

project	92007.04	date	APR. 1993
illustration	YSL	engineering	TJP
scale	1" = 400'	approval	

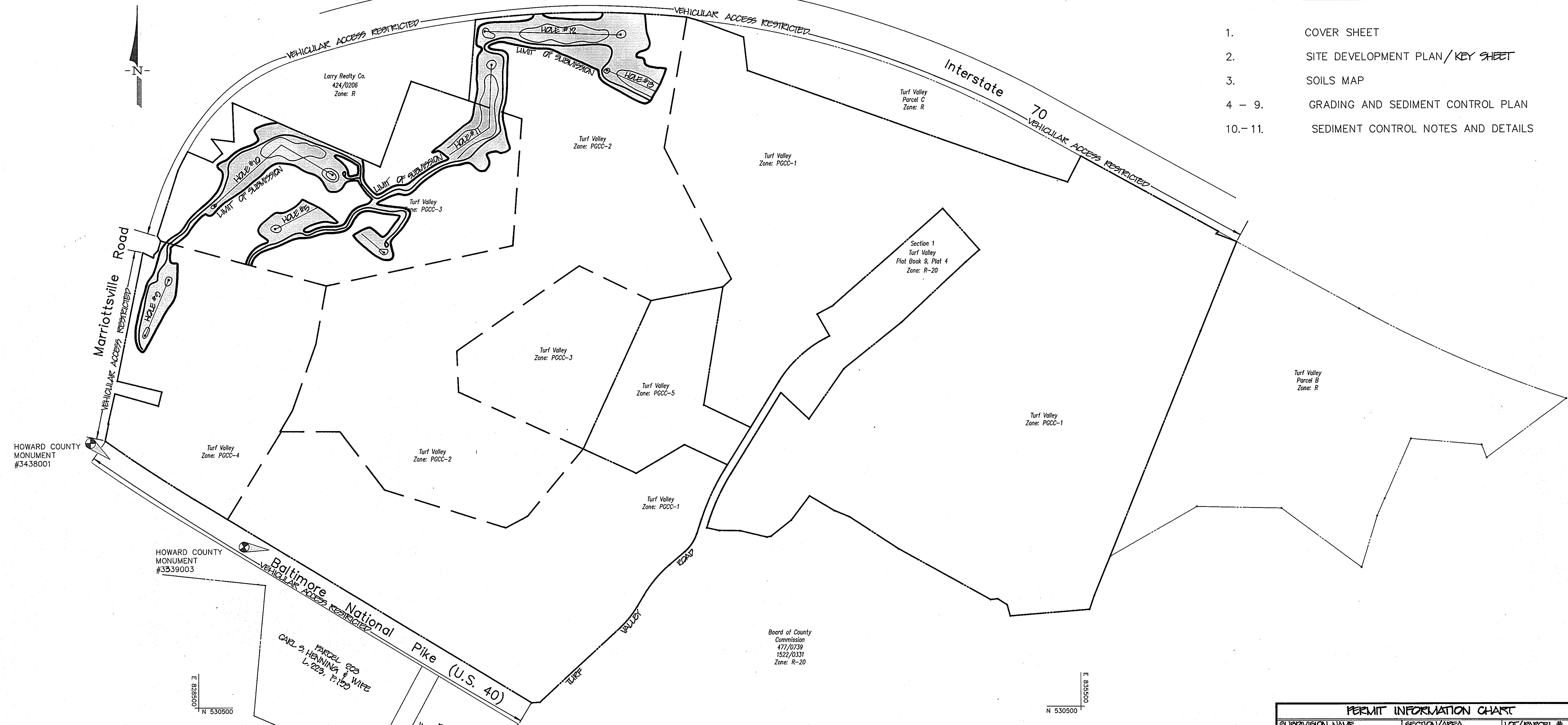
no.	1	description	ADDED PER PERMIT REFERENCE PER DTZ	date	7/27/93
no.	2	description	REVISED PER PERM & HEAD COMMENTS	date	8/10/93
no.	3	description	REVISED PER PERM & HEAD COMMENTS	date	8/10/93
no.	4	description	REVISED PER PERM & HEAD COMMENTS	date	8/10/93

PROPOSED ADDITION
TURF VALLEY WEST GOLF COURSE
 ELECTION DISTRICT No. 2 & 3
 HOWARD COUNTY, MARYLAND
 SDP NO. 2 - COVER SHEET

MILDENBERG, MOCHI & ASSOCIATES, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 3300 North Ridge Road, Suite 235, Ellicott City, Maryland 21043-3350
 (410) 461-0078 D.C. Metro. (301) 621-5768 Fax: (410) 750-6340

INDEX OF SHEETS

1. COVER SHEET
2. SITE DEVELOPMENT PLAN/KEY SHEET
3. SOILS MAP
- 4 - 9. GRADING AND SEDIMENT CONTROL PLAN
- 10.- 11. SEDIMENT CONTROL NOTES AND DETAILS



VICINITY MAP

SCALE: 1" = 400'



THIS PLAN IS SUBJECT TO THE TERMS & CONDITIONS SET FORTH IN THE DEPARTMENT OF NATURAL RESOURCES PERMIT NO. 03-NF-0010 FOR WORK WITHIN A NON-TIDAL WETLAND WETLAND BUFFER AND 100 YEAR FLOODPLAIN, WHICH IS DATED AUGUST 10, 1993 AND EXPIRES ON AUGUST 10, 1995.

SUBDIVISION NAME	TURF VALLEY WEST GOLF COURSE	SECTION/AREA	N/A	LOT/PARCEL #	50 & P.10B
PLAT # OR L/F	220/225	BLOCK #	10, 11 & 16	TAX / ZONE MAP	PGCC
WATER CODE	N/A	ELEC. DIST.	2 & 3	CENSUS TRACT	6022 & 6030
SEWER CODE	N/A				

LOT No.	1	STREET ADDRESS	2700 TURF VALLEY DRIVE
SUBDIVISION NAME			
TURF VALLEY WEST GOLF COURSE			
PROPOSED ADDITION			
SECT./AREA	LOT/PARCEL	PREVIOUS FILE : SDP-92-116, S-86-13, FDP PGCC-1, FDP PGCC-2 & Part of PGCC-3, FDP Part of PGCC-3 & PGCC-4	
N/A	50 & P/O B		
PLAT No.	BLOCK No.	ZONE	TAX MAP
920/285	10, 11, 16	PGCC	16
1263/724			
ELEC. DIST.	CENSUS		
3	6022 & 6030		
WATER CODE	SEWER CODE		
N/A	N/A		

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Jean E. Smith 8/12/93
 DIRECTOR DATE
Richard Blosser 8/10/93
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS
James P. Linn 8/10/93
 DIRECTOR DATE
Richard Spon 8/10/93
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT NO WATER OR SANITARY FACILITIES REQUIRED
James M. Boyle 8-11-93
 COUNTY HEALTH OFFICER DATE

APPROVED: REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
John M. Hatten 8/4/93
 S. SOIL CONSERVATION SERVICE DATE

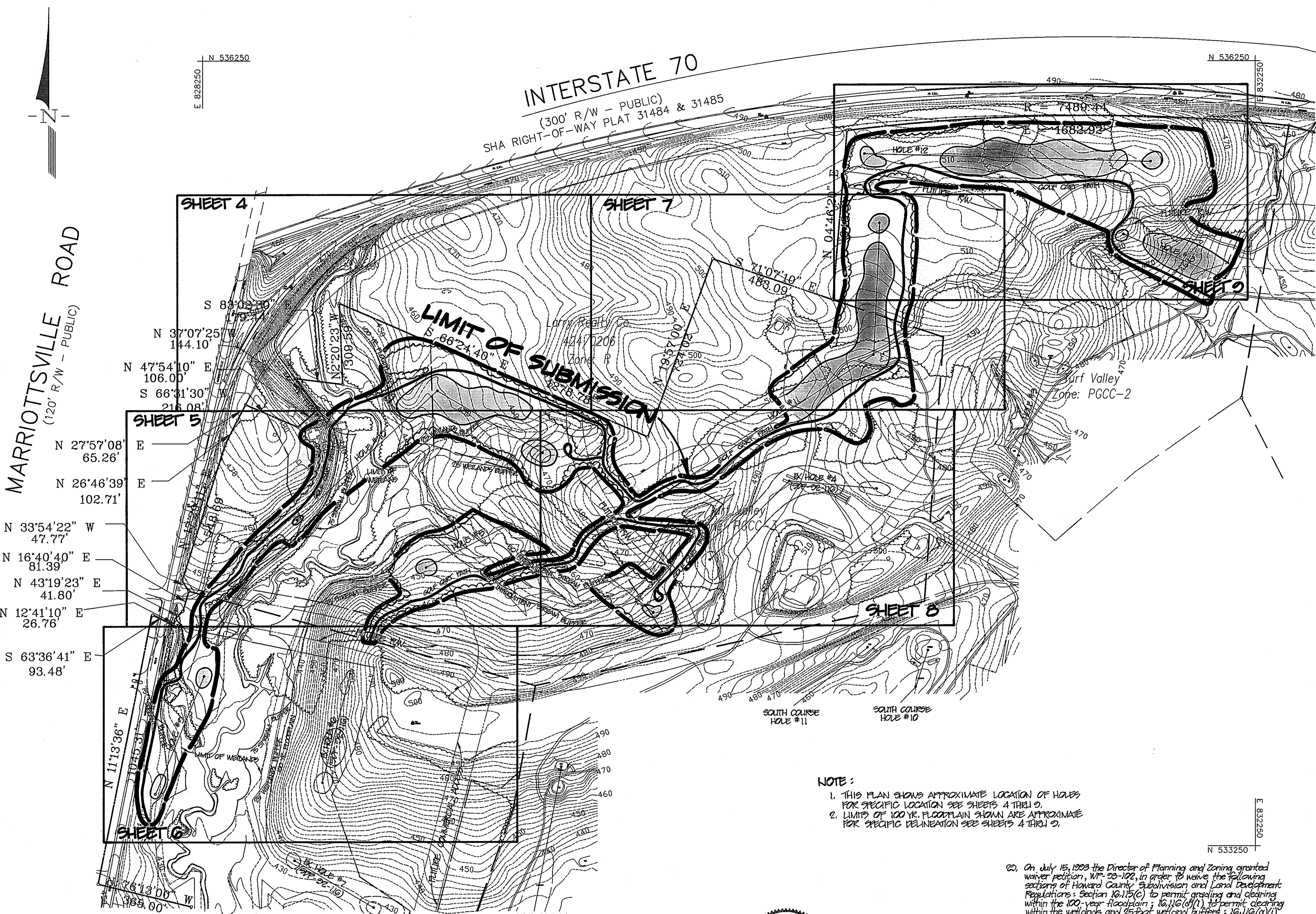
APPROVED: THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
John R. Plinton 8/4/93
 HOWARD SOIL CONSERVATION DISTRICT DATE

PLAN APPROVAL STAMP
APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 DATE **7-22-93**

DEVELOPER'S CERTIFICATE
 I/We certify that all development and construction will be done in accordance with this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction of this 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 onsite inspection by the Howard County Soil Conservation District or their authorized agents, as are deemed necessary.
Dus/Angione 8/30/93
 Signature of Developer Date

ENGINEER'S CERTIFICATE
 I hereby 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 County Soil Conservation District.
Robt. Mochi 8/30/93
 Robert M. Mochi, P.E. Date

OWNER
 MANGIONE ENTERPRISES OF TURF VALLEY
 1205 YORK ROAD - PENTHOUSE
 LUTHERVILLE, MARYLAND 21093



GENERAL NOTES

- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
- Total area of PGCC-1, PGCC-2, PGCC-3 & PGCC-4 = 29,181,279.60 sq. ft. = 669.91Ac.
- Total area of Limit of Submission = Limit of Disturbance = 20,34Ac.
- Percentage of Golf/Open Space within Limits of Submission = 100%
- Total Disturbed Area = 20,34Ac.
- Existing Zoning: PGCC, Planning Board Case No. 181
- FDP Reference: FDP PGCC-1, FDP PGCC-2 & Part of PGCC-3, FDP Part of PGCC-3 & PGCC-4
- Parking has been provided under SDP-87-30
- The contractor shall notify the Department of Public Works/Bureau of Construction Inspection at (410) 313-1222 at least five (5) working days prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.
- Floodplain delineation taken from Little Patuxent River Floodplain Study - September 1987, prepared by Bernard Johnson, Inc.
- Water and sewer will not be utilized for this golf course.
- This plan is subject to FDP PGCC-1, FDP PGCC-2 & Part of PGCC-3, Part of PGCC-3 & PGCC-4 and S-86-13.
- For details of grading, see grading and sediment control plan.
- Existing trees around the fairways, tees and greens will remain.
- No structures are proposed for this site development plan.
- Wetlands delineation taken from study performed by Exploration Research, Inc. dated September, 1988 and approved by Howard County & updated by Mildenberg, Machi & Associates, Inc., September, 1992.
- This project is subject to the "Traffic Impact Analysis for Turf Valley Country Club" prepared by the Traffic Group, Inc. - dated March 31, 1988, Approved April 23, 1988.
- Planning Board Case No: 181 Approval Date: 1-22-86 & 8-30-89
- Previous file nos: SDP-92-116, S-86-13, FDP PGCC-1, FDP PGCC-2 & Part of PGCC-3, FDP Part of PGCC-3 & PGCC-4
- For bearing and distances of development pods see FDP, Turf Valley, Part of PGCC-3 and PGCC-4.
- The Water Quality Buffer is provided as measure of water quality as required for stormwater management. This undisturbed ground is provided for golf course development only. Future development within this buffer may occur provided that water quality measure are provided for the disturbed area.
- Howard County Benchmarks:
Station #3222003 N 531652.150, E 822105.402, ELEV. = 470.521
Station #3430001 N 532502.140, E 822774.294, ELEV. = 464.550
- This plan is divided into two phases, phase 2 is outlined thickly. Phase 2 includes all work requiring permits from the Maryland Department of Natural Resources & waivers from Howard County. Phase 2 construction shall not begin until all permits & waivers have been granted.
- Stormwater Management for this project has been provided by means of the Water Quality Buffer (see note 22 and the "Integrated Pest Management Plan for Turf Valley Hotel and Country Club" (IPM)). The Water Quality Buffer is provided in addition to the required wetlands buffer and provides additional buffer for the wetlands areas. A copy of the IPM is on record at the Howard County Department of Public Works.
- Topographical information for this project was provided by Wings Aerial Mapping Company, and was taken from aerial photography taken in April 1992 and delineated at two (2) foot contour intervals.
- Area of disturbance:
Forest = 706,225 sq. ft. = 16.07Ac.
Conversion - Restricted to Emergent Wetlands = 40,407 sq. ft.
Floodplain (100) = 2,000 cu. yds.
Wetlands Buffer = 87,100 sq. ft.
Stream bank Buffer = 155,600 sq. ft.
Removal of shrubs/trees in emergent wetlands = 45,000 sq. ft.
* Trees refer to dead trees and saplings to be removed from emergent wetland areas.
- For bearings and distances of abatement pods shown on this plan see FDP PGCC-2 & part of PGCC-3 Subdistricts and see FDP part of PGCC-3 & PGCC-4 on record at Howard County.

NOTE:
1. THIS PLAN SHOWS APPROXIMATE LOCATION OF HOLES FOR SPECIFIC LOCATION SEE SHEETS 4 THRU 8.
2. LIMITS OF 100 YR. FLOODPLAIN SHOWN ARE APPROXIMATE FOR SPECIFIC DELINEATION SEE SHEETS 4 THRU 8.

On July 15, 1993 the Director of Planning and Zoning granted waiver petition, WF-93-102, in order to waive the following sections of Howard County Subdivision and Land Development Regulations: Section 10-115(a) to permit grading and clearing within the 100-year floodplain; 16.116(a)(1), to permit clearing within the wetlands and 65-foot wetland buffers; 16.116(a)(1) and (1) to permit clearing within the 50-foot and 75-foot streambank buffers and 16.116(b)(1) to permit clearing and grading on areas of 25% or greater steep slopes.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
James J. Smith 8/12/93
 DIRECTOR
Richard Blood 8/12/93
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS
James J. Smith 8/16/93
 DIRECTOR
Richard Blood 8/10/93
 CHIEF, BUREAU OF ENGINEERING

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT NO WATER OR SANITARY FACILITIES REQUIRED
John R. Robertson 8-11-93
 COUNTY HEALTH OFFICER

APPROVED: REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
James M. Helm 8/4/93
 S. SOIL CONSERVATION SERVICE

APPROVED: THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
John R. Robertson 8/4/93
 HOWARD SOIL CONSERVATION DISTRICT

PLAN APPROVAL STAMP
APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 DATE **7-22-93**

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Louis Mangione 4/30/93
 Signature of Developer Date

ENGINEER'S CERTIFICATE
 I hereby 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 County Soil Conservation District.
Robert M. Mochi 4-30-93
 Robert M. Mochi, P.E. Date

OWNER
 MANGIONE ENTERPRISES OF TURF VALLEY
 1205 YORK ROAD - PENTHOUSE
 LUTHERVILLE, MARYLAND 21093

SUBDIVISION NAME					
TURF VALLEY WEST GOLF COURSE PROPOSED ADDITION					
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N/A	50 & P/O 8	PLAT No.	BLOCK No.	ZONE	TAX MAP
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WATER CODE			SEWER CODE		
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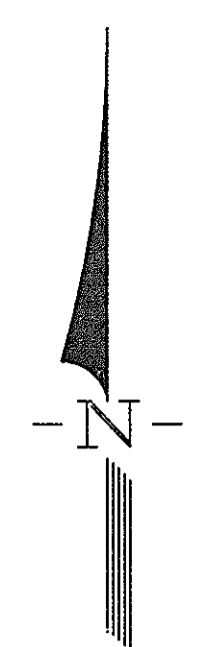
KEY SHEET
PROPOSED ADDITION
TURF VALLEY WEST GOLF COURSE
 ELECTION DISTRICT No. 2 & 3
 HOWARD COUNTY, MARYLAND
SITE DEVELOPMENT PLAN NO. 2

date APR. 1993
 project 92007.04
 illustration YSI
 scale 1" = 600'
 approval RMM

REVISIONS:
 1. 8/10/93
 2. 8/10/93
 3. 8/10/93
 4. 8/10/93
 5. 8/10/93
 description: REVISIONS TO PLAN NO. 1
 COMMENTS: REVISIONS TO PLAN NO. 1
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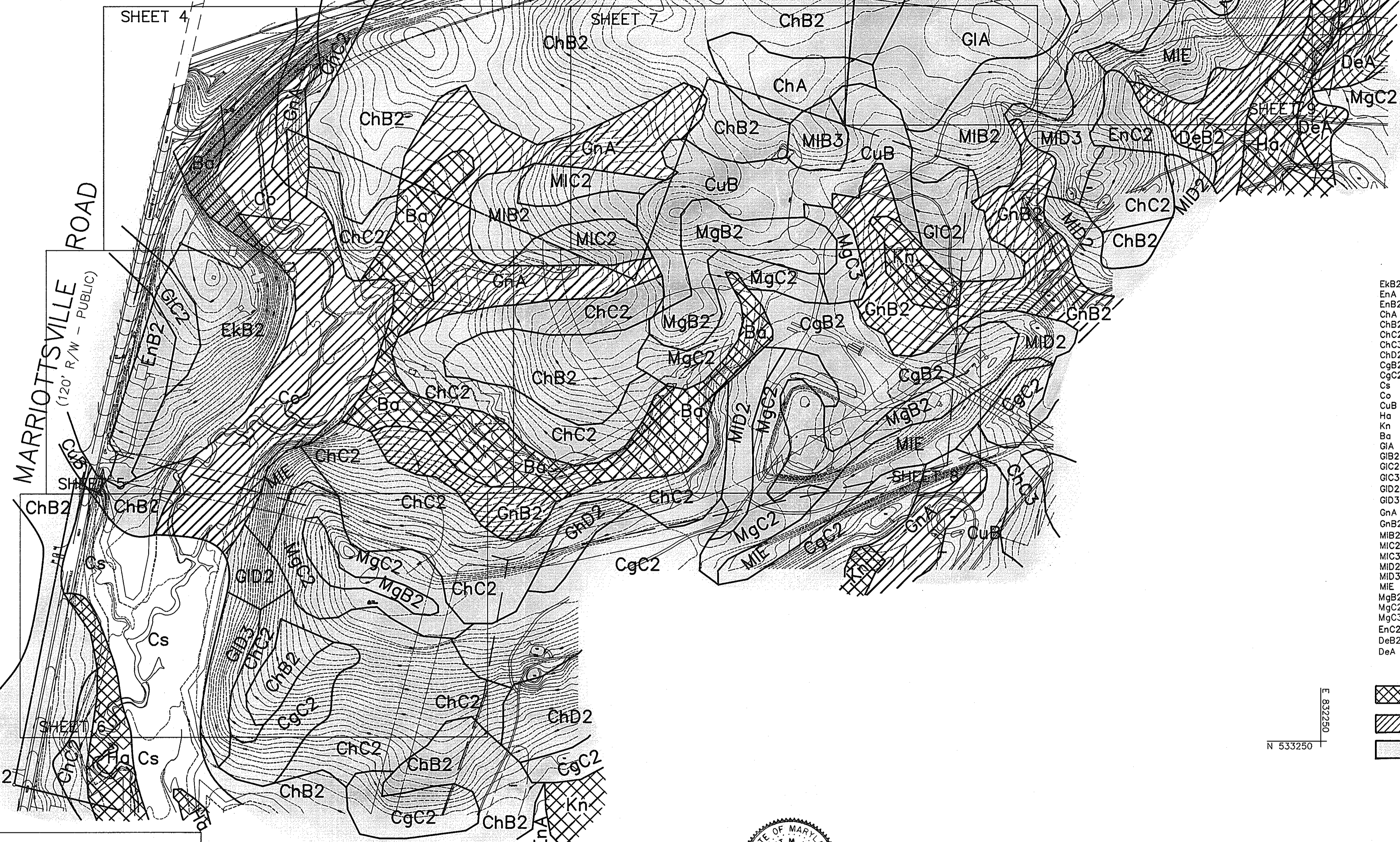
2 OF 11
 SDP-93-106



E 828250 N 536250

N 536250 E 832250

INTERSTATE 70
(300' R/W - PUBLIC)
SHA RIGHT-OF-WAY PLAT 31484 & 31485



SOILS

- EkB2 - ELIOAK SILT LOAM
- EnA - ELSINBORO LOAM
- EnB2 - ELSINBORO LOAM
- ChA - CHESTER SILT LOAM
- ChB2 - CHESTER SILT LOAM
- ChC2 - CHESTER SILT LOAM
- ChC3 - CHESTER SILT LOAM
- ChD2 - CHESTER SILT LOAM
- CgB2 - CHESTER GRAVELLY SILT LOAM
- CgC2 - CHESTER GRAVELLY SILT LOAM
- Cs - COMUS SILT LOAM
- Co - CODORUS SILT LOAM
- CuB - COMUS SILT LOAM
- Ha - HATBORO SILT LOAM
- Kn - KINKORA SILT LOAM
- Ba - BAILE SILT LOAM
- GIA - GLENELG SILT LOAM
- GIB2 - GLENELG SILT LOAM
- GIC2 - GLENELG SILT LOAM
- GIC3 - GLENELG SILT LOAM
- GID2 - GLENELG SILT LOAM
- GID3 - GLENELG SILT LOAM
- GnA - GLENMUE SILT LOAM
- GnB2 - GLENMUE SILT LOAM
- MIB2 - MANOR LOAM
- MIC2 - MANOR LOAM
- MIC3 - MANOR LOAM
- MID2 - MANOR LOAM
- MID3 - MANOR LOAM
- MIE - MANOR LOAM
- MgB2 - MANOR GRAVELLY LOAM
- MgC2 - MANOR GRAVELLY LOAM
- MgC3 - MANOR GRAVELLY LOAM
- EnC2 - ELSINBORO LOAM
- DeB2 - DELANCO SILT LOAM
- DeA - DELANCO SILT LOAM

- HYDRIC SOILS
- SOILS WITH POSSIBLE HYDRIC INCLUSIONS
- SOILS WITH SLOPE <15% SIGNIFICANT EROSION POTENTIAL

N 533250 E 832250

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
[Signature] 8/12/93
 DIRECTOR DATE
[Signature] 8/12/93
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS
[Signature] 8/10/93
 DIRECTOR DATE
[Signature] 8/10/93
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT NO WATER OR SANITARY FACILITIES REQUIRED
[Signature] 8-11-93
 COUNTY HEALTH OFFICER DATE

APPROVED: REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
[Signature] 8/4/93
 S. SOIL CONSERVATION SERVICE DATE

APPROVED: THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
[Signature] 8/4/93
 HOWARD SOIL CONSERVATION DISTRICT DATE

PLAN APPROVAL STAMP

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 7-22-93



DEVELOPER'S CERTIFICATE
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[Signature] 8/30/93
 Signature of Developer Date

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[Signature] 4/30/93
 Robert W. Mochi, P.E. Date

OWNER
 MANGIONE ENTERPRISES OF TURF VALLEY
 1205 YORK ROAD - PENTHOUSE
 LUTHERVILLE, MARYLAND 21093

SUBDIVISION NAME TURF VALLEY WEST GOLF COURSE PROPOSED ADDITION					
SECT./AREA N/A	LOT/PARCEL 50 & P/O 8	PREVIOUS FILE : SDP-92-116, S-86-13, FDP PGCC-1, FDP PGCC-2 & Part of PGCC-3 FDP Part of PGCC-3 & PGCC-4			
PLAT No. 920/285 1263/724	BLOCK No. 10,11,16	ZONE PGCC	TAX MAP 16	ELEC. DIST. 3	CENSUS 6022 &6030
WATER CODE N/A		SEWER CODE N/A			

project	date	approval
92007.04	APR. 1993	TJP
illustration	YSI	YSI
scale	1" = 200'	RAM

no.	description	date
1	REVISION PER DWG & H&O COMMENTS	8/10/93
2	FOR SUBMITTAL TO H&O CD, PLZ	8/10/93

PROPOSED ADDITION
TURF VALLEY WEST GOLF COURSE
 ELECTION DISTRICT No. 2 & 3
 HOWARD COUNTY, MARYLAND
 SDP NO. 2 - SOIL MAP

MILDENBERG MOCHI & ASSOCIATES, INC.
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3 OF 11

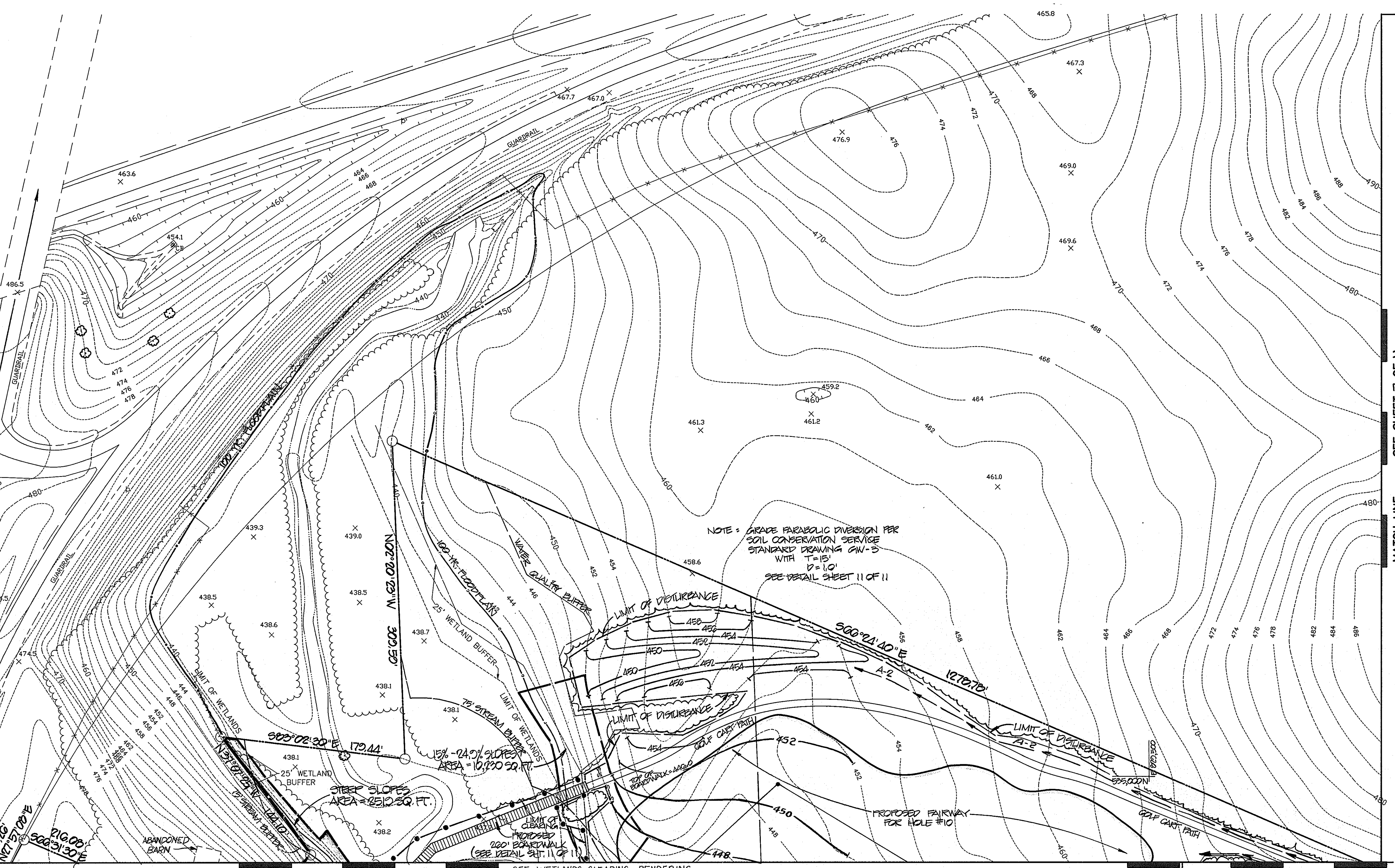
SDP-93-106



9202/2505 N 595.500

MARRIOTTSVILLE ROAD
(120' R/W - PUBLIC)

VEHICULAR ACCESS
RISK RESTRICTED



MATCH LINE --- SEE SHEET 7 OF 11

MATCH LINE --- SEE SHEET 5 OF 11

SEE WETLANDS CLEARING RENDERING (SHEET 10 of 11)

MATCH LINE --- SEE SHEET 5 OF 11

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Jessie R. Smith 8/12/93
 DIRECTOR DATE
Richard Blood 8/12/93
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

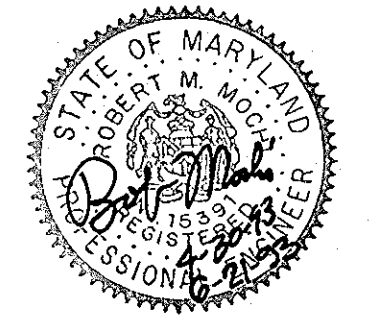
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS
James J. Lee 8/10/93
 DIRECTOR DATE
Richard S. Sporn 8/10/93
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT NO WATER OR SANITARY FACILITIES REQUIRED
John R. Bodner 8-11-93
 COUNTY HEALTH OFFICER DATE

APPROVED: REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
James M. John 8/4/93
 U.S. SOIL CONSERVATION SERVICE DATE

APPROVED: THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
John R. Bodner 8/4/93
 HOWARD COUNTY SOIL CONSERVATION DISTRICT DATE

PLAN APPROVAL STAMP
APPROVED
 PLANNING BOARD OF HOWARD COUNTY
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ouis J. Langone 4/30/93
 Signature of Developer Date

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Robert M. Mochi 4/30/93
 Robert M. Mochi, P.E. Date

OWNER
 MANGIONE ENTERPRISES OF TURF VALLEY
 1205 YORK ROAD - PENTHOUSE
 LUTHERVILLE, MARYLAND 21093

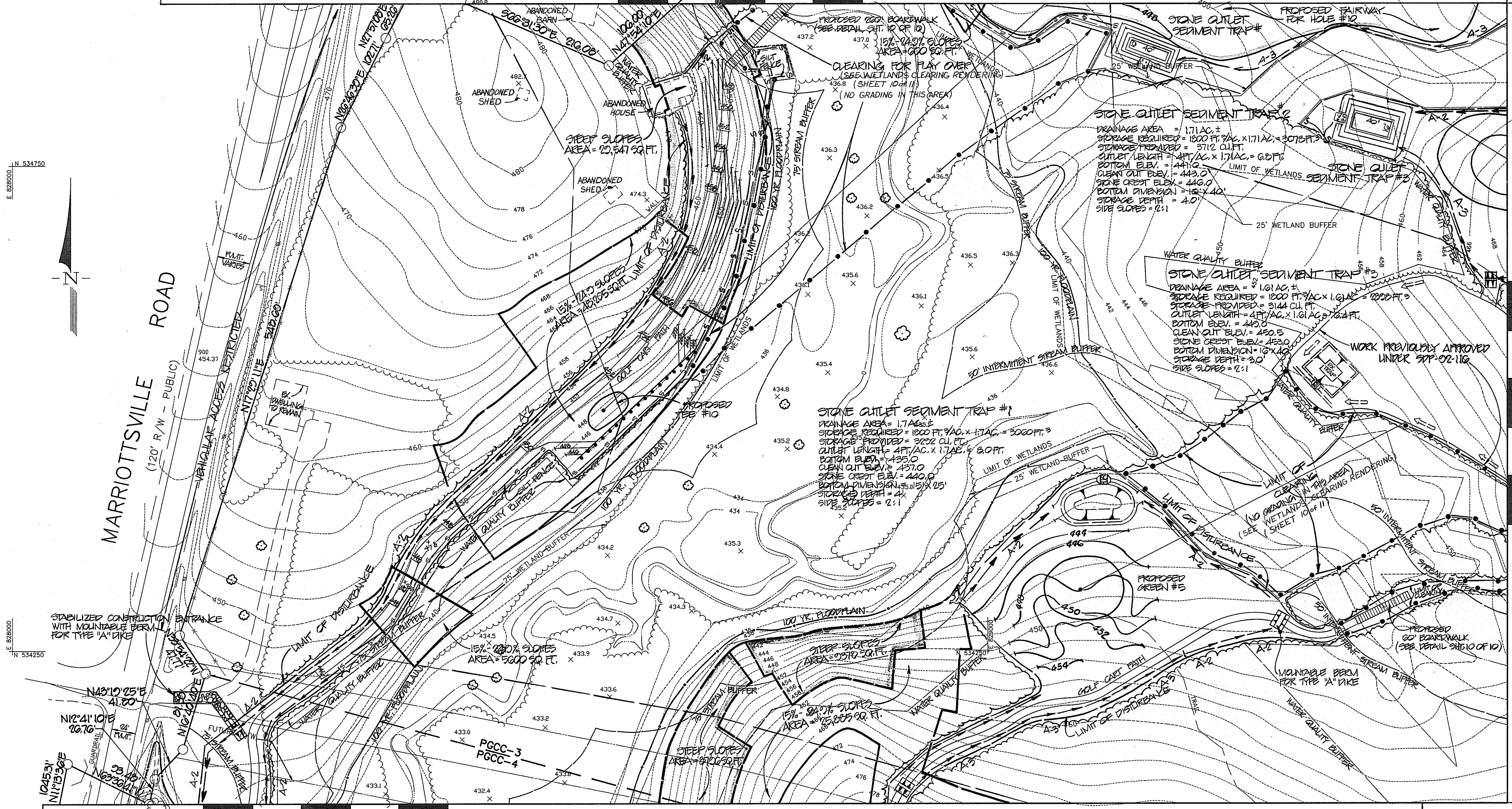
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1263/724					
WATER CODE N/A			SEWER CODE N/A		

project	date	engineering
92007.04	APR. 1993	TIP
illustration	TIP	approval
scale	1" = 50'	RM

no.	date	description	revisions
1	7/8/93	REVISED PER DPZ COMMENTS	
2	8/10/93	REVISED PER P.W. & H.P. COMMENTS	
0	8/10/93	BY SUBMITTAL TO H.C. DPZ	

PROPOSED ADDITION
TURF VALLEY WEST GOLF COURSE
 ELECTION DISTRICT No. 2 & 3
 HOWARD COUNTY, MARYLAND
 SITE DEVELOPMENT PLAN NO. 2

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APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director *James R. Smith* 8/12/93
 Chief, Division of Land Development and Research *Richard Blood* 8/12/93

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS
 Director *James P. L...* 8/14/93
 Chief, Bureau of Engineering *Paul D...* 8/10/93

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT NO WATER OR SANITARY FACILITIES REQUIRED
 County Health Officer *James P. L...* 8/11/93

APPROVED: REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
James M. Holm 8/14/93
 S. SOIL CONSERVATION SERVICE

APPROVED: THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
John P. Roberts 8/14/93
 HOWARD SOIL CONSERVATION DISTRICT

PLAN APPROVAL STAMP
APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 DATE: 7-22-93



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Louis Mangione 4/30/93
 Signature of Developer Date

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Robert M. Mochi 4/30/93
 Robert M. Mochi, P.E. Date

OWNER
 MANGIONE ENTERPRISES OF TURF VALLEY
 1205 YORK ROAD - PENTHOUSE
 LUTHERVILLE, MARYLAND 21093

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WATER CODE		SEWER CODE			
N/A		N/A			

project	date	illustration	engineering
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		1" = 50'	RM

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 SITE DEVELOPMENT PLAN NO. 2

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 ENGINEERS • PLANNERS
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 (410) 461-0078 (301) 621-5968 Fax: (410) 750-6340



NOTE:
PLACE SILT FENCES AT EDGE OF WETLANDS
AROUND AREA DISTURBED FOR GREEN.

NOTE: SEE SHEET NO. 11
FOR PLANT SCHEDULE
AND DETAILS

NOTE: THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH
THE REQUIREMENTS OF SECTION 10.124 OF THE THIRD EDITION
OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS
AND THE HOWARD COUNTY LANDSCAPE MANUAL.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
James R. Rutter 8/12/93
DIRECTOR DATE
Richard Blood 8/12/93
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
FOR STORM DRAINAGE SYSTEMS AND ROADS
James P. Shaw 8/10/93
DIRECTOR DATE
Richard J. Seaman 8/10/93
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT
NO WATER OR SANITARY FACILITIES REQUIRED
Joseph W. Goodwin 8/11/93
COUNTY HEALTH OFFICER DATE

APPROVED: REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION
DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
James M. Hahn 8/4/93
S. SOIL CONSERVATION SERVICE DATE

APPROVED: THIS DEVELOPMENT IS APPROVED FOR EROSION AND
SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL
CONSERVATION DISTRICT.
John R. Polston 8/4/93
HOWARD SOIL CONSERVATION DISTRICT DATE

PLAN APPROVAL STAMP
APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 7-22-93

DEVELOPER'S CERTIFICATE
I/We certify that all development and construction will be done in accordance
with this plan of development and plan for erosion and sediment control and
that all responsible personnel involved in the construction of this 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 onsite inspection by the
Howard County Soil Conservation District or their authorized agents, as are
deemed necessary.
Louis Mangione 4/30/93
Signature of Developer Date

ENGINEER'S CERTIFICATE
I hereby 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 County Soil Conservation District.
Robert M. Mochi 4/30/93
Robert M. Mochi, P.E. Date

OWNER
MANGIONE ENTERPRISES OF TURF VALLEY
1205 YORK ROAD - PENTHOUSE
LUTHERVILLE, MARYLAND 21093

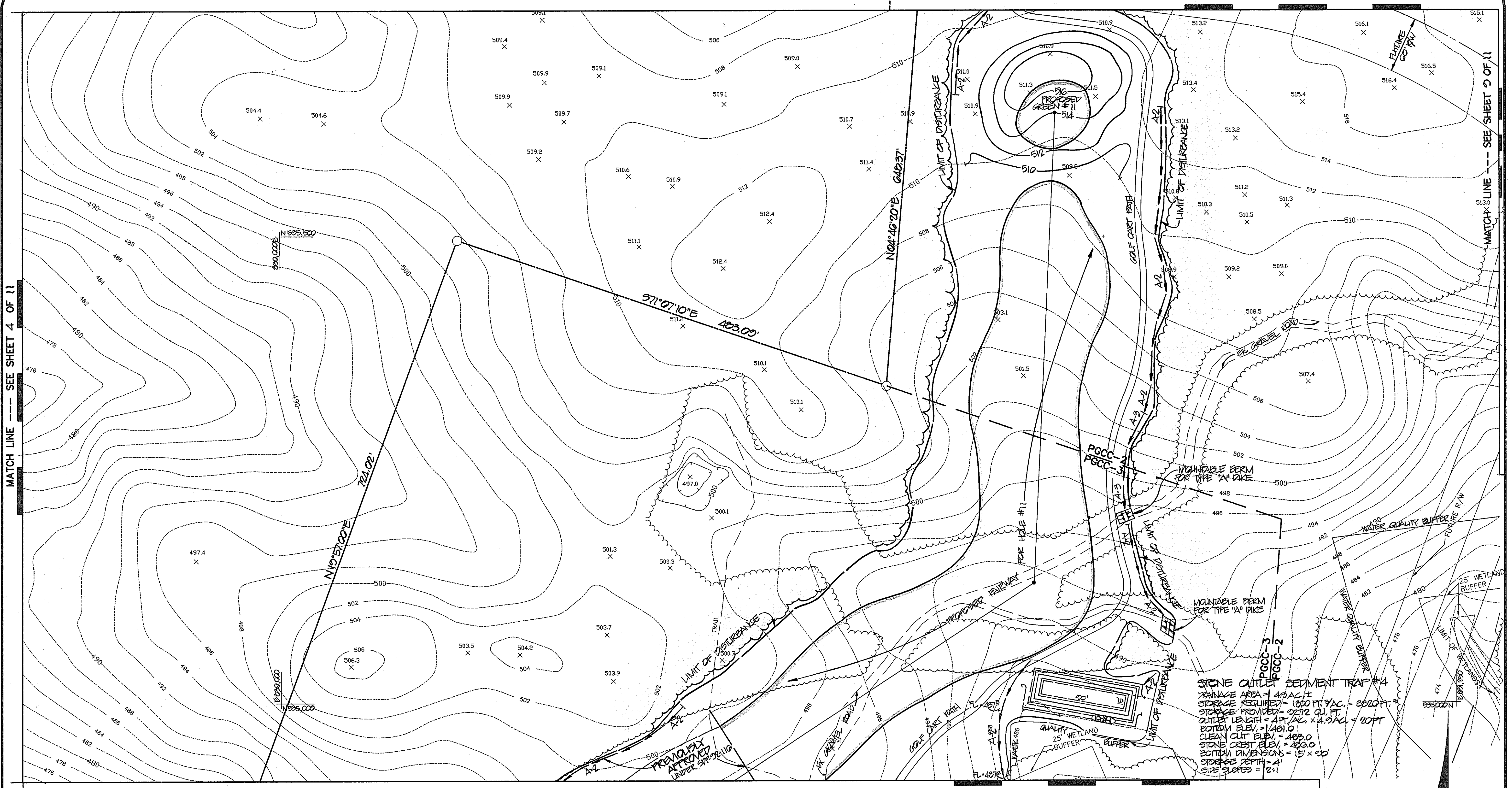
SUBDIVISION NAME				
TURF VALLEY WEST GOLF COURSE PROPOSED ADDITION				
SECT./AREA	LOT/PARCEL	PREVIOUS FILE: SDP-92-116, S-86-13, FDP PGCC-1, FDP PGCC-2 & Part of PGCC-3 FDP Part of PGCC-3 & PGCC-4		
N/A	50 & P/O 8	TAX MAP	ELEC. DIST.	CENSUS
PLAT No. 920/285 1263/724	BLOCK No. 10,11,16	PGCC	3	6022 &6030
WATER CODE		SEWER CODE		
N/A		N/A		

project	date	scale
92007.04	APR. 1993	1" = 50'
illustration	engineering	approval
TIP	TIP	TIP
0	0	0

1	REVISION	DATE
2	REVISION	DATE
3	REVISION	DATE
4	REVISION	DATE

LANDSCAPING/GRADING PLAN
PROPOSED ADDITION
TURF VALLEY WEST GOLF COURSE
ELECTION DISTRICT NO. 2 & 3
HOWARD COUNTY, MARYLAND
SITE DEVELOPMENT PLAN NO. 2

MILDENBERG,
MOCHI & ASSOCIATES, INC.
ENGINEERS • SURVEYORS • PLANNERS
3300 North Ridge Road, Suite 235, Ellicott City, Maryland 21043-3350
(410) 461-0078 D.C. Metro: (301) 621-9768 Fax: (410) 750-6340



project	date	engineering	approval
92007.04	APR. 1993	TIP	RAM
illustration	TIP	scale	1" = 50'

no.	date	description	revisions
1	6/10/93	REMOVED PER DWM & HCC COMMENTS	
2	5/10/93	1ST SUBMITTAL TO H.C. CO. DEP.	

PROPOSED ADDITION
TURF VALLEY WEST GOLF COURSE
 ELECTION DISTRICT No. 2 & 3
 HOWARD COUNTY, MARYLAND
 SITE DEVELOPMENT PLAN NO. 2

MILDENBERG, MOCHI & ASSOCIATES, INC.
 ENGINEERS • PLANNERS
 3300 North Ridge Road, Suite 235, Ellicott City, Maryland 21043-3350
 (410) 461-0078 (301) 621-5768 Fax: (410) 750-6340

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
James R. Smith 8/12/93
 DIRECTOR DATE
Richard Blood 8/12/93
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS
James J. Lee 8/16/93
 DIRECTOR DATE
Paul Segan 8/10/93
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT NO WATER OR SANITARY FACILITIES REQUIRED
James Barber 8/11/93
 COUNTY HEALTH OFFICER DATE

APPROVED: REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
James M. Stetson 8/14/93
 S. SOIL CONSERVATION SERVICE DATE

APPROVED: THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
John R. Robertson 8/14/93
 HOWARD SOIL CONSERVATION DISTRICT DATE

PLAN APPROVAL STAMP
APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE **7-22-93**



DEVELOPER'S CERTIFICATE
 I/We certify that all development and construction will be done in accordance with this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction of this 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 onsite inspection by the Howard County Soil Conservation District or their authorized agents, as are deemed necessary.
Louis Mangione 4/30/93
 Signature of Developer Date

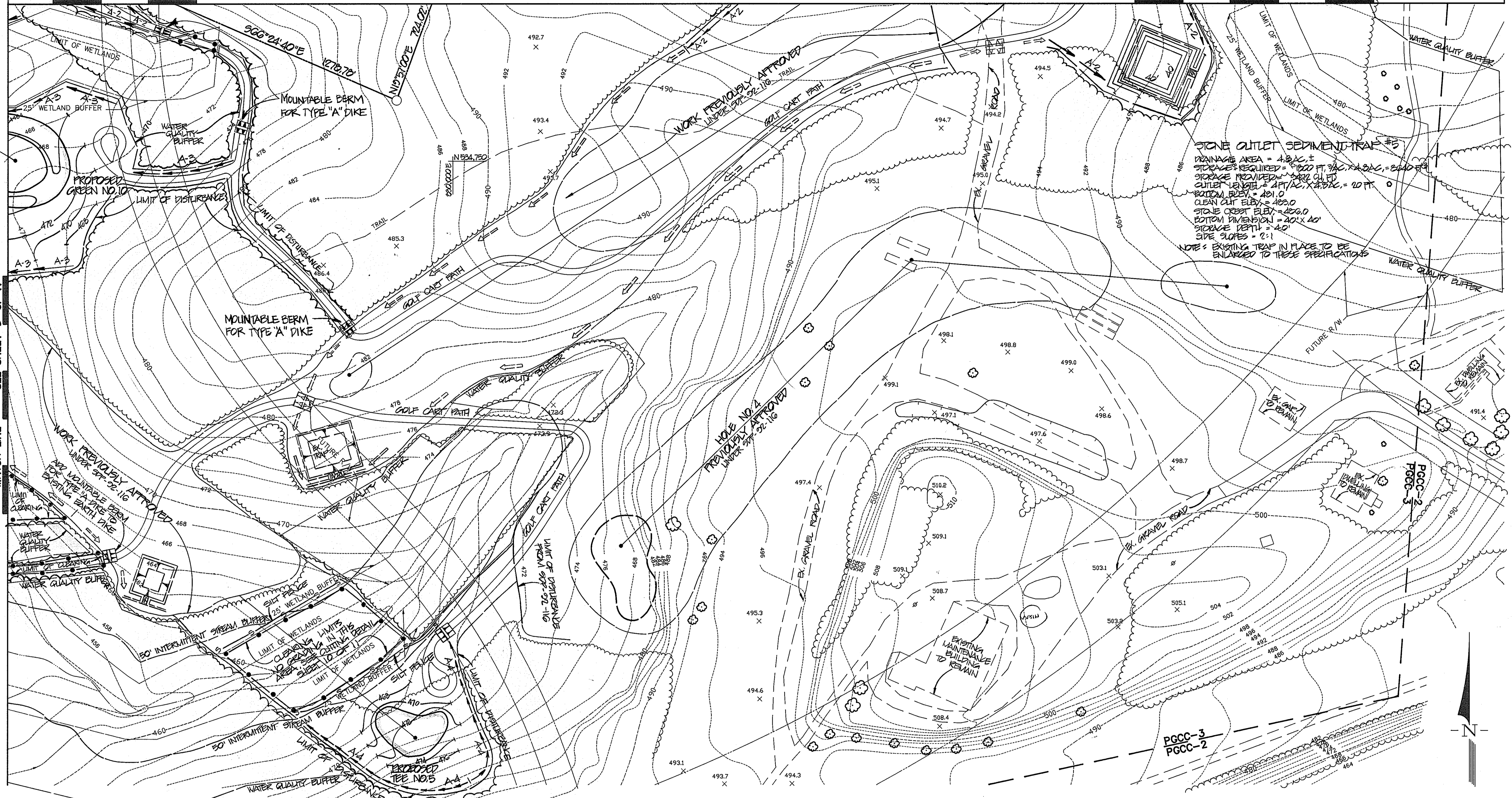
ENGINEER'S CERTIFICATE
 I hereby certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard County Soil Conservation District.
Bob Mochi 4/30/93
 Robert M. Mochi, P.E. Date

OWNER
MANGIONE ENTERPRISES OF TURF VALLEY
 1205 YORK ROAD - PENTHOUSE
 LUTHERVILLE, MARYLAND 21093

SUBDIVISION NAME					
TURF VALLEY WEST GOLF COURSE					
PROPOSED ADDITION					
SECT./AREA	LOT/PARCEL	PREVIOUS FILE : SDP-92-116, S-86-13, FDP PGCC-1, FDP PGCC-2 & Part of PGCC-3 FDP Part of PGCC-3 & PGCC-4			
N/A	50 & P/O 8	PLAT No.	BLOCK No.	ZONE	TAX MAP
		920/285	10,11,16	PGCC	16
		1263/724			3
					6022 & 6030
WATER CODE			SEWER CODE		
N/A			N/A		

MATCH LINE --- SEE SHEET 4 OF 11

MATCH LINE --- SEE SHEET 7 OF 11



project	date	description	revision
92007.04	APR. 1993	engineering	TJP
7/8/93		TJP	approval
8/10/93		TJP	scale
8/10/93		TJP	1" = 50'

REVISED PER DPA APPZ COMMENTS	7/8/93		
REVISED PER DPA & HPCD COMMENTS	8/10/93		
1ST SUBMITTAL TO HCC CO 172	8/10/93		
2			
1			
0			

PROPOSED ADDITION
TURF VALLEY WEST GOLF COURSE
 ELECTION DISTRICT NO. 2 & 3
 HOWARD COUNTY, MARYLAND
 SITE DEVELOPMENT PLAN NO. 2

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Jessica R. Smith 8/12/93
 DIRECTOR DATE
Richard Blood 8/12/93
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

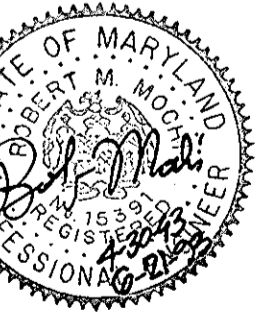
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS
James J. Shaw 8/10/93
 DIRECTOR DATE
Paul J. Seaman 8/10/93
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT NO WATER OR SANITARY FACILITIES REQUIRED
John R. Peltan 8/11/93
 COUNTY HEALTH OFFICER DATE

APPROVED: REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
John R. Peltan 8/4/93
 S. SOIL CONSERVATION SERVICE DATE

APPROVED: THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
John R. Peltan 8/4/93
 HOWARD SOIL CONSERVATION DISTRICT DATE

PLAN APPROVAL STAMP
APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 DATE: **7-22-93**



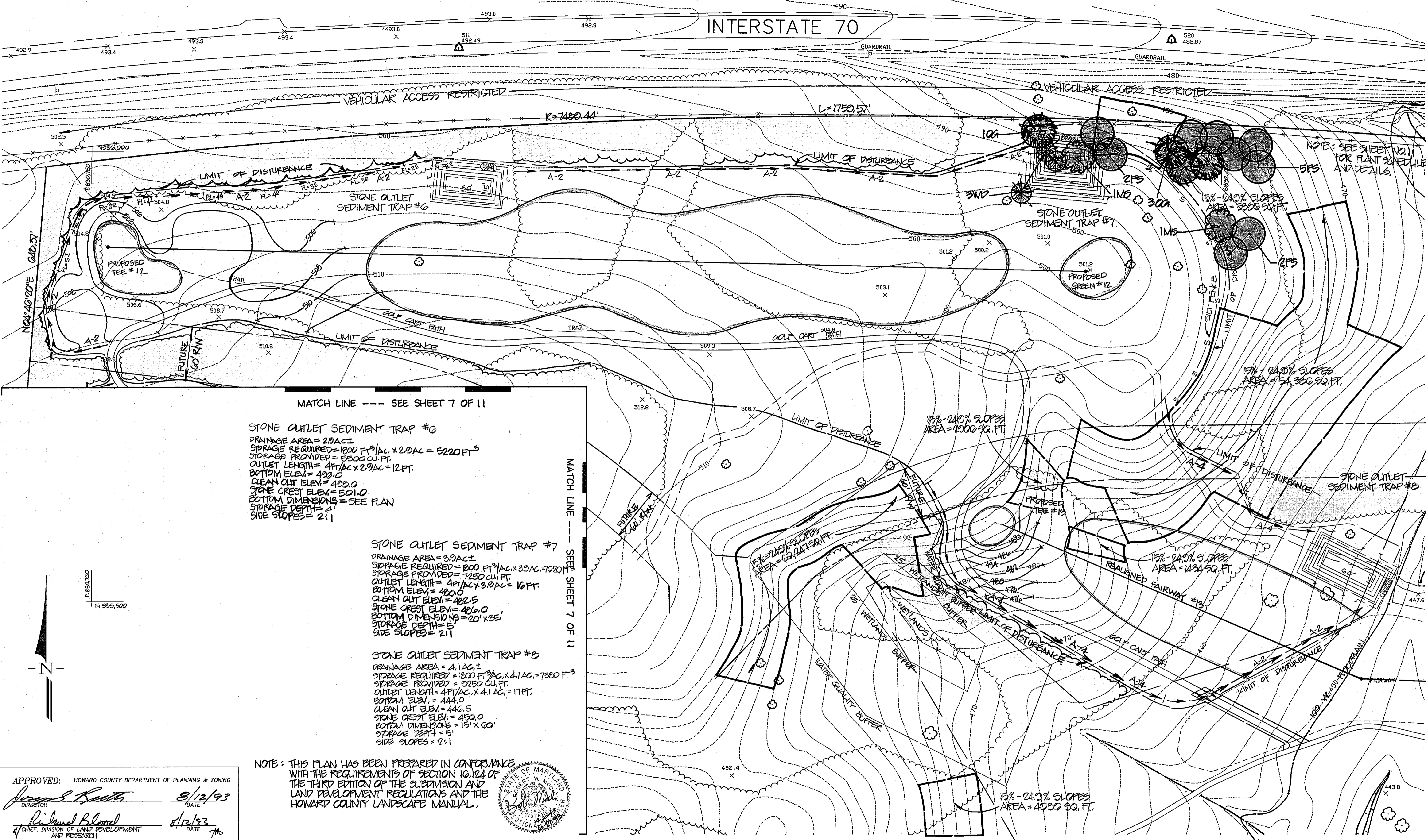
DEVELOPER'S CERTIFICATE
 I/We certify that all development and construction will be done in accordance with this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction of this project will have a certificate of attendance at a Department of the Environment approved training program for the control of sediment and erosion before beginning the project. I also authorize periodic onsite inspection by the Howard County Soil Conservation District or their authorized agents, as are deemed necessary.
Louis Mancione 4/30/93
 Signature of Developer Date

ENGINEER'S CERTIFICATE
 I hereby 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 County Soil Conservation District.
Robert M. Mochi 4/30/93
 Robert M. Mochi, P.E. Date

OWNER
MANGIONE ENTERPRISES OF TURF VALLEY
 1205 YORK ROAD - PENTHOUSE
 LUTHERVILLE, MARYLAND 21093

SUBDIVISION NAME					
TURF VALLEY WEST GOLF COURSE					
PROPOSED ADDITION					
SECT./AREA	LOT/PARCEL	PREVIOUS FILE : SDP-92-116, S-86-13, FDP PGCC-1, FDP PGCC-2 & Part of PGCC-3 FDP Part of PGCC-3 & PGCC-4			
N/A	50 & P/O 8	PLAT No.	BLOCK No.	ZONE	TAX MAP
		1263/724	10,11,16	PGCC	16
					ELEC. DIST.
					3
					CENSUS
					6022 & 6030
WATER CODE			SEWER CODE		
N/A			N/A		

MILDENBERG MOCHI & ASSOCIATES, INC.
 ENGINEERS • PLANNERS
 3300 North Ridge Road, Suite 235, Ellicott City, Maryland 21043-3350
 (410) 461-0078 D.C. Metro: (301) 621-5768 Fax: (410) 750-6340



MATCH LINE --- SEE SHEET 7 OF 11

STONE OUTLET SEDIMENT TRAP #6
 DRAINAGE AREA = 2.9 AC ±
 STORAGE REQUIRED = 1800 FT³/AC X 2.9 AC = 5220 FT³
 STORAGE PROVIDED = 5500 CU. FT.
 OUTLET LENGTH = 4 FT/AC X 2.9 AC = 12 FT.
 BOTTOM ELEV. = 498.0
 CLEAN OUT ELEV. = 499.0
 STONE CREST ELEV. = 501.0
 BOTTOM DIMENSIONS = SEE PLAN
 STORAGE DEPTH = 4'
 SIDE SLOPES = 2:1

STONE OUTLET SEDIMENT TRAP #7
 DRAINAGE AREA = 3.9 AC ±
 STORAGE REQUIRED = 1800 FT³/AC X 3.9 AC = 7020 FT³
 STORAGE PROVIDED = 7250 CU. FT.
 OUTLET LENGTH = 4 FT/AC X 3.9 AC = 16 FT.
 BOTTOM ELEV. = 490.0
 CLEAN OUT ELEV. = 492.5
 STONE CREST ELEV. = 496.0
 BOTTOM DIMENSIONS = 20' X 35'
 STORAGE DEPTH = 5'
 SIDE SLOPES = 2:1

STONE OUTLET SEDIMENT TRAP #8
 DRAINAGE AREA = 4.1 AC ±
 STORAGE REQUIRED = 1800 FT³/AC X 4.1 AC = 7380 FT³
 STORAGE PROVIDED = 7250 CU. FT.
 OUTLET LENGTH = 4 FT/AC X 4.1 AC = 17 FT.
 BOTTOM ELEV. = 444.0
 CLEAN OUT ELEV. = 446.5
 STONE CREST ELEV. = 450.0
 BOTTOM DIMENSIONS = 15' X 60'
 STORAGE DEPTH = 5'
 SIDE SLOPES = 2:1

NOTE: THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE REQUIREMENTS OF SECTION 16.124 OF THE THIRD EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY LANDSCAPE MANUAL.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: *James S. Keith* 8/12/93
 Chief, Division of Land Development and Research: *Ronald Blood* 8/12/93

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS
 Director: *James J. Lee* 8/10/93
 Chief, Bureau of Engineering: *Ronald Blood* 8/10/93

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT NO WATER OR SANITARY FACILITIES REQUIRED
 County Health Officer: *John P. Rhetson* 8/11/93

APPROVED: REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
 U.S. SOIL CONSERVATION SERVICE: *James M. Helms* 8/4/93

APPROVED: THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
 HOWARD COUNTY SOIL CONSERVATION DISTRICT: *John P. Rhetson* 8/4/93

PLAN APPROVAL STAMP
APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 DATE: 7-22-93

DEVELOPER'S CERTIFICATE
 I/We certify that all development and construction will be done in accordance with this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction of this 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 onsite inspection by the Howard County Soil Conservation District or their authorized agents, as are deemed necessary.
 Signature of Developer: *Louis Mangione* 4/30/93

ENGINEER'S CERTIFICATE
 I hereby 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 County Soil Conservation District.
 Signature of Engineer: *Robert M. Mochi* 4/30/93

OWNER
 MANGIONE ENTERPRISES OF TURF VALLEY
 1205 YORK ROAD - PENTHOUSE
 LUTHERVILLE, MARYLAND 21093

SUBDIVISION NAME TURF VALLEY WEST GOLF COURSE PROPOSED ADDITION					
SECT./AREA N/A	LOT/PARCEL 50 & P/O 8	PREVIOUS FILE: SDP-92-116, S-86-13, FDP PGCC-1, FDP PGCC-2 & Part of PGCC-3, FDP Part of PGCC-3 & PGCC-4			
PLAT No. 920/285	BLOCK No. 10,11,16	ZONE PGCC	TAX MAP 16	ELEC. DIST. 3	CENSUS 6022 & 6030
WATER CODE N/A			SEWER CODE N/A		

LANDSCAPING/GRADING PLAN
 PROPOSED ADDITION
TURF VALLEY WEST GOLF COURSE
 ELECTION DISTRICT No. 2 & 3
 HOWARD COUNTY, MARYLAND
 SITE DEVELOPMENT PLAN NO. 2

APPROVED: 8/12/93
 7/29/93
 7/8/93
 6/16/93
 5/19/93

DATE: 8/12/93
 7/29/93
 7/8/93
 6/16/93
 5/19/93

DESCRIPTION: REVISIONS

DATE: 8/12/93
 7/29/93
 7/8/93
 6/16/93
 5/19/93

SCALE: 1" = 50'

DATE: JAN. 1993
 PROJECT: 92007.04
 ILLUSTRATION: TJP
 TYPING: TJP
 CHECKED: TJP
 APPROVAL: RMM

MILDENBERG, MOCHI & ASSOCIATES, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 3300 North Ridge Road, Suite 235, Ellicott City, Maryland 21043-3350
 (410) 461-0078 D.C. Metro: (301) 621-5768 Fax: (410) 750-6340

9 OF 11
 SDP-93-106

Turf Valley West
Sequence of Construction

- Obtain Grading Permit
- Install stabilized construction entrance as indicated on plan
- Install sediment control devices at golf course hole #10. Construct permanent diversion swale as indicated on plan. Stabilize the swale with excelsior matting and seeding.
- Install sediment control device to all of the holes.
- Clear and grub the area as needed for the construction of tees, greens and fairways. See Clearing Notes - Sheet 11 of 11.
- Begin construction of tees, greens and fairways.
- Stabilize disturbed areas.
- With approval of sediment control inspector, remove remaining sediment control devices and stabilize the area.

SEDIMENT CONTROL NOTES

- 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. (313-1825)
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in accordance with the 1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control.
- Following initial soil disturbances or redistribution, 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 calendar days as to all other disturbed or graded areas on the project site.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control for Permanent Seeding (Sec. 51) and 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.
- 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.
- Site Analysis:
Total Area of Site: 620,000 AC. Total Cost: \$1,200,000
Area to be Disturbed: 320,000 AC. Total FTE: \$300,000
Area to be seeded: 600,000 AC. Office Hours: 9:00 AM - 5:00 PM
Area to be vegetatively stabilized: 320,000 AC. Other Work: None
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired by the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.
- Quantities and estimates shown are for sediment control purposes only. Contractor shall prepare his/her own quantity estimates to his/her satisfaction.

TEMPORARY SEEDING NOTES

- Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.
- Seeded Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding. (If not previously loosened)
- Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sf).
- Seeding: For periods March 1 through April 30 and from August 15 through November 15, seed with 2-1/2 bushel per acre of annual rye (3.2 lbs/1000 sf). For the period May 1 through August 14, seed with 3 lbs per acre of Weeping Lovegrass (0.07 lbs/1000 sf). For the period November 16 through 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 sf) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sf) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (6 gal/1000 sf) 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 area not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.
- Seeded Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding. (If not previously loosened)
- Soil Amendments: In lieu of soil test recommendations, use on the following schedules:
- Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sf) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sf) 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/1000 sf).
 - Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sf) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sf) before seeding. Harrow or disc into upper three inches of soil.
- Seeding: For the periods March 1 through April 30 and August 1 through October 15, seed with 60 lbs per acre (1.4 lbs/1000 sf) of Kentucky 31 Tall Fescue. For the period May 1 through July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (0.05 lbs/1000 sf) of Weeping Lovegrass. During the period of October 16 through 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 sf) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sf) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (6 gal/1000 sf) for anchoring.
- Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseeding.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Director: *Richard Blourel* 8/12/93
Chief, Division of Land Development and Research: *Richard Blourel* 8/12/93

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS
Director: *James J. Lewis* 8/10/93
Chief, Bureau of Engineering & Plans: *Richard Blourel* 8/10/93

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT NO WATER OR SANITARY FACILITIES REQUIRED
County Health Officer: *James J. Lewis* 8/11/93

STANDARD AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION OF CHANNELS AND STEEP SLOPES

Definition
Installing jute or excelsior matting on a prepared seed - or planting - bed of a channel or steep slope to be stabilized with vegetation.

Purpose
To aid in controlling erosion on critical sites during establishment period of protective vegetation.

Conditions Where Practice Applies
In channels where designed flow exceeds 3.5 feet per second; on short, steep slopes where erosion hazard is high and planting is likely to be slow to establish adequate protective cover; on tidal or stream banks where moving water is likely to wash out new vegetative plantings.

- MATERIALS**
- Jute mat shall be cloth of a uniform plain weave of undyed and unbleached single jute yarn, 48 inches in width plus or minus 1 inch and weighing an average of 1.2 pounds per square yard plus or minus 10 percent. The excelsior material shall be covered with a netting to facilitate handling and to increase strength.
 - Excelsior mat shall be wood excelsior, 48 inches in width plus or minus 1 inch and weighing 0.8 pounds per square yard plus or minus 10 percent. The excelsior material shall be covered with a netting to facilitate handling and to increase strength.
 - Class fiber matting of bonded textile glass fibers with an average fiber diameter of 8 to 12 microns, 2 to 4 inch strands of fiber bonded with phenol formaldehyde resin. Mat shall be roll type, water permeable, minimum thickness 1/4 inch, maximum thickness 1 inch, density not less than 3 pounds per cubic foot.
 - Staples - staples for anchoring soil stabilizing materials shall be No. 11 gauge wire or heavier. Their length shall be 6 to 10 inches. Use the longer staples on loose, unstable soils.

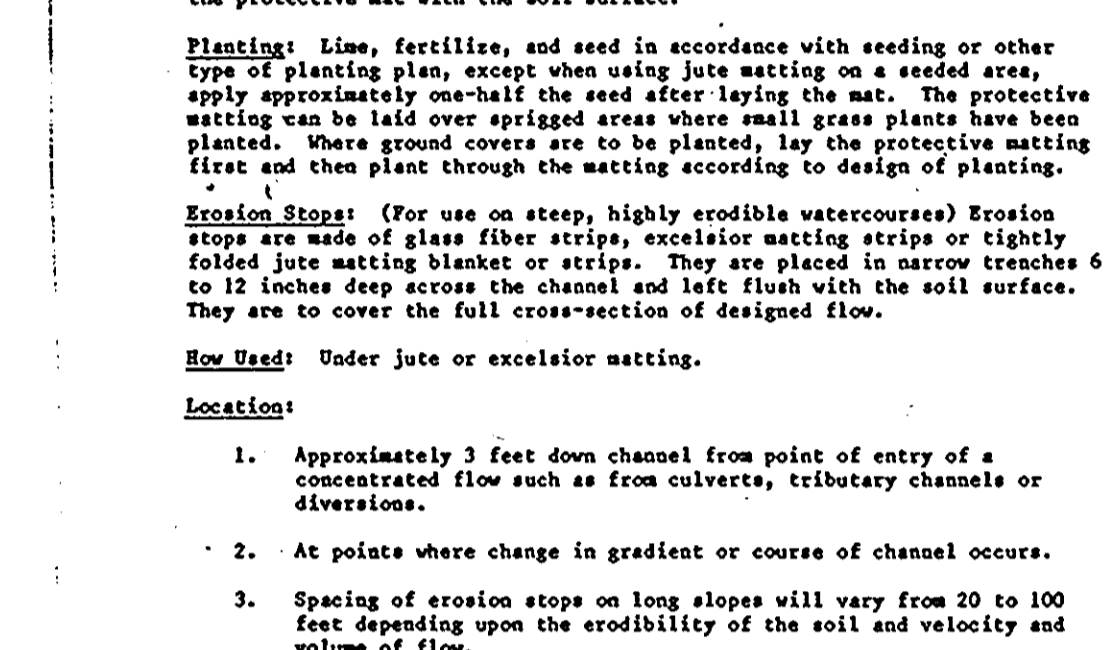
INSTALLATION REQUIREMENTS

Site Preparation: After site has been shaped and graded to approved design, prepare a friable seedbed free from clods and rocks more than 1/4 inches in diameter, and any foreign material that will prevent contact of the protective mat with the soil surface.

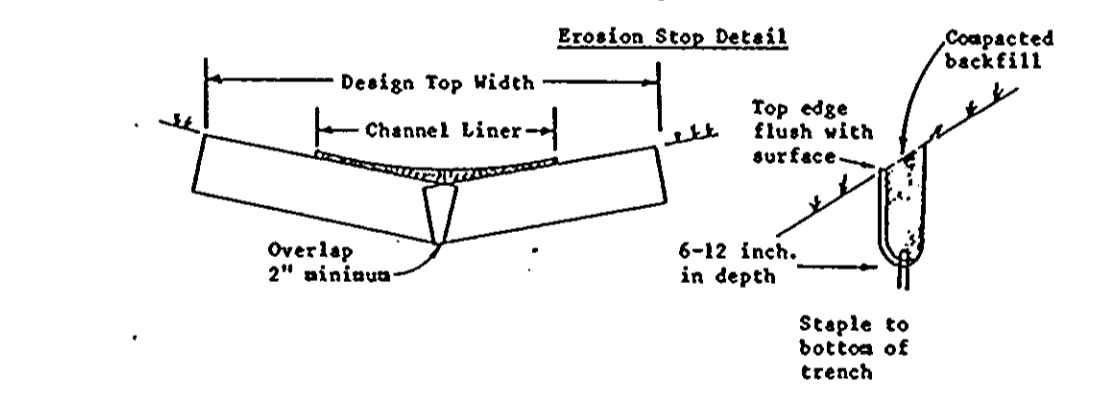
Planting: Lime, fertilizer, and seed in accordance with seeding or other type of planting plan, except when using jute matting on a seeded area, apply approximately one-half the seed after laying the mat. The protective matting can be laid over sprigged areas where small grass plants have been planted. Where ground covers are to be planted, lay the protective matting first and then plant through the matting according to design of planting.

Erosion Stops: (For use on steep, highly erodible watercourses) Erosion stops are made of glass fiber strips or excelsior matting strips or tightly folded jute matting strips or strips. They are placed in narrow trenches 6 to 12 inches deep across the channel and left flush with the soil surface. They are to cover the full cross-section of designed flow.

Row Spacing: Under jute or excelsior matting.



- Location:**
- Approximately 3 feet down channel from point of entry of a concentrated flow such as from culverts, tributary channels or diversions.
 - At points where change in gradient or course of channel occurs.
 - Spacing of erosion stops on long slopes will vary from 20 to 100 feet depending upon the erodibility of the soil and velocity and volume of flow.
- Installation:**
- Erosion stops should extend beyond the channel liner to full design cross-section of the channel to check any fills that might form outside the channel lining.
- The trench may be dug with a spade or a mechanical trencher making sure that the down slope face of the trench is flat; it should be uniform and perpendicular to line of flow to permit proper placement and stapling of the glass fiber matting.
- The erosion stop should be deep enough to penetrate solid material or below level of rilling in sandy soils. In general, erosion stops will vary from 6 to 12 inches in depth.
- The erosion stop mats should be wide enough to allow a minimum of 2 inch turnover at bottom of trench for stapling while maintaining the top edge flush with channel surface.
- Tamp back fill firmly and to a uniform gradient of channel.



- If seeding has been done prior to installation of erosion stops, reseed disturbed areas prior to placement of channel liner.
- Laying Jute Matting:** (If instructions have been followed, all needed erosion stops will have been installed, and the jute matting will be laid on a friable seedbed free from clods, rocks, roots, etc., that might cause bridging.)
- Most channels will require multiple widths of jute matting, two widths being the most commonly used. Unroll matting starting at the upper end of the channel allowing a 6 inch overlap of matting along center of channel.
- Securing Jute Matting:** Bury the top ends of jute matting in a narrow trench, minimum of 6 inch depth, similar to that used for erosion stops. Backfill trench and tamp firmly to conform to channel cross-section. Secure with a row of staples about 4 inches down slope from the trench. Spacing between staples is 6 inches.
- Next, staple the 4 inch overlap in channel center using an 18 inch spacing between staples. Before stapling the outside edges of matting, make sure the matting is smooth and in firm contact with the soil. Staples shall be placed 2 feet apart along the outer edge of matting.
- Where one roll of jute matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4 inches, shiplap fashion.
- Where matting crosses erosion stops, reinforce with a double row of staples spaced six (6) inches apart in a staggered pattern on either side of erosion stop. Likewise, overlaps joining the length of matting together and the discharge end of the matting liner should be similarly secured with 2 double rows of staples.

Laying and Securing Excelsior Matting

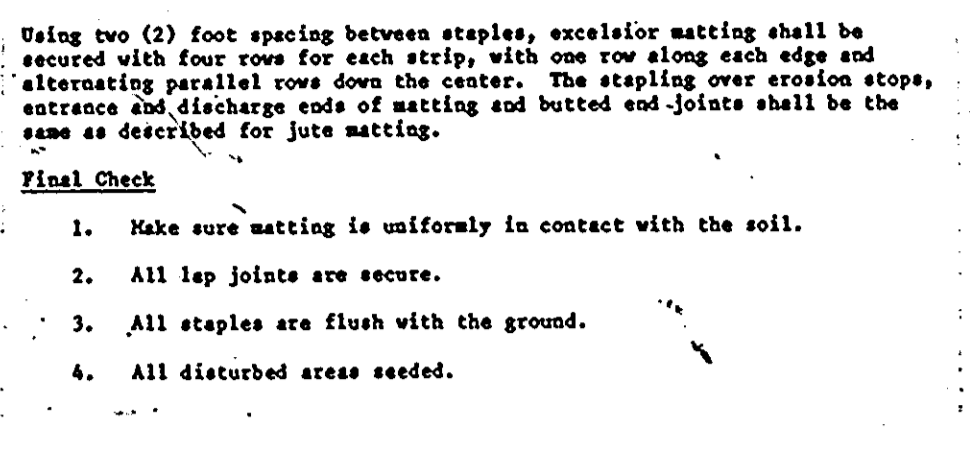
Some seeded preparation as for jute matting with the exception that all seeding must be completed before laying excelsior matting.

Bury top ends of excelsior matting in a trench as described for jute matting. As the blankets are unrolled down slope, the matting must be on top with the wood fibers in contact with the soil. But snugly fit the ends and sides before stapling.

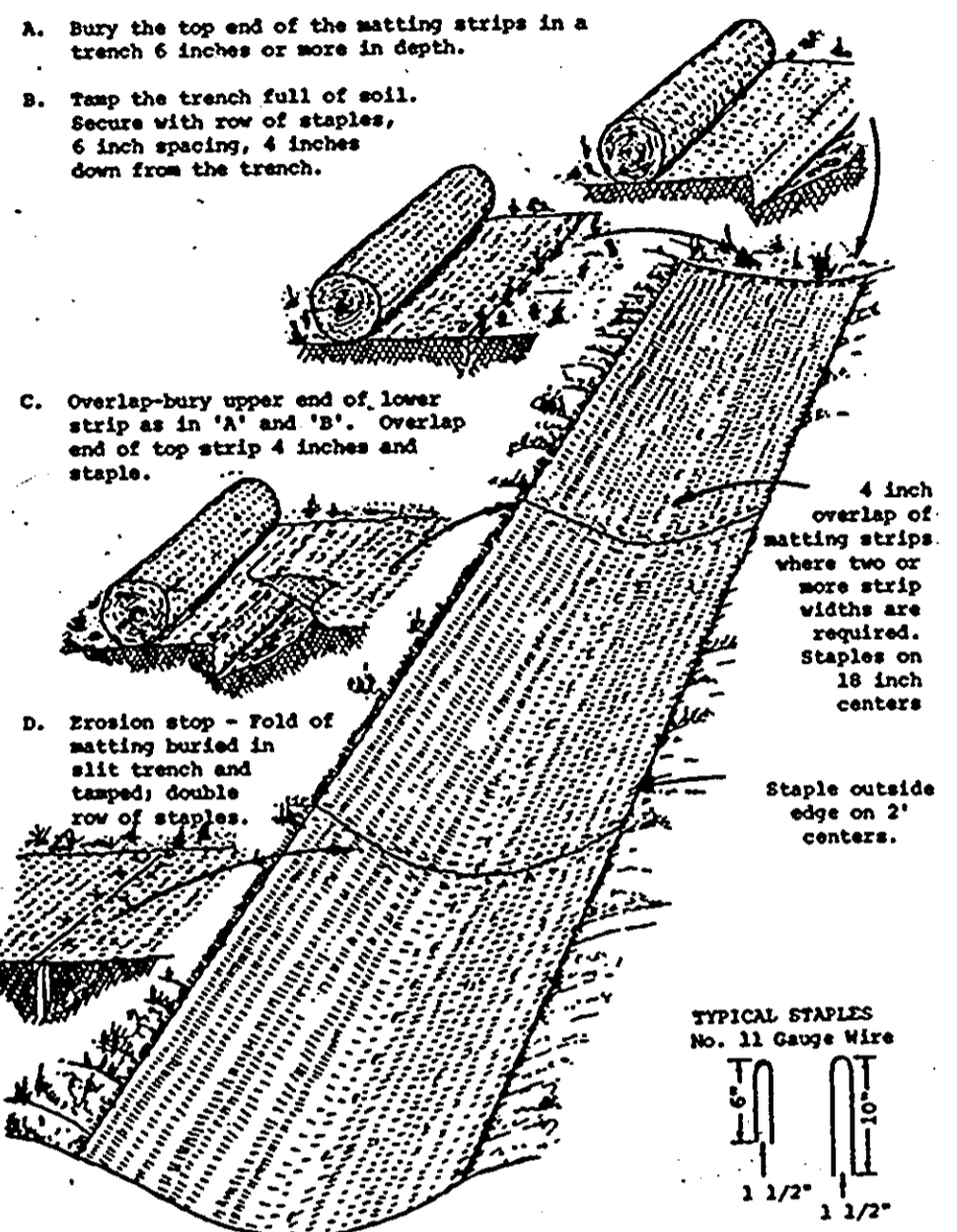
Using two (2) foot spacing between staples, excelsior matting shall be secured with four rows for each strip, with one row along each edge and alternating parallel rows down the center. The stapling over erosion stops, entrance and discharge ends of matting and butted end joints shall be the same as described for jute matting.

Final Check

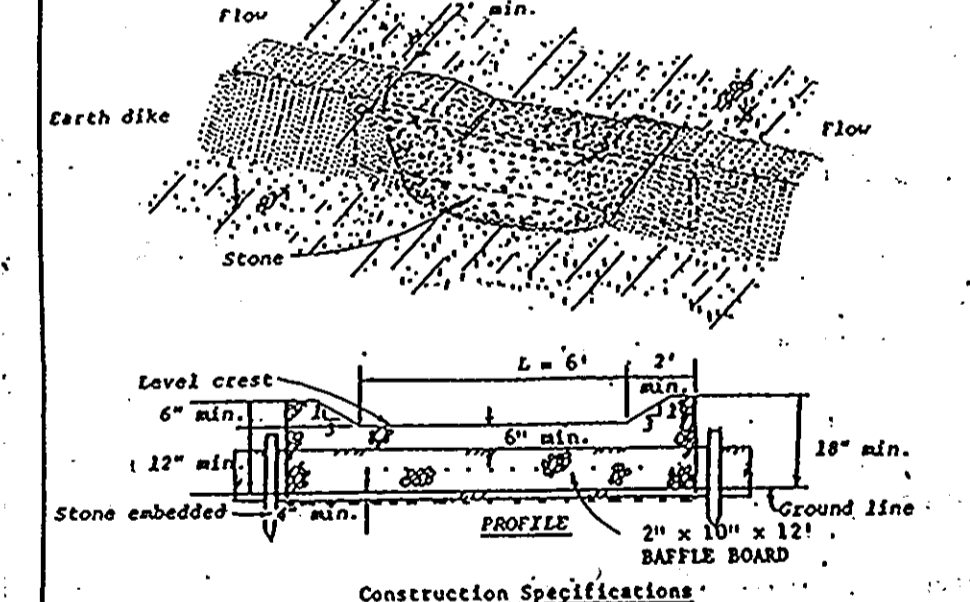
- Make sure matting is uniformly in contact with the soil.
- All lap joints are secure.
- All staples are flush with the ground.
- All disturbed areas seeded.



DETAIL FOR STABILIZING MATERIALS WITH JUTE OR EXCELSIOR MATTINGS

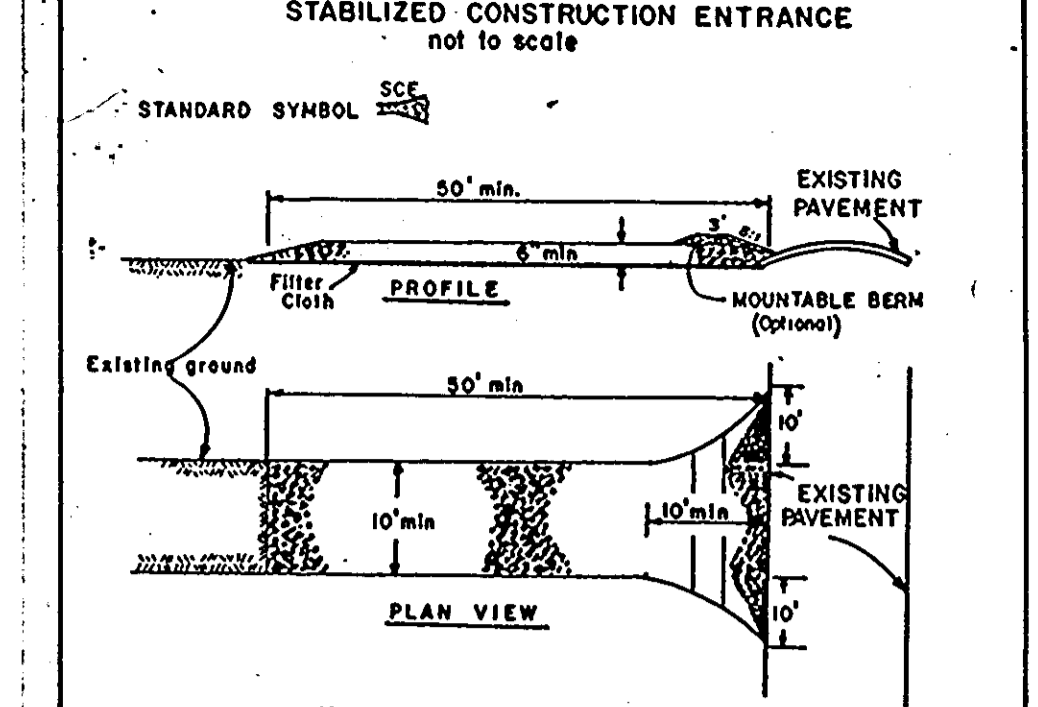


STONE OUTLET STRUCTURE (not to scale)



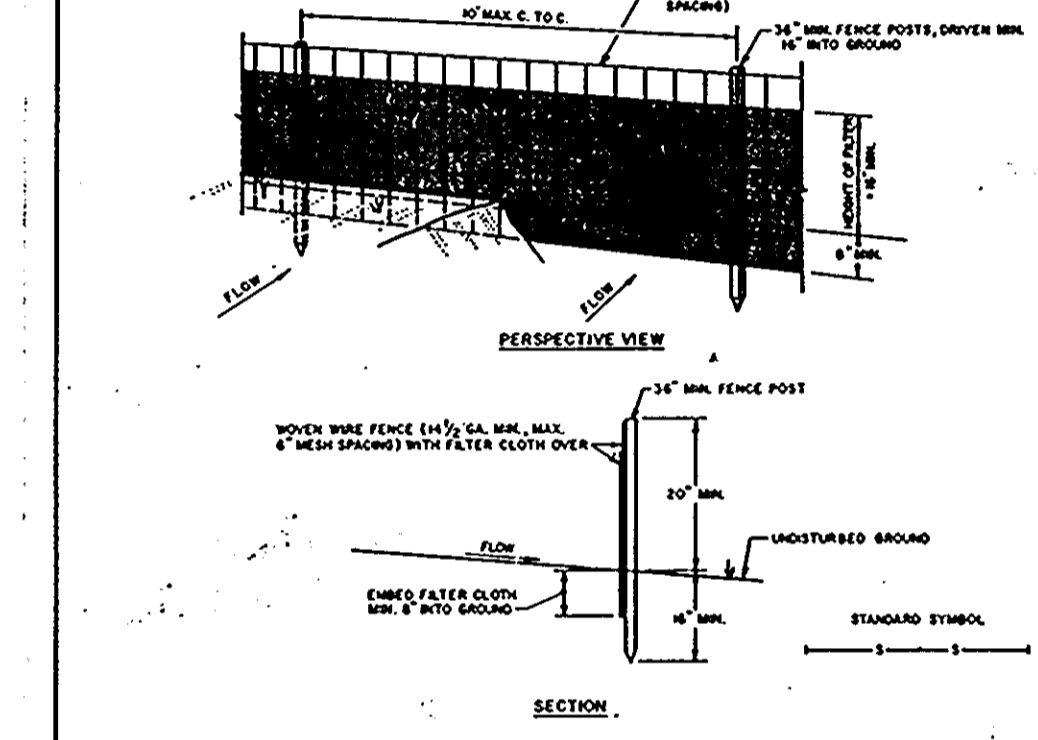
- Construction Specifications**
- The stone shall be crushed stone. Gravel may be used if crushed stone is not available. The stone shall meet MSHA Size No. 2 or AASHTO designation M3 Size No. 2 or 24.
 - The crest of the stone dike shall be at least six inches lower than the lowest elevation of the top of the earth dike and shall be level.
 - The stone outlet structure shall be embedded into the soil a minimum of four inches.
 - The minimum length, in feet, of the crest of the stone outlet structure shall be six.
 - The stone outlet structure shall be inspected after each rain, and the stone shall be replaced when the structure ceases to function as intended due to silt accumulation among the stones, weather, construction traffic damage, etc.
 - The baffle board shall be extended one foot into the dike, staked and embedded 4 inches into existing ground.
- Where one roll of jute matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4 inches, shiplap fashion.
- Where matting crosses erosion stops, reinforce with a double row of staples spaced six (6) inches apart in a staggered pattern on either side of erosion stop. Likewise, overlaps joining the length of matting together and the discharge end of the matting liner should be similarly secured with 2 double rows of staples.

STABILIZED CONSTRUCTION ENTRANCE (not to scale)



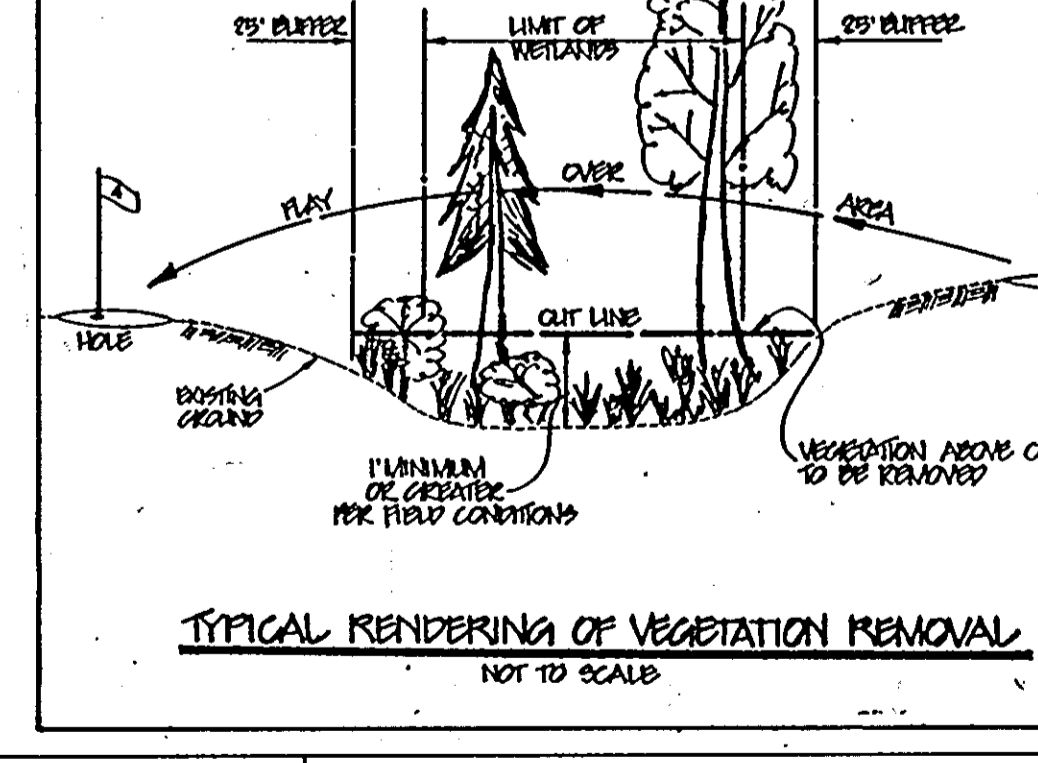
- CONSTRUCTION SPECIFICATIONS**
- Stone size - Use #2 stone, or crushed or recycled concrete equivalent, dense lot where a 30 foot minimum length would apply).
 - Thickness - Not less than six (6) inches.
 - Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
 - Surface Water - Will be placed over the entire area prior to placing of stone. Filter cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
 - Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slope will be permitted.
 - Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measure used to trap sediment. All sediment applied, dropped, washed or tracked onto public rights-of-way must be removed immediately.
 - Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
 - Periodic inspection and needed maintenance shall be provided after each rain.
- U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
College Park, Md.

SILT FENCE

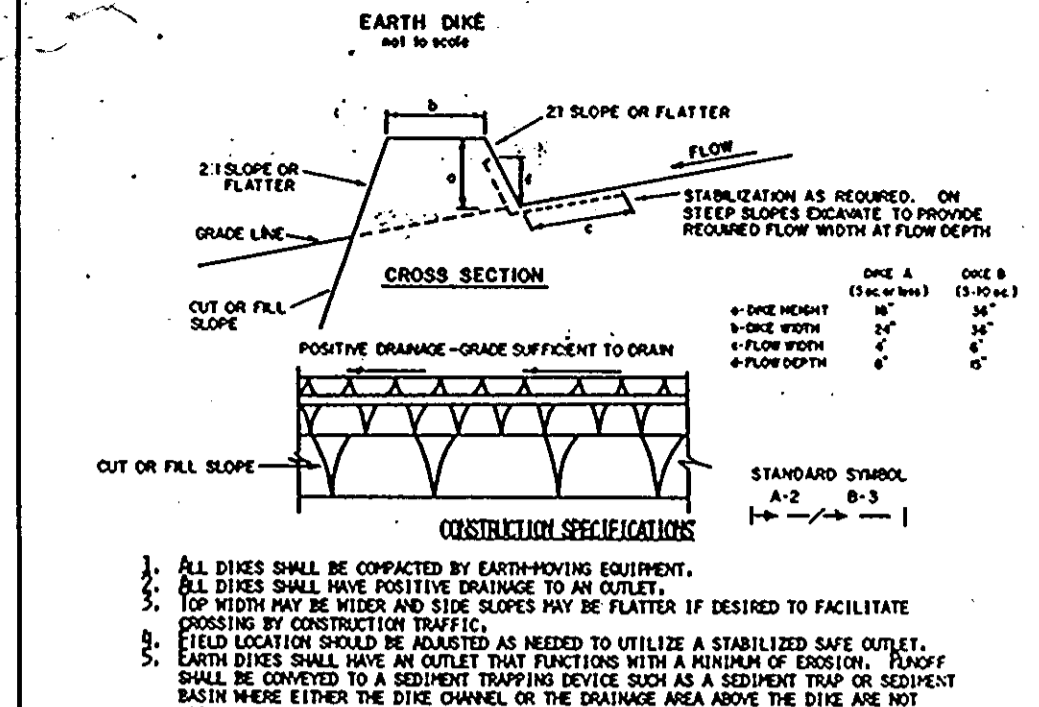


- CONSTRUCTION NOTES FOR FABRICATED SILT FENCE**
- WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
 - FILTER CLOTH TO BE FASTENED SECURELY TO WIRE FENCE WITH THIS SPACING EVERY 24" AT TOP AND MID SECTION.
 - MIN 20" SECTIONS OF FILTER CLOTH MUST OVERLAP EACH OTHER THAT SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
 - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BAGS" DEVELOP IN THE SILT FENCE.
- POSTS: STEEL EITHER T OR U TYPE OR 2" WOODEN
FENCE: WOVEN WIRE 12" GA. 6" MAX. PESH BONDING
FILTER CLOTH: FILTER X
REINFORCING: STEEL
EMULSION: EMULSION OF APPROVED
ESAL
- PREPARED UNIT: GRASS, DIVULSION, OR APPROVED
ESAL
- U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
COLLEGE PARK, MARYLAND

TYPICAL RENDERING OF VEGETATION REMOVAL (NOT TO SCALE)

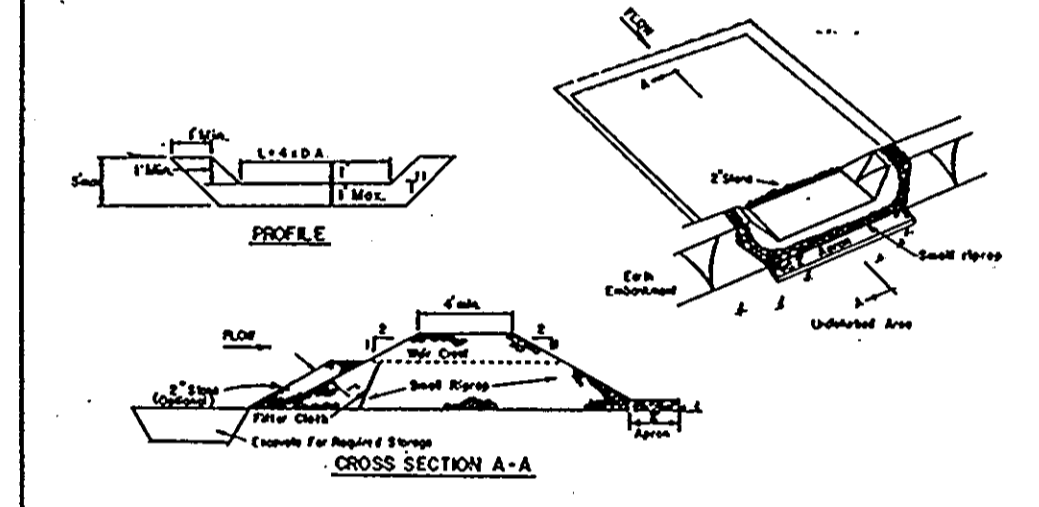


EARTH DIKE (not to scale)



- CONSTRUCTION SPECIFICATIONS FOR EARTH DIKE**
- ALL DIKES SHALL BE CONSTRUCTED BY EARTH-MOVING EQUIPMENT.
 - ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
 - TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
 - FIELD LOCATION SHOULD BE MARKED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
 - EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. PUMP-OUT SHALL BE CONSIDERED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASKIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT POSITIVELY STABILIZED.
 - STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRIP PLANT OR STRIP PLANT IF NOT IN SEEDING SEASON; (B) FLOW CHANNEL AS PER THE CHART BELOW.
- FLOW CHANNEL STABILIZATION**
- | TYPE OF CHANNEL | CHANNEL | DIKE A | DIKE B |
|-----------------|----------|------------------------|--|
| 1 | 5-3:01 | SEED AND STRAW MULCH | SEED AND STRAW MULCH |
| 2 | 3.1-5:01 | SEED AND STRAW MULCH | SEED USING SITE OR EXCELSIOR MAT, 2" STONE |
| 3 | 5.1-8:01 | SEED WITH JUTE, OR SOD | LINED RIP-RAP 4-8" |
| | 8.1-208 | SEED WITH JUTE, OR SOD | ENGINEERING DESIGN |
- A. Stone to be 2" inch stone, or crushed concrete equivalent, in a layer at least 3 inches in thickness and be pressed into the soil with construction equipment.
B. Rip-rap to be 4-8 inches in a layer at least 18 inches thickness and pressed into the soil.
C. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.
- U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
COLLEGE PARK, MARYLAND

STONE OUTLET SEDIMENT TRAP



- CONSTRUCTION SPECIFICATIONS FOR STONE OUTLET SEDIMENT TRAP**
- Area under embankment shall be cleared, graded and stipped of all vegetation and root mat. The soil area shall be cleared.
 - The fill material for the embankment shall be free of roots and other woody vegetation as well as oversized stones, rocks, organic material or other objectional material. The embankment matting shall be installed in conjunction with equipment which it is being constructed.
 - All cut and fill slopes shall be 3:1 or flatter.
 - The stone used in the outlet shall be small riprap 4-8" along with a 1" thickness of 2" aggregate placed on the upstream side on the outlet riprap 4-8" embedded filter cloth in the riprap.
 - Setback shall be measured and trap returned to its original dimension when the sediment has accumulated to the design depth of the trap.
 - The structure shall be inspected after each rain and repairs made as needed.
 - Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
 - The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.
- Maximum Drainage Area: 5 Acres
- U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
COLLEGE PARK, MARYLAND

DATE: APR. 1993
PROJECT: 92007-04
DRAWING: TYP
SCALE: AS SHOWN
APPROVAL: [Signature]

DATE: 8/12/93
PROJECT: TURF VALLEY WEST GOLF COURSE
DRAWING: SEDIMENT CONTROL NOTES AND DETAILS
SCALE: AS SHOWN
APPROVAL: [Signature]

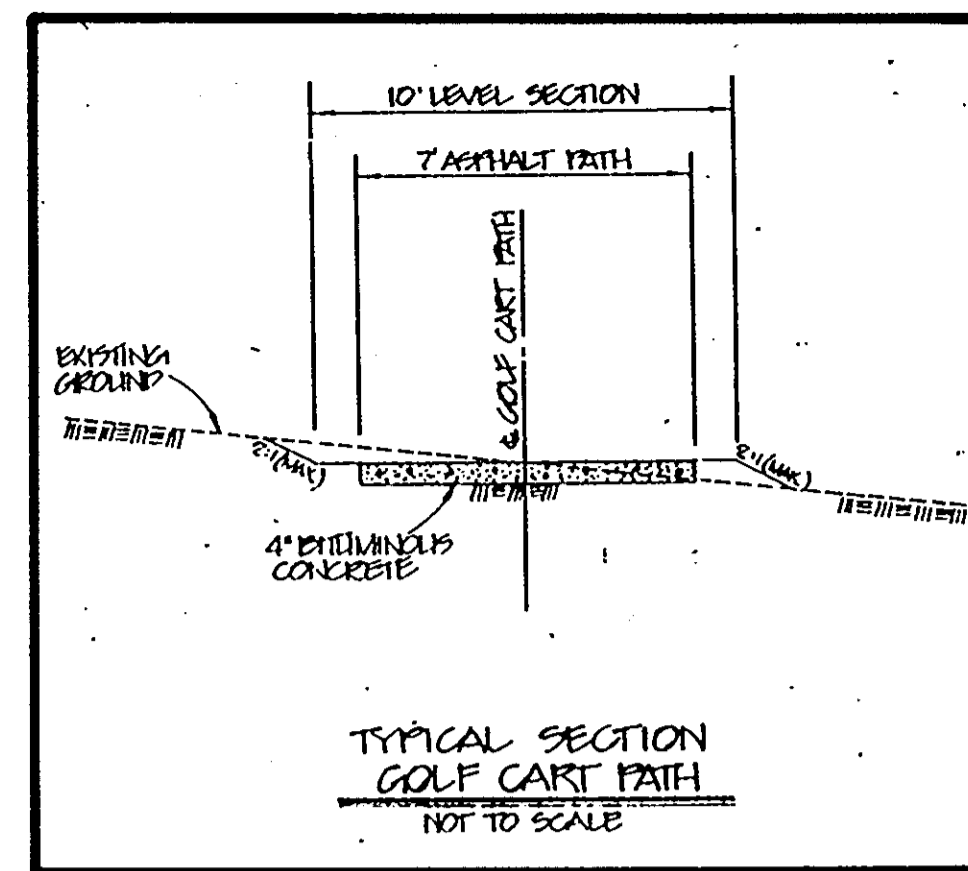
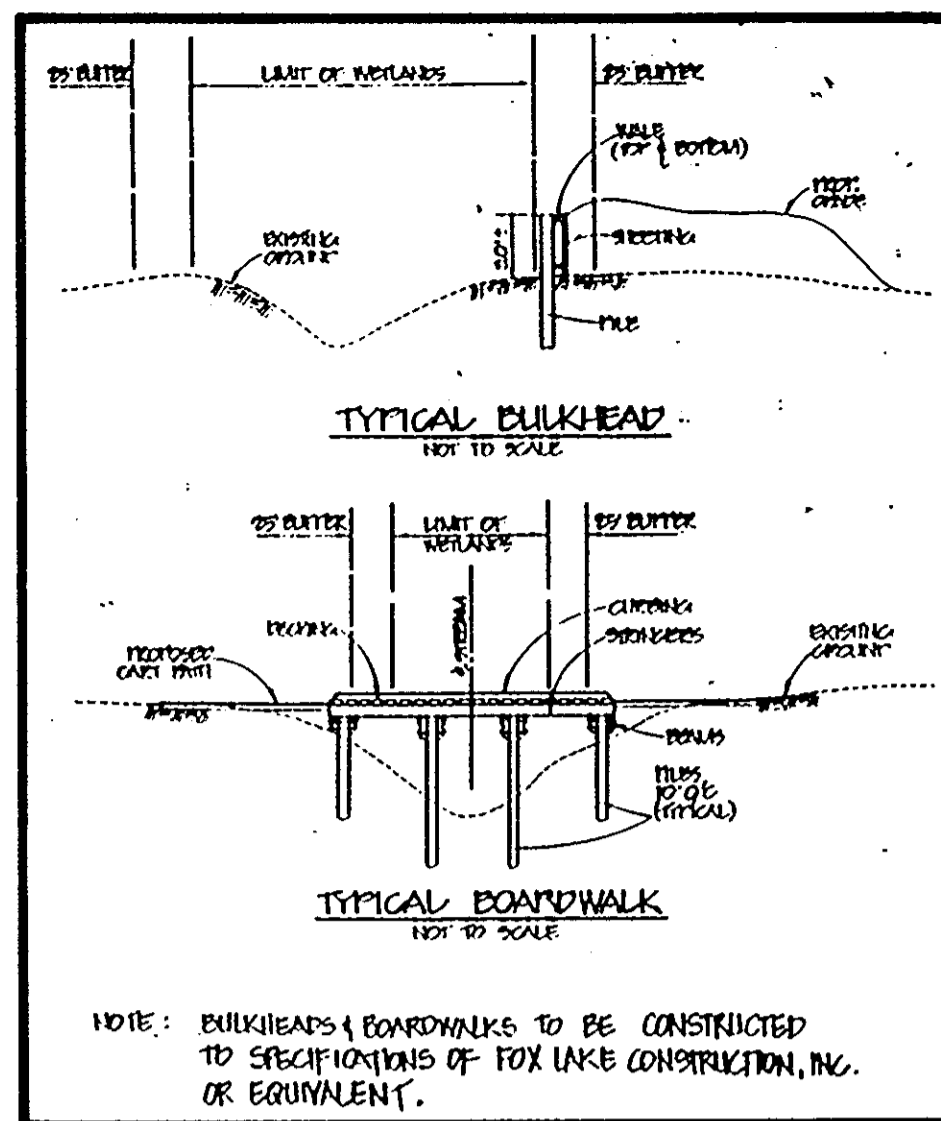
DATE: 8/12/93
PROJECT: TURF VALLEY WEST GOLF COURSE
DRAWING: SEDIMENT CONTROL NOTES AND DETAILS
SCALE: AS SHOWN
APPROVAL: [Signature]

PROPOSED ADDITION
TURF VALLEY WEST GOLF COURSE
ELECTION DISTRICT No. 2 & 3
HOWARD COUNTY, MARYLAND
SEDIMENT CONTROL NOTES AND DETAILS

MILDENBERG, ROCHI & ASSOCIATES, INC.
ENGINEERS - SURVEYORS - PLANNERS
3300 North Ridge Road, Suite 235, Ellicott City, Maryland 21043-3350
(410) 461-0078 D.C. Metro: (301) 827-5768 Fax: (410) 750-6340

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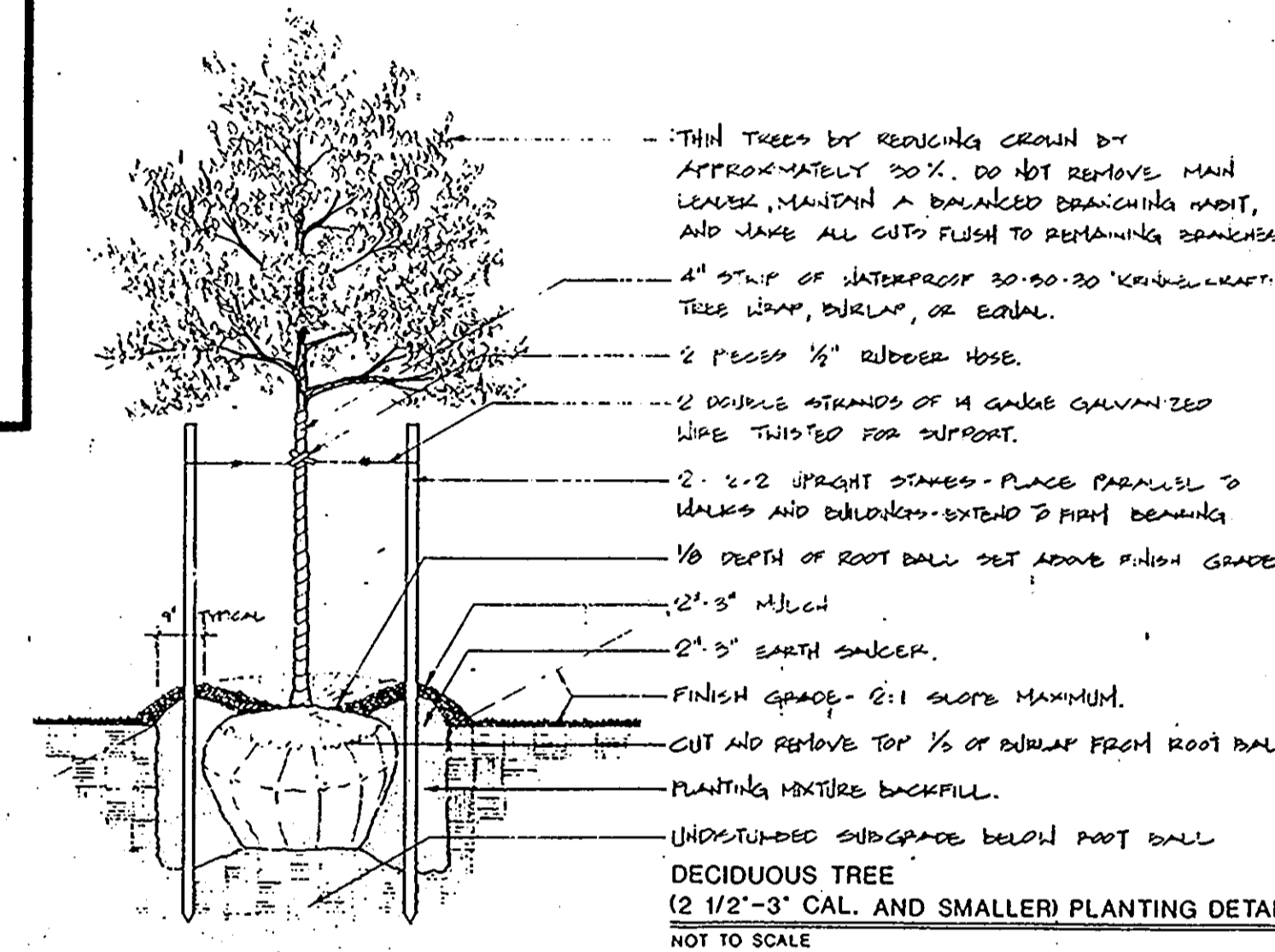
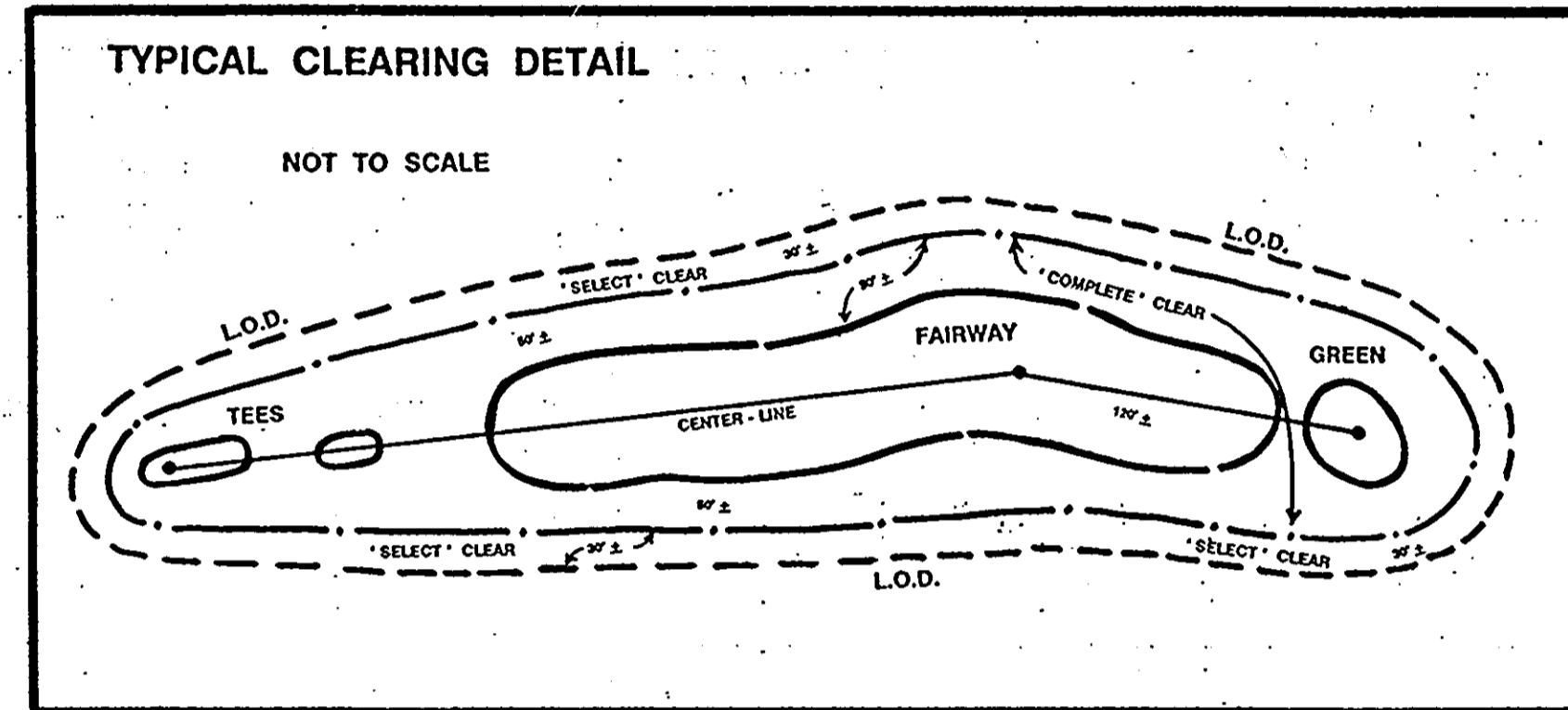
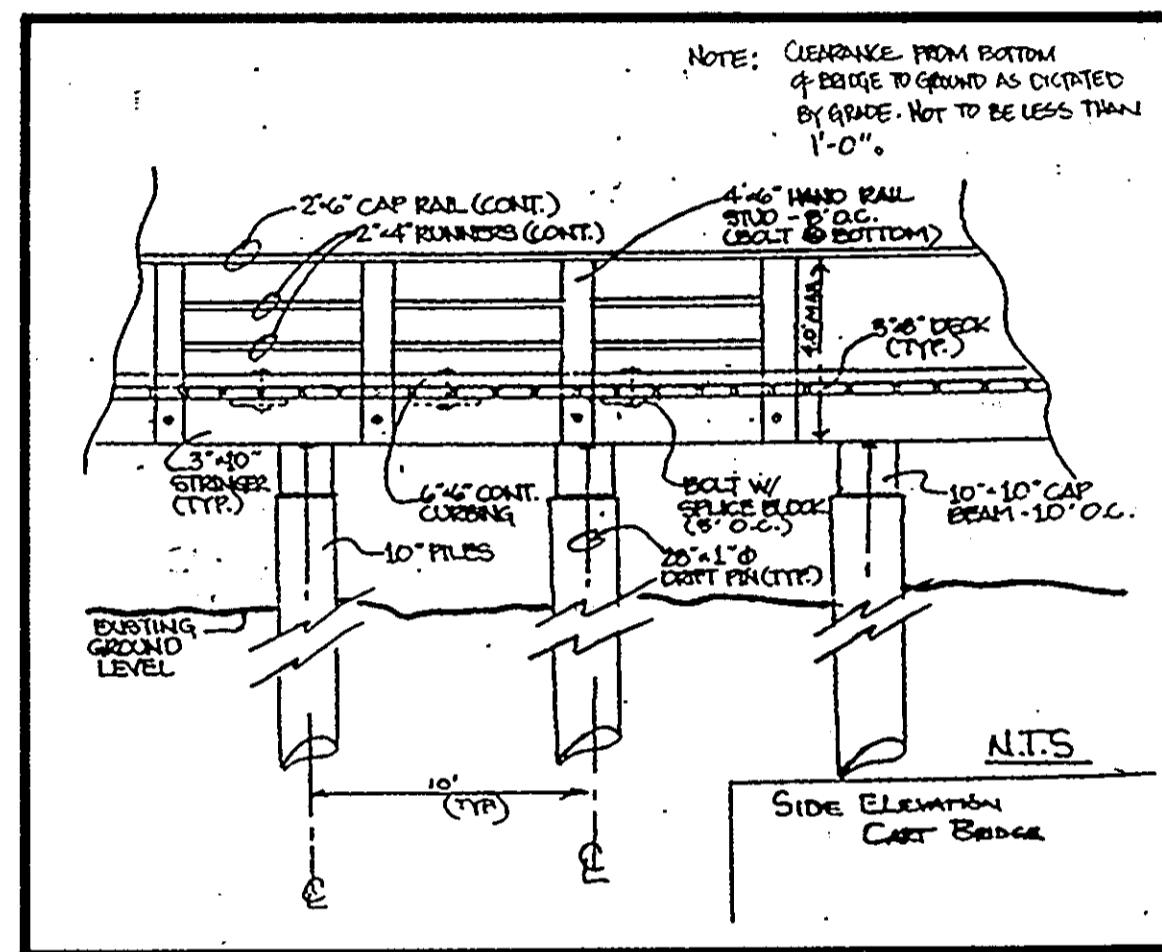
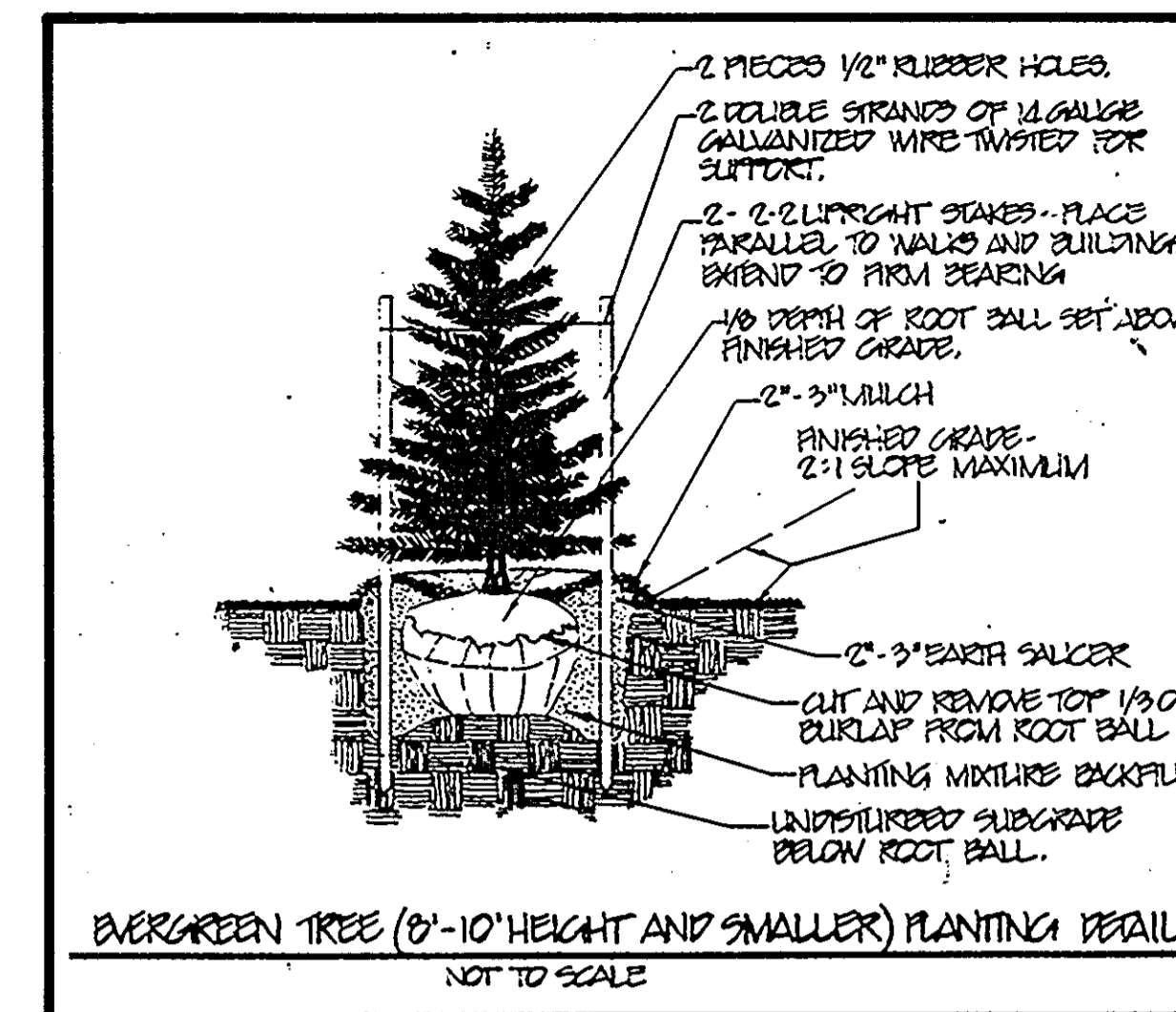
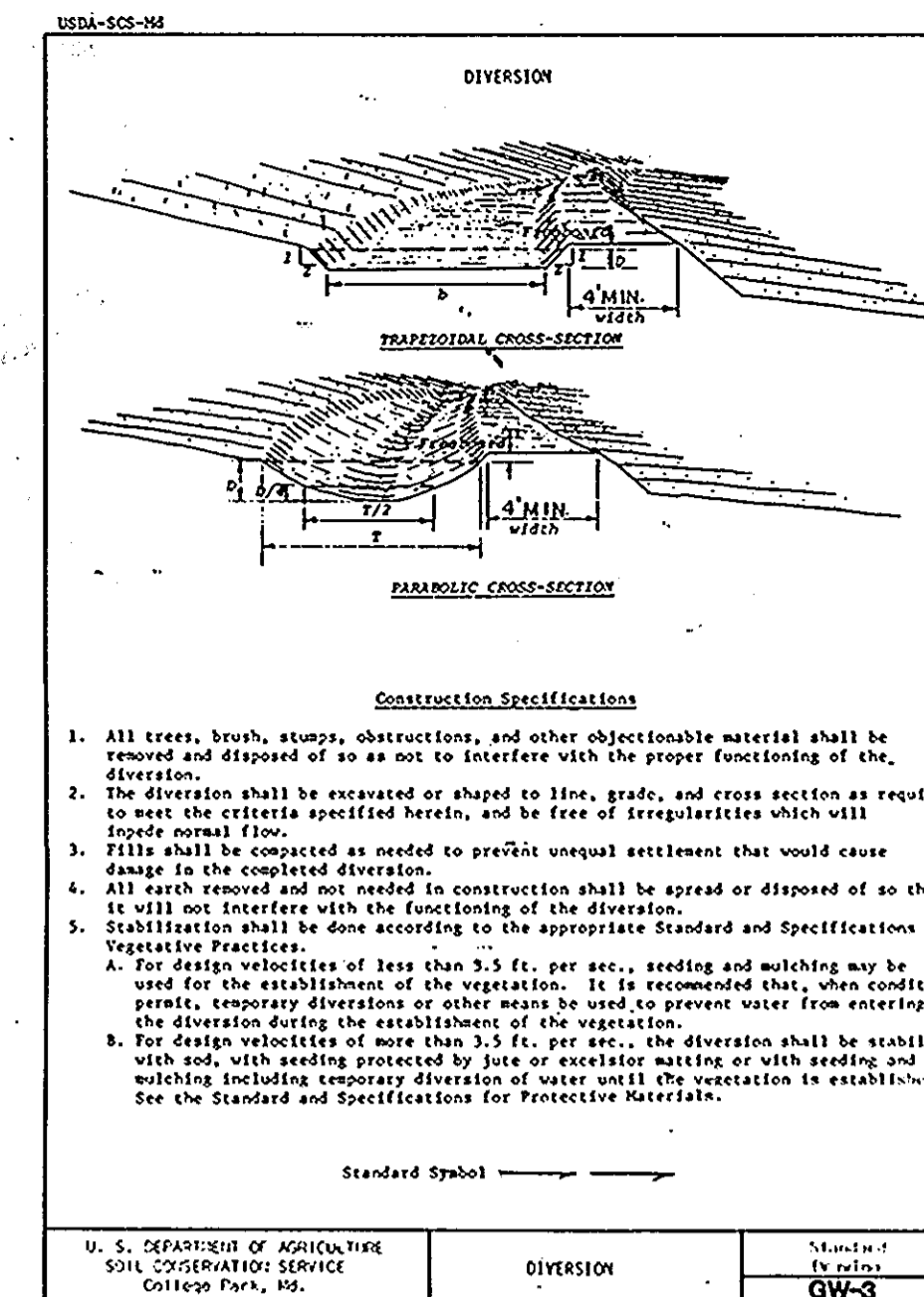


CLEARING NOTES

Limits of 'Complete' clearing are to be flagged in the field by the Owner's field representative by placing stakes on 100' intervals down the center line of each hole, and measuring outwards as scaled from the Typical Clearing Detail.

Within the Complete Clear Area, all trees, bushes, stumps and roots, downed timber, vegetation and debris are to be removed. Clearing is to start down the center line of the hole, and progress outwards. Large trees are to be felled inwards so as not to damage other trees which are to remain. Any acceptable tree which is just within the Complete Clear Limits is to first be flagged and kept, until the architect can review it in the field and determine if it can be kept.

The Select Clear Area is to be an approximate 30' wide area from the Complete Clear Limits, outwards. Within the Select Clear Limits, the architect and Owner's representative shall flag trees which are to be kept and left undisturbed. Trees to be saved will be selected based upon their apparent health, shape, size, and species. Trees, or tight clusters of trees which are to be kept, must be on at least 15' - 20' centers, so as to permit adequate sunlight and air circulation, as well as to allow mowers to operate among the trees. Except for the trees flagged to be saved, all other trees, bushes, stumps and roots, downed timber, vegetation and debris are to be removed.

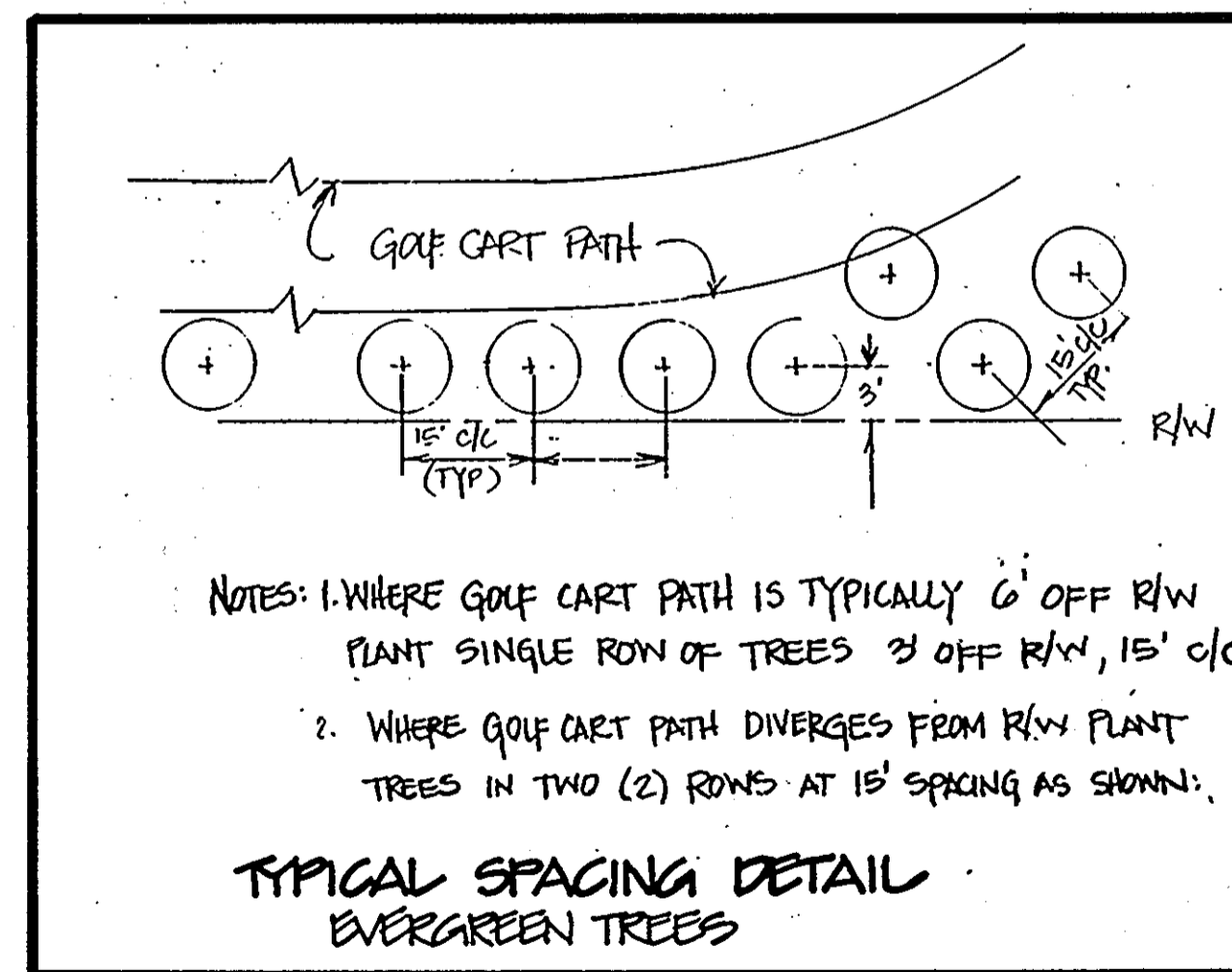


SCHEDULE A PERIMETER LANDSCAPE EDGE

Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscape Type	P	P
Linear Feet of Roadway Frontage/Perimeter	800	1350
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	YES 200	YES 1000
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	No	No
Number of Plants Required		
Shade Trees	12	7
Evergreen Trees	15	0
Shrubs	0	0
Number of Plants Provided		
Shade Trees	0	9
Evergreen Trees	15	0
Other Trees (2:1 substitution)	24	0
Shrubs (10:1 substitution)	0	0

(Describe plant substitution credits below if needed)

BOTANICAL NAME	COMMON NAME	SYMBOL	QUANTITY	SPACING	SIZE
Fraxinus pennsylvanica 'Marshall's Seedless'	Marshall's Seedless Green Ash	MS	2	25' c/c	2-1/2" - 3" cal.
Acer rubrum 'October Glory'	October Glory Red Maple	OG	4	25' c/c	2-1/2" - 3" cal.
Cornus florida	White Flowering Dogwood	WD	3	15'-20' c/c	8'-10' height
Pinus Strobus	Eastern White Pine	PS	9	10'-15' c/c	6'-8' height
Thuja occidentalis Pyramidalis	Pyramidal Arborvitae	PA	39	8'-10' c/c	5'-6' height



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: *Richard Deane* 8/12/93
 Chief, Division of Land Development and Research: *Richard Blood* 8/12/93

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS
 Director: *James J. Lee* 8/10/93
 Chief, Bureau of Engineering: *Paul Papan* 8/10/93

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT NO WATER OR SANITARY FACILITIES REQUIRED
 County Health Officer: *James Bogues* 8/11/93

APPROVED: REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
 U.S. SOIL CONSERVATION SERVICE: *John Mitchell* 8/14/93

APPROVED: THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
 HOWARD SOIL CONSERVATION DISTRICT: *John P. Roberts* 8/14/93

PLAN APPROVAL STAMP
 APPROVED PLANNING BOARD OF HOWARD COUNTY
 DATE 7-22-93

DEVELOPER'S CERTIFICATE
 I/We certify that all development and construction will be done in accordance with this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction of this 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 onsite inspection by the Howard County Soil Conservation District or their authorized agents, as are deemed necessary.
 Signature of Developer: *Louis Mangione* 7/20/93
 ENGINEER'S CERTIFICATE
 I hereby 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 County Soil Conservation District.
 Signature: *Robert W. Mochi, P.E.* 7/20/93

OWNER
 MANGIONE ENTERPRISES OF TURF VALLEY
 1205 YORK ROAD - PENTHOUSE
 LUTHERVILLE, MARYLAND 21093

SUBDIVISION NAME: TURF VALLEY WEST GOLF COURSE PROPOSED ADDITION

SECT./AREA	LOT/PARCEL	PREVIOUS FILE
N/A	50 & P/O 8	SDP-92-116, S-86-13, FDP PGCC-1, FDP PGCC-2 & Part of PGCC-3 FDP Part of PGCC-3 & PGCC-4
PLAT No.	BLOCK No.	ZONE
920/285 1263/724	10,11,16	PGCC
TAX MAP	ELEC. DIST.	CENSUS
16	3	6022 & 6030
WATER CODE	SEWER CODE	
N/A	N/A	

LANDSCAPING NOTES AND DETAILS
 PROPOSED ADDITION
 TURF VALLEY WEST GOLF COURSE
 HOWARD COUNTY, MARYLAND
 ELECTION DISTRICT No. 2 & 3
 SEDIMENT CONTROL NOTES AND DETAILS

DATE: JUNE 1993
 PROJECT: 92007.04
 ENGINEERING: YSL
 TYPING: YSL
 SCALE: AS SHOWN
 APPROVAL: RAM

REVISIONS:
 1. REVISION PER M. ANCEL NO. CO. PZ
 2. ADDRESS AND REVISIONS PER PZ
 3. REVISION PER CHIEF OF PZ
 4. NEW SHEET ADDED PER PZ COMMENTS

STATE OF MARYLAND
 ROBERT W. MOCHI, P.E.
 PROFESSIONAL ENGINEER

MILDENBERG, MOCHI & ASSOCIATES, INC.
 ENGINEERS - SURVEYORS - PLANNERS
 3300 North Ridge Road, Suite 235, Ellicott City, Maryland 21043-3350
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