'
CREDIT FOR EXISTING VEGETATION (YES, NO LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	-	YES ±488'	YES ±491'	NO	NO	YES ±178'
CREDIT FOR WALL, FENCE, BERM OR DRIVE AISLE (YES/NO/LINEAR FEET)	-	NO	NO	NO	NO	YES*** FENCE: 355' BERM: 140'
LINEAR FEET REMAINING	±	±0'	±89'	±150'	±380'	±177'
NUMBER OF PLANTS REQUIRED						
SHADE TREES	NA	-	1	3	8	3
EVERGREEN TREES	-	-	-	4	10	-
SHRUBS	-	-	-	-	-	-
NUMBER OF PLANTS PROVIDED						
SHADE TREES	NA	-	1	3	8	3
EVERGREEN TREES	-	-	-	4	10	-
SMALL FLOWERING TREES	-	-	-	-	-	-
SHRUBS	-	-	-	-	-	-

SCHEDULE 'A' NOTES:
 *REGULATION DO NOT REQUIRE LANDSCAPE EDGES, BUFFERING, OR SCREENING BETWEEN INTERNAL LOTS OR PARCELS WITHIN THE SAME DEVELOPMENT. (PAGE 17 OF THE HO.Co. LANDSCAPE MANUAL)
 **UP TO 100% OF THE PLANTING REQUIREMENT MAY BE MET BY PRESERVING EXISTING VEGETATION
 ***SUBSTITUTE PROPOSED 6' BERM & 6' HIGH, BOARD ON BOARD FENCE FOR REQUIRED EVERGREEN PLANTINGS

PLANT LIST					
SYMBOL	QTY.	SCIENTIFIC/COMMON NAME	SIZE	ROOT	REMARKS
SHADE TREES					
AP	2	Acer platanoides/ Norway Maple	2.5" - 3" cal.	B&B	specimen
AR	44	Acer rubrum/ Red Maple	2.5" - 3" cal.	B&B	specimen
AS	6	Acer saccharum/ Sugar Maple	2.5" - 3" cal.	B&B	specimen
BN	11	Betula nigra 'Heritage'/ Heritage River Birch	10' - 12' ht.	-	multi-stemmed
QP	3	Quercus palustris	2.5" - 3" cal.	B&B	specimen
ZS	41	Zelkova serrata/ Japanese Zelkova	2.5" - 3" cal.	B&B	specimen
ORNAMENTAL TREES					
OK	12	Cornus kousa/ Kousa Dogwood	8' - 10' ht.	-	specimen
PK	11	Prunus serrulata 'Kwanzan'/ Kwanzan Cherry	8' - 10' ht.	B&B	specimen
EVERGREEN TREES					
CL	30	Xcupressocyparis leylandi/ Leyland Cypress	6' - 8' ht.	-	full
PA	8	Picea abies/ Norway Spruce	6' - 8' ht.	B&B	full
PS	3	Pinus strobus/ White Pine	6' - 8' ht.	B&B	full



SHRUB BED PLANTING DETAIL - B&B AND CONTAINER SHRUBS
 NOT TO SCALE



DECIDUOUS B&B TREE PLANTING DETAIL
 NOT TO SCALE

SCHEDULE C - RESIDENTIAL DEVELOPMENT	
TOTAL NUMBER OF UNITS	43
TOTAL NUMBER OF SHADE TREES REQUIRED	43
NUMBER OF PLANTS PROVIDED	
SHADE TREES	26
EVERGREEN TREES	11
FLOWERING TREES	23

SCHEDULE 'C' SUBSTITUTION NOTES:
 (1) EVERGREEN AND (2) FLOWERING TREES WERE SUBSTITUTED FOR (17) SHADE TREES.

STREET TREE CALCULATIONS		
SANDALWOOD COURT	1020' / 40	25 LARGE TREES
FORESTWOOD LANE	540' / 40	14 LARGE TREES
BALDANWOOD LANE	500' / 40	12 LARGE TREES
REDWOOD COURT	635' / 40	16 LARGE TREES
TOTAL TREES REQUIRED (2695' / 40)		67 LARGE TREES
TOTAL TREES PROVIDED		58 LARGE TREES

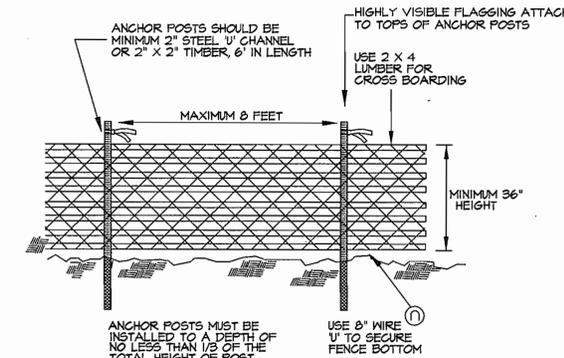
NOTE: A MEETING WAS HELD WITH THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING (DPZ) ON JULY 3, 2001 WHERE A GRAPHIC AND VERBAL PRESENTATION WAS MADE BY PHRA SEEKING APPROVAL OF THE LANDSCAPE PLAN VIA THE ALTERNATE COMPLIANCE SECTION OF THE HOWARD COUNTY LANDSCAPE MANUAL. DPZ FOUND THAT ALTHOUGH THIS LANDSCAPE PLAN IS LACKING 9 REQUIRED STREET TREES, SITE CONSTRAINTS MAKE ANY ADDITIONAL PLANTING NOT FEASIBLE AND OUTSIDE OF THE INTENT OF THE LANDSCAPE MANUAL. THE DPZ FURTHER FOUND THAT THIS LANDSCAPE PLAN MEETS THE INTENT OF THE LANDSCAPE MANUAL WITHOUT THE 9 MISSING TREES. CONFIRMED BY PHONE WITH CINDY HAMILTON AND MIKE ANTOL OF DPZ ON JULY 10, 2001.

SCHEDULE D - STORMWATER MANAGEMENT AREA LANDSCAPING	
S.W.M. POND PERIMETER	1
LANDSCAPE TYPE	B
LINEAR FEET OF TOTAL PERIMETER	±845'
CREDIT FOR OTHER LANDSCAPING (NO OR YES & %)	-
CREDIT FOR EX. VEGETATION	±415'
LINEAR FEET OF REMAINING PERIMETER	±480'
NUMBER OF TREES REQUIRED:	
SHADE TREES	10
EVERGREEN TREES	12
NUMBER OF PLANTS PROVIDED	
SHADE TREES	8*
EVERGREEN TREES	16

SCHEDULE 'D' SUBSTITUTION NOTES:
 * (4) EVERGREEN TREES WERE SUBSTITUTED FOR (2) REQUIRED SHADE TREES.

BIORETENTION PLANT LIST						
KEY	QTY.	SCIENTIFIC/COMMON NAME	SIZE	ROOT	SPACING	ZONE*
CS	30	CORNUS SERICEA/ RED TWIG DOGWOOD	2.5"-3" HT.	CONT.	PLANT AS SHOWN	***
AA	21	ARONIA ARBUTIFOLIA/ RED CHOKEBERRY	2.5"-3" HT.	CONT.	PLANT AS SHOWN	***
IV	20	ITEA VIRGINICA 'HENRY'S GARNET'/ VIRGINIA SWEETSPHIRE	2.5"-3" HT.	CONT.	PLANT AS SHOWN	***
EP	79	EUPATORIUM PURPUREUM/ JOE PYE WEED	1 GAL.	CONT.	24" SPACING	****
IB	138	IRIS VERSICOLOR 'BLUE FLAG'/ BLUE FLAG IRIS	1 GAL.	CONT.	24" SPACING	(1, 2), 3
LC	157	LOBELIA CARDINALIS/ CARDINAL FLOWER	1 GAL.	CONT.	24" SPACING	1, (2, 3), 4

BIORETENTION PLANT LIST NOTES:
 * HYDROLOGIC ZONES ACCORDING TO APPENDIX A OF THE MARYLAND MODEL STORMWATER MANAGEMENT ORDINANCE JULY 2000.
 *** KNOWN TO TOLERATE INUNDATION AS WELL AS DRY AREAS ACCORDING TO DIRR, MICHAEL A. MANUAL OF WOODY LANDSCAPE PLANTS
 **** COMMONLY USED BIORETENTION SPECIES ACCORDING TO TABLE A.4 IN APPENDIX A OF THE MARYLAND MODEL STORMWATER MANAGEMENT ORDINANCE JULY 2000.



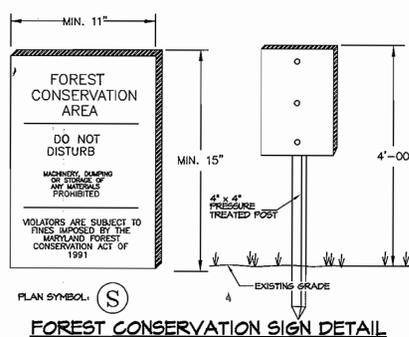
NOTES:
 1. BLAZE ORANGE OR BLUE PLASTIC MESH FENCE FOR FOREST PROTECTION DEVICE, ONLY 2. BOUNDARIES OF RETENTION AREA WILL BE ESTABLISHED AS PART OF THE FOREST CONSERVATION PLAN REVIEW PROCESS 3. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE. 4. AVOID DAMAGE TO CRITICAL ROOT ZONE. DO NOT DAMAGE OR SEVER LARGE ROOTS WHEN INSTALLING POSTS. 5. PROTECTION SIGNS ARE REQUIRED. SEE SIGN DETAIL. 6. DEVICE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.

TREE PROTECTION FENCING
 Not to Scale

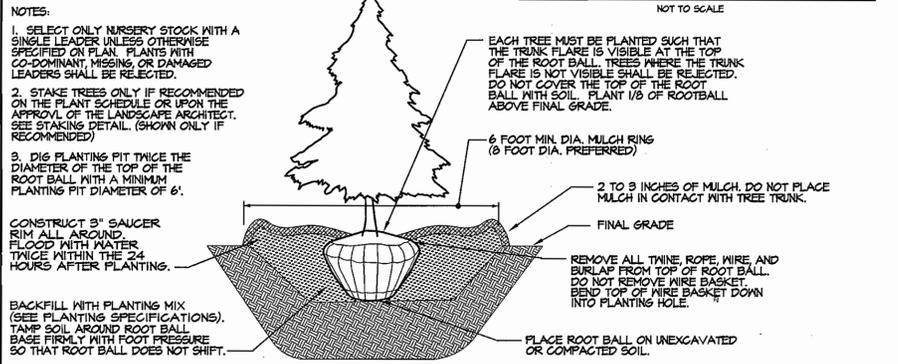
- GENERAL NOTES:**
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
 - FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$43,100. 107 SHADE TREES @ \$300 = \$32,100 23 ORNAMENTAL TREES @ \$150 = \$3,450 41 EVERGREEN TREES @ \$150 = \$6,150 18 SHADE TREES @ \$300 = \$5,400
 - THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY.
 - CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
 - ALL MATERIAL SELECTED SHALL BE EQUAL TO OR BETTER THAN THE REQUIREMENTS OF THE "USA STANDARD FOR NURSERY STOCK", LATEST EDITION, AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
 - ALL MATERIAL SHALL BE PLANTED IN ACCORDANCE WITH THE MINIMUM STANDARDS CITED IN THE LATEST EDITION OF "LANDSCAPE SPECIFICATION GUIDELINES" PUBLISHED BY THE LANDSCAPE CONTRACTORS ASSOCIATION.
 - AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.

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

Signature: *[Signature]* DATE: 7-28-03



FOREST CONSERVATION SIGN DETAIL
 NOT TO SCALE



EVERGREEN B&B TREE PLANTING DETAIL
 NOT TO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Director: *[Signature]* DATE: 11/14/02

Chief, Development Engineering Division: *[Signature]* DATE: 9/25/03

Chief, Division of Land Development: *[Signature]* DATE: 11/6/02

DATE	NO.	REVISION

OWNER/DEVELOPER: BRENTWOOD MANOR MOBILE HOME PARK, 8241 WASHINGTON BOULEVARD, JESSUP, MARYLAND 20794, 301-953-2344

PROJECT: BRENTWOOD MANOR EXPANSION

AREA: 6th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND, PARCEL 233, TAX MAP 43, GRID 20, ZONED R-MH

TITLE: LANDSCAPE NOTES, DETAILS & SPECIFICATIONS

Patton Harris Rust & Associates, pc
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

DATE: 7-28-03

DESIGNED BY: A.J.L.

DRAWN BY: A.J.L.

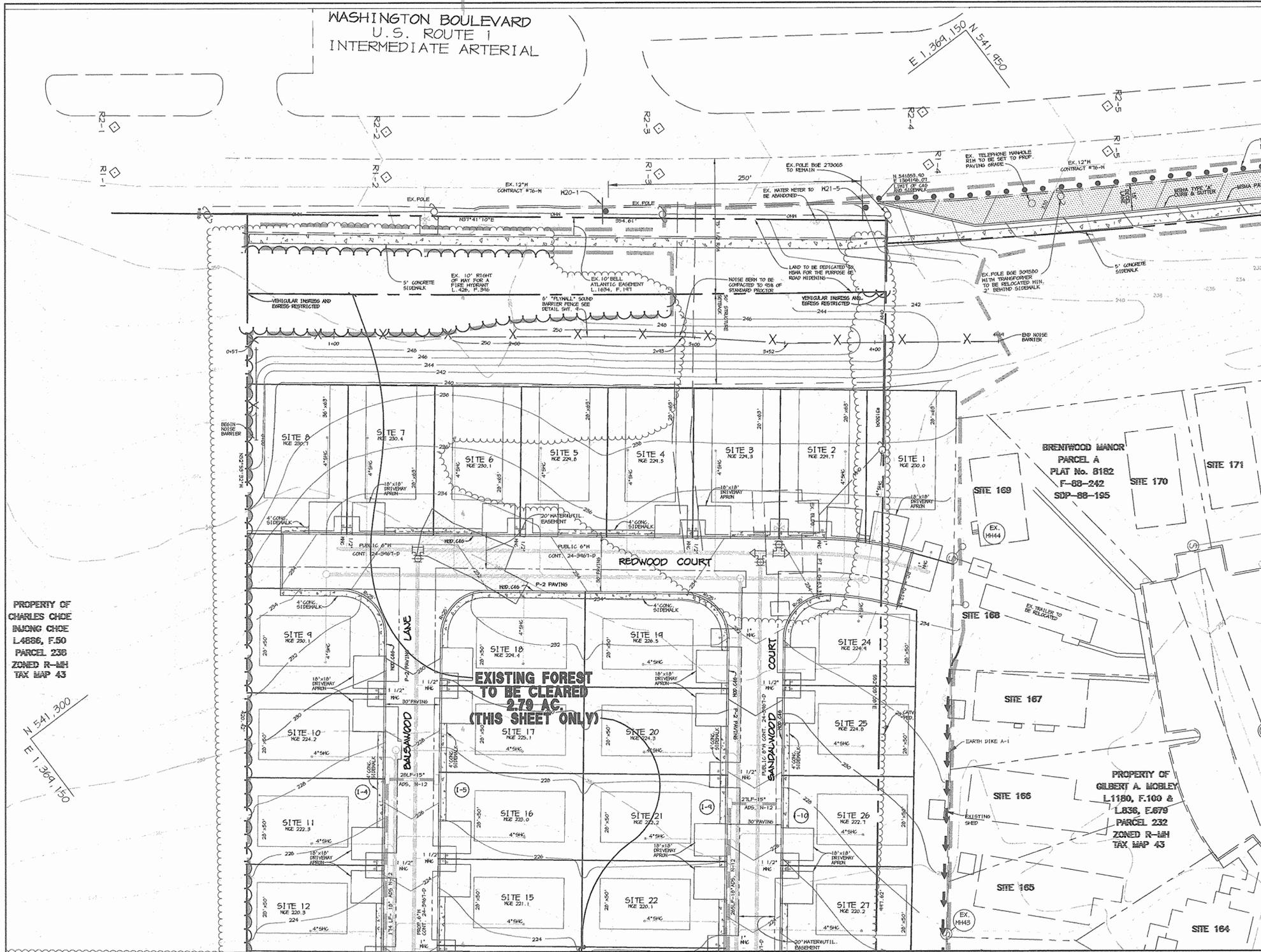
PROJECT NO.: 00082/LECP-3.DWG

DATE: JULY 23, 2003

SCALE: NO SCALE

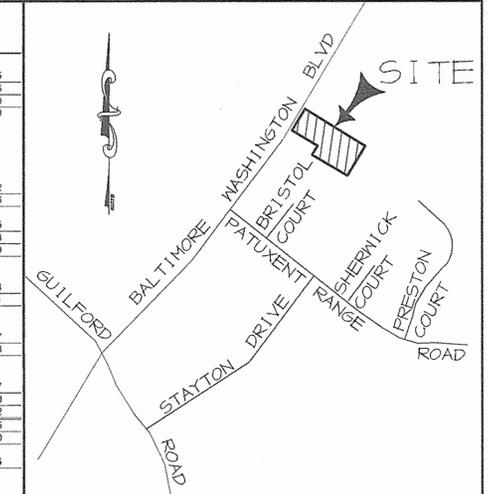
DRAWING NO.: 15 OF 18

DAVID T. BOWS #830



Howard County Forest Conservation Worksheet

Site Data					
A. Total site area		9.95			
B. Areas in 100 year floodplain		1.16			
C. Areas in agriculture use and preservation parcels		0.00			
D. Net Tract Area (A-B-C)		8.79			
Land Use Category (from table 3.2.1, page 40, Manual)					
ARA	MDR	IDA	HDR	MPD	CIA
0	0	0	1	0	0
E. Afforestation threshold 15% * D		1.32			
F. Conservation threshold 20% * D		1.76			
G. Existing forest cover on net tract area (excluding floodplain)		8.15			
H. Area of forest above Afforestation threshold		6.83			
I. Area of forest above Conservation threshold		6.39			
Break Even Point					
J. Forest retention above threshold with no mitigation		3.04			
K. Forest clearing permitted without mitigation		5.11			
Proposed Forest Clearing					
L. Total area of forest to be cleared		6.27			
M. Total area of forest to be retained		1.88			
Reforestation Calculations					
N. Reforestation for clearing above conservation threshold		1.57			
O. Reforestation for clearing below conservation threshold		0.00			
P. Credit for retention above conservation threshold		0.12			
Q. Total reforestation required		1.45			
R. Total afforestation required		0.00			
S. TOTAL REFORESTATION + AFFORESTATION OBLIGATION		1.45			



VICINITY MAP
SCALE: 1" = 2000'

LAND USE	MOBILE HOME	SUBWATERSHED NUMBER	2131105	ON-SITE MD GRID N (1)	480,000	ON-SITE MD GRID E (1)	860,000	NET TRACT AREA	8.79	TOTAL SITE DISTURBANCE (AC)	6.91
PROBABILITY WITHIN TOTAL DISTURBED AREA (AC) (2)	0	% PRIORITY DISTURBANCE (3)	0%	EXISTING FOREST (AC) (4)	8.15	ON-SITE RETENTION (AC)	1.88	OFF-SITE RETENTION (AC)	0	CLEARED FOREST (AC) (4)	6.27
ON-SITE REFORESTATION (AC)	0	OFF-SITE REFORESTATION (AC)	1.45	ON-SITE AFFORESTATION (AC)	0	OFF-SITE AFFORESTATION (1)	0	OFF-SITE MD GRID N (1)	616,000	OFF-SITE GRID E (1)	1,284,000
TOTAL ACRES IN EASEMENT		3.33		% OF PRIORITY AREA WITHIN TOTAL EASEMENT	46%	AMOUNT OF SURETY POSTED	\$47,917.00	AMOUNT OF FEE-IN-LIEU REQUESTED	\$0.00	OFF-SITE SUBWATERSHED NUMBER	2130908

(1) THESE 6 DIGIT COORDINATES CAN BE TAKEN FROM ADCS STREET MAP OF HOWARD COUNTY
 (2) PROVIDE THE ACREAGE OF THE TOTAL SITE DISTURBANCE WHICH OCCURS IN PRIORITY AREAS (WETLANDS, WETLAND BUFFERS, STREAM BUFFERS, STEEP SLOPES, FLOODPLAIN)
 (3) PROVIDE THE PERCENTAGE OF THE TOTAL SITE DISTURBANCE WHICH OCCURS WITHIN THE PRIORITY AREAS
 (4) THESE FIGURES APPLY TO THE ACREAGE OF EXISTING FOREST IN THE NET TRACT AREA AND TO THE ACREAGE OF THAT FOREST WHICH WILL BE CLEARED

PROPERTY OF CHARLES CHOE
 INNING CHOE
 L.4836, F.50
 PARCEL 238
 ZONED R-MH
 TAX MAP 43

N 541,300
 E 1,369,150

EXISTING FOREST TO BE CLEARED 2.79 AC. (THIS SHEET ONLY)

BRENTWOOD MANOR
 PLAT No. 8182
 F-88-242
 SDP-88-195

PROPERTY OF GILBERT A. MOBLEY
 L.1180, F.100 &
 L.836, E.678
 PARCEL 232
 ZONED R-MH
 TAX MAP 43

MATCHLINE, SEE SHEET FR-CON2

FOREST CONSERVATION SEQUENCE OF OPERATIONS

- Prior to beginning any grading operations on this site or on a respective lot, there shall be a preconstruction meeting held at the site which is to include the Contractor and representatives from Riemer Musage, a division of Patton Harris Rust & Associates, The Howard County Department of Planning and Zoning (DPZ) and the owner will be notified by the Contractor as to the time and place of the field meeting, should they wish to send a representative. The purpose of this meeting will be to review the approved FCP and to field verify the correct Limits of Disturbance (LOD).
- The Limits of Disturbance (LOD) pertinent to the preservation of wooded areas shall be staked in the field with final adjustments being made as necessary to insure adequate protection of the Critical Root Zone of trees designated for retention. Stakes to be used shall be those specified for the "TREE PROTECTION DEVICE" to which approved protective material will be attached. Alternate means of defining the LOD may be used if approved by the DPZ.
- All forest retention areas shall be protected by highly visible, well anchored temporary protection devices (see detail), which shall be securely in place prior to any clearing or grading operations.
- Install tree protection signage.
- Grading operations or other construction operations which could dislodge or otherwise damage the protective devices shall be avoided along the edges of the LOD lines if possible. Any protective devices which are damaged during site construction operations shall be properly repaired immediately by the Contractor.
- After site grading, utility access road, and driveway construction have been completed, all trees adjacent to the LOD line shall be inspected for indications of crown die-back (summer indicator), damage within reproductive critical root zones or any dead wood or other conditions which might be hazardous to pedestrians, buildings, utility lines, vehicular access ways or parked vehicles.
- Should there be evidence of any damage to tree trunks, branches or the critical root zone of trees within the protected areas, or to isolated specimen trees to be preserved, the damage shall be examined within a period of two (2) days from the date of observation by a licensed tree care professional. Exposed roots should be covered immediately to a depth of 6 - 8 inches with soil, preferably mixed with 50% peat moss or leaf mold.
- Remove damaged, dead or dying trees or limbs only if the trees or limbs pose an immediate safety hazard to buildings, utility lines, vehicles, or access drives or pedestrian. Trees designated for pruning or removal shall be pruned or removed using equipment and methods which will not damage or destroy adjacent large trees or understory trees or shrubs designated for retention.
- All temporary forest protection devices will be carefully removed after all general construction, necessary tree surgery, removal of debris, etc., regrading and reseeding of sediment and erosion control disturbance have been completed and acceptance and approval of the work and site conditions have been given by the DPZ.

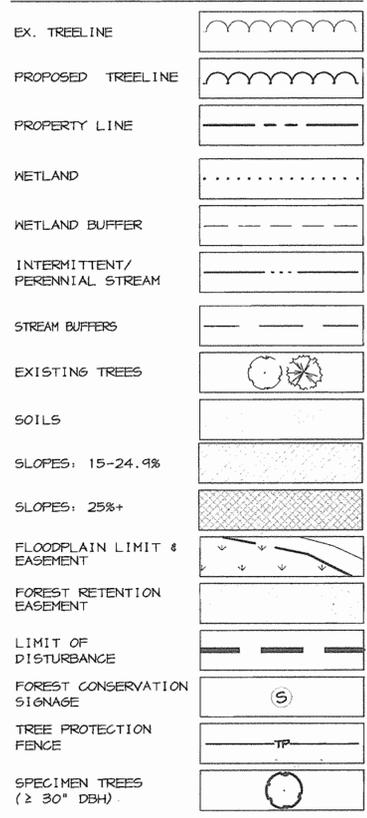
GENERAL NOTES

- SPECIMEN TREE LOCATIONS ARE FIELD APPROXIMATED.
- NO CRITICAL HABITATS OF RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED.
- NO TREES, SHRUBS, OR PLANTS IDENTIFIED AS RARE, THREATENED OR ENDANGERED WERE OBSERVED.
- THERE ARE NO KNOWN CEMETERY OR BURIAL PLOTS LOCATED ON THE SITE, ACCORDING TO THE HOWARD COUNTY HISTORIC & CEMETERY SITE MAP.
- THE HOWARD COUNTY FOREST CONSERVATION MANUAL SUPERCEDES ANY DISCREPANCIES BETWEEN THE MANUAL AND THESE PLANS.
- THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION.
- NO SLOPES EXCEED 25% WITHIN THE PROJECT AREA.
- SEE SEDIMENT CONTROL PLAN FOR EXACT LOCATION OF TREE PROTECTION FENCE AND TREE PROTECTION FENCE DETAILS.
- FOR FOREST CONSERVATION EASEMENT METES & BOUNDS, SEE GRANT OF EASEMENT PLAT NO. 1G18-1011G.
- THE FOREST CONSERVATION OBLIGATION FOR THE PROPOSED SITE DEVELOPMENT HAS BEEN MET BY PLACING \$1,600 SF (1.89 AC.) OF FOREST IN FOREST RETENTION EASEMENTS. SURETY IN THE AMOUNT OF \$16,336 (\$1,600 SF x \$0.20) HAS BEEN POSTED FOR THESE EASEMENTS. IN ADDITION, 1.45 AC. WILL BE REFORESTED OFFSITE ON THE LISTON FARM PROPERTY (TAX MAP 2, PARCEL 17, BLOCKS 15 & 21). SURETY IN THE AMOUNT OF \$31,581.00 (\$3,162 SF x \$0.50) HAS BEEN POSTED FOR THIS REFORESTATION / AFFORESTATION.

FOREST CONSERVATION PROGRAM

- OBJECTIVE:**
IT IS THE OBJECTIVE OF THE FOREST CONSERVATION PLAN OF THE BRENTWOOD MANOR PROPERTY TO RETAIN ENVIRONMENTAL INTEGRITY BY PRESERVING EXISTING WOODED AREAS AND BY REFORESTING OPEN AREAS.
- PRESERVATION:**
FOREST PRESERVATION AREAS SHALL BE PERMANENTLY PROTECTED BY FOREST CONSERVATION EASEMENTS.
- GENERAL CONSTRUCTION NOTE:**
THERE WILL BE NO STAGING OR STORING OF EQUIPMENT WITHIN THE LIMIT OF DISTURBANCE.
- POST CONSTRUCTION MANAGEMENT PRACTICE:**
A TWO-YEAR POSTED CONSTRUCTION AND MANAGEMENT PROGRAM TO ENSURE FOREST HEALTH IS REQUIRED AND INCLUDES THE FOLLOWING:
 -MAINTENANCE OF SIGNS, FENCES, AND TREE PROTECTION DEVICES TO PREVENT UNWARRANTED INTRUSION AND DAMAGE.
 -CAREFUL REMOVAL OF ALL TEMPORARY STRUCTURES AFTER CONSTRUCTION.
 -ROUTINE INSPECTIONS OF FOREST CONSERVATION EASEMENTS.

LEGEND



AS-BUILT CERTIFICATION

DOMENICO COLANGELO #27200
 DATE 7/25/03

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 DIRECTOR [Signature] DATE 11/18/02
 CHIEF, DEVELOPMENT ENGINEERING DIVISION [Signature] DATE 9/16/03
 CHIEF, DIVISION OF LAND DEVELOPMENT [Signature] DATE 1/6/03

DATE NO. REVISION

OWNER/DEVELOPER
 BRENTWOOD MANOR MOBILE HOME PARK
 8291 WASHINGTON BOULEVARD
 JESSUP, MARYLAND 20794
 301-453-2344

PROJECT
BRENTWOOD MANOR EXPANSION

AREA
 6th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 PARCEL 233, TAX MAP 43, GRID 20
 ZONED R-MH

TITLE
FOREST CONSERVATION PLAN (FR-CON1)

Patton Harris Rust & Associates, pc
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

7-28-03
 DATE

DAVID T. DOWS #830

DESIGNED BY: DTD
 DRAWN BY: AJL
 PROJECT NO: 00082/FR-CON1.DWG
 DATE: JULY 23, 2003
 SCALE: 1" = 30'
 DRAWING NO. 16 OF 18

SDP-01-95

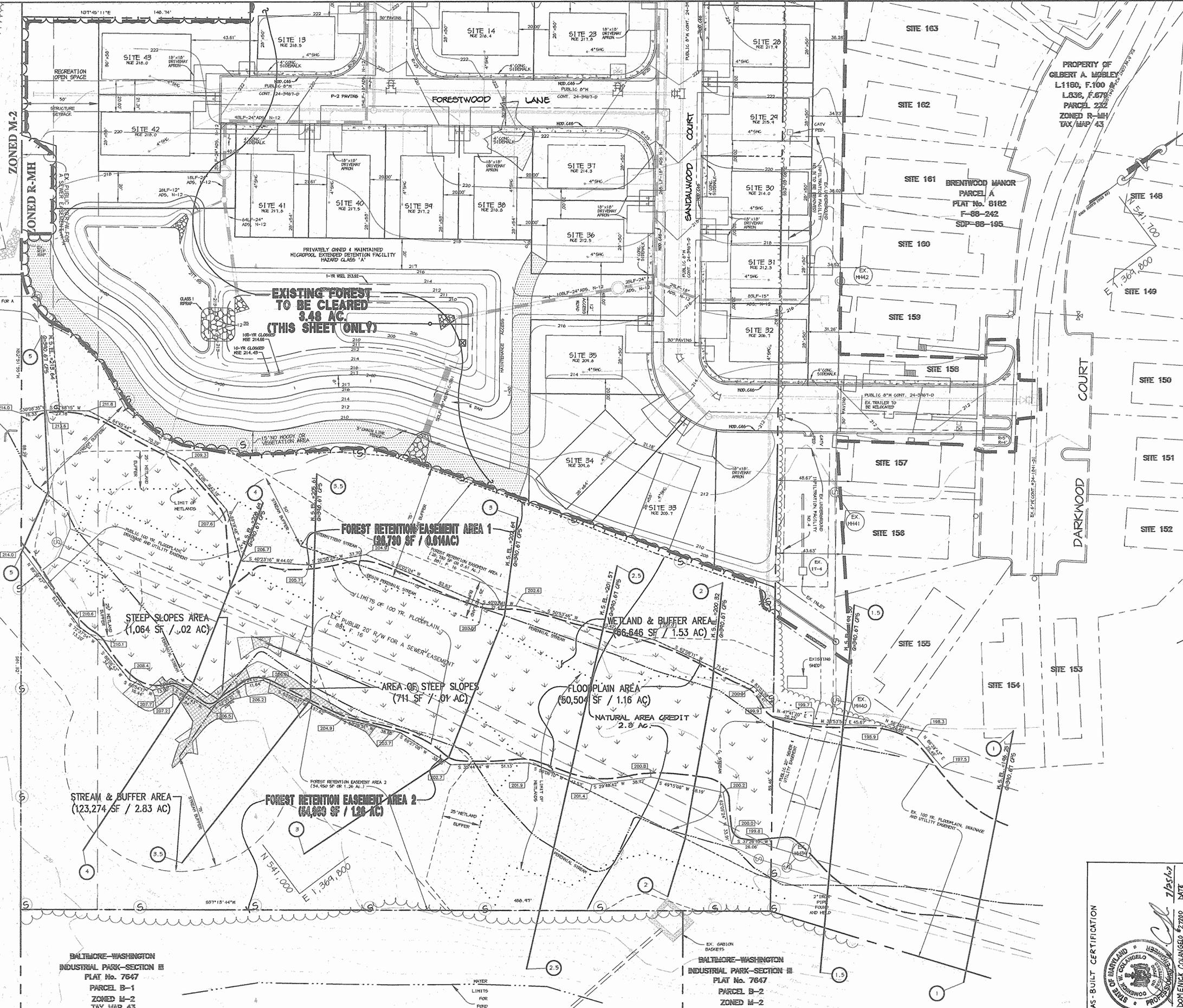
MATCHLINE, SEE SHEET FR-CON1

BALTIMORE-WASHINGTON INDUSTRIAL PARK BLOCK 3-PARCELS 1' & 14' PLAT No. 5487 ZONED M-2 TAX MAP 43

BALTIMORE-WASHINGTON INDUSTRIAL PARK BLOCK 3-PARCELS 1' & 14' ZONED M-2 TAX MAP 43

BALTIMORE-WASHINGTON INDUSTRIAL PARK-SECTION II PLAT No. 7647 PARCEL B-1 ZONED M-2 TAX MAP 43

BALTIMORE-WASHINGTON INDUSTRIAL PARK-SECTION II PLAT No. 7647 PARCEL B-2 ZONED M-2 TAX MAP 43



LEGEND

- EX. TREELINE
- PROPOSED TREELINE
- PROPERTY LINE
- WETLAND
- WETLAND BUFFER
- INTERMITTENT/PERENNIAL STREAM
- STREAM BUFFERS
- EXISTING TREES
- SOILS
- SLOPES: 15-24.9%
- SLOPES: 25%+
- FLOODPLAIN LIMIT & EASEMENT
- FOREST RETENTION EASEMENT
- LIMIT OF DISTURBANCE
- FOREST CONSERVATION SIGNAGE
- TREE PROTECTION FENCE
- SPECIMEN TREES (≥ 30" DBH)

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

David T. Dows 11/14/03
DIRECTOR DATE

Chris Hamata 11/16/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER/DEVELOPER
BRENTWOOD MANOR MOBILE HOME PARK
8291 WASHINGTON BOULEVARD
JESSUP, MARYLAND 20794
301-453-2344

PROJECT
BRENTWOOD MANOR EXPANSION

AREA
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PARCEL 233, TAX MAP 43, GRID 20
ZONED R-MH

TITLE
FOREST CONSERVATION PLAN (FR-CON2)

Patton Harris Rust & Associates, pc
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

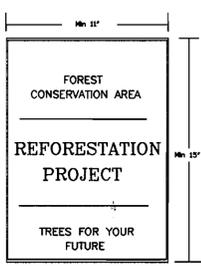
DESIGNED BY: DTD
DRAWN BY: AJL
PROJECT NO.: 00082/
FR-CON2.DWG
DATE: JULY 23, 2003
SCALE: 1" = 30'
DRAWING NO.: 17 OF 18

SDP-01-95



REFORESTATION PLANT LIST						
QTY.	SPECIES	SHADE TOL.	MOIST. REGIME	WET. STATUS	MIN. O.C. SPACING	SIZE & REMARKS
53	Prunus serotina Wild Black Cherry	I	M	FACU	11'	SEEDLING/WHIP W/TREE SHELTER
53	Robinia pseudoacacia Black Locust	VI	D-M	FACU	11'	SEEDLING/WHIP W/TREE SHELTER
53	Liriodendron tulipifera Tulip Poplar	I	D-M	FACU	11'	SEEDLING/WHIP W/TREE SHELTER
53	Quercus rubra Red Oak	MT	D-M	UPL	11'	SEEDLING/WHIP W/TREE SHELTER
53	Fraxinus americana White Ash	MT	D-M	FACU	11'	SEEDLING/WHIP W/TREE SHELTER
53	Nyssa sylvatica Black Gum	T	M-W	FAC	11'	SEEDLING/WHIP W/TREE SHELTER
53	Juglans nigra Black Walnut	VT	M	FACU	11'	SEEDLING/WHIP W/TREE SHELTER
53	Acer rubrum Red Maple	VT	D-W	FAC	11'	SEEDLING/WHIP W/TREE SHELTER
53	Cercis canadensis Eastern Redbud	T	M	UPL	11'	SEEDLING/WHIP W/TREE SHELTER
53	Diospyros virginiana Persimmon	I	D-M	UPL	11'	SEEDLING/WHIP W/TREE SHELTER

Quantities Of Individual Species And Species Composition May Change Depending On Availability At Time Of Planting. Total Quantity Of Trees For Entire Easement Area Will Not Change. Any Species Substitution Must Be Listed On The Howard County Forest Association List. If Quantities Are Changed, A Minimum Of Five (5) Species Must Be Planted.

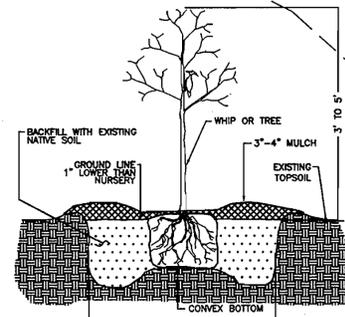


SIGNAGE DETAIL
NOT TO SCALE

LEGEND

- DENOTES SOIL BOUNDARY
- DENOTES APPROXIMATE 100 YEAR FLOODPLAIN
- 15-24.9% DENOTES STEEP SLOPES
- 25%+ DENOTES APPROXIMATE WETLAND LIMITS
- 25' WETLAND BUFFER

CHARLES ALAN SHARP & DENISE ROEBER SHARP
L 4667 F.0485
AMENDED EASEMENT
Stem Farm 2, Plot No. 13996



TREE PLANTING DETAIL
CONTAINER GROWN

AUTOCAD FILE NAME C:\DRAWINGS\Land Projects\LISTON PROPERTY\DWG\LISTONREFS.dwg

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Carly Starosta
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 4/6/03

CHIEF, DEVELOPMENT ENGINEERING DIVISION
Mark A. Layton
DATE: 4/5/03

AS-BUILT CERTIFICATION
STATE OF MARYLAND
DOMENICK COLANGELO #27200
DATE: 7/25/07

FOREST CONSERVATION EASEMENT TABLE

LINE	BEARING	DISTANCE
L1	S 39° 49' 28" E	507.72
L2	S 22° 33' 32" W	162.06
L3	S 74° 35' 04" W	35.00
L4	N 15° 24' 56" V	136.63
L5	N 39° 49' 28" W	381.42
L6	N 45° 48' 22" E	30.32
L7	N 23° 58' 32" E	47.85
L8	N 00° 12' 17" W	34.00
L9	N 22° 03' 57" E	27.39

General Notes

- This Forest Conservation Easement Has Been Established As An Offsite Forest Mitigation Area for Red Hill Branch Overlook, Per Section 16.1216 Of The Howard County Forest Conservation Act. No Clearing, Grading Or Construction Is Permitted Within The Forest Conservation easement; However, Forest Management Practices As Defined In The Deed Of Forest Conservation Easement Are Allowed.
- Denotes Proposed Forest Conservation Easement.
- Denotes Forest Conservation Area Signs.
- Please refer the Forest Stand Delineation drawing and report submitted separately, with the subdivision plans for this project. The Forest Stand Delineation more clearly defines and describes the forest stands onsite.

DEVELOPER
KIM MOBLEY
BRENTWOOD MANOR MOBILE HOME PARK
8231 WASHINGTON BLVD.
JESSUP, MD 20794

OWNER/GRANTOR
WILLIAM & BARBARA LISTON
P.O. BOX 228
342 WATERSVILLE ROAD
MT. AIRY, MARYLAND 21771

THIS PLAN IS FOR
FOREST CONSERVATION EASEMENT
PLANTING PURPOSES ONLY

PLANTING SPECIFICATIONS AND NOTES

- SITE PREPARATION AND NOTES**
- PROTECTION FENCING AND Silt FENCES FOR SEDIMENT AND EROSION CONTROL ARE TO BE INSTALLED AS A FIRST ORDER OF BUSINESS. SEE PLAN FOR LOCATIONS.
 - DISTURBANCE OF SOILS SHOULD BE LIMITED TO THE PLANTING FIELD FOR EACH PLANT. AS SHOWN ON THE DETAIL VIEW, A PLANTING FIELD OF RADIUS = 5 X DIAMETER OF THE ROOT BALL OR CONTAINER IS RECOMMENDED.
 - SOIL MIX FOR ALL PLANTS EXCEPT ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME OF COMPOSTED SLUDGE. SOIL MIX FOR ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME PEAT MOSS.
 - ALL MIXING IN 3 AND 4 SHALL BE LIMITED TO CONTAINER GROWN OR BALL AND BURLAP STOCK ONLY AND APPLIED TO THE PLANTING FIELD AND IMMEDIATE ADJACENT SOIL SURFACE AREA AND SHALL BE DONE TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.
- PLANT STORAGE AND INSPECTION**
- FOR CONTAINER GROWN NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN 2 WEEKS AFTER DELIVERY TO THE SITE.
 - FOR BALL AND BURLAP NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN THREE DAYS AFTER DELIVERY TO THE SITE.
 - PLANTING STOCK SHOULD BE INSPECTED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO STANDARD NURSERYMAN SPECIFICATIONS FOR SIZE, FORM, WOUND, ROOTS, TRUNK WOUNDS, INSECTS AND DISEASE SHOULD BE REJECTED.
 - UNTIL PLANTED, ALL PLANT STOCK SHALL BE KEPT IN A SHADED, COOL AND MOISTENED ENVIRONMENT.
- PLANT INSTALLATION**
- THE PLANTING FIELD SHOULD BE PREPARED AS SPECIFIED (SEE DETAIL). NATIVE STOCKPILED SOILS SHOULD BE USED FOR SOIL MIX AND BACKFILL FOR PLANTING. AFTER PLANT INSTALLATION, RAKE SOILS EVENLY OVER THE PLANTING FIELD AND COVER WITH AT LEAST 4 INCHES OF MULCH. WATER, GENEROUSLY, TO SETTLE SOIL BACKFILLED AROUND TREES.
 - PLANTING FIELD DIAMETERS SHOULD BE REDUCED OR PLANTING FIELD MOVED IF IT APPEARS THAT EXCESSIVE EXISTING ROOT DAMAGE MAY OCCUR DURING DIGGING OPERATION NEAR EXISTING FOREST.
 - CARE SHALL BE TAKEN WHEN DIGGING PLANTING FIELDS NOT TO CHOP THRU LARGER EXISTING ROOTS FROM EXISTING MATURE TREES. IF ROOTS GREATER THAN 1/2 INCH ARE ENCOUNTERED PLEASE TRY TO DIG AROUND THEM AS MUCH AS POSSIBLE TO MINIMIZE IMPACT TO EXISTING TREES. THEY WERE HERE FIRST.
 - CONTAINER GROWN STOCK SHOULD BE REMOVED FROM THE CONTAINER AND ROOTS GENTLY LOOSENED FROM THE SOIL. IF THE ROOTS ENCIRCLE THE ROOT BALL, SUBSTITUTION IS STRONGLY RECOMMENDED. SHAPED OR KINKED ROOT SYSTEMS SHOULD ALSO BE NOTED. ROOTS MAY NOT BE TRIMMED ON SITE, DUE TO THE INCREASED CHANCES OF SOIL BORNE DISEASES.
 - FOR BALL AND BURLAP STOCK, PLACE TREE IN PREPARED PLANTING FIELD AND REMOVE WIRE AND/OR STRING FROM ROOT BALL, THEN PEEL BACK BURLAP TO BASE OF ROOT BALL AND COVER ENTIRE ROOT BALL WITH TOPSOIL MIXTURE INDICATED ABOVE AND WATER GENEROUSLY.
 - FOR TREES PLANTED IN THE AFFORRESTATION AREA, CONTRACTOR SHALL EVENLY DISPERSE SPECIES IN GROUPS OF TWO (2) TO FOUR (4), PER SPECIES, OVER THE ENTIRE DESIGNATED AREA TO BE PLANTED WHILE MAINTAINING AN AVERAGE RANDOM SPACING OF INDIVIDUAL TREES AT PROPER SPACING INDICATED ON PLANT LIST.
 - AVOID PLANTING IN A STRAIGHT GRID PATTERN. TREES SHALL BE PLANTED ON AN AVERAGE SPACING AS INDICATED ON PLANT LISTS TO OBTAIN A MORE NATURAL APPEARANCE.
 - NEWLY PLANTED TREES MAY NEED WATERING AS MUCH AS ONCE A WEEK FOR THE ENTIRE GROWING SEASON, DUE TO THE WELL DRAINED NATIVE SOILS FOUND ON THIS SITE COMBINED WITH THE LOOSENESS OF THE BACKFILLED AREA WITHIN THE PLANTING FIELD. THE NEXT TWO YEARS MAY REQUIRE WATERING ONLY A FEW TIMES A YEAR DURING SUMMER AND DRY MONTHS. AFTER THAT PERIOD, TREES SHOULD ONLY NEED WATER IN SEVERE DROUGHTS. ANY WATERING PLAN SHOULD COMPENSATE FOR RECENT RAINFALL PATTERNS.
- FERTILIZING**
- DO NOT FERTILIZE NEWLY PLANTED TREES WITHIN THE FIRST GROWING SEASON AFTER PLANTING. DOING SO MAY CAUSE A SPURT OF CANOPY GROWTH WHICH THE ROOTS CANNOT SUPPORT AND ADD ADDITIONAL STRESS TO THE ALREADY ESTABLISHED PLANT.
 - NOTHING SHOULD BE ADDED TO THE SOIL WITHOUT TESTING IT FIRST TO DETERMINE ITS NEEDS.
 - IF AND WHEN IT IS TIME TO FERTILIZE, ORGANIC FERTILIZERS ARE PREFERRED TO SYNTHETIC FERTILIZERS. BONE MEAL OR SEAWEED PRODUCTS ARE AVAILABLE COMMERCIALY AND ARE RECOMMENDED. THEY HAVE THE ABILITY TO SUPPLY NUTRIENTS TO THE PLANT AS NEEDED WHILE MINIMIZING THE RISK OF EXCESS NUTRIENTS ENTERING THE FOREST SYSTEM AND WATER SUPPLY.
- MAINTENANCE SCHEDULE**
- ANNUAL MAINTENANCE DURING THE GROWING SEASON, FOR A THREE YEAR PERIOD.
 - ASSESS TREE MORTALITY OF PLANTING STOCK, REMOVE AND REPLACE ANY DEAD OR DISEASED PLANTINGS AS INDICATED ON PLANT LISTS TO MAINTAIN VEGETATION COVER.
 - WATERING OF NATIVE, LOCAL AND ENDEMIC VEGETATION IS TO BE EXPECTED. DO NOT DISCOURAGE THIS EFFORT UNLESS IT IS NEARLY LETHAL TO THE PLANTING STOCK.
 - REMOVE THROUGH MANUAL MEANS (GRUBBING, PULLING, CUTTING) AGGRESSIVE, INVASIVE, SPREADS AND ALL HERBACEOUS VEGETATION WITHIN A 5-FOOT RADIUS SURROUNDING THE PLANTED WOODY NURSERY STOCK.
 - REMOVE AND DISPOSE OF MAN-MADE TRASH, INCLUDING ITEMS CONTAINED WITHIN ENTIRE PLANTING AREA. DO NOT REMOVE DOWN AND DEAD MATERIAL NATURALLY OCCURRING OR ACCUMULATING, UNLESS IT IS SMOTHERING PLANTING STOCK.
 - A 75 PERCENT SURVIVAL OF PLANTED STOCK MUST BE ACHIEVED AT THE END OF THE 24 MONTH MANAGEMENT PERIOD. IF NOT, ADDITIONAL PLANTINGS MAY BE REQUIRED TO ACHIEVE THIS GOAL.
- SUPERVISION**
- ALL FOREST CONSERVATION ACTIVITIES SHALL BE DONE UNDER THE DIRECT SUPERVISION OF SOMEONE FROM THE DESIGN TEAM OR OTHER "QUALIFIED PROFESSIONAL" AS DETERMINED BY THE REQUIREMENTS OF COMAR 08.18.08.01 AND THE MARYLAND DEPARTMENT OF NATURAL RESOURCES, PUBLIC LANDS AND FORESTRY DIVISION.

DATE NO.	REVISION
PROJECT: BRENTWOOD MANOR EXPANSION TAX MAP 43 PARCEL 233 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND SDP-01-95	
TITLE: OFF-SITE FOREST MITIGATION PLAN	
AREA: LISTON FARM PRESERVATION PARCEL TAX MAP 2 PARCEL 17 FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE: REFORESTATION PLANTING PLAN VEGETATIVE COVER SUMMARY	
 WILDMAN ENVIRONMENTAL SERVICES 4747 BONNIE BRANCH RD. ELLICOTT CITY, MD. 21043 PHONE: (410) 869-9899 FAX: (410) 869-9901 7/19/03 DESIGNED BY: R.B.W. DRAWN BY: J.E.P. PROJECT NO. DATE: 6/05/03 SCALE: 1" = 100' SHEET NO. 10 OF 10	