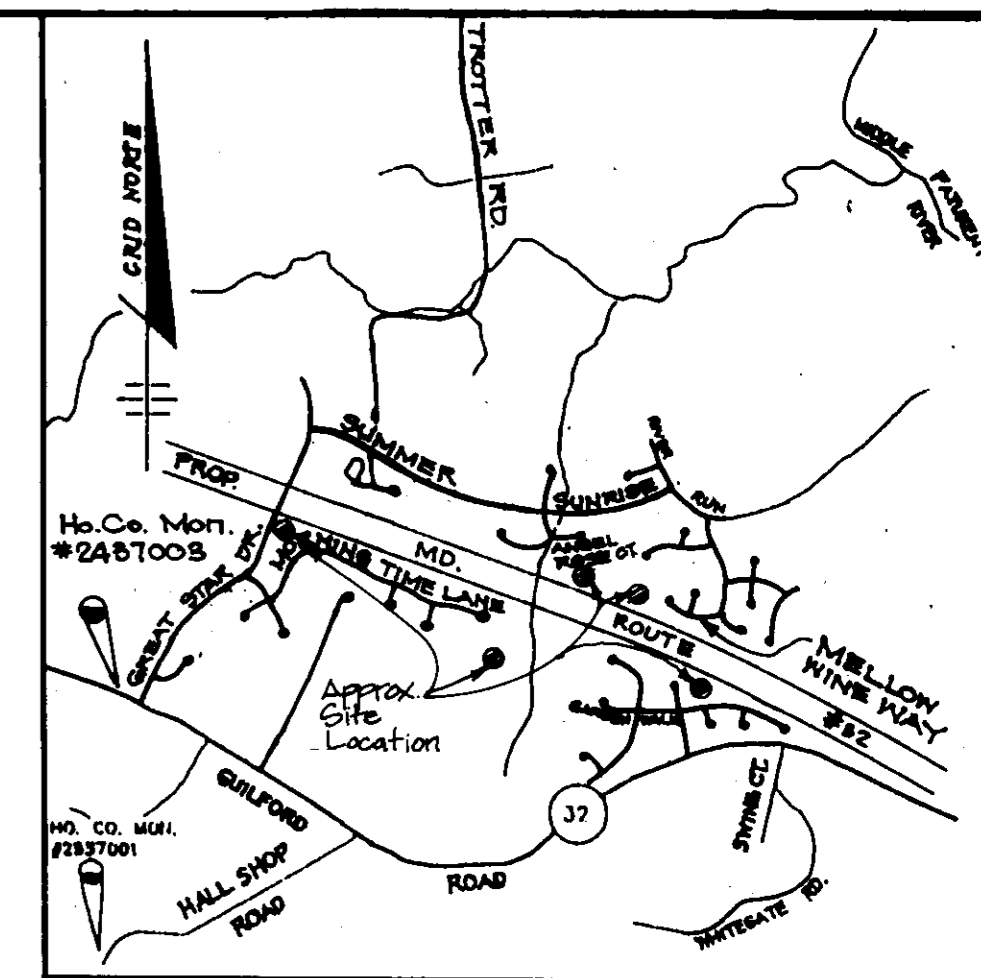


VILLAGE OF RIVER HILL POINTERS RUN NEIGHBORHOOD TOT LOTS



VICINITY MAP
SCALE 1" = 2000'

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 Bureau of Engineering/Construction Inspection Division at (410) 313-1880 at least five (5) 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.

4. Project Background:
Location: Village of River Hill Tax Map 35
Zoning: New Town Open Space
Election District: 5th

Tot Lot#	Site Area	VRH S/A	O.S. Lot	"P" Plan	Approval
1	.126 Ac	VRH 2/1	127	F93-18	
2	.128 Ac	VRH 2/2 Pt 1	240	F93-80	
3	.241 Ac	VRH 2/2 Pt 2	238	F93-81	
4	.072 Ac	VRH 2/3 Pt 1	103	F94-61	
5	.126 Ac	VRH 2/3 Pt 1	103	F94-61	
TOTAL .695 AC					

Other File References:

- SDP 95-11 For Construction of Pathways
- WP 27-31 to allow disturbance of Stream Buffer Section 16.116.a.2 (Tot Lot 1, 2 & 4)
- FDP Phase 209, Part I, 209, Part II, & 209-A-2, Part III
- Topography was field run at two foot contour intervals, by Clark, Finefrock & Sackett, Inc., Dated April 1996.
- Horizontal controls are based on Maryland State Grid System as per the respective record plats.
- Floodplain and wetland limits were derived from the respective record plats established under subdivision plans F93-18; F93-80; F93-81; F94-61.
- Stormwater management for these sites was provided under the original subdivision plans F93-18; F93-80; F93-81; F94-61.
- The existing utilities were located from available plans & records. The contractor must dig test pits, by hand, at all utility crossings and connection points to verify exact location.
- Any damage to County rights-of-way and paving of public roads shall be repaired immediately at the contractor's expense in accordance with the Howard County Specifications and Standards.
- All concrete for the site work shall be Class 2 concrete and shall be in accordance with the Maryland State Highway Administration specifications as amended to date.
- The limit of disturbance area on the site shall be marked with a construction fence prior to any clearing and grading activity for the tot lot construction.
- Maintenance of the tot lots will be the responsibility of the owner, The Columbia Association.
- All trees 12 inches and larger are not to be disturbed unless indicated on plans. All trees within limits of disturbance to have tree protection fence installed around them.

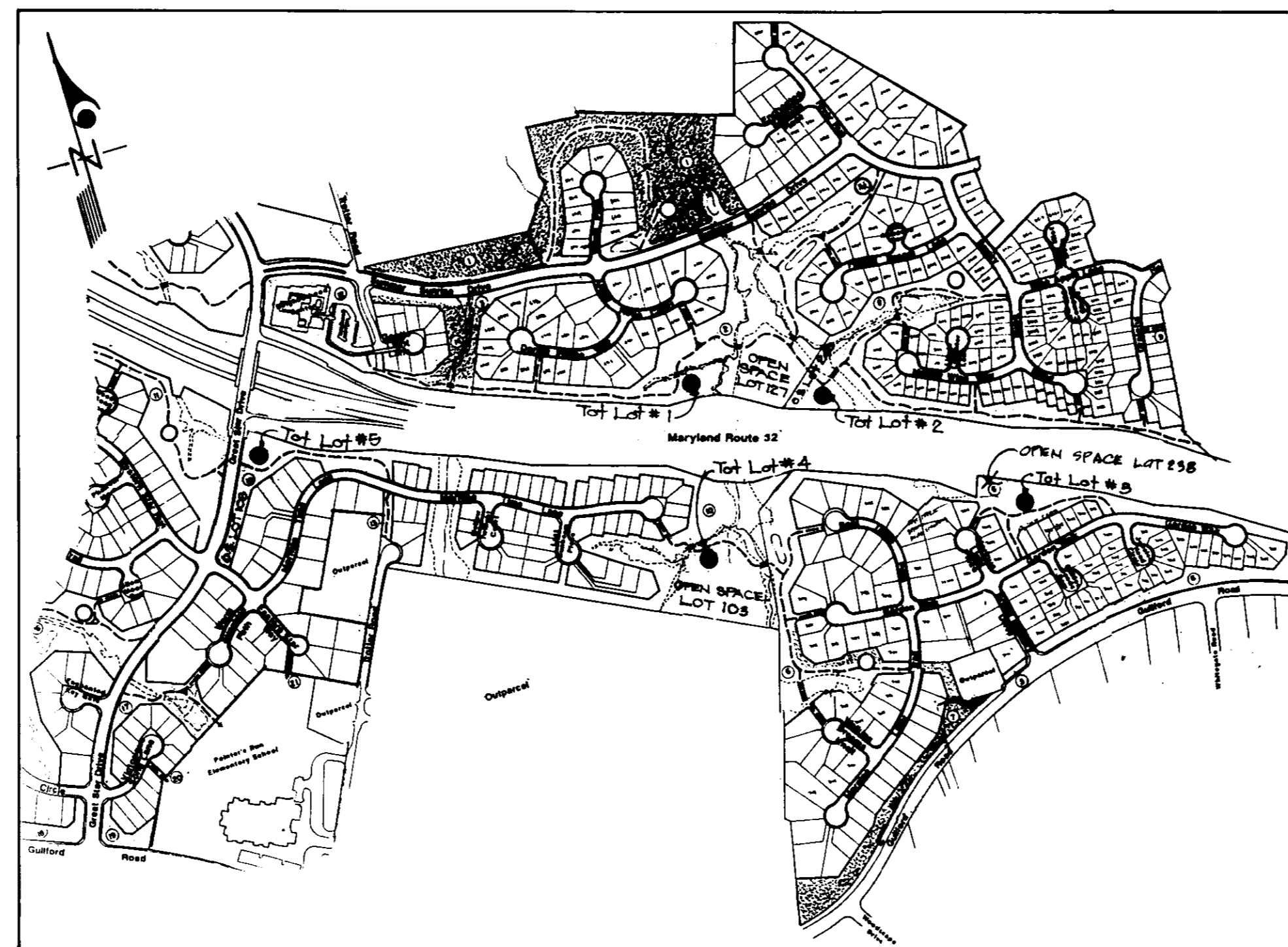
SUMMARY SITE ANALYSIS TOT LOTS 1-5

ZONE	NT OPEN SPACE
DISTURBED AREAS	+/- 0.69 AC
IMPERVIOUS AREAS	+/- 0.02 AC
PERVIOUS AREAS	+/- 0.59 AC
MULCHED AREAS	+/- 0.30 AC
VEGETATIVELY STABILIZED AREAS	+/- 0.37 AC
TOTAL EARTH CUT	+/- 388 C.Y.
TOTAL EARTH FILL	+/- 315 C.Y.
TOTAL SPOIL	+/- 73 C.Y.

NOTE: CONSTRUCTION OF ALL BITUMINOUS PATHWAYS IS PERMITTED UNDER SDP 95-11 APPROVED 8-15-95

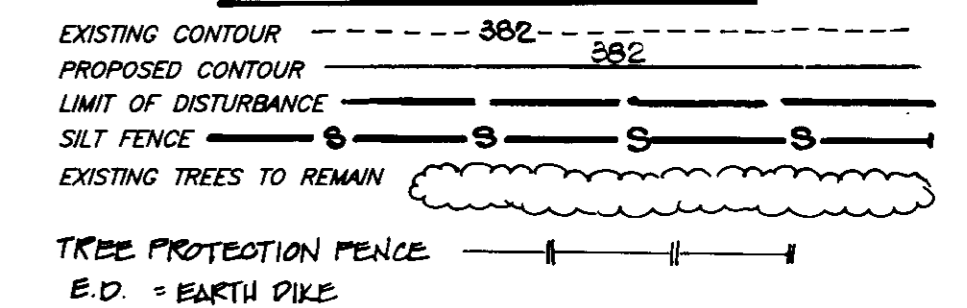
HOWARD COUNTY MONUMENT #2437003
STAMPED CONCRETE MONUMENT ON NORTH SIDE OF GUILFORD ROAD TO FROM EDGE OF PAVING.

HOWARD COUNTY MONUMENT #237001 ELEV. 496.095
STAMPED CONCRETE MONUMENT ON EAST SIDE OF HALL SHOP ROAD 27.5 FROM EDGE OF PAVING.



LOCATION MAP
SCALE: 1" = 600'

LEGEND

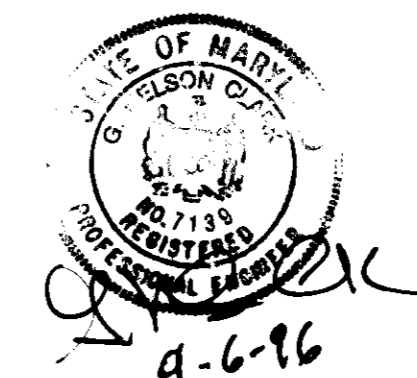


COVER SHEET	
No.	DESCRIPTION
1	COVER SHEET
2	TOT LOT NO. 1 SITE PLAN AND SEDIMENT & EROSION CONTROL
3	TOT LOT NO. 2 SITE PLAN AND SEDIMENT & EROSION CONTROL
4	TOT LOT NO. 3 SITE PLAN AND SEDIMENT & EROSION CONTROL
5	TOT LOT NO. 4 SITE PLAN AND SEDIMENT & EROSION CONTROL
6	TOT LOT NO. 5 SITE PLAN AND SEDIMENT & EROSION CONTROL
7	DETAILS

ADDRESS CHART	
TOT LOT	ADDRESS
4 & 5	0.5 LOT 103 6390 MORNING TIME LANE
1	0.5 LOT 127 6444 RIVER RUN
2	0.5 LOT 240 6332 EMPTY SONG ROAD
3	0.5 LOT 238 7108 MORNING LIGHT TRAIL

APPROVED: DEPARTMENT OF PLANNING AND ZONING
[Signature] 3/19/97
 Chief, Development Engineering Division
[Signature] 3/31/97
 Chief, Division of Land Development and Research
[Signature] 4/2/97
 Date

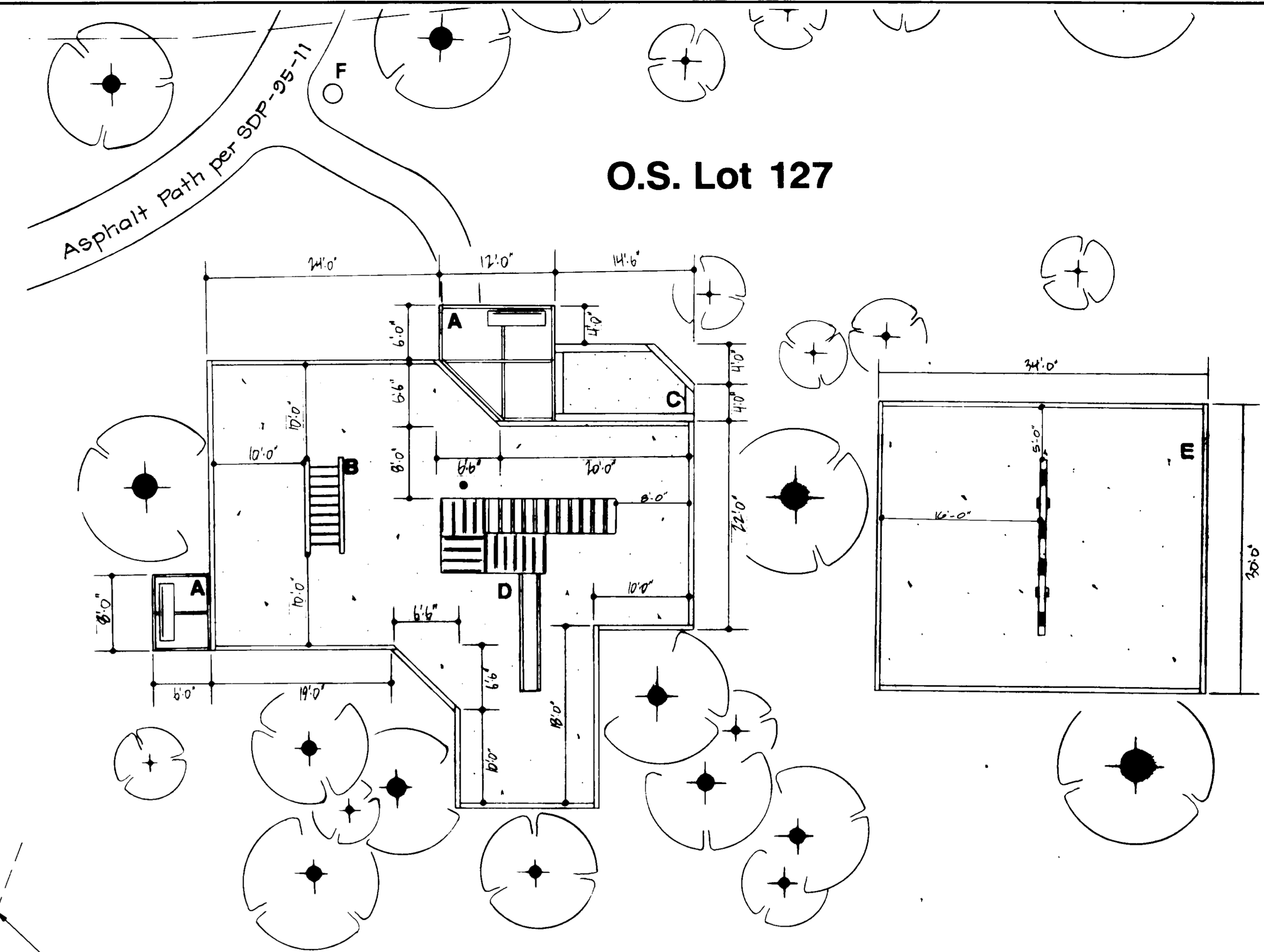
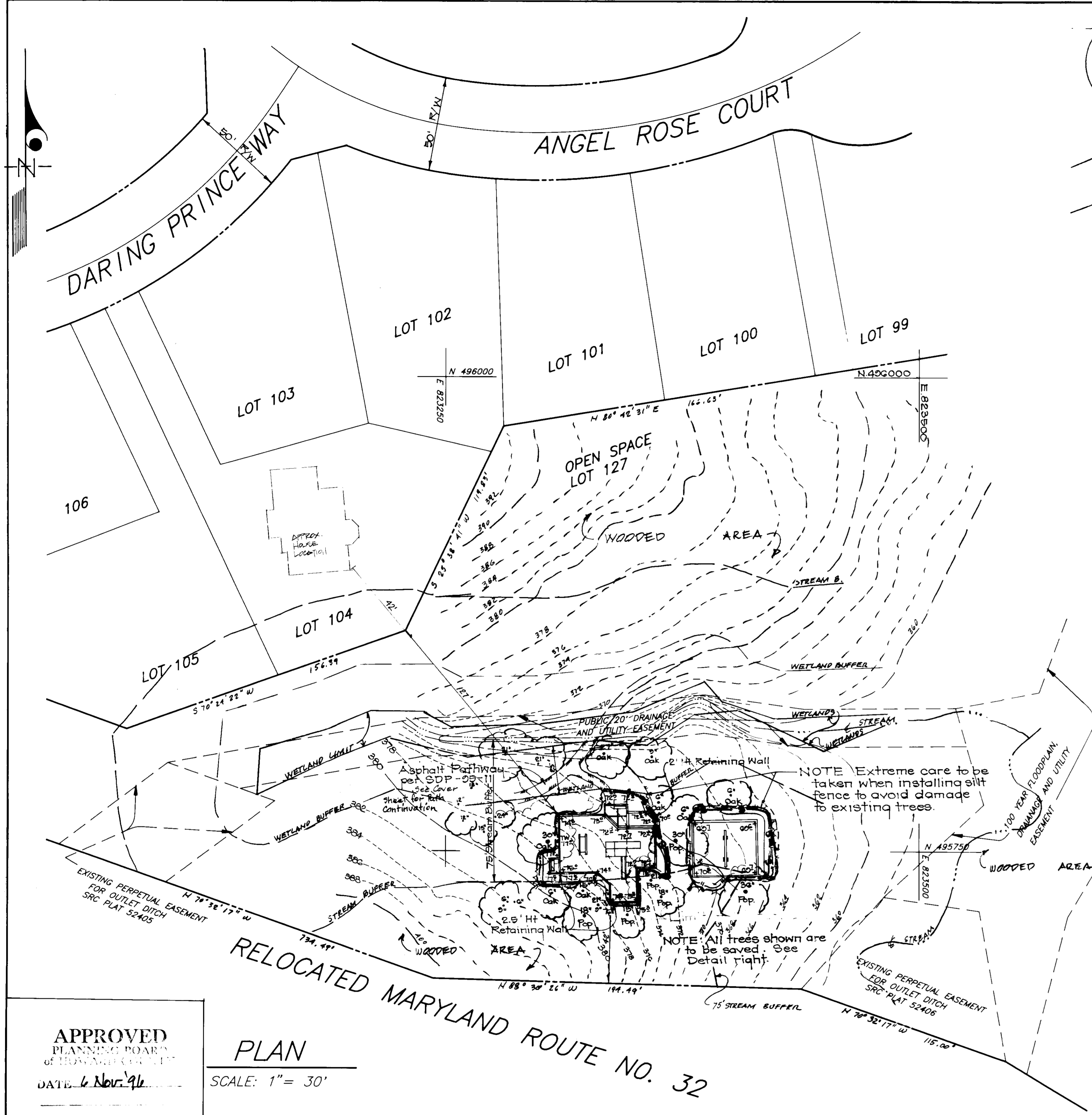
APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 6 Nov. 96



CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS
7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (410) 381-7500 BALTO. • (301) 621-8100 WASH.

DESIGNED	COVER SHEET TOT LOTS 1-5	SCALE
DRAWN	VILLAGE OF RIVER HILL	DRAWING
CHECKED	SECTION 2/1, O.S. LOT 127 SECTION 2/2, PHASES 1 & 2, O.S. LOTS 238, 240 SECTION 2/3, PHASE 1 O.S. LOT 103	JOB NO.
DATE	FIFTH (5TH) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	FILE NO.

FOR: THE COLUMBIA ASSOCIATION, INC.
10221 WINGOPIN CIRCLE, SUITE 100
COLUMBIA, MARYLAND 21044-3410 (410) 381-0383
9.5.96 96-025X



DETAIL
SCALE: 1/8" = 1'-0"

- EQUIPMENT**
- A - Concrete pad w/bench
 - B - Horizontal ladder
 - C - Sandbox
 - D - Fort R-3 w/
captain's wheel
firepole
 - E - 4 seat double T-swing
 - F - Trash container

SITE ANALYSIS

Zone	= NT Open
Open Space Lot	= Lot 127
Total Area	= 19,293 Ac.
Disturbed Area	= 5430 S.F.
Impervious Area	= 235 S.F.
Pervious Area	= 5255 S.F.
Area to be Vegetatively stabilized	= 2510 S.F.
Mulched Area	= 2,745 S.F.
Total Cut	= 60 c.y.
Total Fill	= 125 c.y.
Total Spoil/borrow	= 65 c.y. borrow
Area Within Stream Buffer	= 4000 S.F.

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE: 6 Nov. 96

PLAN
SCALE: 1" = 30'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

<i>Chad Hamilton</i>	8/19/97
Chief, Development Engineering Division	Date
<i>Andy Hamilton</i>	3/31/97
Chief, Division of Land Development and Research	Date
<i>Raymond Kuttner</i>	4/2/97
Director	Date

Reviewed for HOWARD S.C.D.
and meets Technical Requirements
Chad Hamilton 3/17/97
Signature Date
U.S. Natural Resources Conservation Service

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all 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 or their authorized agents, as are deemed necessary."

Denis A. Ellis 9-5-96
NAME DATE

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

John H. Ellis
Approved

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Sediment and Erosion 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.

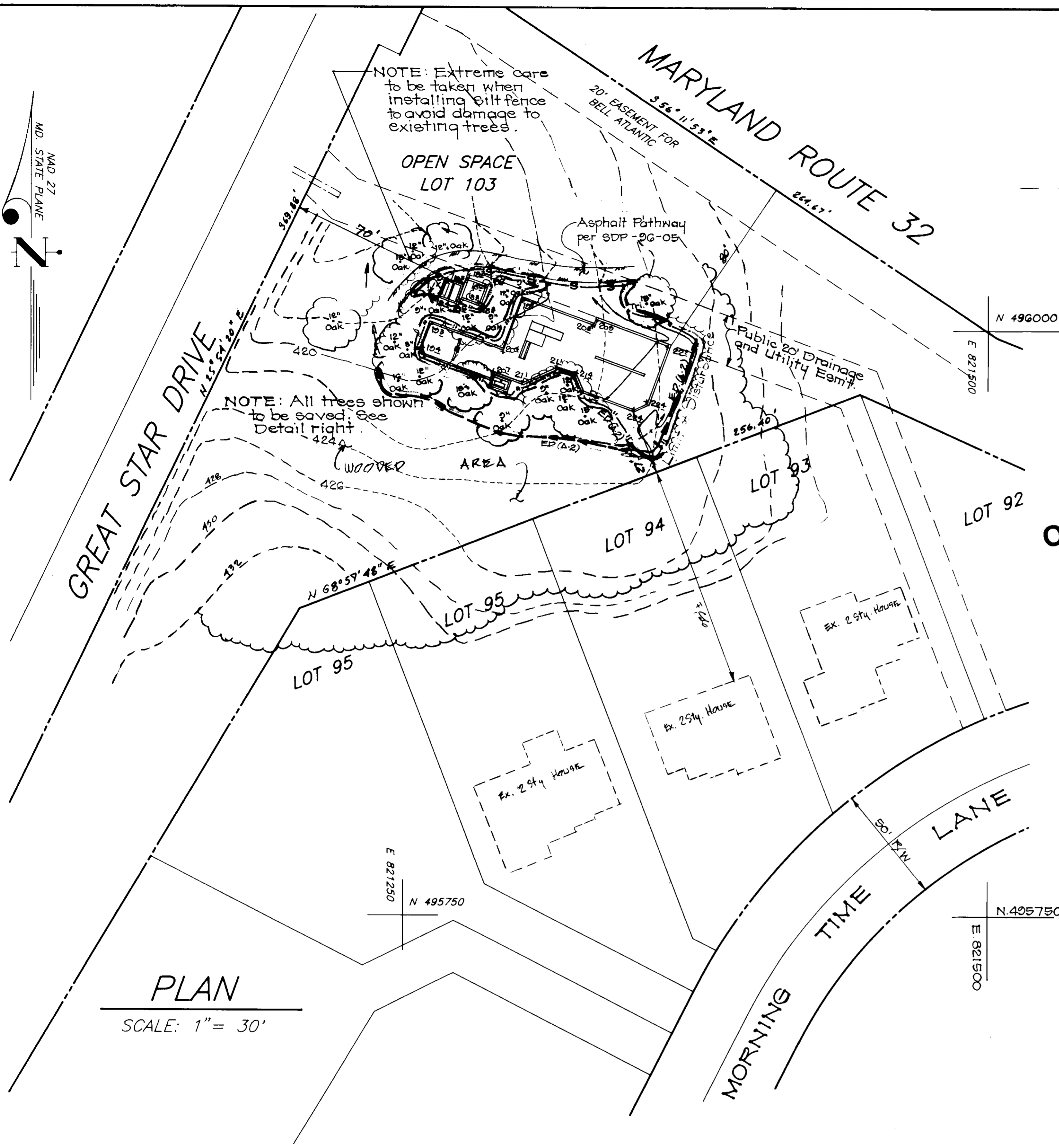
G. Nelson Clark 9/6/96
G. NELSON CLARK DATE



CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS
7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 - BALTO. • (301) 621-8100 - WASH.

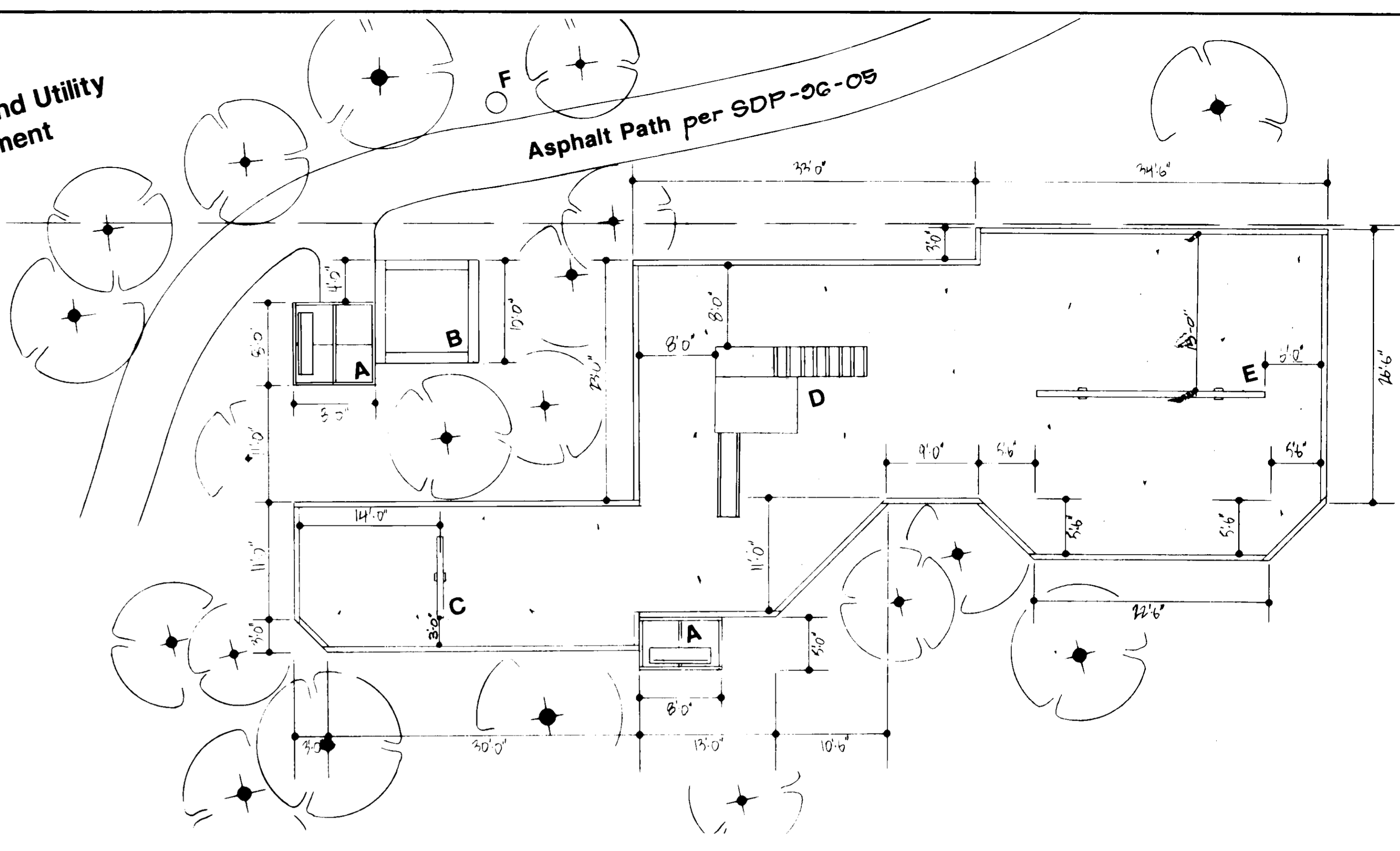
DESIGNED MJP	SITE DEVELOPMENT AND SEDIMENT & EROSION CONTROL PLAN TOT LOT 1, ANGEL ROSE COURT VILLAGE OF RIVER HILL SECTION 2 AREA 1 OPEN SPACE LOT 127 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE As Shown
DRAWN KJWM		DRAWING 2 of 7
CHECKED WHT		JOB NO. 06-025
DATE 9-5-96		FILE NO. 06-025X

FOR: THE COLUMBIA ASSOCIATION
10221 WINCORN CIRCLE, SUITE 100
COLUMBIA, MARYLAND 21044-3410
PHONE: (410) 381-0383



Drainage and Utility Easement

Asphalt Path per SDP-96-05



SITE ANALYSIS

Zone	= NT Open Space
Open Space Lot	= Lot 103
Total Area	= 16.055 Ac.
Disturbed Area	= 5490 S.F.
Impervious Area	= 100 S.F.
PerVIOUS Area	= 5300 S.F.
Area to be Vegetatively Stabilized	= 2837 S.F.
Mulched Area	= 2560 S.F.
Total Cut	= 200 c.y. ±
Total Fill	= 10 c.y. ±
Total Spoil/borrow	= 190 c.y. Spoil ±

6 Nov. '96

Reviewed for HOWARD S.C.D.
and meets Technical Requirements
Cheryl S. ... 2/12/97
Signature Date
U.S. Natural Resources Conservation Service

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all 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 or their authorized agents, as are deemed necessary."

D. ... (DENIS A. ELLIS) 9-5-96
NAME DATE

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

John ... 3/10/97
Approved

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Sediment and Erosion 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.

G. Nelson Clark 9/6/96
G. NELSON CLARK DATE



APPROVED: DEPARTMENT OF PLANNING AND ZONING

... 3/19/97
Date

... 3/31/97
Date

... 4/2/97
Date

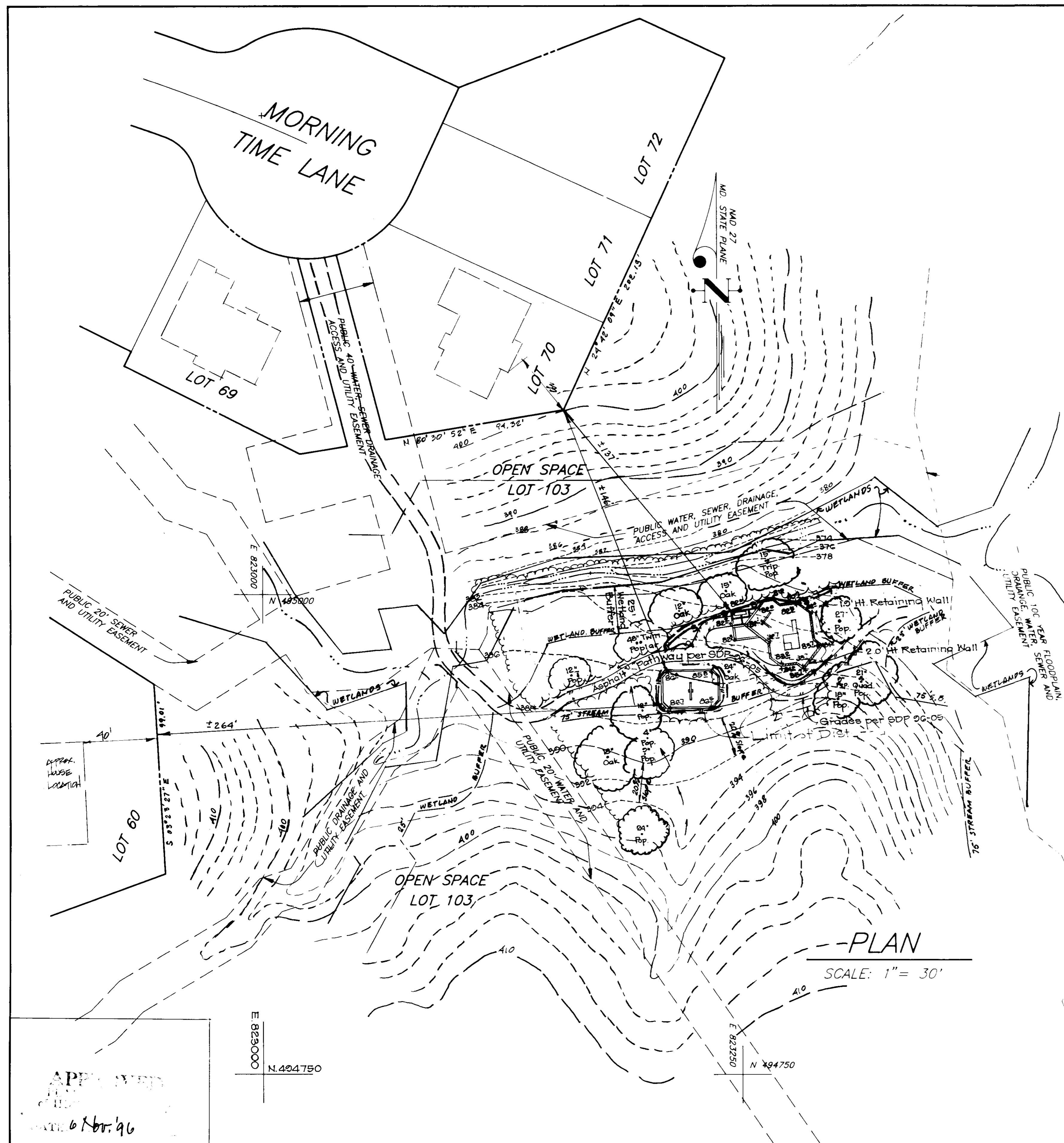
CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS

7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALTO • (301) 621-8100 WASH

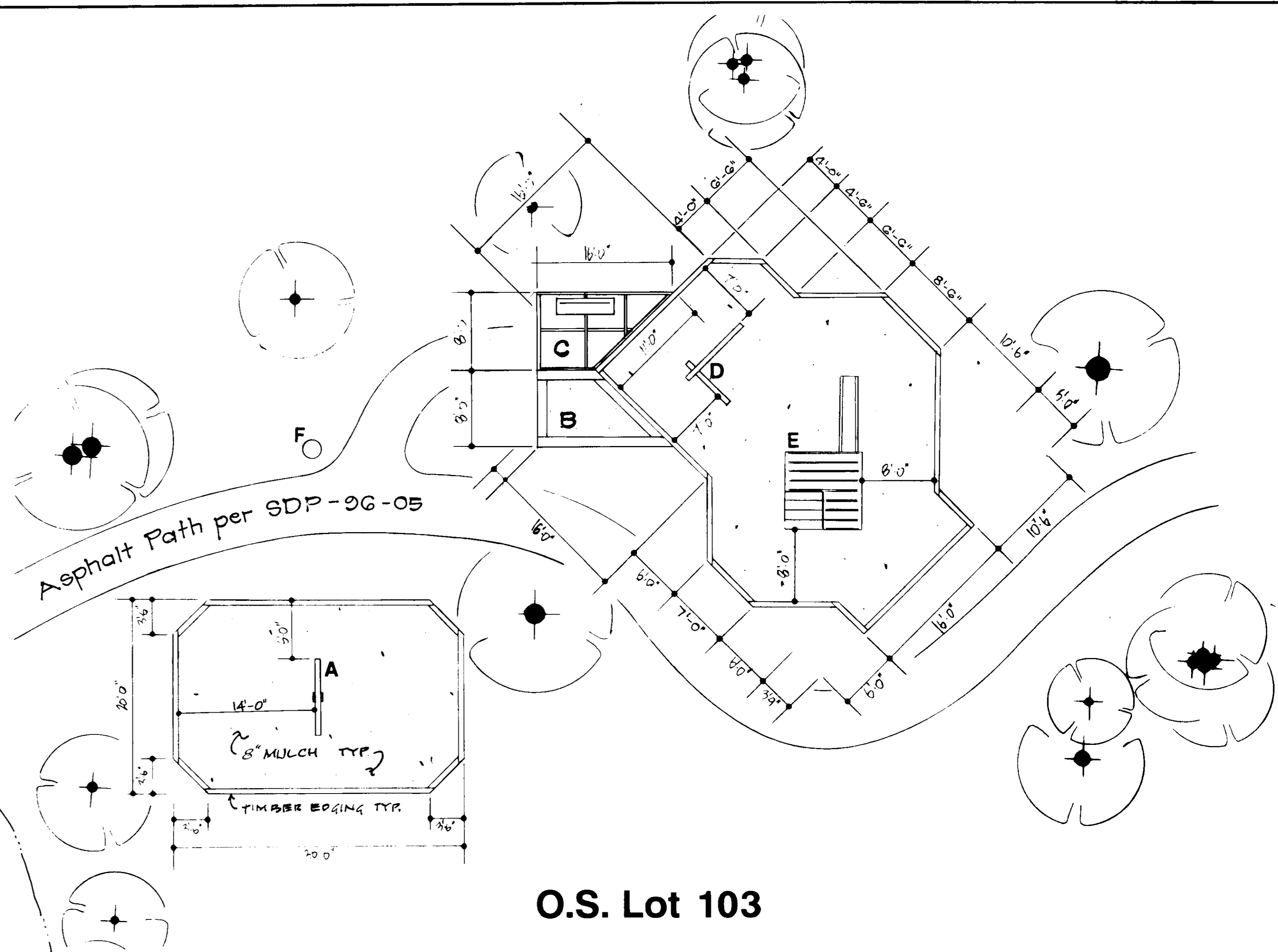
DESIGNED MJP	SITE DEVELOPMENT AND SEDIMENT & EROSION CONTROL PLAN TOT LOT 5, GREAT STAR DRIVE VILLAGE OF RIVER HILL SECTION 2 AREA 3 Pt. 1 OPEN SPACE LOT 103 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE As Shown
DRAWN RJM		DRAWING G of 7
CHECKED WHT		JOB NO. 96-025
DATE 9-5-96		FILE NO. 96-025X

FOR THE COLUMBIA ASSOCIATION - INC.
10221 WINDCOPIN CIRCLE, SUITE 100
COLUMBIA, MARYLAND 21044-3410

PHONE: (410) 381-0383



PLAN
SCALE: 1" = 30'



O.S. Lot 103

DETAIL
SCALE: 1/8" = 1'-0"

SITE ANALYSIS

Zone	= NT Open Space
Open Space Lot	= Lot 103
Total Area	= 10.055 Ac.
Disturbed Area	= 3150 S.F.
ImperVIOUS Area	= 100 S.F.
Pervious Area	= 3050 S.F.
Area to be vegetatively stabilized	= 14,500 S.F.
Mulched Areas	= 1,600 S.F.
Total Cut	= 50 c.y.
Total Fill	= 10 c.y.
Total Spoil/borrow	= 40 c.y. spoil
Area Within Stream Buffer	= 3150 S.F.

EQUIPMENT

- A - 2 seat T-swing
- B - Sandbox
- C - Concrete pad w/bench
- D - Balance Beam
- E - Fort 101 w/ captain's wheel
- F - Trash container

APPROVED
DATE 6 Nov. 96

E 823000
N 494750

Reviewed for HOWARD S.C.D.
and meets Technical Requirements
[Signature]
U.S. Natural Resources Conservation Service

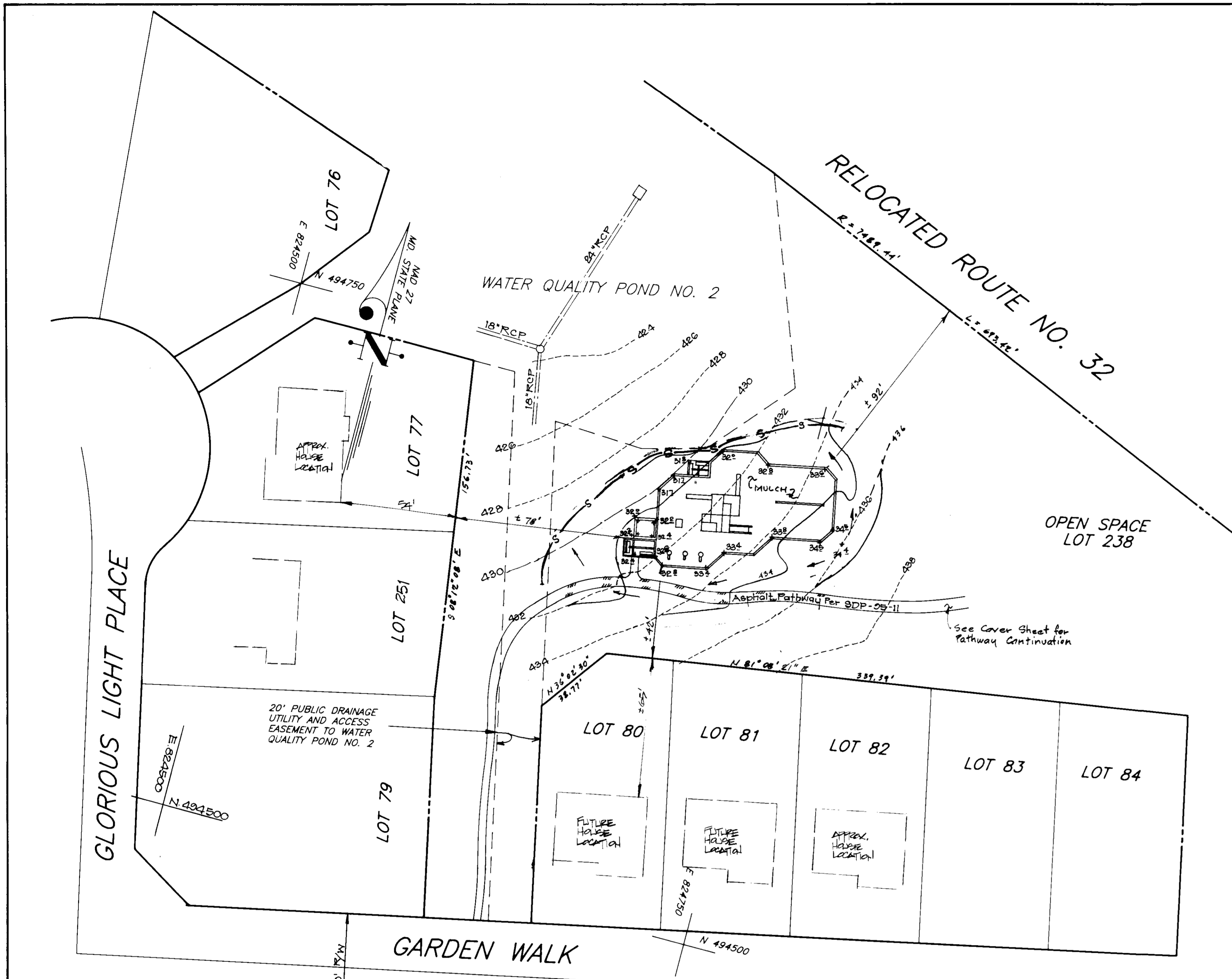
DEVELOPER'S/BUILDER'S CERTIFICATE
"I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department 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 or their authorized agents, as are deemed necessary."
[Signature] NAME: *[Name]* DATE: 9.5.96

ENGINEER'S CERTIFICATE
I hereby certify that this plan for Sediment and Erosion 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.
[Signature] G. NELSON CLARK DATE: 9/6/96



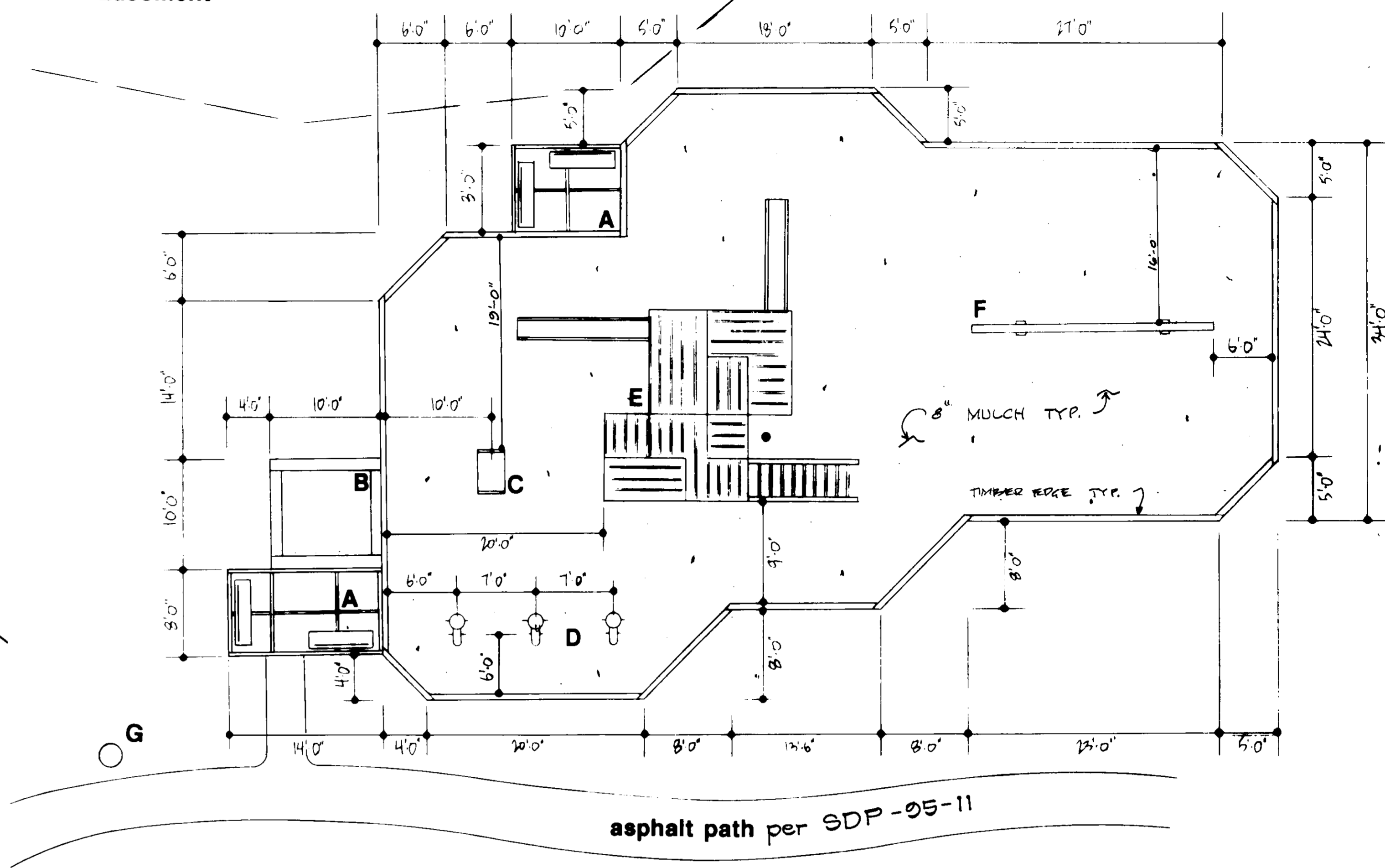
APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chief, Development Engineering Division
[Signature] 3/19/97
Chief, Division of Land Development and Research
[Signature] 3/21/97
Director
[Signature] 4/2/97

CLARK • FINEFROCK & SACKETT, INC. ENGINEERS • PLANNERS • SURVEYORS 7135 MINSTREL WAY • COLUMBIA MD 21045 • (410) 381-7500 BALTO. • (301) 621-8100 WASH.		
DESIGNED MJP	SITE DEVELOPMENT AND SEDIMENT & EROSION CONTROL PLAN TOT LOT 4, MORNING TIME LANE VILLAGE OF RIVER HILL SECTION 2 AREA 3 Ph. 1 OPEN SPACE LOT 103 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE As Shown
DRAWN KIWM		DRAWING 5 of 7
CHECKED WHT		JOB NO. 96-025
DATE 9.5.96		FILE NO. 96-025X



PLAN
SCALE: 1" = 30'

Drainage and Utility Easement



O.S. Lot 238

DETAIL
SCALE: 1/8" = 1'-0"

SITE ANALYSIS

Zone	= NT Open Space
Open Space Lot	= Lot 238
Total Area	= 12.076 Ac.
Disturbed Area	= 10,500 S.F.
Impervious Area	= 200 S.F.
Pervious Area	= 10,300 S.F.
Area to be Vegetatively Stabilized	= 6,800 S.F.
Mulched Area	= 3,500 S.F.
Total Cut	= 98 c.u.
Total Fill	= 60 c.u.
Total Spoil/borrow	= 22 c.u. borrow

EQUIPMENT LIST

- A - Concrete pad w/ 2 benches
- B - Sandbox
- C - Crawl tube
- D - 3 spring animals
- E - Fort 700
- F - 5 seat double T-swing (Hgt = 8'6")
- G - Trash container

APPROVED
PLANNING BOARD
DATE: 6 Nov '96

Reviewed for HOWARD S.C.D.
and meets Technical Requirements
Clark/Kim 3/17/97
Signature Date
U.S. Natural Resources Conservation Service

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all 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 or their authorized agents, as are deemed necessary."

Dennis A. Ellis (Dennis A. Ellis) 9-5-96
NAME DATE

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Sediment and Erosion 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.

G. Nelson Clark 9/6/96
G. NELSON CLARK DATE



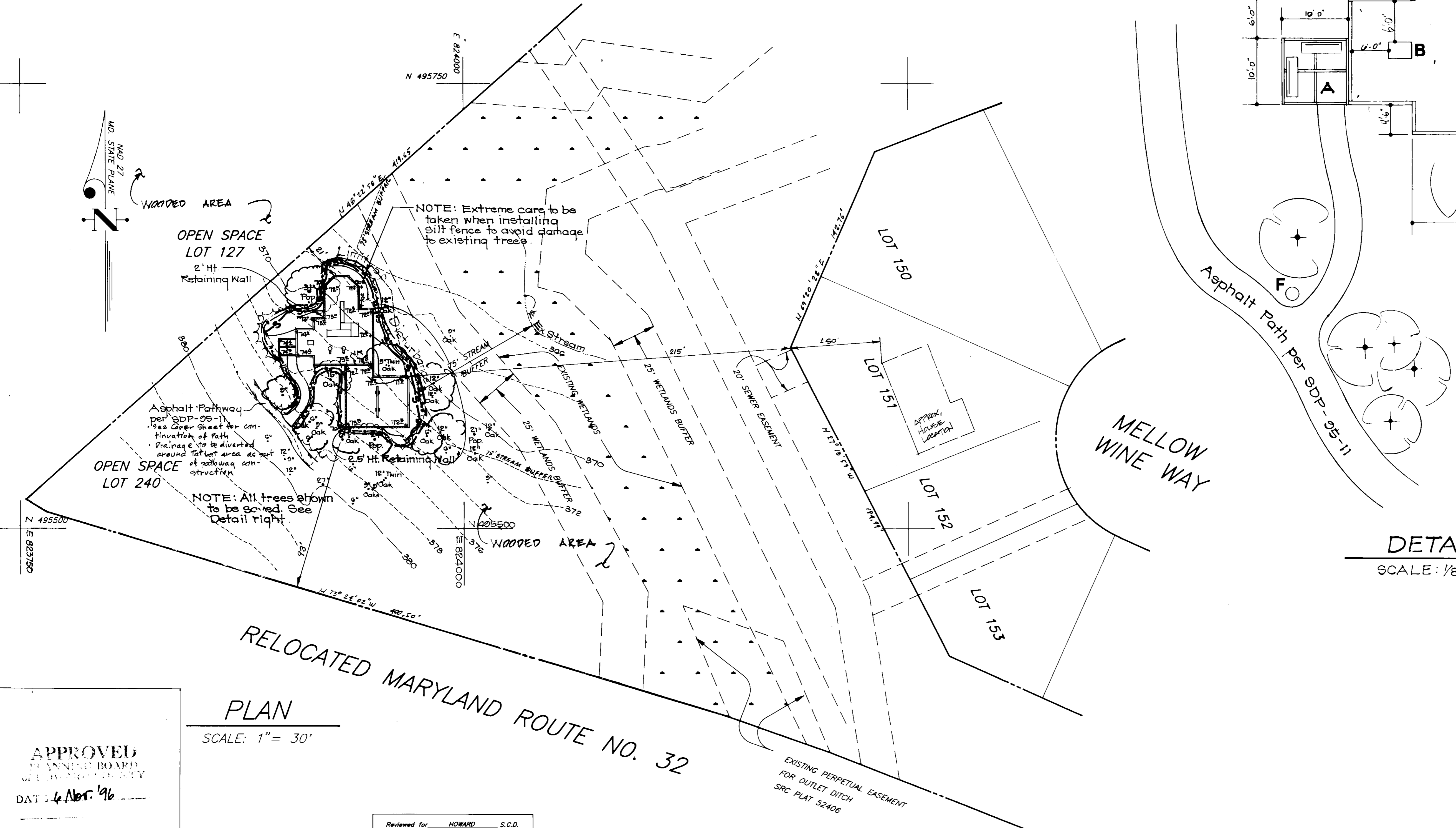
APPROVED: DEPARTMENT OF PLANNING AND ZONING
Christy Hamilton 3/19/97
Chief, Development Engineering Division Date
JA 3/31/97
Division of Land Development and Research Date
James S. Bester 4/2/97
Director Date

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
John A. Ellis 3/17/97
NAME DATE

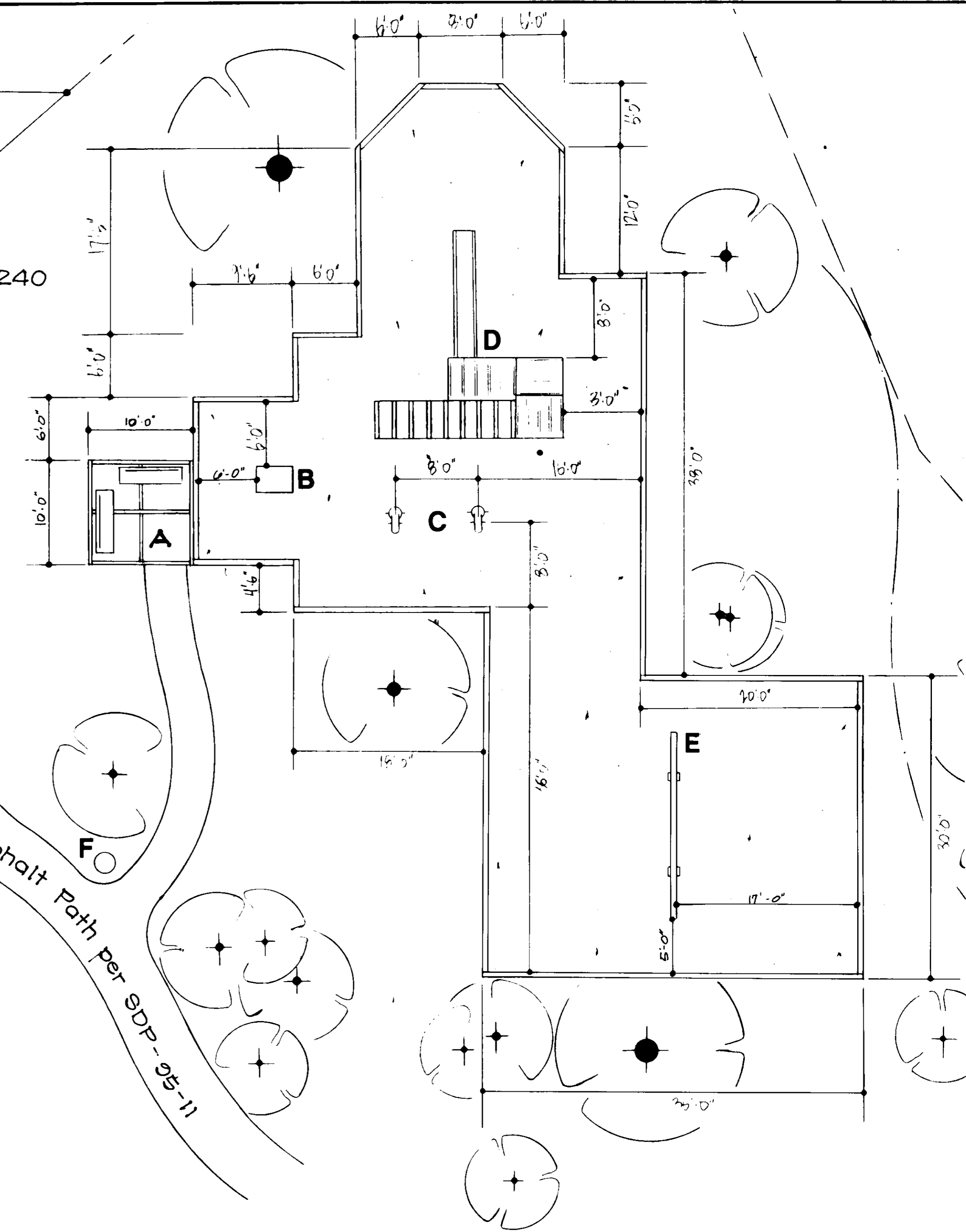
CLARK • FINEFROCK & SACKETT, INC. ENGINEERS • PLANNERS • SURVEYORS 7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALTO. • (301) 621-8100 WASH.		
DESIGNED MJP DRAWN KJWM CHECKED WHT DATE 9-5-96	SITE DEVELOPMENT AND SEDIMENT & EROSION CONTROL PLAN TOT LOT 3, GARDEN WALK VILLAGE OF RIVER HILL SECTION 2 AREA 2 Pk. 2 OPEN SPACE LOT 238 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND FOR: THE COLUMBIA ASSOCIATION, INC. 10221 WINCOMB CIRCLE, SUITE 100 COLUMBIA, MARYLAND 21044-3410 PHONE: (410) 381-0383	SCALE As Shown DRAWING 4 of 7 JOB NO. 96-025 FILE NO. 96-025-X

SITE ANALYSIS

Zone	= NT Open Space
Open Space Lot	= Lot 240
Total Area	= 8.47 Ac.
Disturbed Area	= 9580 S.F.
Impervious Area	= 200 S.F.
Pervious Area	= 5320 S.F.
Area to be Vegetatively stabilized	= 2470 S.F.
Mulched Area	= 2850 S.F.
Total Cut	= 40 C.Y.
Total Fill	= 110 C.Y.
Total Spoil/borrow	= 70 C.Y. borrow
Area Within Stream Buffer	= 75 S.F.



Property Line
O.S. LOT 127
O.S. LOT 240



- EQUIPMENT**
- A - Concrete pad w/2 benches**
 - B - Crawl tube**
 - C - 2 Spring animals**
 - D - Fort R-3 w/
captain's wheel
firepole**
 - E - 4 Seat double T-swing**
 - F - Trash container**

APPROVED
PLANNING BOARD
DATE: 16 Nov. '96

PLAN
SCALE: 1" = 30'

Reviewed for HOWARD S.C.D.
and meets Technical Requirements
Clay Simon 3/17/97
Signature Date
U.S. Natural Resources Conservation Service

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all 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 or their authorized agents, as are deemed necessary."

D. J. ... 3/17/97
NAME DATE

D. J. ... 9-5-96
NAME DATE

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Sediment and Erosion 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.

G. Nelson Clark 9/6/96
G. NELSON CLARK DATE



APPROVED: DEPARTMENT OF PLANNING AND ZONING

Clay Simon 3/19/97
Chief, Development Engineering Division Date

Clay Simon 3/24/97
Division of Land Development and Research Date

Clay Simon 4/2/97
Date

CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS

7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 • BALTO • (301) 621-8100 - WASH

SITE DEVELOPMENT AND EROSION CONTROL PLAN
TOT LOT 2, MELLOW WINE WAY

VILLAGE OF RIVER HILL
SECTION 2 AREA 2 PH. 1
OPEN SPACE LOT 240
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

DESIGNED: NJP
DRAWN: KJWM
CHECKED: WHT
DATE: 9-5-96

SCALE: As Shown
DRAWING: 3 of 7
JOB NO: 96-025
FILE NO: 96-025X

FOR THE COLUMBIA ASSOCIATION
10221 MINICOPIN CIRCLE, SUITE 100
COLUMBIA, MARYLAND 21044-3410
PHONE: (410)-381-0383

SEDIMENT AND EROSION CONTROL NOTES

- A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (313-1855).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1984 MARYLAND STANDARDS AND SPECS. FOR SOIL EROSION AND SEDIMENT CONTROL.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within:
 - 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1.
 - 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeters in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above, in accordance with the 1984 MARYLAND STANDARDS AND SPECS. FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings, and temporary seedings and mulching (see § 29-21 thru § 29-5). Temporary stabilization with mulch alone can only be done when recommended seeding rates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment control devices, before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- The total amount of silt fence = 125 L.F.

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 acceptable means before seeding, if not previously loosened.

SOIL AMENDMENTS: In lieu of soil test recommendations, use one of the following schedules:

- Preferred—Apply 2 tons per acre dolomitic limestone (92 lbs./100 sq.ft.) and 600 lbs per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At the time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs./1000 sq.ft.).
- Acceptable—Apply 2 tons per acre dolomitic limestone (92 lbs./1000 sq.ft.) and apply 1000 lbs. per acre 10-10-10 fertilizer (23 lbs./1000 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 80 lbs. per acre (1.4 lbs./1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (.05 lbs./1000 sq.ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre 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 unrattled small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq.ft.) for anchoring.

MAINTENANCE: Inspect all seeded areas and make needed repairs, replacements and reseeding.

TEMPORARY SEEDING NOTES

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 ryegrass (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 1 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 unrattled small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq.ft.) for anchoring.

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

21.0 STANDARD AND SPECIFICATIONS

FOR TOPSOIL

Definition

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

Purpose

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

Conditions Where Practice Applies

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

Construction and Material Specifications

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

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

I. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or a soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of clinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 and 1/2" in diameter.

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

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

IV. For sites having disturbed areas under 5 acres:

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

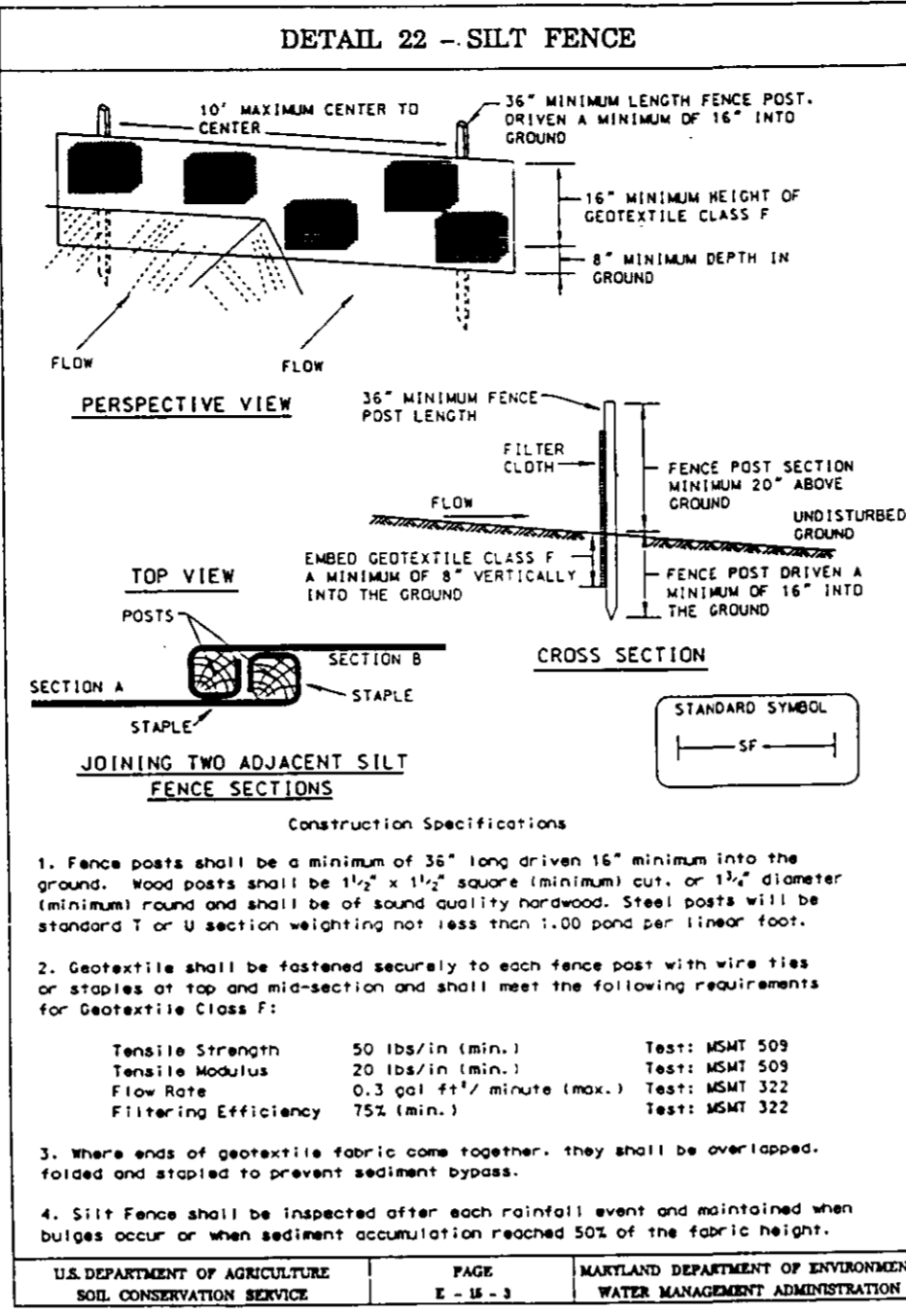
V. Topsoil Application

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

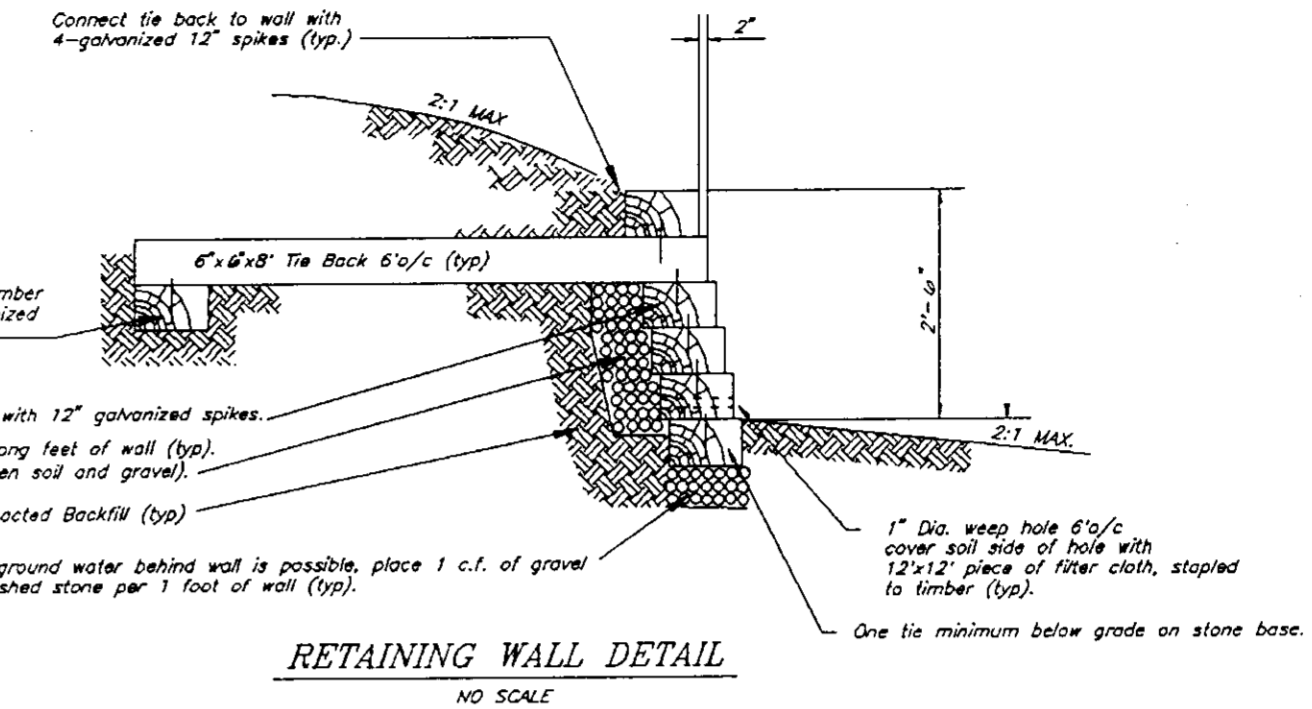
II. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, about 4" - 8" higher in elevation.

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

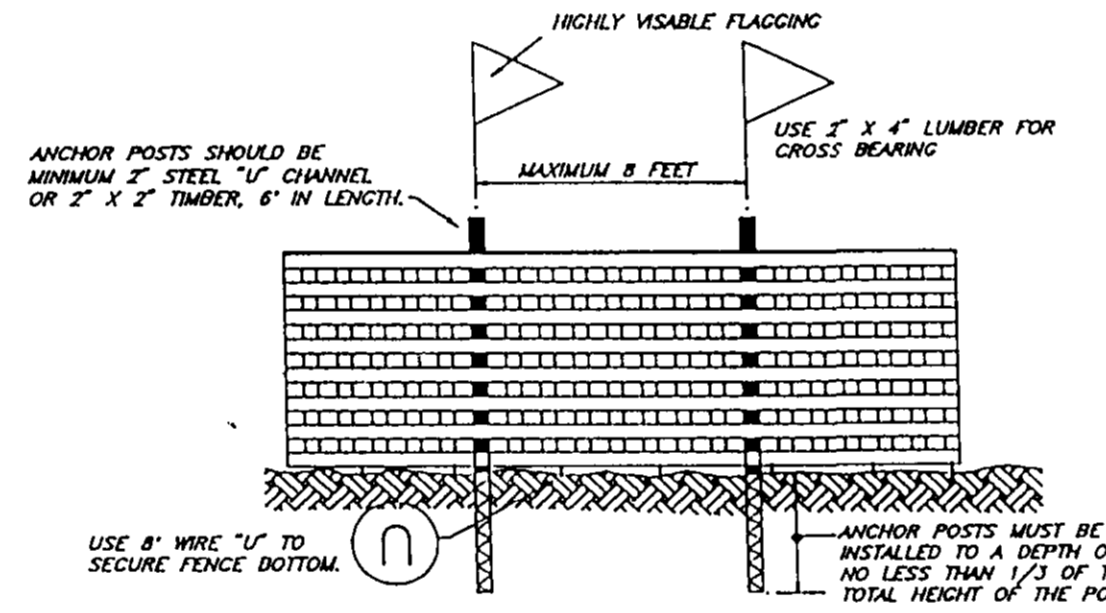
IV. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation.



- NOTES:
- Timbers shall be:
 - SCA treated landscaping timbers (40 lb./cf retention)
 - Hardware shall be hot dipped galvanized.
 - Washholes with or without gravel drain are minimum measures for groundwater, a drain system should be designed and utilized.
 - Design shall be verified for site specific soil condition by a Professional Geotechnical Engineer.

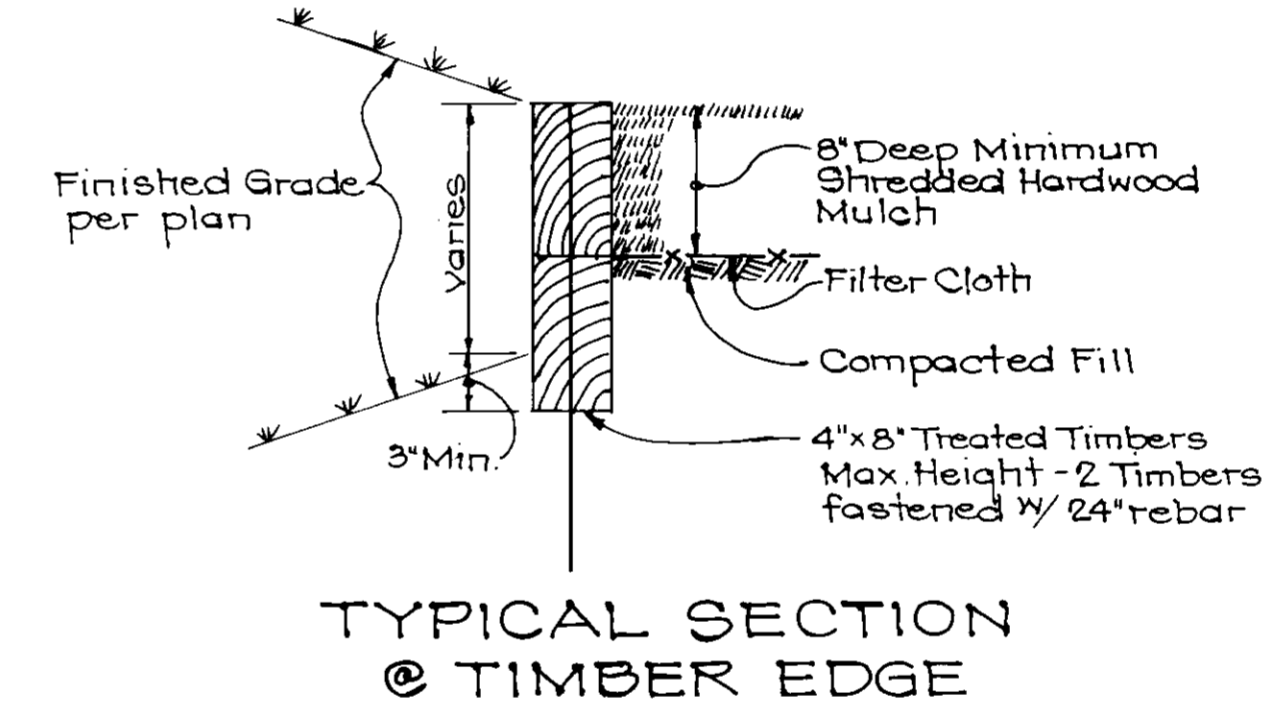


RETAINING WALL DETAIL
NO SCALE



- NOTES:
- Forest protection device only.
 - Retention area will be set as part of the review process.
 - Boundaries of retention area should be staked and flagged prior to installing device.
 - Root damage should be avoided.
 - Prevention slope may also be used.
 - Device should be maintained throughout construction.

BLAZE ORANGE PLASTIC MESH
TYPICAL TREE PROTECTION FENCE DETAIL
NO SCALE



TYPICAL SECTION @ TIMBER EDGE
NO SCALE

CONSTRUCTION SEQUENCE:

	NO. OF DAYS
1. Obtain grading permit.	7
2. Install tree protection fence.	7
3. Install sediment and erosion control devices and stabilize.	14
4. Construct structures & sidewalks.	14
5. Final grade and stabilize in accordance with S.D.s. and Specs.	14
6. Upon approval of the sediment control inspector, remove sediment and erosion control devices and stabilize.	7

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division: *[Signature]* 3/9/97 Date

Director: *[Signature]* 4/2/97 Date

6/10/96

Reviewed for HOWARD S.C.D. and meets Technical Requirements: *[Signature]* 3/7/97 Date

Signature: *[Signature]* Date

Natural Resources Conservation Service

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

[Signature] 3/17/97

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all 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 permanent on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary."

[Signature] 3-5-96 NAME DATE

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Sediment and Erosion 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.

[Signature] 3/6/96 G NELSON CLARK DATE



CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS

7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (410) 381-7500 - BALTO. • (301) 621-8100 - WASH.

DESIGNED KJWM	SEDIMENT CONTROL NOTES AND DETAILS	SCALE -
DRAWN KJWM	VILLAGE OF RIVER HILL SECTION 2/1, O.S. LOT 127 SECTION 2/2, PHASES 1&2, O.S. LOTS 283, 240 SECTION 2/3, PHASE 1 O.S. LOT 103	DRAWING 7 of 7
CHECKED WHT	FIFTH (5TH) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 96-025
DATE 3.5.96	FOR: THE COLUMBIA ASSOCIATION - INC. 10221 WINGOPIN CIRCLE, SUITE 100 COLUMBIA, MARYLAND 21644-3410	FILE NO. 96-025 X

(410) 381-0383