

GENERAL NOTES:

- RIGHT-OF-WAY LINES SHOWN ON THESE PLANS DO NOT INCLUDE EASEMENTS, THEY ARE FOR ASSISTANCE IN INTERPRETING THE PLANS, THEY ARE NOT FOR OFFICIAL FEE RIGHT-OF-WAY AND EASEMENT INFORMATION, SEE APPROPRIATE RIGHT-OF-WAY PLAT OR PLATS.
- THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE FOR INFORMATION AND GUIDANCE ONLY, NO GUARANTEE IS MADE AS TO THE ACCURACY OF SAID LOCATIONS, CALL "MISS UTILITY", 1-800-257-7777 FOR UTILITY LOCATIONS AT LEAST 48 HOURS BEFORE BEGINNING CONSTRUCTION.
- THIS TRAIL SHALL BE CONSTRUCTED TO THE AMERICAN DISABILITIES ACT (ADA) COMPATIBLE GRADES; GENERAL MAXIMUM GRADE IS 5%, FOR RAMP THE MAXIMUM SHALL BE 1:12, WITH 8 FT. LANDINGS FOR EVERY 2.5 FT. OF VERTICAL CHANGE IN GRADE, CONTRACTOR SHALL BE RESPONSIBLE FOR INSURING THAT THE TRAIL MEETS REQUIRED GRADES.

CONSTRUCTION NOTES

- CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN THE VICINITY OF PROPOSED UTILITIES AT NO COST TO THE COUNTY, THEN, IF DIRECTED BY THE ENGINEER, TEST PITS SHALL BE DUG AT UTILITY CROSSINGS TO DETERMINE EXISTING HORIZONTAL AND VERTICAL ALIGNMENT OF UTILITIES.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

MISS UTILITY 1-800-257-7777
 CONSTRUCTION INSPECTION DIVISION, HOWARD COUNTY (410) 313-1880
 STATE HIGHWAY ADMINISTRATION (410) 531-5533
 BALTIMORE GAS & ELECTRIC COMPANY - UNDERGROUND ELECTRIC DISTRIBUTION CUSTOMER SERVICE (410) 685-0123
 ENGINEERING DAMAGE CONTROL (410) 234-5621
 VERIZON 410-224-9285
 AMERICAN TELEPHONE & TELEGRAPH CABLE LOCATION DIVISION (410) 393-3553
 COLONIAL PIPELINE COMPANY (410) 781-4641
 BUREAU OF UTILITIES, HOWARD COUNTY (410) 313-4900

- AVOID DAMAGE TO TREES ON THE PATHWAY TO MAXIMUM EXTENT, OTHER TREES WITHIN LIMITS OF CONSTRUCTION SHALL NOT BE DESTROYED WITHOUT APPROVAL OF THE ENGINEER. TREES GREATER THAN 12" DBH WITHIN OF LOD SHALL BE PROTECTED USING TREE PROTECTIVE FENCING.
- CONTRACTOR SHALL REMOVE TREES, STUMPS, AND ROOT ALONG LINE OF EXCAVATION AS DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE CONDUCTED IN ACCORDANCE WITH SECTION 101 OF THE SHA STANDARD SPECIFICATIONS, CARE SHALL BE TAKEN TO AVOID DISTURBANCE OF EXISTING TREES TO REMAIN

- PLACE REGULATION AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS, ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO ANY ASPHALT PAVING, NO TRAFFIC STUDY IS REQUIRED.

- ALL GRADING SHALL BE LIMITED TO THE L.O.D. SHOWN INCLUDING SIDE SLOPES AND STABILIZATION ONLY, FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED AS FOLLOWS:

A. SEVEN (7) CALENDAR DAYS FOR THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN THREE HORIZONTAL TO ONE VERTICAL (3:1) AND;

B. FOURTEEN (14) CALENDAR DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

- FOR DETAILS NOT SHOWN ON THESE DRAWINGS AND FOR MATERIALS AND CONSTRUCTION METHODS, THE CONTRACTOR SHALL ABIDE BY THE MARYLAND STATE HIGHWAY ADMINISTRATION'S "BOOK OF STANDARDS FOR HIGHWAY AND INCIDENTAL STRUCTURES", "STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS" AND THE SPECIAL PROVISIONS. IN THE EVENT OF ANY DISCREPANCY BETWEEN THESE SOURCES, THE SPECIAL PROVISIONS SHALL GOVERN.

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF MSHA STANDARDS AND SPECIFICATIONS.

- UNLESS INDICATED OTHERWISE, NEW PATHWAY SHALL NOT EXCEED 5% SLOPE.

- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH ONE FOOT CONTOUR INTERVALS PREPARED BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, DATED JUNE 2000.

- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), ALL STREET AND REGULATORY SIGNS SHALL BE PLACED PRIOR TO PLACEMENT OF ANY ASPHALT.

- GPI ATTAINED AN APPROVED HEC-2 MODEL OF THE LITTLE PATUXENT RIVER FROM THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, THIS MODEL WAS UPDATED ACCORDING TO THE PROPOSED WORK ON THIS SITE.

- WETLANDS DELINEATED BY GREENMAN-PEDERSEN, INC., 10620 GUILFORD RD., JESSUP, MARYLAND, 20794, (301) 470-2772, (410) 880-3055.

- NO TRAFFIC STUDY IS REQUIRED FOR THIS PROJECT.

- STORMWATER MANAGEMENT QUANTITY CONTROL IS MET BY PROVIDING CONVEYANCE OF CONCENTRATED FLOW UNDERNEATH THE PATHWAY VIA (1) 13"x17" CMPA, (2) 20"x28" CMPA'S, AND (1) 13"x17" CMPA AT STATIONS 10+30, 14+40, AND 19+20 RESPECTIVELY, THE CHANNEL PROTECTION VOLUME IS NOT REQUIRED BECAUSE THE SITE'S ONE-YEAR POST DEVELOPMENT PEAK DISCHARGE IS LESS THAN 2 CFS. WATER QUALITY IS MET BY RECEIVING THE SHEET FLOW TO BUFFER CREDIT.

- HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS IS RESPONSIBLE FOR DISPOSITION OF TRASH UPON ACCEPTANCE OF THIS PROJECT FOR MAINTENANCE, NO DUMPSTER IS REQUIRED.

- COORDINATES SHOWN HEREON ARE BASED ON HOWARD COUNTY GEODETIC SYSTEM POINT 308A 30DI HORIZONTAL NAD 83 DATUM.

- APPROXIMATE LOCATION OF EXISTING WATER AND SEWER MAINS ARE SHOWN, THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES, AND MAINTAIN UNINTERRUPTED SUPPLY, ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

- PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS ALONG OLD ANNAPOLIS ROAD.

- CONTRACTOR SHALL EXERCISE CAUTION WHILE WORKING WITHIN CLOSE PROXIMITY TO OVERHEAD POWER LINES, FOLLOW ALL O.S.H.A. AND "MARYLAND HIGH VOLTAGE ACT" REGULATIONS.

- THIS PLAN SHALL BE SUBJECT TO THE LATEST EDITION OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE AMENDED ZONING REGULATIONS - COUNCIL BILL 50-2001.

- THERE ARE WETLANDS LOCATED ON THE SITE, IT IS THE CONTRACTORS RESPONSIBILITY TO LIMIT WETLAND IMPACTS AS MUCH AS PRACTICAL DURING CONSTRUCTION.

- STEEP SLOPES 25% AND GREATER EXIST ON THIS SITE.

- NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE REQUIRED WETLANDS, STREAMS OR THEIR BUFFERS AND 100-YEAR FLOODPLAIN AREA, EXCEPT AS APPROVED BY WP-03-08.

- THIS PROJECT IS EXEMPT FROM THE FOREST CONSERVATION REQUIREMENTS IN ACCORDANCE WITH CHAPTER 2, PAGE 4 OF THE HOWARD COUNTY FOREST CONSERVATION MANUAL BECAUSE ALL CALCULATIONS AND RETENTION PRIORITIES ONLY APPLY TO THE NET TRACT AREA (I.E. THE PORTION OF A SITE NOT IN THE FLOOD PLAIN) SINCE FLOOD PLAINS ARE EXEMPTED FROM STATE ACT SINCE THE PROPOSED PATHWAY PROJECT IS LOCATED ENTIRELY WITHIN THE LIMITS OF 100 YEAR FLOOD PLAIN AND THE NET TRACT AREA IS ZERO, THERE IS NO AFFORESTATION OR REFORESTATION OBLIGATION CREATED FOR THE PROPOSED DEVELOPMENT. EXEMPT PER SECTION 16.1202.(b)(1)(c) OF HOWARD COUNTY CODE.

COUNCIL RESOLUTION NO.146-2002, THE COUNTY COUNCIL APPROVED THE CONDEMNATION PROCEEDINGS IN THE CIRCUIT COURT OF HOWARD COUNTY FOR THE 40 FT. WIDE RIGHT-OF-WAY NEAR OLD ANNAPOLIS ROAD ON OCTOBER 7, 2002.

THE 0.0193 ACRES OF FEE SIMPLE, 0.0078 ACRES OF TEMPORARY GRADING EASEMENT AND 0.0096 ACRES OF TEMPORARY CONSTRUCTION EASEMENT LOCATED ON A 40 FT. RIGHT-OF-WAY OF UNKNOWN OWNERSHIP IS THE SUBJECT OF CONDEMNATION RESOLUTION NO. 146-2002 AND CONDEMNATION CASE NO.13-C-03-54668 FILED IN THE CIRCUIT COURT FOR HOWARD COUNTY.

COUNCIL RESOLUTION NO.117-2003, THE COUNTY COUNCIL APPROVED THE VARIANCE OF THE 20 FT. USE SETBACK FROM ALL PUBLIC ROAD RIGHTS-OF-WAY LINES AND PROJECT PROPERTY LINES AS SPECIFIED IN THE "R-20" ZONING DISTRICT REGULATIONS ON JULY 30, 2003.

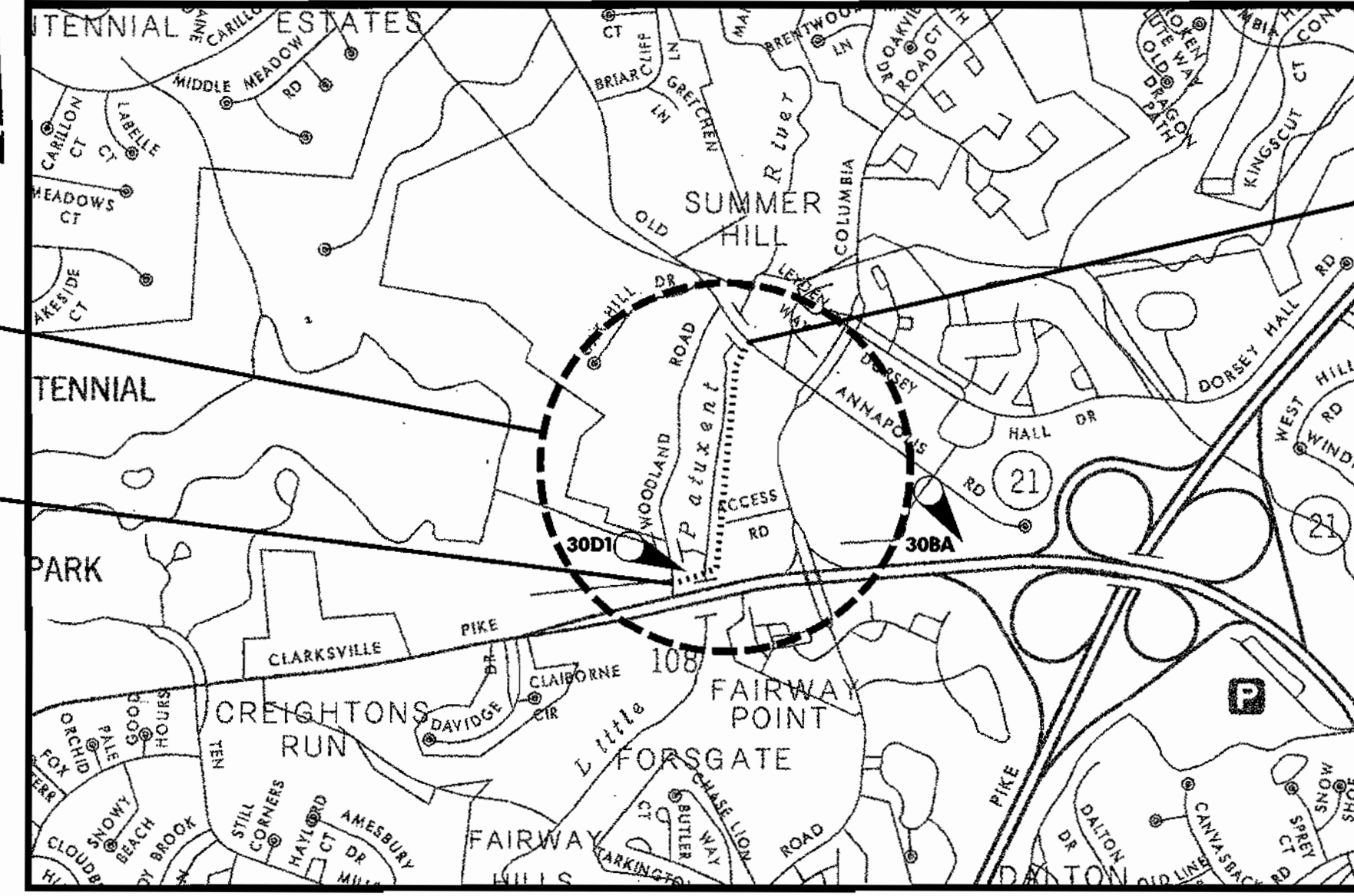
CENTENNIAL ACCESS PATHWAY

HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

CAPITAL PROJECT NO. N-3919

SHA CONTRACT NO.: HO6715125



LOCATION MAP
SCALE: 1" = 1000'

SHEET NO.	SDP NO.	DESCRIPTION
1	1	TITLE SHEET
2	2	SITE PLAN 1
3	3	SITE PLAN 2
4	4	DRAINAGE PROFILES
5	5	CONSTRUCTION DETAILS
6	6	BOARDWALK AND CONSTRUCTION NOTES AND DETAILS
7	7	GRADING, SEDIMENT AND EROSION CONTROL NOTES
8	8	GRADING, SEDIMENT AND EROSION CONTROL DETAILS
9	9	DRAINAGE AREA MAP
S-1		GENERAL NOTES & BRIDGE DETAILS
S-2		GENERAL PLAN & ELEVATION
S-3		PLAN & ELEVATION-ABUTMENT A
S-4		PLAN & ELEVATION-ABUTMENT B
S-5		SECTIONS AND DETAILS-ABUTMENTS A & B

THE 0.0193 ACRES OF FEE SIMPLE, 0.0078 ACRES OF TEMPORARY GRADING EASEMENT AND 0.0096 ACRES OF TEMPORARY CONSTRUCTION EASEMENT LOCATED ON A 40 FT. RIGHT-OF-WAY OF UNKNOWN OWNERSHIP IS THE SUBJECT OF CONDEMNATION RESOLUTION NO.146-2002 AND CONDEMNATION CASE NO.13-C-03-54668 FILED IN THE CIRCUIT COURT FOR HOWARD COUNTY.

HOWARD COUNTY FIELD BOOK SURVEY REFERENCES

BOOK NO.	DATE SURVEYED
392	JUNE, 2000
472	JUNE, 2000

SITE ANALYSIS

1.33 AC. TOTAL PROJECT AREA
 1.33 AC. TOTAL AREA DISTURBED
 PRESENT ZONING R-20
 PROPOSED USE: PEDESTRIAN PATHWAY
 0.95 AC. AREA OF VEGETATIVE STABILIZATION
 0.38 AC. AREA OF IMPERVIOUS SURFACE
 2090 LINEAR FEET OF 8 FT. BITUMINOUS PATHWAY
 70 LINEAR FEET OF BRIDGE
 205 LINEAR FEET OF BOARDWALK
 1,275 S.F. AREA OF TEMPORARY WETLAND DISTURBANCE
 0 S.F. AREA OF PERMANENT WETLAND DISTURBANCE
 7,424 S.F. AREA OF 25 FT. WETLAND BUFFER DISTURBANCE
 -M.D.E. AUTHORIZATION NO.: 01-NT-0543/200261144
 -DEPARTMENT OF PLANNING AND ZONING WAIVER NO.: WP-03-08

ADDRESS CHART	
LOT/PARCEL #	STREET ADDRESS
P.187	4795 WOODLAND ROAD

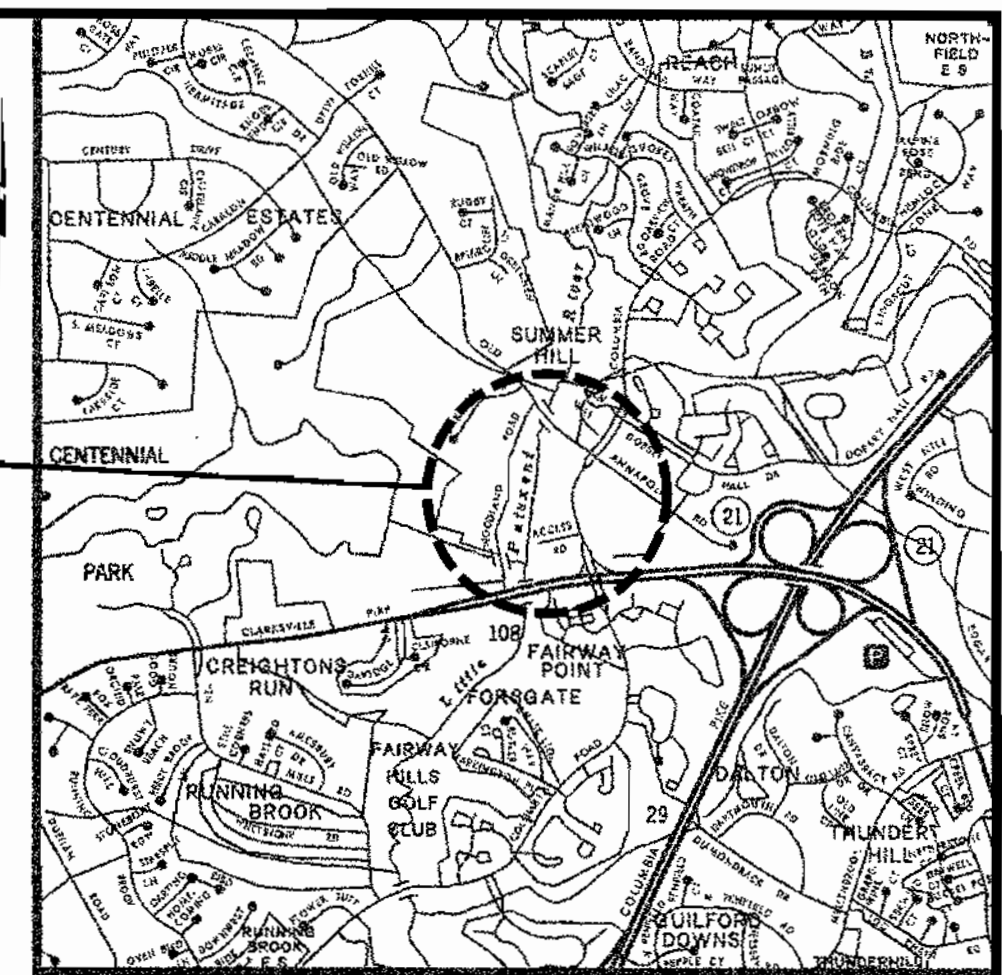
PERMIT INFORMATION CHART		
Subdivision Name	Section/Area	Lot/Parcel No.
Centennial Access Pathway	N/A	44, 45, 46, 58, 187, 417, 419
Plat # or L/P	Grid #	Zoning
2609/670	9	R-20
Tax Map No.	Elect. Distr.	Census Tract
30	2nd	6023.01
Water Code	Sewer Code	
n/a	n/a	

THE PATHWAY PROPERTY IS OWNED BY HOWARD COUNTY, DPW 9250 BENDIX ROAD COLUMBIA, MD 21045

BENCH MARK INFORMATION

HOWARD COUNTY CONTROL, STA. 308A, N 573149.04, E 1357083.22 ELEV. 397.91, STAMPED CONCRETE MONUMENT

HOWARD COUNTY CONTROL, STA. 30DI, N 572311.62, E 1355139.10, ELEV. 409.967, STAMPED CONCRETE MONUMENT, 0.3' ABOVE SURFACE, 6' NORTH OF FENCE LINE



VICINITY MAP
SCALE: 1" = 2000'

LEGEND

EXISTING	PROPOSED
CONTOUR	--- 30 ---
SPOT ELEVATION	x 30.05
EDGE OF ROAD	-----
CURB AND GUTTER	=====
BUILDING	[]
BITUMINOUS PATHWAY	[---]
STORM DRAIN PIPE	====
STORM DRAIN INLET	[]
STORM DRAIN MANHOLE	[]
WATER VALVE	[]
REDUCER	[]
FENCE	---x---x---x---
TREELINE	[]
WETLAND LIMIT	-----
25' WETLAND BUFFER	-----
LIMIT OF DISTURBANCE	-----
PROPERTY/R-O-W LINE	-----
STABILIZED CONSTRUCTION ENTRANCE	[]
TEMPORARY STONE OUTLET STRUCTURE	[]
CHECK DAM	[]
SILT FENCE	[]
SUPER SILT FENCE	[]
EARTH DIKE	[]
INLET PROTECTION	[]
SOIL STABILIZATION MATTING	[]
TREE PROTECTIVE FENCE	[]
STORM DRAIN EASEMENT	[]
CONCRETE SIDEWALK	[]

SITE DEVELOPMENT PLANS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 10/6/03
 Chief, Development Engineering Division

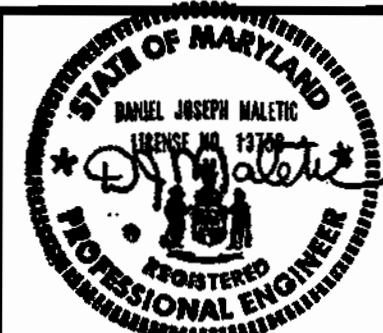
[Signature] 10/16/03
 Chief, Division of Land Development

[Signature] 10/16/03
 Director

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director: [Signature] DATE: 9/17/03

DEPARTMENT OF RECREATION & PARKS
 HOWARD COUNTY, MARYLAND
 Director: [Signature] DATE: 9/17/03

GPI Greenman-Pedersen, Inc.
 ENGINEERS, ARCHITECTS, PLANNERS, CONSTRUCTION ENGINEERS & INSPECTORS
 10620 GUILFORD ROAD, JESSUP, MARYLAND, 20794
 WASH. (301) 470-2772 BALT. (410) 880-3055
 FAX: (301) 490-2849 www.gpi.com



DES: W.R.F.	BY: NO	REVISION	DATE
DRN: W.K.T.			
CHK: K.P.			
DATE: SEPT., 2003			

TITLE SHEET

SCALE MAP NO. _____ BLOCK NO. _____

CENTENNIAL ACCESS PATHWAY

HOWARD COUNTY, MARYLAND
 CAPITAL PROJECT NO. N-3919

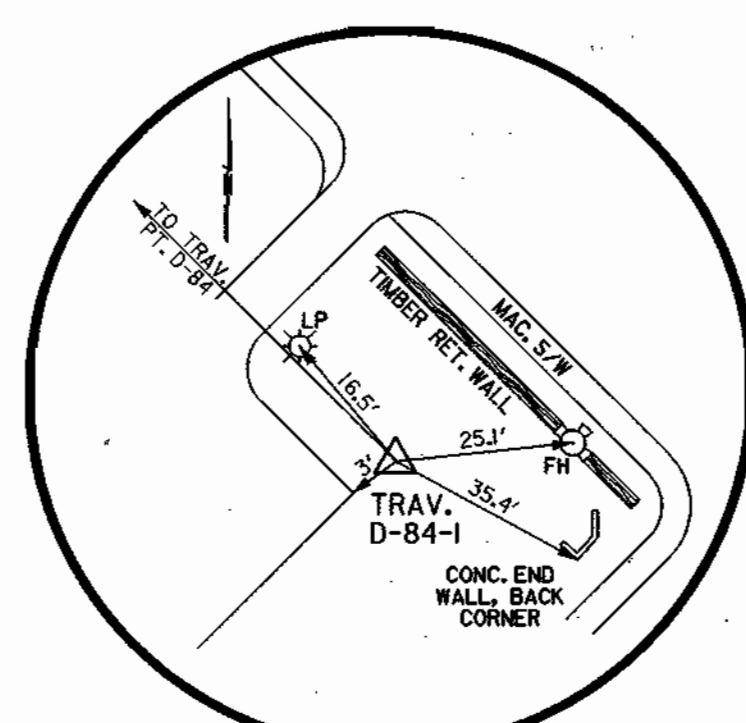
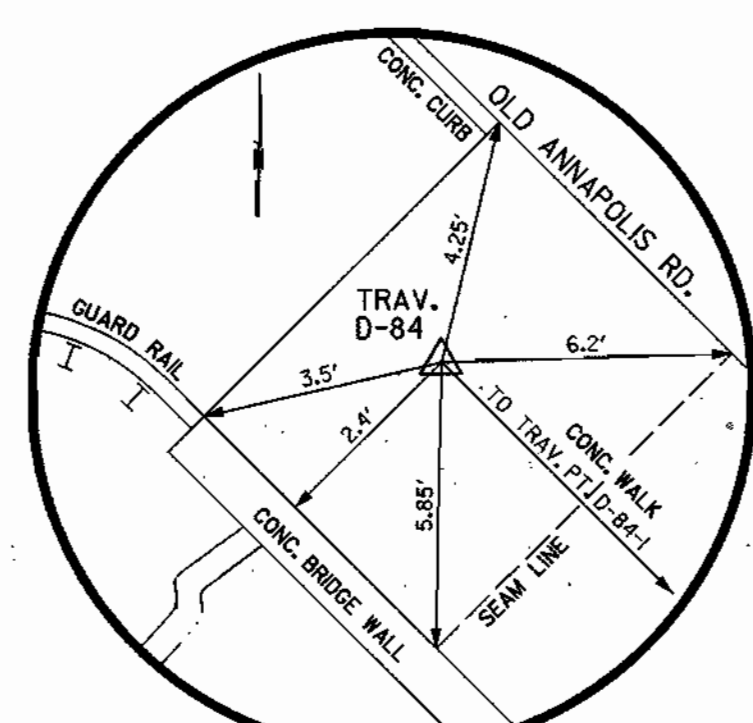
SCALE AS SHOWN
 SHEET 1 OF 14

CONSTRUCTION BASELINE INFORMATION

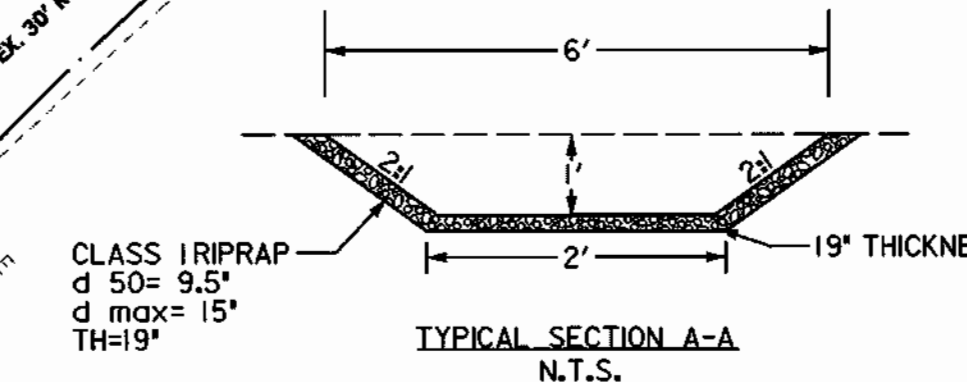
LINE/CURVE	STATION	NORTHING	EASTING
Element: Linear			
POB ()	0+00.00	513637.6091	843766.1279
PC ()	0+72.99	513598.8282	843704.2941
Tangent Direction:		S 57°54'17.54" W	
Tangent Length:		72.99	
Element: Circular			
PC ()	0+72.99	513598.8282	843704.2941
PI ()	1+33.87	513566.4806	843652.7179
CC ()		513628.4790	843685.6977
PT ()	1+46.42	513627.3285	843650.7166
Radius:		35.00	
Delta:		120°12'40.90" Right	
Length:		73.43	
Tangent:		60.88	
Chord:		60.69	
Chord Direction:		N 61°59'22.01" W	
Element: Circular			
PC ()	1+66.68	513647.5779	843650.0506
PI ()	2+07.76	513688.6322	843648.7004
CC ()		513644.4551	843555.1020
PT ()	2+44.22	513715.7699	843617.8650
Radius:		95.00	
Delta:		46°45'56.56" Left	
Length:		77.54	
Tangent:		41.08	
Chord:		75.41	
Chord Direction:		N 25°15'59.84" W	
Element: Linear			
PT ()	2+44.22	513715.7699	843617.8650
PC ()	2+97.55	513750.9997	843577.8351
Tangent Direction:		N 48°38'58.12" W	
Tangent Length:		53.32	
Element: Circular			
PC ()	2+97.55	513750.9997	843577.8351
PI ()	3+02.08	513753.9959	843574.4305
CC ()		513826.0678	843643.9014
PT ()	3+06.61	513757.2881	843571.3112
Radius:		100.00	
Delta:		5°11'56.43" Right	
Length:		9.06	
Tangent:		4.54	
Chord:		9.06	
Chord Direction:		N 46°03'09.91" W	
Element: Linear			
PT ()	3+06.61	513757.2881	843571.3112
PC ()	3+43.25	513783.8825	843546.1128
Tangent Direction:		N 43°27'21.69" W	
Tangent Length:		36.64	
Element: Circular			
PC ()	3+43.25	513783.8825	843546.1128
PI ()	5+99.87	513970.1644	843369.6094
CC ()		513704.7858	843462.6340
PT ()	6+07.63	513714.4513	843348.0409
Radius:		115.00	
Delta:		131°43'21.69" Left	
Length:		264.38	
Tangent:		256.62	
Chord:		209.89	
Chord Direction:		S 70°40'57.47" W	
Element: Linear			
PT ()	6+07.63	513714.4513	843348.0409
PC ()	9+12.88	513410.2812	843322.3852
Tangent Direction:		S 4°49'16.62" W	
Tangent Length:		305.25	
Element: Circular			
PC ()	9+12.88	513410.2812	843322.3852
PI ()	9+30.41	513392.8120	843320.9118
CC ()		513494.3292	843235.9235
PT ()	9+47.94	513375.4052	843318.8269
Radius:		1000.00	
Delta:		2°00'31.41" Right	
Length:		35.06	
Tangent:		17.43	
Chord:		35.06	
Chord Direction:		S 5°49'32.33" W	
Element: Linear			
PT ()	9+47.94	513375.4052	843318.8269
PC ()	11+78.93	513146.0573	843291.3570
Tangent Direction:		S 6°49'48.03" W	
Tangent Length:		230.99	
Element: Circular			
PC ()	11+78.93	513146.0573	843291.3570
PI ()	12+02.46	513122.6971	843288.5590
CC ()		513027.1333	844284.2603
PT ()	12+25.97	513099.2311	843286.8628
Radius:		1000.00	
Delta:		2°41'43.89" Left	
Length:		47.05	
Tangent:		23.53	
Chord:		47.04	
Chord Direction:		S 5°28'56.09" W	
Element: Linear			
PT ()	12+25.97	513099.2311	843286.8628
PC ()	14+89.51	512836.3798	843267.8623
Tangent Direction:		S 4°08'04.14" W	
Tangent Length:		263.54	

CONSTRUCTION NOTES:

- CONTRACTOR SHALL REMOVE EXISTING DETERIORATED SILT FENCE ALONG THE PATHWAY ALIGNMENT.
- SEE SPECIFICATION BOOKLET FOR GEOTECHNICAL INFORMATION.
- CONTRACTOR SHALL EXERCISE CAUTION WHILE WORKING WITHIN CLOSE PROXIMITY TO OVERHEAD POWER LINES, FOLLOW ALL O.S.H.A. AND "MARYLAND HIGH VOLTAGE ACT" REGULATIONS.
- MARYLAND STATE HIGHWAY ADMINISTRATION TRAFFIC STANDARDS MD.104.02-02 AND MD.104.04-02 SHALL BE USED FOR CHANNELIZATION OF TRAFFIC ON OLD ANNAPOLIS ROAD AND WOODLAND ROAD. ONE TEN FOOT LANE SHALL BE KEPT FREE FOR TRAFFIC FLOW AT ALL TIMES.
- CONTRACTOR SHALL ADJUST EXISTING UTILITIES INCLUDING MANHOLES, VALVE BOXES AND METER COVERS TO PROPOSED GRADE.
- CONTRACTOR SHALL CURL SILT FENCE ENDS BY TWO FEET IN ELEVATION FOR CONTAINMENT.
- NO DISTURBANCE OR OBSTRUCTION TO STREAM FLOW IS TO BE ALLOWED DURING BRIDGE AND SITE CONSTRUCTION.
- SEE PATHWAY TYPICAL SECTION ON THE CONSTRUCTION DETAILS SHEET 5 OF 14.



REFERENCE TIES
NOT TO SCALE



CLASS I RIPRAP
d 50 = 9.5"
d max = 15"
TH = 19"

CONTRACTOR SHALL ONLY CONSTRUCT THE AMOUNT OF PATHWAY THAT CAN BE STABILIZED WITH GRADED AGGREGATE SUB-BASE AND SEED & MULCH THE SAME WORK DAY.

NO CONSTRUCTION PERMITTED ON PROPOSED BOARDWALK OR PEDESTRIAN BRIDGE

Reviewed for Howard SCD and meets Technical Requirements

Jim Myler 10-2-03
USDA - Natural Resources Conservation Service Date

This development is approved for soil erosion and sediment control by the HOWARD COUNTY CONSERVATION DISTRICT.

John R. Robinson 10-2-03
Howard SCD Date

DEVELOPERS CERTIFICATE

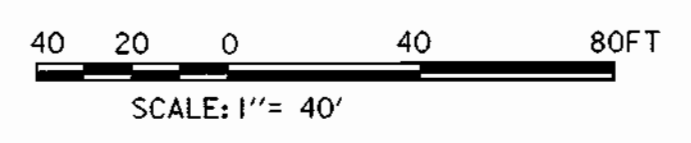
I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance of a Department of the Environment Approval Training Program for the Control of Sediment and Erosion before beginning the project. I/We authorize periodic on-site inspection by the Howard Soil Conservation District.

William Egan 2/17/03
Signature of Chief, Bureau of Engineering Date

ENGINEERS CERTIFICATE

I certify that this plan for erosion and sediment control represents a practical and workable plan based on personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

John A. Taylor 9-17-03
Signature of Engineer Date



SITE DEVELOPMENT PLANS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chad Danner 10/16/03
Chief, Development Engineering Division Date

Chris Hammett 10/16/03
Chief, Division of Land Development Date

John A. Taylor 11/11/03
Director Date

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

John A. Taylor 9/17/03
DIRECTOR OF PUBLIC WORKS DATE

DEPARTMENT OF RECREATION & PARKS
HOWARD COUNTY, MARYLAND

Joseph Herten 9-17-03
DIRECTOR, DEPARTMENT OF RECREATION AND PARKS DATE

GPI Greenman-Pedersen, Inc.

ENGINEERS, ARCHITECTS, PLANNERS, CONSTRUCTION ENGINEERS & INSPECTORS
1620 GUILFORD ROAD, BETHESDA, MARYLAND, 20774
WASH. (301) 470-5772 BALT. (410) 680-0955
FAX: (301) 460-2649 www.gpinc.com

STATE OF MARYLAND
REGISTERED PROFESSIONAL ENGINEER

DES:	BY:	NO:	REVISION:	DATE:
W.R.F.				
W.K.T.				
K.P.				
SEPT., 2003				

SITE PLAN 1

SCALE MAP NO. BLOCK NO.

SDP SHEET 2 OF 9

CENTENNIAL ACCESS PATHWAY

HOWARD COUNTY, MARYLAND
CAPITAL PROJECT NO. N-3919

SCALE AS SHOWN

SHEET 2 OF 14

CONSTRUCTION BASELINE INFORMATION

LINE/CURVE	STATION	NORTHING	EASTING	LINE/CURVE	STATION	NORTHING	EASTING
Element: Circular				Element: Linear			
PC ()	14+89.51	512836.3798	843267.8623	PT ()	20+52.10	512280.4662	843204.2581
PI ()	14+94.50	512831.4060	843261.5028	PC ()	21+28.11	512221.6792	843156.0798
PT ()	14+99.49	512826.4287	843261.1929	CC ()	21+28.11	512221.6792	843156.0798
Radius:	1000.00			PT ()	21+78.08	512203.7043	843111.6577
Delta:	0°34'17.21" Left			Radius:	50.00		
Length:	4.99			Delta:	57°16'03.40" Right		
Tangent:	9.97			Length:	49.98		
Chord:	9.97			Tangent:	27.30		
Chord Direction:	S 3°50'55.54" W			Chord:	47.92		
Element: Linear				Chord Direction:	S 67°58'11.25" W		
PT ()	14+99.49	512826.4287	843261.1929	Element: Linear			
PC ()	16+51.63	512668.5884	843257.3646	PT ()	21+78.08	512203.7043	843111.6577
CC ()	16+76.15	512730.7351	842289.2976	PC ()	22+47.62	512211.7005	843042.5865
PT ()	16+94.67	512631.6676	843254.3783	PI ()	22+47.62	512211.7005	843042.5865
Radius:	1000.00			CC ()	22+47.62	512211.7005	843042.5865
Delta:	2°07'20.78" Right			PT ()	22+47.62	512211.7005	843042.5865
Length:	37.04			Radius:	500.00		
Tangent:	18.52			Delta:	4°03'33.42" Left		
Chord:	37.04			Length:	35.42		
Chord Direction:	S 4°37'27.32" W			Tangent:	17.72		
Element: Linear				Chord:	35.42		
PT ()	16+94.67	512631.6676	843254.3783	Chord Direction:	N 85°25'33.76" W		
PC ()	19+99.24	512328.5982	843224.2056	Element: Linear			
CC ()	19+99.24	512328.5982	843224.2056	PT ()	22+83.04	512214.5248	843007.2828
PT ()	20+52.10	512280.4662	843204.2581	PDE ()	22+83.04	512214.5248	843007.2828
Radius:	90.00			PC ()	25+64.91	512218.1591	842925.4965
Delta:	33°39'01.85" Right			CC ()	25+64.91	512218.1591	842925.4965
Length:	52.86			PT ()	25+64.91	512218.1591	842925.4965
Tangent:	27.22			Radius:	500.00		
Chord:	52.10			Delta:	4°03'33.42" Left		
Chord Direction:	S 22°30'38.63" W			Length:	35.42		

CONSTRUCTION NOTE:

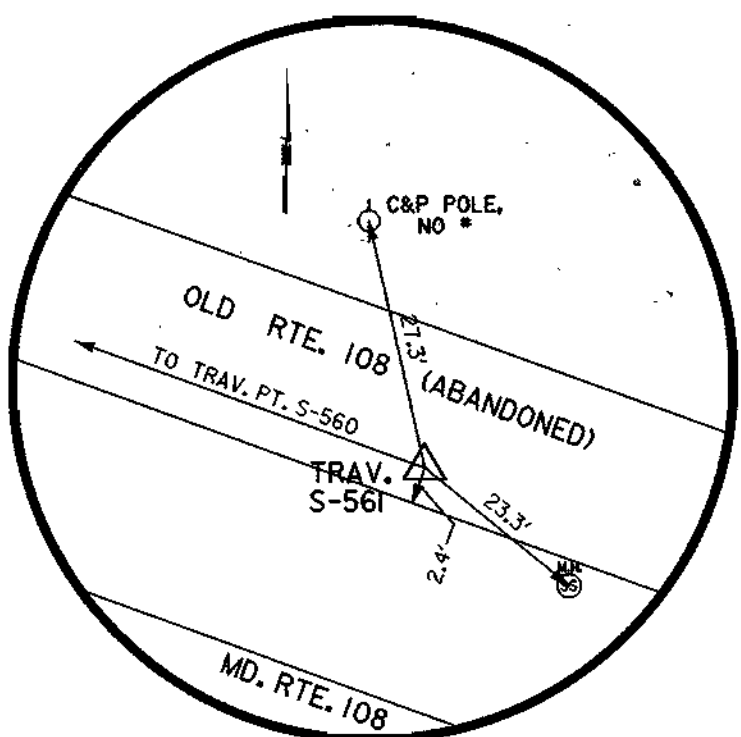
1. SEE PATHWAY TYPICAL SECTION ON THE CONSTRUCTION DETAILS SHEET 5 OF 14.

CONTRACTOR SHALL ONLY CONSTRUCT THE AMOUNT OF PATHWAY THAT CAN BE STABILIZED WITH GRADED AGGREGATE SUB-BASE AND SEED & MULCH THE SAME WORK DAY.

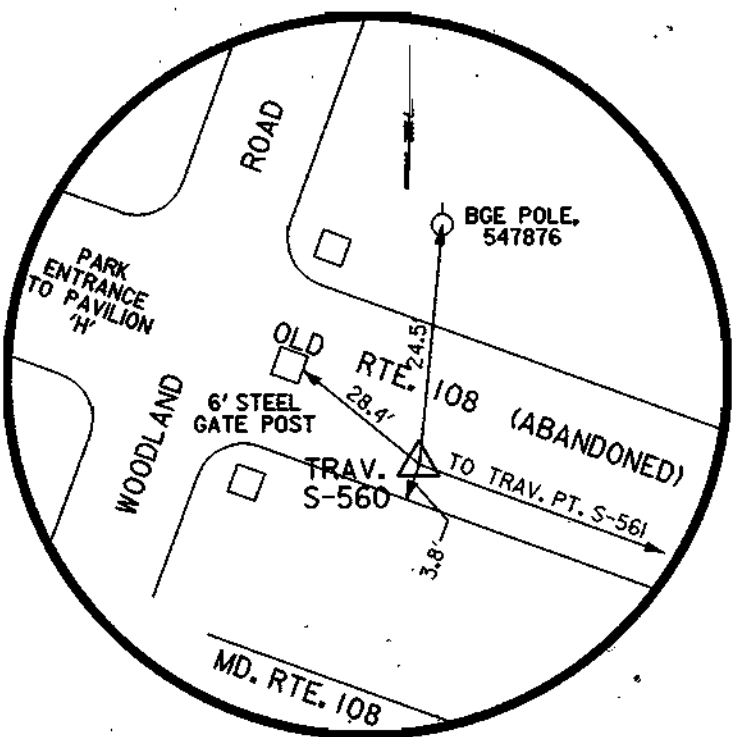
CLASS I RIPRAP
L = 16'
W = 12'
C₁₀₀ = 9.5%
C₅₀ = 15%
TH = 30%
0% SLOPE

CONTRACTOR SHALL REMOVE 15 LF OF EX. 12" HDPE AND REGRADE TO PROVIDE POSITIVE DRAINAGE
CONSTRUCT 50'x10' BOARDWALK 'A' FROM STA. 12+68 TO STA. 13+18. INSTALL TYPE 'A' HANDRAIL - SEE DETAIL SHEET 6

CONTRACTOR SHALL REMOVE 40 LF OF EX. WIRE FENCE WITHIN ROW



TRAV. PT. S-561
PK NAIL IN MAC. ROADWAY,
N 512205.77,
E 84313.47,
ELEV. 318.75'



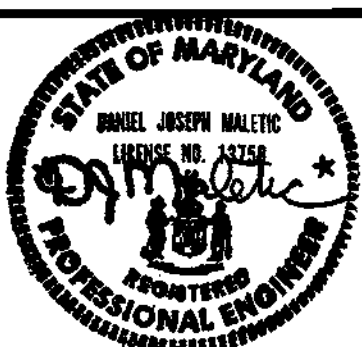
TRAV. PT. S-560
PK NAIL IN MAC. ROADWAY,
N 512214.77,
E 842961.63,
ELEV. 318.08'

REFERENCE TIES
NOT TO SCALE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
[Signature] 9/16/03
DIRECTOR OF PUBLIC WORKS DATE

DEPARTMENT OF RECREATION & PARKS
HOWARD COUNTY, MARYLAND
[Signature] 9-17-03
DIRECTOR OF DEPARTMENT OF RECREATION AND PARKS DATE

GPI Greenman-Pedersen, Inc.
ENGINEERS, ARCHITECTS, PLANNERS, CONSTRUCTION ENGINEERS & INSPECTORS
10020 QUELFORD ROAD, JESSUP, MARYLAND, 20794
WASH. (301) 470-2772 BALT. (410) 800-2005
FAX: (301) 470-2649 www.gpi.net



DES: W.R.F.
BY: NO
REVISION
DATE
DRN: W.K.T.
CHK: K.P.
DATE: SEPT., 2003

BY	NO	REVISION	DATE

Reviewed for Howard SCD and meets Technical Requirements
[Signature] 10-2-03
Date
USDA - Natural Resource Conservation Service
This development is approved for soil erosion and sediment control by the Howard County District.
[Signature] 10-2-03
Date
Howard SCD
DEVELOPERS CERTIFICATE
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 Approval Training Program for the Control of Sediment and Erosion before beginning the project. I/We authorize periodic on-site inspection by the Howard Soil Conservation District.
[Signature] 9/17/03
Signature of Chief, Bureau of Engineering Date
ENGINEERS CERTIFICATE
I certify that this plan for erosion and sediment control represents a practical and workable plan based on personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
[Signature] 9-17-03
Signature of Engineer Date

SITE DEVELOPMENT PLANS
APPROVED: DEPARTMENT OF PLANNING AND ZONING
[Signature] 10/6/03
Date
Chief, Development Engineering Division
[Signature] 10/16/03
Date
Chief, Division of Land Development
[Signature] 10/16/03
Date
Director

SDP SHEET 3 OF 9

SITE PLAN 2

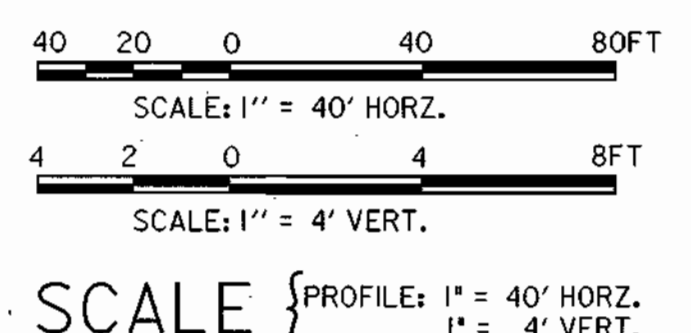
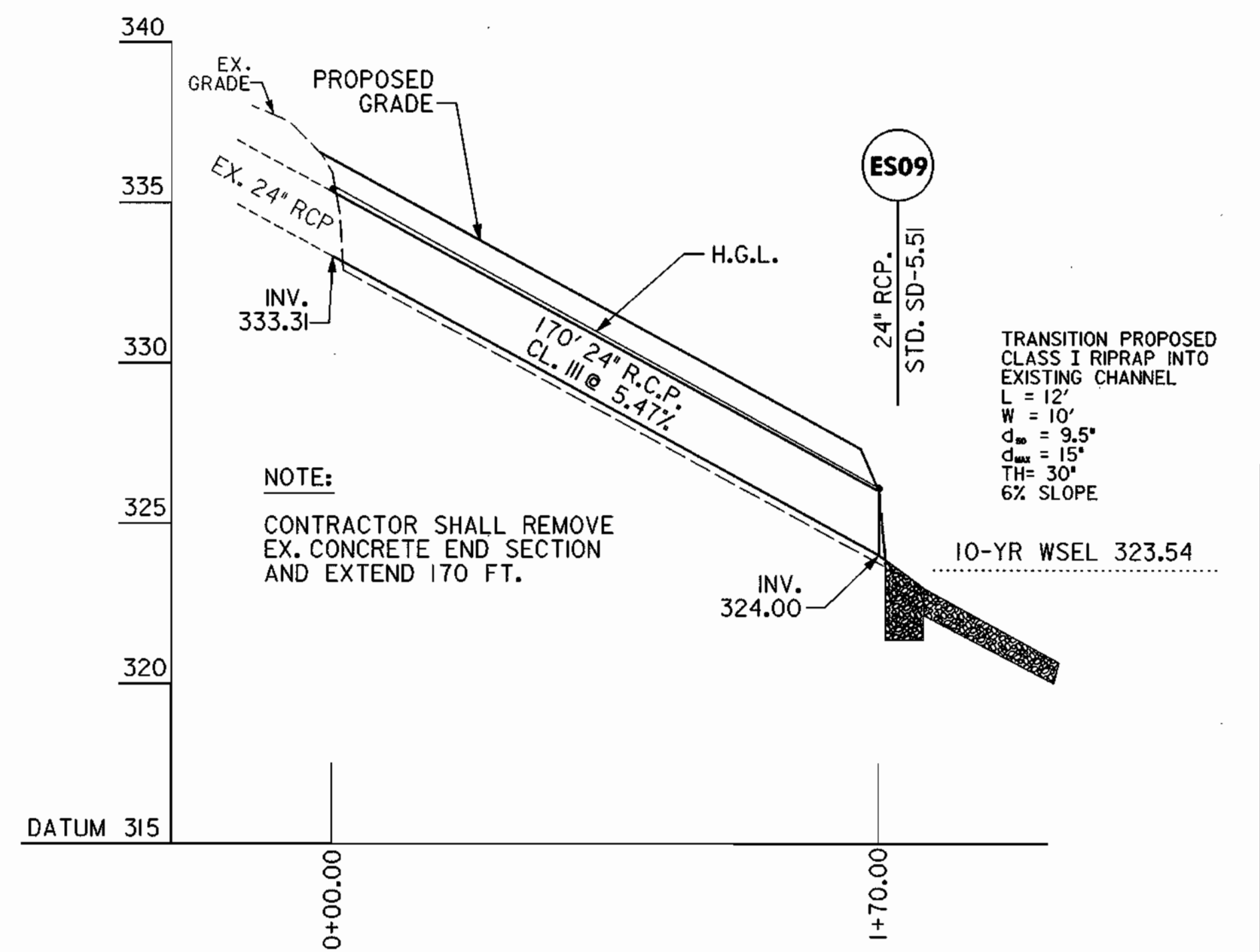
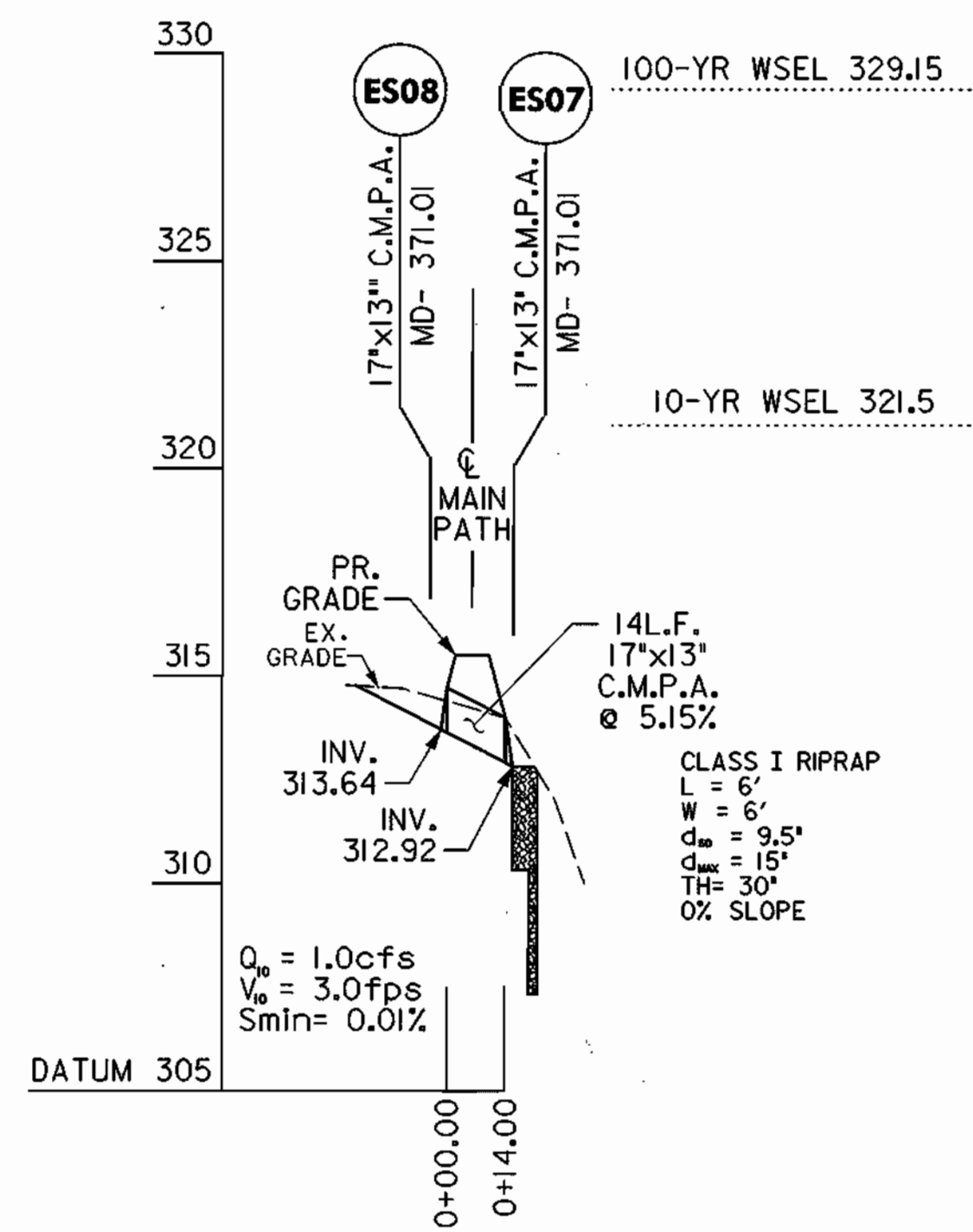
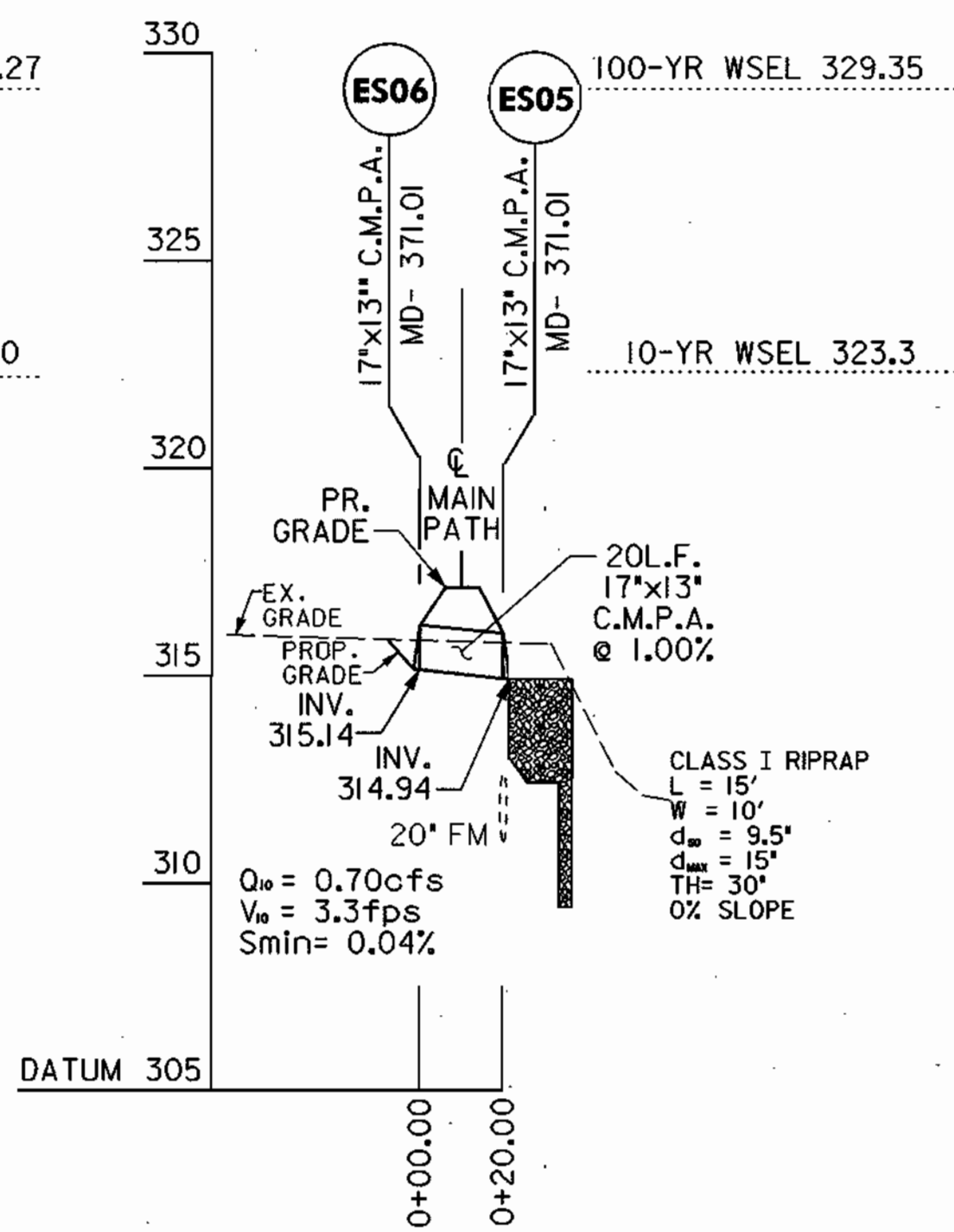
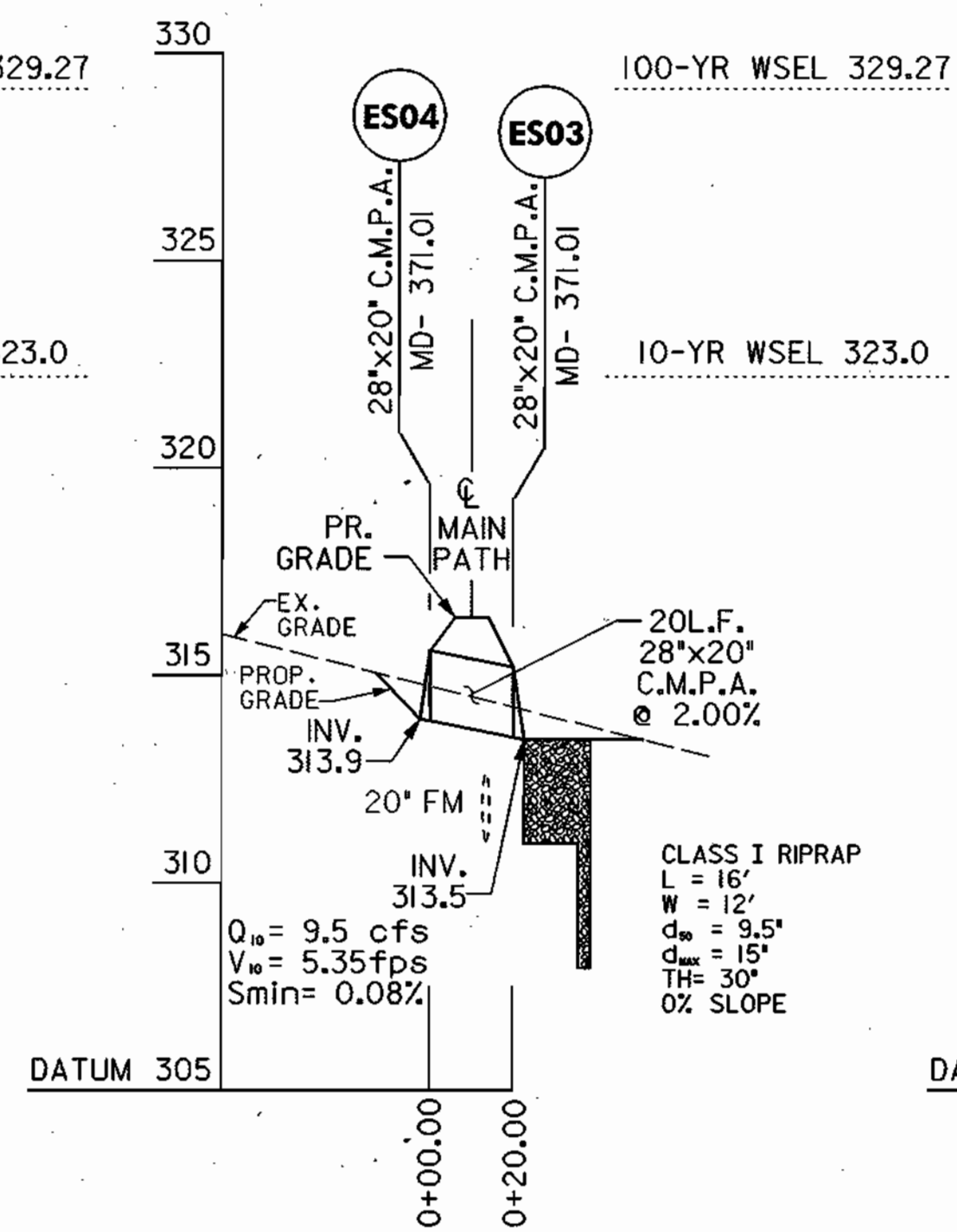
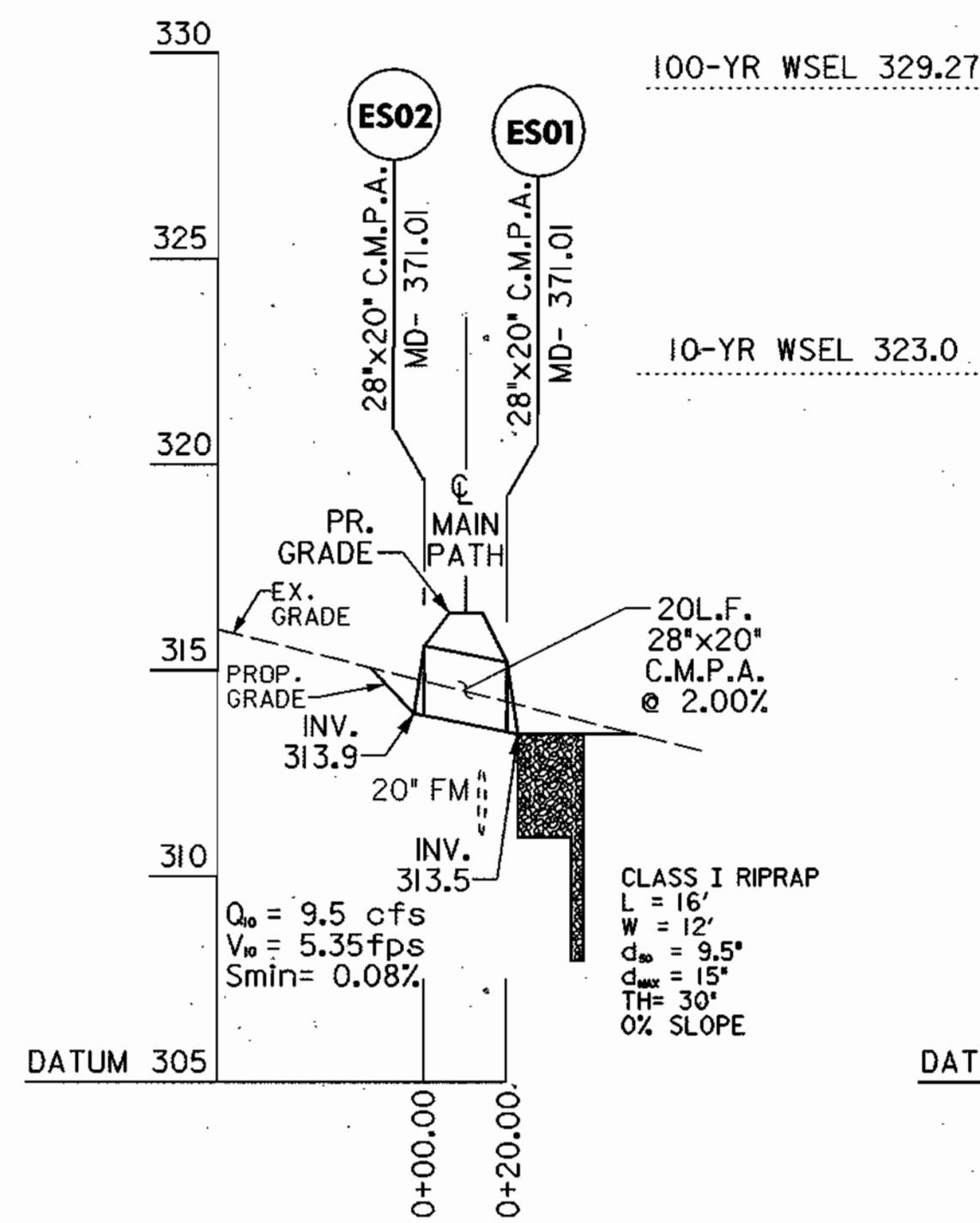
SCALE MAP NO. BLOCK NO.

CENTENNIAL ACCESS PATHWAY
HOWARD COUNTY, MARYLAND
CAPITAL PROJECT NO. N-3919

SCALE AS SHOWN
SHEET 3 OF 14

STRUCTURE SCHEDULE			
NO.	STANDARD	TYPE	LOCATION
ES01	MD-371.01	28"x20" END-SECTION	N 512896.40 E 843260.58
ES02	MD-371.01	28"x20" END-SECTION	N 512887.20 E 843281.29
ES03	MD-371.01	28"x20" END-SECTION	N 512901.42 E 843262.81
ES04	MD-371.01	28"x20" END-SECTION	N 512892.22 E 843263.52
ES05	MD-371.01	17"x13" END-SECTION	N 513290.63 E 843297.80
ES06	MD-371.01	17"x13" END-SECTION	N 513288.54 E 843319.29
ES07	MD-371.01	17"x13" END-SECTION	N 512409.81 E 843224.65
ES08	MD-371.01	17"x13" END-SECTION	N 512408.30 E 843240.17
ES09	SD-5.51	24" CONC END-SECTION	N 513661.33 E 843691.61

PIPE SCHEDULE			
FROM	TO	TYPE	LENGTH
ES01	ES02	28"x20" C.M.P.A.	20L.F.
ES03	ES04	28"x20" C.M.P.A.	20L.F.
ES05	ES06	17"x13" C.M.P.A.	20L.F.
ES07	ES08	17"x13" C.M.P.A.	14L.F.
EX. PIPE	ES09	24" R.C.P.	170L.F.



Reviewed for Howard SCD and meets Technical Requirements
Jan Myler 10-2-03
 Date
 This development is approved for soil erosion and sediment control by the HOWARD COUNTY CONSERVATION DISTRICT.
John R. Robinson 10-2-03
 Date
 DEVELOPER'S CERTIFICATE
 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 of a Department of the Environment Approval Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard County Conservation District.
Michael Egan 9/17/03
 Signature of Chief, Bureau of Engineering Date
 ENGINEERS CERTIFICATE
 I certify that this plan for erosion and sediment control represents a practical and workable plan based on personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
Michael Egan 9-17-03
 Signature of Engineer Date

SITE DEVELOPMENT PLANS
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
David Dwyer 10/10/03
 Date
Cathy Hamilton 10/10/03
 Date
David Dwyer 10/10/03
 Date
 Director Date

SDP SHEET 4 OF 9

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
Jan Myler 9/17/03
 DATE
 DIRECTOR OF PUBLIC WORKS

DEPARTMENT OF RECREATION & PARKS
 HOWARD COUNTY, MARYLAND
David Dwyer 9-17-03
 DATE
 DIRECTOR, DEPARTMENT OF RECREATION AND PARKS

GPI Greenman-Pedersen, Inc.
 ENGINEERS, ARCHITECTS, PLANNERS, CONSTRUCTION ENGINEERS & INSPECTORS
 10620 GULFORD ROAD, JESSUP, MARYLAND, 20794
 WASH. (301) 470-2772 BALT. (410) 860-3155
 FAX: (301) 490-2648 www.gpi.com

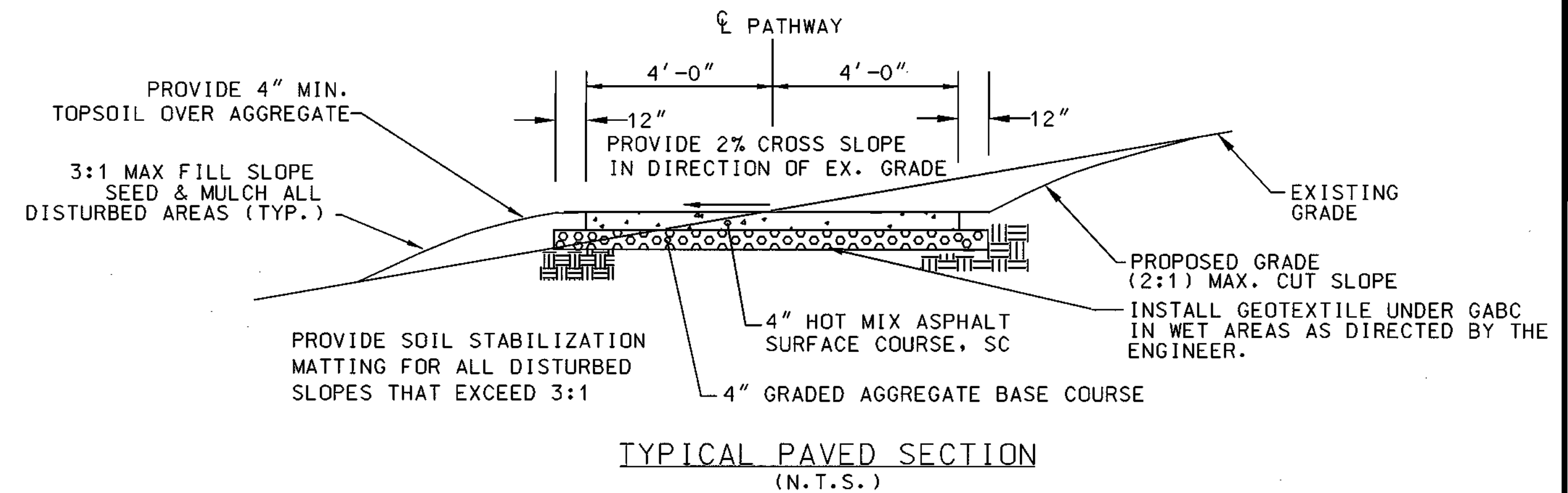
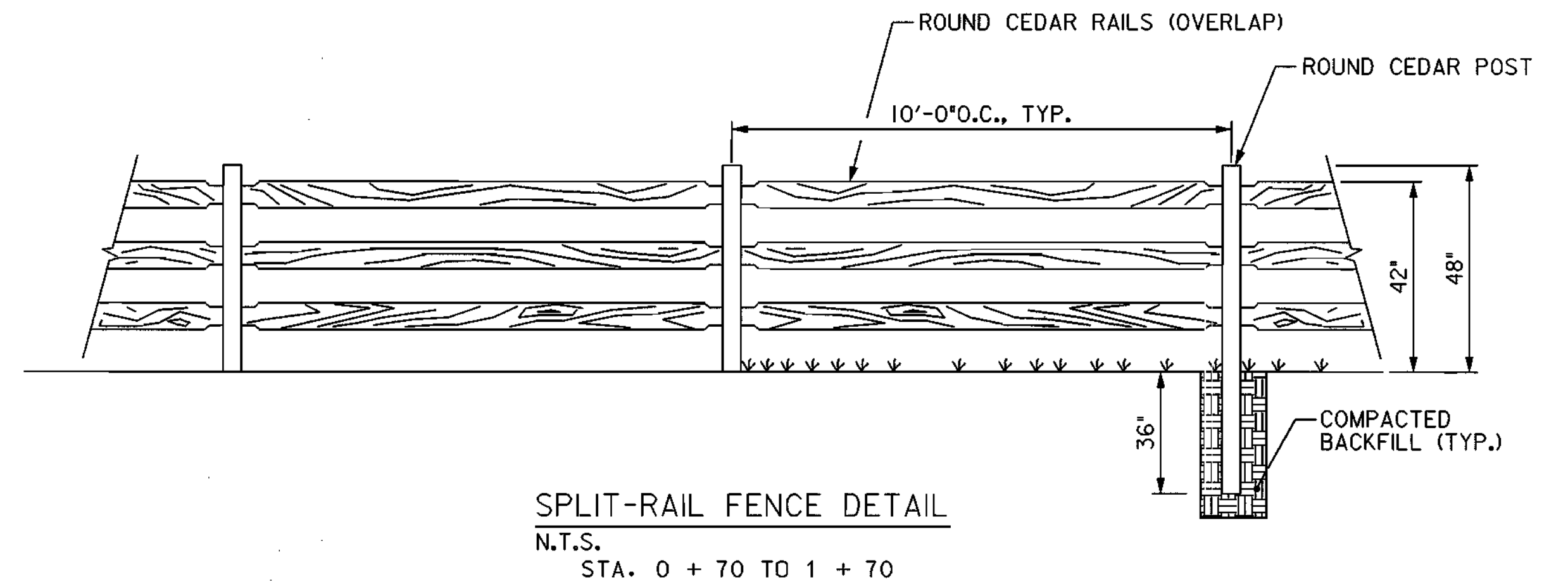
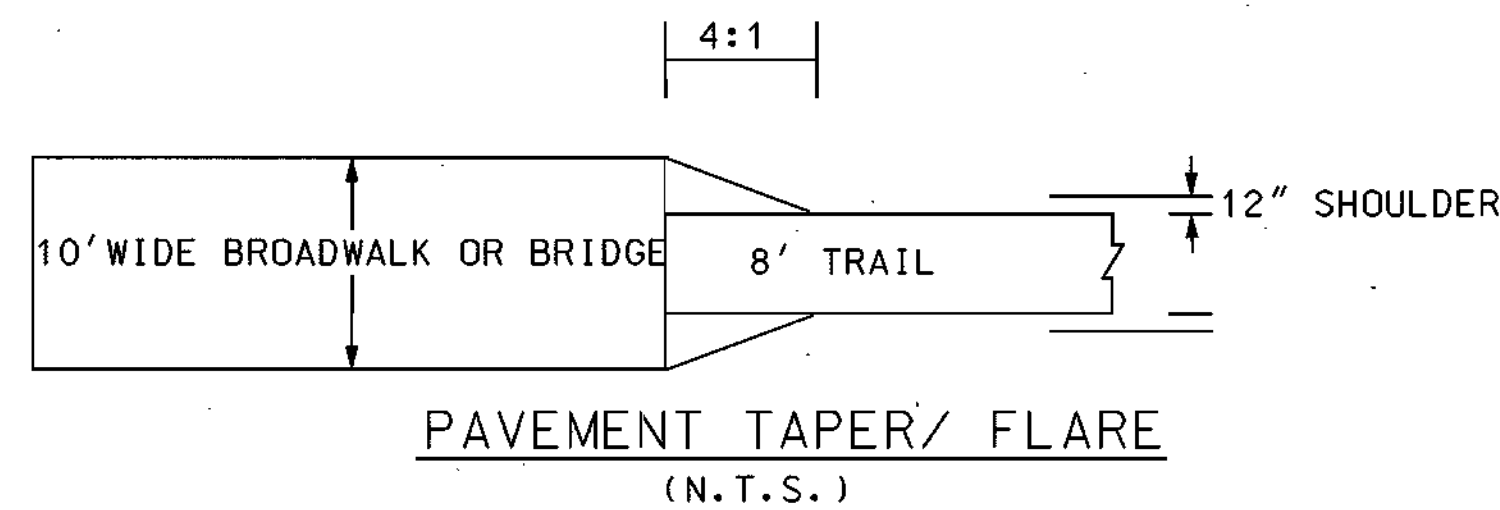


DES:	BY:	NO:	REVISION:	DATE:
W.R.F.				
DRN: W.K.T.				
CHK: K.P.				
DATE: SEPT., 2003				

DRAINAGE PROFILES

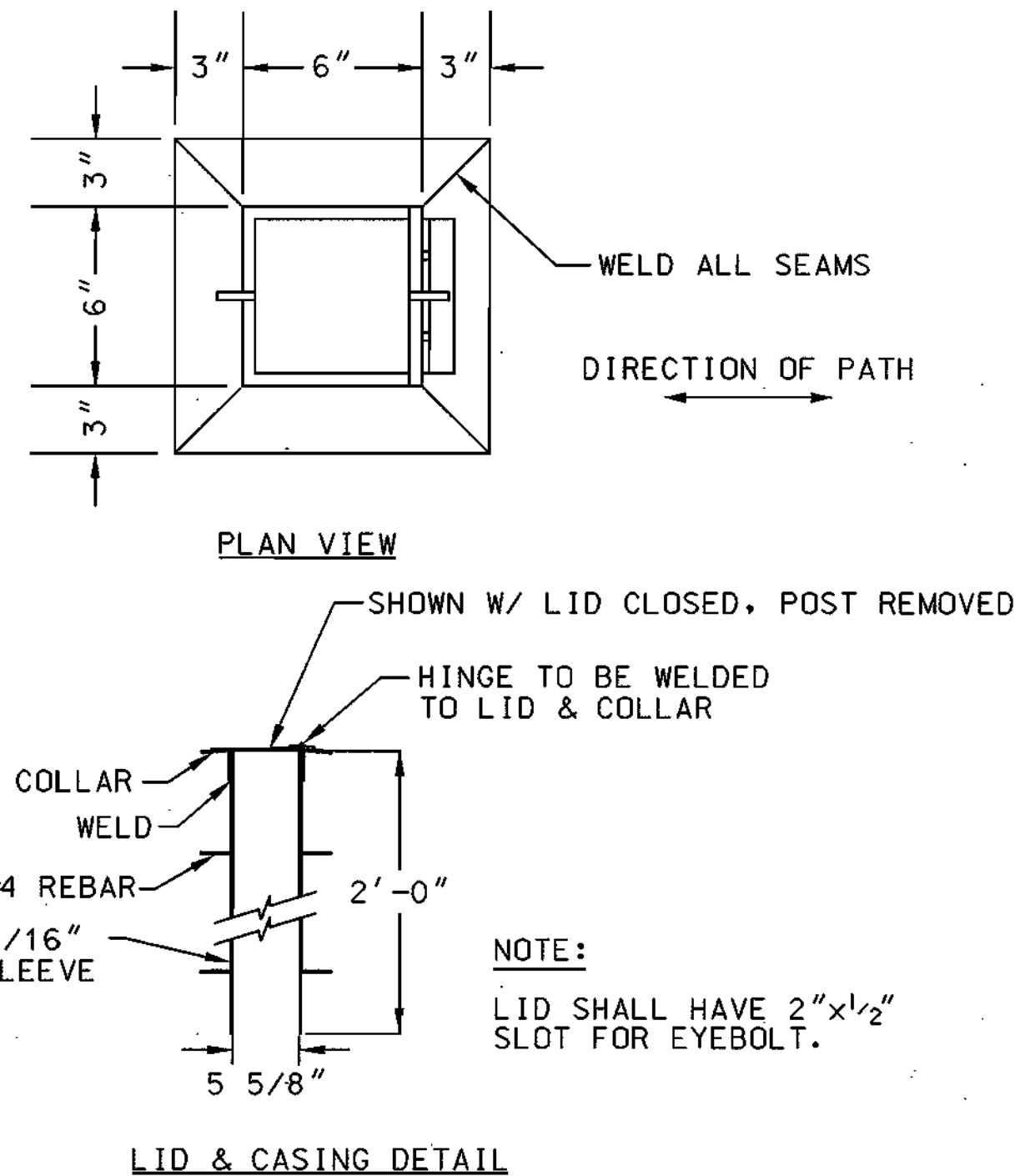
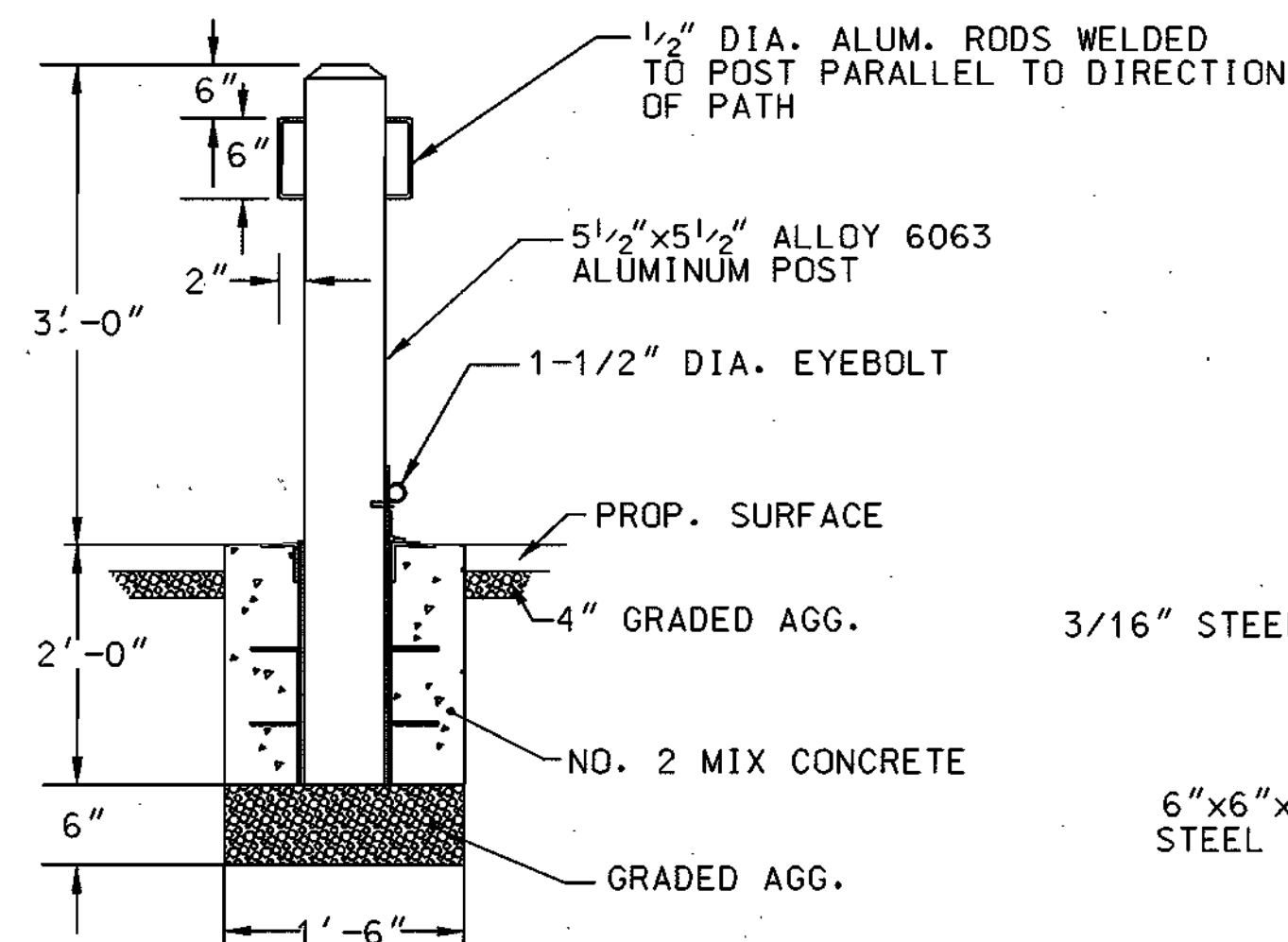
CENTENNIAL ACCESS PATHWAY
 HOWARD COUNTY, MARYLAND
 CAPITAL PROJECT NO. N-3919

SCALE AS SHOWN
 SHEET 4 OF 14



MANAGEMENT PRACTICES FOR WORKING IN NON-TIDAL WETLANDS

1. NO EXCESS FILL, CONSTRUCTION MATERIAL, OR DEBRIS ARE TO BE STOCKPILED OR STORED IN THE WETLAND OR BUFFER.
2. PLACE MATERIALS IN A LOCATION AND MANNER WHICH DOES NOT ADVERSELY IMPACT SURFACE OR SUBSURFACE WATER FLOW INTO OR OUT OF THE NONTIDAL WETLAND.
3. DO NOT USE THE EXCAVATED MATERIAL AS BACKFILL IF IT CONTAINS WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL OR ANY OTHER DELETERIOUS SUBSTANCE. IF ADDITIONAL BACKFILL IS REQUIRED, USE CLEAN MATERIAL FREE OF WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL OR ANY OTHER DELETERIOUS SUBSTANCE.
4. PLACE HEAVY EQUIPMENT ON MATS TO SUITABLY OPERATE THE EQUIPMENT TO PREVENT DAMAGE TO THE NONTIDAL WETLANDS OR BUFFER.
5. REPAIR AND MAINTAIN ANY SERVICEABLE STRUCTURE OR FILL, SO THERE IS NO PERMANENT LOSS OF NONTIDAL WETLANDS IN EXCESS OF NONTIDAL WETLANDS LOST UNDER THE ORIGINAL STRUCTURE OF FILL.
6. RECTIFY ANY NONTIDAL WETLANDS TEMPORARILY IMPACTED BY ANY CONSTRUCTION.
7. ALL STABILIZATION IN THE WETLAND AND BUFFER SHALL BE OF THE FOLLOWING RECOMMENDED SPECIES: ANNUAL RYEGRASS (*LOLIUM MULTIFLORUM*), MILLET (*SETARIA ITALICA*), BARLEY (*HORDEUM SP.*), OATS (*UNOLA SP.*), AND/OR RYE (*SECALE CEREALE*). THESE SPECIES WILL ALLOW FOR THE STABILIZATION OF THE SITE WHILE ALSO ALLOWING FOR THE VOLUNTARY REVEGETATION OF NATURAL WETLAND SPECIES.
8. AFTER INSTALLATION HAS BEEN COMPLETED, MAKE POST CONSTRUCTION GRADES AND ELEVATIONS OF NONTIDAL WETLANDS THE SAME AS THE ORIGINAL GRADES AND ELEVATIONS IN TEMPORARILY IMPACTED AREAS.
9. TO PROTECT IMPORTANT AQUATIC SPECIES, IN-STREAM WORK IS PROHIBITED AS DETERMINED BY THE CLASSIFICATION OF THE STREAM AS FOLLOWS: CLASS I WATER-IN STREAM WORK MAY NOT BE CONDUCTED DURING THE PERIOD OF MARCH 1 THROUGH JUNE 15, INCLUSIVE, DURING ANY YEAR.
10. STORMWATER RUNOFF FROM IMPERVIOUS SURFACES SHALL BE CONTROLLED TO PREVENT THE WASHING OF DEBRIS INTO THE WATERWAY.
11. CULVERT(S) SHALL BE CONSTRUCTED AND ANY RIP-RAP PLACED SO AS NOT TO OBSTRUCT THE MOVEMENT OF AQUATIC SPECIES, UNLESS THE PURPOSE OF THE ACTIVITY IS TO IMPOUND WATER.



- NOTES:**
- 1.) PAINT ALL EXPOSED SURFACES WITH 2 COATS ALKYD INDUSTRIAL ENAMEL. COLORS TO BE APPROVED BY ENGINEER.

Reviewed for Howard SCD and meets Technical Requirements

USDA - Natural Resources Conservation Service Date: *[Signature]*

This development is approved for sedimentation and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD Date: *[Signature]*

DEVELOPERS CERTIFICATE

"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 of a Department of the Environment Approval 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."

[Signature] Date: 9/17/03

Signature of Chief, Bureau of Engineering

ENGINEERS CERTIFICATE

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

[Signature] Date: 9-17-03

Signature of Engineer

SITE DEVELOPMENT PLANS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] Date: 10/10/03

Chief, Development Engineering Division

[Signature] Date: 10/10/03

Chief, Division of Land Development

[Signature] Date: 10/10/03

Director

SDP SHEET 5 OF 9

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

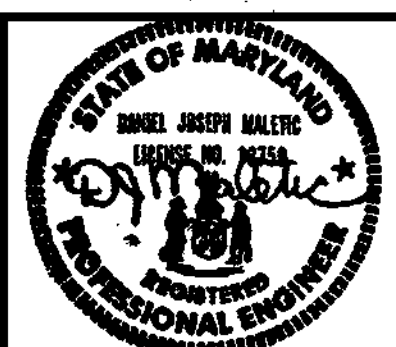
[Signature] 9/17/03
DIRECTOR OF PUBLIC WORKS DATE

DEPARTMENT OF RECREATION & PARKS
HOWARD COUNTY, MARYLAND

[Signature] 9/17/03
DIRECTOR, DEPARTMENT OF RECREATION AND PARKS DATE

GPI Greenman-Pedersen, Inc.

ENGINEERS, ARCHITECTS, PLANNERS, CONSTRUCTION ENGINEERS & INSPECTORS
10620 GUILFORD ROAD, JESSUP, MARYLAND, 20794
WASH. (301) 470-2772 BALT. (410) 390-0095
FAX: (301) 490-2649 www.gpinet.com



DES:	W.R.F.	BY	NO	REVISION	DATE
DRN:	W.K.T.				
CHK:	K.P.				
DATE:	SEPT., 2003				

CONSTRUCTION DETAILS

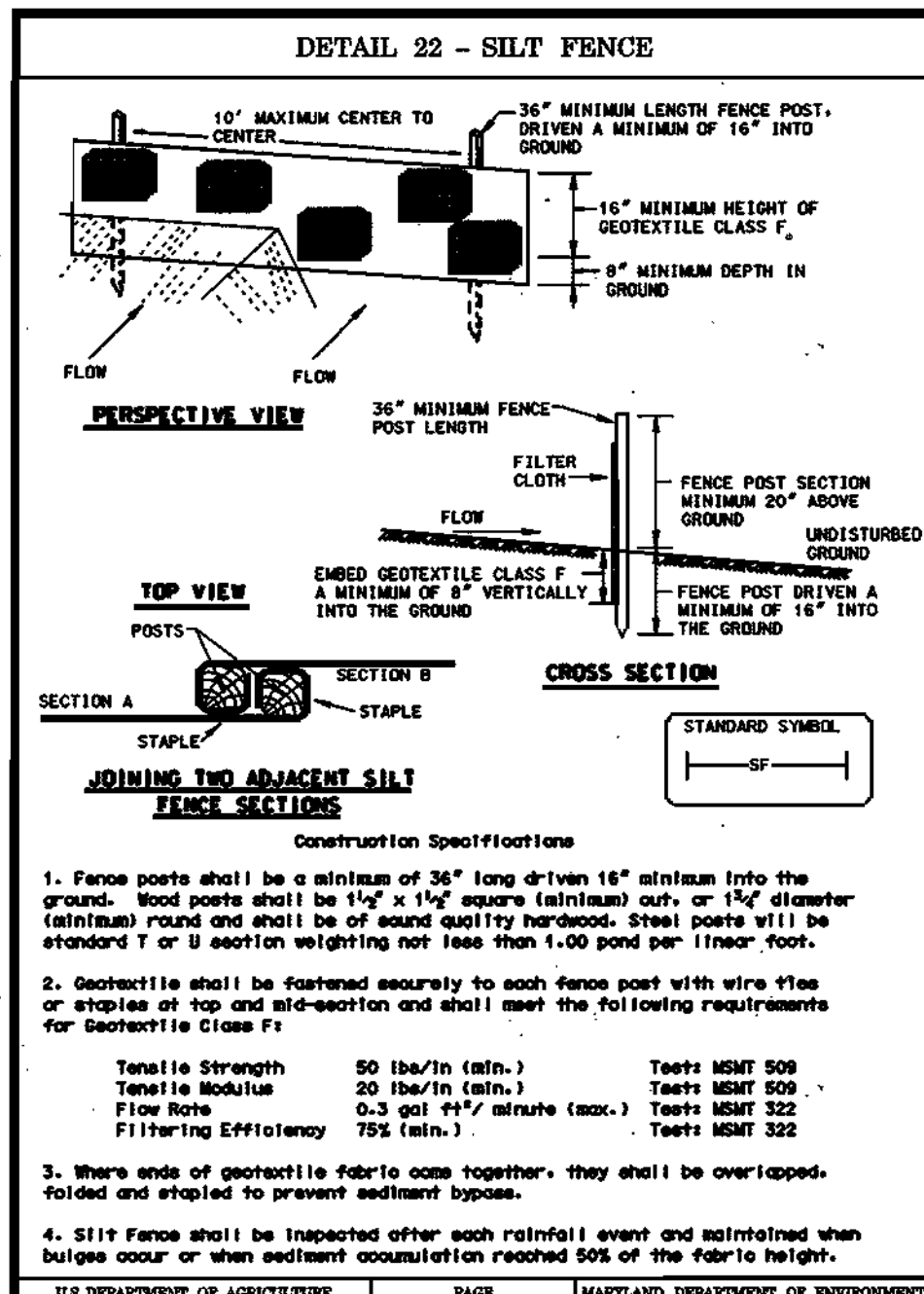
SCALE MAP NO. _____ BLOCK NO. _____

CENTENNIAL ACCESS PATHWAY

HOWARD COUNTY, MARYLAND
CAPITAL PROJECT NO. N-3919

SHEET 5 OF 14

SCALE AS SHOWN

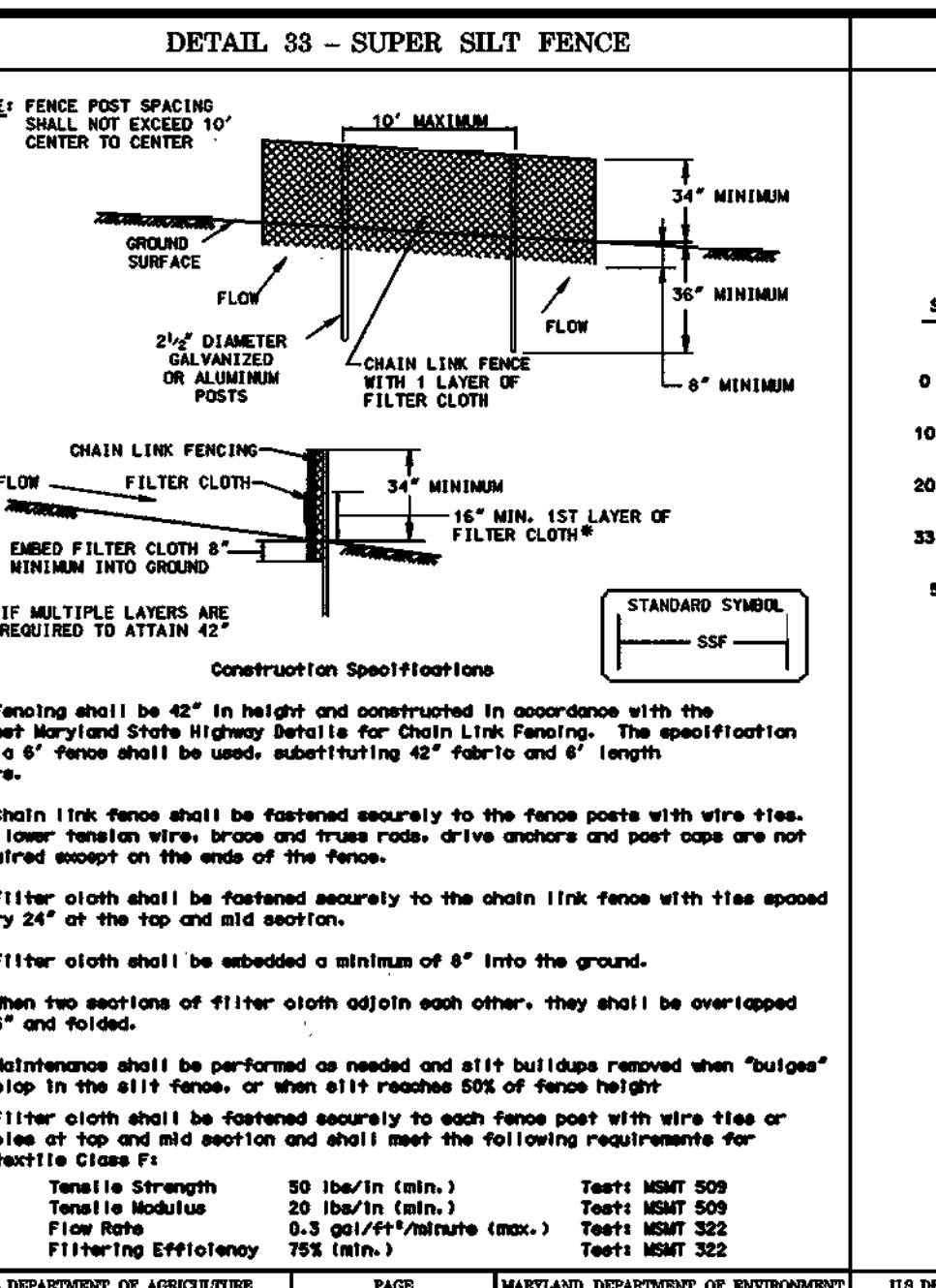
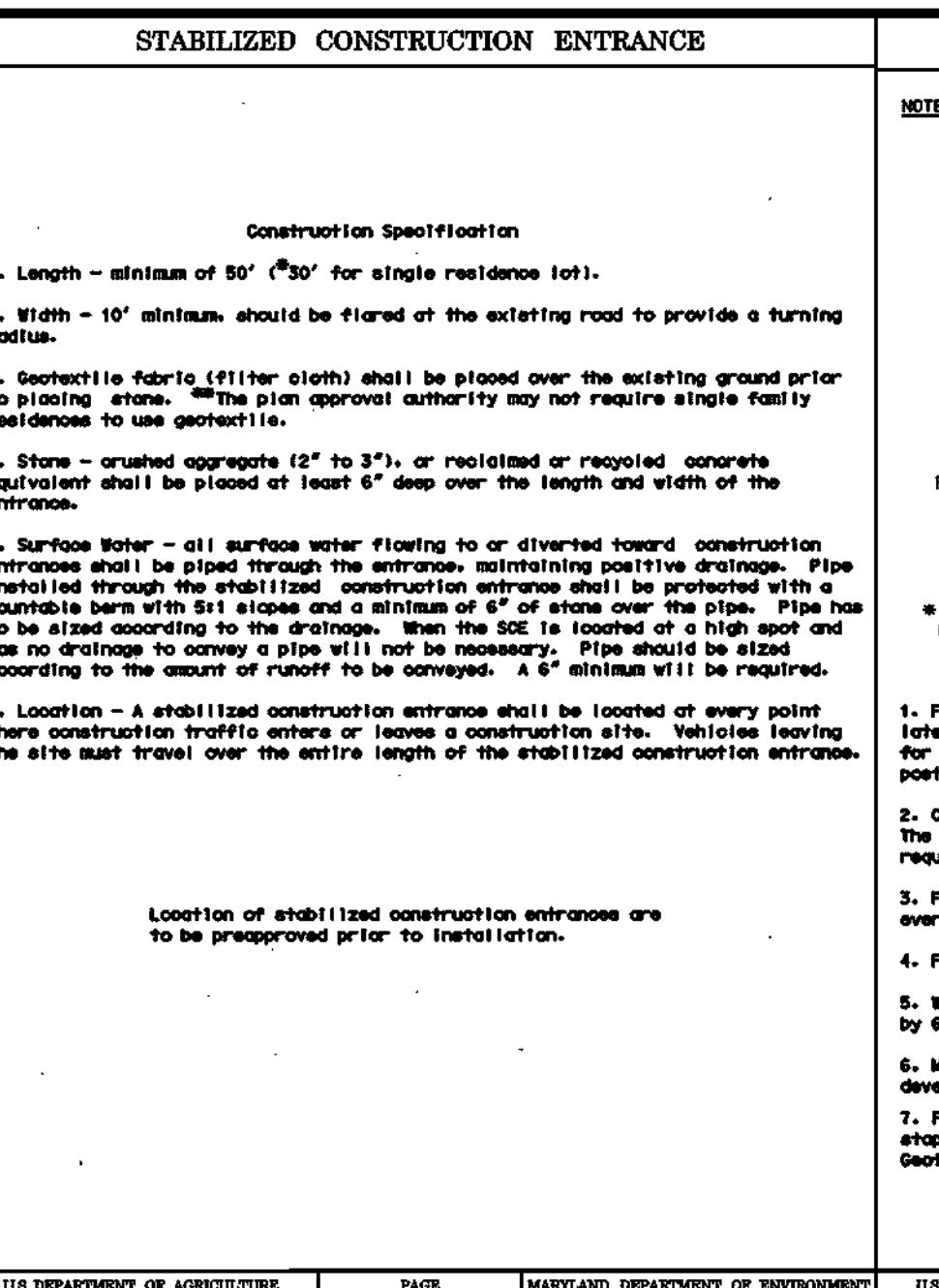
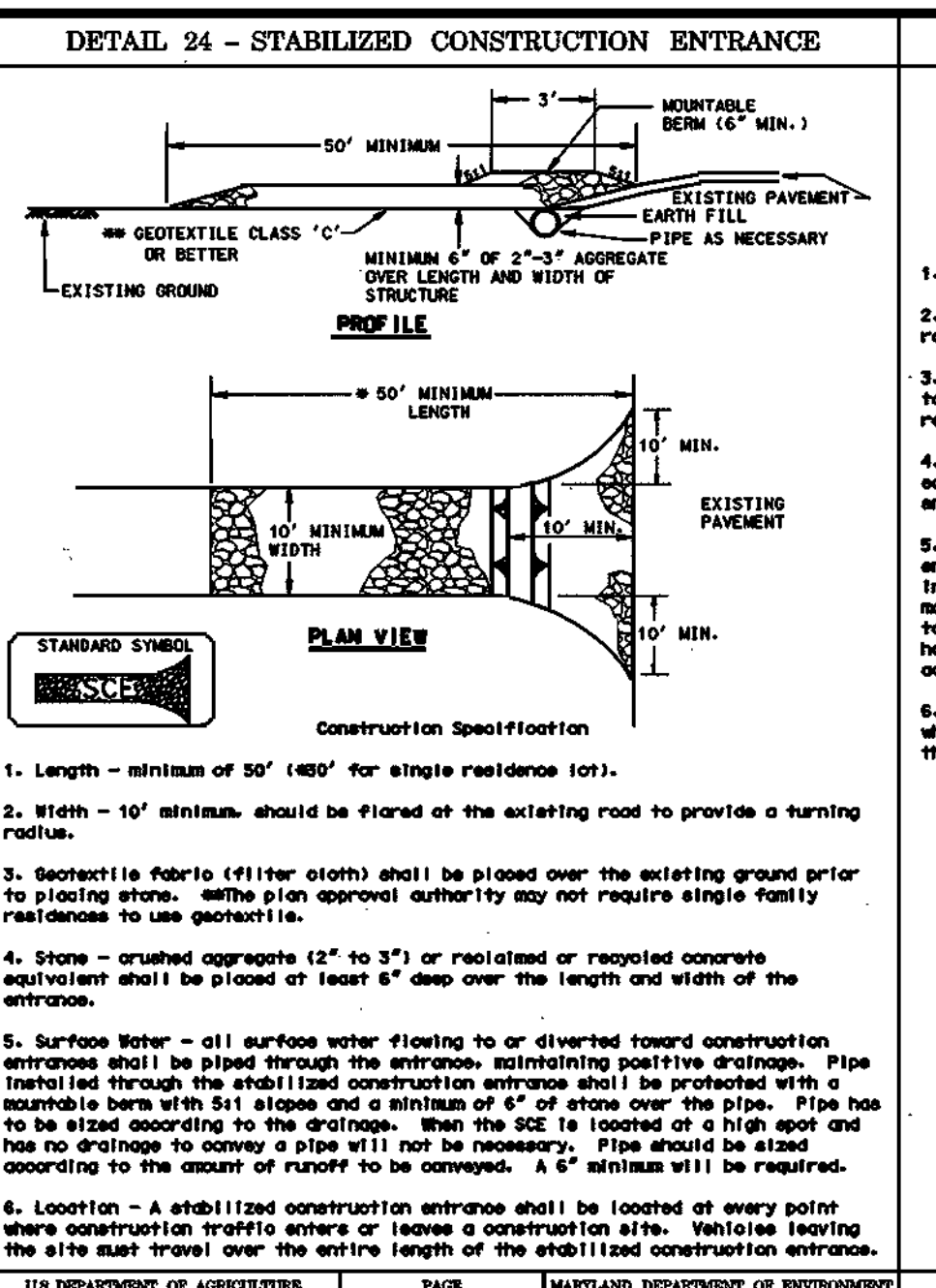


SILT FENCE

Silt Fence Design Criteria

Slope Steepness	(Maximum) Slope Length	(Maximum) Silt Fence Length
Flatter than 50:1	Unlimited	Unlimited
50:1 to 10:1	125 feet	1,000 feet
10:1 to 5:1	100 feet	750 feet
5:1 to 3:1	60 feet	500 feet
3:1 to 2:1	40 feet	250 feet
2:1 and steeper	20 feet	125 feet

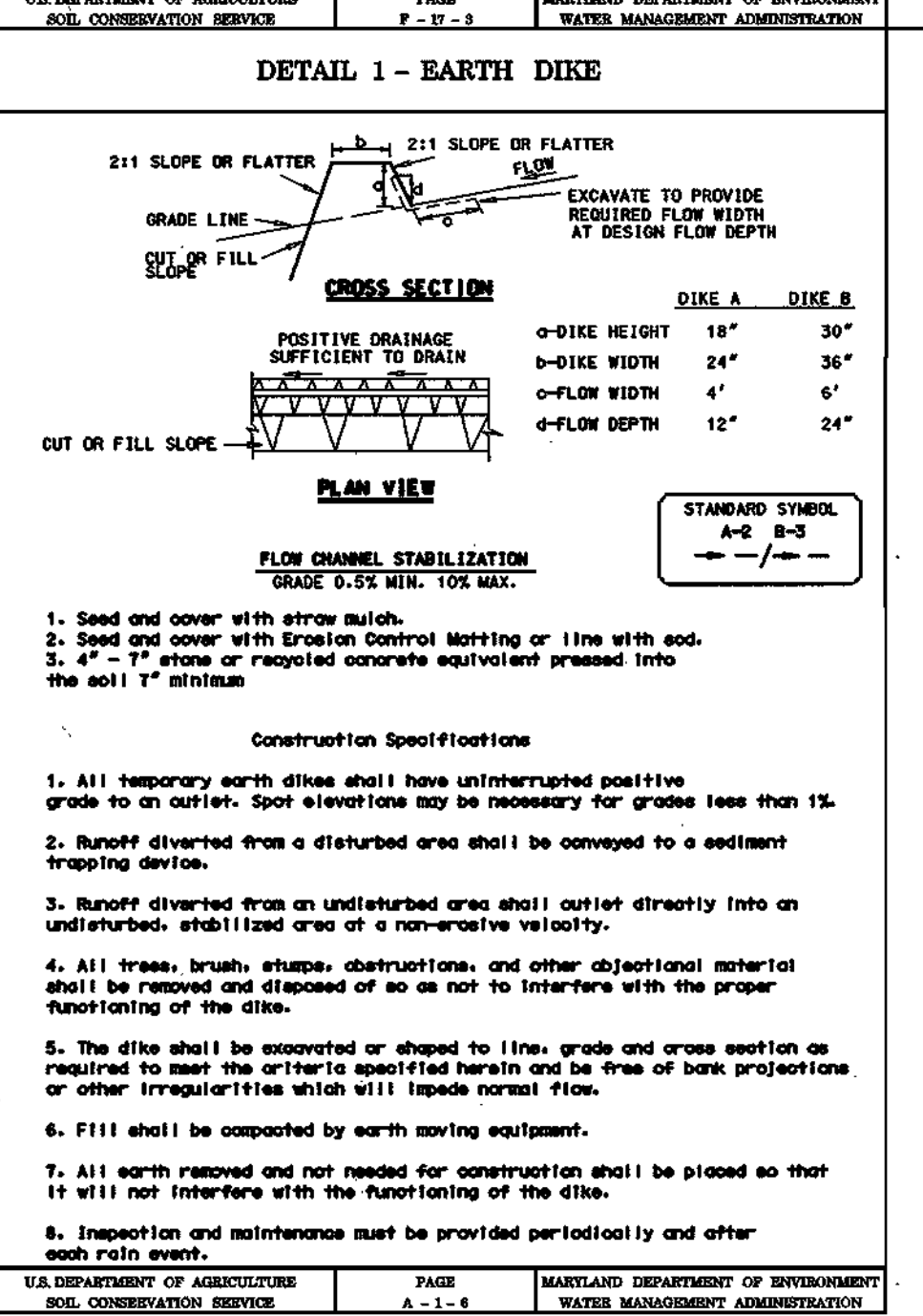
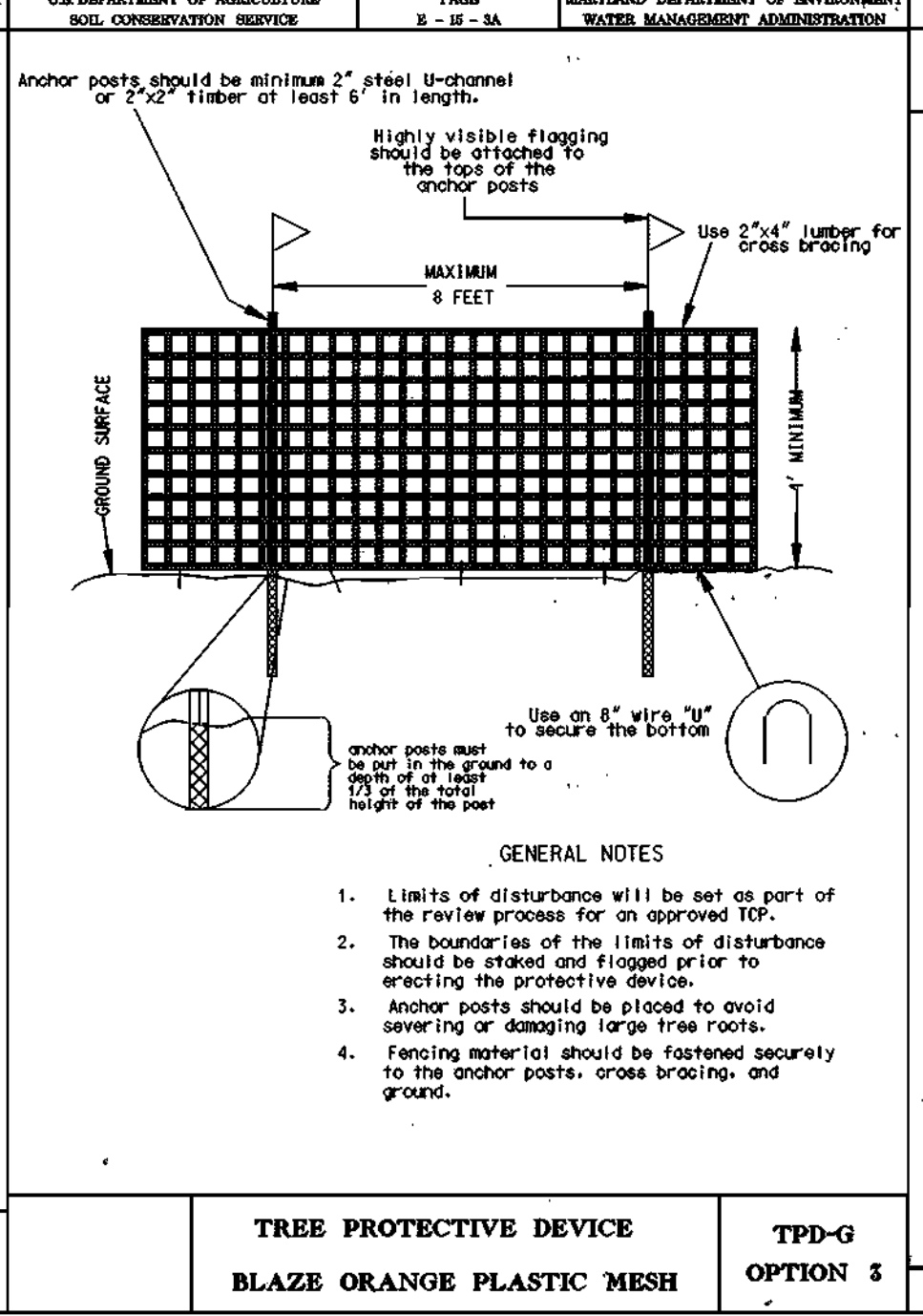
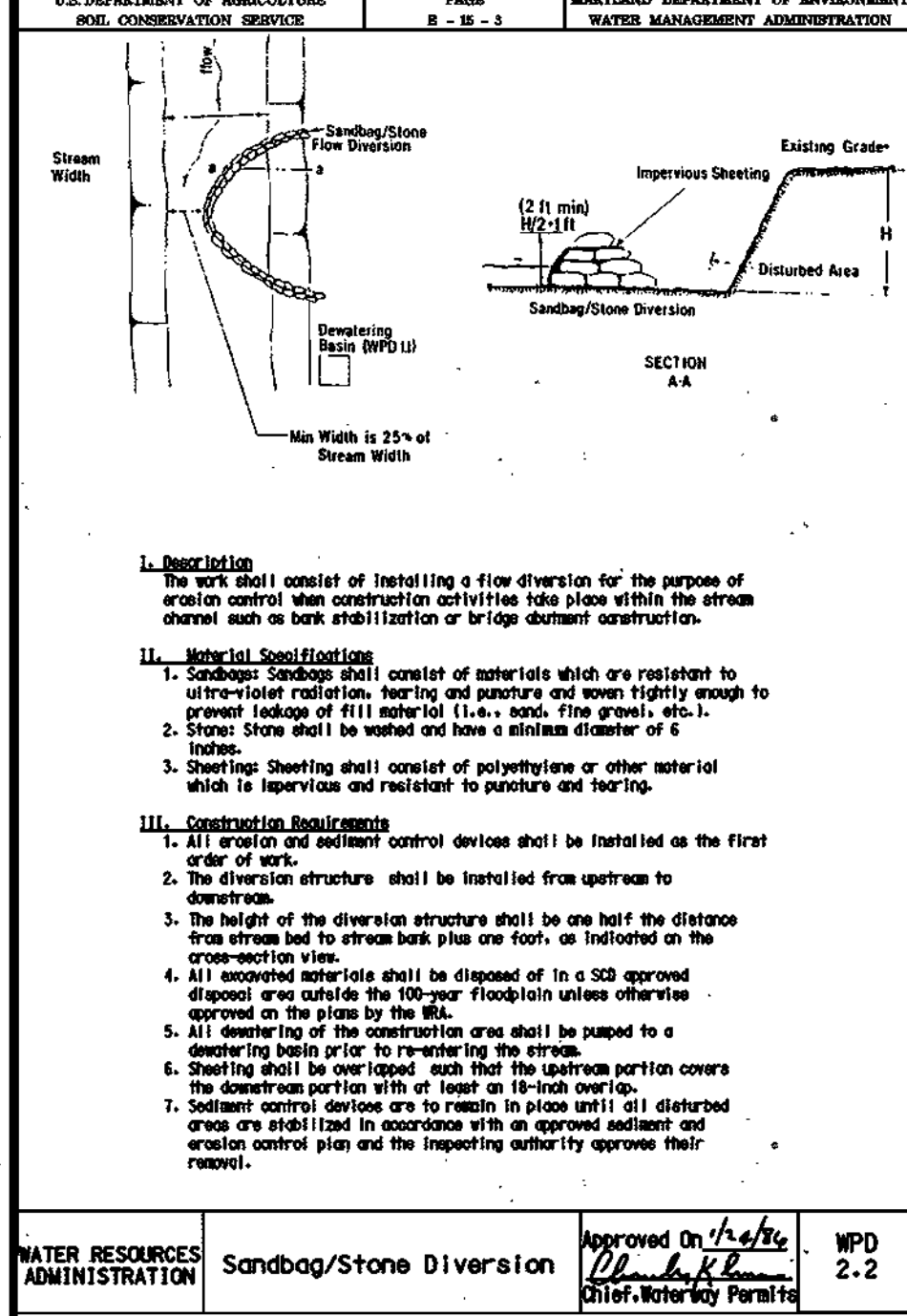
Notes: In areas of less than 2% slope and sandy soils (USDA general classification system soil Class A) maximum slope length and silt fence length will be unlimited. In these areas a silt fence may be the only perimeter control required.



SUPER SILT FENCE

Design Criteria

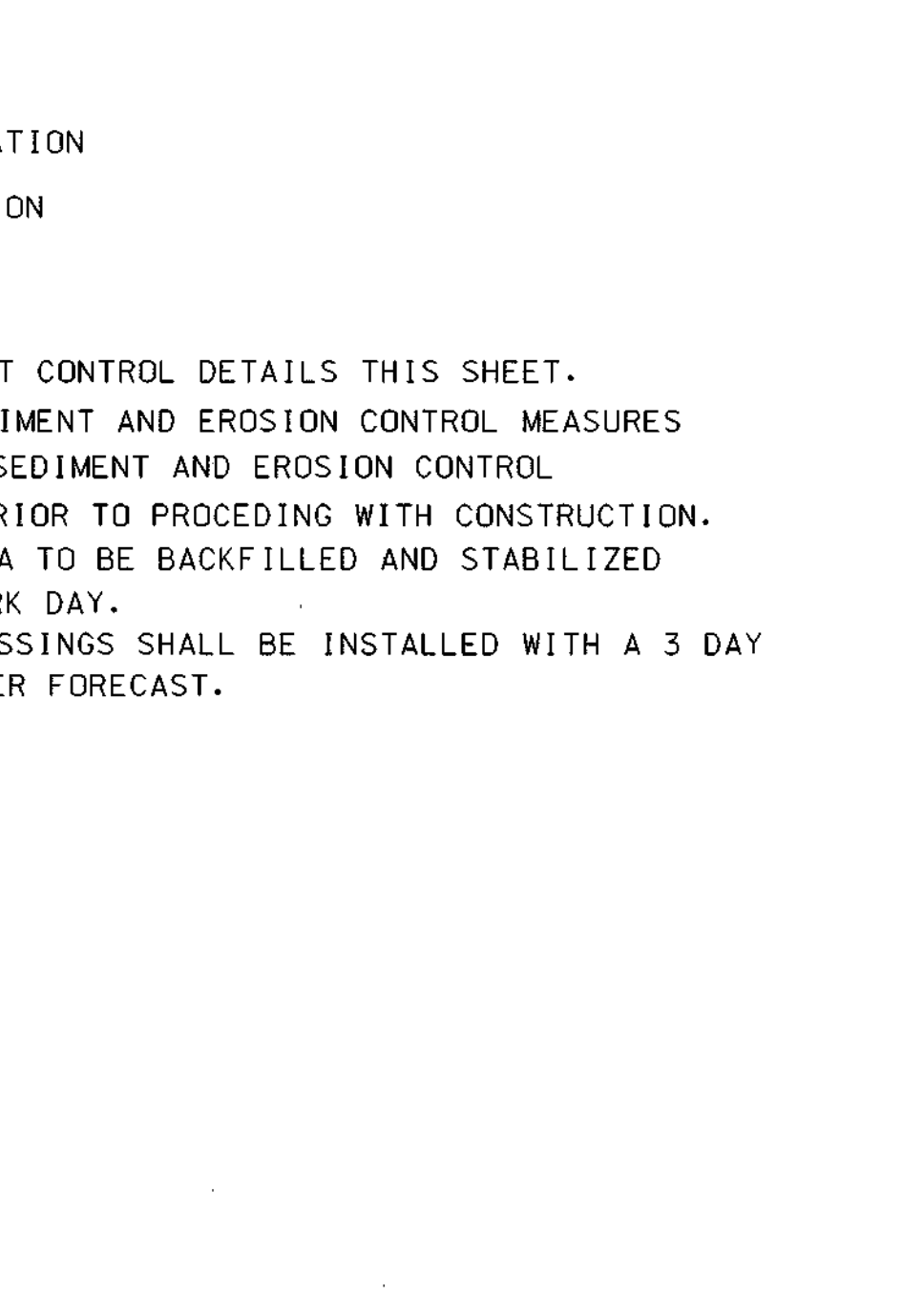
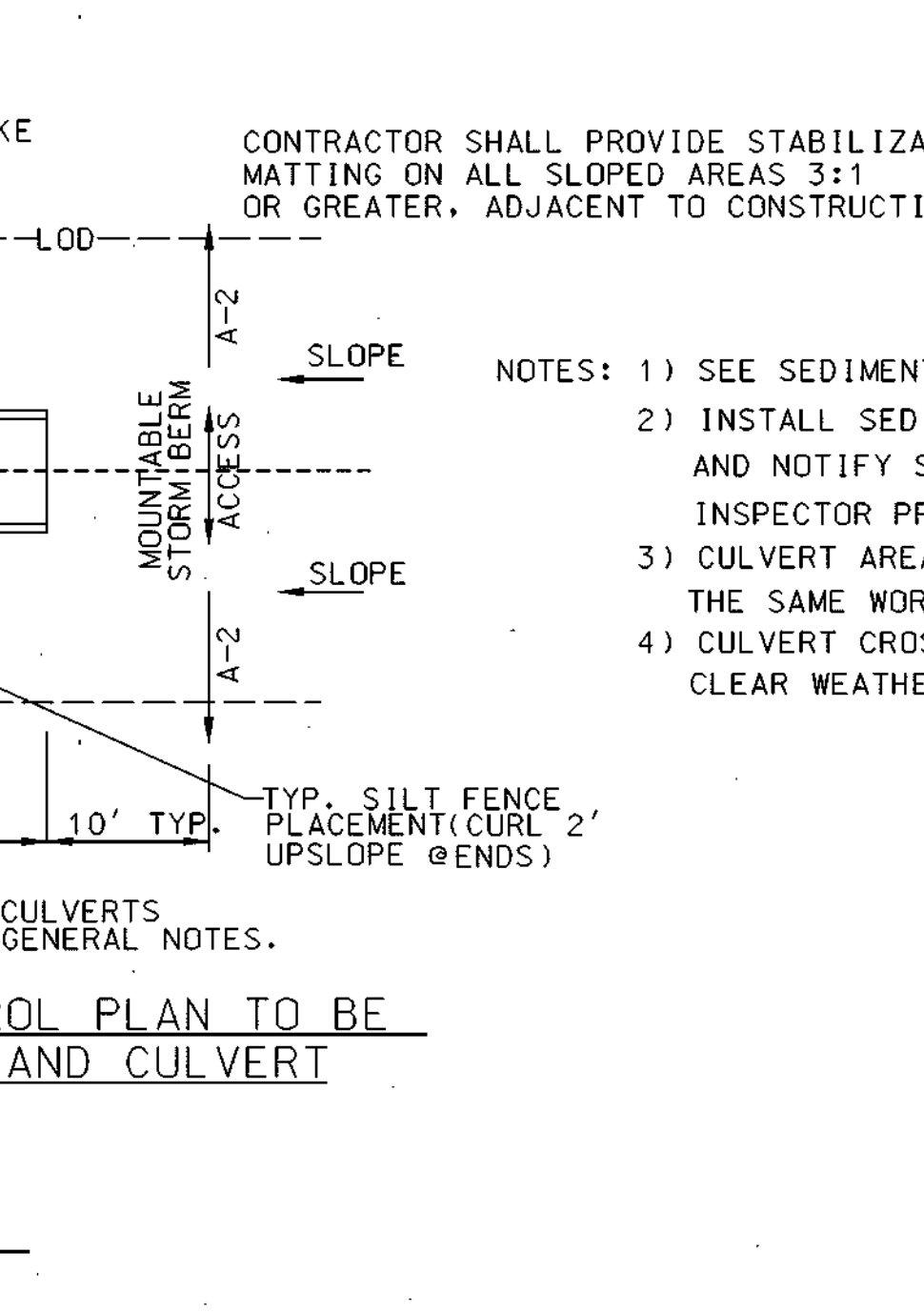
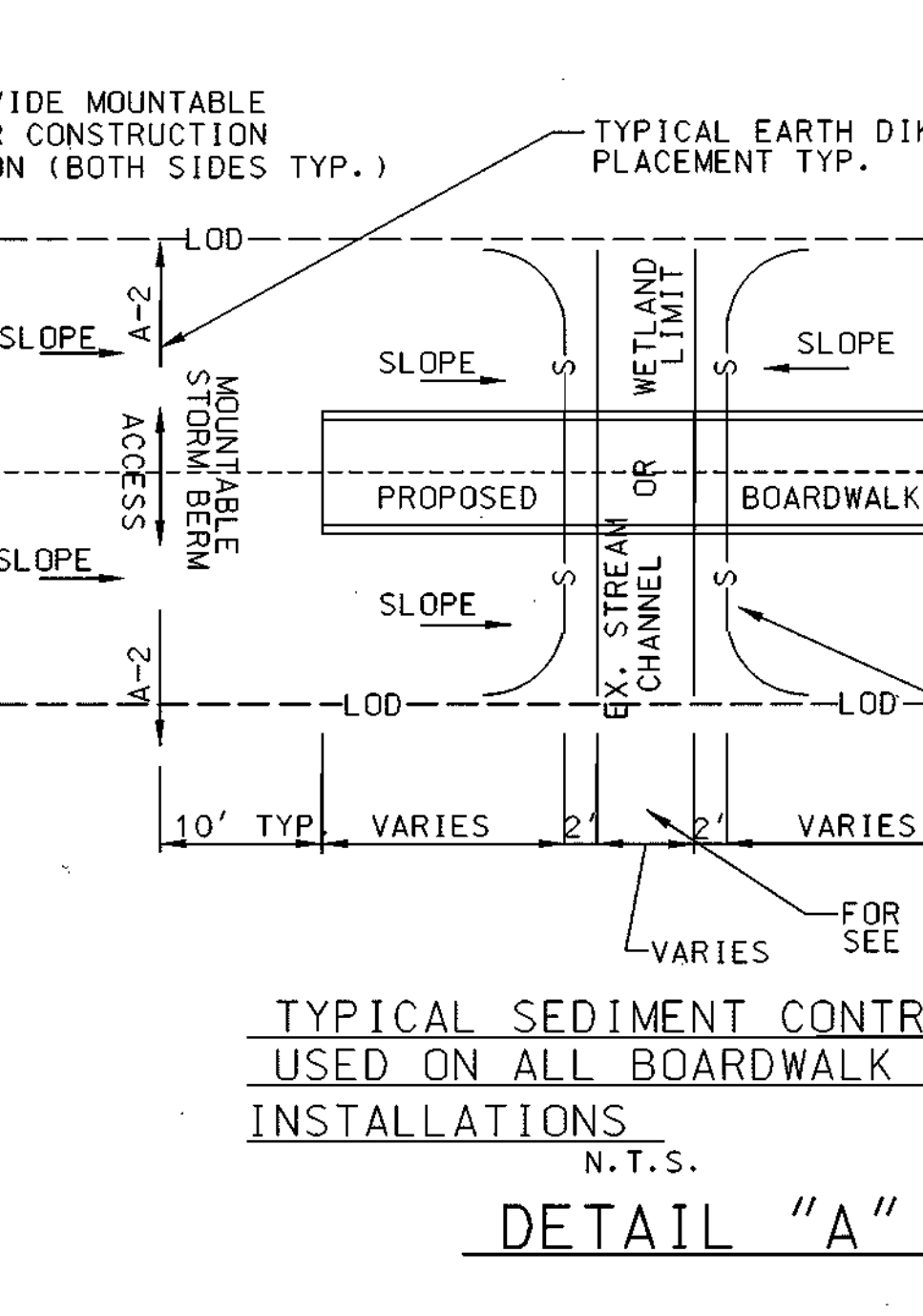
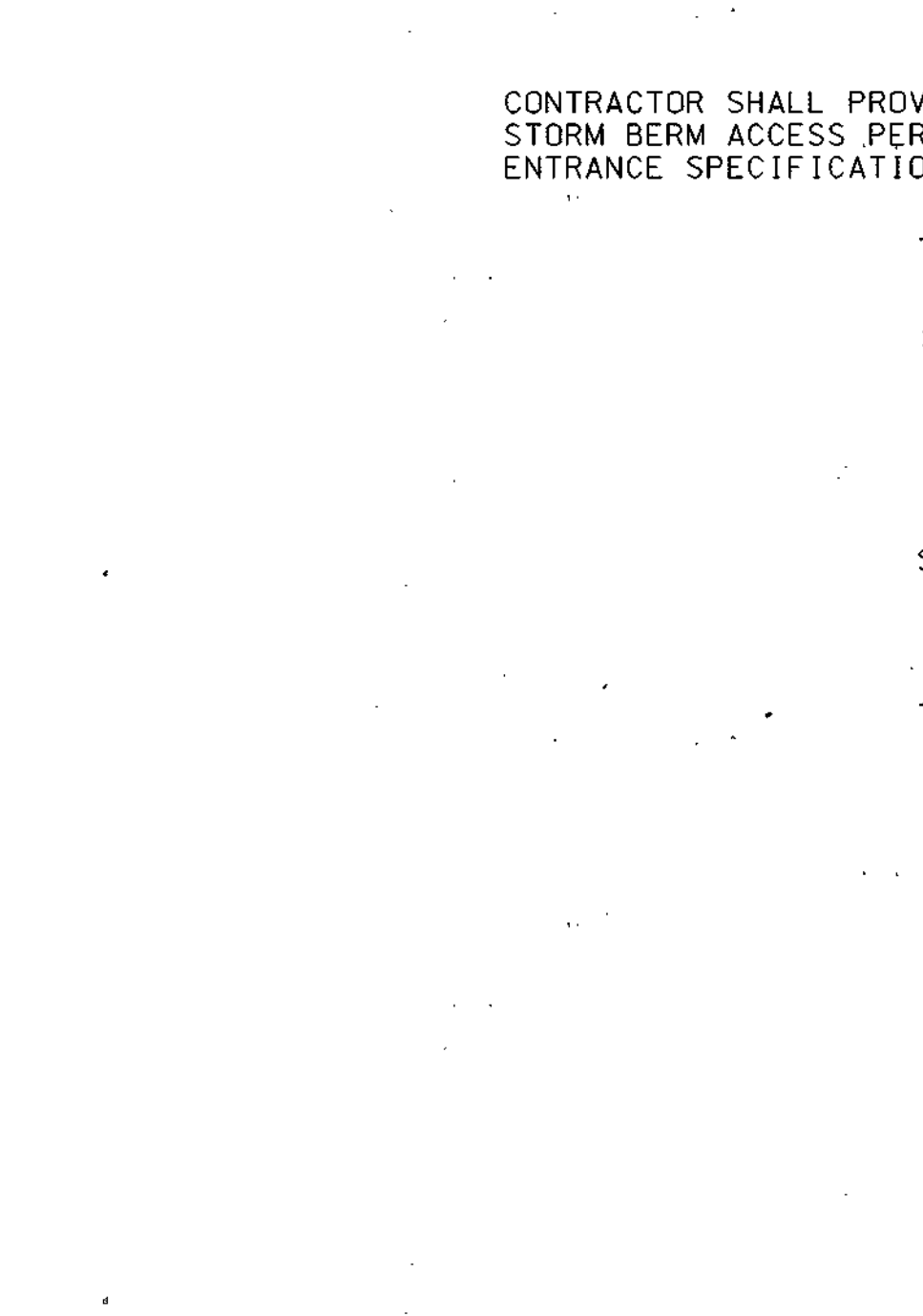
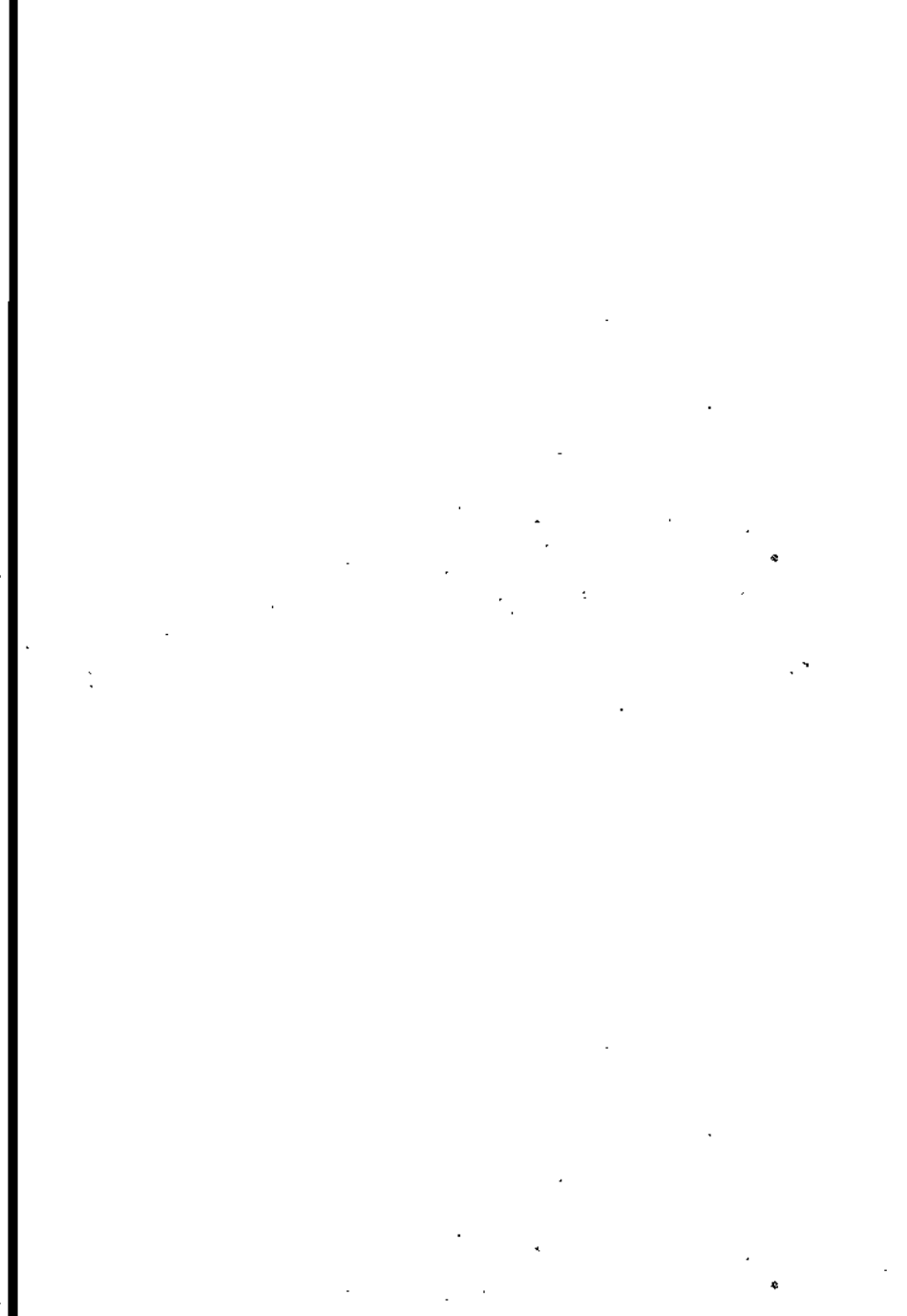
Slope	Slope Steepness	Slope Length (maximum)	Silt Fence Length (maximum)
0 - 10%	0 - 10:1	Unlimited	Unlimited
10 - 20%	10:1 - 5:1	200 feet	1,500 feet
20 - 33%	5:1 - 3:1	100 feet	1,000 feet
33 - 50%	3:1 - 2:1	100 feet	500 feet
50% +	2:1 +	50 feet	250 feet



SUPER SILT FENCE

Design Criteria

Slope	Slope Steepness	Slope Length (maximum)	Silt Fence Length (maximum)
0 - 10%	0 - 10:1	Unlimited	Unlimited
10 - 20%	10:1 - 5:1	200 feet	1,500 feet
20 - 33%	5:1 - 3:1	100 feet	1,000 feet
33 - 50%	3:1 - 2:1	100 feet	500 feet
50% +	2:1 +	50 feet	250 feet



Reviewed for Howard SCD and meets Technical Requirements

Jim Myer 10-2-03
USDA - Natural Resources Conservation Service Date

This development is approved for soil erosion and sediment control by the Howard SCD.

John R. Roberts 10-2-03
Howard SCD Date

DEVELOPERS CERTIFICATE

"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 of a Department of the Environment Approval 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."

Walter E. Brown 9/17/03
Signature of Chief, Bureau of Engineering Date

ENGINEERS CERTIFICATE

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Walter E. Brown 9-17-03
Signature of Engineer Date

SITE DEVELOPMENT PLANS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Carol Dammann 10/16/03
Chief, Development Engineering Division Date

Cindy Hamilton 10/16/03
Chief, Division of Land Development Date

Mark D'Angelo 11/10/03
Director Date

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Jan P. De 9/16/03
DIRECTOR OF PUBLIC WORKS DATE

DEPARTMENT OF RECREATION & PARKS
HOWARD COUNTY, MARYLAND

Larry J. Arthur 9-17-03
DIRECTOR, DEPARTMENT OF RECREATION AND PARKS DATE

GPI Greenman-Pedersen, Inc.

ENGINEERS, ARCHITECTS, PLANNERS, CONSTRUCTION ENGINEERS & INSPECTORS
10020 GULFORD ROAD, JESSUP, MARYLAND, 20794
WASH. (301) 470-2772 BALT. (410) 666-9055
FAX: (301) 490-2649 www.gpi.net

STATE OF MARYLAND
MANUEL JOSEPH III
Professional Engineer
Professional Seal

DES:	BY:	NO:	REVISION:	DATE:
W.R.F.				
W.K.T.				
K.P.				
DATE:				
SEPT., 2003				

GRADING, EROSION AND SEDIMENT CONTROL DETAILS

SCALE MAP NO. _____ BLOCK NO. _____

SDP SHEET 8 OF 9

CENTENNIAL ACCESS PATHWAY

HOWARD COUNTY, MARYLAND
CAPITAL PROJECT NO. N-3919

SCALE AS SHOWN

SHEET 8 OF 14

