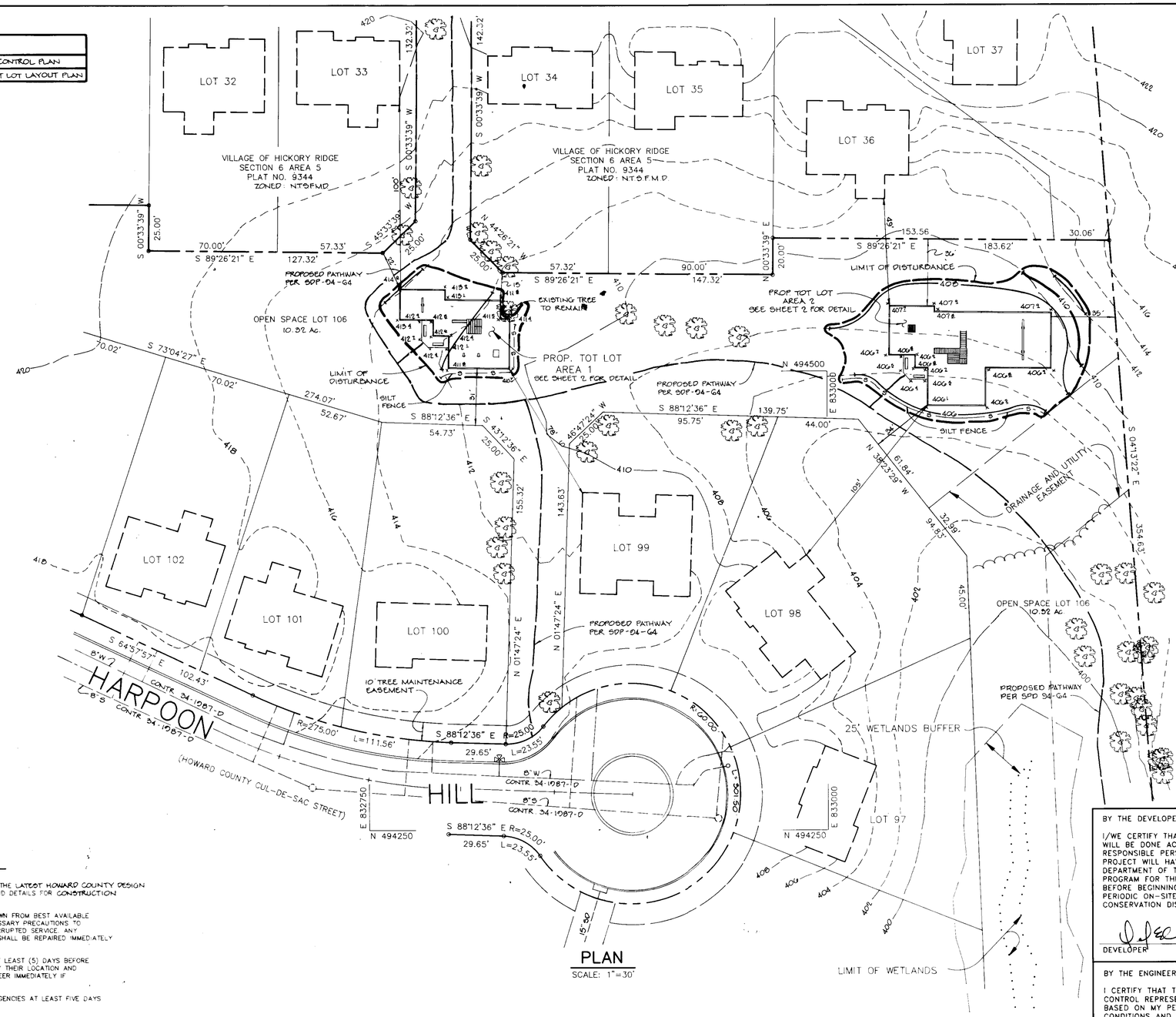
SHEET INDEX



PLAN
SCALE: 1"=30'

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- LIMIT OF DISTURBANCE
- EXISTING TREE
- SILT FENCE
- TREE PROTECTION FENCE

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOLUME IV, i.e., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION
2. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FROM BEST AVAILABLE INFORMATION. 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 EXPENCE.
3. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS TO VERIFY THEIR LOCATION AND ELEVATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF LOCATION OF UTILITIES IS OTHER THAN SHOWN.
4. CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS:

MISS UTILITY	1-800-257-7777
C&P TELEPHONE COMPANY	725-9976
HOWARD COUNTY BUREAU OF UTILITIES	313-4900
AT&T CABLE LOCATION DIVISION	393-3553
BALTIMORE GAS & ELECTRIC COMPANY	685-0123
STATE HIGHWAY ADMINISTRATION	531-5533
HOWARD COUNTY CONSTRUCTION / INSPECTION SURVEY DIVISION	313-1880

5. PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
6. TOPO TAKEN FROM FIELD RUN SURVEY DATED AUGUST, 1993 BY RIEMER MUEGGE AND ASSOCIATES, INC.
7. THE DEVELOPER IS RESPONSIBLE FOR THE AQUISITION OF ALL EASEMENTS, RIGHTS AND/OR RIGHTS-OF-WAY THAT MAY BE REQUIRED FOR THE SEDIMENT AND EROSION CONTROL PRACTICES, STORMWATER MANAGEMENT PRACTICES AND THE DISCHARGE OF STORMWATER ONTO OR ACROSS ADJACENT OR DOWNSTREAM PROPERTIES INCLUDED IN THIS PLAN. HE IS ALSO RESPONSIBLE FOR THE AQUISITION OF ALL EASEMENTS, RIGHTS AND/OR WORK ON ADJACENT PROPERTIES INCLUDED IN THIS PLAN
8. WETLANDS DELINATION PERFORMED BY RIEMER MUEGGE DATED AUGUST 1993.

SITE ANALYSIS

TOTAL AREA = 10.32 ACRES; 449,630 SQ. FT.
ZONED: NEW TOWN S.F.M.D.
PROPOSED USE OF STRUCTURES(S). - TOT LOT
OPEN SPACE (GREEN AREA) TO REMAIN ON SITE: 10.32 Ac.
AREA OF SUBMISSION 0.90 Ac.

ADDRESS CHART

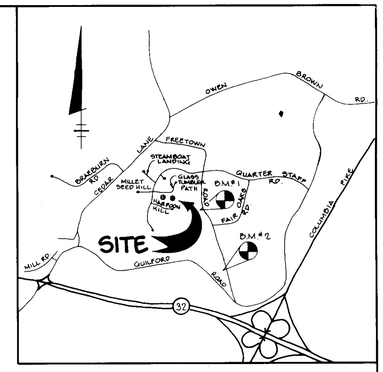
LOT NUMBER	STREET ADDRESS
106	10685 HARPOON HILL

SUBDIVISION NAME			SECT./AREA		PARCEL
VILLAGE OF HICKORY RIDGE			SEC. 6 AREA 6		LOT 106
PLAT #	BLOCK #	ZONING	TAX MAP NO.	ELECT. DIST.	CENSUS TRACT
9340	17, 18 & 23	NTSFMD	35	5th	6053.02
WATER CODE			SEWER CODE		
E-29			6580000		

17 March 1994

VICINITY MAP

SCALE: 1" = 2000'



BENCHMARKS

#1 HO CO MON 2430001	ELEV. 418.62
N 494415.124	
E 833603.031	
#2 HO CO MON #2440001	ELEV. 420.85
N 493006.206	
E 834257.523	

APPROVED : FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.

COUNTY HEALTH OFFICER — DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 6/17/94

CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH — DATE 6/17/94

APPROVED : FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

DIRECTOR — DATE 6/13/94

CHIEF, BUREAU OF ENGINEERING — DATE 6/13/94

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 INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER (DENNIS A. ELLIS) — DATE 6/9/94

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.

J. Parekh — 5.25.94
ENGINEER — DATE

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

U.S. SOIL CONSERVATION SERVICE — DATE 6/8/94

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 6/8/94

DATE	NO.	REVISION

OWNER / DEVELOPER

COLUMBIA ASSOCIATION
10221 WINCOPIN CIRCLE
COLUMBIA, MARYLAND 21044

PROJECT: **CLEMENS CROSSING WEST TOT LOTS**

AREA: TAX MAP 35
VILLAGE OF HICKORY RIDGE SEC 6 AREA 6 LOT 106
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: **SITE DEVELOPMENT AND GRADING AND SEDIMENT CONTROL PLAN**

RIEMER MUEGGE & ASSOCIATES, INC.
Planners • Engineers • Surveyors
8818 Centre Park Drive • Suite 200 • Columbia, Md 21045
410-997-8900 FAX : 410-997-9282

5.25.94
DATE

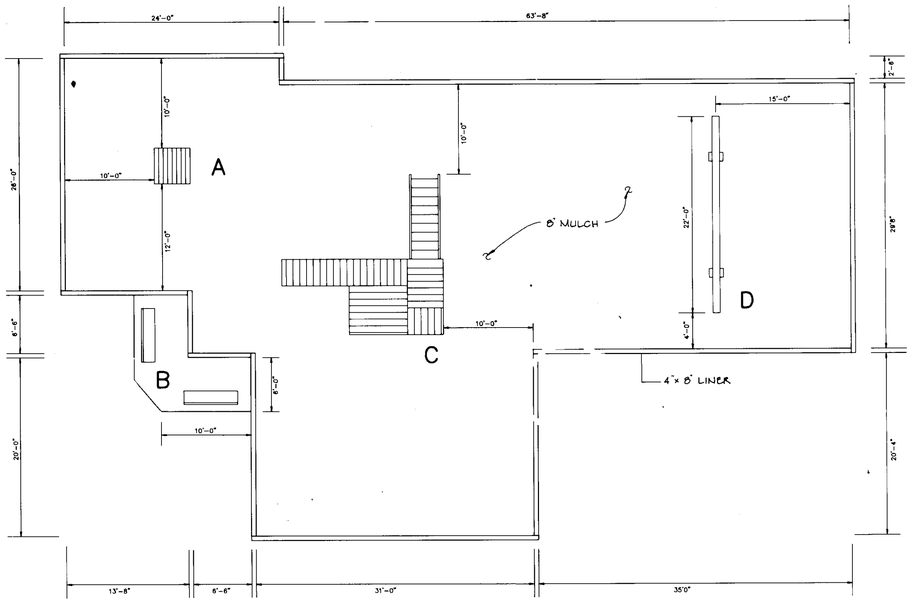
STATE OF MARYLAND — JAYKANT D. PAREKH — #19148 — PROFESSIONAL ENGINEER

J. Parekh

SDP-90-167, F-90-96 SDP-90-154, SDP-90-166	
DESIGNED BY : DBS	
DRAWN BY : DBS	
PROJECT NO : 93700	
DATE :	
SCALE : AS SHOWN	
DRAWING NO. 1 OF 2	

SDP-94-63

CLEMENS CROSSING WEST TOT LOT – AREA 2



PLAN
SCALE: 1/8"=1'

EQUIPMENT LIST AREA 2

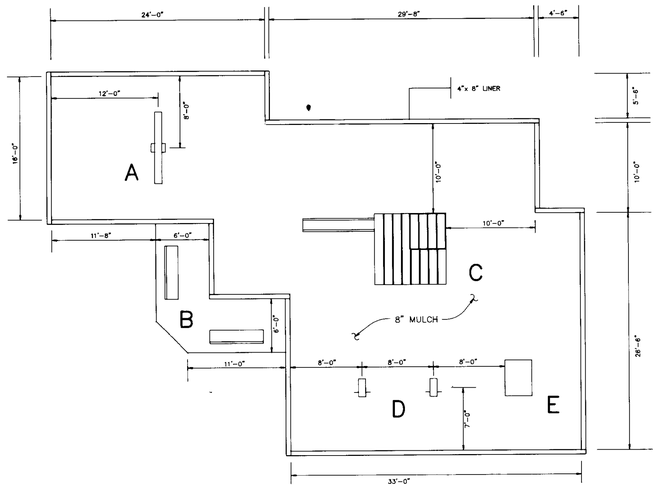
A SPRING PAD (4'x 4')

B CONCRETE PAD WITH (2) BENCHES (2'x 6')

C FORT R-3 WITH 12' SLIDE, HORIZONTAL LADDER, & FIREPOLE

D 5 – SEAT DOUBLE 'T' – SWING

CLEMENS CROSSING WEST TOT LOT – AREA 1



PLAN
SCALE: 1/8"=1'

EQUIPMENT LIST AREA 1

A 'T' SWING

B CONCRETE PAD WITH (2) BENCHES (2'x 6')

C FORT 101 WITH 8' SLIDE

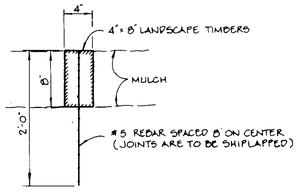
D (2) SPRING ANIMALS

E CRAWL THROUGH TUBE

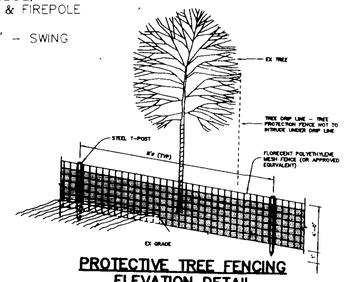
APPROVED
PLANNING AUTHORITY
17 March 1994
Director

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT
2. INSTALL SILT FENCE AND TREE PROTECTION FENCE (1 WEEK)
3. CLEAR AND GRUB AREA OF CONSTRUCTION AND GRADE AREA FOR TOT LOT (5 WEEKS)
4. INSTALL TOT LOT AND MAINTAIN POSITIVE DRAINAGE (4 WEEKS)
5. UPON APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SILT FENCE AND STABILIZE IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES. (1 WEEK)



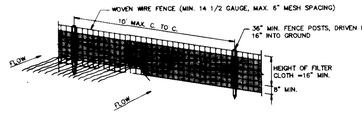
EDGING DETAIL
NOT TO SCALE



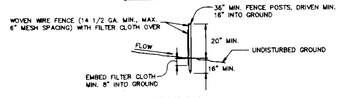
PROTECTIVE TREE FENCING ELEVATION DETAIL
NO SCALE

TREE PRESERVATION PROCEDURES

1. THE EDGE OF WOODS TO BE PROTECTED WILL BE MARKED IN THE FIELD PER THE APPROVED SITE DEVELOPMENT PLAN PRIOR TO THE START OF CONSTRUCTION ACTIVITY.
2. PROTECTIVE FENCING SHALL BE INSTALLED AT THE DRIP LINE OF THE EDGE OF ALL AREAS WITHIN PROTECTIVE FENCES ARE TO BE CONFINED OFF LIMITS FOR ANY CONSTRUCTION ACTIVITY.
3. PROTECTIVE FENCING WILL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR THE GENERAL CONTRACTOR WILL AFFIX SIGNS TO THE FENCING INDICATING THAT THESE AREAS ARE TREE PRESERVATION AREAS. THE GENERAL CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO PROTECT TREE ROOT SYSTEMS DURING THE CONSTRUCTION CYCLE TREE ROOT SYSTEMS SHALL BE PROTECTED FROM SMOTHERING, FLOODING, EXCESSIVE WETTING FROM DE-WATERING OPERATIONS, OFF-SITE RUN OFF, SPILLAGE, AND DRAINAGE OF SOLUTIONS CONTAINING MATERIALS HAZARDOUS TO TREE ROOTS.
4. REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION AREA SHALL BE KEPT TO A MINIMUM. THE GENERAL CONTRACTOR SHALL BE PROHIBITED FROM PARKING ANY CONSTRUCTION EQUIPMENT, OR FROM STORING ANY BUILDING SUPPLIES OR EARTH STOCKPILES WITHIN THE TREE PRESERVATION AREAS.
5. FOOT TRAFFIC, AS WELL AS VEHICULAR TRAFFIC, IN THE TREE PRESERVATION AREAS SHALL BE KEPT TO A MINIMUM. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE TREE PRESERVATION AREAS, WHETHER CAUSED BY THE CONTRACTOR, HIS AGENTS, EMPLOYEES, SUB-CONTRACTORS, OR LICENSEES.
6. CONSTRUCTION ACTIVITIES EXPRESSLY RESTRICTED WITHIN THE TREE PRESERVATION AREAS: PLACING BACKFILL IN PROTECTED AREAS, FELLING TREES INTO PROTECTED AREAS, USING CONSTRUCTION EQUIPMENT INTO OR THROUGH PROTECTED AREAS, BURNING, USING EQUIPMENT IN PROXIMITY TO PROTECTED AREAS, STACKING OR STORING SUPPLIES IN PROTECTED AREAS, CONDUCTING TRENCHING OPERATIONS IN PROTECTED AREAS, GRADING BEYOND THE LIMITS OF DISTURBANCE.
7. THE GENERAL CONTRACTOR SHALL PROVIDE A WASH OUT AREA FOR CONCRETE TRUCKS ON SITE, WHICH WILL NOT DRAIN TOWARDS A PROTECTED AREA.
8. ALL TREES WHICH ARE NOT TO BE REMOVED WITHIN FIFTY FEET OF ANY TREE PRESERVATION AREAS ARE TO BE PROTECTED IN A MANNER THAT WILL NOT DAMAGE THOSE TREES THAT ARE DESIGNATED FOR PRESERVATION. IT IS HIGHLY RECOMMENDED THAT TREE STUMPS WITHIN THIS FIFTY FOOT AREA BE GROUND OUT WITH A STUMP GRINDING MACHINE TO MINIMIZE DAMAGE.



PERSPECTIVE VIEW



SECTION

CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES AND STAPLES.
2. FILTER CLOTH TO BE FASTENED 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 (6") AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULDES" DEVELOP IN THE SILT FENCE.

POSTS : STEEL, EITHER T OR U TYPE OR 2" HARDWOOD.
FENCE : WOVEN WIRE, 14 GA.6" MAX. MESH OPENING.
FILTER CLOTH : FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL.
PREFABRICATED UNIT : GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.

SILT FENCE DETAIL
NO SCALE

PERMANENT SEEDING NOTES

loosened.

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

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 600 lbs. per acre 10–10–10 fertilizer (14 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs. per acre 30–0–0 ureaform fertilizer (9 lbs. per 1000 sq.ft.).

2) Acceptable – Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 1000 lbs. per acre 10–10–10 fertilizer (23 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

options :

Seeding : For the period March 1 thru April 30 and from August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs. per 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 (0.05 lbs. per 1000 sq.ft.) of weeping lovegrass. During the period October 16 thru February 28, protect site by one of the following

1) 2 tons per acre of well–anchored mulch straw and seed as soon as possible in the spring.

2) Use sod.

3) 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 90 lbs. per 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. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.

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

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed 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. 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 rye (3.2 lbs. per 1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.07 lbs. per 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. per 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. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 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.

SEDIMENT CONTROL NOTES

1. A minimum of 24 hours notice must be given to the Howard County Office of inspections and Permits prior to the start of any construction (313-4900).
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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL.
3. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within : a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to 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 12, 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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL for permanent seedings (Sec. 51), sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
6. 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.
7. Site Analysis :

Total Area of Site : OPEN SPACE LOT 106	10.32	acres
Area Disturbed	0.20	acres
Area to be roofed or paved	0.00	acres
Area to be vegetatively stabilized	0.20	acres
Total Cut	140	cu.yds.
Total Fill	55	cu.yds.

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 Department of Public Works Sediment Control Inspector.
10. Site grading will begin only after all perimeter sediment control measures have been installed and are in a functioning condition.
11. Sediment will be removed from traps when its depth reaches clean out elevation shown on the plans.
12. 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. The contractor shall familiarize himself with site conditions which may affect the work.

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 INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER — 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.

J. Parekh — 5.25.94
ENGINEER — DATE

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

Patricia Englehart — 6/6/94
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 — 6/8/94
HOWARD SOIL CONSERVATION DISTRICT — DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Director — DATE 6/17/94

Gene Symonds
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH — DATE
JAT

APPROVED : FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

DIRECTOR — DATE 6/10/94

Elizabeth Anderson Cohen act — 6/13/94
CHIEF, BUREAU OF ENGINEERING — DATE

DATE	NO.	REVISION

OWNER / DEVELOPER

COLUMBIA ASSOCIATION
10221 WINCOPIN CIRCLE
COLUMBIA, MARYLAND 21044

PROJECT
CLEMENS CROSSING WEST TOT LOTS

AREA
TAX MAP 55
VILLAGE OF HICKORY RIDGE SEC.6 AREA 6, LOT 106
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
GRADING AND SEDIMENT CONTROL NOTES & TOT LOT LAYOUT PLAN

RIEMER MUEGGE & ASSOCIATES, INC.
Planners • Engineers • Surveyors
8818 Centre Park Drive • Suite 200 • Columbia, Md 21045
410-997-8900 FAX : 410-997-9282

5.25.94
DATE

STATE OF MARYLAND
JAYKANT D. PAREKH
No. 19148
PROFESSIONAL ENGINEER

J. Parekh
JAYKANT D. PAREKH #19148

	SDP-90-167, F-90-96, SDP-90-154, SDP-90-166
DESIGNED BY :	DBS
DRAWN BY :	DBS
PROJECT NO :	93700
DATE :	
SCALE :	AS SHOWN
DRAWING NO.	2 OF 2

SDP-94-63