BALTIMORE DISTRICT CORPS OF ENGINEERS MITIGATION REQUIREMENTS

The mitigation plan is acceptable provided the following condition(s) are met:

1. *The permittee shall successfully create a minimum of 0.1 acre of wetland creation - enhancement in accordance with the mitigation conditions required by the Maryland Department of the Environment (MDE), Water Quality Certification.*

2. *The permit shall be automatically suspended if any one of the following is not met:*

   a) *A final mitigation plan shall be submitted to MDE and the Corps and shall be approved by both agencies prior to starting work.*

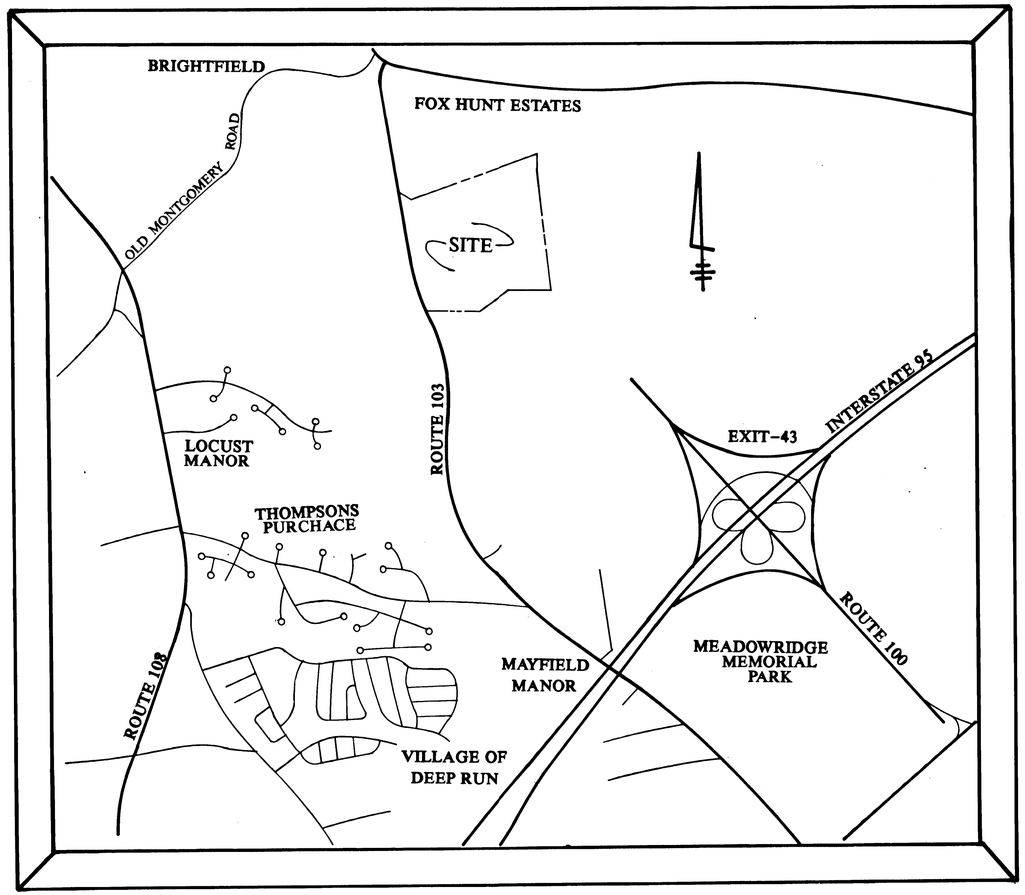
   b) *The mitigation shall be implemented in accordance with the approved plan by the Spring following the sewer line installation at the site*

   c) *Woody species vegetation proposed in the mitigation area shall have an 85% survival rate two (2) years after planting. If this rate is not achieved, additional planting(s) shall be required until this rate is achieved.*

3. *The permittee shall obtain Corps approval for any changes of plant species or planting schedule from that specified in the mitigation plan. The permittee shall keep this office informed of the status of each state of the project and the mitigation work.*

4. *The permittee shall employ an environmental consultant who is knowledgeable and experienced in establishing wetlands. The consultant will supervise and monitor the work performed in the mitigation areas including establishment of elevations.*

Any required State and local authorizations must be secured prior to initiating the work.



VICINITY MAP
1"= 1000'

PROJECT DATA

1. *All information contained on this map is current as of March 1, 1991.*

2. *Wetland areas were identified and delineated using a multi-parameter approach. This approach requires positive identification of WETLAND PLANTS, HYDRIC SOILS, and WETLAND HYDROLOGY for a determination that the area is a wetland.*

   A) *WETLAND PLANTS: A variety of hydrophytic plants were identified within the wetland limits and adjacent land areas.*

   B) *HYDRIC SOILS: Color and mottle characteristics of the undisturbed "B" horizon were used to roughly approximate the limits of the hydric soil.*

   C) *WETLAND HYDROLOGY: The topography of the area is characteristic of a low depression with a distinct stream channel.*

3. *WETLAND CLASSIFICATIONS*

   A) *EXISTING CONDITIONS:*

   System.....Palustrine
   Class.....Forested
   Subclass.....Broadleaf deciduous
   Modifiers.....- - -
   Water regime.....Temporarily flooded
   Salinity.....Fresh

   B) *PROPOSED CONDITIONS*

   System.....Palustrine
   Class.....Forested
   Subclass.....Broadleaf deciduous
   Modifiers.....- - - -
   Water regime.....Temporarily flooded
   Salinity.....Fresh

4. *WATERBODY:*

5. *ANTICIPATED CONSTRUCTION DATE: ASAP*

6. *ANTICIPATED RESTORATION CONSTRUCTION DATE: After sewer line is complete.*

7. *OWNER:* *Security Development Corporation*
   8480 Baltimore National Pike
   Suite 418
   Ellicott City, Maryland 21043

NOTES:

1. THE PURPOSE OF THIS PLAN IS TO MITIGATE FOR AN UNAUTHORIZED PLACEMENT OF FILL MATERIAL IN FEDERALLY-REGULATED WETLANDS ASSOCIATED WITH A TRIBUTARY TO DEEP RUN. THE MITIGATION IS BEING DONE AT THE REQUEST OF THE FISH AND WILDLIFE SERVICE DATED AUGUST 28, 1991. THE WORK IS SUPPLEMENTAL TO BRIGHTFIELD SECTION 3, F-89-20.

2. THE HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS HAS ACCEPTED AND APPROVED THE CONSTRUCTION OF WETLANDS ON OPEN SPACE LOT 50, BRIGHTFIELD SECTION 4, PLAT # 11144-11147, DATED MARCH 1, 1994. A RIGHT-OF-ENTRY AGREEMENT SHALL BE EXECUTED BETWEEN SECURITY DEVELOPMENT CORPORATION AND RECREATION AND PARKS PRIOR TO THE START OF WORK.

3. THE LIMIT OF DISTURBANCE ASSOCIATED WITH THE PROPOSED WORK SHALL INCLUDE THE NECESSARY ACCESS TO THE WORK AREA FROM WESLEY LANE VIA THE MAINTENANCE ACCESS FOR THE EXISTING PUBLIC STORMWATER MANAGEMENT FACILITY. ALL DISTURBED AREAS SHALL BE STABILIZED PERMANENTLY.

BRIGHTFIELD III

WETLAND MITIGATION PLAN

WQC# 88-0372

CENAB-OP-RW (BRIGHTFIELD)

88-01161

SUPPLEMENTAL INFORMATION
F-89-20

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Richard Bloom 5/10/94
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH — DATE

MARYLAND DEPARTMENT OF THE ENVIRONMENT STANDARDS AND CERTIFICATION DIVISION APPROVAL OF PLANS AND SPECIFICATIONS FOR COMPLIANCE WITH PERMIT WQC# 88-WO-0372

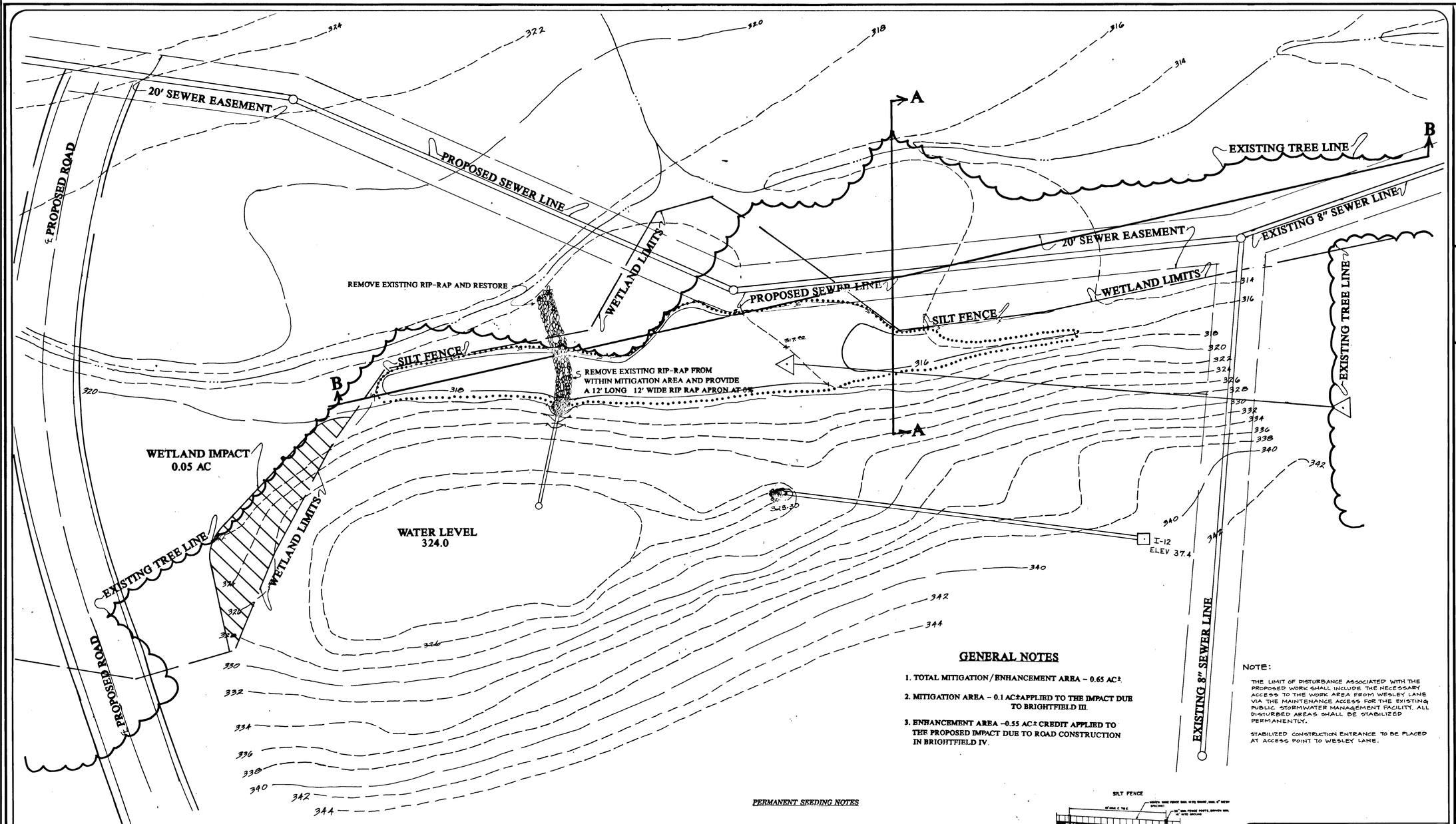
SIGNATURE OF STANDARDS AND CERTIFICATION DIVISION — DATE 4/24/91

U.S. ARMY CORPS OF ENGINEERS APPROVAL OF PLANS AND SPECIFICATIONS FOR COMPLIANCE WITH PERMIT NUMBER CENAB-OP-RW 88-01161

Linda A. Mihelich — March 27, 1991
SIGNATURE OF U.S. ARMY CORPS OF ENGINEERS BALTIMORE, MARYLAND — DATE

EXPLORATION RESEARCH, INC.
ENVIRONMENTAL CONSULTANTS
8318 FORREST AVENUE
SUITE 101
HISTORIC ELLICOTT CITY,
MARYLAND, 21043
(301) 750-1150
FAX#: (301) 750-7350

1382



GENERAL NOTES

1. TOTAL MITIGATION / ENHANCEMENT AREA – 0.65 AC±
2. MITIGATION AREA – 0.1 AC± APPLIED TO THE IMPACT DUE TO BRIGHTFIELD III.
3. ENHANCEMENT AREA –0.55 AC± CREDIT APPLIED TO THE PROPOSED IMPACT DUE TO ROAD CONSTRUCTION IN BRIGHTFIELD IV.

NOTE:

THE LIMIT OF DISTURBANCE ASSOCIATED WITH THE PROPOSED WORK SHALL INCLUDE THE NECESSARY ACCESS TO THE WORK AREA FROM WESLEY LANE VIA THE MAINTENANCE ACCESS FOR THE EXISTING PUBLIC STORMWATER MANAGEMENT FACILITY. ALL DISTURBED AREAS SHALL BE STABILIZED PERMANENTLY.

STABILIZED CONSTRUCTION ENTRANCE TO BE PLACED AT ACCESS POINT TO WESLEY LANE.

TEMPORARY SEEDING NOTES

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

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

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

Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 bushel per acre of annual rye (3.2 lbs./1000 sq. ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (.07 lbs./1000 sq. ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 348 gal per acre (8 gal/1000 sq. ft.) for anchoring.

Refer to the 1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control for rate and methods not covered.

PERMANENT SEEDING NOTES

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

Seedbed preparation: Loosen upper three inches of soil by raking, discing or other table means before seeding, if not previously loosened.

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

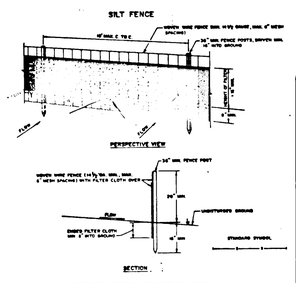
1) *Preferred*–Apply 2 tons per acres dolomitic limestone (92 lbs/1000 square ft) and 500 lbs per acre 10-10-10 fertilizer (14 three-inches of soil). At time of seeding, apply 400 lbs. Per acre 30-0-0 ureaform fertilizer (9lbs./1000 Sq ft.).

2) *Acceptable* - Apply 2 tons per acre dolomitic limestone (92 lbs./100 Sq. Ft) before seeding. Harrow or disc into upper three-inches of soil.

Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 Lbs./1000 Ft.) Of Kentucky 31 tall fescue. And for the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 per acre and 2 lbs. per acre (.05 Lbs./1000 Sq. Ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) use sod. Option (3) seed with 60 lbs./acre Kentucky 31 tall fescue and mulch with 2 tons/acre well anchored straw.

Mulching: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 Sq. Ft.) of unrotted small grain straw immediately after seeding. Anchor mulch gallons per acre (5 gal/1000 sq. Ft.) or emulsified asphalt on flat gal/1000 sq. Ft.) for anchoring.

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



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24' AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN BULGES DEVELOP IN THE SILT FENCE.

POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD

FENCE: WOVEN WIRE, 30in. GA. 6" MAX. MESH SPACING

FILTER CLOTH: FILTERX, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.

SILT FENCE
NTS

REVIEWED BY HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Patricia Engle (MM) 5/6/94
U.S. SOIL CONSERVATION SERVICE DATE

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

John R. Robertson 5/6/94
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONINING.

Richard Bloom 5/10/94
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

1382

EXPLORATION RESEARCH, INC.
Environmental Consultants
8318 Forrest Avenue, Suite 101
Historic Ellicott City, Maryland 21043
Tel: (301) 750-1150, FAX # (301) 750-7350

OWNER/ DEVELOPER

SECURITY DEVELOPMENT
8480 BALTIMORE NATIONAL PIKE
SUITE 415
ELLICOTT CITY, MARYLAND 21043
(301) 465-4244

SUPPLEMENTAL INFORMATION

BRIGHTFIELD III

F-89-20

HOWARD COUNTY, MARYLAND

WOC#88-0372

CENAB-OP-RW

(BRIGHTFIELD)

88-01161

GRADING PLAN

U.S. Army Corps Of Engineers
Approval Of Plans And Specifications
For Compliance With Permit Number
CENAB-OP-RW 88-01161

Lisa A. Wilbking March 27, 1991
Signature Of U.S. Army Corps Of Engineers, Baltimore, MD — Date

Maryland Department Of The Environment
Standards & Certification Division
Approval Of Plans And Specifications
For Compliance With Permit Number 88-WO-0372

Signature Of Standards/ Certification Division — Date

BY THE DEVELOPER:

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

James R. Moxley Jr. 1-4-94
JAMES R. MOXLEY, JR. - PRESIDENT, SECURITY DEVELOPMENT CORPORATION — DATE

BY THE ENGINEER:

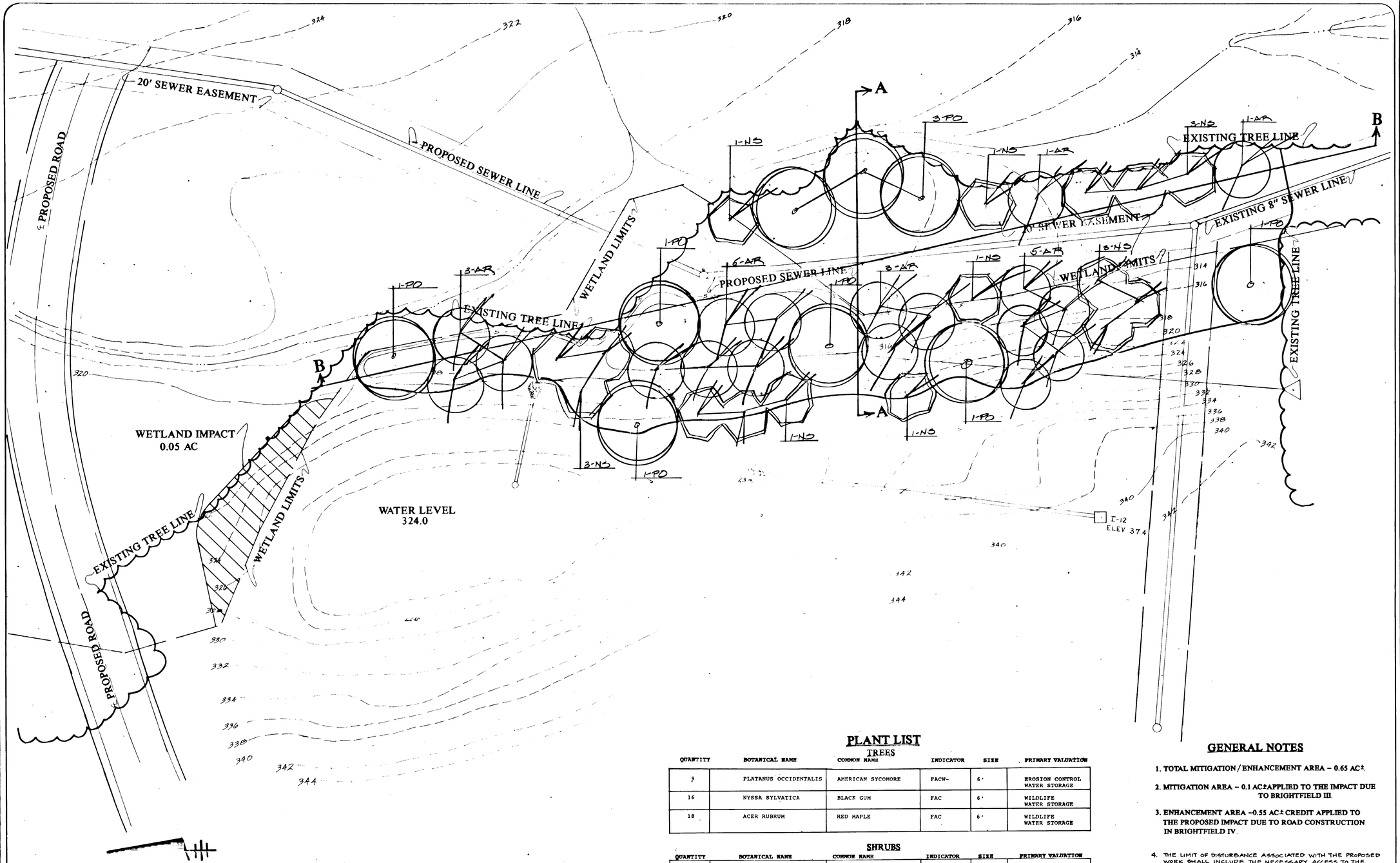
"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

John Elorriaga 1/3/94
JOHN M. ELORRIAGA, P.E. # 16891 — DATE

Drawn By: JLB
Designed By: MAM
Checked By: DEP

Scale: 1"=20
Date: 3-1-91
Sheet: 2 of 3

F-89-20



PLANT LIST

TREES

QUANTITY	BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	PRIMARY VALUATION
9	PLATANUS OCCIDENTALIS	AMERICAN SYCOMORE	FACW-	6'	EROSION CONTROL WATER STORAGE
16	NYSSA SYLVATICA	BLACK GUM	FAC	6'	WILDLIFE WATER STORAGE
18	ACER RUBRUM	RED MAPLE	FAC	6'	WILDLIFE WATER STORAGE

SHRUBS

QUANTITY	BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	PRIMARY VALUATION
70	VACCINUM CORYMBOSUM	BLUEBERRY	FACW-		WILDLIFE
150	VIBURNUM DENTATUM	ARROW-WOOD	FAC	36"	WILDLIFE EROSION CONTROL
70	CORNUS AMOMUM	SILKY DOGWOOD	FACW	36"	WILDLIFE EROSION CONTROL

NOTES: SHRUBS ARE TO BE PLANTED 10' OC WITHIN THE ABOVE SHADED AREA, AT THE DIRECTION OF EXPLORATION RESEARCH INC.

GENERAL NOTES

1. TOTAL MITIGATION / ENHANCEMENT AREA – 0.65 AC±.
2. MITIGATION AREA – 0.1 AC±APPLIED TO THE IMPACT DUE TO BRIGHTFIELD III.
3. ENHANCEMENT AREA –0.55 AC± CREDIT APPLIED TO THE PROPOSED IMPACT DUE TO ROAD CONSTRUCTION IN BRIGHTFIELD IV.
4. THE LIMIT OF DISTURBANCE ASSOCIATED WITH THE PROPOSED WORK SHALL INCLUDE THE NECESSARY ACCESS TO THE WORK AREA FROM WESLEY LANE VIA THE MAINTENANCE ACCESS FOR THE EXISTING PUBLIC STORMWATER MANAGEMENT FACILITY. ALL DISTURBED AREAS SHALL BE STABILIZED PERMANENTLY.

EXPLORATION RESEARCH, INC.
Environmental Consultants
8318 Forrest Avenue, Suite 101
Historic Ellicott City, Maryland 21043
Tel: (301) 750-1150, FAX # (301) 750-7350

OWNER / DEVELOPER
SECURITY DEVELOPMENT
8480 BALTIMORE NATIONAL PIKE
SUITE 415
ELLICOTT CITY, MARYLAND 21043
(301) 465-4744

SUPPLEMENTAL INFORMATION
BRIGHTFIELD III
F-89-20
HOWARD COUNTY, MARYLAND

WQC#88-0372
CENAB-OP-RW
(BRIGHTFIELD)
88-01161
PLANTING PLAN

U.S. Army Corps Of Engineers
Approval Of Plans And Specifications
For Compliance With Permit Number
CENAB-OP-RW 88-01161
Signature Of U.S. Army Corps Of Engineers, Baltimore, MD — Date: March 27, 1991

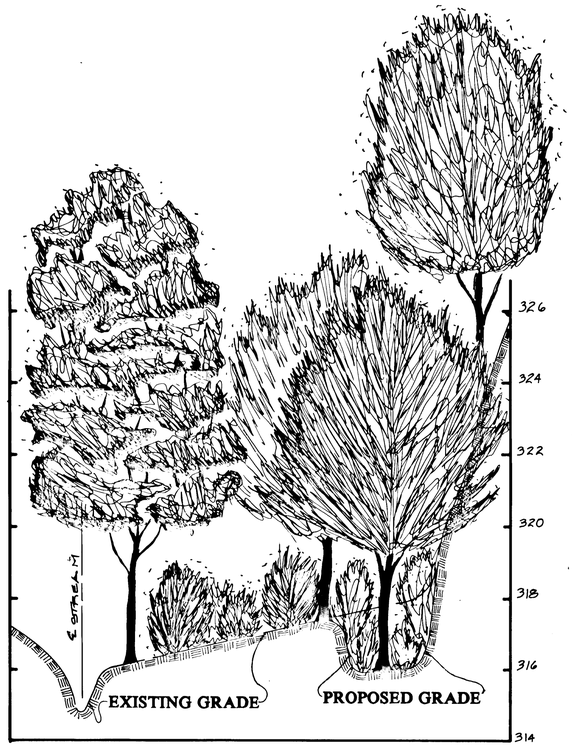
Maryland Department Of The Environment
Standards & Certification Division
Approval Of Plans And Specifications
For Compliance With Permit Number 88-WQ-0372
Signature Of State Agent — Date
Certification Division

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING.
Richard B. Good — 5/14/91
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH — DATE

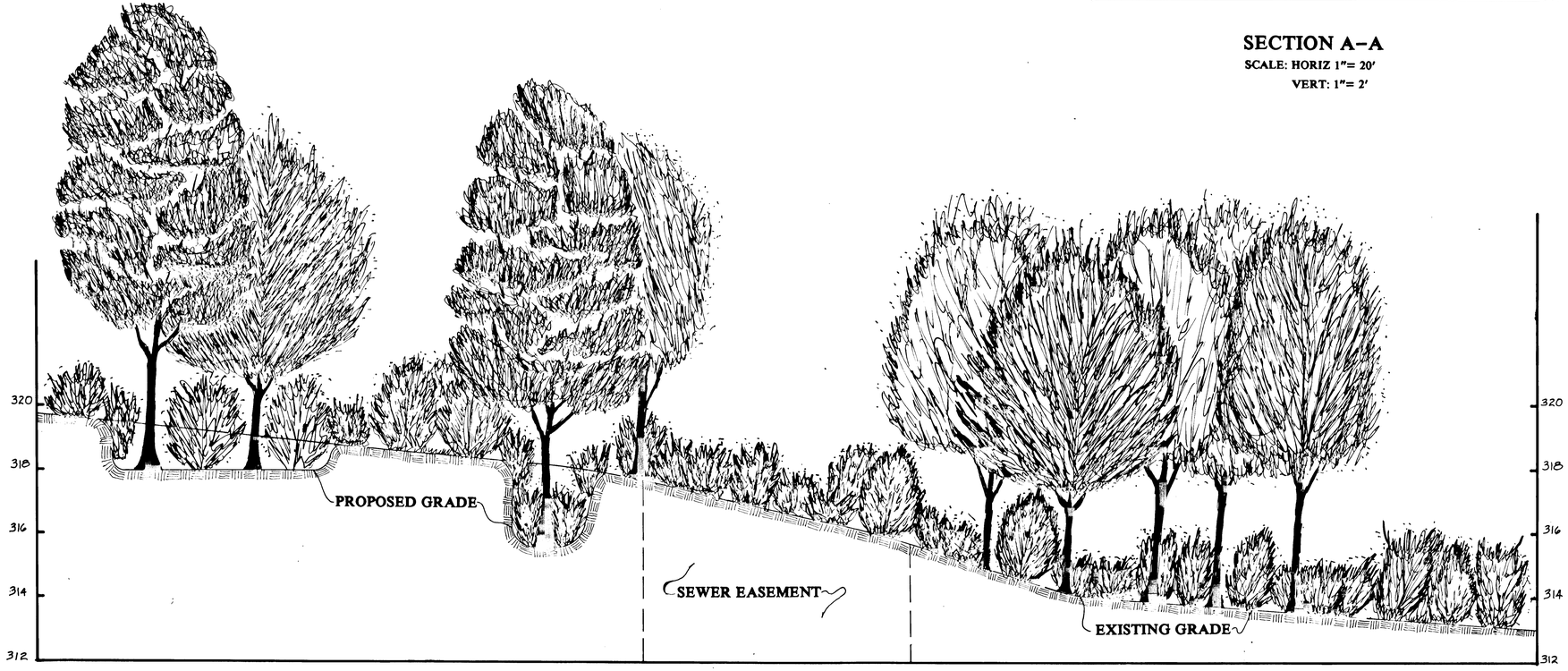
Drawn By: JLB
Designed By: M&M
Checked By: DEB
Scale: 1"=20'
Date: 3-1-91
Sheet: 3 OF 5

1382

F-89-20



SECTION A–A
SCALE: HORIZ 1"= 20'
VERT: 1"= 2'



SECTION B–B
SCALE: HORIZ 1"= 20'
VERT: 1"= 2'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Richard Blood — 5/10/91
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH — DATE

EXPLORATION RESEARCH, INC.
Environmental Consultants
8318 Forrest Avenue, Suite 101
Historic Ellicott City, Maryland 21043
Tel: (301) 750-1150, FAX # (301) 750-7350

OWNER/ DEVELOPER

SECURITY DEVELOPMENT
8480 BALTIMORE NATIONAL PIKE
SUITE 415
ELLICOTT CITY, MARYLAND 21043
(301) 465-4244

SUPPLEMENTAL INFORMATION

BRIGHTFIELD III
F-89-20
HOWARD COUNTY, MARYLAND
WQC#88-0372
CENAB-OP-RW
(BRIGHTFIELD)
88-01161
SECTIONS

U.S. Army Corps Of Engineers
Approval Of Plans And Specifications
For Compliance With Permit Number
CENAB-OP-RW 88-0116)
Linda A. Mildebrand — March 27, 1991
Signature Of U.S. Army Corps Of Engineers, Baltimore, MD — Date

Maryland Department Of The Environment
Standards & Certification Division
Approval Of Plans And Specifications
For Compliance With Permit Number 88-WO-0372
Signature Of Standards/ Certification Division — Date

Drawn By: J.L.B — Scale: AS SHOWN
Designed By: M.A.M — Date: 3-1-91
Checked By: D.E.R — Sheet: 4 of 5

1382

F-89-20

CONSTRUCTION REQUIREMENTS

The site to be restored as forested Wetland shall be graded, planted, and fertilized as shown on the plans and in accordance with these special provisions:

A. *Planting schedule shall conform to the following conditions:*

Planting shall commence after final grading, adjacent construction has been completed, and all sediment control measures have been removed. In order to coordinate the planting work with the entire construction schedule, plant material will not be shipped from the supplier until directed to do so by Exploration Research, Inc. All trees and shrubs shall be installed between March 15 to May 15 or as directed by Exploration Research, Inc.

B. *Plant Materials:*

1) *Root-stock of the plant material shall be kept moist during transport from the source to the job site and until planted.*

2) *Plant material shall be planted in the soil with each planting pit excavated to size sufficient to contain the entire root-stock or the entire root-mass without cramping.*

C. *Planting bed preparation:*

The contractor shall prepare the area to be planted by spreading a uniform layer of six inches (6") of topsoil over the excavated area. Planting areas shall be approved by Exploration Research, Inc. prior to the installation of the plant material.

D. *Clean-up:*

Final clean up shall be the responsibility of the contractor and consist of removing all trash and materials incidental to the project, and disposing of them off-site. In addition, the construction procedure shall not damage any areas of existing plants which are to remain.

E. *The planting locations are approximate and may be varied upon the approval of Exploration Research, Inc., provided the relative ratios are maintained.*

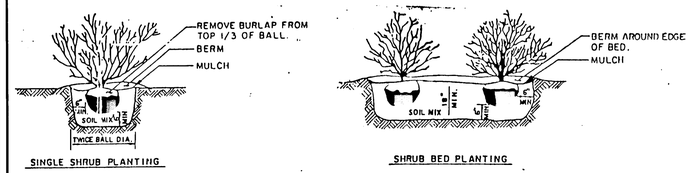
F. *Plant material selections are based upon availability at time of design. If specific plants are unavailable at time of planting, substitute plants conforming to above specifications will be made. All substitute plant materials are subject to the approval of Exploration Research, Inc. and the U.S. Army Corps of Engineers.*

CLEARING AND GRUBBING

1. *All vegetation, trash, and debris not marked in the field or on the plans, within the limits of disturbance, are to be disposed of off site in an approved landfill site.*

GRADING

1. *All topsoil and excess cut is to be removed and disposed of off site.*
2. *Grade tolerance shall be within 0.15 feet.*
3. *The mitigation area shall be excavated six inches (6") below finished grade and six inches (6") of topsoil shall be uniformly spread to finished elevation. Topsoil shall be free of stone, lumps, plants, roots, and other debris including toxic substances. Topsoil shall have a pH range of 5.0 - 7.0.*
4. *All final elevations shall be field checked by Exploration Research, Inc. prior to the contractor removing equipment from the site.*



PLANTING DETAIL

NO SCALE

CONSTRUCTION SEQUENCE

1. *All grading to be done under approved grading permit for Brightfield III.*
2. *After slopes are stabilized, begin construction of mitigation.*
3. *Install silt fence.*
4. *Remove topsoil and stockpile on site.*
5. *Excavate mitigation area to within six inches (6") below finish grade and replace with topsoil up to finish grade.*
6. *Haul excess material to approved on site location.*
7. *Plant mitigation area in accordance with planting plan.*
8. *Remove silt fence and stabilize.*

CONSTRUCTION RESTRICTIONS

All work in flood plain must be done in strict accordance with applicable State permit requirements.

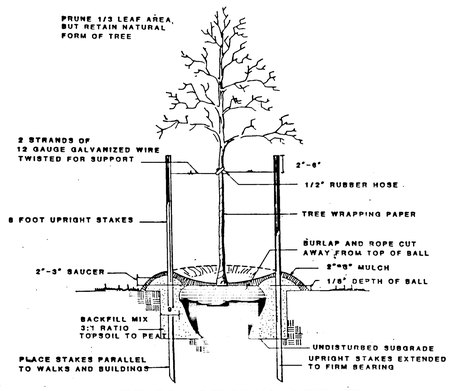
Work in streams is prohibited during certain times of the year as follows:

Class I Streams	*March 1 thru June 15*
Class II Streams	*June 1 thru September 30 or December 16 thru March 14*
Class III Streams	*October 1 thru April 30*
Class IV Streams	*March 1 thru May 31*

The stream at Brightfield III is a Class I stream.

NOTE:

THE LIMIT OF DISTURBANCE ASSOCIATED WITH THE PROPOSED WORK SHALL INCLUDE THE NECESSARY ACCESS TO THE WORK AREA FROM WESLEY LANE VIA THE MAINTENANCE ACCESS FOR THE EXISTING PUBLIC STORMWATER MANAGEMENT FACILITY. ALL DISTURBED AREAS SHALL BE STABILIZED PERMANENTLY.



TREE PLANTING DETAIL

NOT TO SCALE

BY THE DEVELOPER:

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

James R Moxley Jr — 1-4-94

JAMES R. MOXLEY, JR. - PRESIDENT, SECURITY DEVELOPMENT CORPORATION — DATE

BY THE ENGINEER:

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

John E Elorriaga — 1/3/94

JOHN M. ELORRIAGA, P.E. # 16891 — DATE

REVIEWED BY HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Patricia Eyler/65. — 5/5/94

U.S. SOIL CONSERVATION SERVICE — DATE

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

John R Schuman/65. — 5/9/94

HOWARD SOIL CONSERVATION DISTRICT/65. — DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING.

Richard Blood — 5/10/94

CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH — DATE

WETLAND PLANT MATERIAL

DESCRIPTION:

This work shall consist of furnishing and planting trees and shrubs as shown on the plans and/or as directed by Exploration Research, Inc. and all planting operations and care and replacement as necessary to complete the work specified.

Prior to the start of the work on this project, Exploration Research, Inc. shall submit to the U.S. Army Corps of Engineers for review, the proposed planting schedule for the wetland vegetation.

MATERIALS:

A. *Plant Material - As shown on the plans, shall conform to the following specifications: The plant species required are normally available from standard landscape nursery sources. Exploration Research, Inc. will make arrangements to insure a supply of the required plant material.*

B. *Fertilizer - As required.*

C. *Substitute Plants - Shall conform to the above specifications and approval of Exploration Research, Inc. and the U.S. Army Corps. of Engineers.*

WETLAND MANAGEMENT NOTES

In order to establish a productive, functioning wetland ecosystem, an effective wetland management plan has been developed. The objectives of the management plan include:

1. *Re-establish a healthy, self-sustaining vegetative cover.*
2. *Re-establish self-sustaining hydrological conditions.*
3. *Enhance and promote maximum wildlife habitat.*

In order to establish an effective, workable, and practical wetland management plan, the following strategy is recommended:

1. *During and immediately proceeding construction of the wetland areas, potential or existing problems will be identified and corrective management techniques will be implemented.*

NATURAL CYCLE

Natural cycles must be maintained to prevent "succession" from wetland to upland. Although this is a long term goal exceeding the limits of this management program, several techniques can be implemented over the two year period to enhance stability.

IMMEDIATE MANAGEMENT TECHNIQUES

No management strategies planned.

SHORT TERM MANAGEMENT TECHNIQUES

Wetland area will be periodically monitored for altered hydrologic conditions, invasive plant species, transition of wetland species to upland plants, and cultural impacts such as human disturbance, filling, non-point, and point source pollution. Management techniques will recommended to stabilize unnatural ecological successions including:

1) *Altering the hydrological regime.*
2) *Removing undesireable plant species.*
3) *Restricting or discouraging destructive human interaction.*

LONG TERM MANAGEMENT TECHNIQUES

Overall ecology and stability of the restored wetland areas will be assessed in comparison to similar adjacent areas. Recommendations and strategies will be planned to enhance and protect the overall ecology of the site.

HYDROLOGIC REGIME

The duration, timing, and source of surface inundation determines and regulates wetland functions and their characteristics.

IMMEDIATE MANAGEMENT TECHNIQUES

Vegetation demonstrating immediate stress or dieback will be replaced. In addition, soil and climatic factors will be analyzed in relation to plant growth. The following management techniques will be utilized:

1) *Replace plant species with similar vegetation.*
2) *Add soil amendments to enhance survivability.*
3) *Replace plant species with specified alternative.*
4) *Prune plant species to establish desired growth characteristics and enhance survivability.*

SHORT TERM MANAGEMENT TECHNIQUES

Survey vegetation after major storm events or droughts to determine appropriate management techniques as specified in Immediate Management Techniques.

LONG TERM MANAGEMENT TECHNIQUES

Re-assess vegetation for its functional value in relation to wetland cycles and habitat enhancement. Recommend and implement corrective and preventive action.

VEGETATION

Vegetation sustains wildlife species, filters and reduces flood velocity. A goal of 85% survival rate will be achieved in three (3) years.

IMMEDIATE MANAGEMENT TECHNIQUES

Vegetation demonstrating immediate stress or dieback will be replaced. In addition, soil and climatic factors will be analyzed in relation to plant growth. The following management techniques will be utilized:

1) *Replace plant species with similar vegetation.*
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SHORT TERM MANAGEMENT TECHNIQUES

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LONG TERM MANAGEMENT TECHNIQUES

Re-assess vegetation for its functional value in relation to wetland cycles and habitat enhancement. Recommend and implement corrective and preventive action.

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SUPPLEMENTAL INFORMATION

BRIGHTFIELD III
F-89-20
HOWARD COUNTY, MARYLAND

WQC#88-0372
CENAB-OP-RW
(BRIGHTFIELD)
88-01161
NOTES SHEET

U.S. Army Corps Of Engineers
Approval Of Plans And Specifications
For Compliance With Permit Number
CENAB-OP-RW 88-01161

Linda A. Mitchling — March 27, 1991

Signature Of U.S. Army Corps Of Engineers, Baltimore, MD — Date

Maryland Department Of The Environment
Standards & Certification Division
Approval Of Plans And Specifications
For Compliance With Permit Number 88-WQ-0372

Signature Of Standards/ Certification Division — Date

Drawn By: J.L.B — Scale: N/A
Designed By: M.A.M — Date: 3-1-91
Checked By: D.E.P — Sheet: 5 of 5

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F-89-20