FINAL PLAN
EMERSON

SECTION 2, PHASE 3, PARCELS D-3, D-4
SECTION 2, PHASE 1B, H.O.A. OPEN SPACE LOTS 166, 230
SECTION 2 , PHASE 5B, PARCEL AA 1

A RESUBDIVISION OF
SECTION 2, PHASE 3, PARCEL D-2
SECTION 2, PHASE 5B, PARCEL AA AND
SECTION2, PHASE 1B, HOA OPEN SPACE
LOTS 166 AND 179

6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

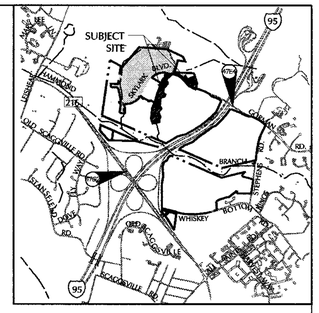
BENCHMARK

DESCRIPTION

COORDINATES IN MARYLAND NAD83(91) (HORIZONTAL) AND NGVD29 (VERTICAL) DATUMS.

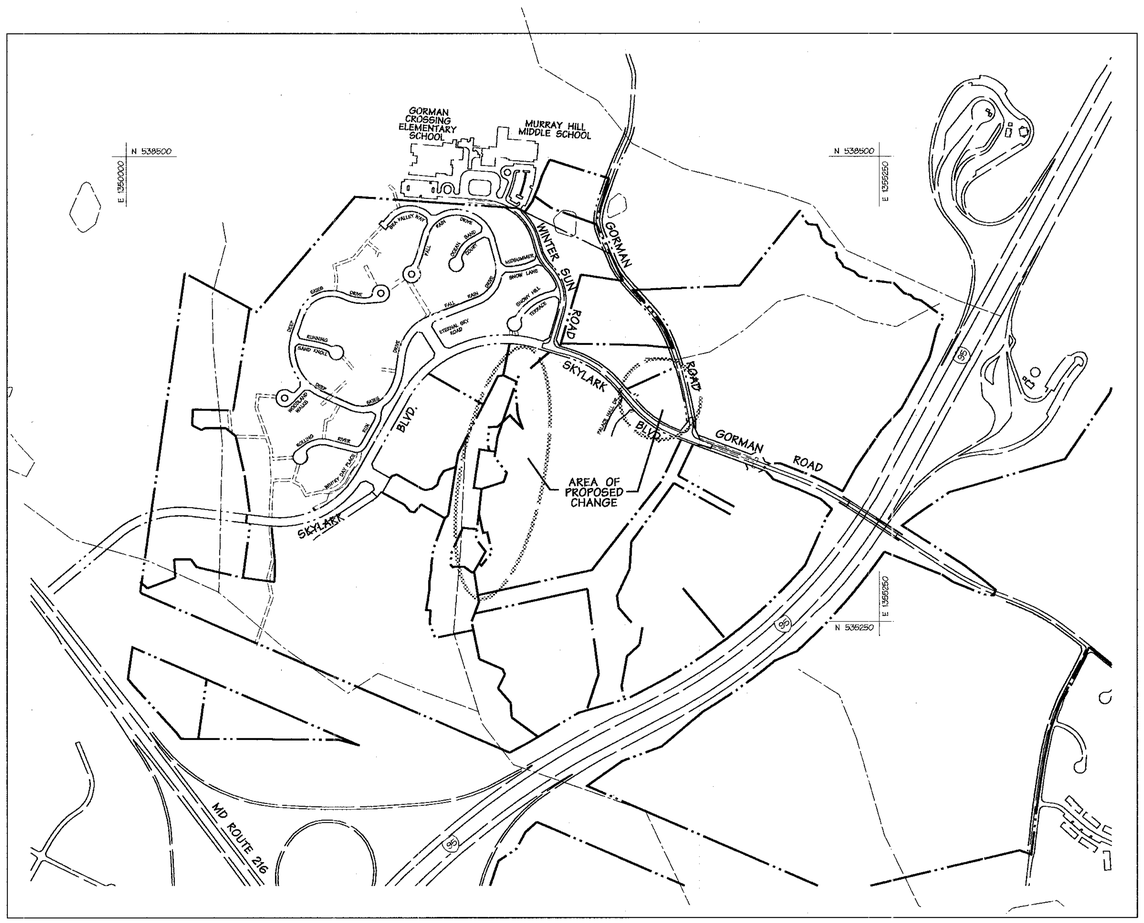
47E4 NORTHING: 163326.2295
EASTING: 413136.2550
ELEVATION: 338.909ft.

47G2 NORTHING: 162440.1212
EASTING: 4118539279
ELEVATION: 364.2101ft.



General Notes

1. OPEN SPACE AREAS MAY CONTAIN ACTIVE RECREATION FACILITIES AS ALLOWED IN THE APPROVED DEVELOPMENT CRITERIA.
2. STREAM BUFFERS ARE DETERMINED BY LAND USE ADJOINING THE OPEN SPACE. EMPLOYMENT USE = 50 FOOT BUFFER FROM ANY STREAM. RESIDENTIAL USES = 50 FOOT BUFFER FOR INTERMITTENT STREAMS AND 75 FOOT BUFFER FOR PERENNIAL STREAMS.
3. PHASING FOR THIS PROJECT IS IN ACCORDANCE WITH THE DECISION AND ORDER FOR ZONING CASE ZB-979 M AND THE DECISION AND ORDER FOR PB-339 (COMPREHENSIVE SKETCH PLAN IS S-99-12).
4. DEVELOPMENT FOR THIS PHASE WILL BE DONE IN ACCORDANCE WITH THE DEVELOPMENT CRITERIA APPROVED WITH THE COMPREHENSIVE SKETCH PLAN S-99-12 (PB-339).
5. TOPOGRAPHICAL INFORMATION ON THE EMERSON PROPERTY WAS OBTAINED THROUGH AERIAL PHOTOGRAPHY DURING THE SUMMER OF 1996.
6. BOUNDARY SHOWN IS FROM BOUNDARY SURVEY UNDERTAKEN BY DAFT-MCCUNE-WALKER, INC.
7. WETLAND LIMITS WERE FIELD LOCATED IN SEPTEMBER 1998 BY DAFT-MCCUNE-WALKER, INC.
8. THE 100-YEAR FLOODPLAIN FOR HAMMOND BRANCH WAS OBTAINED FROM THE HOWARD COUNTY FLOODPLAIN STUDY DATED NOVEMBER 1980 REF. D-6-10-26 & AUGUST 1986 REF. D-1065. THE 100-YEAR FLOODPLAINS FOR THE REMAINING STREAMS ARE FROM FLOOD STUDY PREPARED BY DAFT-MCCUNE-WALKER, INC. MARCH 2000.
9. THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
10. PROPOSED WATER AND SEWER SYSTEMS ARE TO BE PUBLIC.
11. EXISTING UTILITIES ARE BASED ON PLANS OF RECORD.
12. THERE ARE NO KNOWN CEMETERIES OR GRAVE SITES ON THIS PROPERTY.
13. FOREST CONSERVATION ACT COMPLIANCE FOR EMERSON SECTION 2, PHASES 1,2, AND 3 WAS PREVIOUSLY ADDRESSED UNDER F-01-137, F-01-145, AND F-02-55. THIS PLAN PROPOSES TO EXPAND EXISTING FOREST CONSERVATION EASEMENTS "H-1" AND "J-1" TO ADD APPROXIMATELY 1.58 ACRES OF FOREST RETENTION AND 1.78 ACRES OF REFORESTATION. THE TOTAL FOREST CONSERVATION SURETY AMOUNT IS $52,533.36.
14. TRAFFIC STUDY SUBMITTED AND APPROVED UNDER S-99-12 (PB-339) AND REAPPROVED UNDER PB-359.



VICINITY MAP

SCALE: 1"=500'

SHEET INDEX

NO.	DESCRIPTION
1	TITLE SHEET
2	FOREST CONSERVATION PLAN
3	FOREST CONSERVATION PLAN

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 3/16/05

CHIEF, DIVISION OF LAND DEVELOPMENT DATE 3/17/05

DIRECTOR

Date	No.	Revision Description

EMERSON

SECTION 2, PHASE 3, PARCELS D-3, D-4
SECTION 2, PHASE 1B, H.O.A. OPEN SPACE LOTS 166, 230
SECTION 2 , PHASE 5B, PARCEL AA 1

A RESUBDIVISION OF
SECTION 2, PHASE 3, PARCEL D-2
SECTION 2, PHASE 5B, PARCEL AA AND
SECTION2, PHASE 1B, HOA OPEN SPACE
LOTS 166 AND 179

OWNER/DEVELOPER:

THE HOWARD RESEARCH & DEVELOPMENT CORPORATION
10275 Little Patuxent Parkway
Columbia, Maryland 21044

DMW
Daft-McCune-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax 296-4705

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

12/7/04
Date

Landscape Arch.

TITLE

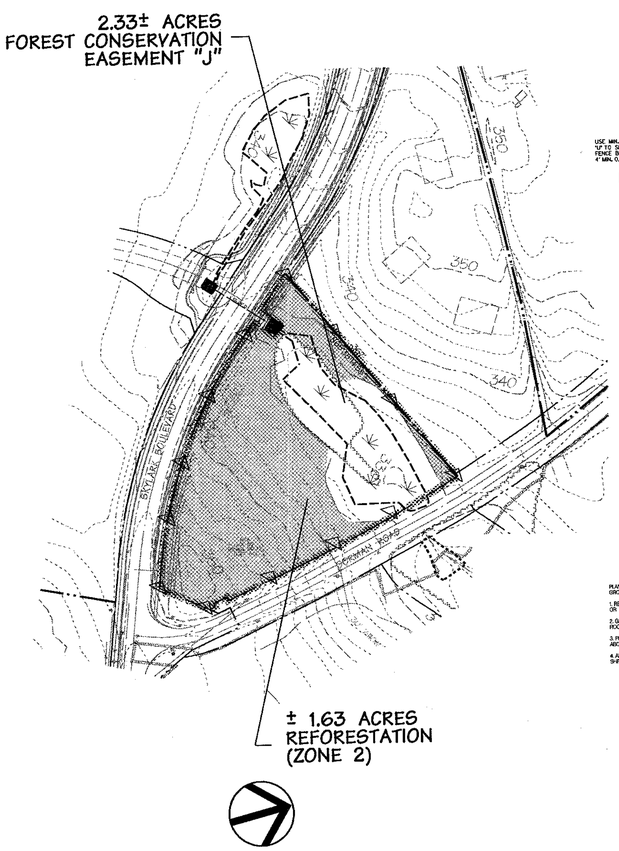
TITLE SHEET

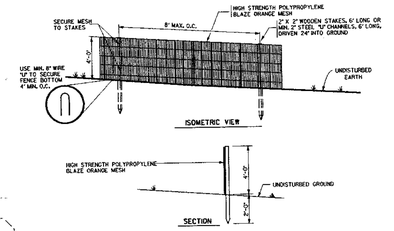
Des By MATJJDC	Scale AS SHOWN	Proj. No. 95054.D6	
Drn By CRH	Date 3/7/05	1 of 3	
Chk By SH	Approved		

F-01-137

F-05-49

Wed Mar 9 16:15:34 2005\\95054\final\95054dk.FCP

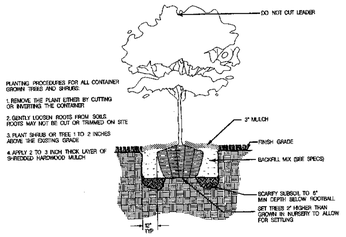




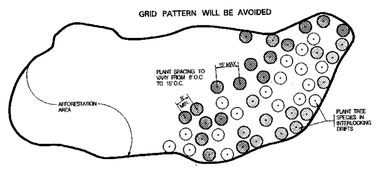
NOTES:
1. THIS DETAIL IS FOR FOREST PROTECTION DEVICE ONLY
2. FOREST RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS
3. BOUNDARIES OF FOREST RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING THE DEVICE
4. ROOT DAMAGE SHALL BE AVOIDED
5. PROTECTION SIGNAGE MAY ALSO BE USED
6. FOREST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

Forest Protection Fence*
Not To Scale

* WHERE SUPER SILT FENCE (S.S.F.) IS TO BE INSTALLED ADJACENT TO FOREST RETENTION AREAS, ATTACH HIGH VISIBILITY TAPE OR FLAGGING TO THE TOP EDGE OF S.S.F. AT 6' INTERVALS AND USE S.S.F. IN LIEU OF BLAZE ORANGE FENCE. TEMPORARY FOREST PROTECTION SIGNAGE MAY BE ATTACHED TO S.S.F.

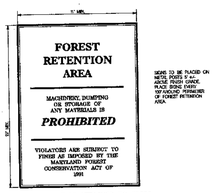


Typical Tree Planting(For container grown)
Not To Scale



Planting Design Schematic
Not To Scale

Reforestation Signage
Not To Scale



SIGNS MAY NOT BE ATTACHED TO TREES.

Retention Signage
Not To Scale

FOREST CONSERVATION CALCULATIONS

BASIC SITE DATA	ACRES (HA)
GROSS SITE AREA	332.63
AREA WITHIN 100 YEAR FLOODPLAIN	32.43
AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL (IF APPLICABLE)	0.0
NET TRACT AREA	300.20
LAND USE CATEGORY	CAI
INFORMATION FOR CALCULATING	
A. NET TRACT AREA	300.20
B. REFORESTATION THRESHOLD (15% x A)	45.03
C. AFFORESTATION MINIMUM (15% x A)	45.03
D. EXISTING FOREST ON NET TRACT AREA	115.66
E. FOREST AREAS TO BE CLEARED	61.73
F. FOREST AREAS TO BE RETAINED	53.93
REFORESTATION CALCULATIONS	
A. NET TRACT AREA	300.20
B. REFORESTATION THRESHOLD (15% x A)	45.03
C. EXISTING FOREST ON NET TRACT AREA	115.66
D. FOREST AREAS TO BE CLEARED	61.73
E. FOREST AREAS TO BE RETAINED	53.93
F. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD	61.73
G. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD	0.0
H. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD	8.90
CLEARING ABOVE THE THRESHOLD ONLY	
IF FOREST AREAS TO BE RETAINED ARE GREATER THAN THE REFORESTATION THRESHOLD (IF E IS GREATER THAN B), THE FOLLOWING CALCULATIONS APPLY:	
REFORESTATION FOR CLEARING ABOVE THRESHOLD F-G-G1	15.43
REFORESTATION FOR CLEARING BELOW THRESHOLD G-G2	0.0
TOTAL REFORESTATION REQUIRED (F-G-G1) + (G-G2)	15.43
CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD	8.90
REFORESTATION REQUIRED	6.53 ACRES
REFORESTATION PROVIDED	13.29 ACRES

FOREST CONSERVATION TRACKING CHART

Section/ Phase Number	Gross Area	Floodplain	Net Tract Area	Ex. Forest Area	Forest * Cleared	Forest Retained	Reforest./Affor. Required	Reforest./Affor. Provided	Excess Reforest./Affor.	Future Forest Clearing	Future Refor./Affor.	Comments
2 1A/1B	106.20	3.50	102.70	24.70	7.33	16.77	0.61	5.03	4.42	4.48	3.41	
2/2	116.90	3.50	115.40	24.50	8.03	16.77	2.95	5.03	2.08	3.28	3.41	See Note A
2/3	137.35	4.00	133.35	34.40	12.53	21.87	1.27	5.03	3.76	2.18	3.91	See Note B
3/1	206.95	21.19	185.66	85.30	39.47	45.83	0.00	5.03	5.03	2.18	3.91	
3/2	220.27	21.27	199.00	87.50	41.67	45.83	0.00	5.03	5.03	2.18	3.91	See Note C
2 1/4	264.81	26.57	238.24	98.18	47.15	51.03	0.00	5.03	5.03	2.49	5.24	
2/5/C	267.84	27.40	240.44	98.62	47.59	51.03	0.00	5.77	5.77	2.49	5.24	
2/6/A	277.75	27.40	250.35	98.62	47.59	51.03	0.00	5.77	5.77	2.49	5.24	See Note D
2/4	277.75	27.40	250.35	98.62	47.59	51.03	0.00	8.86	8.86	2.49	3.91	See Note E
2/5/A	306.93	27.51	279.42	98.66	47.63	51.03	2.79	8.74	5.95	2.49	3.91	
2/5/B	332.63	32.43	300.20	115.66	63.31	52.35	8.91	11.91	3.00	2.49	3.91	See Note F
2/1B	332.63	32.43	300.20	115.66	61.73	53.93	6.53	13.29	6.76	0.49	1.84	See Note G

A. 1.20+/- ACRES OF FUTURE FOREST CLEARING SHOWN ON F-01-137 WAS CLEARED FOR SWM ON OPEN SPACE LOT 174.

B. 1.10+/- ACRES OF FUTURE FOREST CLEARING SHOWN ON F-01-137 WAS CLEARED FOR SWM ON OPEN SPACE LOT 176.

C. GROSS AREA INCLUDES 1.07+/- ACRES FOR SANITARY SEWER EXTENSION AND CONTAINS 0.20+/- ACRES OF FLOODPLAIN.

D. GROSS AREA EXCLUDES 0.38 ACRES FOR THE SANITARY SEWER SHOWN ON F-02-178. GROSS AREA ALSO EXCLUDES 0.07 ACRES FOR AREA PREVIOUSLY ACCOUNTED FOR UNDER F-03-16.

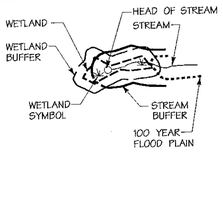
E. THIS LINE ITEM ACCOUNTS FOR REFORESTATION PROVIDED RETROSPECTIVELY ON A PHASE THAT PREVIOUSLY ADDRESSED FOREST CONSERVATION. APPROXIMATELY 1.33 ACRES OF FUTURE REFORESTATION AREA WILL BE USED UNDER THIS REFORESTATION PLAN.

F. GROSS AREA EXCLUDES 0.82± ACRES FOR SANITARY SEWER SHOWN ON F-02-178. A GROSS AREA INCLUDES 2.37 ACRES FOR THE WETLAND MITIGATION SITE. FLOODPLAIN INCLUDES 1.2 ACRES FOR THE MITIGATION AREA FLOODPLAIN.

G. APPROXIMATELY 0.42 ACRES OF FUTURE CLEARING/FUTURE REFORESTATION IS BEING CLEARED AND IS NOT BEING REFORESTED. APPROXIMATELY 1.88 ACRES OF FUTURE CLEARING/FUTURE REFORESTATION IS BEING RETAINED. APPROXIMATELY 0.13 ACRES OF FUTURE REFORESTATION IS BEING REFORESTED.

Legend

- SLOPES >25%
- SLOPES 15%-25%
- PROPOSED RETENTION AREAS
- PROPOSED REFORESTATION AREAS
- FOREST CLEARING
- FOREST EDGE
- FOREST CONSERVATION EASEMENT WITH REFORESTATION SIGNS
- LOD PHASE 1-B



GOALS AND OBJECTIVES

The goals and objectives of this Forest Conservation Plan are to expand the existing Forest Conservation Easements to incorporate additional reforestation and forest retention, and to account for the confirmed status of areas previously labeled "future forest clearing" and/or "future reforestation" on portions of the Emerson 2, Phase 1 tract. An additional 1.58 acres of forest retention is proposed, as is the reforestation of approximately 1.78 acres. Approximately 0.42 acres of forest will remain out of easement, and therefore is considered cleared.

FOREST RETENTION

Tree retention/Soil Protection areas will be delineated with temporary signage as appropriate. See Temporary Signage Detail prior to the beginning of any construction activity. Attachment of signs to trees is prohibited.

Forest protection fencing and retention area signage to be installed during later phases of construction where grading has not been indicated.

PRECONSTRUCTION MEETING/CONSTRUCTION PERIOD PRACTICES

Before construction begins a required preconstruction meeting shall be held. The principle contractors, engineer, Howard County inspections and a qualified forest professional familiar with the plan shall be present. All items pertaining to forest retention, tree preservation, and construction period practices shall be discussed.

Any changes to the plan due to on-site conditions must be approved by the Howard County Department of Planning and Zoning.

No grading, excavation, utility placement, sediment and erosion control activities, or vehicular traffic will occur within forest retention areas.

Storage of equipment and materials shall not be permitted in the forest retention areas.

There will be no burial or disposal of discarded material on-site within the retention area.

There will be no open burning within 100 feet of woodlands.

Temporary structures including, but not limited to construction trailers, sanitary facilities, etc. shall not be placed within the forest retention areas.

Employee parking shall not be permitted in the forest retention areas.

POST CONSTRUCTION MANAGEMENT/MAINTENANCE BY CONTRACTOR

All dead trees or tree limbs which pose an immediate safety hazard will be felled. Trees dropped within the forest retention area will not be removed.

All temporary forest protection structures will be removed after construction and permanent signage will be placed where indicated on the plan.

A 2-year Contractor's Maintenance and Monitoring Period shall begin at mobilization. Seventy five percent survivorship must be guaranteed for this period. The site shall be inspected at the end of the two year period to ascertain survivorship and provide for replacement if necessary.

The Contractor's maintenance of new planting shall consist of watering, cultivating, weeding, and mulching as necessary to insure survival.

Contractor shall protect planting areas and plants at all times against damage of all kinds for duration of maintenance period. Maintenance includes temporary protection barriers and signs as required for protection. If any plants become damaged or injured, because sufficient protection was not provided, treat or replace as directed by Landscape Architect at no additional cost to Owner.

ALL FOREST RETENTION & REFORESTATION AREAS SHOWN ON THIS PLAN TO BE PLACED IN FOREST CONSERVATION EASEMENT (POTENTIAL REFORESTATION AREA NOT INCLUDED)

STANDARDS AND SPECIFICATIONS FOR PLANTING

1. PLANT MATERIAL SELECTION

A. Nursery grown plant materials greater than 1" caliper should meet or exceed the requirements of the American Nurserymen Specifications, i.e. should be typical of the species and variety, have a normal habit of growth, be first quality, sound, vigorous, well-branched, have healthy, well-furnished root systems, and be free of disease, insect pests and mechanical injuries.

B. Planting stock less than 1" caliper should meet the following standards:

Seedling/whips:

Hardwoods – 1/4" to 1/2" caliper with roots not less than 8" long
Shrubs – 1/2" or larger caliper with 8" root system.

2. PLANTING SITE PREPARATION

Soils shall not be disturbed outside the area necessary for planting individual specimens and the removal of exotic invasive plant material. These areas should be stabilized as shown on the temporary seeding notes on sheet 8.

3.PLANTING PERIOD

All material shall be planted between September 15 and May 31. Material shall not be installed when ground is frozen.

4.PLANT MATERIAL STORAGE

Plants should be planted within 24 hours of delivery if possible. Plant material which are left unplanted for more than 24 hours shall be protected from direct sun and weather and kept moist. Nursery stock should not be left unplanted for more than two weeks.

5.ON-SITE INSPECTION

Prior to planting, planting stock shall be inspected by the landscape architect or other qualified professional familiar with this plan. Plant material not conforming to standard nurseryman specifications for size, form, vigor, roots, trunk wounds, insects and disease should be replaced.

6.TOPSOIL FOR PLANTING SOIL

A. On-site material or imported from same source as topsoil used on site for finish grading.

1. Uniform composition, free of subsoil, clay lumps, stones, stumps, roots or similar objects larger than 1 inch.

2. Topsoil must be free of plants or plant parts of bermudagrass, quackgrass, Johnsongrass, nutsedge, poison ivy, Canada thistle, or others as specified.

3. AllTopsoil shall be tested by a recognized laboratory for pH and soluble salts. A pH of 4.5 to 7.5 is required. Soluble salts shall not be higher than 500 parts per million.

7. ADDITIVE FOR BACKFILL MIX

A. Wood Residuals:

1. Source shall be well composted, not chemically treated.

2. Physical properties – grading:

U.S. Sieve	Dry Weight Percent Passing
3/8"	100
1/4"	90 – 100
No. 8	70 – 100
No. 35	0 – 30

3. Organic content by ash analysis: 90 – 100 percent dry weight

4. Chemistry:

Range:

a. Saturation Extract Conductivity (EC) ———— Nil – 3.5
b. Reaction (pH) ———— 3.0 – 5.5

5. Salinity: Maximum saturation extract conductivity 1.0 millimhos per cm at 25 degrees centigrade.

B. Sand

1. Physical Properties – Grading:

U.S. Sieve	Dry Weight Percent Passing
No. 4	100
No. 10	95 – 100
No. 18	90 – 100
No. 35	65 – 100
No. 60	0 – 50
No. 140	0 – 20
No. 270	0 – 7

2. Chemistry:

Saturation Extract Conductivity (EC) ———— Nil – 3.0
Sodium Absorption Ratio (SAR) ———— Nil – 6.0
Boron – ppm in saturation extract solution ———— Nil – 1.0
Reaction (pH) ———— 6.0 – 7.5
Available calcium – sodium acetate extractable – ppm ——— Nil – 2000
dry weight

C. Treble Superphosphate: Commercial product containing 19 to 20 percent available phosphoric acid.

8. MULCH

A. Shredded long fiber hardwood.

B. Mulch shall have been shredded within the last six (6) months.

9. PLANTING MIX

A. Planting mix shall be prepared at approved on-site staging area using approved on-site existing soil. Mix minimum quantities of 20 cubic yards or sufficient mix for entire job if less than 20 cubic yards is required.

B. Thoroughly mixed in the following proportions for tree and shrub planting mix:

5 cy Existing soil
2 cy Sharp sand
3 cy Composted residuals
4.5 lbs. Treble superphosphate
5 lbs. Dolomite limestone (eliminate for acid loving plants)

10. LAYOUT AND EXCAVATION OF PLANTING AREAS

A. Plants shall be placed in each zone at random locations shown at spacing as indicated on the plan.

B. The Landscape Architect or qualified professional will check location of plants in the field and shall adjust to exact position before planting begins.

C. Subsoil shall not be worked when moisture content is so great that excessive compaction will occur, nor when it is so dry that clods will not readily break. Water shall be applied, if necessary, to bring soil to an optimum moisture content before tilling and planting.

D. Tree pits shall not be excavated more than 24 hours in advance of planting operation. Tree pits shall be excavated to the following dimensions:

Excavation for	Width	Depth
Canned Trees	Can + 12 in.	Can + 4 in.
B&B Trees	Ball + 12 in.	Ball + 4 in.

E. Excavate shrub pits to the following depths:

Excavation for	Width	Depth
Shrubs	Ball or Can + 8 in.	Can + 4 in., not less than 12 in

11. PREPARING PLANT MATERIALS FOR PLANTING

A. Container stock shall be removed carefully after cans have been cut on two sides with approved cutter. Do not use spade to cut cans. Do not lift or handle container plants by tops, stems or trunks at any time.

B. Do not bind or handle any plant with wire or rope at any time so as to damage bark or break branches. Lift and handle plants only from bottom of ball.

C. Balled and burlapped (B&B) plants shall have firm balls of earth. Plants moved with a ball will not be accepted if the ball is cracked or broken before or during planting operations. B&B material shall be dug only when dormant. Pre-dug stored B&B material shall be inspected and approved at the storage site.

D. Do not force roots for bare rooted trees into excavated pits – custom dig pits to receive roots without deformation.

12. MIXING

A. Mix soil base, amendments and chemical additives by mechanical means.

B. Soil and sand bases shall be completely pulverized and free of lumps or aggregated material. Moisture content of base materials shall not be such that chemical granular or pelletized additives become dissolved during the mixing process.

C. Mix media in quantities of not less than 20 cubic yards or mix total quantity required if less than 20 cubic yards. The Contractor shall be responsible for continuity between batches.

D. Contaminating backfill mix with unmixed soil in backfill making lots shall be avoided.

13. INSTALLATION OF CONTAINERIZED PLANT MATERIAL

A. Scarify the walls and bottom of all plant pits immediately prior to the placement of plant and backfill mix. The Contractor shall remove all glazing of soil caused by an auger or mechanical hole digger.

B. Wells around trees and shrubs: after planting is complete, form a soil well 3 inches high around each plant, extending to the outer limit of the plant pit in accordance with planting details shown on the Drawings.

C. Smooth planted areas to conform to specified grades after full settlement as occurred. Contractor shall bear final responsibility for proper surface drainage of planted areas. Any discrepancy in the drawings or specifications, obstructions on the site, or prior work done by another party, which Contractor feels precludes establishing proper drainage, shall be brought to the attention of the Landscape Architect in writing.

D. Water all plants immediately again after planting.

E. Spread mulch in required areas to the compacted depth of 2 inches.

GUARANTEE:

A MINIMUM SURVIVAL RATE OF 75% IS TO BE GUARANTEED BY THE DEVELOPER AT THE END OF THE TWO YEAR MAINTENANCE PERIOD.

A surety in the amount of $13,764.96 (1.58 acres @ $0.20/s.f.) is required for forest retention.
A surety in the amount of $38,768.40 (1.78 acres @ $0.50/s.f.) is required for reforestation.
The total Forest Conservation surety amount is $52,533.36

Zone 1 - Plants required - 16 (100 2" caliper trees/acre x 0.16 acres)

Species name	Common name	Size	Spacing	Quantity	Tolerance	Indicator status
Acer rubrum	red maple	2" caliper	20' x 20'	5	full sun to part shade	FAC
Liriodendron tulipifera	tulip poplar	2" caliper	20' x 20'	5	full sun	FACU
Quercus alba	white oak	2" caliper	20' x 20'	5	full sun to part shade	FACU
TOTALS				15		

Zone 2 - Plants required - 571 (550 whips/acre x 1.05 acres)

Species name	Common name	Size	Spacing	Quantity	Tolerance	Indicator status
Acer rubrum	red maple	18" - 24" height/cont. grown	11' x 11'	146	full sun to part shade	FAC
Amelanchier canadensis	serviceberry	18" - 24" height/cont. grown	11' x 11'	50	full sun to part shade	FAC
Cercis canadensis	Eastern redbud	18" - 24" height/cont. grown	11' x 11'	75	full sun to part shade	FACU
Liriodendron tulipifera	tulip poplar	18" - 24" height/cont. grown	11' x 11'	150	full sun	FACU
Quercus alba	white oak	18" - 24" height/cont. grown	11' x 11'	75	full sun to part shade	FACU
Quercus rubra	Northern red oak	18" - 24" height/cont. grown	11' x 11'	75	full sun to part shade	FACU
TOTALS				571		

APPROVED: ~~HOWARD~~ COUNTY DEPT. OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS — DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION MK — DATE 3/16/05

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/17/05

Date	No.	Revision Description

EMERSON

SECTION 2, PHASE 3, PARCELS D-3, D-4
SECTION 2, PHASE 1B, H.O.A. OPEN SPACE LOTS 166, 230
SECTION 2 , PHASE 5B, PARCEL AA 1

A RESUBDIVISION OF
SECTION 2, PHASE 3, PARCEL D-2
SECTION 2, PHASE 5B, PARCEL AA AND
SECTION2, PHASE 1B, HOA OPEN SPACE
LOTS 166 AND 179

OWNER/DEVELOPER:
THE HOWARD RESEARCH & DEVELOPMENT CORPORATION
10275 Little Patuxent Parkway
Columbia, Maryland 21044

DMW
Daft-McCune-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax 296-4705

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

3/7/05
Date

Landscape Architect

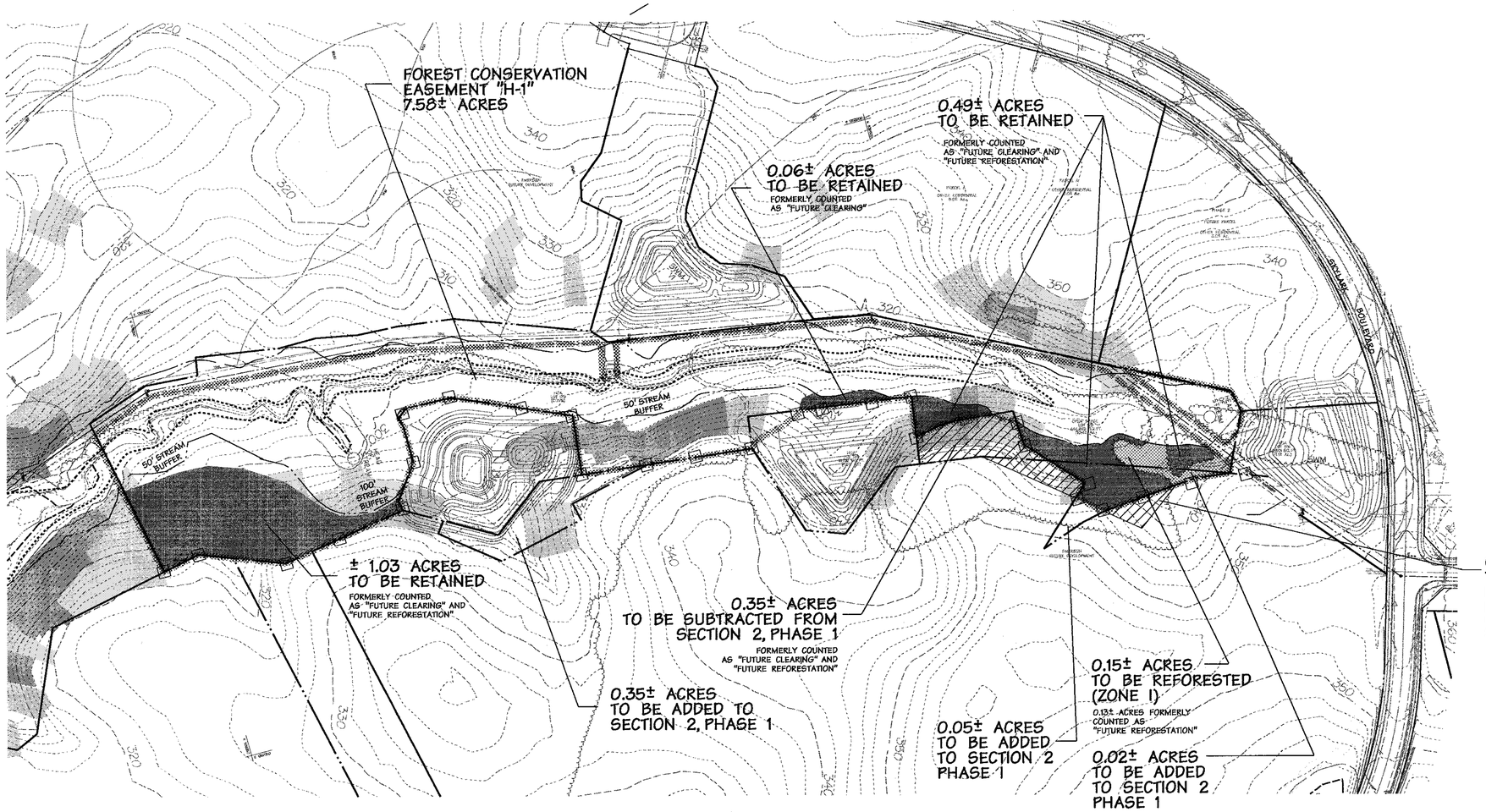
TITLE
FOREST CONSERVATION PLAN

Des By	SH	Scale	1"=100'	Proj. No.	95054.06
Drn By	GRH	Date	3/7/05	3 of 3	
Chk By	MJP	Approved			

F-05-49

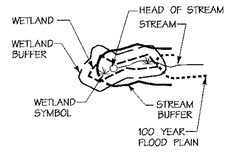
Wed Mar 9 16:17:45 2005\95054\final\95054G.FCP3

F-01-137



Legend

- SLOPES >25%
- SLOPES 15%-25%
- PROPOSED RETENTION AREAS
- PROPOSED REFORESTATION AREAS
- FOREST CLEARING
- FOREST EDGE
- FOREST CONSERVATION EASEMENT WITH RETENTION SIGNS
- LOD PHASE 1-8



APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS — DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/16/05

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/17/05

DIRECTOR — DATE

Date	No.	Revision Description

EMERSON

SECTION 2, PHASE 3, PARCELS D-3, D-4
SECTION 2, PHASE 1B, H.O.A. OPEN SPACE LOTS 166, 230
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Des By	SH	Scale	1"=100'	Proj. No.	95054.06
Drn By	CRH	Date	3/7/05	2 of 3	
Chk By	MJP	Approved			

Wed Mar 9 16:16:52 2005\95054\final\95054d6.FC2

F-01-137

F-05-49