

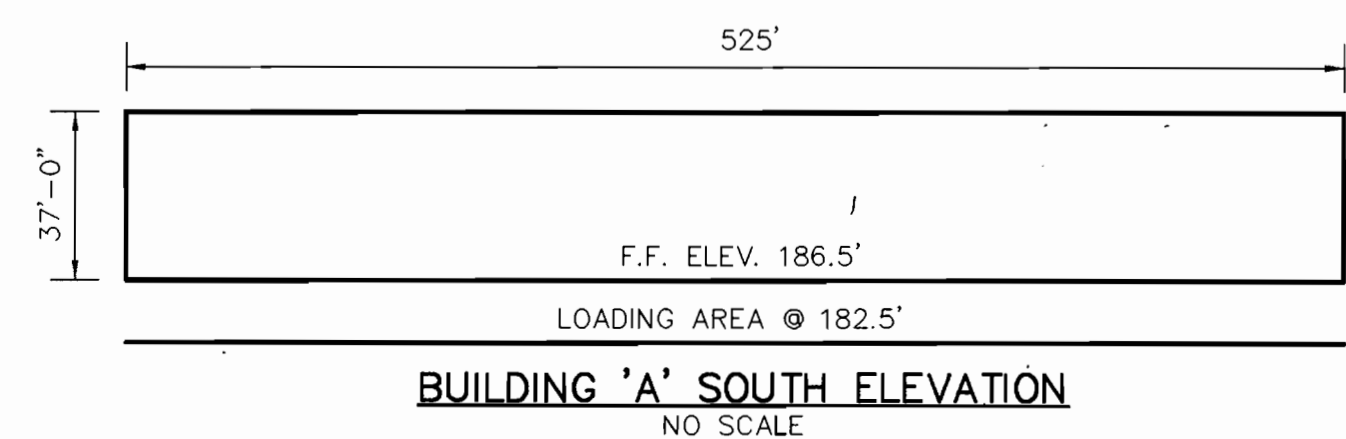
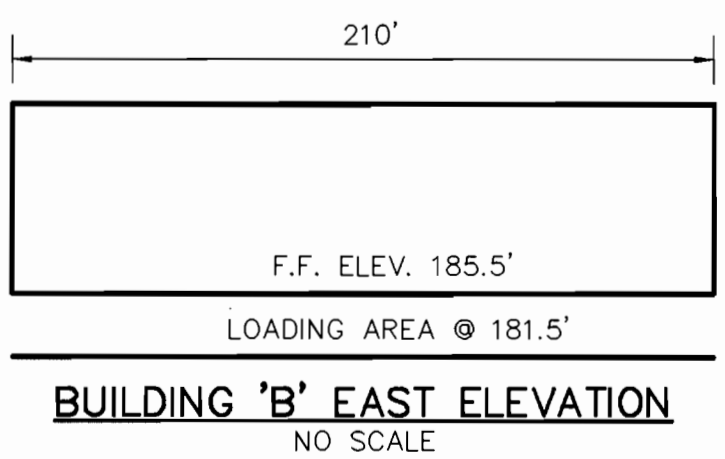
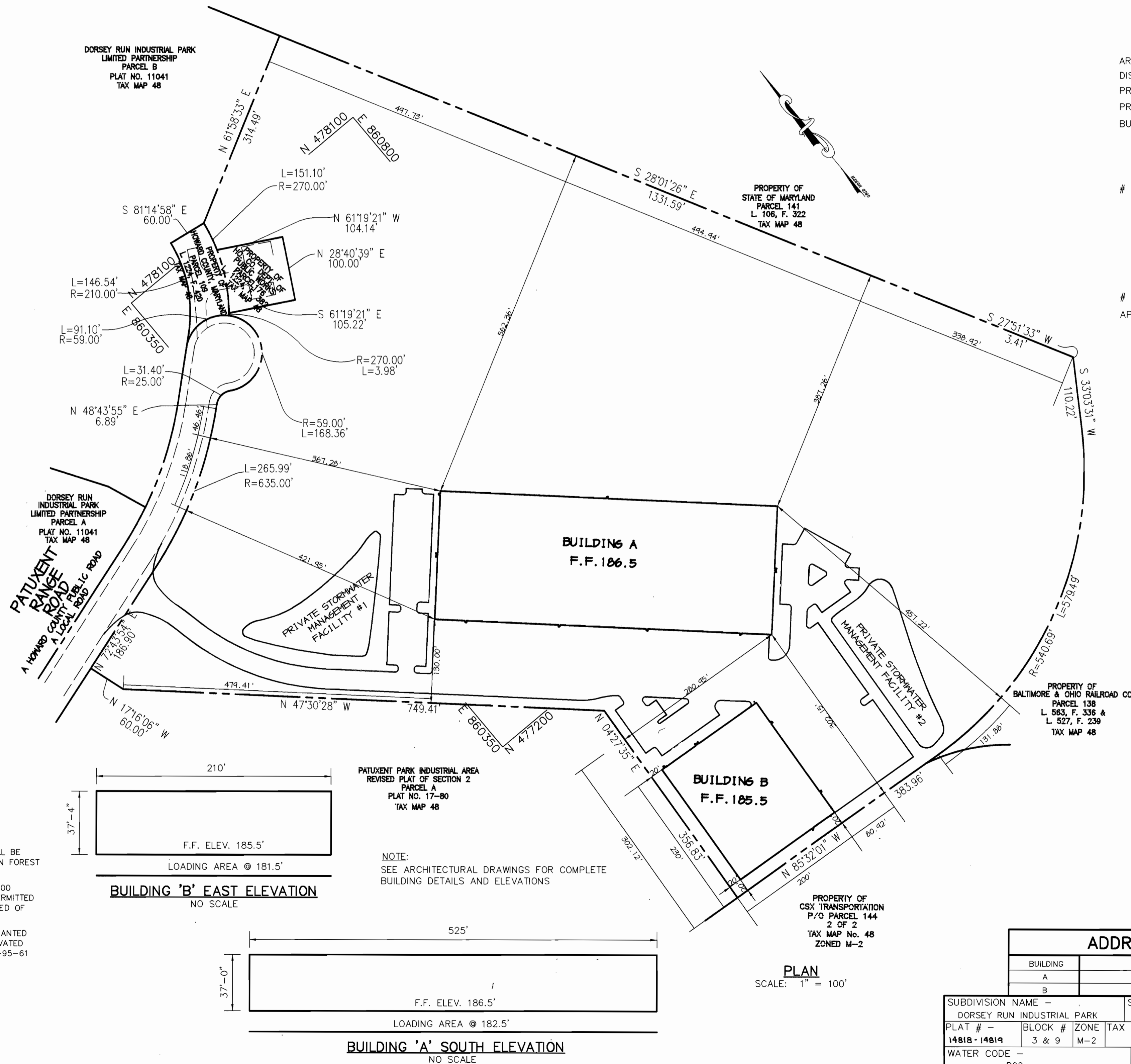
SITE DEVELOPMENT PLAN DORSEY RUN INDUSTRIAL PARK PARCEL 'C' 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SHEET INDEX

NO	DESCRIPTION	NO	DESCRIPTION
1	TITLE SHEET	10	SPM DETAILS & PROFILES
2	SITE DEVELOPMENT PLAN	11	MISCELLANEOUS DETAILS AND NOTES
3	SITE DEVELOPMENT PLAN AND DETAILS	12	BAYSAYER DETAILS AND NOTES
4	GRADING, SEDIMENT CONTROL PLAN AND DRAINAGE AREA MAP	13	LANDSCAPE PLAN
5	GRADING, SEDIMENT CONTROL PLAN AND DRAINAGE AREA MAP	14	LANDSCAPE PLAN
6	PROFILE SHEET & STRUCTURE SCHEDULE	15	SIMPLIFIED FOREST STAND DELINEATION PLAN
7	PROFILE SHEET	16	FOREST CONSERVATION PLAN
8	SEDIMENT CONTROL DETAILS	17	FOREST CONSERVATION PLAN
9	SEDIMENT CONTROL NOTES & DETAILS		

GENERAL NOTES

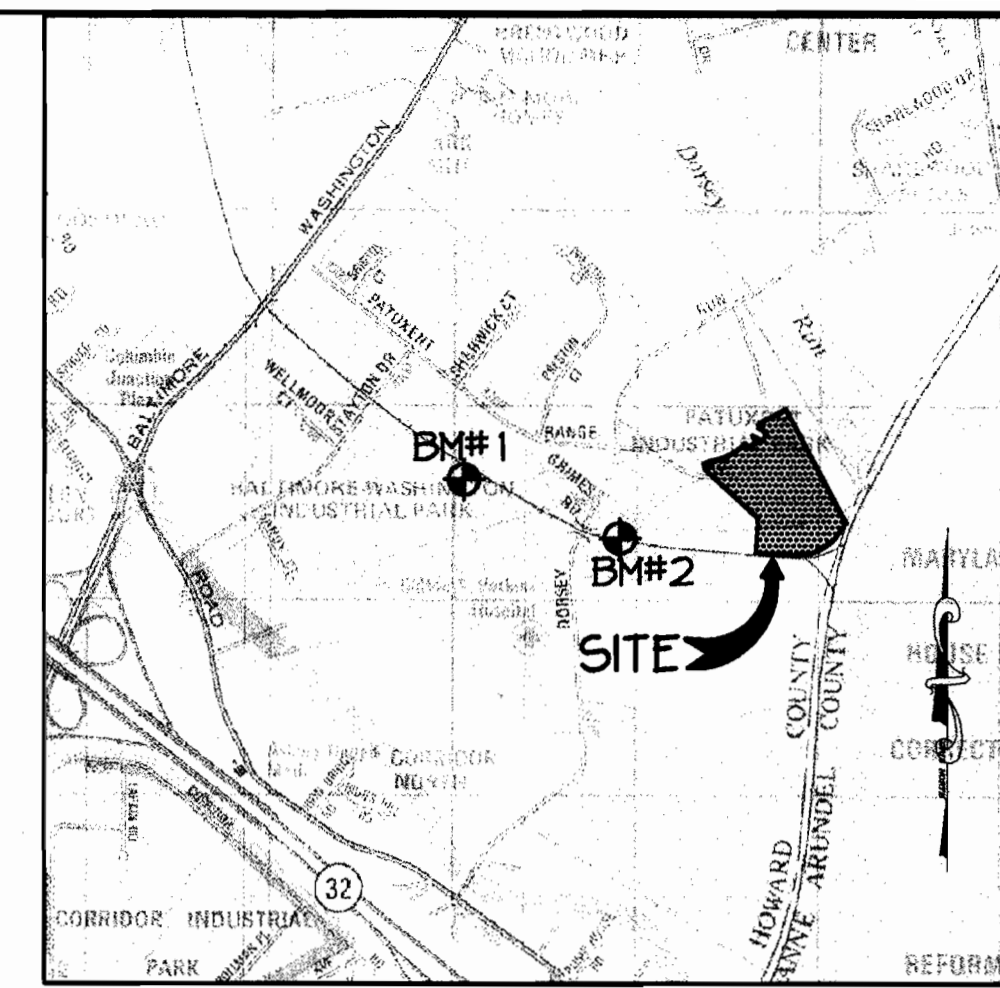
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST 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 BEING DONE.
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB AND FACE OF BUILDING UNLESS OTHERWISE NOTED.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY RIEMER MUEGGE ASSOC., INC. DATED NOVEMBER, 1994.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 48DB AND 43GA WERE USED FOR THIS PROJECT.
- WATER IS PUBLIC. CONTRACT NO. 24-3911-D
- SEWER IS PUBLIC. SEWER DRAINAGE AREA: PATUXENT CONTRACT NO. 24-3911-D
- THE STORMWATER MANAGEMENT QUANTITY AND WATER QUALITY PROPOSED FOR THIS SITE IS PROVIDED BY TWO (2) DETENTION FACILITIES AS WELL AS BAYSAYER MANHOLES.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
- A 100-YEAR FLOODPLAIN STUDY IS NOT REQUIRED FOR THIS PROJECT.
- WAIVER PETITION #WP-95-81 APPROVED TO WAIVE SECTION 16.12202(a) FOR A PARTIAL WAIVER TO THE FULL REQUIREMENTS OF THE FOREST CONSERVATION PLAN; AND TO WAIVE SECTION 16.116(a)(1) FOR DISTURBANCE IN THE WETLAND BUFFER. APPROVAL OF SECTION 16.116(a)(1) IS CONDITIONED UPON NOTING THE JOINT PERMIT TRACKING NUMBER ON THE SITE DEVELOPMENT PLAN. DATED MAY 24, 1995, NOW VOID.
- AN APFO TRAFFIC STUDY BY THE TRAFFIC GROUP WAS SUBMITTED ON AUGUST 4, 2000 AND APPROVED ON AUGUST 30, 2000.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- A GEOTECHNICAL STUDY HAS BEEN PREPARED BY HILLIS CARNES INC., NOVEMBER, 1994.
- THE BOUNDARY SURVEY FOR THIS PROJECT HAS BEEN PREPARED BY RIEMER MUEGGE & ASSOC., NOVEMBER, 1994.
- SUBJECT PROPERTY ZONED M-2 PER 10-18-93 COMPREHENSIVE ZONING PLAN.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- SEE DEPARTMENT OF PLANNING AND ZONING FILE NOS: WP-99-88, SDP-95-61, WP-95-81, F-93-105, F-95-180, SDP-92-67, F-01-102.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- ALL STORM DRAIN PIPE BEDDING SHALL BE CLASS 'C' AS SHOWN IN FIG. 11.4, VOLUME 1 OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- PROFILES STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T180.
- THE PAVEMENT DETAILS SHOWN FOR THIS SITE REFLECT THE HOWARD COUNTY STANDARD PAVEMENT SECTIONS AND ARE NOT BASED ON SITE SPECIFIC CONDITIONS. PRIOR TO PAVING THE FINAL PAVEMENT, THE SDP SHALL EXPIRE AND A NEW SUBMISSION SHALL BE REQUIRED. APPROVAL OF THE WAIVER PETITION IS SUBJECT TO THE FOLLOWING CONDITIONS:
1. VERIFY THAT THE WETLANDS PERMITS ARE STILL VALID
2. APPLICATION FOR THE PERMITS NECESSARY TO START CONSTRUCTION MUST BE MADE WITHIN ONE YEAR, BY APRIL 30, 2000, IF PERMITS ARE NOT APPLIED FOR BY THAT DEADLINE, THE WAIVER WILL EXPIRE AND THE SDP WILL BE VOIDED.
- THE FOREST CONSERVATION OBLIGATION FOR THE PROPOSED SITE DEVELOPMENT IS 4.32 AC. THIS OBLIGATION WILL BE MET BY PAYING FEE-IN-LIEU OF \$56,453.76 (188,179 SF x \$0.30/SF). ADDITIONALLY 0.68 AC WILL BE PLACED IN FOREST RETENTION EASEMENTS. SURETY IN THE AMOUNT OF \$2,963.00 WILL BE POSTED FOR THESE EASEMENTS.
- THE FOREST CONSERVATION EASEMENTS HAVE BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT; HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
- WP-95-81, A REQUEST FOR PARTIAL WAIVER OF FOREST CONSERVATION REGULATIONS SECTION 16.1202(a), WAS GRANTED ON MAY 24, 1995. THE WAIVER WAS INITIALLY VOIDED WHEN SDP-95-61 LAPSED ON 01/04/98, AND WAS REACTIVATED ALONG WITH SDP-95-61 BY WP-99-88 ON 04/13/99. WP-99-88 THEN LAPSED ON 04-13-2000, CAUSING SDP-95-61 AND WP-95-81 TO LAPSE.



BENCHMARKS

BENCHMARK #1
HOWARD COUNTY SURVEY CONTROL STATION: 2043004
N 477,538.478 E 857,445.252
ELEVATION: 239.274
CONCRETE MONUMENT, 0.2' ABOVE SURFACE, 500' EAST OF UNITED STATES TRUCKING WAREHOUSE

BENCHMARK #2
HOWARD COUNTY SURVEY CONTROL STATION: 2044006-R
N 476,924.101 E 859,068.366
ELEVATION: 210.767
REBAR LOCATED ON B&O RAILROAD SPIR 3' NORTH OF TOP BANK, 0.9' BELOW SURFACE, 350' EAST OF BRIDGE ABUTMENT AT DORSEY RUN ROAD



SITE ANALYSIS

AREA OF PARCEL	26.88 ACRES (1,170,893 SF)
DISTURBED AREA	10.40 ACRES (453,024 SF)
PRESENT ZONING	M-2
PROPOSED USE	2 OFFICE/WAREHOUSE FACILITIES (ONE STORY)
BUILDING COVERAGE (HYBRID OFFICE/WAREHOUSE)	
BUILDING-A	105,000 SF (8.97% OF GROSS AREA)
BUILDING-B	37,800 SF (3.23% OF GROSS AREA)
TOTAL AREA	142,800 SF
# OF PARKING SPACES REQUIRED	
BUILDING COVERAGE @ 0.5 SP/1000:	
BUILDING A COVERAGE	53 SPACES
BUILDING B COVERAGE	19 SPACES
# OF TOTAL PARKING SPACES REQUIRED:	72 SPACES
# OF PARKING SPACES PROVIDED	133 SPACES (INCLUDING 8 HC)
APPLICABLE REFERENCES	WP-99-88, SDP-95-61, F-01-102 WP-95-81, F-93-105, F-95-180, SDP-92-67

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

[Signature] DIRECTOR DATE 5/25/01

[Signature] CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 5/11/01

[Signature] CHIEF, DIVISION OF LAND DEVELOPMENT DATE 5/21/01

DATE NO. REVISION

OWNER / DEVELOPER
DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
ONE TEXAS STATION COURT
SUITE 100B
TIMONIUM, MARYLAND 21093
(443) 689-9000

PROJECT
DORSEY RUN INDUSTRIAL PARK-PARCEL 'C'

AREA
TAX MAP NO. 48 BLOCKS 3 & 9
PARCEL C ZONED M-2
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
TITLE SHEET

RIEMER MUEGGE
a division of:
Patton Harris Rust & Associates, pc
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8800 fax 410.997.9282

DATE 5.1.01
DESIGNED BY: C.J.R.
DRAWN BY: K.E.V.
CHECKED BY: C.J.R.
PROJECT NO.: 00099-SDP1.DWG
DATE: MAY 3, 2001
SCALE: AS SHOWN
DRAWING NO. 1 OF 17

ADDRESS CHART

BUILDING	STREET ADDRESS
A	8205 PATUXENT RANGE ROAD
B	8215 PATUXENT RANGE ROAD

SUBDIVISION NAME	SECT./AREA - PARCEL
DORSEY RUN INDUSTRIAL PARK	- C

PLAT #	BLOCK #	ZONE	TAX MAP NO	ELECT. DIST	CENSUS TR.
1481B-1481A	3 & 9	M-2	48	6th	6069.01

WATER CODE	SEWER CODE
B02	3020000

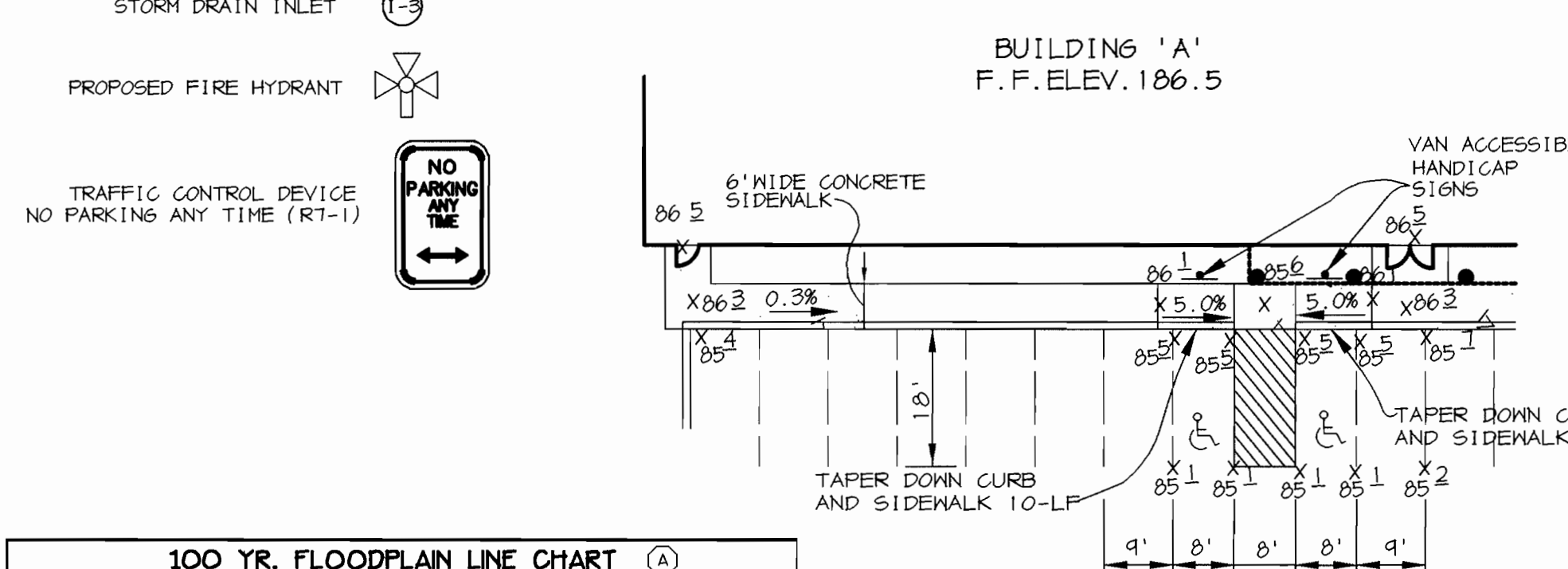


STORMWATER MANAGEMENT DESIGN SUMMARY-SNMF #1							STORMWATER MANAGEMENT DESIGN SUMMARY SNMF #1 & #2 COMBINED AT DESIGN POINT		
DESIGN STORM (YR.)	ALLOWABLE RELEASE (C.F.S.)	FACILITY INFLOW (C.F.S.)	ROUTED DISCHARGE (C.F.S.)	WATER SURFACE ELEVATION (FT.)	STORAGE VOLUME (AC. FT.)	REMARKS	DESIGN STORM (YR.)	ALLOWABLE RELEASE (C.F.S.)	ROUTED DISCHARGE (C.F.S.)
2	*	12.23	0.46	175.03	0.6567	NONE	2	14.40	14.23
10	*	22.09	11.62	175.51	0.7903	NONE	10	46.88	42.35
100	N/A	N/A	N/A	175.84	0.8963	CLOGGED CONDITIONS	100	N/A	N/A

* ALLOWABLE RELEASE WAS COMPUTED FOR BOTH PONDS AT DESIGN POINT.

- LEGEND**
- CONCRETE [Symbol]
 - P-2 PAVING [Symbol]
 - P-3 PAVING [Symbol]
 - FOREST RETENTION EASEMENT AREA [Symbol]
 - STANDARD CURB - REVERSE CURB [Symbol]
 - SITE LIGHT (SINGLE) - SEE NOTE 1 [Symbol]
 - STREET LIGHT (SINGLE) - SEE NOTE 2 [Symbol]
 - STORM DRAIN MANHOLE [Symbol]
 - SEWER MANHOLE [Symbol]
 - STORM DRAIN INLET [Symbol]
 - PROPOSED FIRE HYDRANT [Symbol]
 - TRAFFIC CONTROL DEVICE NO PARKING ANY TIME (RT-1) [Symbol]

- NOTES**
- SITE LIGHTS TO BE 400 WATT METAL HALIDE VERTICAL LAMPS ON SHOEBOXES ON 2'-6" BASE WITH 30" ROUND TAPERED POLE FINISHED IN DARK BRONZE.
 - STREET LIGHT TO BE 250 WATT HPS VAPOR PENDANT FIXTURE (CUTOFF) MOUNTED AT 30' ON A BRONZE FIBER GLASS POLE WITH A 12" ARM, ARM RADIAL TO FILLET.
 - ALL LIGHTS TO BE DIRECTED/REFLECTED AWAY FROM ADJACENT PUBLIC ROADS AND RESIDENTIAL PROPERTIES.
 - ALL CURB RADIUS ARE 5' UNLESS OTHERWISE LABELED.
 - ALL DIMENSIONS ARE TO FACE OF CURB OR BUILDING UNLESS OTHERWISE LABELED.
 - * LIMITS OF STD/REV CURB AND GUTTER.
 - ALL DIMENSIONS FROM BUILDING TO PROPERTY LIMITS ARE SHOWN ON SHEET 1



100 YR. FLOODPLAIN LINE CHART (A)

LINE	DIRECTION	DISTANCE	LINE	DIRECTION	DISTANCE
a	N 12 50'23" W	63.18	t	S 82 41'37" W	87.51
b	N 20 59'16" E	82.22	u	N 64 57'09" E	32.96
c	N 28 17'04" E	72.11	v	N 24 05'44" E	56.34
d	S 04 23'44" W	87.66	w	N 15 03'52" E	54.34
e	N 24 50'34" W	36.06	x	N 68 03'08" E	33.24
f	N 20 56'42" W	154.18	y	S 82 17'48" E	51.36
g	N 24 33'21" W	33.06	z	N 64 34'04" E	74.88
h	N 04 21'56" W	81.27	aa	N 36 30'14" E	48.85
i	N 00 28'18" E	41.52	bb	N 16 56'58" E	27.24
j	N 81 45'24" W	64.42	cc	N 24 51'48" E	141.4
k	N 68 19'04" W	118.54	dd	N 00 31'17" W	50.11
l	N 48 10'17" W	248.55	ee	N 30 27'40" W	32.65
m	S 85 07'00" W	48.60	ff	S 84 35'57" E	46.81
n	N 77 52'07" E	67.35	gg	S 83 17'53" E	24.74
o	N 84 07'56" E	164.41	hh	N 25 37'58" E	17.27
p	S 84 24'46" E	101.25	ii	N 36 53'15" W	33.76
q	N 83 36'04" W	36.81	jj	N 05 07'03" E	25.17
r	N 06 28'05" E	27.43	kk	N 24 10'56" W	34.53
s	S 52 10'56" W	30.10	ll	S 32 07'32" W	20.60

DAM & DATA SNMF #1

1	N 471,587.33	E 860,446.55
2	CL STA 0+10.15	1 - 2 S 74°22'18" N
3	CL STA 0+37.42	2 - 3 R = 46.35'
4	CL STA 0+78.24	3 - 4 S 74°22'18" N
5	CL STA 1+24.51	4 - 5 S 81°14'14" N
6	CL STA 1+85.43	5 - 6 R = 387.77'
7	CL STA 2+42.50	6 - 7 R = 246.72'
8	CL STA 3+16.45	7 - 8 R = 24.05'
9	CL STA 3+37.43	8 - 9 R = 20.88'
9	N 471,622.75	E 860,121.64

- OPERATION AND MAINTENANCE SCHEDULE OF PRIVATELY OWNED AND MAINTAINED STORMWATER MANAGEMENT FACILITY DETENTION POND #1**
- ROUTINE MAINTENANCE**
- Facility shall be inspected annually and after major storms. Inspections should be performed during wet weather to determine if the pond is functioning properly.
 - Top and side slopes of the embankment shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes, the bottom of the pond, and maintenance access should be mowed as needed.
 - Debris and litter next to the outlet structure shall be removed during regular mowing operations and as needed.
 - Visible signs of erosion in the pond as well as riprap outlet area shall be repaired as soon as it is noticed.
- NON-ROUTINE MAINTENANCE**
- Structural components of the pond such as the dam, the riser, and the pipes shall be repaired upon the detection of any damage. The components should be inspected during routine maintenance operations.
 - Sediment should be removed when its accumulation significantly reduces the design storage, interfere with the function of the riser, when deemed necessary for aesthetic reasons, or when deemed necessary by the Howard County's Department of Public Works.

HANDICAP DETAIL BY BUILDING A (WEST)

SCALE: 1" = 20'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

<i>[Signature]</i>	5/25/01
DIRECTOR	DATE
<i>[Signature]</i>	5/11/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
<i>[Signature]</i>	5/2/01
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE

DATE NO.	REVISION

OWNER / DEVELOPER

DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
ONE TEXAS STATION COURT
SUITE 100
TIMONIUM, MARYLAND 21093
(443) 689-9000

PROJECT **DORSEY RUN INDUSTRIAL PARK-PARCEL 'C'**

AREA TAX MAP NO. 48 BLOCKS 3 & 9
PARCEL C ZONED M-2
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE **SITE DEVELOPMENT PLAN**

RIEMER MUEGGE
a division of:
Patton Harris Rust & Associates, pc
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
8818 Centre Park Drive, Columbia, MD 21045 • Tel 410.997.8900 Fax 410.997.9282

5-1-01
DATE

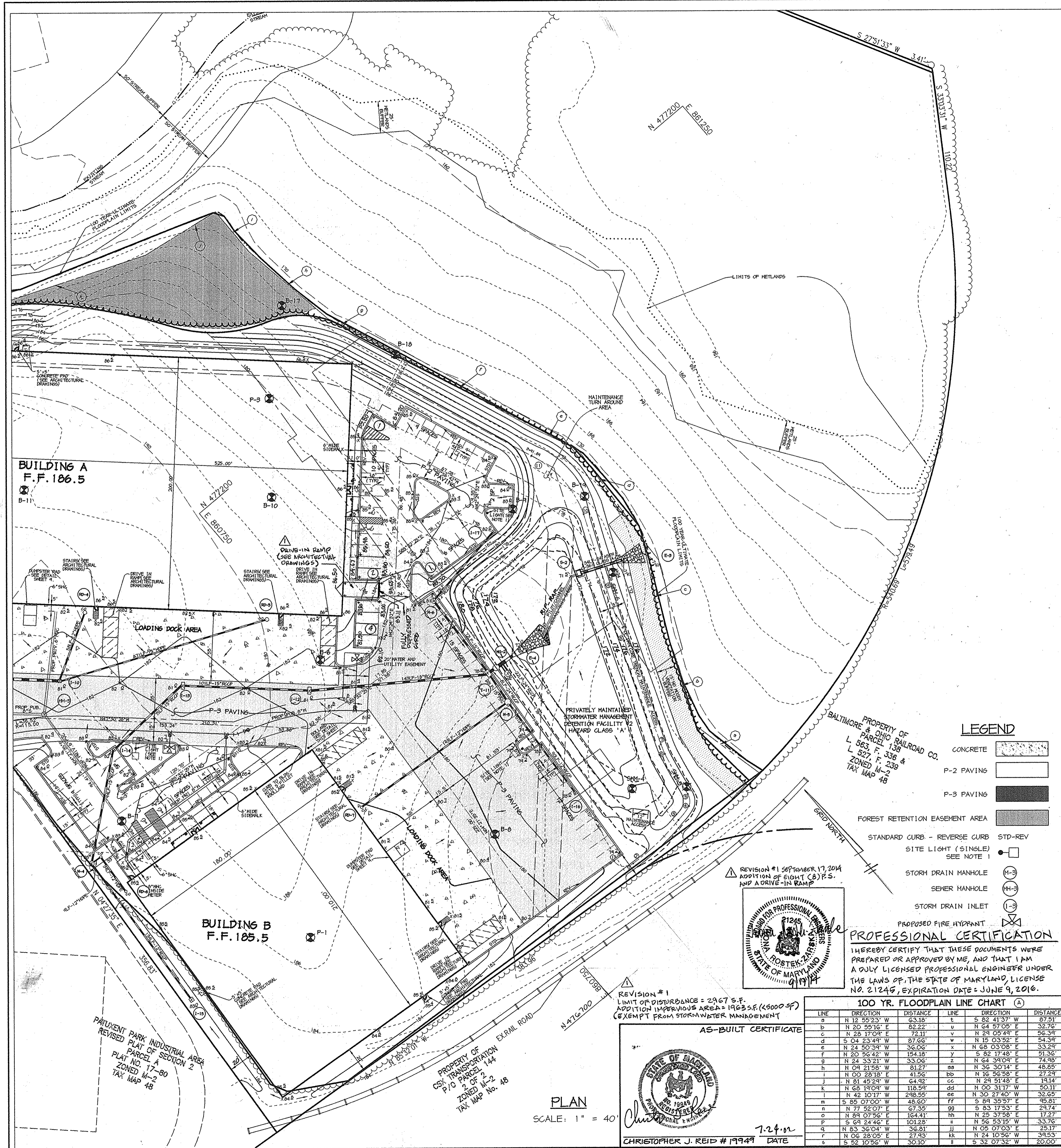
DESIGNED BY: C.J.R.
DRAWN BY: K.E.V.
CHECKED BY: C.J.R.
PROJECT NO: 00099
SDP2.DWG
DATE: MAY 3, 2001
SCALE: AS SHOWN
DRAWING NO. 2 OF 17

[Signature]
CHRISTOPHER J. REID #19994

PLAN
SCALE: 1" = 40'

DORSEY RUN INDUSTRIAL PARK
LIMITED PARTNERSHIP
PARCEL A
PLAT NO. 17-80
ZONED M-2
TAX MAP 48

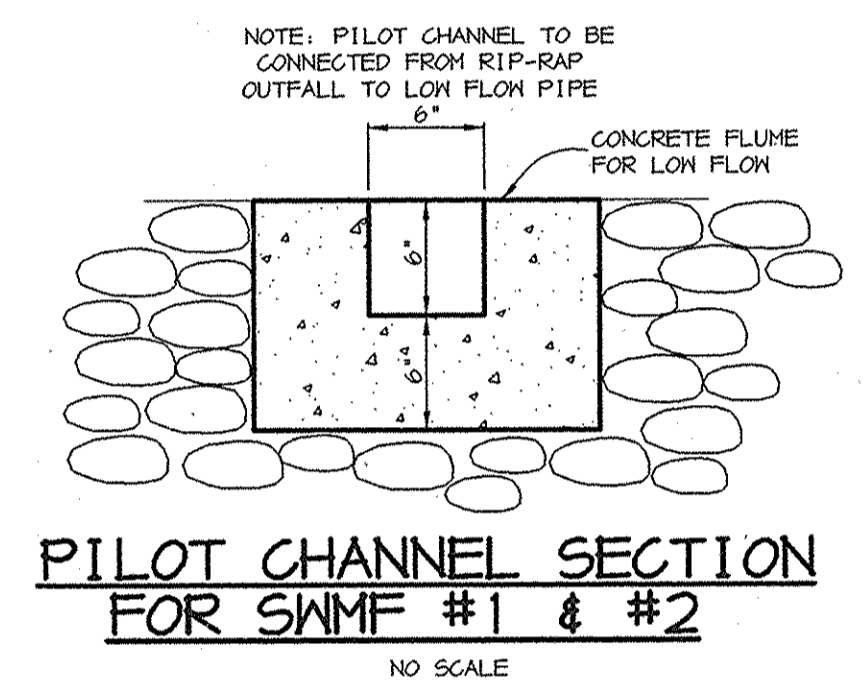
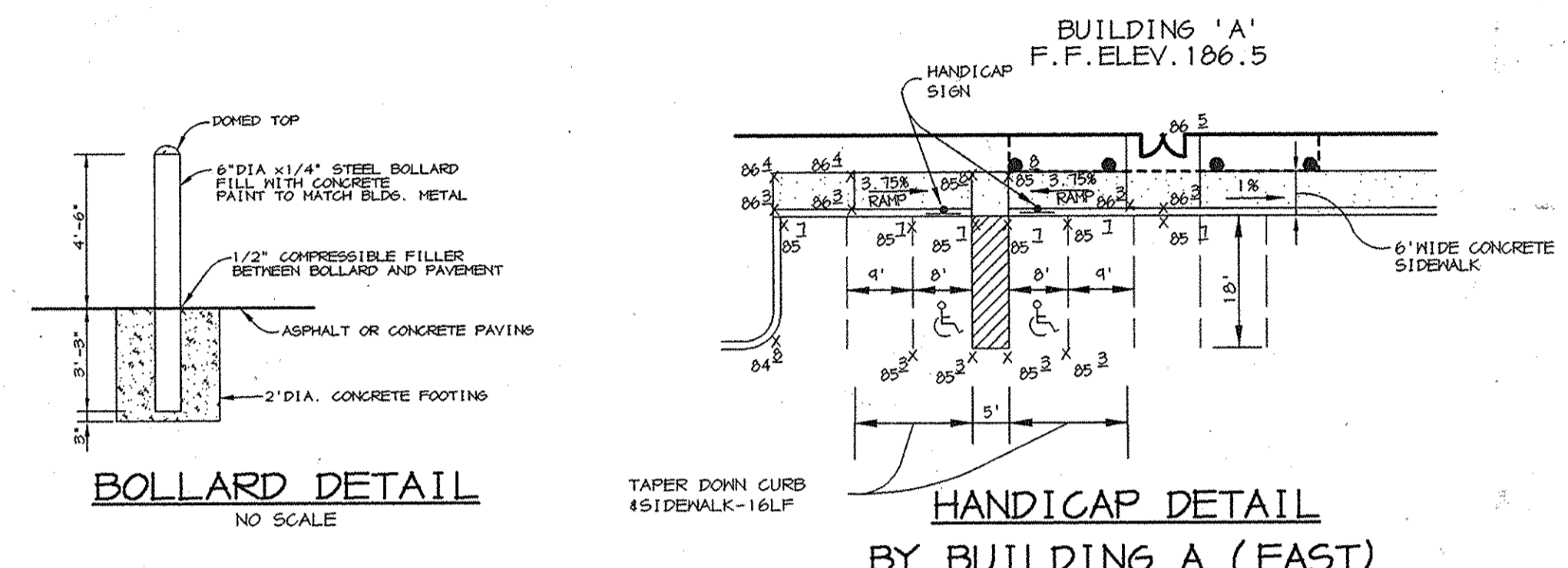
FOR CONTINUATION SEE SHEET 3 OF 13



STORMWATER MANAGEMENT DESIGN SUMMARY-SWMP #2

DESIGN STORM (YR.)	ALLOWABLE RELEASE (C.F.S.)	FACILITY INFLOW (C.F.S.)	ROUTED DISCHARGE (C.F.S.)	WATER SURFACE ELEVATION (FT.)	STORAGE VOLUME (AC. FT.)	REMARKS	DESIGN STORM (YR.)	ALLOWABLE RELEASE (C.F.S.)	ROUTED DISCHARGE (C.F.S.)
2	*	8.15	1.12	172.91	0.2126	NONE	2	14.40	14.23
10	*	14.96	8.77	173.37	0.3897	NONE	10	46.88	42.35
100	N/A	N/A	N/A	173.74	0.4838	CLOSED CONDITIONS	100	N/A	N/A

* ALLOWABLE RELEASE WAS COMPUTED FOR BOTH PONDS AT DESIGN POINT.



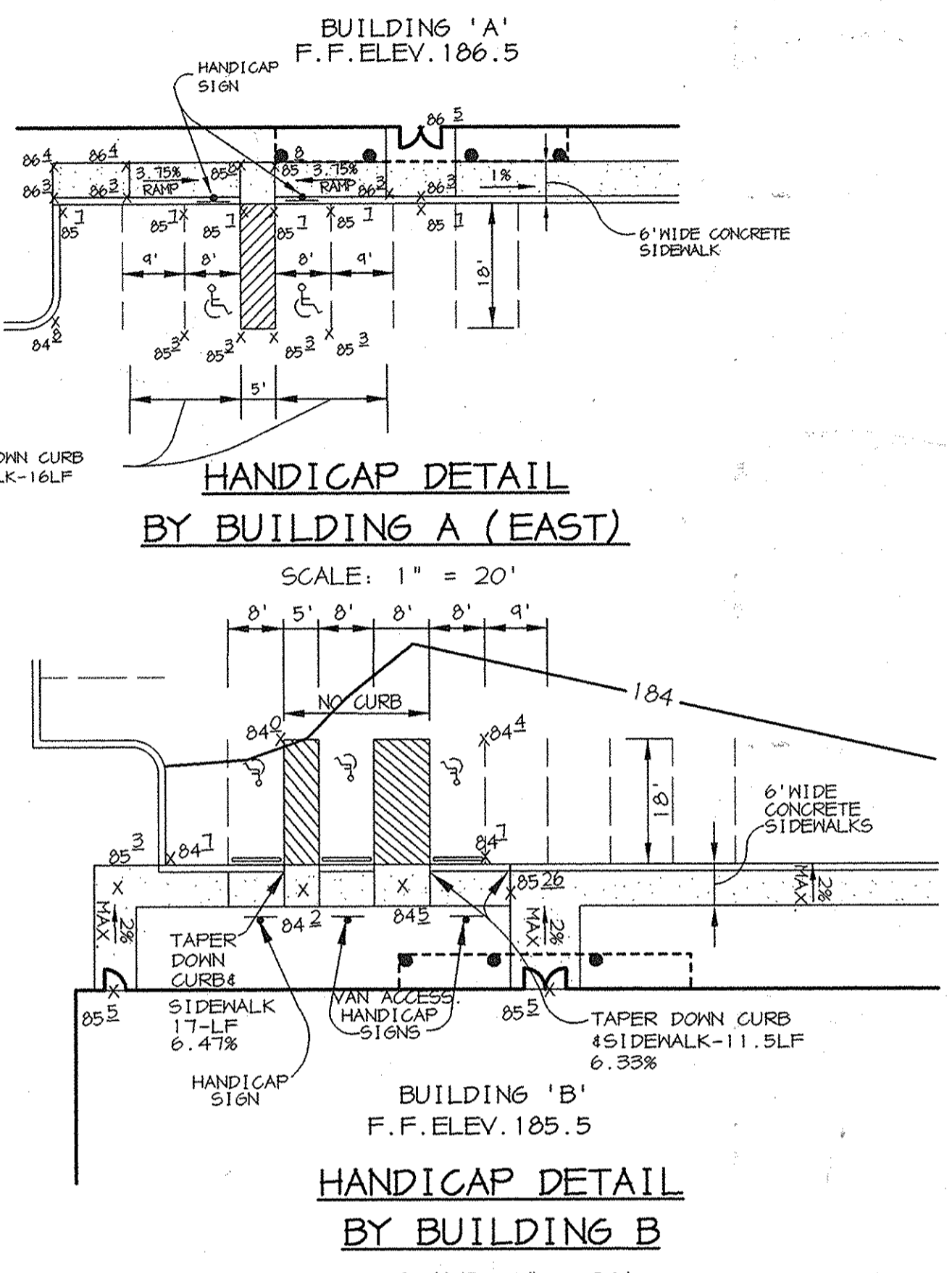
DAM & DATA SWMP #2

- ① N 476,718.20 E 860,822.23
- ② CL STA 0+17.37
- ③ CL STA 0+67.04
- ④ CL STA 0+81.07
- ⑤ CL STA 0+90.47
- ⑥ CL STA 1+27.71
- ⑦ CL STA 1+36.03
- ⑧ CL STA 2+29.02
- ⑨ CL STA 2+64.44
- ⑩ CL STA 3+28.38
- ⑪ CL STA 3+41.84
- ⑫ N 471,065.55 E 860,479.66
- ⑬ - ⑭ R = 10.0'
- ⑮ - ⑯ R = 119.11'
- ⑰ - ⑱ R = 48.04'
- ⑲ - ⑳ R = 10.44'
- ㉑ - ㉒ R = 468.31'
- ㉓ - ㉔ R = 94.64'
- ㉕ - ㉖ R = 13011.74'
- ㉗ - ㉘ R = 1104.06'
- ㉙ - ㉚ S 23°13'16" W
- ㉛ - ㉜ R = 83.83'

- NOTES**
- SITE LIGHTS TO BE 400 MATT METAL HALIDE VERTICAL LAMPS ON SHOEBOXES ON 2" - 6" BASE WITH 30" ROUND TAPERED POLE FINISHED IN DARK BRONZE.
 - ALL LIGHTS TO BE DIRECTED/REFLECTED AWAY FROM ADJACENT PUBLIC ROADS AND RESIDENTIAL PROPERTIES.
 - ALL CURB RADII ARE 5' UNLESS OTHERWISE LABELED.
 - ALL DIMENSIONS ARE TO FACE OF CURB OR BUILDING UNLESS OTHERWISE LABELED.
 - * LIMITS OF STD/REV CURB AND GUTTER.
 - ALL DIMENSIONS ARE TO FACE OF CURB OR BUILDING UNLESS OTHERWISE LABELED.
 - ALL DIMENSIONS FROM BUILDINGS TO PROPERTY LIMITS ARE SHOWN ON SHEET 1.

OPERATION AND MAINTENANCE SCHEDULE OF PRIVATELY OWNED AND MAINTAINED STORMWATER MANAGEMENT FACILITY DETENTION POND #2

- ROUTINE MAINTENANCE**
- Facility shall be inspected annually and after major storms. Inspections should be performed during wet weather to determine if the pond is functioning properly.
 - Top and side slopes of the embankment shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes, the bottom of the pond, and maintenance access should be mowed as needed.
 - Debris and litter next to the outlet structure shall be removed during regular mowing operations and as needed.
 - Visible signs of erosion in the pond as well as riprap outlet area shall be repaired as soon as it is noticed.
- NON-ROUTINE MAINTENANCE**
- Structural components of the pond such as the dam, the riser, and the pipes shall be repaired upon the detection of any damage. The components should be inspected during routine maintenance operations.
 - Sediment should be removed when its accumulation significantly reduces the design storage, interferes with the function of the riser, when deemed necessary for aesthetic reasons, or when deemed necessary by the Howard County's Department of Public Works.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Howard County Seal
DIRECTOR DATE: 5/25/01

Christopher J. Reid
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 5/11/01

Christopher J. Reid
CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 5/14/01

REVISION: ADDITION OF EIGHT (8) 17'-5" AND A DRIVE-IN RAMP

OWNER / DEVELOPER
DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
ONE TEXAS STATION COURT
SUITE 100
TIMONIUM, MARYLAND 21093
(443) 689-9000

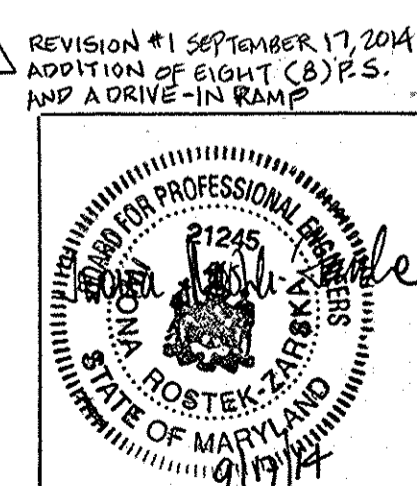
PROJECT
DORSEY RUN INDUSTRIAL PARK-PARCEL 'C'

AREA
TAX MAP NO. 48 BLOCKS 3 & 9
PARCEL C ZONED M-2
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
SITE DEVELOPMENT PLAN AND DETAILS

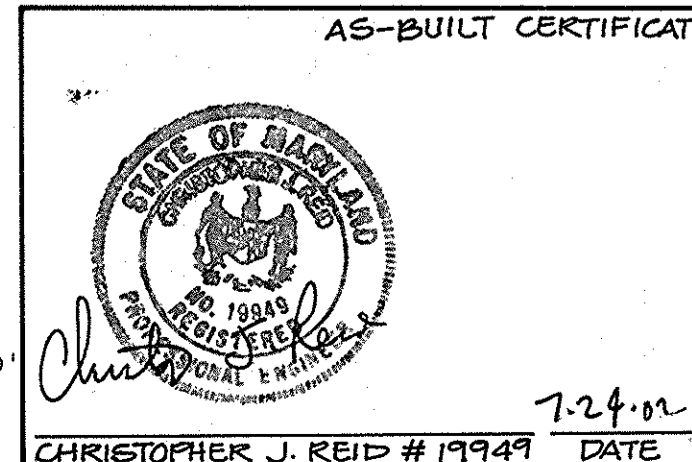
RIEMER MUEGGE
a division of
Patton Harris Rust & Associates, pc
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
8818 Centre Park Drive, Columbia, MD 21045 • Tel: 410.997.8900 Fax: 410.997.2822

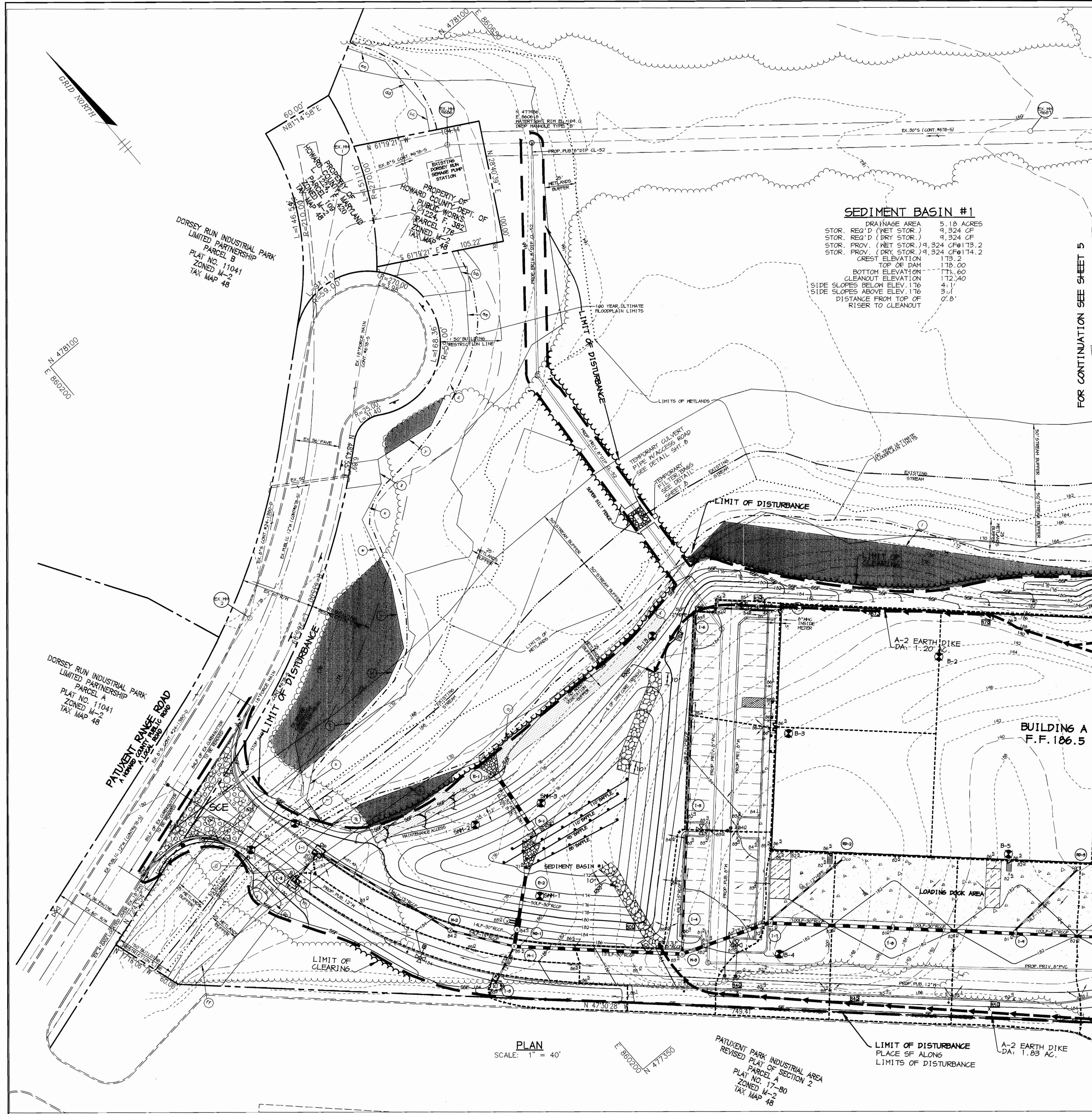
DESIGNED BY: C.J.R.
DRAWN BY: K.E.V.
CHECKED BY: C.J.R.
PROJECT NO: 00099
DATE: MAY 3, 2001
SCALE: AS SHOWN
DRAWING NO. 3 OF 17



PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21245, EXPIRATION DATE: JUNE 9, 2016.

REVISION #1
LIMIT OF DISTURBANCE = 2967 S.F.
ADDITION IMPERVIOUS AREA = 1963 S.F. (8000 SF)
(EXEMPT FROM STORMWATER MANAGEMENT)



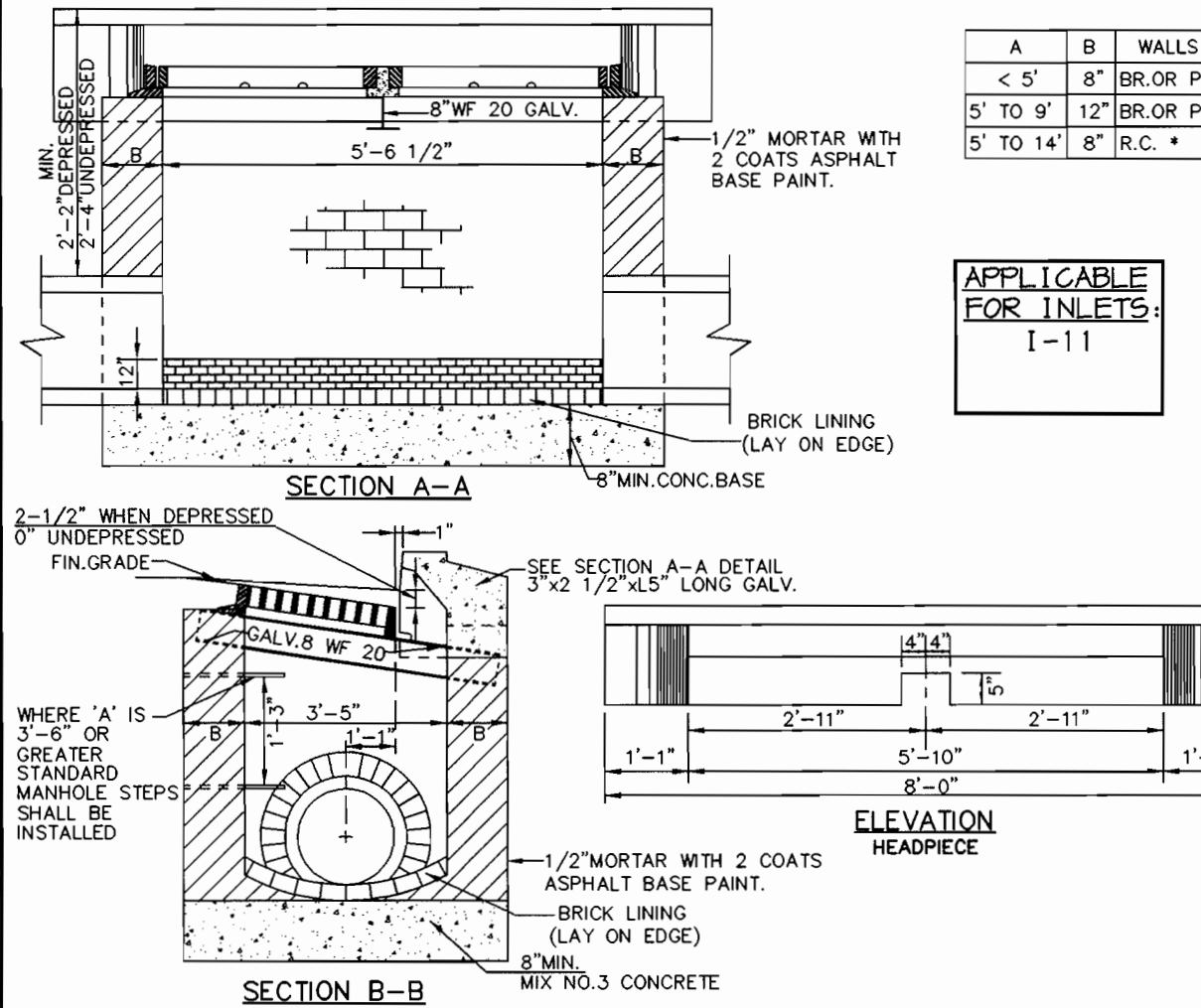
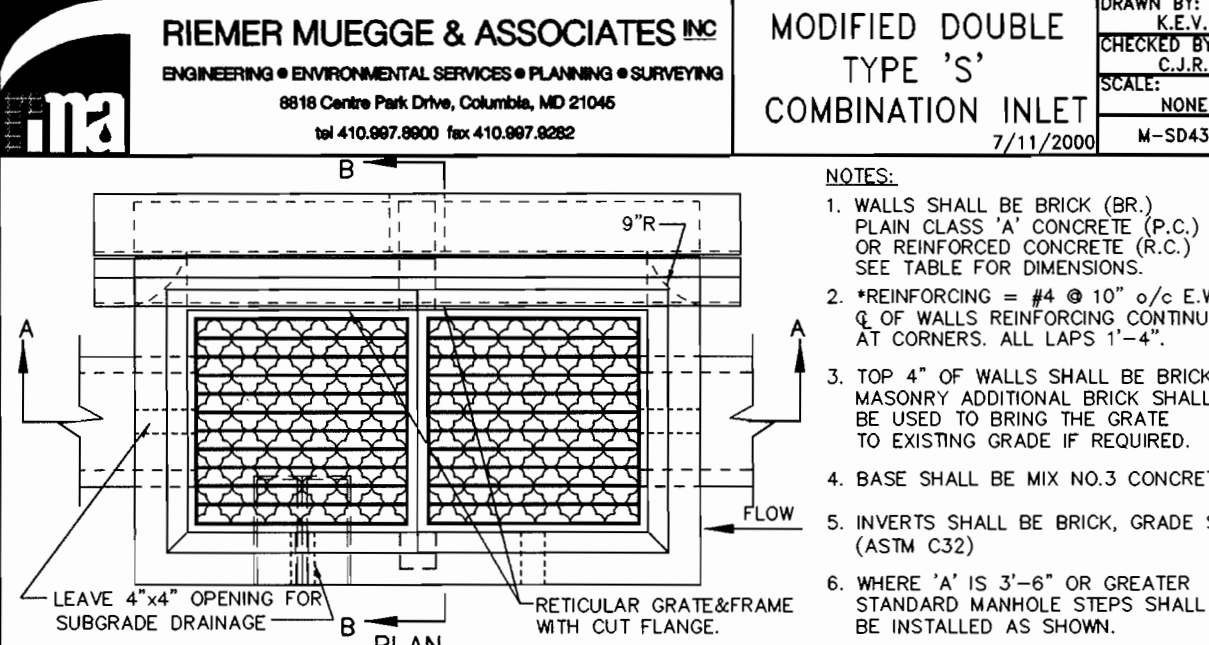
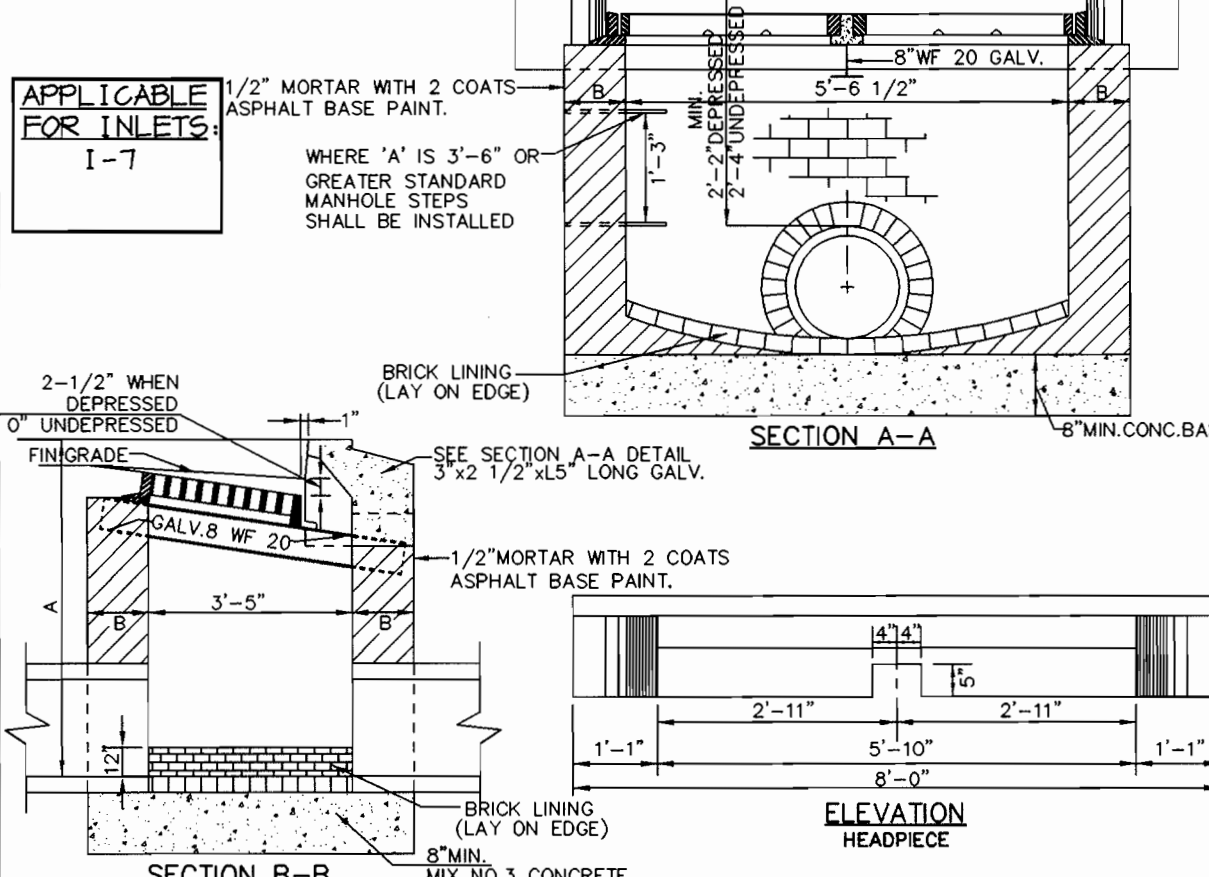
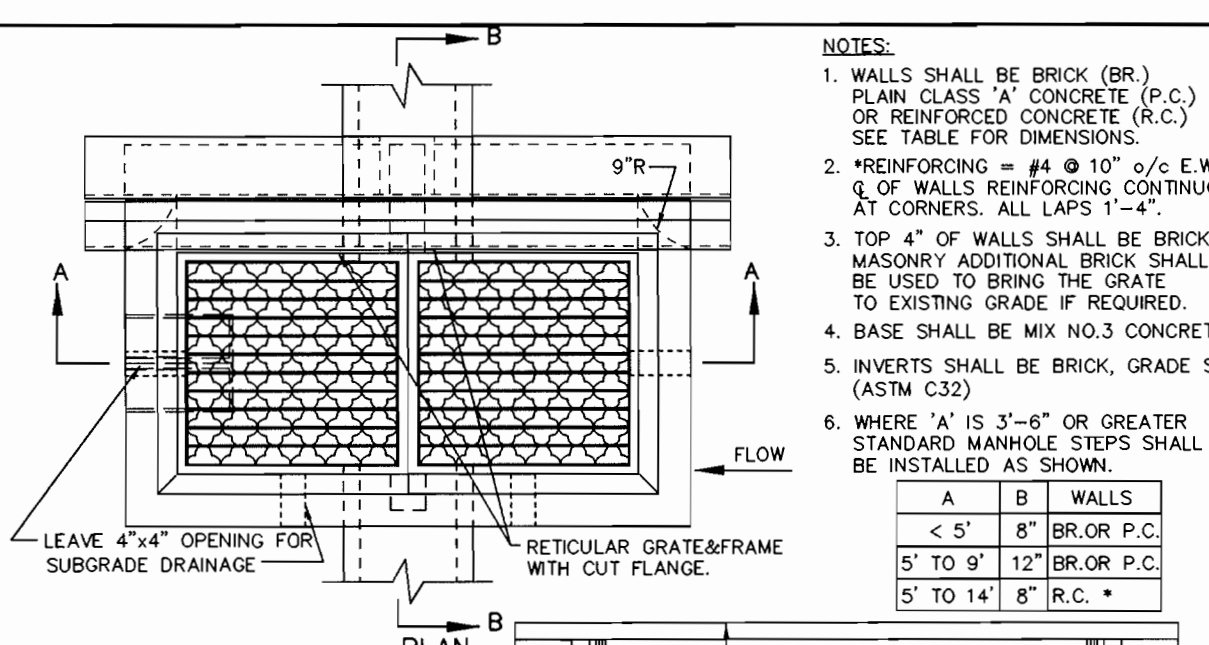


LEGEND

- LIMIT OF DISTURBANCE
- EARTH DIKE
- SUPER SILT FENCE
- SILT FENCE
- SOILS DIVIDE
- INLET DRAINAGE AREA DIVIDE
- STABILIZED CONSTRUCTION ENTRANCE
- STANDARD INLET PROTECTION
- CURB INLET PROTECTION
- RIPRAP INFLOW PROTECTION
- REMOVABLE PUMPING STATION
- STORMDRAIN INLET NO.
- STORMDRAIN MANHOLE NO.
- SPOT ELEVATIONS ALONG DIKES

DRAINAGE DATA

INLET NOS.	AREA IN ACRES	'C' FACTOR	PERCENT IMPERVIOUS	INLET NOS.	AREA IN ACRES	'C' FACTOR	PERCENT IMPERVIOUS
1	0.08	0.86	100	RD-1	0.30	0.86	100
2	0.08	0.86	100	RD-2	0.30	0.86	100
3	0.06	0.14	0.86	RD-3	0.61	0.86	100
4	0.24	0.70	76	RD-4	0.62	0.86	100
5	0.15	0.60	73	RD-5	0.61	0.86	100
6	0.16	0.64	75	RD-6	0.43	0.86	100
7	0.22	0.71	77	RD-7	0.43	0.86	100
8	0.31	0.73	81				
9	0.32	0.73	81				
10	0.28	0.74	82				
11	0.62	0.73	81				
12	0.17	0.82	84				
13	0.31	0.73	81				
14	0.20	0.63	65				
15	0.20	0.14	0				
16	0.40	0.83	45				
17	0.22	0.77	86				



BY THE DEVELOPER:
 I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Carole McMill 5-1-01
 DEVELOPER DATE

BY THE ENGINEER:
 I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

Chris J Reid 5-1-01
 ENGINEER DATE

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

Jim Myers / Jos 5/9/01
 NATURAL RESOURCES CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

John S... 5/9/01
 HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

John S... 5/25/00
 DIRECTOR DATE

John D... 5/11/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Andy H... 5/24/01
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER / DEVELOPER
 DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
 ONE TEXAS STATION COURT
 SUITE 100
 TIMONIUM, MARYLAND 21093
 (443) 689-9000

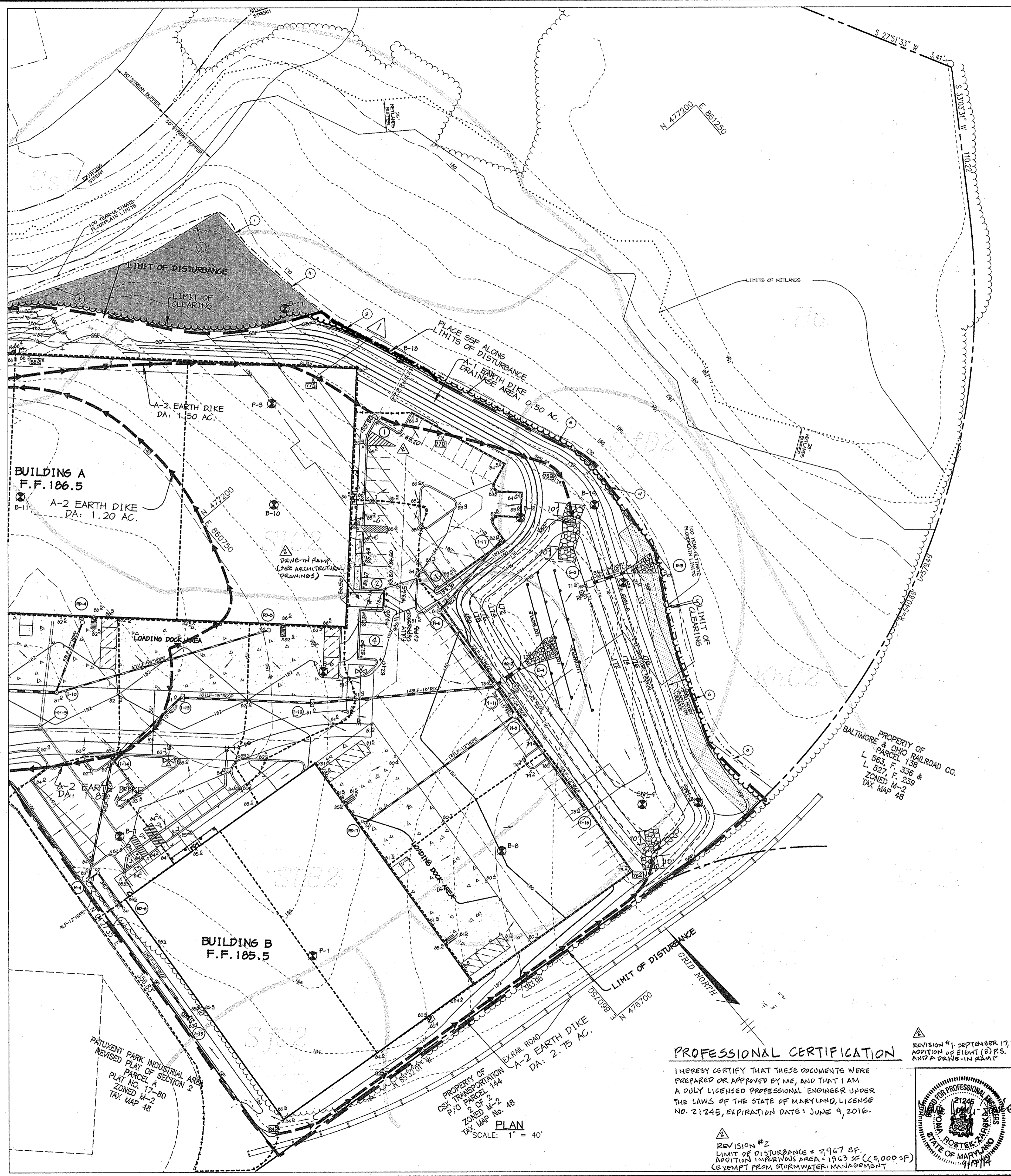
PROJECT
DORSEY RUN INDUSTRIAL PARK-PARCEL 'C'

AREA TAX MAP NO. 48 BLOCKS 3 & 9
 PARCEL C ZONED M-2
 6th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

RIEMER MUEGGE
 a division of:
Patton Harris Rust & Associates, pc
 ENGINEERS • SURVEYORS • PLANNERS
 LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
 8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

5-1-01
 DESIGNED BY: C.J.R.
 DRAWN BY: K.E.V.
 CHECKED BY: C.J.R.
 PROJECT NO: 00099 SDP4.DWG
 DATE: MAY 3, 2001
 SCALE: AS SHOWN
 DRAWING NO. 4 OF 17

FOR CONTINUATION SEE SHEET 4



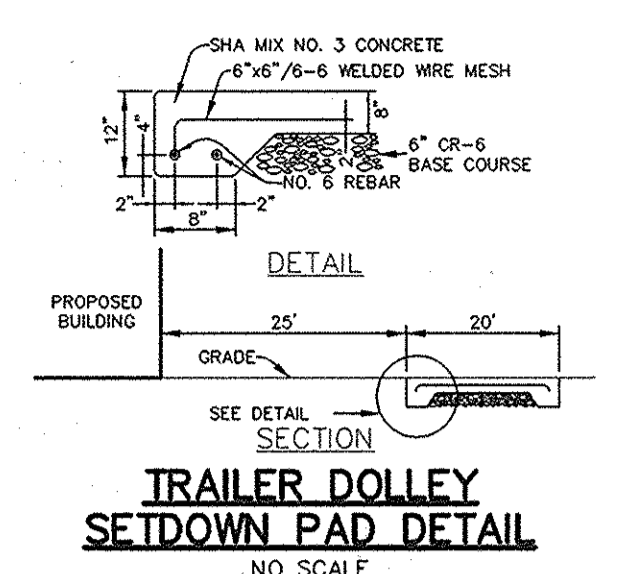
LEGEND

- LIMIT OF DISTURBANCE
- EARTH DIKE
- SILT FENCE
- SUPER SILT FENCE
- SOILS DIVIDE
- INLET DRAINAGE AREA DIVIDE
- STANDARD INLET PROTECTION
- RIPRAP INFLOW PROTECTION
- REMOVABLE PUMPING STATION
- STORMDRAIN INLET NO.
- STORMDRAIN MANHOLE NO.
- SPOT ELEVATIONS ALONG EARTH DIKES

SEDIMENT BASIN #2

DRAINAGE AREA	4.23 ACRES
STOR. REQ'D (NET STOR.)	7,614 CF
STOR. REQ'D (DRY STOR.)	7,614 CF
STOR. PROV. (NET STOR.)	7,614 CF @ 172.50
STOR. PROV. (DRY STOR.)	7,614 CF @ 170.00
ITS. 20	173.20
TOP OF DAM	176.00
BOTTOM ELEVATION	171.50
CLEANOUT ELEVATION	172.20
SIDE SLOPES BELOW ELEV. 176	4:1
SIDE SLOPES ABOVE ELEV. 176	3:1
DISTANCE FROM TOP OF RISER TO CLEANOUT	14.00
PRE-DISTURBANCE ϕ_1	14.40 CFS
POST-DISTURBANCE ϕ_2	14.23 CFS

*PRE AND POST-DISTURBANCE ϕ_2 COMPUTED AT DESIGN POINT



AS-BUILT CERTIFICATE

STATE OF MARYLAND PROFESSIONAL ENGINEER

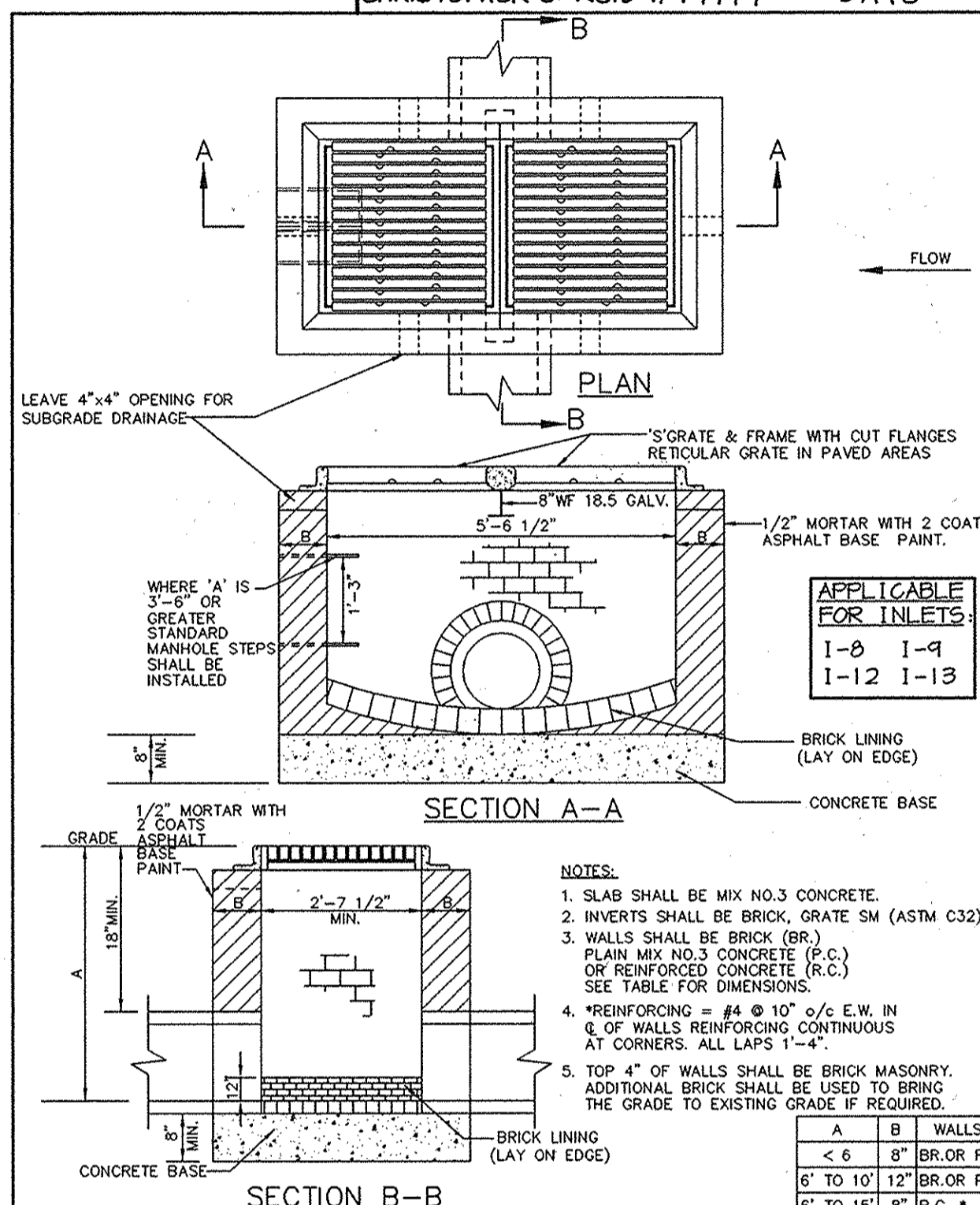
CHRISTOPHER J. REID #19949

DATE: 7.24.02

BY THE DEVELOPER:

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Carole McGee 5.1.01
DEVELOPER DATE



BY THE ENGINEER:

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

Christopher Reid 5.1.01
ENGINEER DATE

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

Jin Nguyen 5/9/01
NATURAL RESOURCES CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Howard Soil Conservation District 5/9/01
DATE

RIEMER MUEGGE & ASSOCIATES INC.
ENGINEERS • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
6818 Centre Park Drive, Columbia, MD 21046
Tel 410.997.8900 Fax 410.997.8282

MODIFIED DOUBLE TYPE 'S' INLET

DATE: 5/25/2000

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

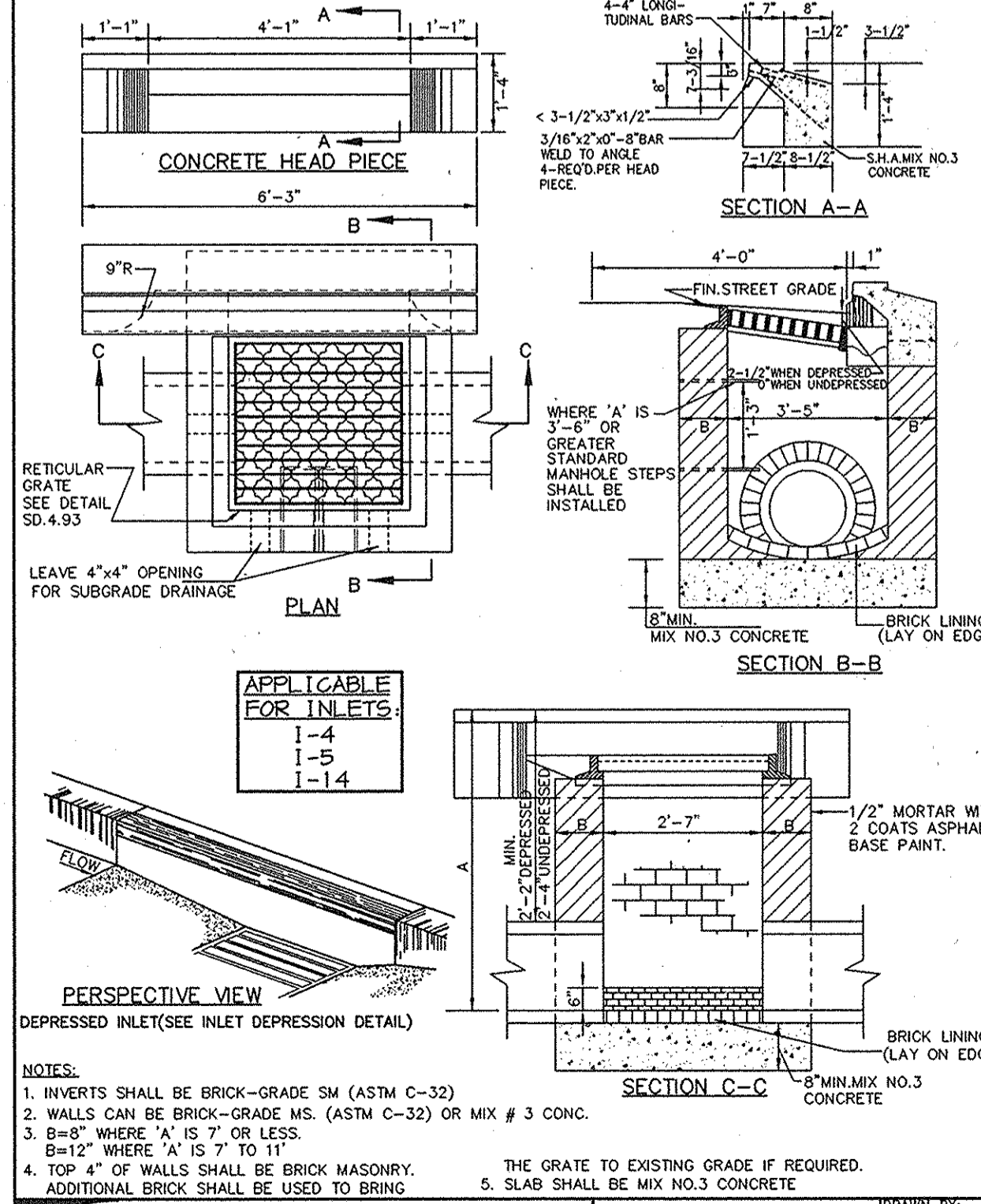
Director: [Signature] 5/25/04
DATE

Chief, Development Engineering Division: [Signature] 5/11/01
DATE

Chief, Division of Land Development: [Signature] 5/24/04
DATE

ADJUST L.O.D. TO LIMIT OF FLOODPLAIN, RESET 55F ALONG NEW L.O.D.

DATE: 9-21-01 REVISION



OWNER / DEVELOPER

DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
ONE TEXAS STATION COURT
SUITE 100
TIMONIUM, MARYLAND 21093
(443) 689-9000

PROJECT: DORSEY RUN INDUSTRIAL PARK-PARCEL 'C'

AREA: TAX MAP NO. 48 BLOCKS 3 & 9
PARCEL C ZONED M-2
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: GRADING, SEDIMENT CONTROL PLAN & DRAINAGE AREA MAP

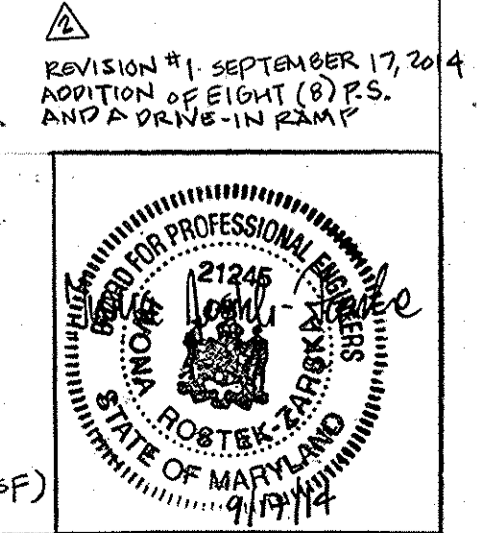
RIEMER MUEGGE
a division of:
Patton Harris Rust & Associates, pc
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
6818 Centre Park Drive, Columbia, MD 21046 • Tel 410.997.8900 Fax 410.997.8282

DATE: 5.1.01

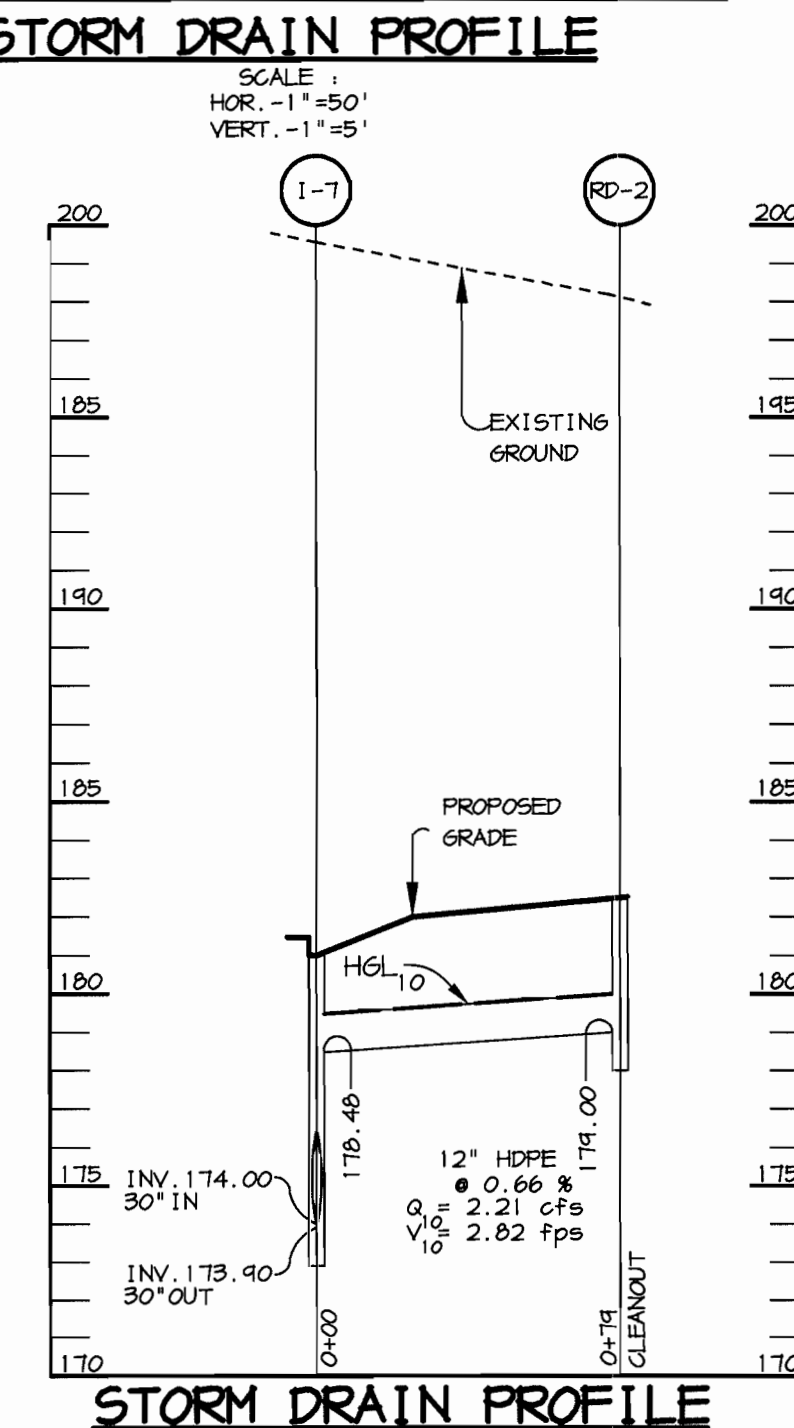
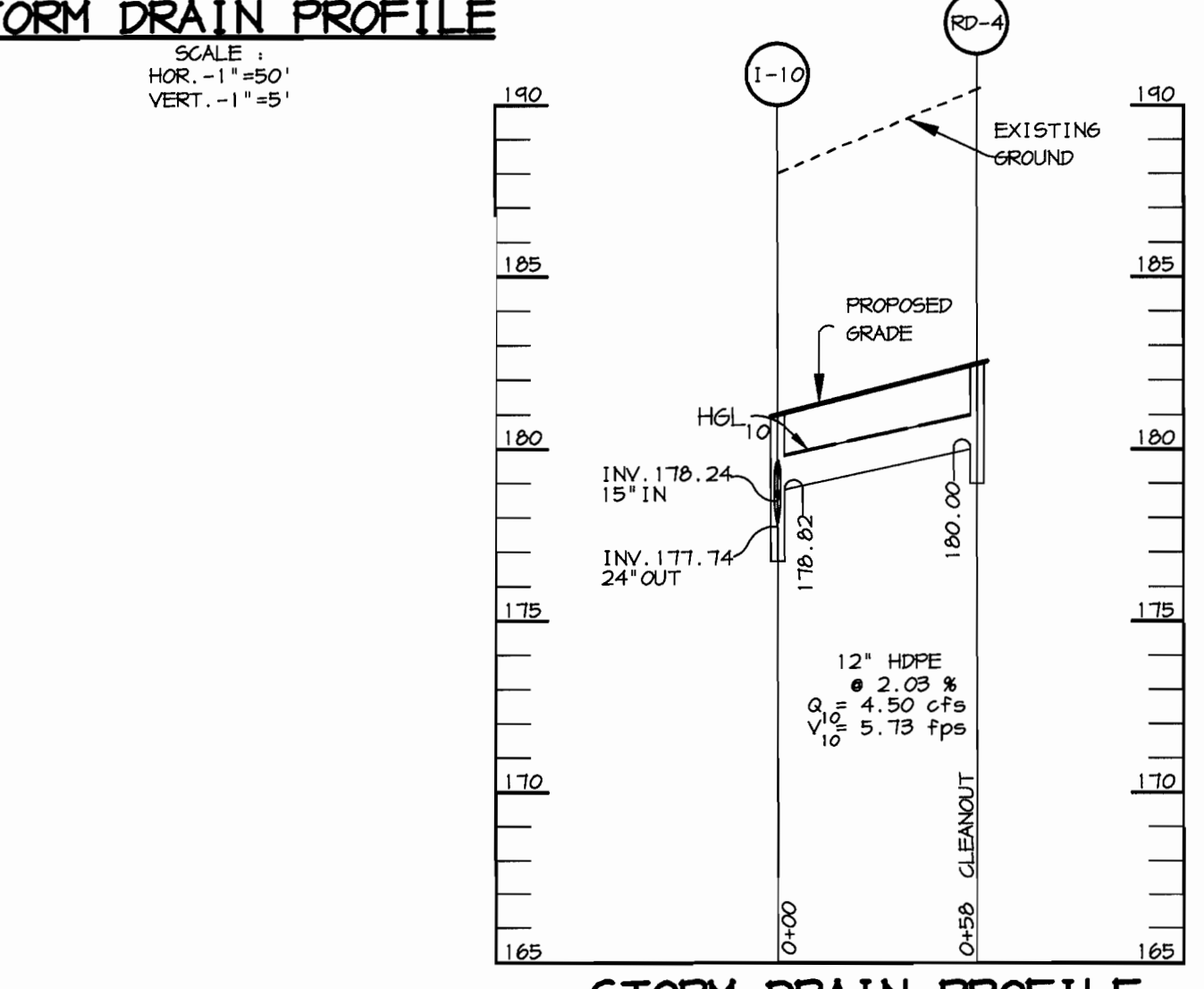
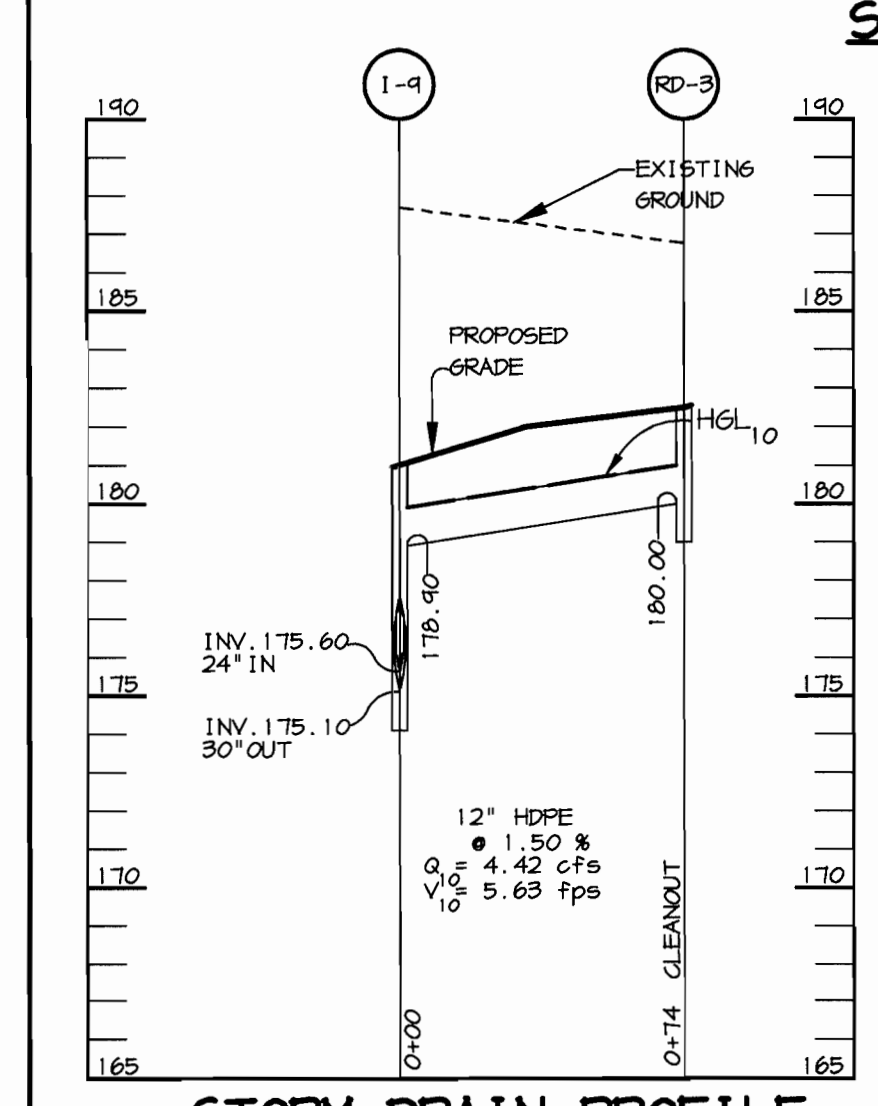
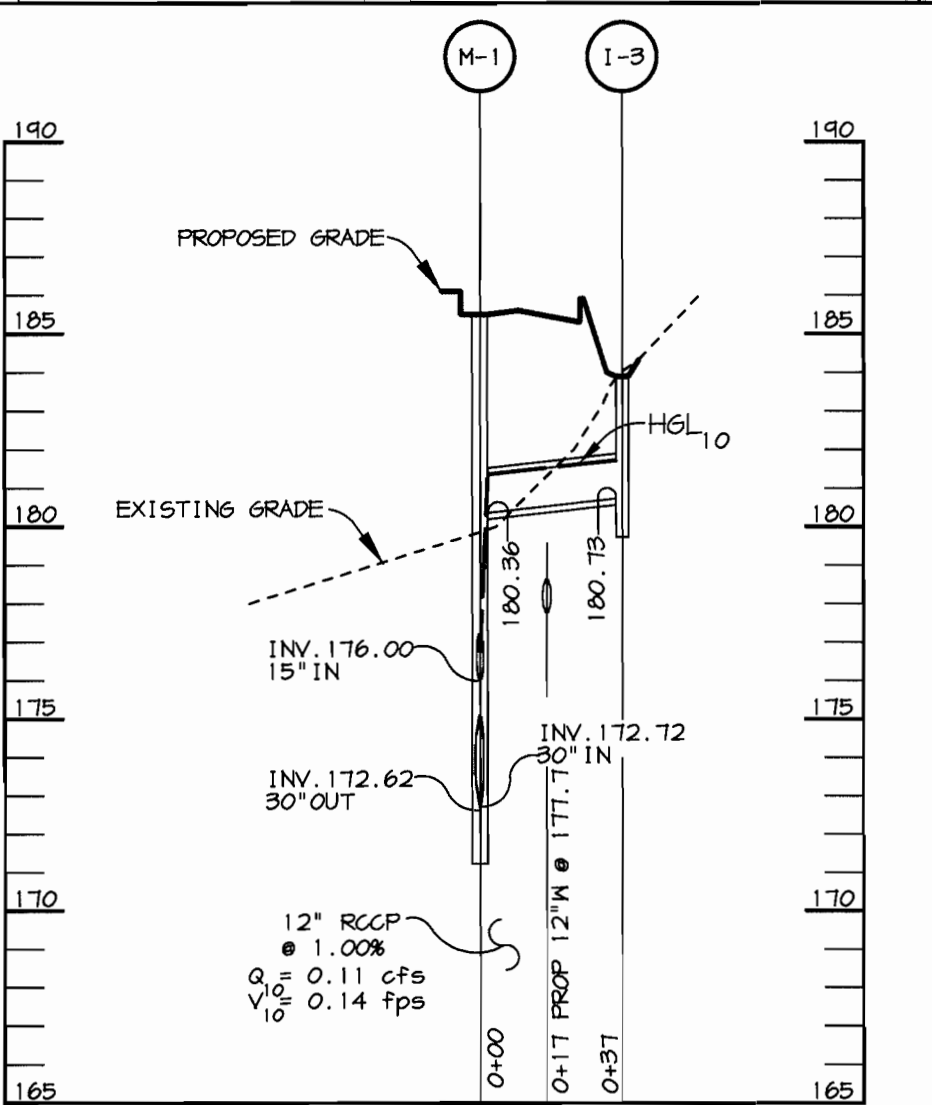
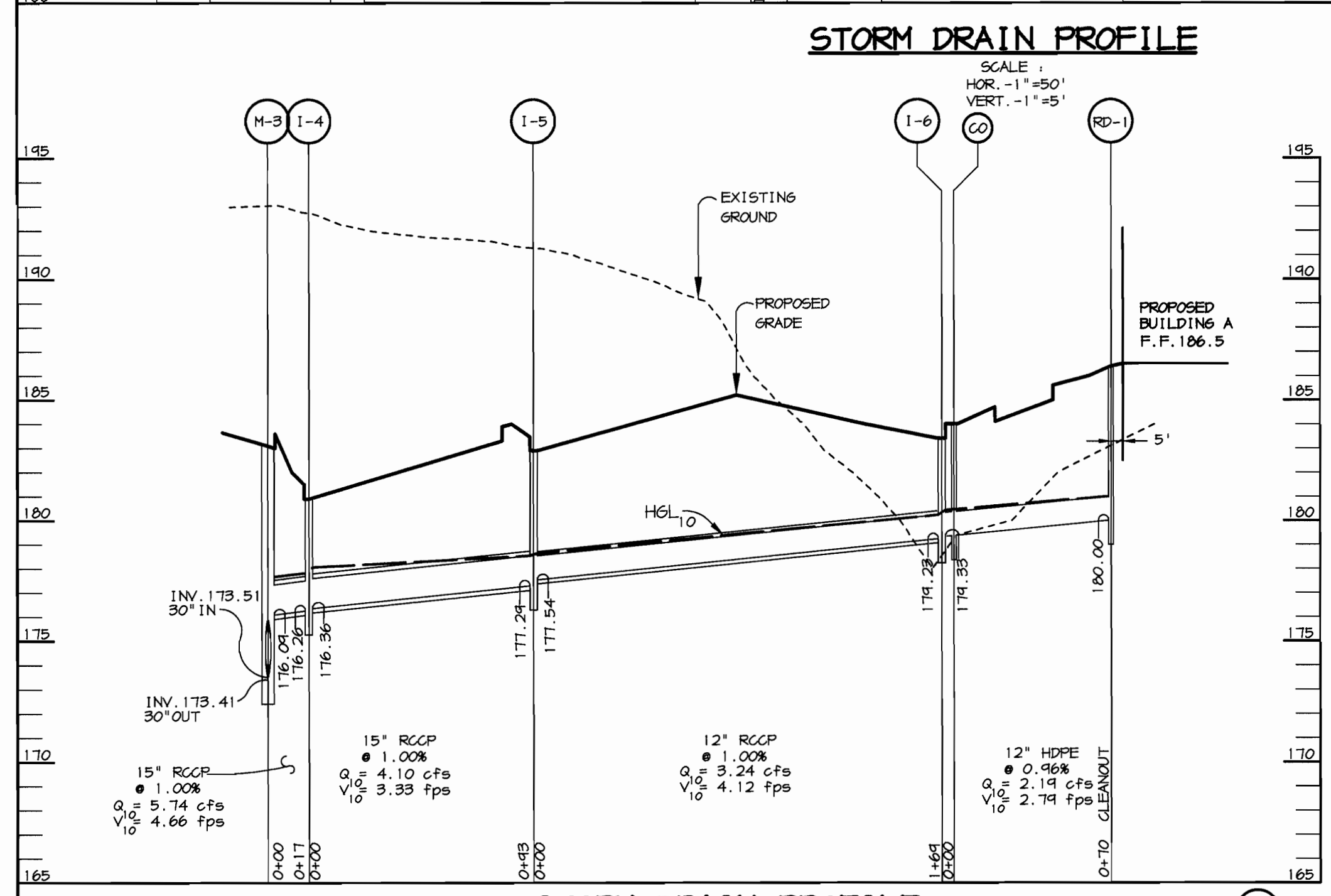
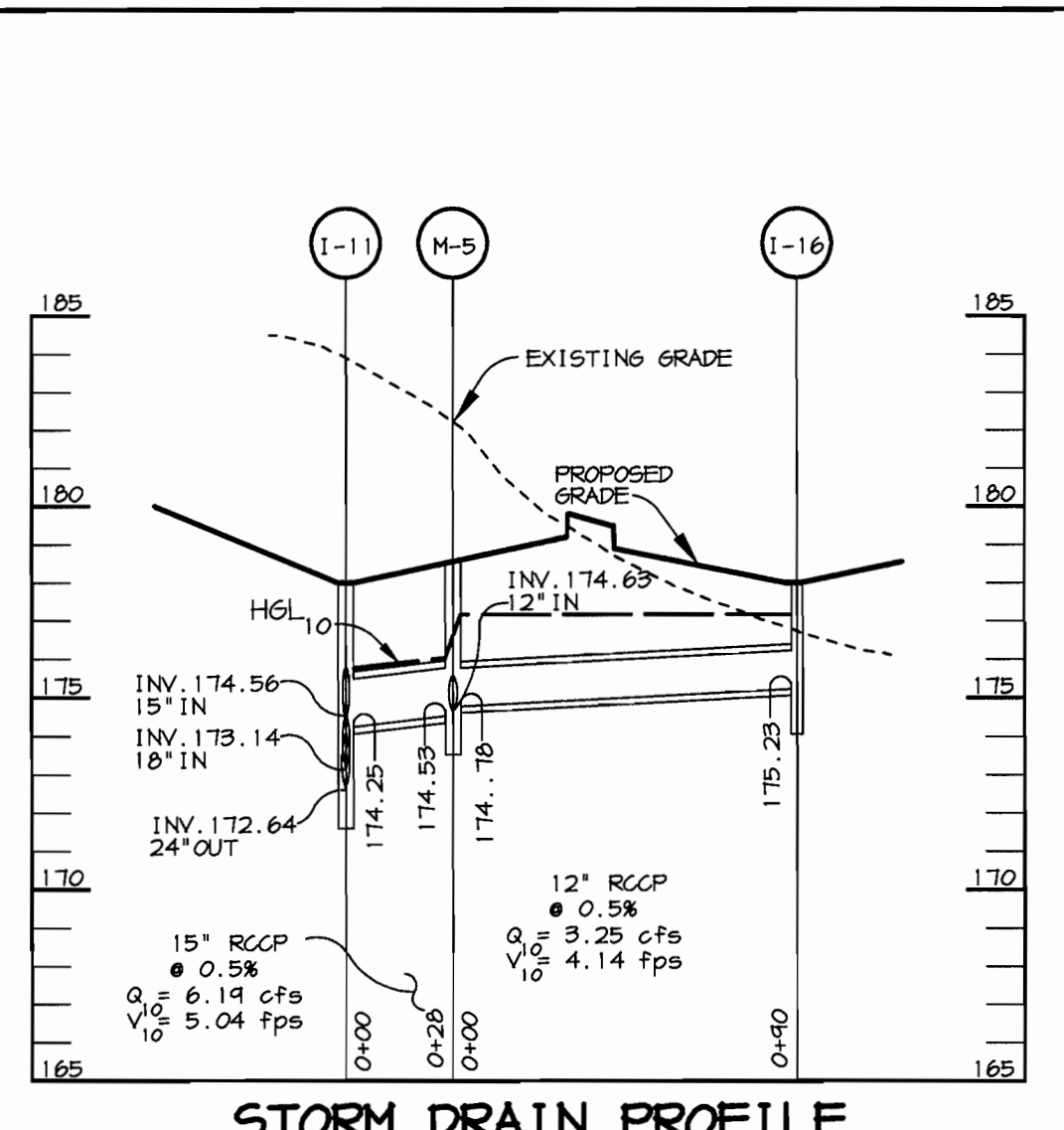
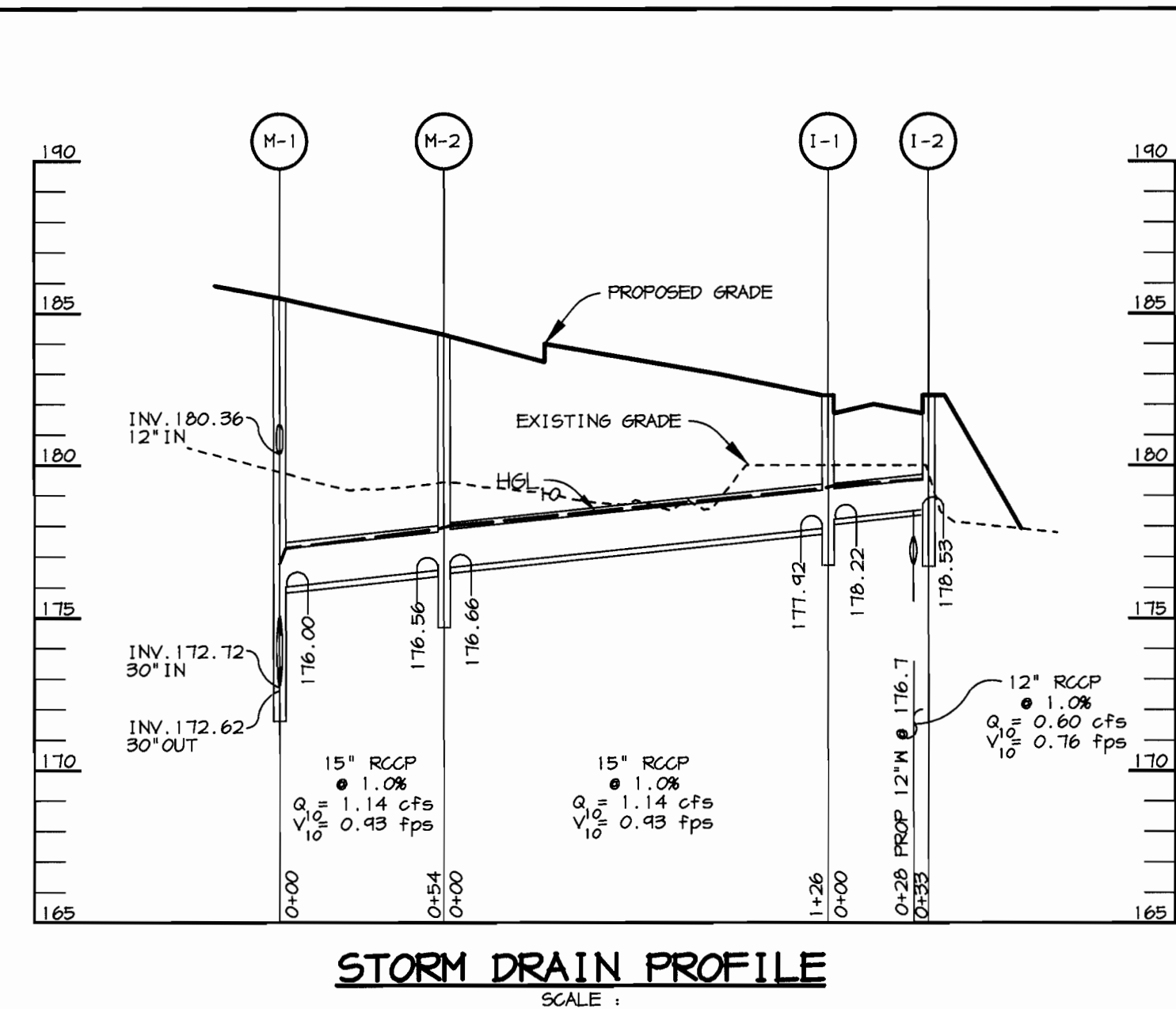
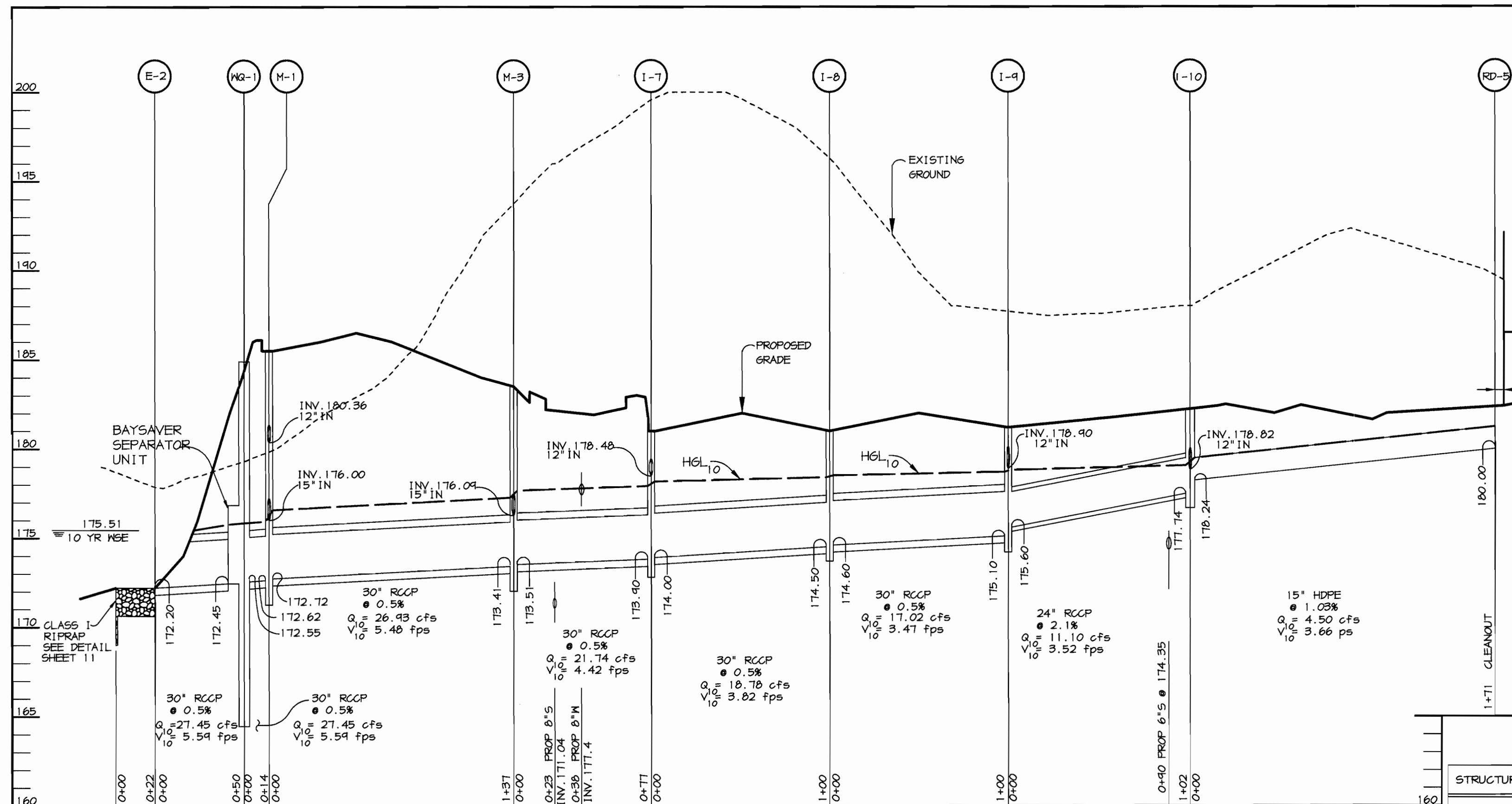
DESIGNED BY: C.J.R.
DRAWN BY: K.E.V.
CHECKED BY: C.J.R.
PROJECT NO: 00099
SDPS DWG
DATE: MAY 3, 2001
SCALE: AS SHOWN
DRAWING NO. 5 OF 17

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21245, EXPIRATION DATE: JUNE 9, 2016.

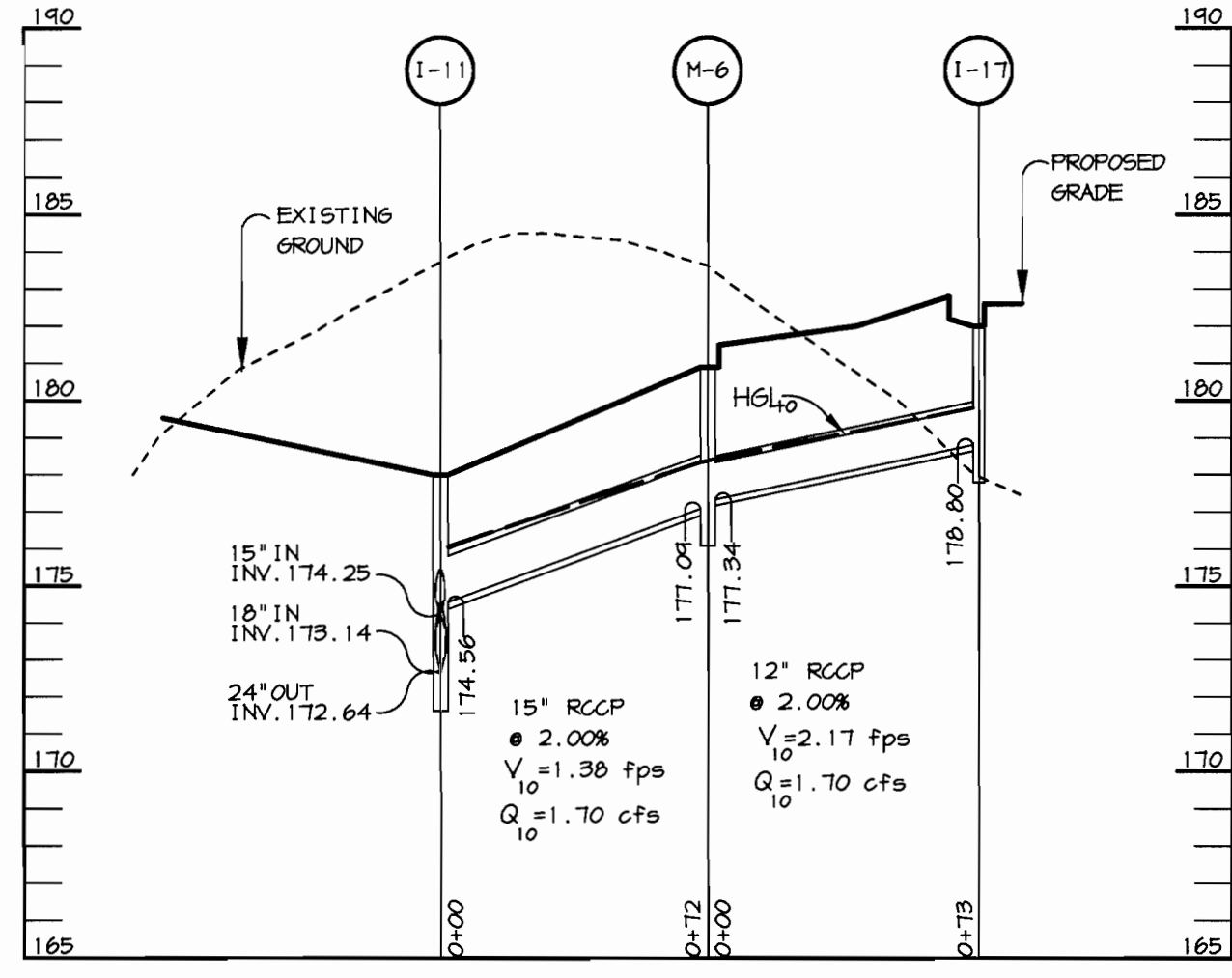


REVISION #2
LIMIT OF DISTURBANCE = 2,967 SF.
ADDITION IMPERVIOUS AREA = 19,639 SF (LESS 5,000 SF)
EXEMPT FROM STORMWATER MANAGEMENT



STRUCTURE SCHEDULE

STRUCTURE	TYPE	LOCATION	INV. IN	INV. OUT	TOP	REMARKS
I-1	A-5	* N 477,656.41 E 860,111.04	178.22 (12")	177.92 (15")	182.3 TC	HOCO STD. DETAIL SD 4.40
I-2	A-5	* N 477,650.28 E 860,081.68	~	178.53 (12")	182.3 TC	HOCO STD. DETAIL SD 4.40
I-3	YARD INLET	* N 477,480 E 860,152	~	180.73 (12")	183.9	HOCO STD. DETAIL SD 4.14
I-4	MOD. S COMB.	* N 477,414.93 E 860,295.45	176.36 (15")	176.26 (15")	181.5	MOD. HOCO STD. DETAIL SD 4.32 SEE DETAIL SHEET 5
I-5	MOD. S COMB.	* N 477,483.50 E 860,558.27	177.54 (12")	177.24 (15")	183.5	MOD. HOCO STD. DETAIL SD 4.32 SEE DETAIL SHEET 5
I-6	S COMB.	* N 477,607.64 E 860,472.03	174.33 (12")	174.23 (12")	184.0	HOCO STD. DETAIL SD 4.32
I-7	MOD. DOUB S COMB.	* N 477,375.60 E 860,355.71	174.0 (30")	173.90 (30")	181.6	MOD. HOCO STD. DETAIL SD 4.34 SEE DETAIL SHEET 4
I-8	MOD. DOUB S COMB.	* N 477,307.04 E 860,430.55	174.60 (30")	174.50 (30")	181.0	MOD. HOCO STD. DETAIL SD 4.23 SEE DETAIL SHEET 5
I-9	DOUBLE S	* N 477,239.34 E 860,504.46	175.60 (24")	175.10 (30")	181.0	MOD. HOCO STD. DETAIL SD 4.23 SEE DETAIL SHEET 5
I-10	S INLET	* N 477,170.10 E 860,580.04	178.24 (15")	177.74 (24")	181.0	HOCO STD. DETAIL SD 4.22
I-11	MOD. DOUB S COMB.	* N 476,955.73 E 860,844.08	173.14 (18")	172.64 (24")	178.6	MOD. HOCO STD. DETAIL SD 4.34 SEE DETAIL SHEET 4
I-12	MOD. DOUB S	* N 477,036.64 E 860,725.67	177.04 (15")	173.86 (18")	181.0	MOD. HOCO STD. DETAIL SD 4.23 SEE DETAIL SHEET 5
I-13	MOD. DOUB S	* N 477,104.24 E 860,651.93	177.69 (15")	177.59 (15")	181.0	MOD. HOCO STD. DETAIL SD 4.23 SEE DETAIL SHEET 5
I-14	MOD. S COMB.	* N 477,100.76 E 860,574.56	178.17 (15")	178.07 (15")	182.8	MOD. HOCO STD. DETAIL SD 4.32 SEE DETAIL SHEET 5
I-15	YARD INLET	* N 476,904.82 E 860,436.36	~	174.56 (12")	183.0	HOCO STD. DETAIL SD 4.14
I-16	S COMB.	* N 476,838.84 E 860,834.97	~	175.23 (12")	178.6	HOCO STD. DETAIL SD 4.32
I-17	S COMB.	* N 477,037.54 E 860,918.33	~	178.80 (12")	182.6	HOCO STD. DETAIL SD 4.32
M-1	5' MH	* N 477,484.71 E 860,184.66	180.36 (12") 176.00 (15") 172.72 (30")	172.62 (30")	185.5	HOCO STD. DETAIL 6 5.13
M-2	4' MH	* N 477,538.28 E 860,153.18	176.66 (15")	176.56 (15")	184.3	HOCO STD. DETAIL 6 5.12
M-3	5' MH	* N 477,401.72 E 860,285.38	173.51 (30") 176.04 (15")	173.41 (30")	183.5	HOCO STD. DETAIL 6 5.13
M-4	5' MH	* N 477,043.43 E 860,505.08	178.74 (12") 178.84 (12")	178.64 (15")	185.0	HOCO STD. DETAIL 6 5.13
M-5	4' MH	* N 476,928.57 E 860,834.46	174.78 (12") 174.63 (12")	174.53 (15")	178.6	HOCO STD. DETAIL 6 5.12
M-6	4' MH	* N 477,027.65 E 860,846.48	177.34 (12")	177.04 (15")	181.0	HOCO STD. DETAIL 6 5.12
S-1	-	* N 477,561 E 860,258	171.60 (6")	171.60 (30")	177.1	SEE SHEET 10
S-2	-	* N 476,964 E 860,944	171.50 (6")	171.17 (24")	175.0	SEE SHEET 10
M-1	BAYSAYER BK UNIT	* N 477,503.86 E 860,195.32	172.55 (30")	172.45 (30")	184.90	SEE SHEET 12
M-2	BAYSAYER BK UNIT	* N 476,955.33 E 860,850.07	172.60 (24")	172.27 (24")	178.00	SEE SHEET 12
E-1	30" END SECTION	N 477,611.44 E 860,264.00	-	171.0	-	HOCO STD. DETAIL SD 5.51
E-2	30" END SECTION	N 477,536.35 E 860,233.45	-	172.2	-	HOCO STD. DETAIL SD 5.51
E-3	24" END SECTION	N 476,956.31 E 860,901.06	-	171.0	-	HOCO STD. DETAIL SD 5.51
E-4	24" END SECTION	N 476,953.28 E 860,872.13	-	172.0	-	HOCO STD. DETAIL SD 5.11
MH-2	4' DIA.	N 477,838.50 E 860,499.16	159.05	158.95	168.0	HOCO STD. DETAIL 6 5.02
MH-3	4' DIA.	N 477,583.64 E 860,481.19	164.75	160.32	184.0	HOCO STD. DETAIL 6 5.02
MH-4	4' DIA.	N 477,382.61 E 860,297.03	171.21	171.11	182.7	HOCO STD. DETAIL 6 5.02
MH-5	4' DIA.	N 477,157.91 E 860,553.64	173.02	182.92	182.2	HOCO STD. DETAIL 6 5.02



STORM DRAIN PROFILE
SCALE:
HOR. - 1"=50'
VERT. - 1"=5'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

[Signature] 5/1/01
DIRECTOR DATE

[Signature] 5/11/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 5/24/01
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER / DEVELOPER
DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
ONE TEXAS STATION COURT
SUITE 100
TIMONIUM, MARYLAND 21093
(443) 689-9000

PROJECT
INDUSTRIAL PARK-PARCEL 'C'

AREA TAX MAP NO. 48 BLOCKS 3 & 9
PARCEL C ZONED M-2
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
PROFILE SHEET & STRUCTURE SCHEDULE

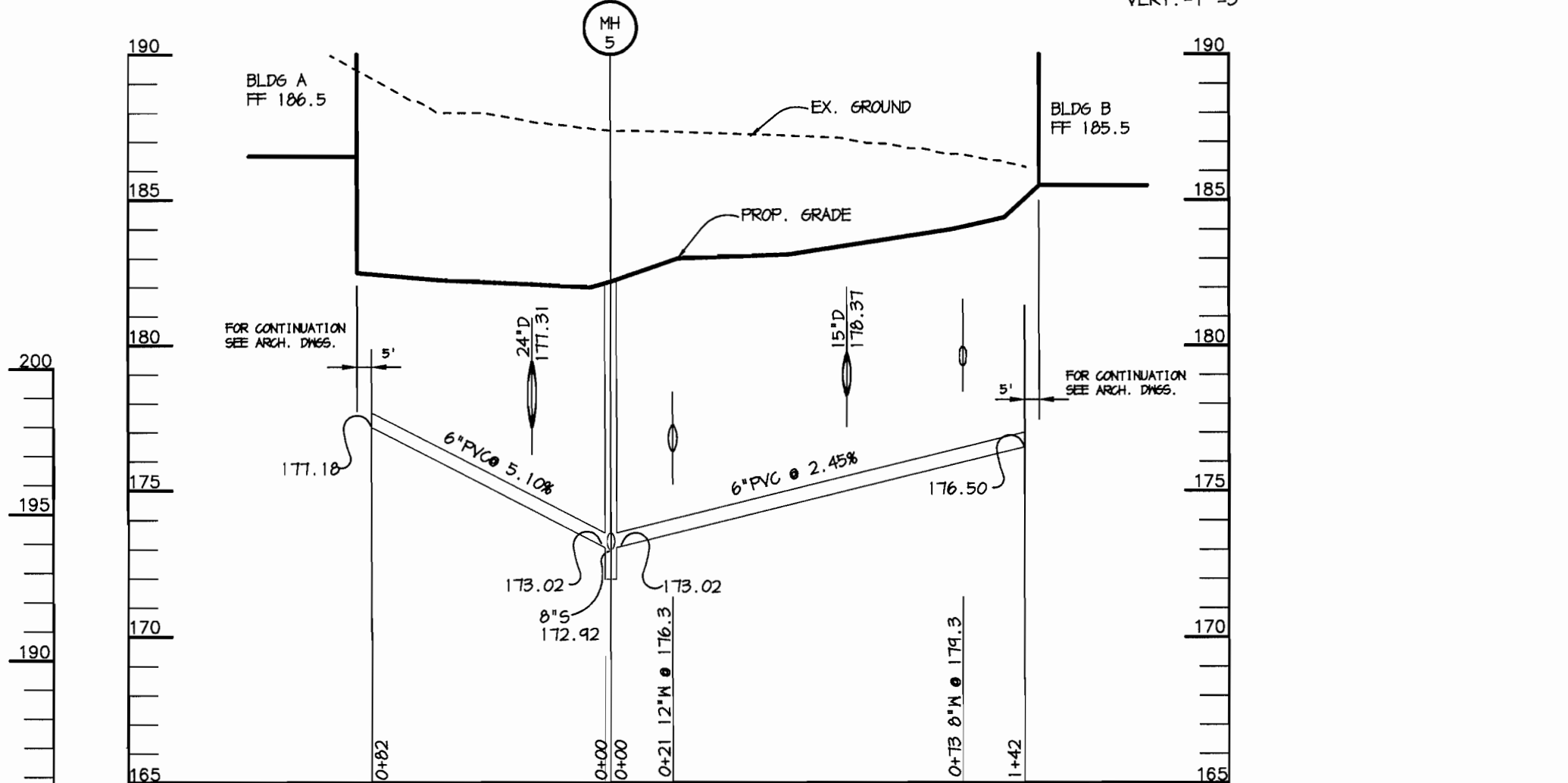
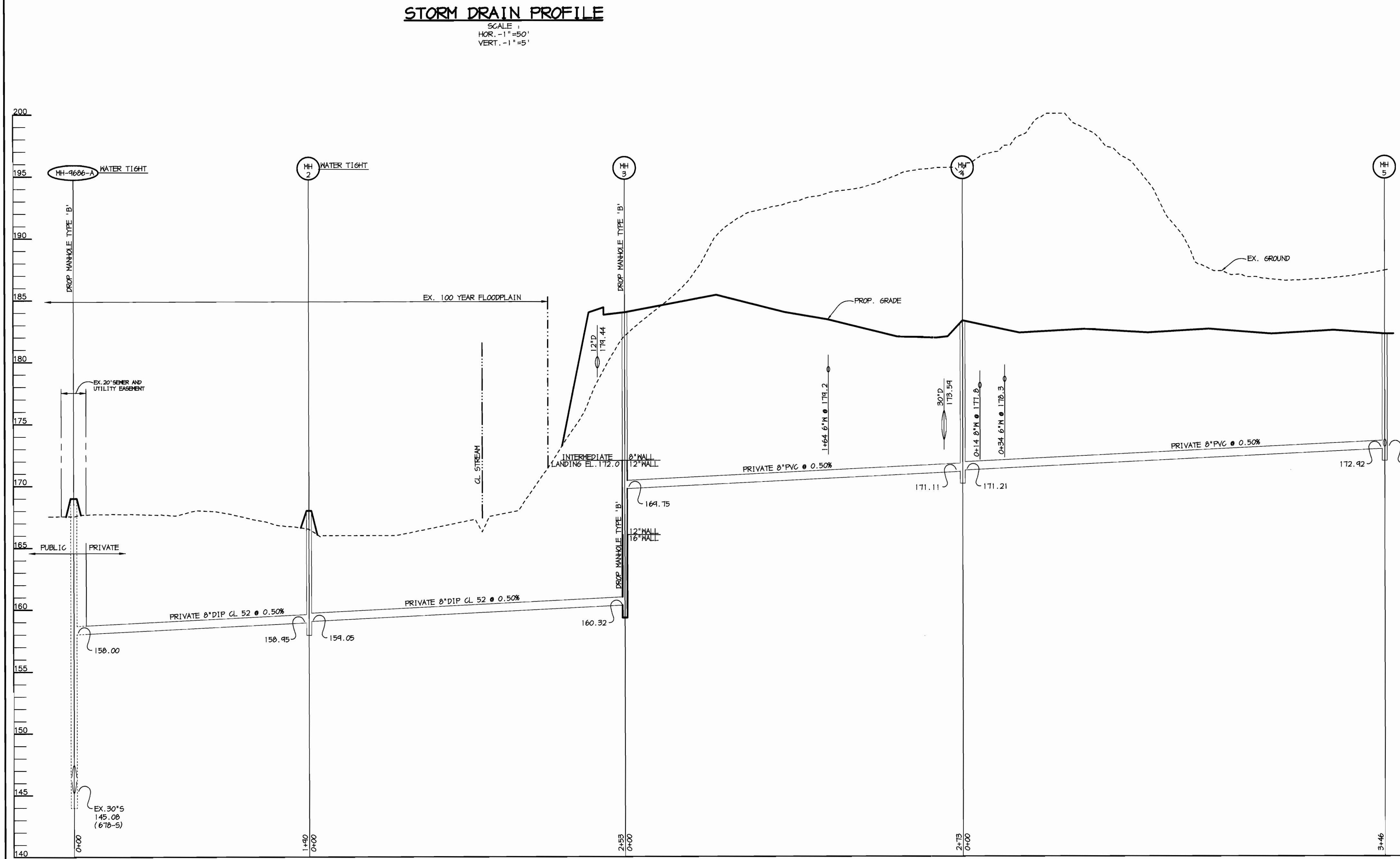
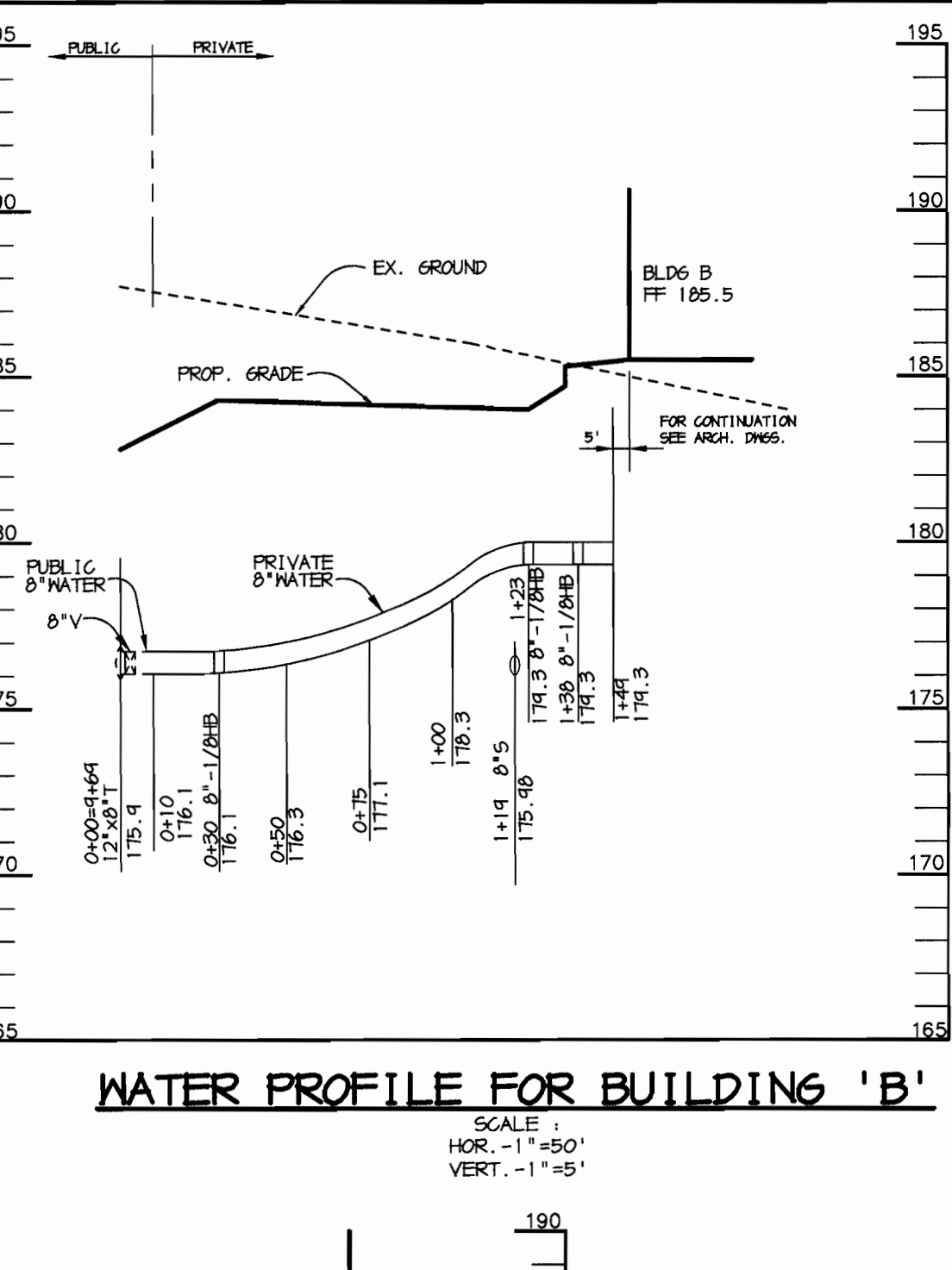
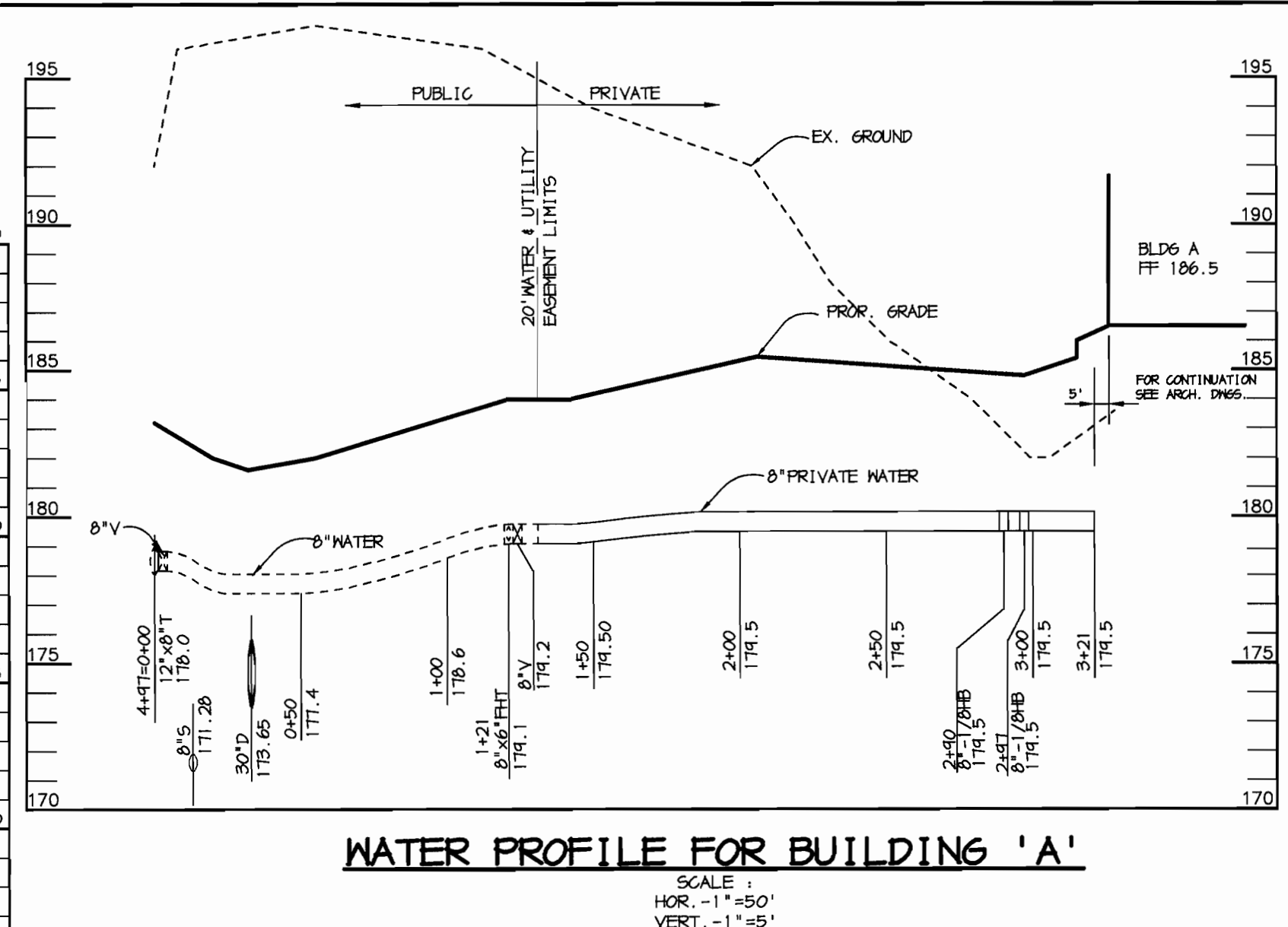
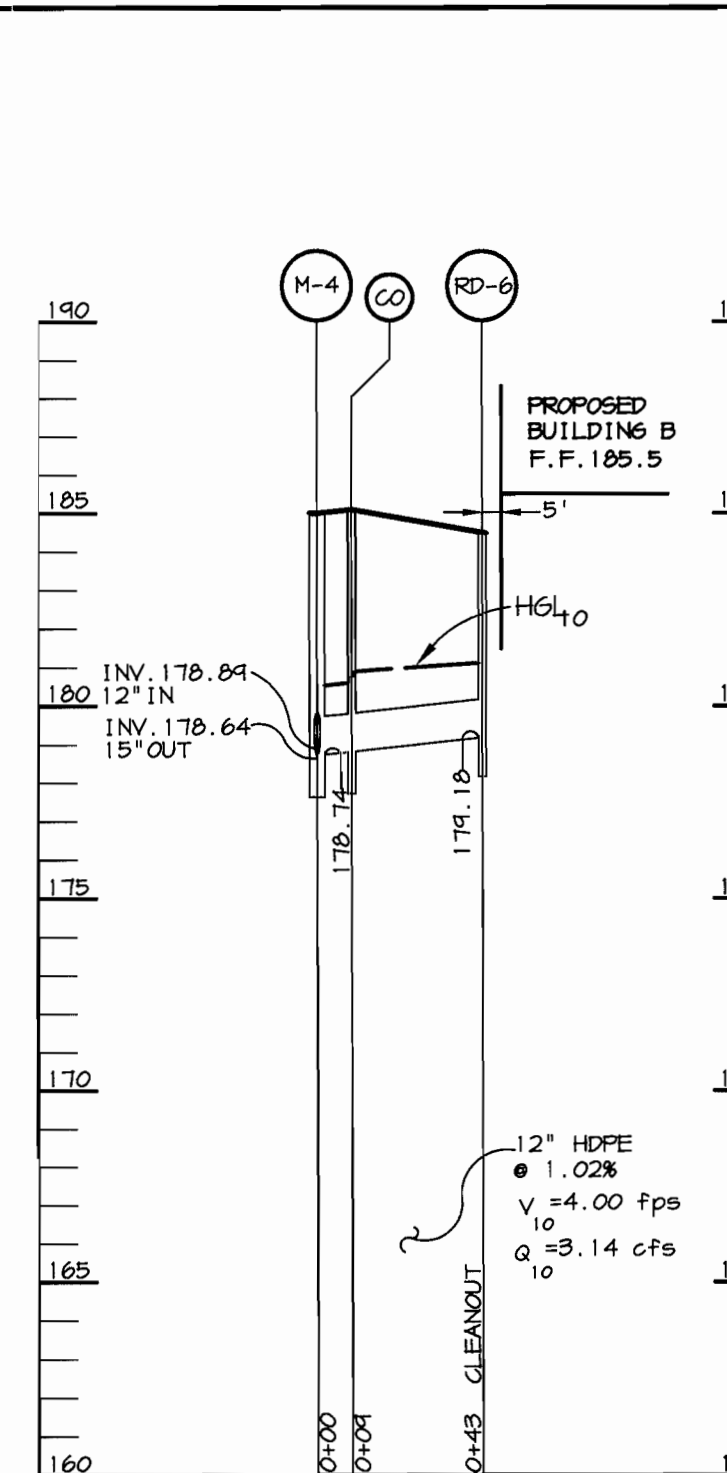
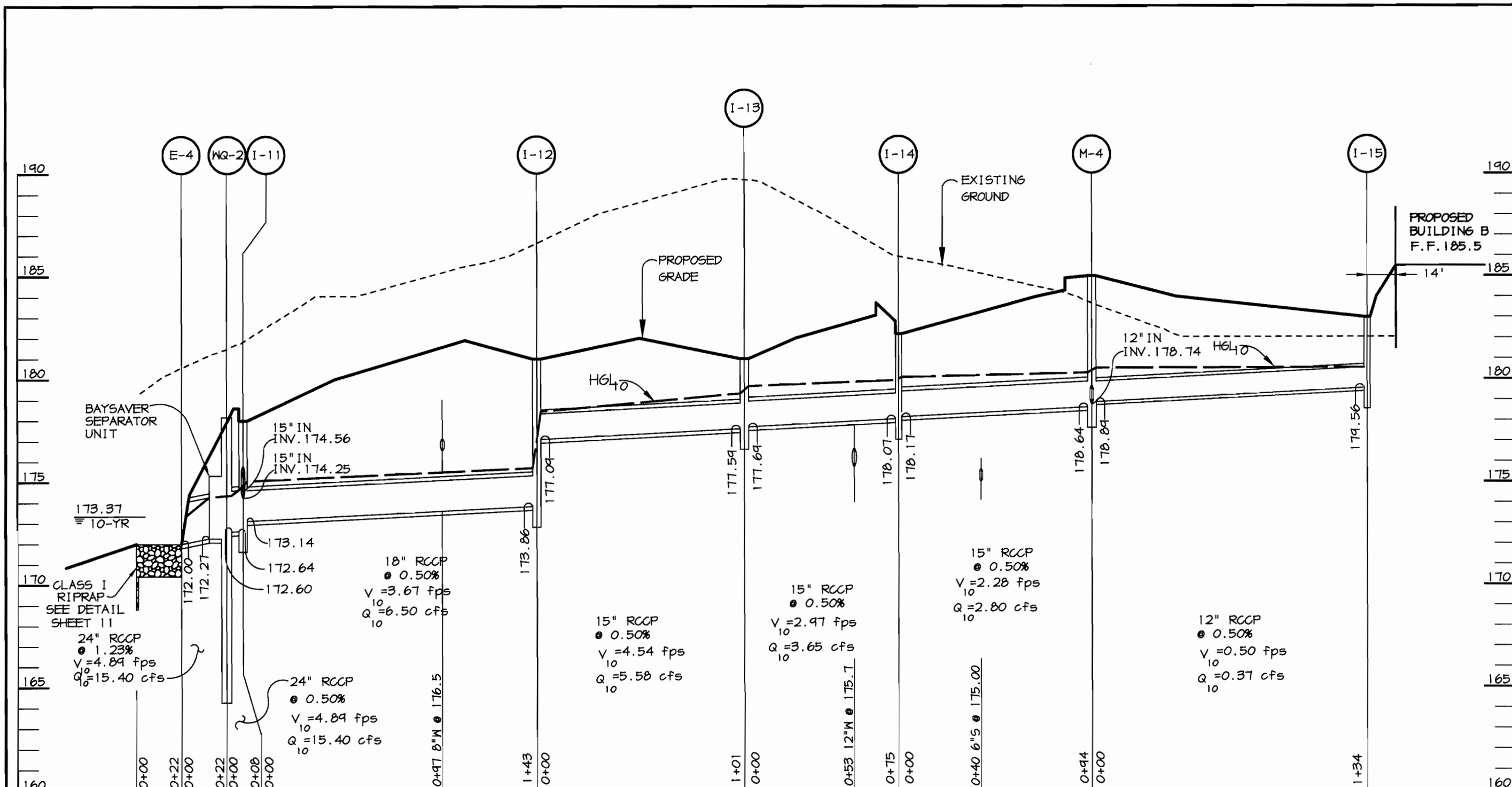
RIEMER MUEGGE
a division of:
Patton Harris Rust & Associates, pc
ENGINEERS & SURVEYORS & PLANNERS
LANDSCAPE ARCHITECTS & ENVIRONMENTAL SPECIALISTS
8818 Centre Park Drive, Columbia, MD 21046 • Tel: 410.997.8900 Fax: 410.997.8282

5-1-01 DATE
DESIGNED BY: C.J.R.

STATE OF MARYLAND
REGISTERED PROFESSIONAL ENGINEER
No. 113
CHRISTOPHER J. REID #19944

DRAWN BY: K.E.V.
CHECKED BY: C.J.R.
PROJECT NO.: 00099
SDPE.DWG
DATE: MAY 3, 2001
SCALE: AS SHOWN
DRAWING NO. 6 OF 17

P:\projects\00099\SDPE.DWG Mon Apr 30 12:53:55 2001 RIEMER MUEGGE A DIVISION OF PHRSA



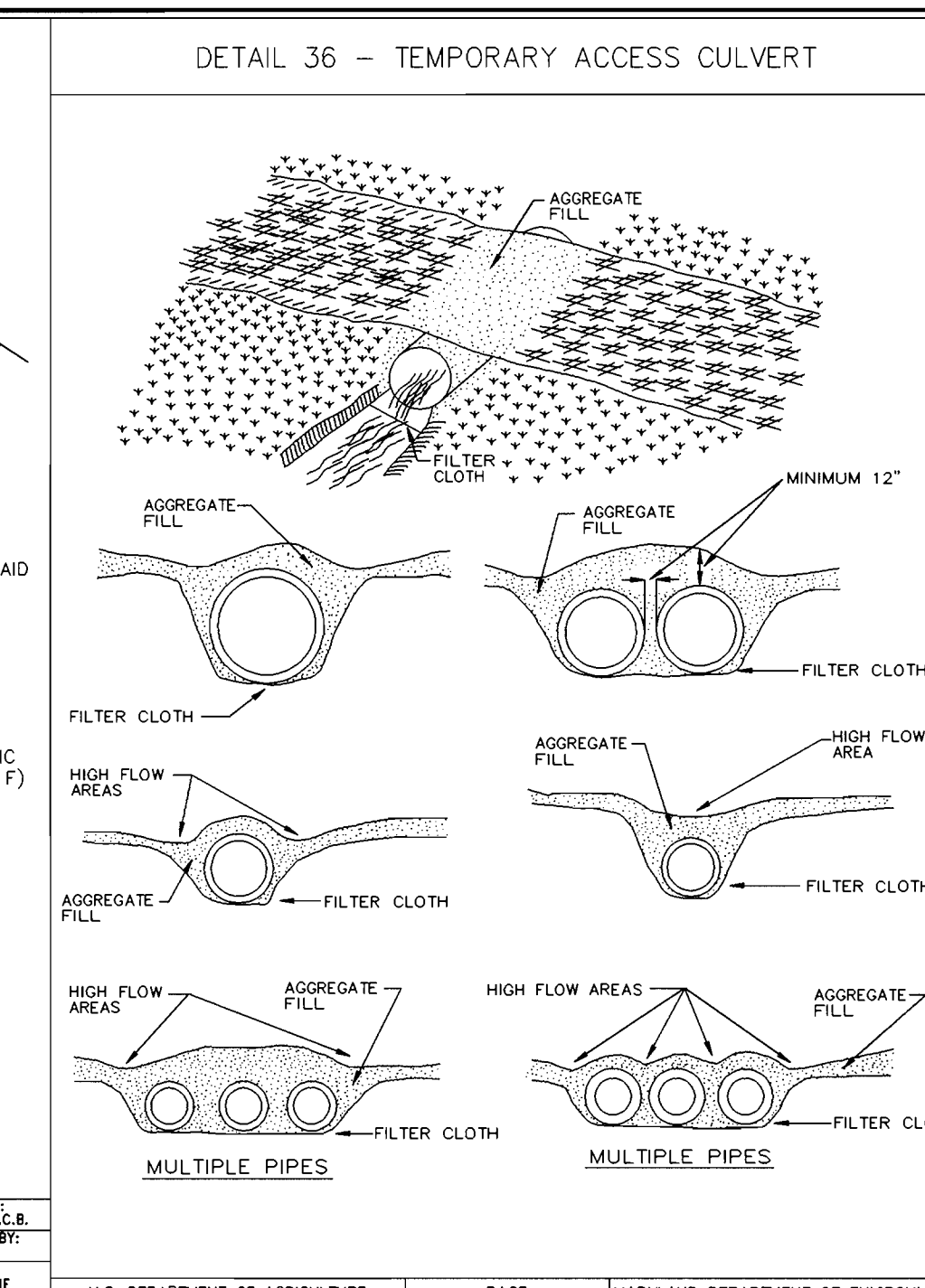
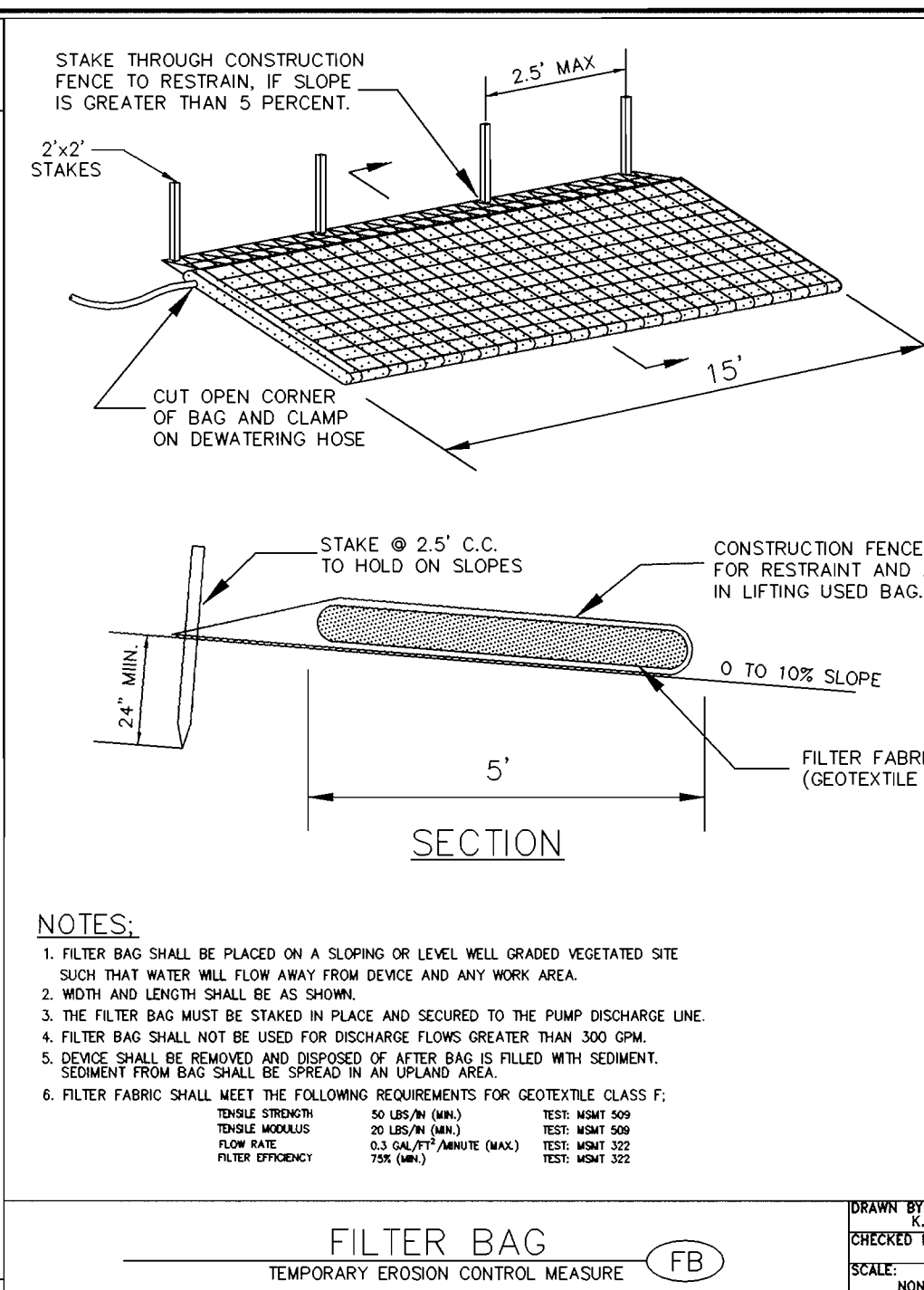
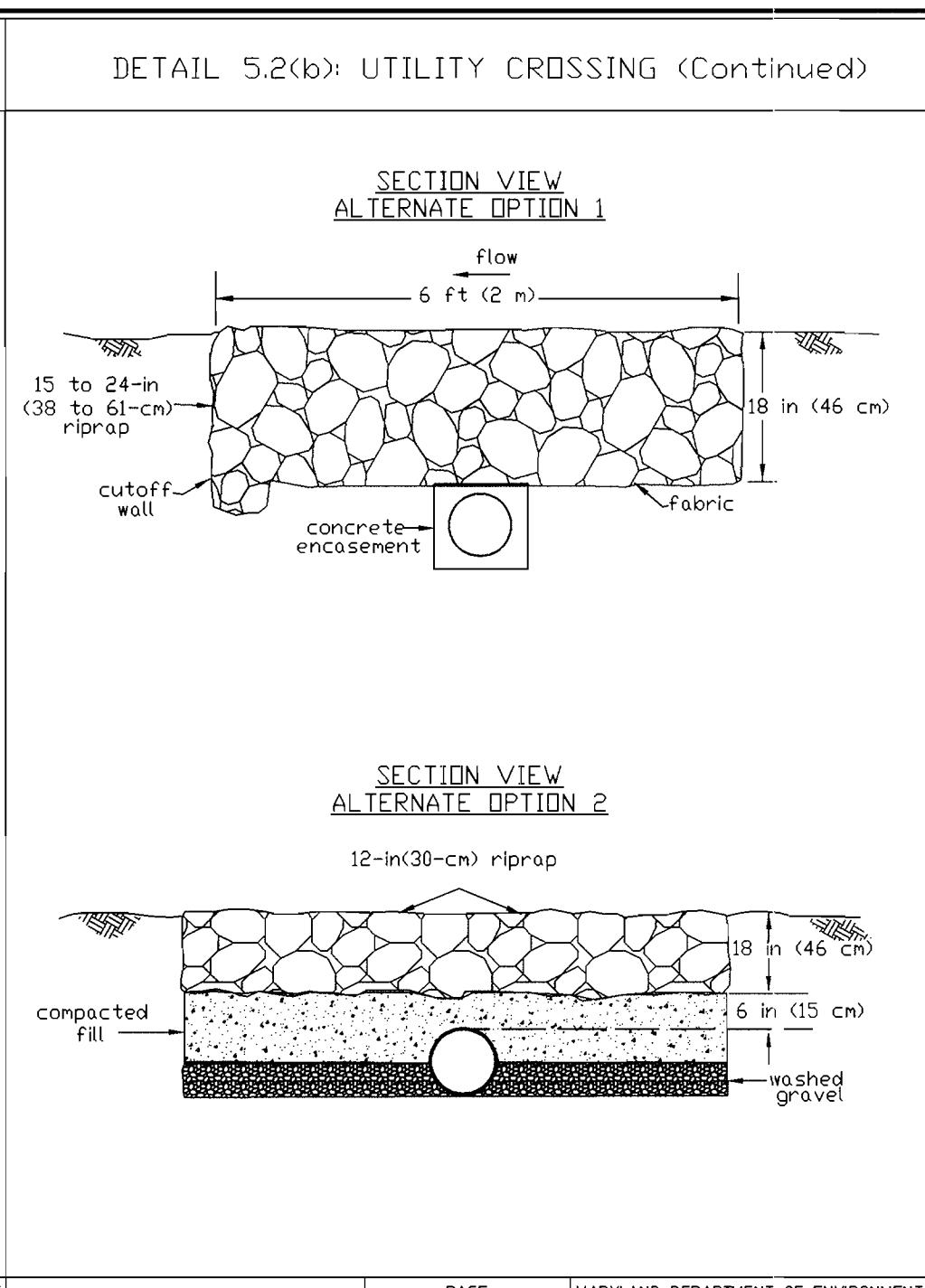
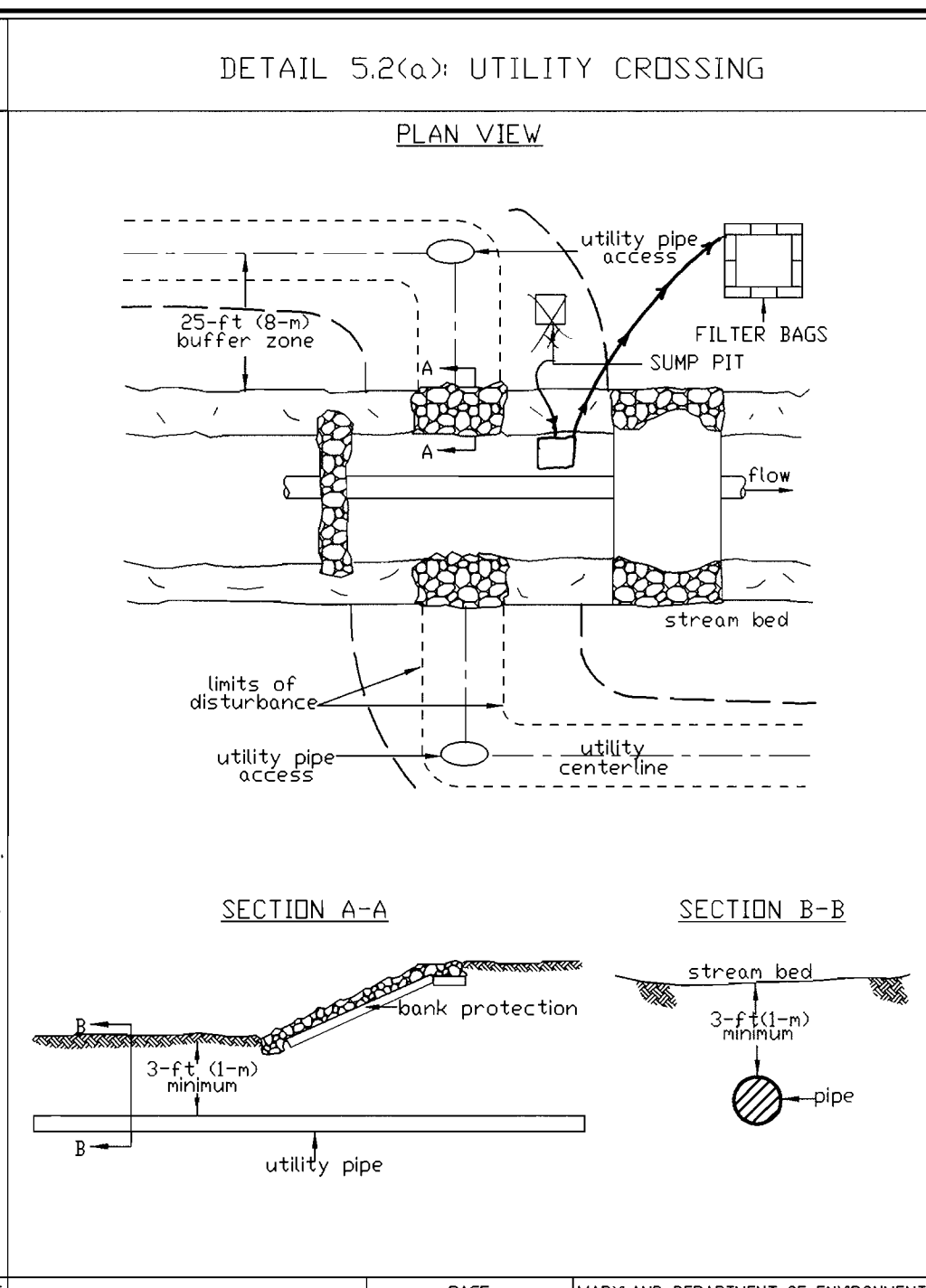
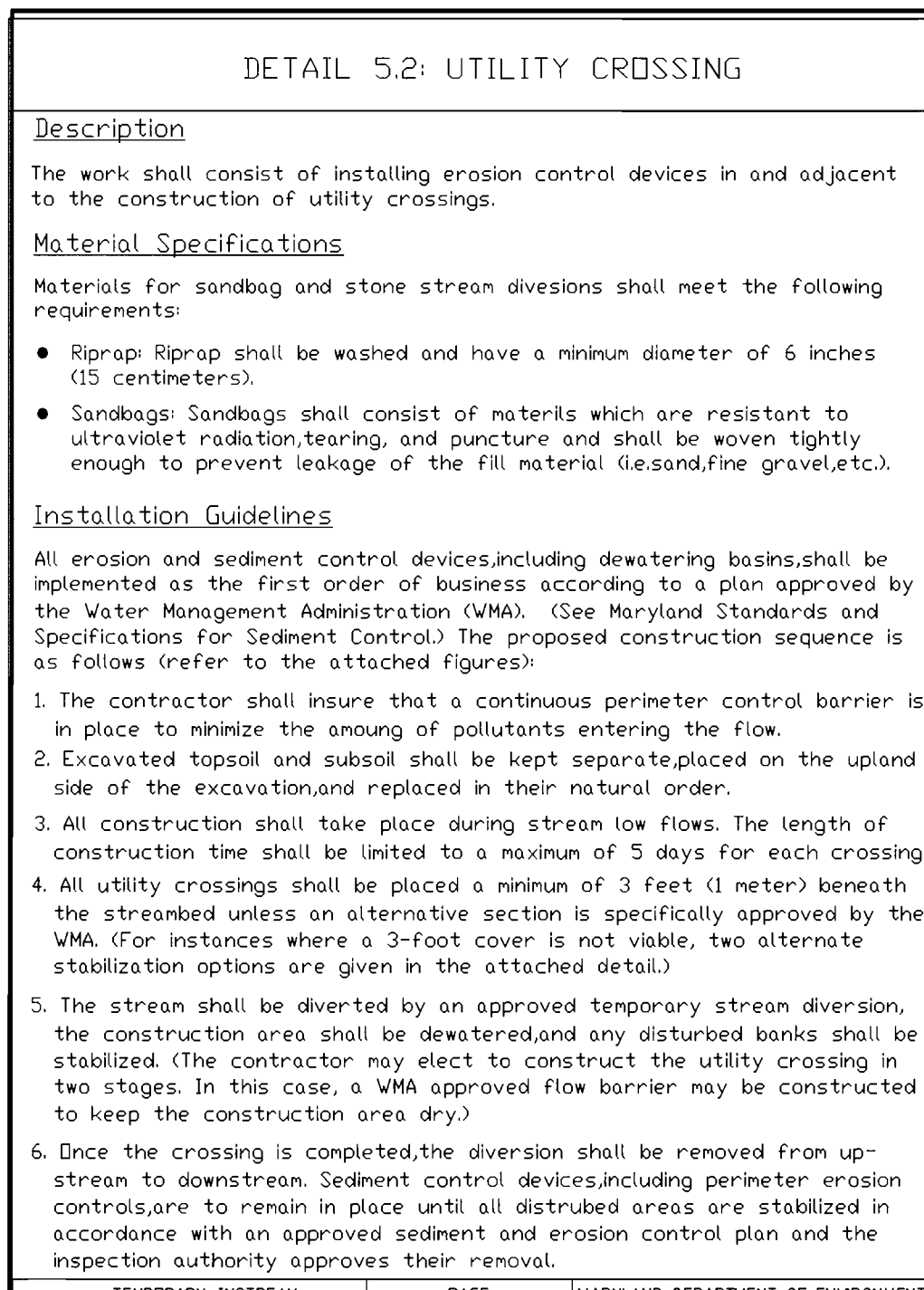
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Director: *[Signature]* 5/25/01
 Chief, Development Engineering Division: *[Signature]* 5/11/01
 Chief, Division of Land Development: *[Signature]* 5/24/01

DATE	NO.	REVISION
OWNER / DEVELOPER		
DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP ONE TEXAS STATION COURT SUITE 100 TIMONIUM, MARYLAND 21093 (443) 689-9000		
PROJECT		
DORSEY RUN INDUSTRIAL PARK-PARCEL 'C'		
AREA		
TAX MAP NO. 48 BLOCKS 3 & 9 PARCEL C ZONED M-2 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE		
PROFILE SHEET		

RIEMER MUEGGE
 a division of:
Patton Harris Rust & Associates, pc
 ENGINEERS • SURVEYORS • PLANNERS
 LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
 8818 Centre Park Drive, Columbia, MD 21046 • tel 410.997.8800 fax 410.997.8222

DESIGNED BY: C.J.R.
 DRAWN BY: K.E.V.
 CHECKED BY: C.J.R.
 PROJECT NO: 00099 SDPT.DWG
 DATE: MAY 3, 2001
 SCALE: AS SHOWN
 DRAWING NO. 7 OF 17

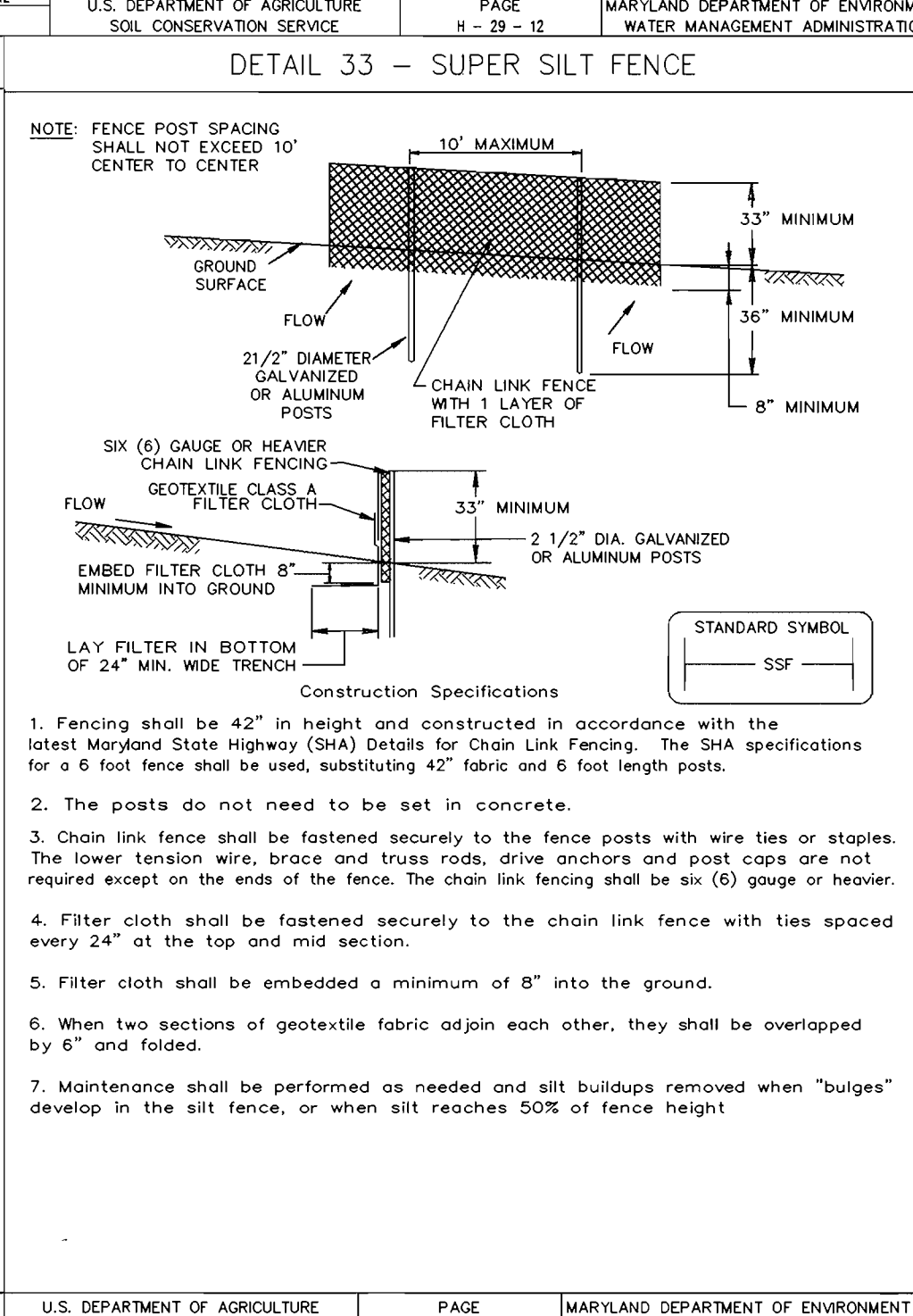
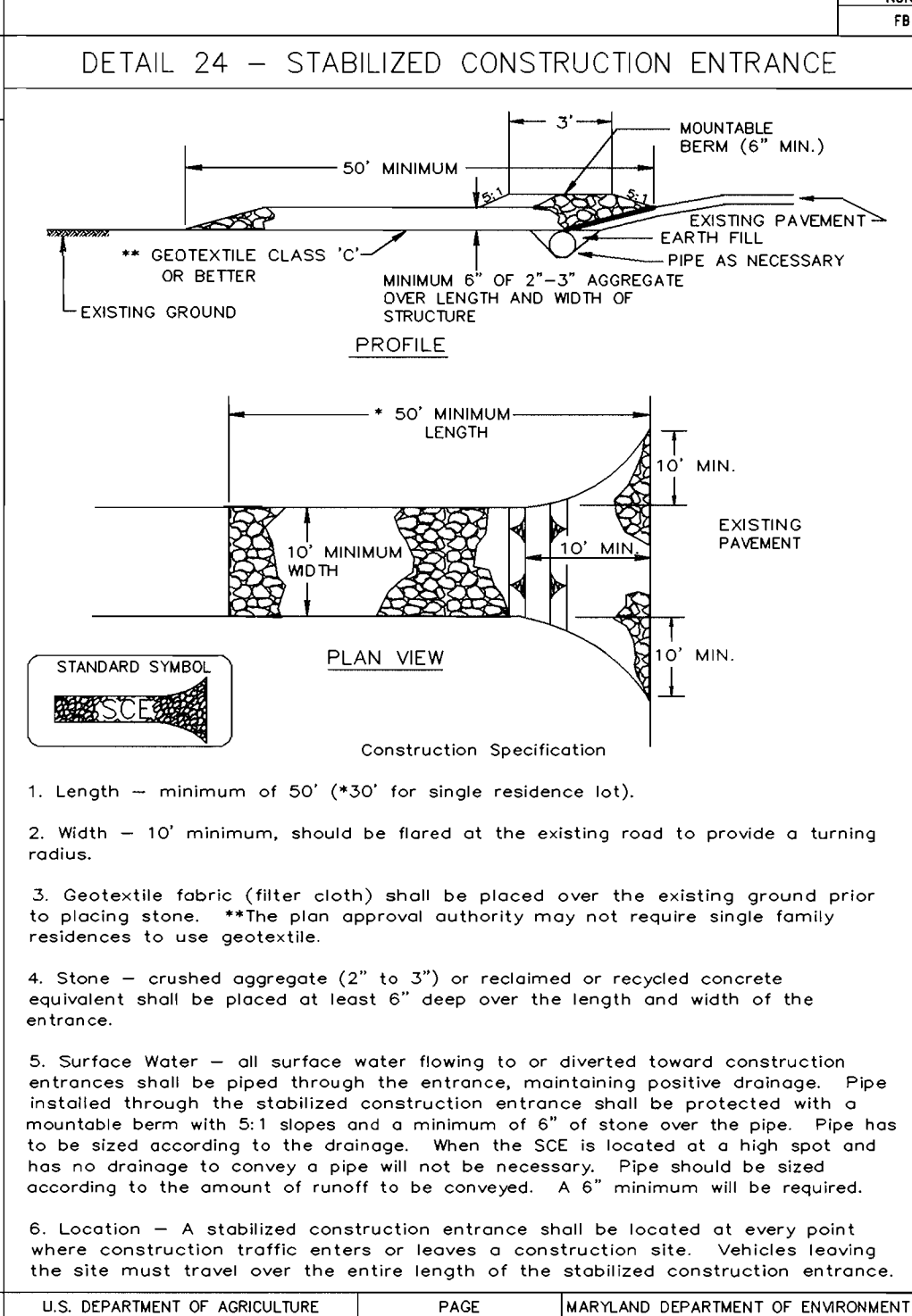
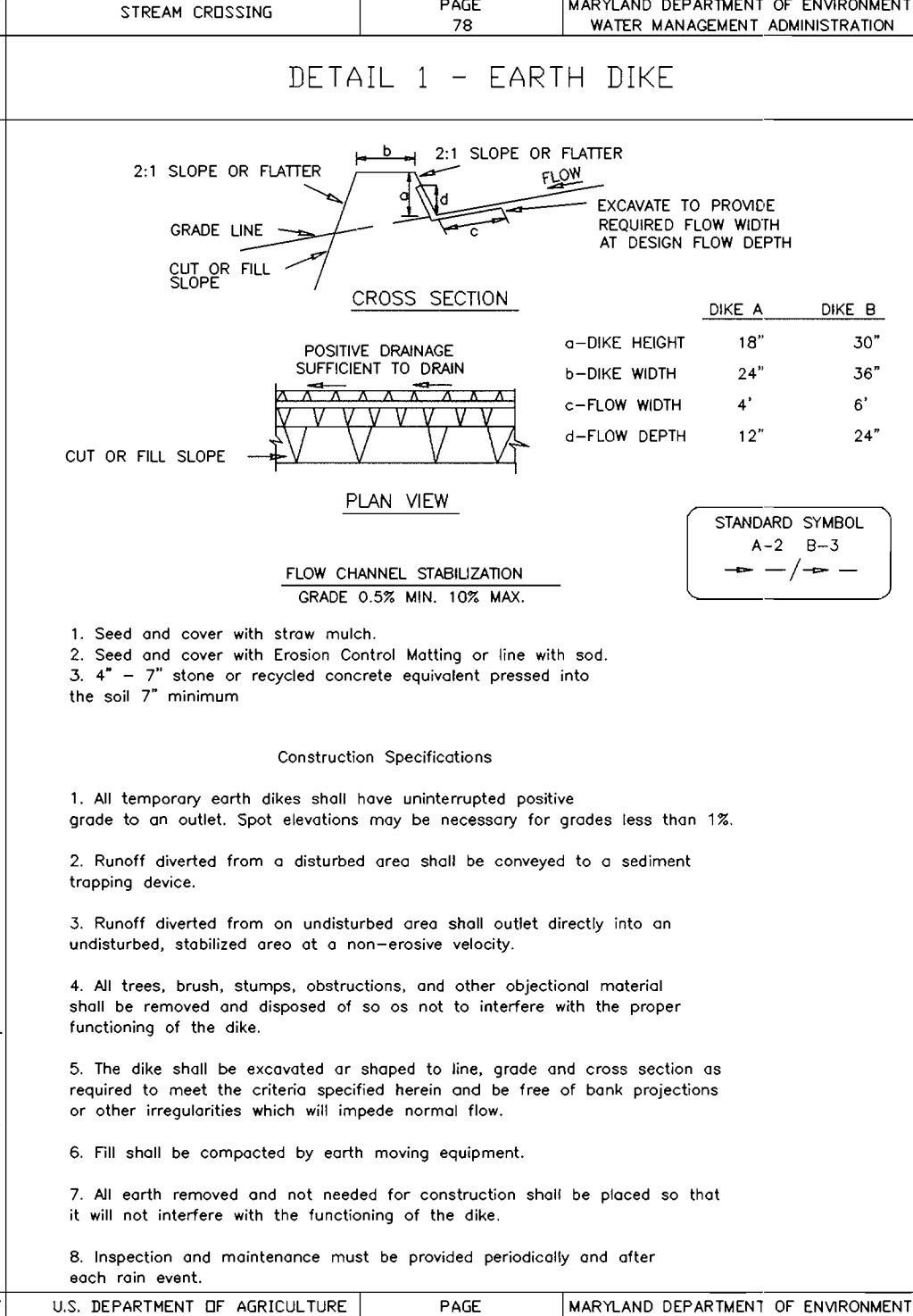
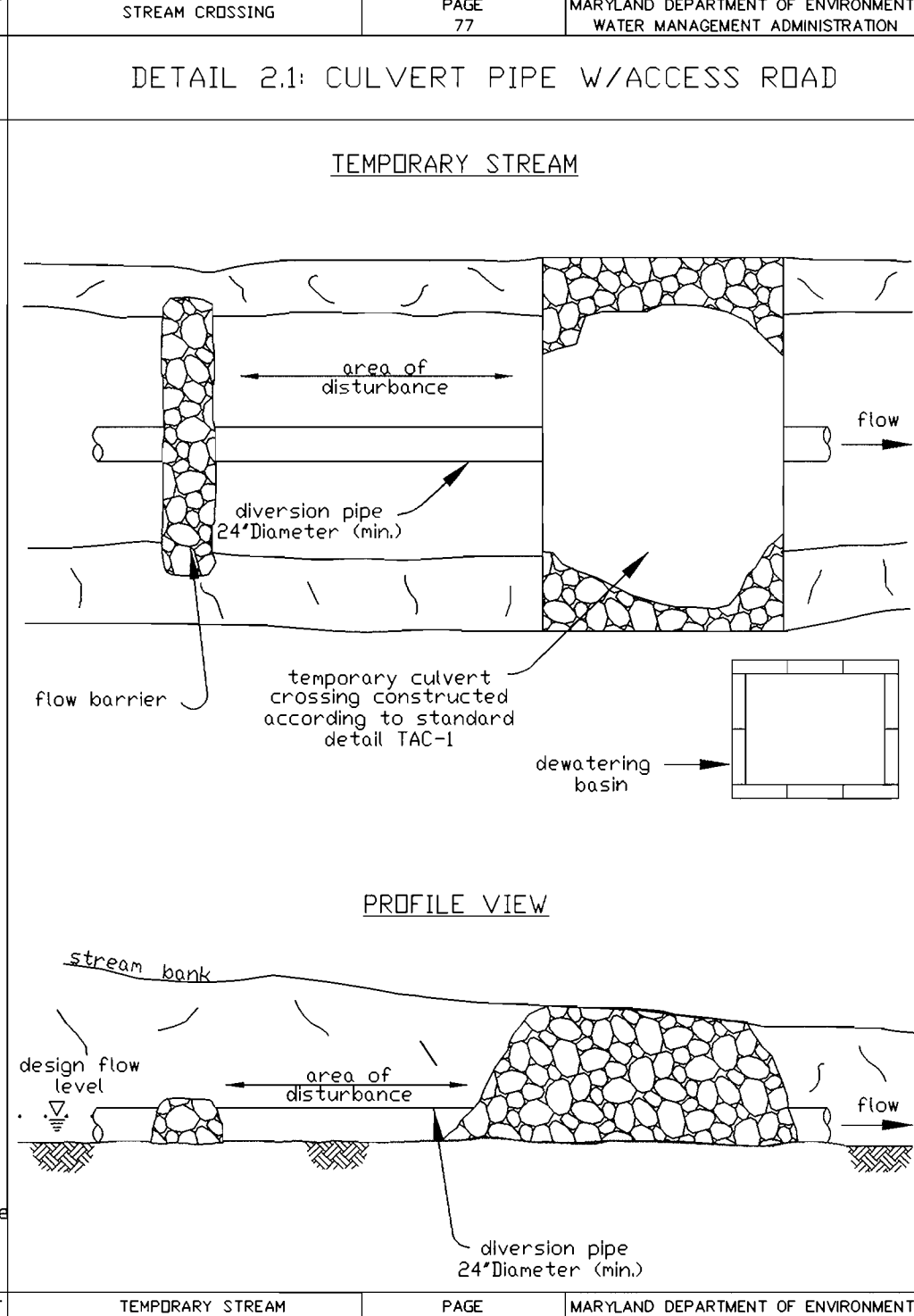
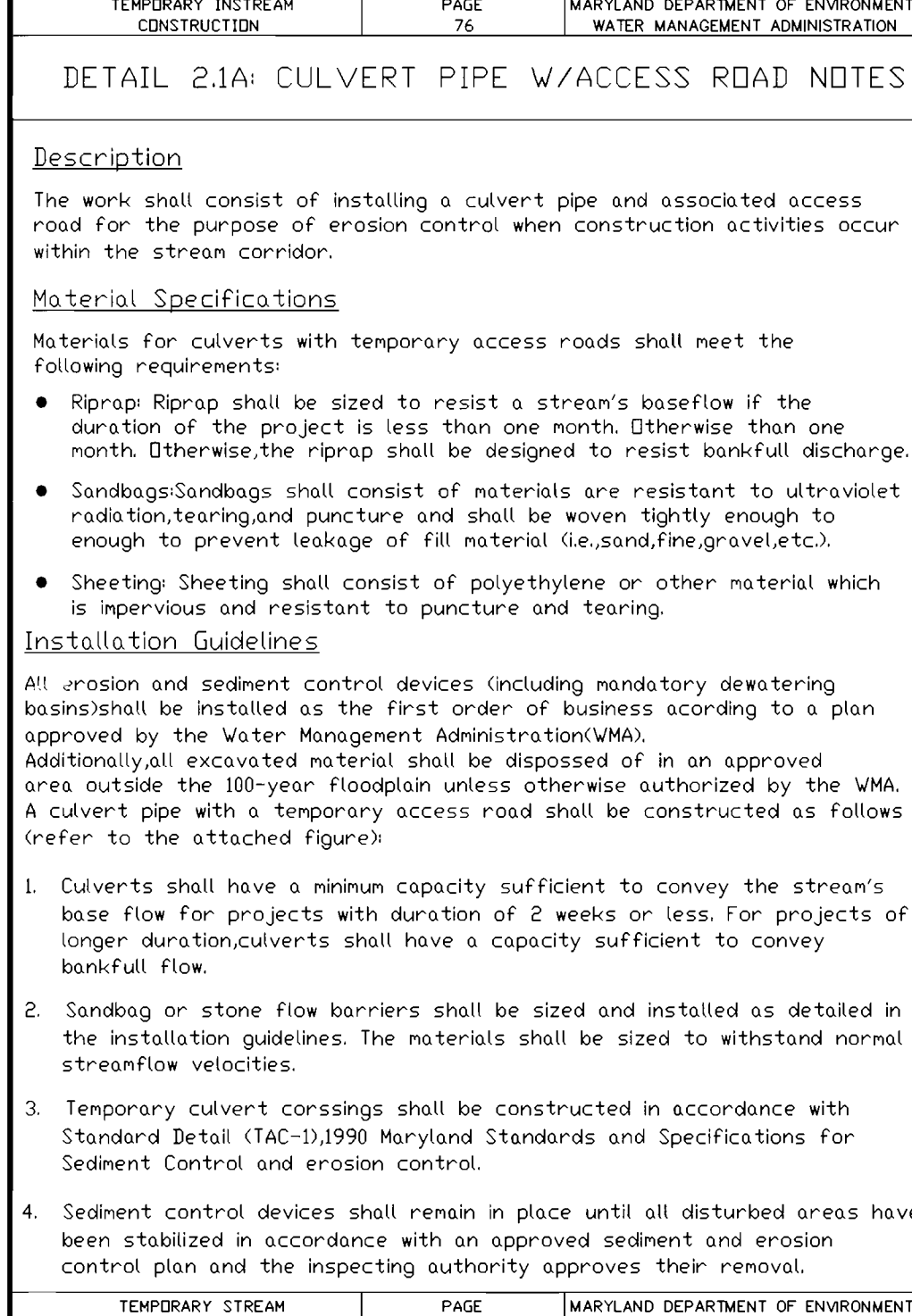


BY THE DEVELOPER:
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Carroll McGill 5.1.01
DEVELOPER DATE

BY THE ENGINEER:
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

Christopher J. Reid 5.1.01
ENGINEER DATE



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

Christopher J. Reid 5/9/01
ENGINEER DATE

NATURAL RESOURCES CONSERVATION SERVICE 5/9/01 DATE

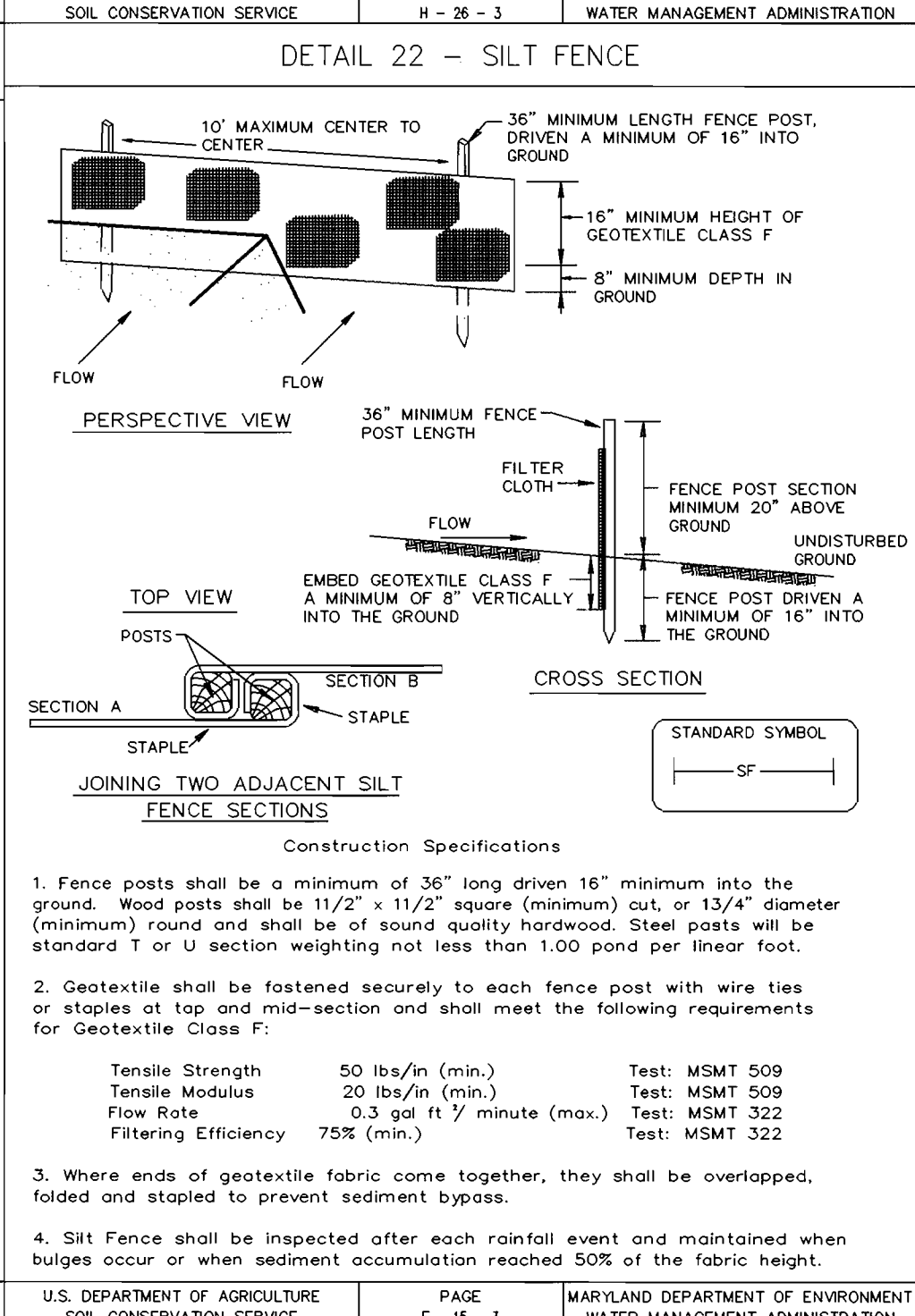
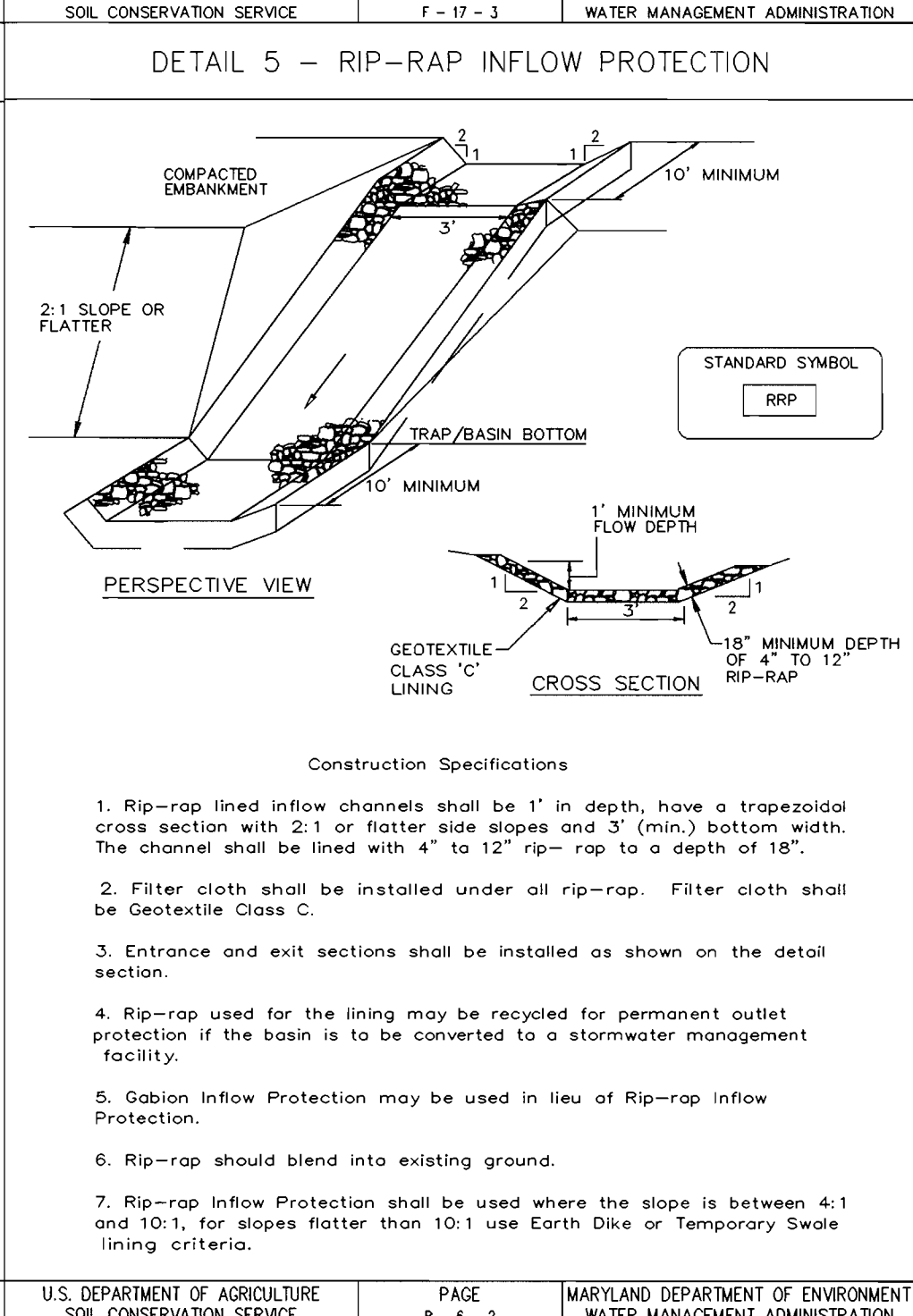
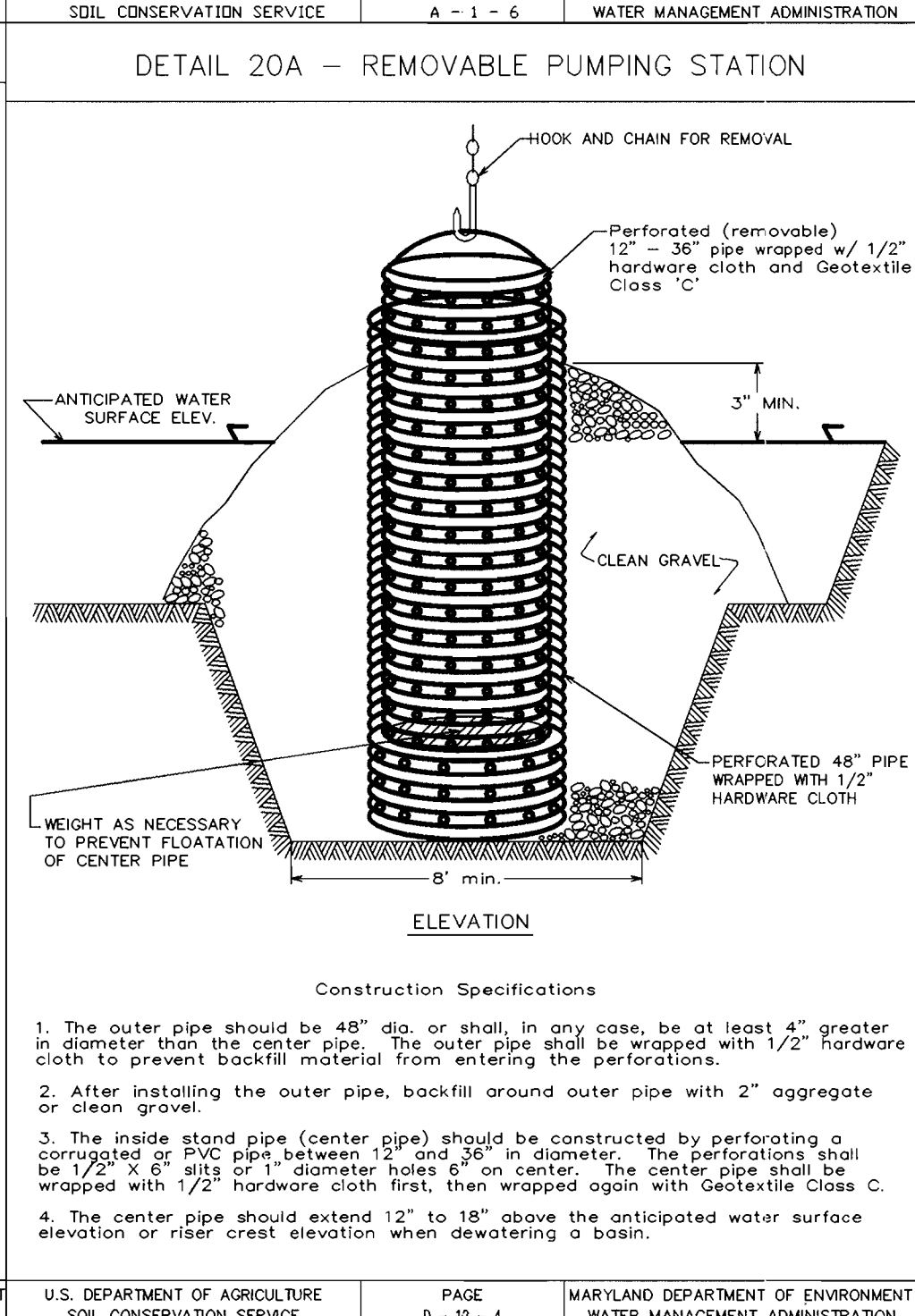
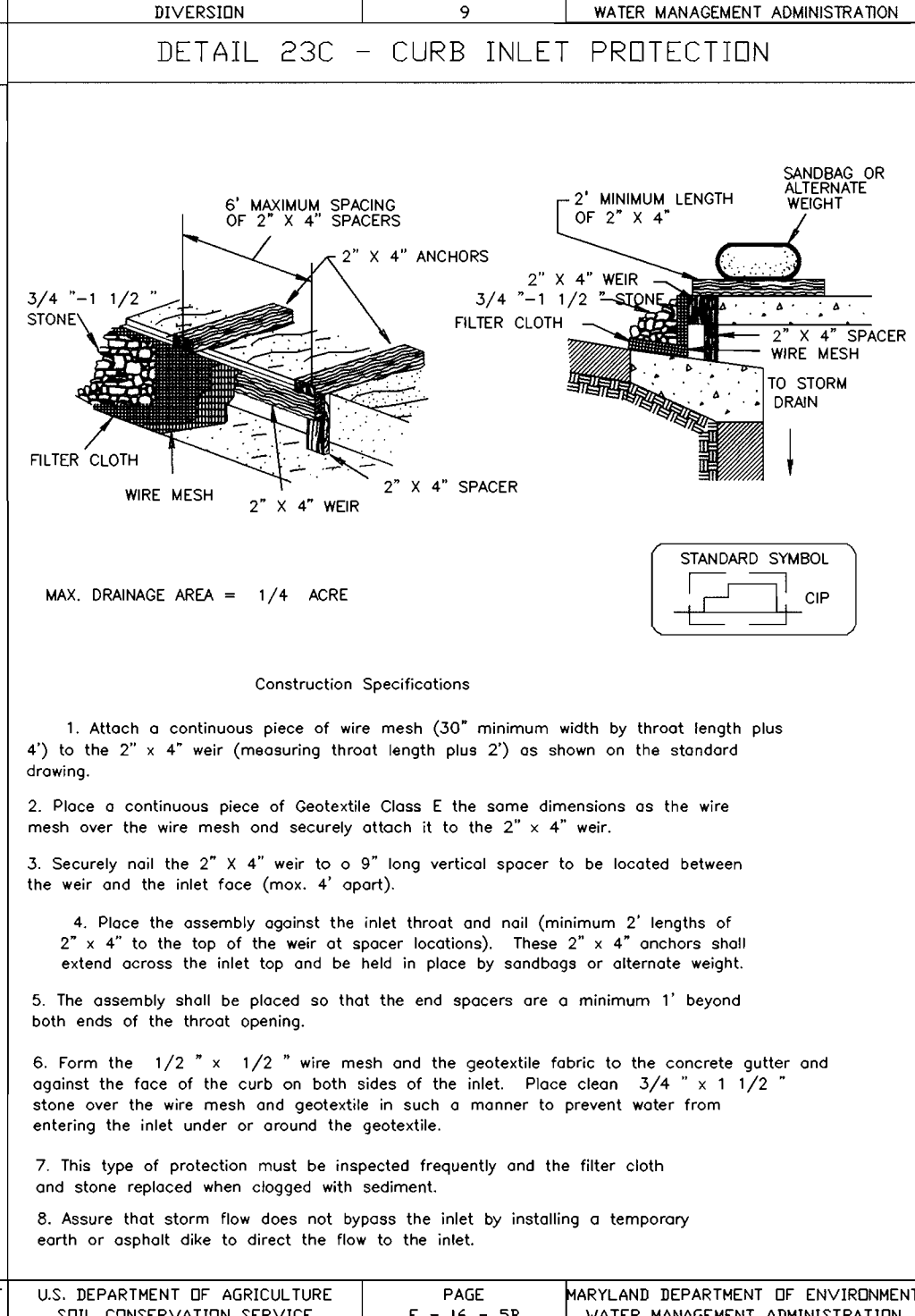
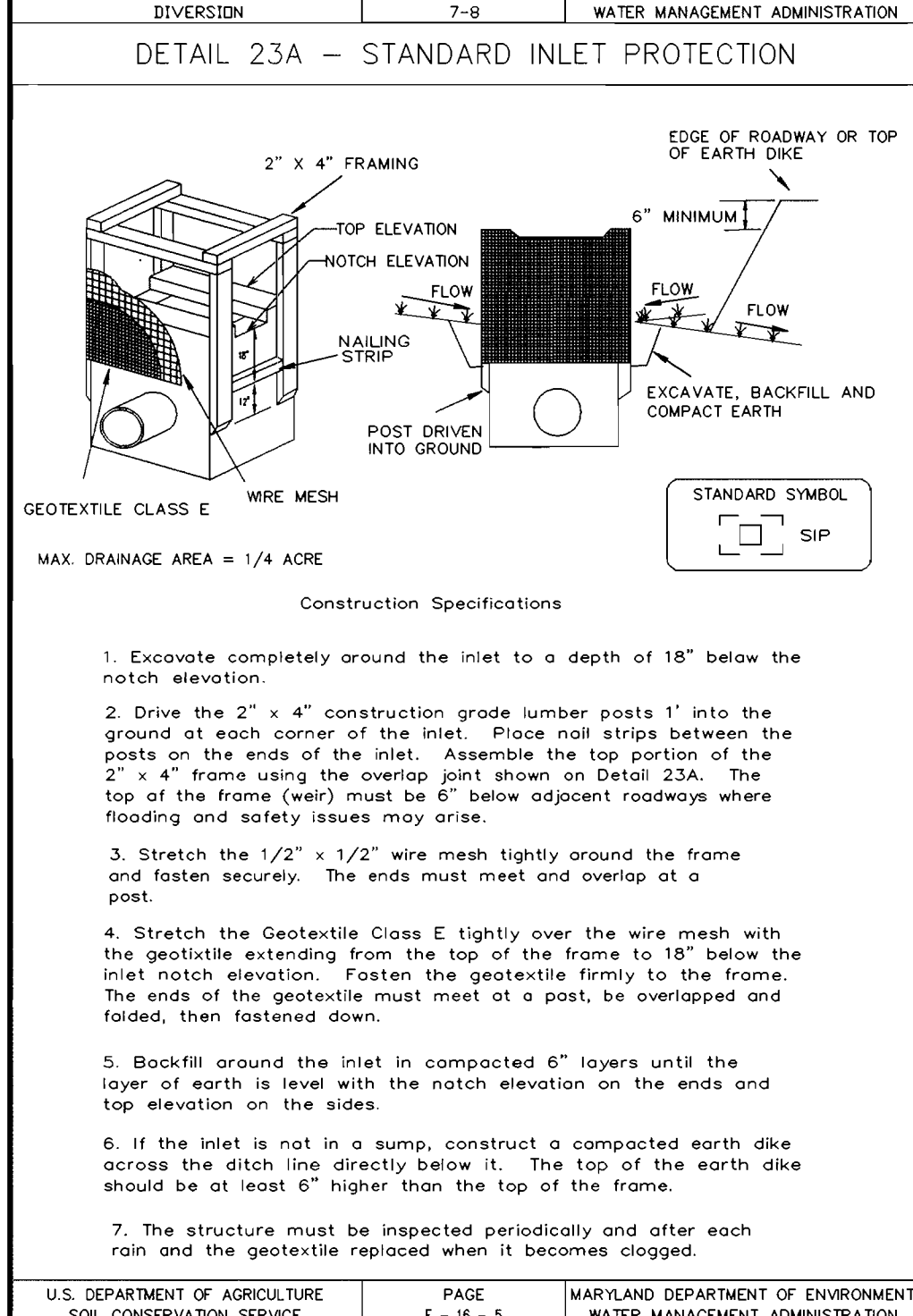
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Christopher J. Reid 5/9/01
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
Christopher J. Reid 5/25/01
DIRECTOR DATE

Christopher J. Reid 5/11/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Christopher J. Reid 5/29/01
CHIEF, DIVISION OF LAND DEVELOPMENT DATE



DATE NO. REVISION

OWNER / DEVELOPER
DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
ONE TEXAS STATION COURT
SUITE 100
TIMONIUM, MARYLAND 21093
(443) 689-9000

PROJECT
DORSEY RUN INDUSTRIAL PARK - PARCEL 'C'

AREA
TAX MAP NO. 48 BLOCKS 3 & 9
PARCEL C ZONED M-2
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
SEDIMENT CONTROL DETAILS

RIEMER MUEGGE
a division of:
Patton Harris Rust & Associates, pc
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
8818 Centre Park Drive, Columbia, MD 21045 • TEL 410.997.8920 FAX 410.997.9282

DESIGNED BY: C.J.R.
DRAWN BY: K.E.V.
CHECKED BY: C.J.R.
PROJECT NO: 00099
SDP01.DWG
DATE: MAY 3, 2001
SCALE: AS SHOWN
DRAWING NO. 8 OF 17

Christopher J. Reid 5/25/01
CHRISTOPHER J. REID #19994
REGISTERED PROFESSIONAL ENGINEER

MD-210 STANDARDS AND SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the standard for practice MD-210. All references to ASTM and AASHTO specifications apply to the most recent version.

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other additional material shall be removed. Channel erosion control breaks shall be placed to no steeper than 1:1. All trees shall be cleared and grubbed within 15 feet of the toe of the embankment.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 25 foot radius around the inlet structure shall be cleared.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam or reservoir as directed by the owner or its representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6 inches or other objectionable material. Fill material shall be placed in the embankment, and out off trench shall conform to Unified Soil Classification 6C, SC, CH, or CL and must have at least 30% passing the #20 sieve. Consideration may be given to the use of other materials in the embankment if designed by a geotechnical engineer. Such special designs must have construction supervised by a geotechnical engineer.

Placement - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8-inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

Acceptance - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tire or vibratory roller. Fill material shall be placed in lifts of uniform thickness such that the required degree of compaction will be obtained with the equipment used.

When approved by the reviewing agency the minimum required density shall not be less than 98% maximum dry density with a moisture content within +/- 2% of the optimum. Each layer of fill shall be compacted as necessary to obtain the required density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99 (Standard Proctor).

Structure Backfill - The cutoff trench shall be excavated into impervious material along and parallel to the centerline of the embankment as shown on the plans. The bottom of the trench shall be covered by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below the existing grade or to the bottom of the water table. The trench shall be 1:1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

Structure Backfill - The cutoff trench shall be excavated into impervious material along and parallel to the centerline of the embankment as shown on the plans. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1:1 or flatter. The core shall be placed concurrently with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

Structure Backfill - The cutoff trench shall be excavated into impervious material along and parallel to the centerline of the embankment as shown on the plans. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1:1 or flatter. The core shall be placed concurrently with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

Structure Backfill - The cutoff trench shall be excavated into impervious material along and parallel to the centerline of the embankment as shown on the plans. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1:1 or flatter. The core shall be placed concurrently with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

Structure Backfill - The cutoff trench shall be excavated into impervious material along and parallel to the centerline of the embankment as shown on the plans. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1:1 or flatter. The core shall be placed concurrently with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

Structure Backfill - The cutoff trench shall be excavated into impervious material along and parallel to the centerline of the embankment as shown on the plans. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1:1 or flatter. The core shall be placed concurrently with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

Structure Backfill - The cutoff trench shall be excavated into impervious material along and parallel to the centerline of the embankment as shown on the plans. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1:1 or flatter. The core shall be placed concurrently with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

Structure Backfill - The cutoff trench shall be excavated into impervious material along and parallel to the centerline of the embankment as shown on the plans. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1:1 or flatter. The core shall be placed concurrently with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

Structure Backfill - The cutoff trench shall be excavated into impervious material along and parallel to the centerline of the embankment as shown on the plans. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1:1 or flatter. The core shall be placed concurrently with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

Structure Backfill - The cutoff trench shall be excavated into impervious material along and parallel to the centerline of the embankment as shown on the plans. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1:1 or flatter. The core shall be placed concurrently with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

STANDARD SEDIMENT CONTROL NOTES

- 1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (319-1695).
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ASE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) CALENDAR DAYS FOR ALL PERMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERMETER SLOPES, AND ALL SLOPES STEEPER THAN 3:1; B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND MARKING SIGNS POSTED AROUND THE PERMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING (SEC. 6.). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHED OF GRASSES.
6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
7. SITE ANALYSIS: TOTAL AREA OF SITE 26.86 ACRES AREA DISTURBED 10.40 ACRES AREA TO BE ROOFED OR PAVED 6.68 ACRES AREA TO BE VEGETATIVELY STABILIZED 3.72 ACRES TOTAL CUT 59,000 CU. YARDS TOTAL FILL 50,000 CU. YARDS OFFSITE WASTE AREA LOCATION TO HAVE ACTIVE GRADING PERMIT
8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTOR IS REQUIRED PRIOR TO THE COMPLETION OF INSTALLATION OF PERMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING, OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
12. SITE GRADING WILL BEGIN ONLY AFTER ALL PERMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.
13. SEDIMENT WILL BE REMOVED FROM TRAPS WHEN ITS DEPTH REACHES CLEAN OUT ELEVATION SHOWN ON THE PLANS.
14. CUT AND FILL QUANTITIES PROVIDED UNDER SITE ANALYSIS DO NOT REPRESENT BID QUANTITIES. THESE QUANTITIES DO NOT DISTINGUISH BETWEEN TOPSOIL, STRUCTURAL FILL OR EMBANKMENT MATERIAL, NOR DO THEY REFLECT CONSIDERATION OF SETTLEMENT OR REMOVAL OF UNSUITABLE MATERIAL. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH SITE CONDITIONS WHICH MAY AFFECT THE WORK.

CONCRETE Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 414, MIX No. 3.

ROCK RIPRAP Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 311.

Geotextile shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 421.04, Class C.

Work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage canals, and stream diversions necessary to protect the area to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the excavations and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom of excavations. All satisfactory performance of any construction operations. During the placing and compacting of material in required quantities, the contractor shall allow satisfactory performance of any construction operations. During the placing and compacting of material in required quantities, the contractor shall allow satisfactory performance of any construction operations. During the placing and compacting of material in required quantities, the contractor shall allow satisfactory performance of any construction operations.

All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spill and borrow areas, shall be stabilized by seeding, lining, fertilizing and mulching in accordance with the Natural Resources Conservation Service Standards and Specifications for Critical Area Planting (HD-342) or as shown on the accompanying plans.

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures.

Refer to the 2000 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

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, disking or other acceptable means before seeding, if not previously loosened. Seed Application - Apply 600 lbs. per acre 10:10:10 fertilizer (14 lbs. per 1000 sq. ft.) for the period March 1 thru April 30 and from August 15 thru November 15, seed with 2-2 1/2 bushels of rye per acre annual ryegrass (2 lbs. per 1000 sq. ft.) for the period May 1 thru August 14, seed with 1 lb. per acre of creeping lovegrass (2.07 lbs. per 1000 sq. ft.) for the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as weather conditions permit the use of the seed. Mulching - Apply 1 1/2 to 2 tons per acre (70 to 80 lbs. per 1000 sq. ft.) of unwilted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool on 2lb gal. per acre (5 gal. per 1000 sq. ft.) of emulsified asphalt on flat areas, on slopes, 8 ft. or higher, use 341 gal. per acre (5 gal. per 1000 sq. ft.) for anchoring.

Apply to graded or cleared areas 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, disking or other acceptable means before seeding, if not previously loosened. Seed Application - Apply 600 lbs. per acre 10:10:10 fertilizer (14 lbs. per 1000 sq. ft.) for the period March 1 thru April 30 and from August 15 thru November 15, seed with 2-2 1/2 bushels of rye per acre annual ryegrass (2 lbs. per 1000 sq. ft.) for the period May 1 thru August 14, seed with 1 lb. per acre of creeping lovegrass (2.07 lbs. per 1000 sq. ft.) for the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as weather conditions permit the use of the seed. Mulching - Apply 1 1/2 to 2 tons per acre (70 to 80 lbs. per 1000 sq. ft.) of unwilted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool on 2lb gal. per acre (5 gal. per 1000 sq. ft.) of emulsified asphalt on flat areas, on slopes, 8 ft. or higher, use 341 gal. per acre (5 gal. per 1000 sq. ft.) for anchoring.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

Apply to graded or cleared areas 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, disking or other acceptable means before seeding, if not previously loosened. Seed Application - Apply 600 lbs. per acre 10:10:10 fertilizer (14 lbs. per 1000 sq. ft.) for the period March 1 thru April 30 and from August 15 thru November 15, seed with 2-2 1/2 bushels of rye per acre annual ryegrass (2 lbs. per 1000 sq. ft.) for the period May 1 thru August 14, seed with 1 lb. per acre of creeping lovegrass (2.07 lbs. per 1000 sq. ft.) for the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as weather conditions permit the use of the seed. Mulching - Apply 1 1/2 to 2 tons per acre (70 to 80 lbs. per 1000 sq. ft.) of unwilted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool on 2lb gal. per acre (5 gal. per 1000 sq. ft.) of emulsified asphalt on flat areas, on slopes, 8 ft. or higher, use 341 gal. per acre (5 gal. per 1000 sq. ft.) for anchoring.

Apply to graded or cleared areas 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, disking or other acceptable means before seeding, if not previously loosened. Seed Application - Apply 600 lbs. per acre 10:10:10 fertilizer (14 lbs. per 1000 sq. ft.) for the period March 1 thru April 30 and from August 15 thru November 15, seed with 2-2 1/2 bushels of rye per acre annual ryegrass (2 lbs. per 1000 sq. ft.) for the period May 1 thru August 14, seed with 1 lb. per acre of creeping lovegrass (2.07 lbs. per 1000 sq. ft.) for the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as weather conditions permit the use of the seed. Mulching - Apply 1 1/2 to 2 tons per acre (70 to 80 lbs. per 1000 sq. ft.) of unwilted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool on 2lb gal. per acre (5 gal. per 1000 sq. ft.) of emulsified asphalt on flat areas, on slopes, 8 ft. or higher, use 341 gal. per acre (5 gal. per 1000 sq. ft.) for anchoring.

Apply to graded or cleared areas 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, disking or other acceptable means before seeding, if not previously loosened. Seed Application - Apply 600 lbs. per acre 10:10:10 fertilizer (14 lbs. per 1000 sq. ft.) for the period March 1 thru April 30 and from August 15 thru November 15, seed with 2-2 1/2 bushels of rye per acre annual ryegrass (2 lbs. per 1000 sq. ft.) for the period May 1 thru August 14, seed with 1 lb. per acre of creeping lovegrass (2.07 lbs. per 1000 sq. ft.) for the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as weather conditions permit the use of the seed. Mulching - Apply 1 1/2 to 2 tons per acre (70 to 80 lbs. per 1000 sq. ft.) of unwilted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool on 2lb gal. per acre (5 gal. per 1000 sq. ft.) of emulsified asphalt on flat areas, on slopes, 8 ft. or higher, use 341 gal. per acre (5 gal. per 1000 sq. ft.) for anchoring.

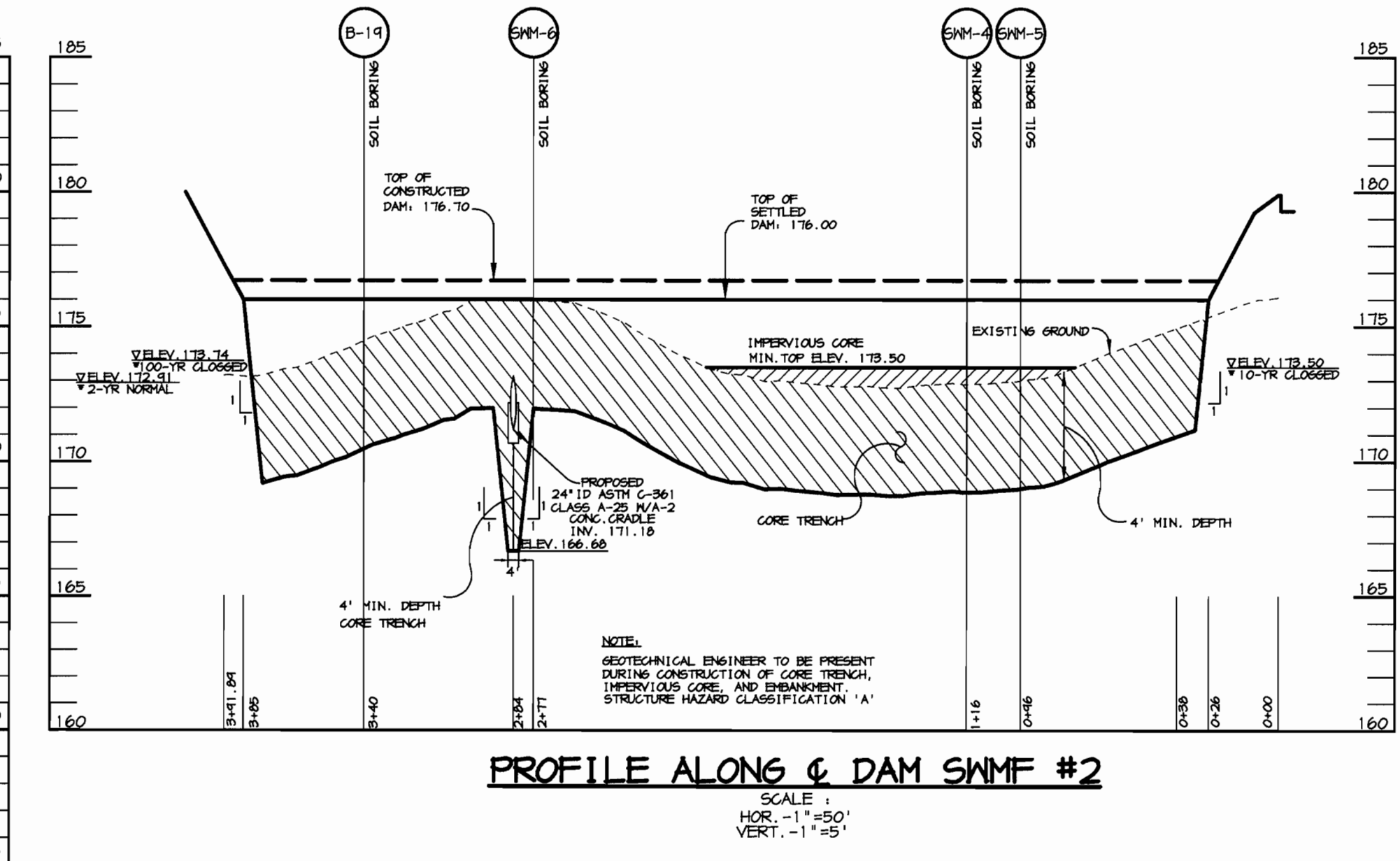
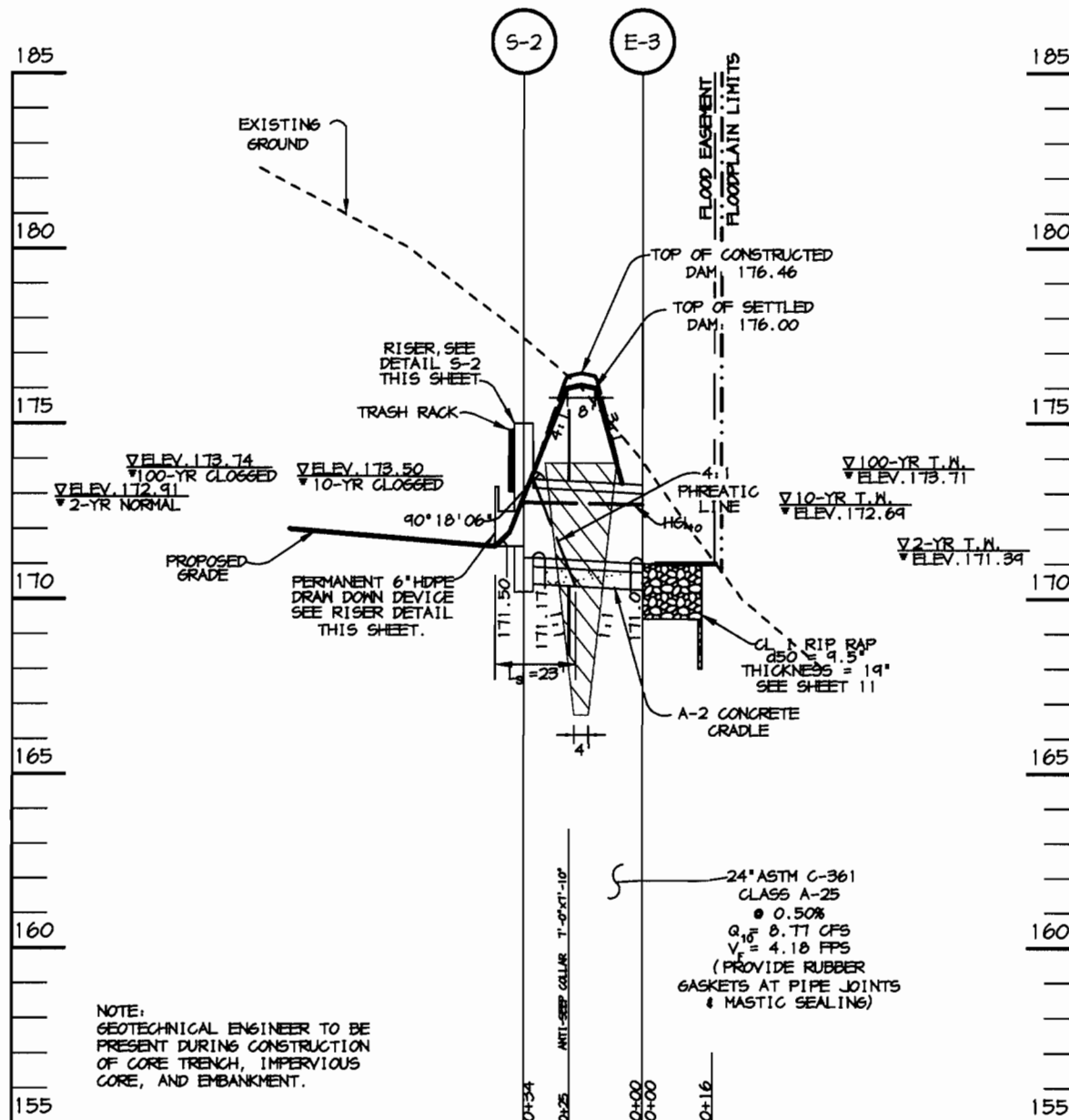
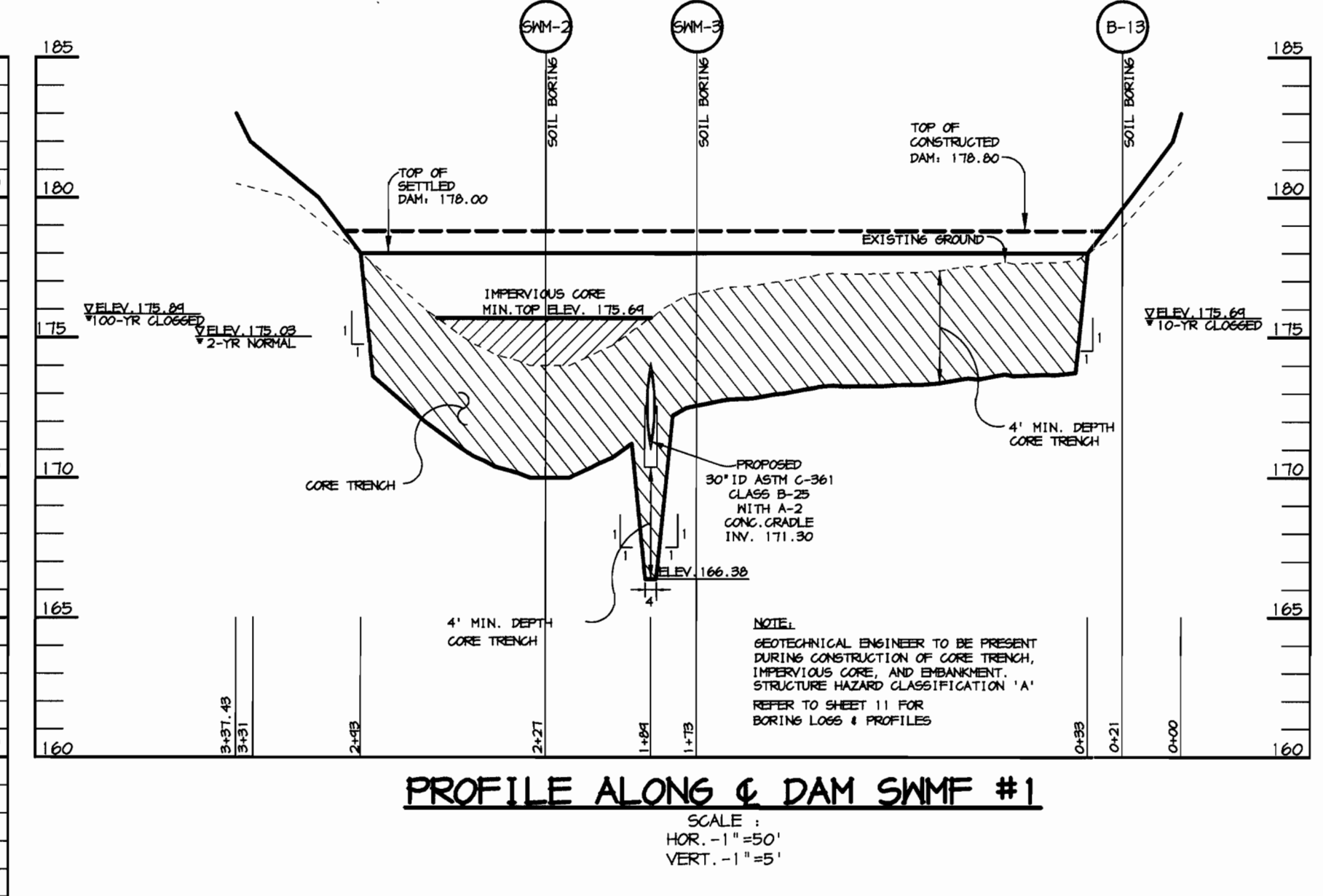
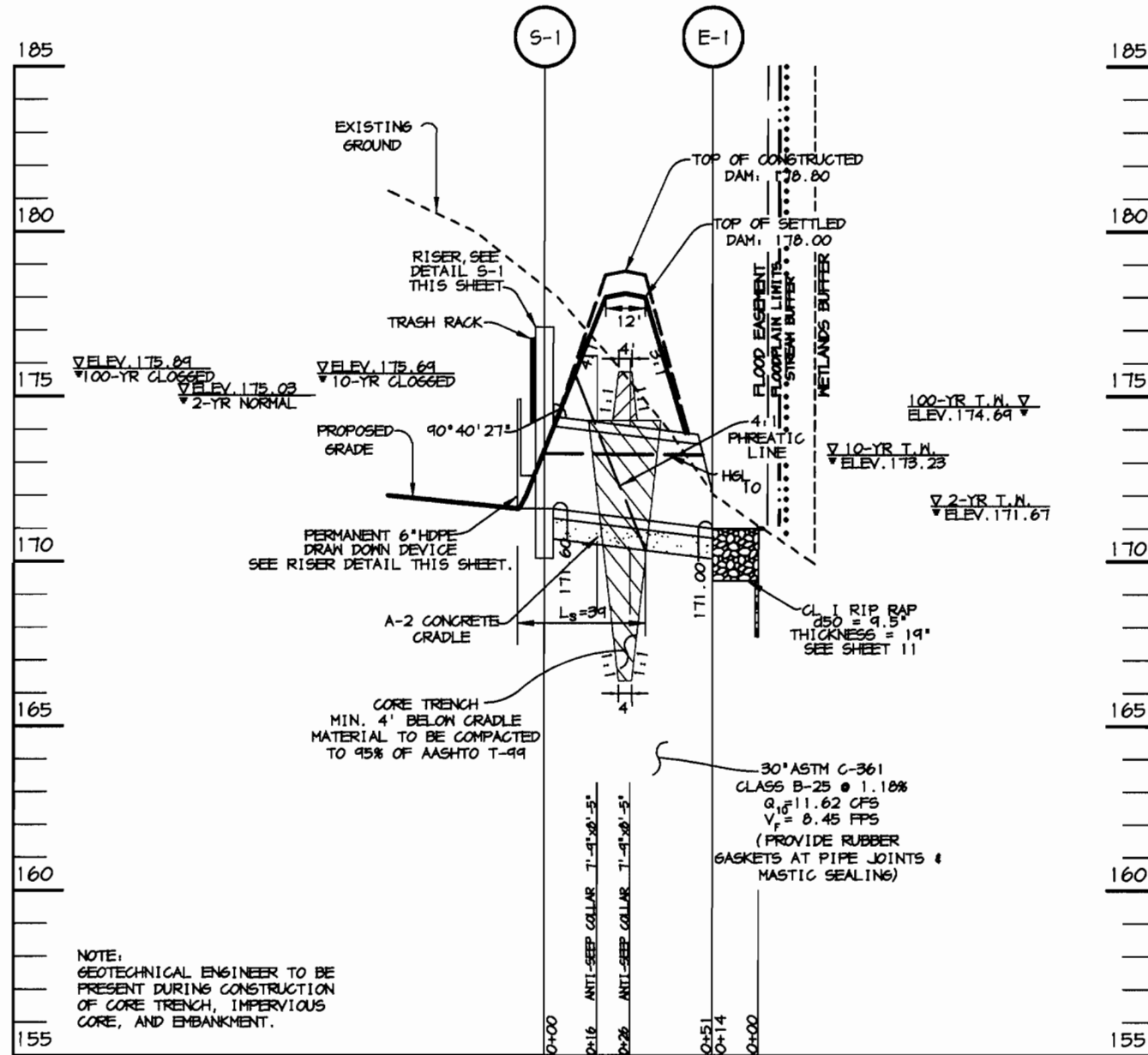
Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed. Seeded Preparation - Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened. Seed Application - Apply 600 lbs. per acre 10:10:10 fertilizer (14 lbs. per 1000 sq. ft.) for the period March 1 thru April 30 and from August 15 thru November 15, seed with 2-2 1/2 bushels of rye per acre annual ryegrass (2 lbs. per 1000 sq. ft.) for the period May 1 thru August 14, seed with 1 lb. per acre of creeping lovegrass (2.07 lbs. per 1000 sq. ft.) for the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as weather conditions permit the use of the seed. Mulching - Apply 1 1/2 to 2 tons per acre (70 to 80 lbs. per 1000 sq. ft.) of unwilted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool on 2lb gal. per acre (5 gal. per 1000 sq. ft.) of emulsified asphalt on flat areas, on slopes, 8 ft. or higher, use 341 gal. per acre (5 gal. per 1000 sq. ft.) for anchoring.

Apply to graded or cleared areas 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, disking or other acceptable means before seeding, if not previously loosened. Seed Application - Apply 600 lbs. per acre 10:10:10 fertilizer (14 lbs. per 1000 sq. ft.) for the period March 1 thru April 30 and from August 15 thru November 15, seed with 2-2 1/2 bushels of rye per acre annual ryegrass (2 lbs. per 1000 sq. ft.) for the period May 1 thru August 14, seed with 1 lb. per acre of creeping lovegrass (2.07 lbs. per 1000 sq. ft.) for the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as weather conditions permit the use of the seed. Mulching - Apply 1 1/2 to 2 tons per acre (70 to 80 lbs. per 1000 sq. ft.) of unwilted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool on 2lb gal. per acre (5 gal. per 1000 sq. ft.) of emulsified asphalt on flat areas, on slopes, 8 ft. or higher, use 341 gal. per acre (5 gal. per 1000 sq. ft.) for anchoring.

21.0 STANDARD AND SPECIFICATIONS

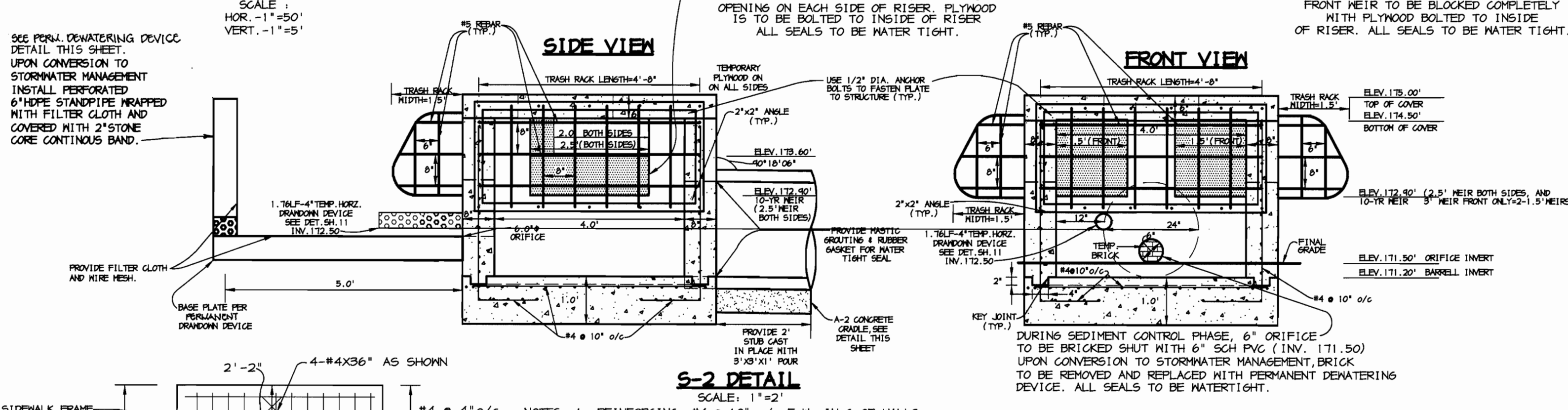
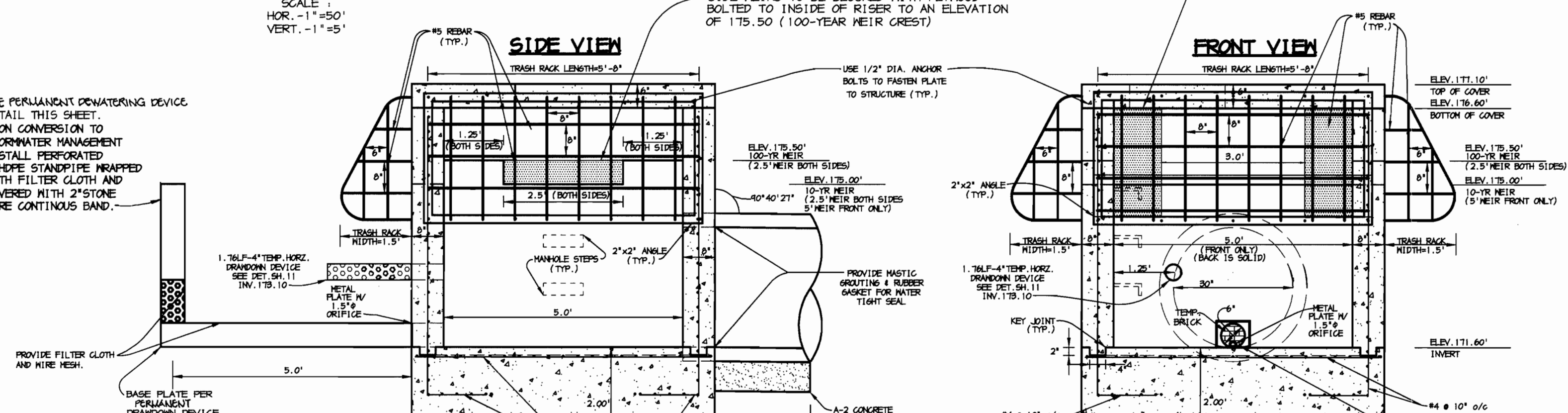
FOR TOPSOIL Definition Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation. Purpose To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation. Conditions Where Practice Applies This practice is limited to areas having 2:1 or flatter slopes where: a. The texture of the exposed subsoil (parent material) is not adequate to produce vegetative growth. b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients. c. The original soil to be vegetated contains material toxic to plant growth. d. The soil is so acidic that treatment with limestone is not feasible.

For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans. Construction and Material Specifications Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimentation Station. Topsoil Specifications - Soil to be used as topsoil must meet the following: I. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand, other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Separately, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter. II. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified. III. Where subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. The lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures. IV. For sites having disturbed areas over 5 acres: 1. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials. 2. For sites having disturbed areas over 5 acres: I. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amounts resulting from soil analysis in order compliance with the following: a. pH for Topsoil shall be between 6.0 and 7.5. If the test result shows a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher. b. Organic content shall be at least 1.5 percent as determined by weight. c. Topsoil having soluble salt content greater than 500 parts per million shall not be used. d. No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit degradation of phytotoxic materials. V. Topsoil Application 1. When topsoiling, maintain needed erosion and sediment control practices such as diversions, grade stabilization structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins. 2. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 6" higher in elevation. III. Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets. IV. Topsoil shall not be placed where the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation. V. Alternative For Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below: 1. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for site having disturbed areas under 5 acres shall conform to the following requirements: a. Compost holding capacity shall originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06. b. Compost shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use. c. Compost shall have a water holding capacity of at least 1 ton/1,000 square feet. d. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate. 2. Topsoil shall not be placed where the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation. V. Alternative For Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below: 1. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for site having disturbed areas under 5 acres shall conform to the following requirements: a. Compost holding capacity shall originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06. b. Compost shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use. c. Compost shall have a water holding capacity of at least 1 ton/1,000 square feet. d. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate. 2. Topsoil shall not be placed where the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation. V. Alternative For Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below: 1. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for site having disturbed areas under 5 acres shall conform to the following requirements: a. Compost holding capacity shall originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06. b. Compost shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use. c. Compost shall have a water holding capacity of at least 1 ton/1,000 square feet. d. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate. 2. Topsoil shall not be placed where the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation. V. Alternative For Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below: 1. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for site having disturbed areas under 5 acres shall conform to the following requirements: a. Compost holding capacity shall originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06. b. Compost shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use. c. Compost shall have a water holding capacity of at least 1 ton/1,000 square feet. d. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate. 2. Topsoil shall not be placed where the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation. V. Alternative For Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below: 1. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for site having disturbed areas under 5 acres shall conform to the following requirements: a. Compost holding capacity shall originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06. b. Compost shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use. c. Compost shall have a water holding capacity of at least 1 ton/1,000 square feet. d. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate. 2. Topsoil shall not be placed where the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation. V. Alternative For Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below: 1. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for site having disturbed areas under 5 acres shall conform to the following requirements: a. Compost holding capacity shall originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06. b. Compost shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use. c. Compost shall have a water holding capacity of at least 1 ton/1,000 square feet. d. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate. 2. Topsoil shall not be placed where the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation. V. Alternative For Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below: 1. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for site having disturbed areas under 5 acres shall conform to the following requirements: a. Compost holding capacity shall originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06. b. Compost shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use. c. Compost shall have a water holding capacity of at least 1 ton/1,000 square feet. d. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate. 2. Topsoil shall not be placed where the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation. V. Alternative For Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below: 1. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for site having disturbed areas under 5 acres shall conform to the following requirements: a. Compost holding capacity shall originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06. b. Compost shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use. c. Compost shall have a water holding capacity of at least 1 ton/1,000 square feet. d. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate. 2. Topsoil shall not be placed where the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation. V. Alternative For Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below: 1. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for site having disturbed areas under 5 acres shall conform to the following requirements: a. Compost holding capacity shall originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06. b. Compost shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use. c. Compost shall have a water holding capacity of at least 1 ton/1,000 square feet. d. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate. 2. Topsoil shall not be placed where the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation. V. Alternative For Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below: 1. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for site having disturbed areas under 5 acres shall conform to the following requirements: a. Compost holding capacity shall originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06. b. Compost shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use. c. Compost shall have a water holding capacity of at least 1 ton/1,000 square feet. d. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate. 2. Topsoil shall not be placed where the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation. V. Alternative For Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below: 1. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for site having disturbed areas under 5 acres shall conform to the following requirements: a. Compost holding capacity shall originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06. b. Compost shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use. c. Compost shall have a water holding capacity of at least 1 ton/1,000 square feet. d. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate. 2. Topsoil shall not be placed where the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation. V. Alternative For Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below: 1. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for site having disturbed areas under 5 acres shall conform to the following requirements: a. Compost holding capacity shall originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06. b. Compost shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use. c. Compost shall have a water holding capacity of at least 1 ton/1,000 square feet. d. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate. 2. Topsoil shall not be placed where the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation. V. Alternative For Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below: 1. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for site having disturbed areas under 5 acres shall conform to the following requirements: a. Compost holding capacity shall originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06. b. Compost shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use. c. Compost shall have a water holding capacity of at least 1 ton/1,000 square feet. d. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate. 2. Topsoil shall not be placed where the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation. V. Alternative For Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below: 1. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for site having disturbed areas under 5 acres shall conform to the following requirements: a. Compost holding capacity shall originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06. b. Compost shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use. c. Compost shall have a water holding capacity of at

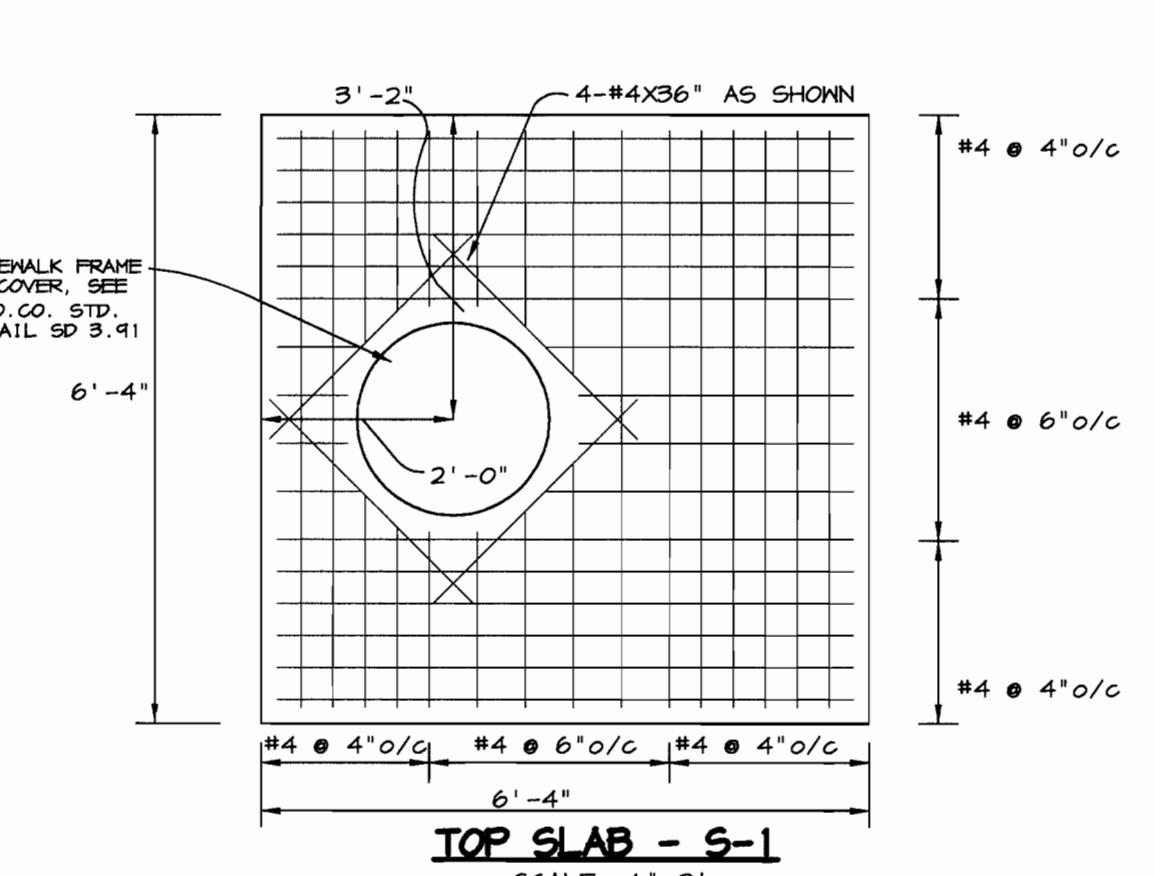


PRINCIPAL SPILLWAY PROFILE SWMF#1

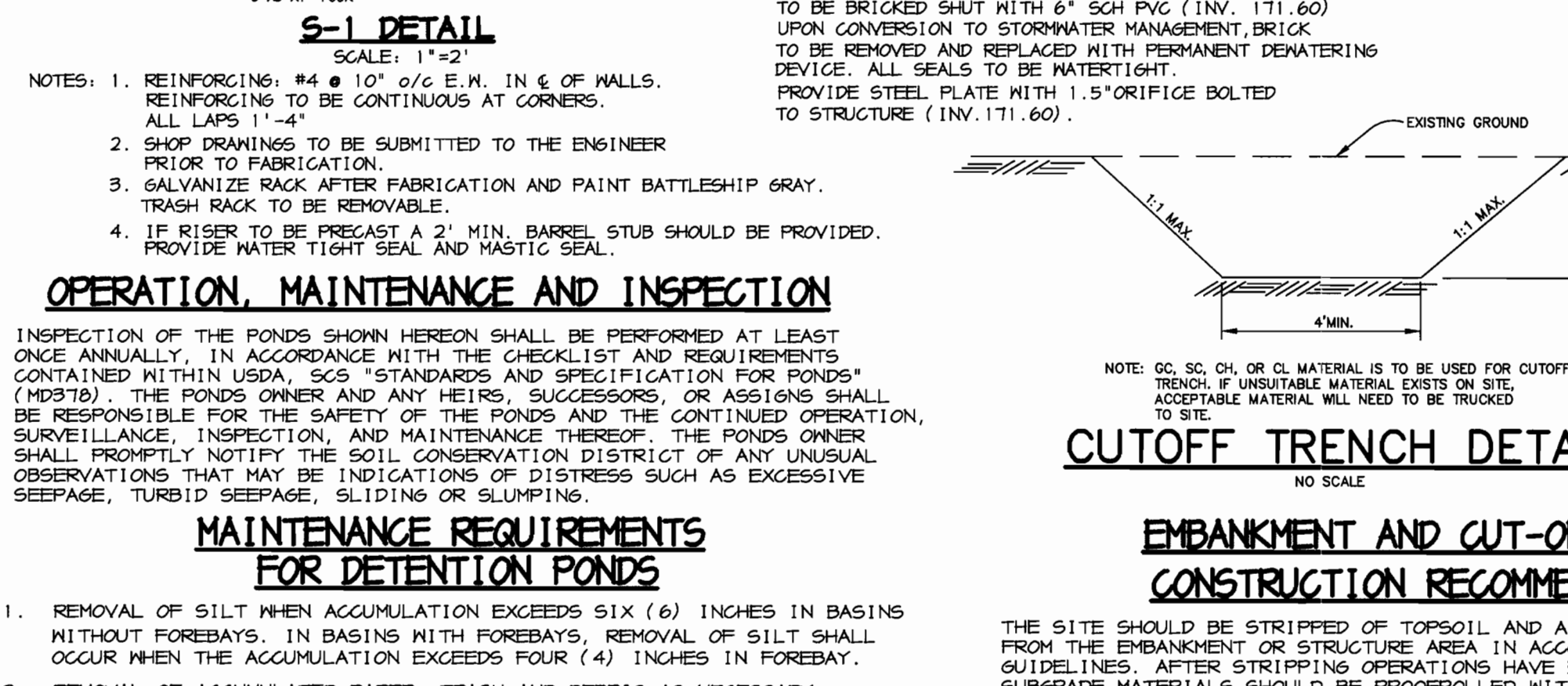
PRINCIPAL SPILLWAY PROFILE SWMF#2



S-1 DETAIL



S-2 DETAIL



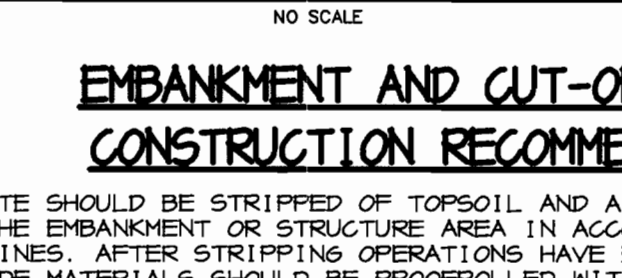
OPERATION, MAINTENANCE AND INSPECTION

INSPECTION OF THE PONDS SHOWN HEREON SHALL BE PERFORMED AT LEAST ONCE ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, SCS "STANDARDS AND SPECIFICATION FOR PONDS (MDS78)". THE POND OWNER AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE PONDS AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION, AND MAINTENANCE THEREOF. THE POND OWNER SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.

MAINTENANCE REQUIREMENTS FOR DETENTION PONDS

- REMOVAL OF SILT WHEN ACCUMULATION EXCEEDS SIX (6) INCHES IN BASINS WITHOUT FOREBAYS. IN BASINS WITH FOREBAYS, REMOVAL OF SILT SHALL OCCUR WHEN THE ACCUMULATION EXCEEDS FOUR (4) INCHES IN FOREBAY.
- REMOVAL OF ACCUMULATED PAPER, TRASH AND DEBRIS AS NECESSARY.
- VEGETATION GROWING ON THE EMBANKMENT TOP OR FACES IS NOT ALLOWED TO EXCEED 18 INCHES IN HEIGHT AT ANY TIME.
- ANNUAL INSPECTION AND REPAIR OF THE STRUCTURE.

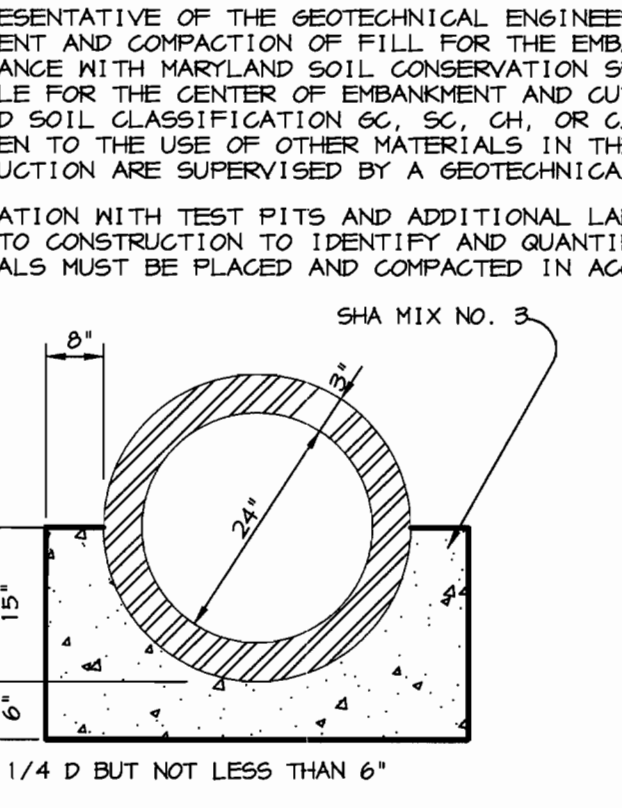
CUTOFF TRENCH DETAIL



EMBANKMENT AND CUT-OFF TRENCH CONSTRUCTION RECOMMENDATIONS

THE SITE SHOULD BE STRIPPED OF TOPSOIL AND ANY OTHER UNSUITABLE MATERIALS FROM THE EMBANKMENT OR STRUCTURE AREA IN ACCORDANCE WITH SOIL CONSERVATION GUIDELINES. AFTER STRIPPING OPERATIONS HAVE BEEN COMPLETED, THE EXPOSED SUBGRADE MATERIALS SHOULD BE PROOFROLLED WITH A LOADED DUMP TRUCK OR SIMILAR EQUIPMENT IN THE PRESENCE OF A GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE. FOR AREAS THAT ARE NOT ACCESSIBLE TO A DUMP TRUCK, THE EXPOSED MATERIALS SHOULD BE OBSERVED AND TESTED BY A GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE UTILIZING A DYNAMIC CONE PENETROMETER. ANY EXCESSIVELY SOFT OR LOOSE MATERIALS IDENTIFIED BY PROOFROLLING OR PENETROMETER TESTING SHOULD BE EXCAVATED TO SUITABLY FIRM SOIL, AND THEN GRADES RE-ESTABLISHED BY BACKFILLING WITH SUITABLE SOILS.

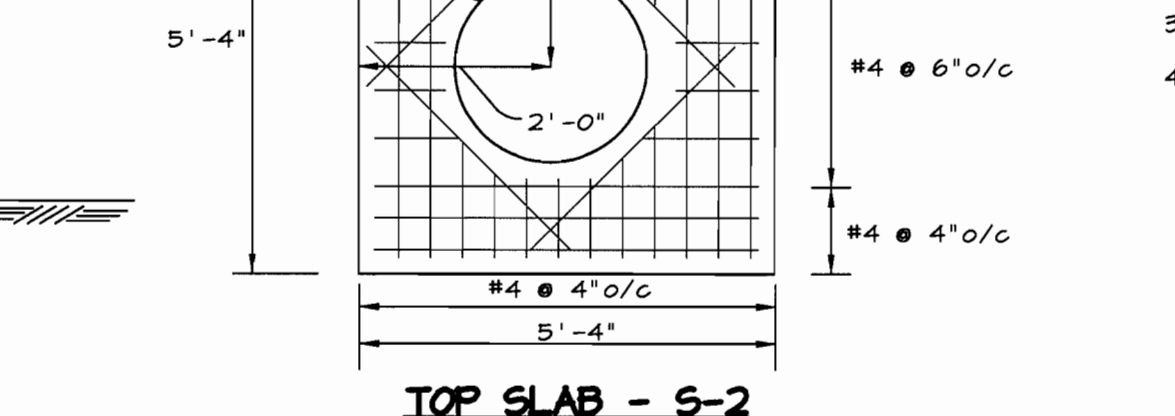
CONCRETE ANTI-SEEP COLLAR



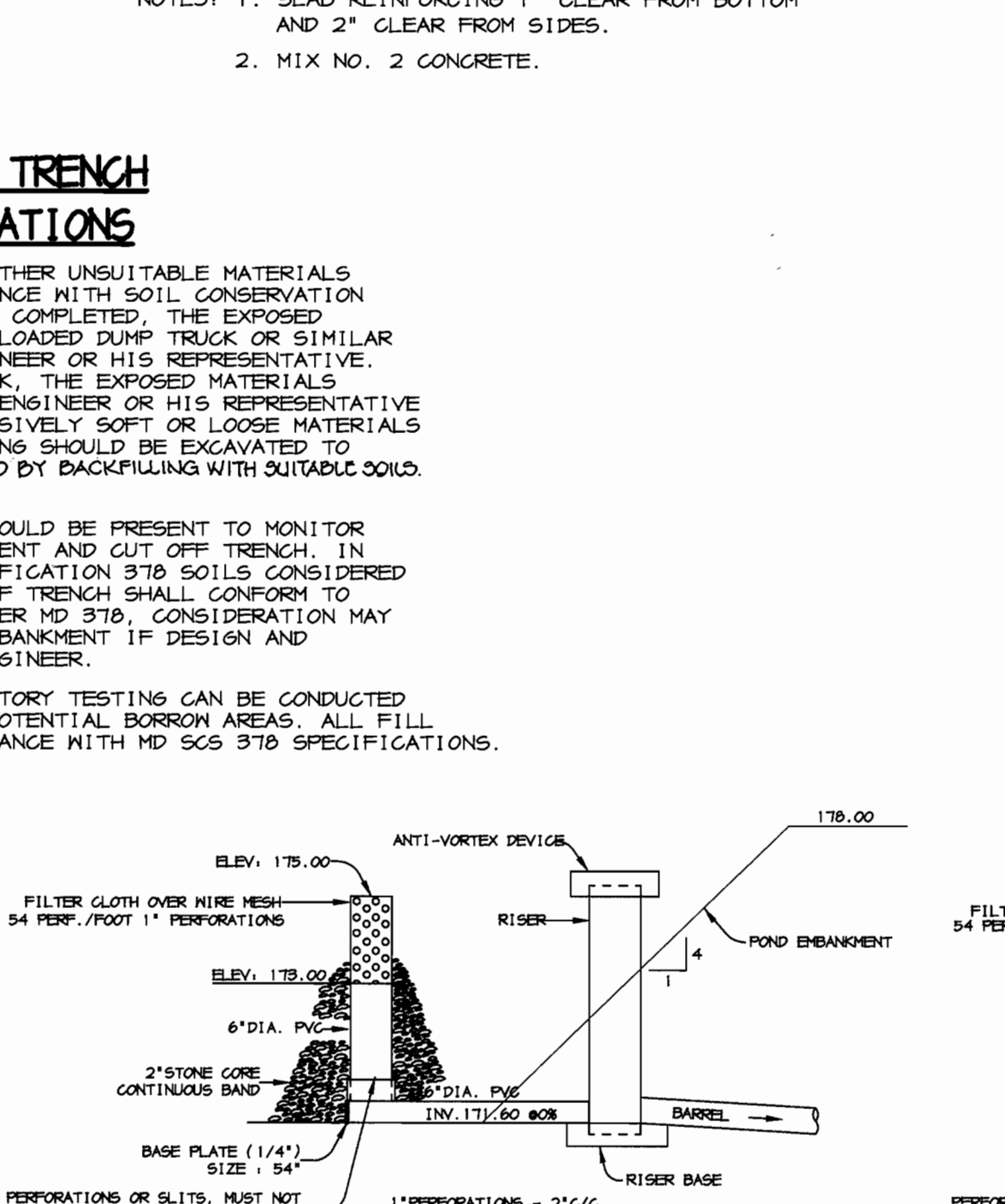
A-2 CONCRETE CRADLE



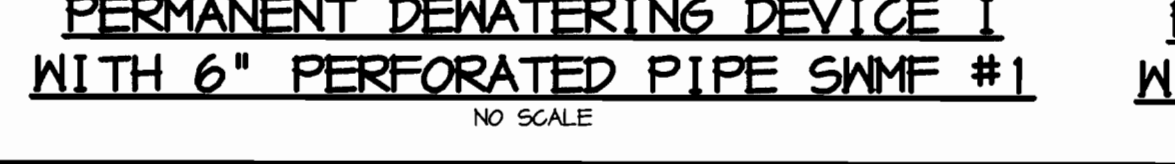
TOP SLAB - S-2



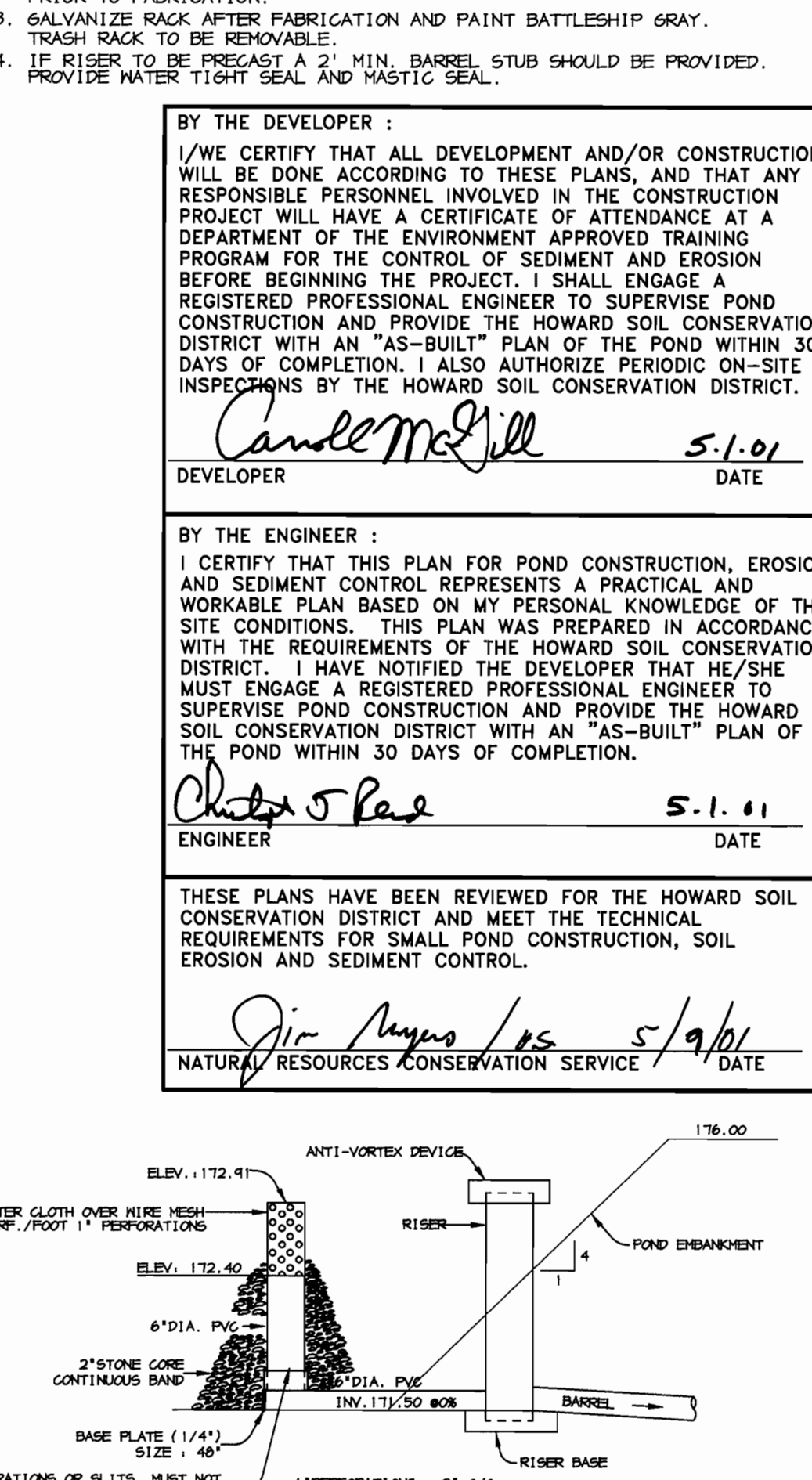
PERMANENT DENATERING DEVICE I WITH 6" PERFORATED PIPE SWMF #1



PERMANENT DENATERING DEVICE I WITH 6" PERFORATED PIPE SWMF #2



PERMANENT DENATERING DEVICE I WITH 6" PERFORATED PIPE SWMF #1



PERMANENT DENATERING DEVICE I WITH 6" PERFORATED PIPE SWMF #2



THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

BY THE DEVELOPER:	5/9/01
HOWARD SOIL CONSERVATION DISTRICT	DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
DIRECTOR	5/28/01
DATE	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	5/11/01
DATE	
CHIEF, DIVISION OF LAND DEVELOPMENT	5/24/01
DATE	

DATE NO.	REVISION
----------	----------

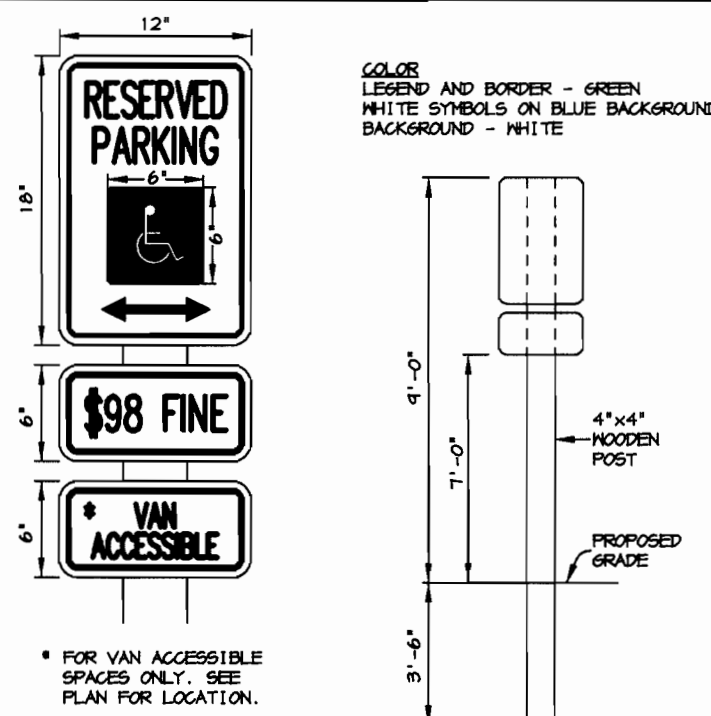
OWNER / DEVELOPER
DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
ONE TEXAS STATION COURT
SUITE 100
TIMONUM, MARYLAND 21093
(443) 689-9000

PROJECT
DORSEY RUN INDUSTRIAL PARK-PARCEL 'C'
AREA TAX MAP NO. 48 BLOCKS 3 & 9
PARCEL C ZONED M-2
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

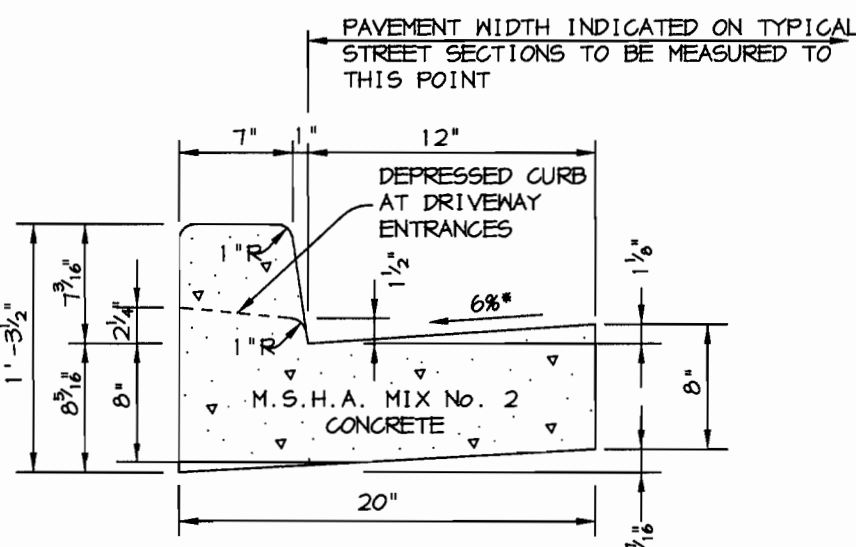
TITLE
STORMWATER MANAGEMENT DETAILS AND PROFILES

RIEMER MUEGGE
a division of
Patton Harris Rust & Associates, pc
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
8818 Centre Park Drive, Columbia, MD 21046 • tel 410.897.8800 fax 410.367.8282

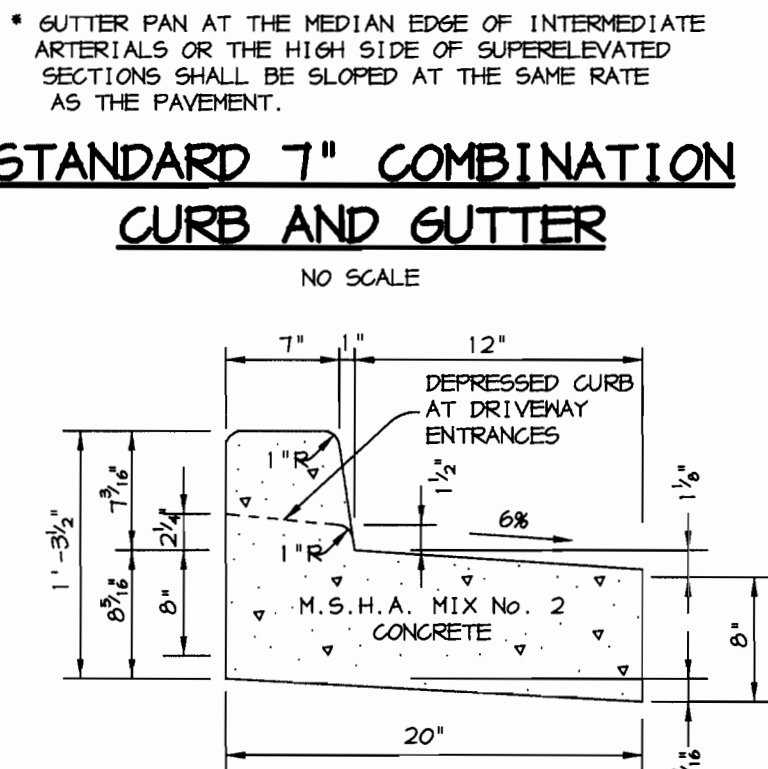
DESIGNED BY: C.J.R.
DRAWN BY: K.E.V.
CHECKED BY: C.J.R.
PROJECT NO: 00099 SDP10.DWG
DATE: MAY 3, 2001
SCALE: AS SHOWN
DRAWING NO. 10 OF 17



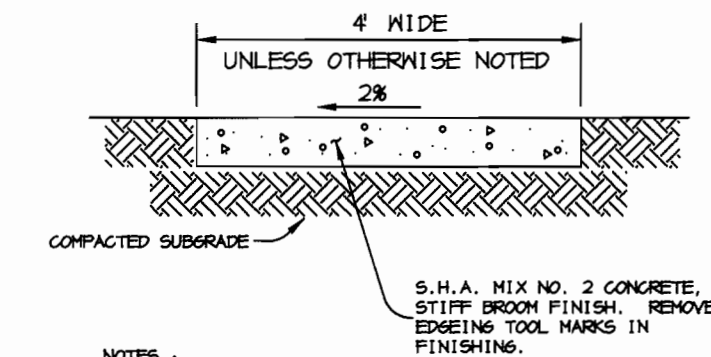
HANDICAP SIGN DETAIL
 NO SCALE



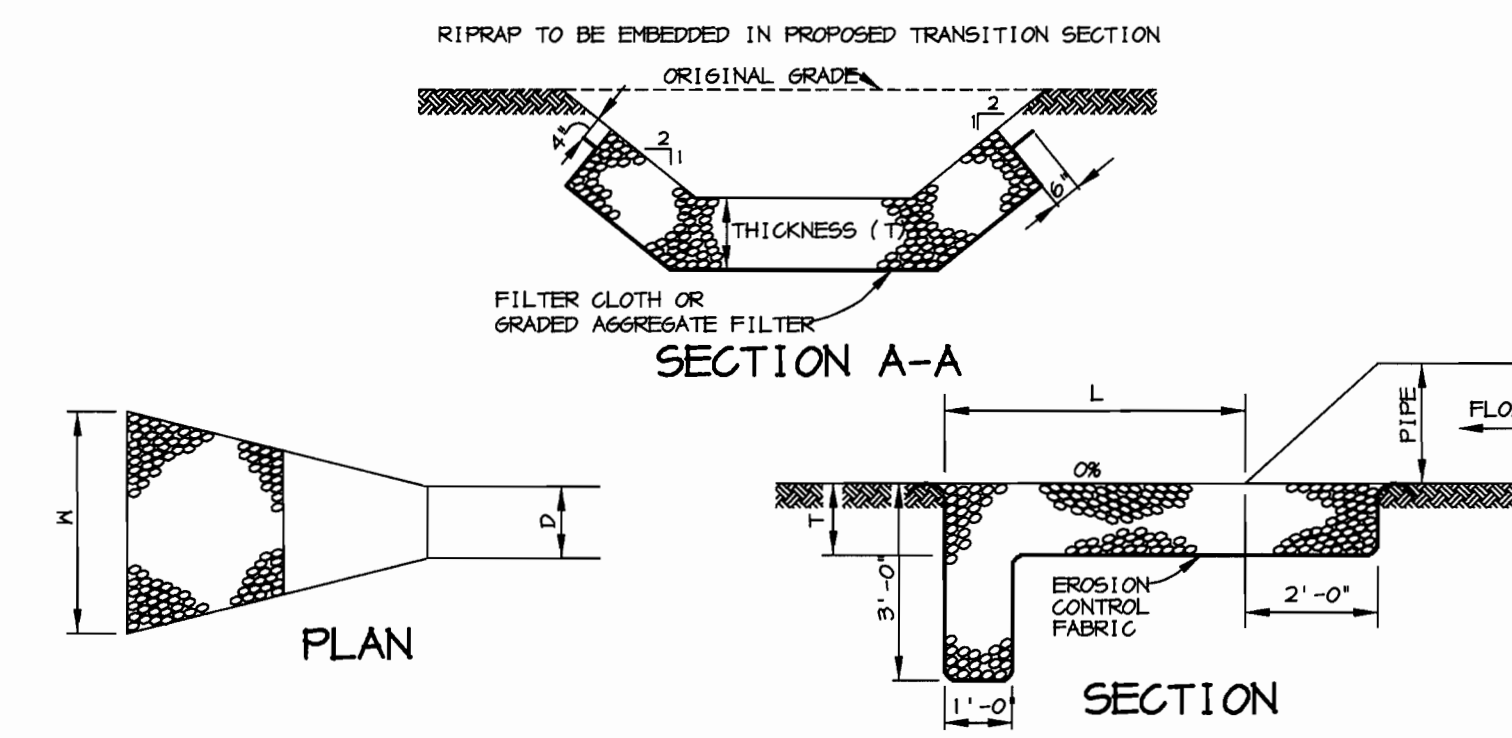
REVERSE 7" COMBINATION CURB AND GUTTER
 NO SCALE



SIDEWALK DETAIL
 NO SCALE

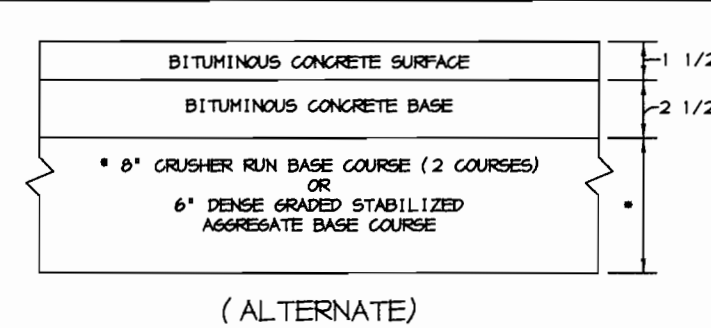


RIPRAP OUTLET PROTECTION DETAIL
 NO SCALE

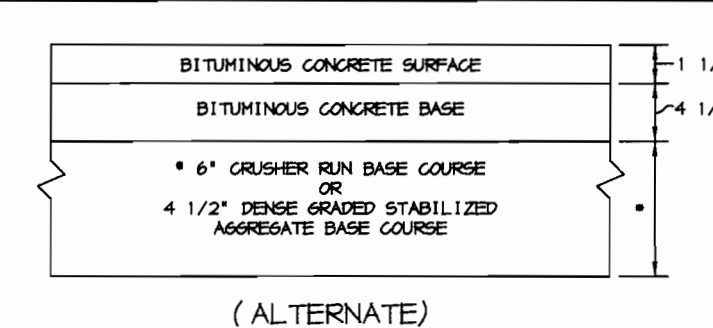


NOTE: Q_0 , V & d DEPTH CALCULATED AT END OF RIPRAP OUTLET CHANNEL.

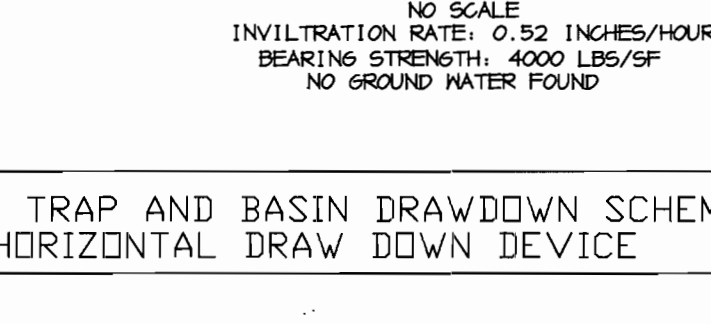
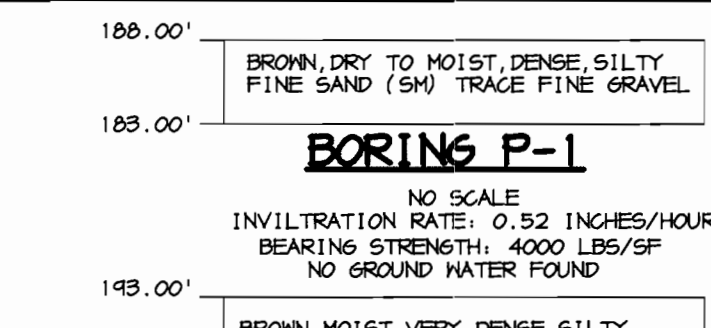
STRUCTURE	MEDIAN STONE DIA.	LENGTH (L)	WIDTH (W)	THICKNESS (T)	Q_0 (CFS)	V (FPS)	DEPTH (FT)
E-1	4.5"	14	21.5	19"	11.62	2.37	1.15
E-2	4.5"	22	15	19"	21.45	5.54	2.10
E-3	4.5"	16	18	19"	8.77	2.74	1.10
E-4	4.5"	22	15	19"	15.40	4.84	1.72



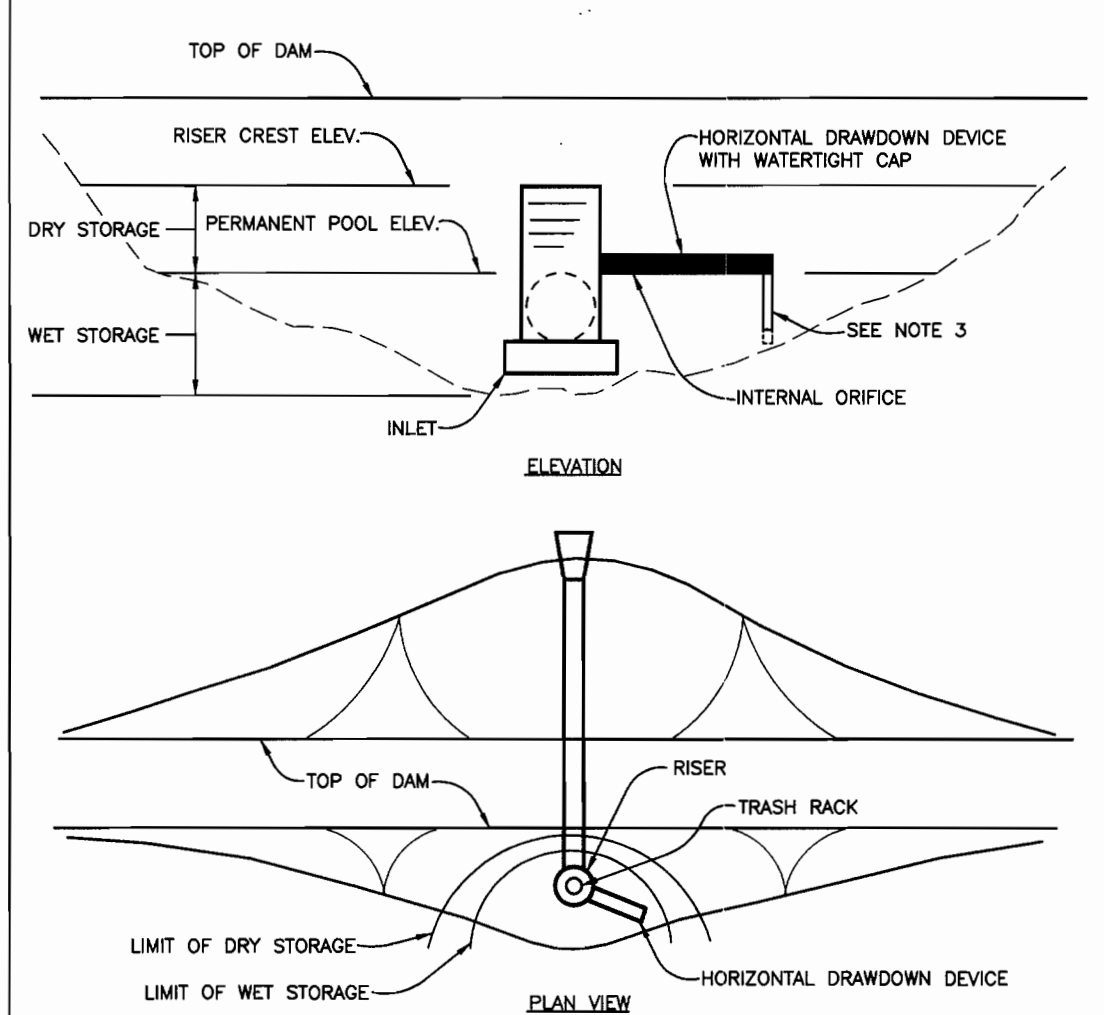
P-3 PAVING
 NO SCALE



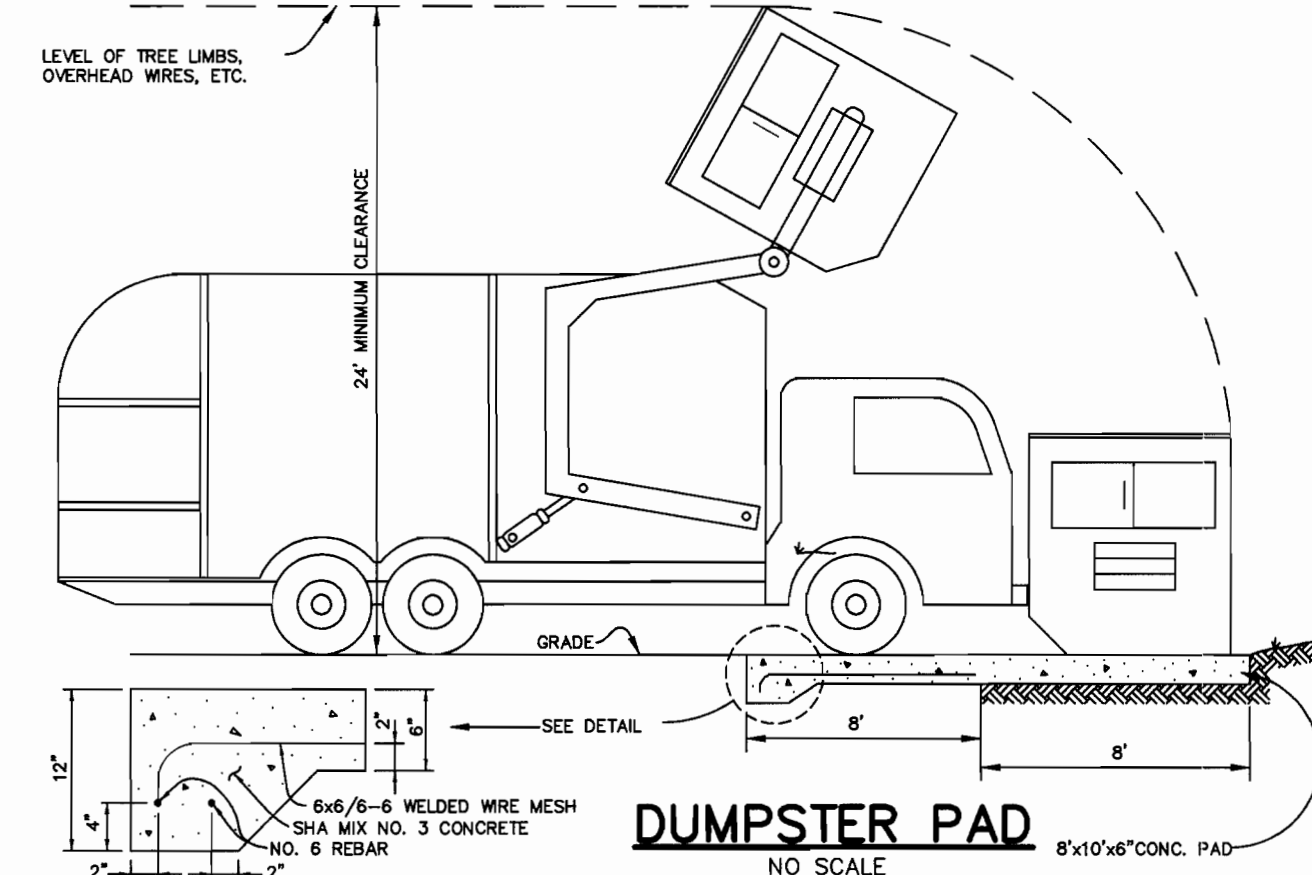
P-2 PAVING (ALTERNATE)
 NO SCALE



SEDIMENT TRAP AND BASIN DRAWDOWN SCHEMATIC HORIZONTAL DRAW DOWN DEVICE

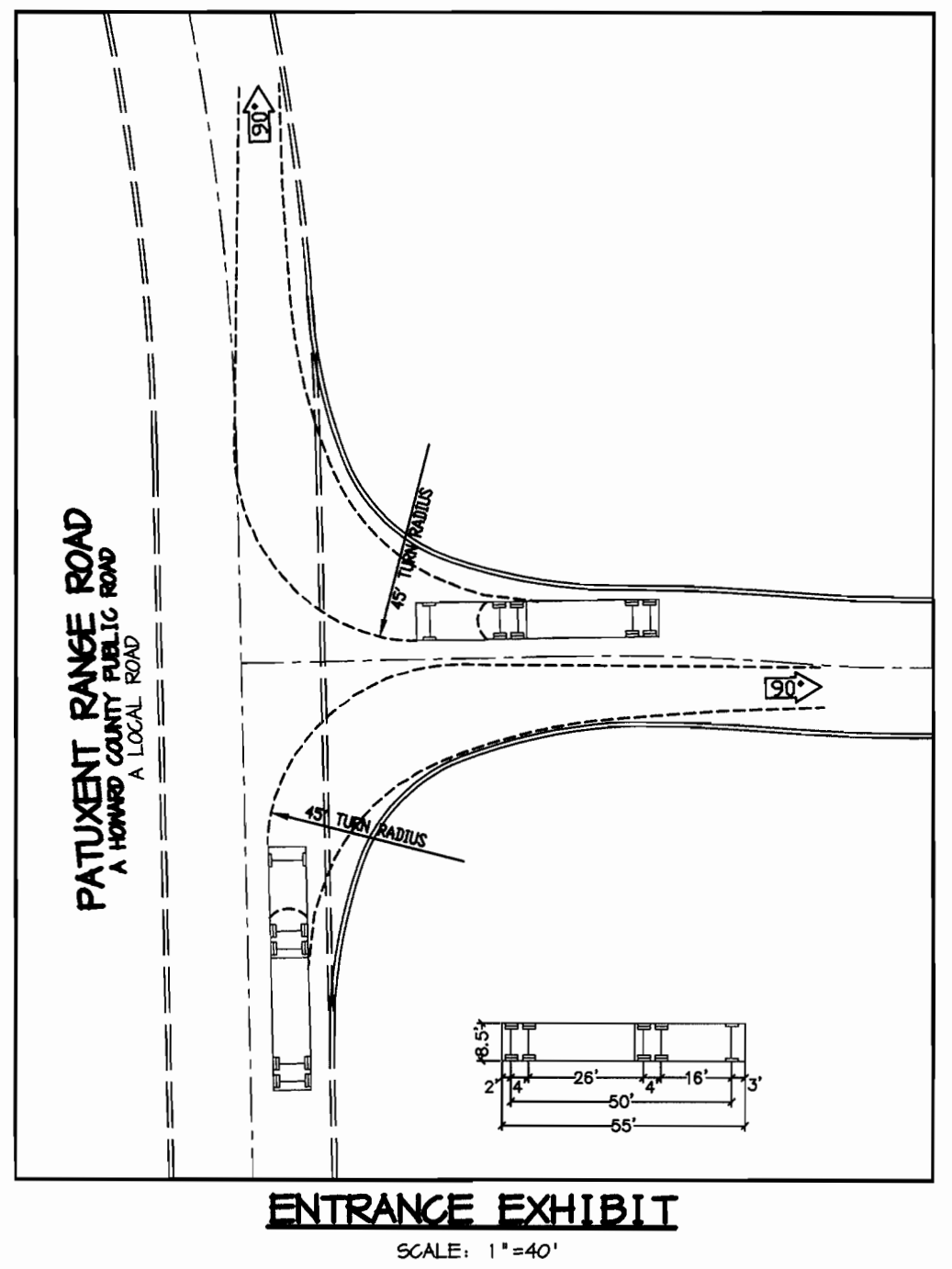
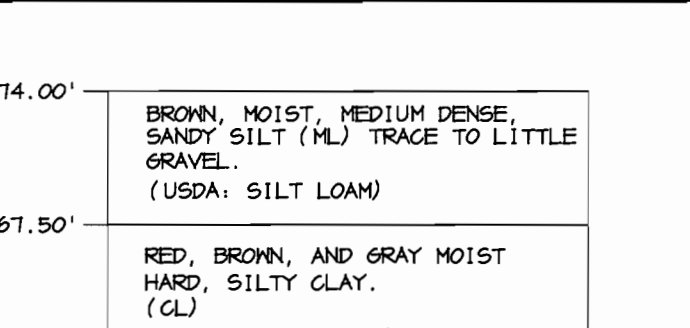
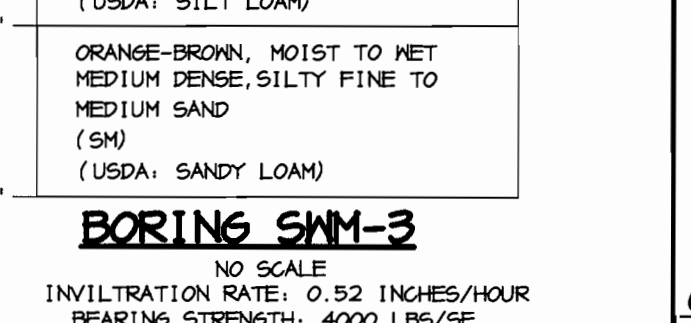
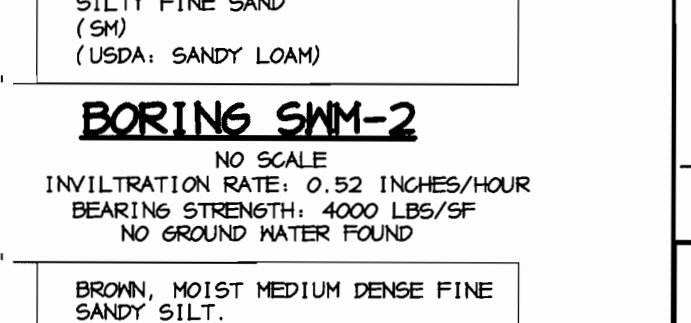
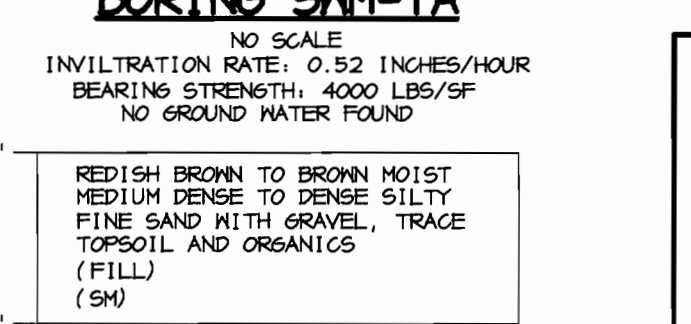
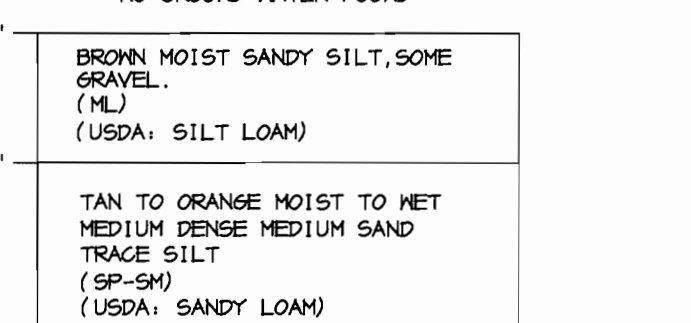
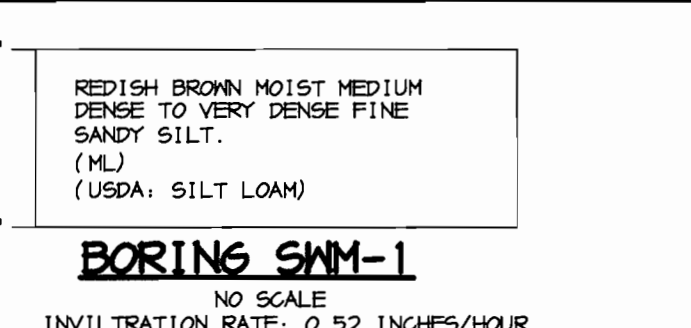
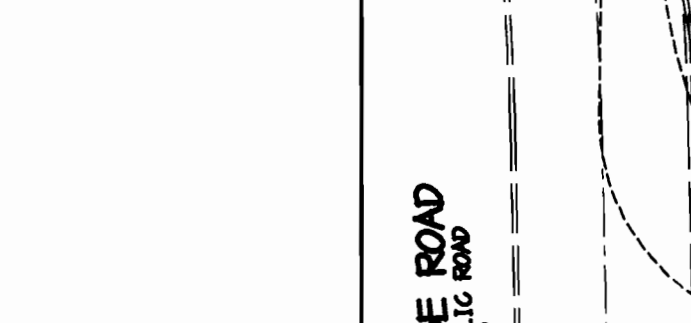
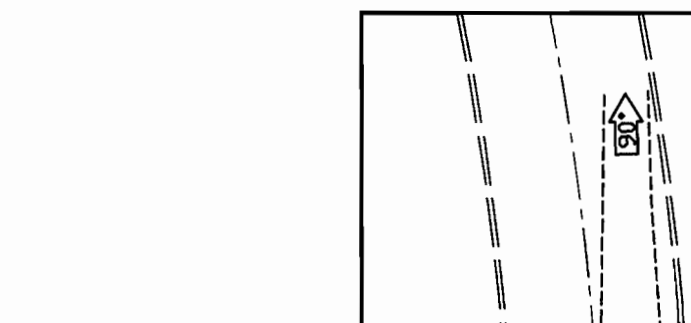
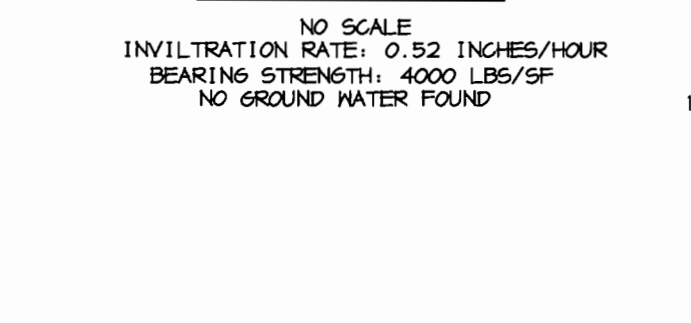
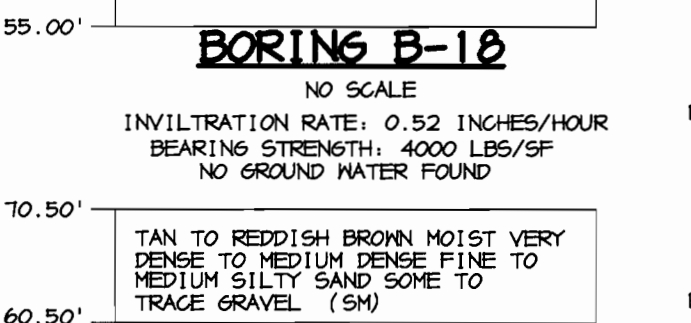
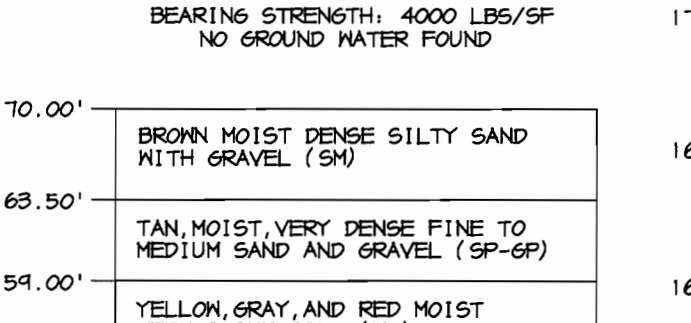
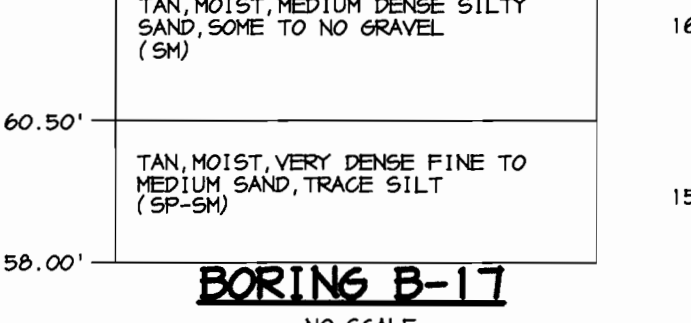
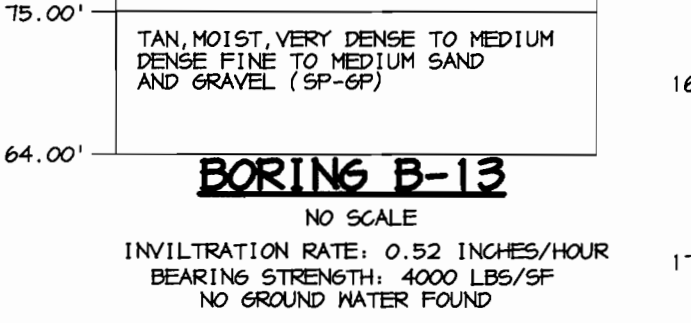
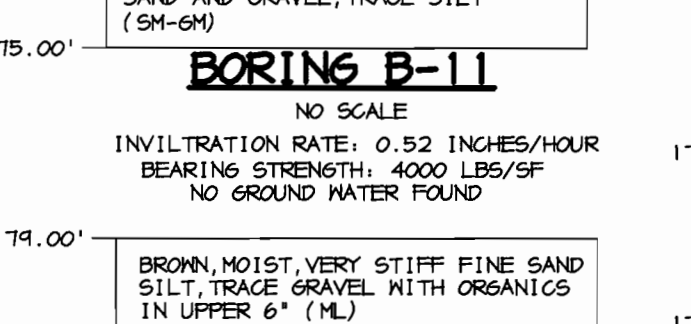
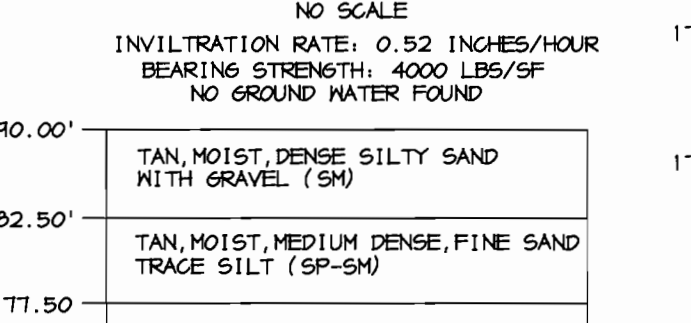
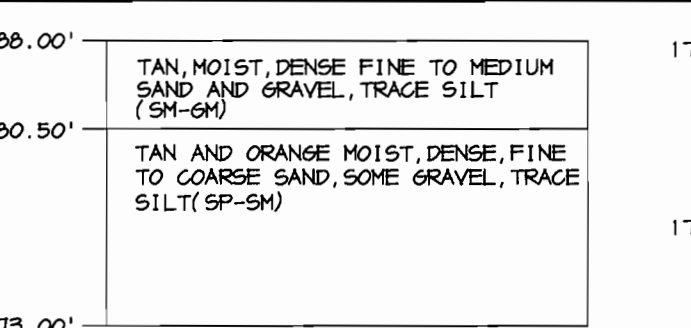
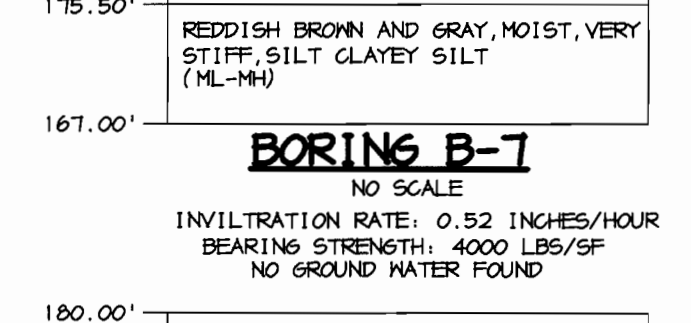
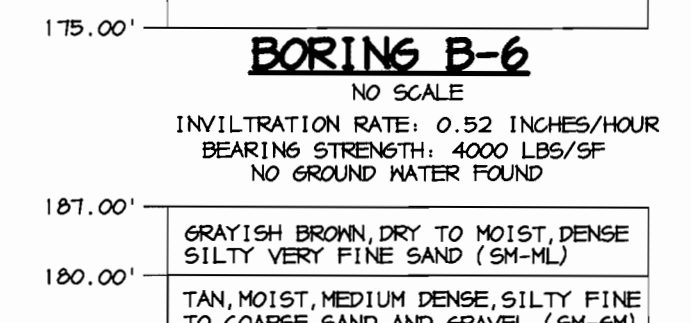
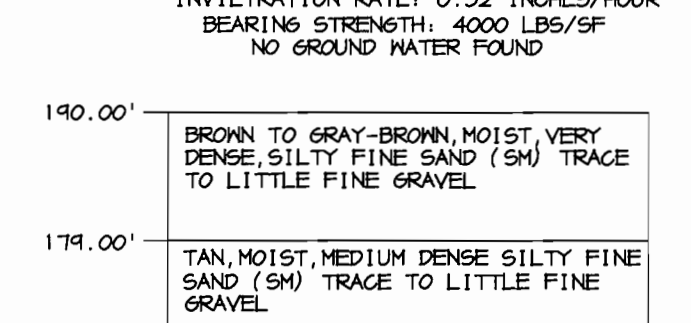
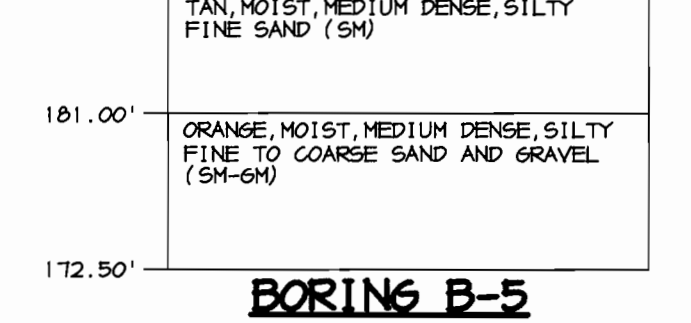
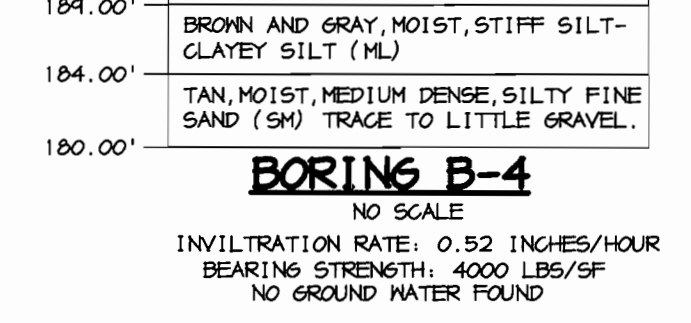
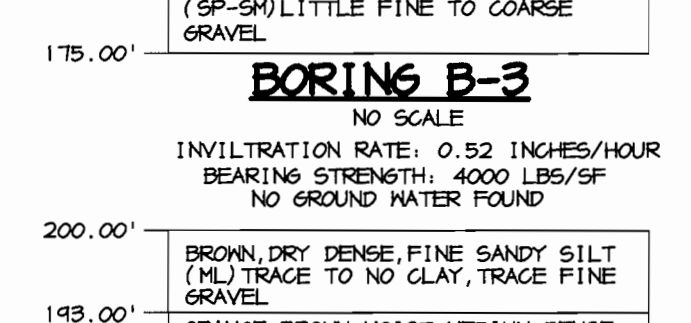
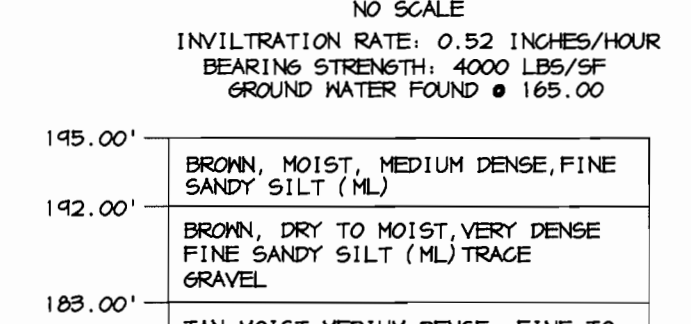
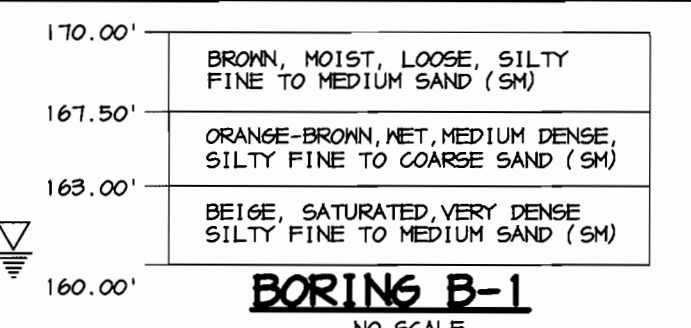


U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE C - 10 - 29 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



CONSTRUCTION SPECIFICATIONS

- THE SUBGRADE FOR THE FILTER, RIP-RAP, OR GABION SHALL BE PREPARED TO THE REQUIRED LINES AND GRADES. ANY FILL REQUIRED IN THE SUBGRADE SHALL BE COMPACTED TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
- THE ROCK OR GRAVEL SHALL CONFORM TO THE SPECIFIED GRADING LIMITS WHEN INSTALLED RESPECTIVELY IN THE RIP-RAP OR FILTER.
- GEOTEXTILE CLASS C OR BETTER SHALL BE PROTECTED FROM PUNCHING, CUTTING, OR TEARING. ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE SHALL BE REPAIRED BY PLACING ANOTHER PIECE OF GEOTEXTILE FABRIC OVER THE DAMAGED WHETHER FOR REPAIRS OR FOR JOINING TWO PIECES OF GEOTEXTILE FABRIC SHALL BE A MINIMUM OF ONE FOOT.
- STONE FOR THE RIP-RAP OR GABION OUTLETS MAY BE PLACED BY EQUIPMENT. THEY SHALL BE CONSTRUCTED TO THE FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. THE STONE FOR RIP-RAP OR GABION OUTLETS SHALL BE DELIVERED AND PLACED IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENEOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. RIP-RAP SHALL BE PLACED IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE FABRIC. HAND PLACEMENT WILL BE REQUIRED TO THE EXTENT NECESSARY TO PREVENT DAMAGE TO THE PERMANENT WORKS.
- THE STONE SHALL BE PLACED SO THAT IT BLENDS IN WITH THE EXISTING GROUND. IF THE STONE IS PLACED TOO HIGH THEN THE FLOW WILL BE FORCED OUT OF THE CHANNEL AND SCOUR ADJACENT TO THE STONE WILL OCCUR.



BY THE DEVELOPER :
 I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Candace McCall 5.1.01
 DEVELOPER DATE

BY THE ENGINEER :
 I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

Charles J. Rees 5.1.01
 ENGINEER DATE

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

Jim Myrales 5/9/01
 NATURAL RESOURCES CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Phillip S. Li 5/9/01
 HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

James W. Smith 5/25/01
 DIRECTOR DATE

Michael D. Williams 5/11/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Christy Brummett 5/21/01
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	NO.	REVISION

OWNER / DEVELOPER
 DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
 ONE TEXAS STATION COURT
 SUITE 100
 TIMONIUM, MARYLAND 21093
 (443) 689-9000

PROJECT
DORSEY RUN INDUSTRIAL PARK-PARCEL 'C'

AREA
 TAX MAP NO. 48 BLOCKS 3 & 9
 PARCEL C ZONED M-2
 6th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE
MISCELLANEOUS DETAILS AND NOTES

RIEMER MUEGGE
 a division of:
Patton Harris Ruest & Associates, pc
 ENGINEERS • SURVEYORS • PLANNERS
 LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
 8518 Centre Park Drive, Columbia, MD 21046 • Tel 410.987.9800

DESIGNED BY : C.J.R.
 DRAWN BY : K.E.V.
 CHECKED BY : C.J.R.
 PROJECT NO : 00099
 DATE : MAY 3, 2001
 SCALE : AS SHOWN
 DRAWING NO. 11 OF 17

Christopher J. Reid
 CHRISTOPHER J. REID #19949

SEQUENCE OF CONSTRUCTION AND INSPECTOR'S CHECK-OFF LIST FOR DUAL MANHOLE SEPARATORS

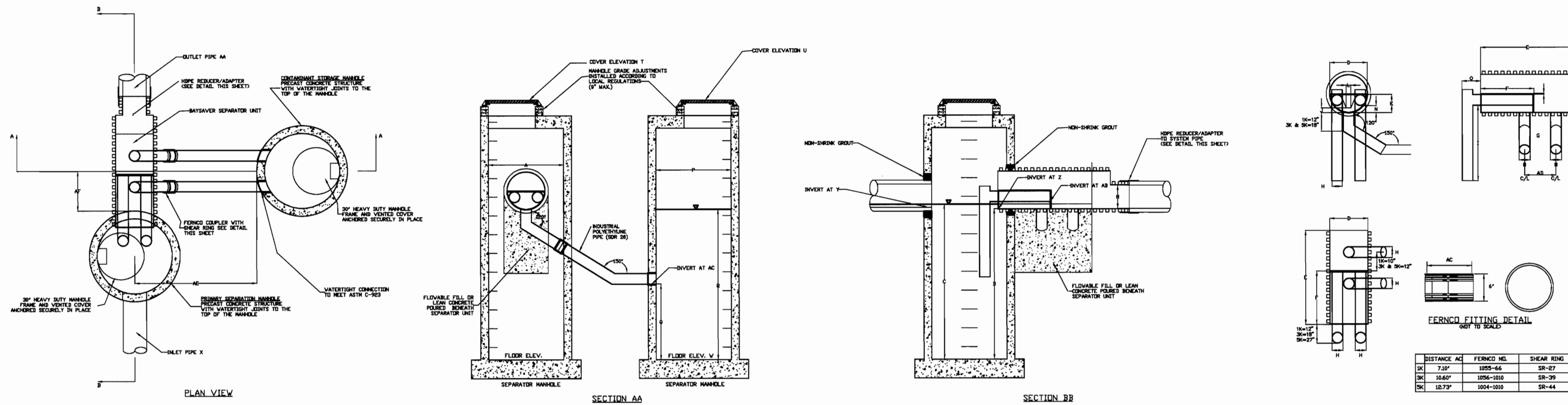
Stage (X = Approval Required)	Developer's/Engineer Approval		Inspector		Geotechnical Engineer	
	Initials	Date	Initials	Date	Initials	Date
1. Pre-Construction Meeting	X		X		X	
2. Install Manholes and associated storm drainage:					X	
a. Obtain approval of subgrade from Geotechnical Engineer. (Subgrade to have a minimum of 95% compaction)						
b. Installation of precast base, lower tank and lower piping.	X		X			
c. Backfill and min. 95% compaction around lower tank and lower piping.					X	
d. Installation of precast middle section(s) with separator unit and remaining piping.	X		X			
e. Installation of precast top slab.	X		X			
f. Installation of adjustment rings and frame and cover.	X		X			
g. Installation of flowable fill or concrete backfill.					X	
3. Backfilling operation and compaction.					X	
4. Site is permanently stabilized. Sediment control measures removed and all sediment and debris removed from dual manhole separators.			X			
5. Final inspection.			X			

NOTE:

BAYSAVERS ARE TO BE INSTALLED WITH THE STORM DRAIN SYSTEM AND WILL FUNCTION AS SECONDARY SEDIMENT CONTROL DEVICES. UPON COMPLETION OF SITE STABILIZATION, EACH BAYSAVER SYSTEM SHALL BE FLUSHED CLEAN & THE MANHOLES CLEANED OUT AND REFILLED WITH CLEAN WATER.

NOTE: DIMENSIONAL SHOP DRAWINGS ARE TO BE APPROVED BY THE DESIGN ENGINEER

Baysaver Separator Unit	Baysaver Manhole Sizes (prim. x stor.)	Maximum Treatment (cfs)*1	Maximum Treatment (gpm)*1	Impervious Area (acres)
1K Baysaver Separator	48x48	2.4	1076	1.2
	48x50	2.4	1076	1.4
	48x72	2.4	1076	1.6
	60x60	2.4	1076	1.5
3K Baysaver Separator	60x60	7.2	3231	3.6 WQ-2
	60x72	7.2	3231	4.1 WQ-1
	60x84	7.2	3231	4.6
	72x72	7.2	3231	4.4
5K Baysaver Separator	72x72	11.1	4981	5.5
	72x84	11.1	4981	6.5
	72x96	11.1	4981	7.5
	96x96	11.1	4981	8.0



DISTANCE AC	FERRUC NO.	SHRINK RING
1K	72P	1075-66 SR-67
3K	104P	1024-023 SR-39
5K	127P	1024-023 SR-44

BAYSAVER SYSTEM DIMENSIONS

DESCRIPTION	1K SYSTEM	3K SYSTEM	5K SYSTEM
SEPARATOR MANHOLE DIMENSIONS			
A PRIMARY MANHOLE DIAMETER	48"	60"	72"
B MANHOLE DEPTH BELOW OUTLET	8' - 0"	8' - 0"	8' - 0"
C MINIMUM FLUID DEPTH	8' - 3"	8' - 4 1/2"	8' - 6"
STANDARD SEPARATOR UNIT DIMENSIONS			
D SEPARATOR UNIT ID	24"	36"	48"
E SEPARATOR UNIT LENGTH	60"	78.2"	75.4"
F BYPASS PLATE LENGTH	34"	45"	45"
G WEIR/BYPASS PLATE THICKNESS	3/4"	3/4"	3/4"
H ELBOW AND CONNECTING PIPE OD	7.125"	10.75"	12.75"
I ELBOW LENGTH	48"	48"	48"
J WEIR HEIGHT ABOVE INVERT	3"	4"	6"
K BYPASS PLATE HEIGHT ABOVE INVERT	12"	18"	24"
L WIDTH OF WEIR AT BASE	3"	4 1/2"	6"
M OUTLET PIPE DIAMETER	M	M	M
N ELBOW INVERT HEIGHT ABOVE UNIT INVERT	4 1/2"	7 1/2"	11"
O ELBOW PIPE OVERHANG	12"	18"	24"
STORAGE MANHOLE DIMENSIONS			
P STORAGE MANHOLE DIAMETER	48"	60"	72"
Q MANHOLE DEPTH BELOW INLET/OUTLET	48"	48"	48"
R FLUID DEPTH	8' - 0"	8' - 0"	8' - 0"
S TOTAL STORAGE VOLUME	200 CF	300 CF	450 CF
SYSTEM DIMENSIONS AND ELEVATIONS			
T SEPARATOR MANHOLE COVER ELEVATION	T	T	T
U STORAGE MANHOLE COVER ELEVATION	U	U	U
V SEPARATOR MANHOLE FLOOR ELEVATION	V	V	V
W STORAGE MANHOLE FLOOR ELEVATION	W	W	W
X INLET PIPE ID AND MATERIAL	X1 X2	X1 X2	X1 X2
Y INLET PIPE INVERT	Y1 Y2	Y1 Y2	Y1 Y2
Z SEPARATOR UNIT INVERT	Z	Z	Z
AA OUTLET PIPE ID AND MATERIAL	AA	AA	AA
AB ELBOW INVERT ELEVATION	AB	AB	AB
AC CONNECTING PIPE INVERT ELEVATION	AC	AC	AC
AD CONNECTION PIPE SPACING	20"	24"	24"
AE STORAGE MANHOLE SIDE OFFSET	72 ± 6"	72 ± 6"	72 ± 6"
AF STORAGE MANHOLE DOWNSTREAM OFFSET	23"	31"	25"

BAYSAVER MAINTENANCE

BAYSAVER SYSTEMS MUST BE INSPECTED AND MAINTAINED PERIODICALLY. INSPECTION IS MADE BY CHECKING THE DEPTH OF SEDIMENT IN EACH MANHOLE WITH A GRADE STICK OR SIMILAR DEVICE. MAINTENANCE IS REQUIRED WHEN THE SEDIMENT DEPTH IN EITHER MANHOLE EXCEEDS 2 FEET. MINIMUM INSPECTION IS REQUIRED TWICE A YEAR TO MAINTAIN OPERATION AND FUNCTION OF BAYSAVER.

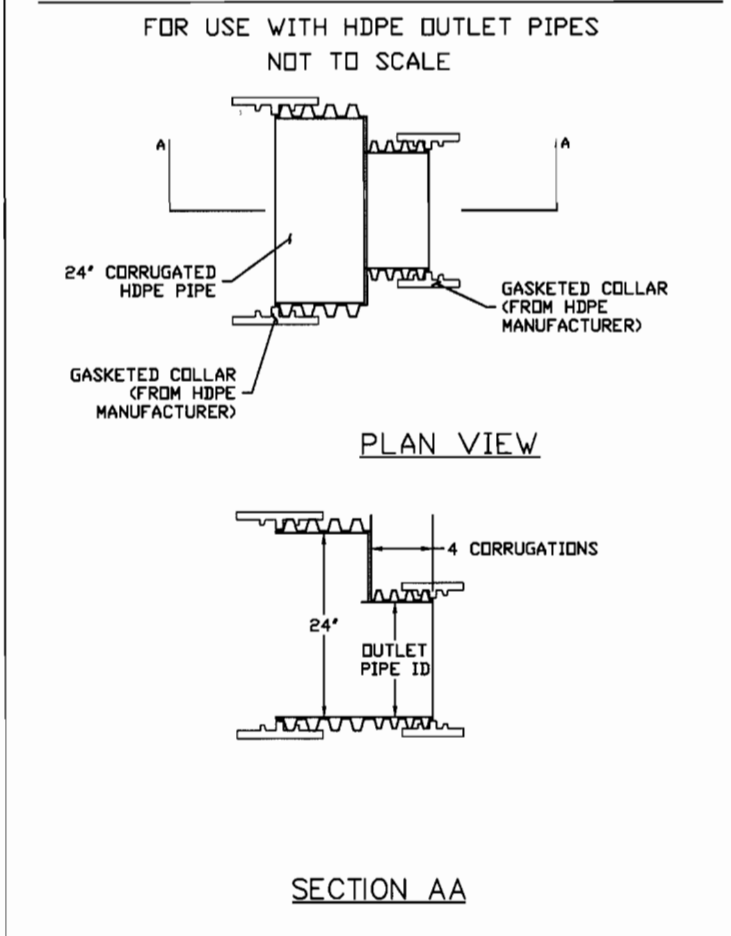
MAINTENANCE CONSISTS OF THE FOLLOWING:

- A. CONTAMINANT STORAGE MANHOLE**
 - REMOVE THE ENTIRE VOLUME OF THE CONTAMINATED WATER BY VACUUM TRUCK.
 - CLEAN THE MANHOLE WALLS AND FLUSH OUT THE MANHOLE USING A HIGH PRESSURE HOSE AND REMOVE FLUSHING WATER BY VACUUM TRUCK. MAKE CERTAIN MANHOLE IS CLEAN.
- B. PRIMARY SEPARATION MANHOLE**
 - USING A SUBMERSIBLE PUMP, PUMP THE CLEAN WATER FROM THE CENTER OF THE MANHOLE DIRECTLY INTO THE EMPTY STORAGE MANHOLE UNTIL THE WATER LEVEL FALLS TO 1 FOOT ABOVE THE SEDIMENT LAYER.
 - REMOVE THE SETTLED SEDIMENT AND REMAINING WATER BY VACUUM TRUCK.
 - CLEAN THE MANHOLE WALLS AND FLUSH OUT THE MANHOLE USING A HIGH PRESSURE HOSE AND REMOVE FLUSHING WATER BY VACUUM TRUCK. MAKE CERTAIN MANHOLE IS CLEAN.
 - CONTAMINATED MATERIAL REMOVED FROM THE MANHOLES MUST BE DISPOSED OF RESPONSIBLY AND LEGALLY BY THE OPERATOR OF THE VACUUM TRUCK.

BAYSAVER INSTALLATION INSTRUCTIONS

- EXCAVATION MUST PROVIDE ADEQUATE SPACE TO CONNECT INLET AND OUTLET PIPES TO SEPARATOR MANHOLE AND BAYSAVER UNIT. INSTALL PRECAST DROP STRUCTURES ON SOLID GROUND AS VERIFIED BY A GEOTECHNICAL ENGINEER.
- VERIFY THE SUBGRADE ELEVATION AGAINST THE MANHOLE DIMENSIONS AND CONNECTING STORM DRAIN INVERTS.
- MAKING SURE THE BASES ARE LEVEL AND THE STORAGE MANHOLE OPENINGS ARE ALIGNED WITH THE SEPARATOR UNIT. INSTALL PRIMARY AND STORAGE MANHOLES. INSTALL RUBBER GASKETS ON BASE UNITS AND COAT WITH LUBRICATING GREASE. INSTALL ADDITIONAL MANHOLE SECTIONS AS REQUIRED. SEAL LIFT HOLES WITH NON-SHRINK GROUT.
- BACKFILL BASE SECTIONS OF MANHOLES TO INVERT OF STORAGE MANHOLE CONNECTING PIPES. USING APPROVED BACKFILL MATERIAL, BACKFILL AND COMPACT IN 8 INCH LIFTS. BACKFILL AND COMPACTION SHOULD BE MONITORED BY A GEOTECHNICAL ENGINEER.
- INSTALL BAYSAVER SEPARATOR UNIT AND CONNECTING PIPES. SEAL ALL CONNECTING JOINTS AND INSTALL SEPARATOR UNIT/STORM DRAIN JOINT COLLAR. CUT EXCESS LENGTH OFF CONNECTING PIPES INSIDE STORAGE MANHOLE.
- BACKFILL SEPARATOR UNIT AND MANHOLES. AREAS NOT ACCESSIBLE TO COMPACTION EQUIPMENT MUST BE BACKFILLED WITH LEAN CONCRETE OR FLOWABLE FILL.
- INSTALL AND SET MANHOLE COVER GRADE ADJUSTMENT RINGS AS NECESSARY.
- INSTALL AND SET MANHOLE FRAME AND COVER UNITS.

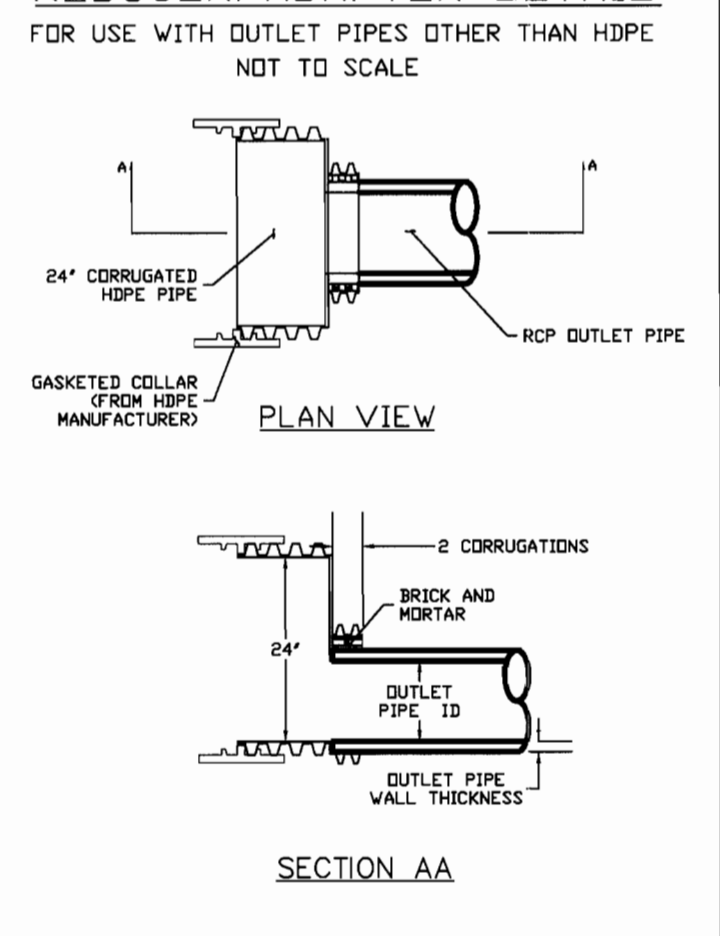
HDPE-HDPE REDUCER DETAIL



GENERAL CONSTRUCTION NOTES

- ALL WORK MUST BE DONE WITH REGARD FOR THE SAFETY OF THE CONSTRUCTION CREW.
- ALL WORK AND MATERIALS MUST COMPLY WITH APPLICABLE STATE AND LOCAL REGULATIONS.
- KNOW THE LOCATION AND DEPTH OF ANY UNDERGROUND UTILITIES BEFORE EXCAVATION BEGINS.

REDUCER/ADAPTER DETAIL



Project: DORSEY RUN IND. PARK
 Address: PATUXENT RANGE ROAD
 Designer: RIEMER MUEGGE & ASSOC.
 Contact: CHRIS REID, P.E.
 Phone: 410-947-8400
 Fax: 410-947-4282
 Delivery Date: _____
 Owner: DORSEY RUN IND. PARK LIMITED PARTNERSHIP
 Address: SUITE 100 TIMONIUM, MD 21043
 Contractor: _____
 Address: _____
 Contact: _____
 Phone: _____
 Fax: _____

Project: DORSEY RUN IND. PARK
 Address: PATUXENT RANGE ROAD
 Designer: RIEMER MUEGGE & ASSOC.
 Contact: CHRIS REID, P.E.
 Phone: 410-947-8400
 Fax: 410-947-4282
 Delivery Date: _____
 Owner: DORSEY RUN IND. PARK LIMITED PARTNERSHIP
 Address: SUITE 100 TIMONIUM, MD 21043
 Contractor: _____
 Address: _____
 Contact: _____
 Phone: _____
 Fax: _____

Separator Unit Model:
 1K
 3K
 5K

Circle system orientation above

Separator Unit Model:
 1K
 3K
 5K

Circle system orientation above

Manhole Specifications:
 Primary Manhole Diameter: 60 inches
 Storage Manhole Diameter: 60 inches
 Floor Elevations:
 Primary Manhole 164.45
 Storage Manhole 164.45
 Primary Manhole Inverts:
 Separator Unit 172.45
 Inlet Pipe(s) 172.55 (30" IN)
172.45 (30" OUT)
 Please show orientation (including angle), size and material of inlet pipes above.
 Cover Elevations:
 Primary Manhole 184.90
 Storage Manhole 176.60
 WQ-1/WQ-1A

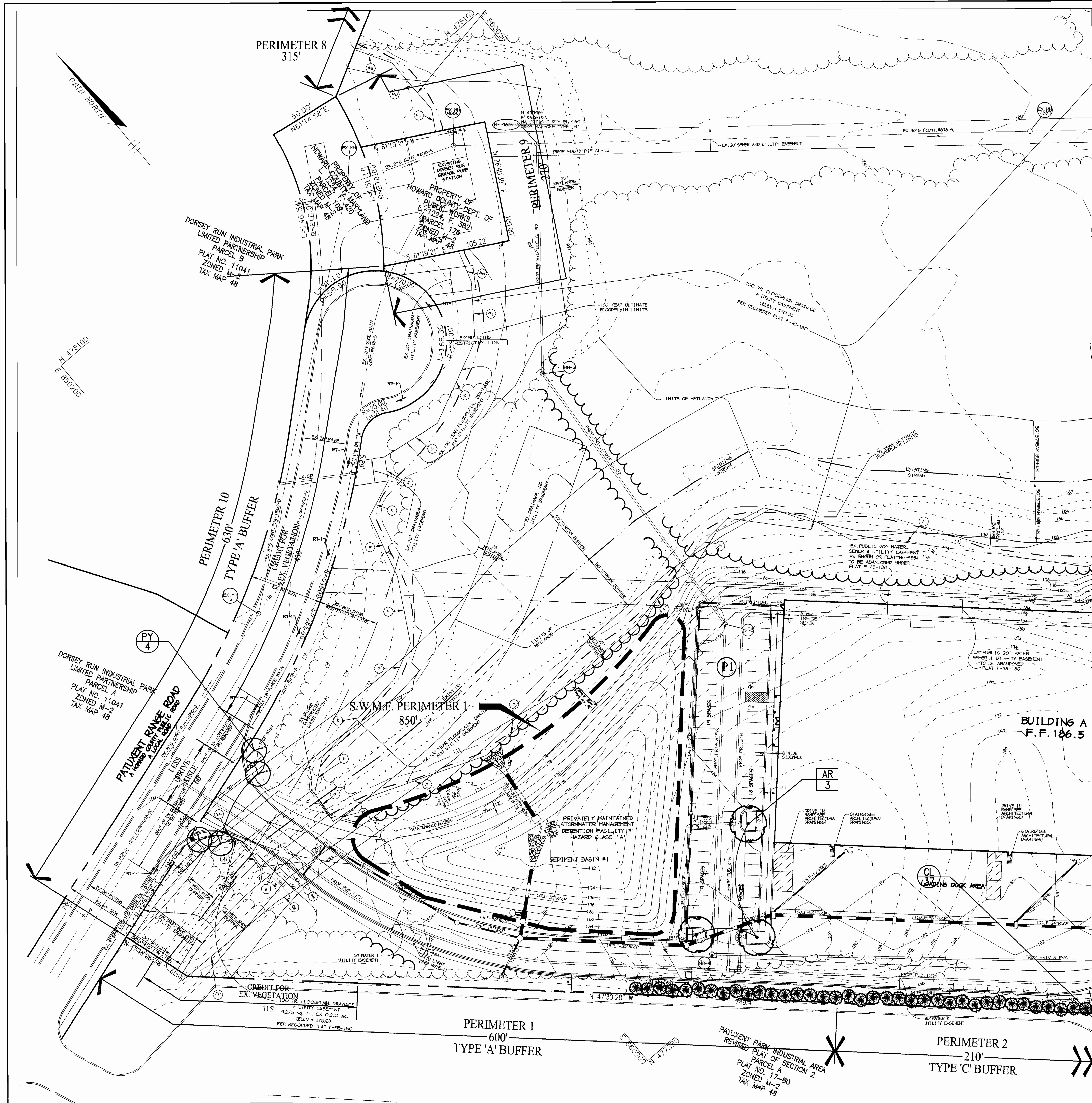
Manhole Specifications:
 Primary Manhole Diameter: 60 inches
 Storage Manhole Diameter: 60 inches
 Floor Elevations:
 Primary Manhole 164.27
 Storage Manhole 164.27
 Primary Manhole Inverts:
 Separator Unit 172.27
 Inlet Pipe(s) 172.60 (24" IN)
172.27 (24" OUT)
 Please show orientation (including angle), size and material of inlet pipes above.
 Cover Elevations:
 Primary Manhole 178.00
 Storage Manhole 176.60
 WQ-2/WQ2-2A

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 Director: *Les Rutter* 5/25/01 DATE
 Chief, Development Engineering Division: *Chris Reid* 5/11/01 DATE
 Chief, Division of Land Development: *Cindy Thomas* 5/24/01 DATE

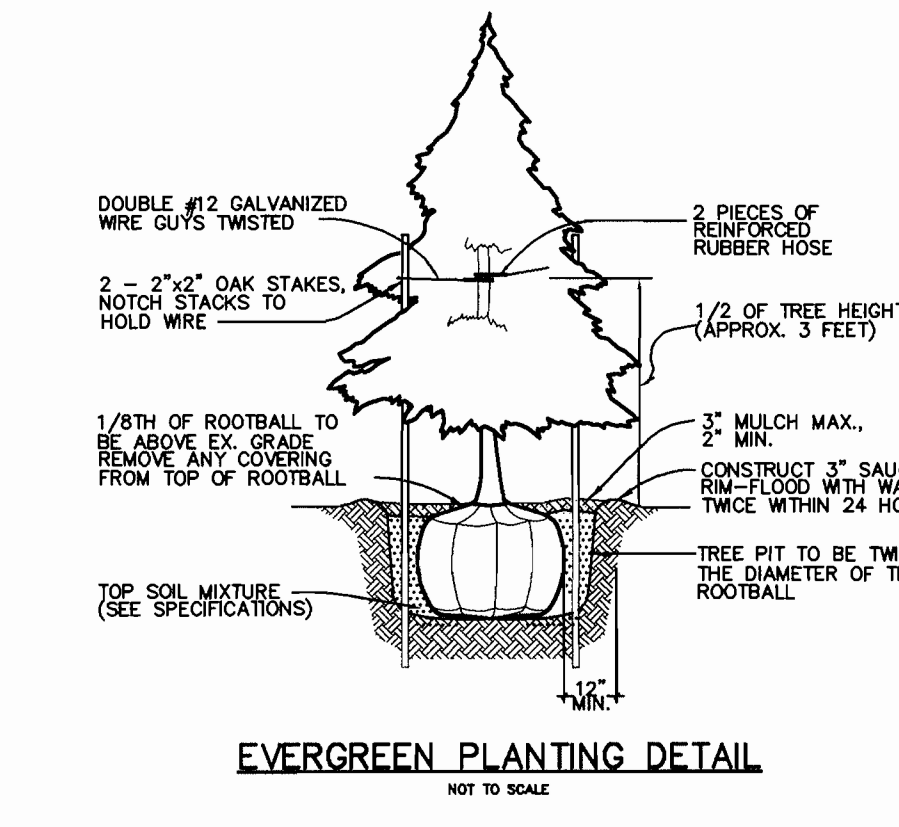
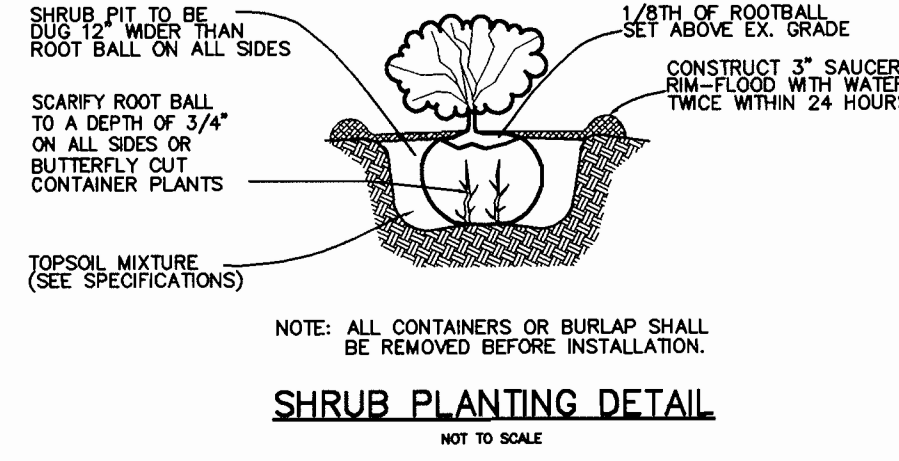
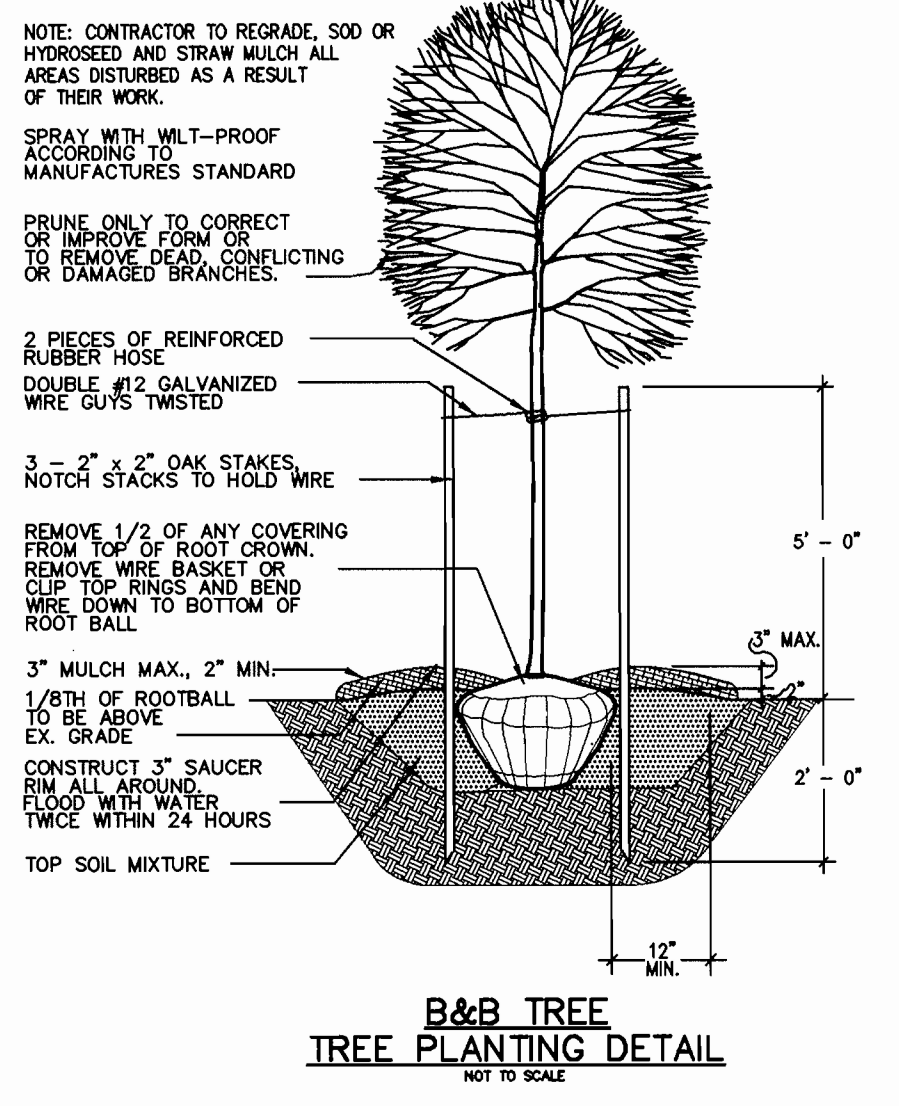
DATE NO. _____ REVISION _____
 OWNER / DEVELOPER
 DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
 ONE TEXAS STATION COURT
 SUITE 100
 TIMONIUM, MARYLAND 21093
 (443) 689-9000
 PROJECT: DORSEY RUN INDUSTRIAL PARK-PARCEL 'C'
 AREA: TAX MAP NO. 48 BLOCKS 3 & 9
 PARCEL C ZONED M-2
 6th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE: BAYSAVER DETAILS & NOTES
 RIEMER MUEGGE
 A Division of
 Patton Harris Rust & Associates, pc
 ENGINEERS • SURVEYORS • PLANNERS
 LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
 8818 Centro Park Drive, Columbia, MD 21045 • tel 410.987.8600 fax 410.987.9282
 DESIGNED BY: C.J.R.
 DRAWN BY: K.E.V.
 CHECKED BY: C.J.R.
 PROJECT NO: 00099 SDP11.DWG
 DATE: MAY 3, 2001
 SCALE: AS SHOWN
 DRAWING NO. 12 OF 17
 STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 CHRISTOPHER J. REID #19949

P:\project\00099\sdp11.dwg Mon Apr 30 13:02:38 2001 RIEMER MUEGGE A DIVISION OF PHRBA



MATCHLINE SEE SHEET 14



LANDSCAPE LEGEND	
PROP. SHADE TREE	
PROP. ORNAMENTAL TREE	
PROP. EVERGREEN TREE	
PERIMETER LANDSCAPE REQUIREMENT	
PARKING LOT LANDSCAPE REQUIREMENT	

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

[Signature] DIRECTOR 5/25/01 DATE

[Signature] CHIEF, DEVELOPMENT ENGINEERING DIVISION 5/11/01 DATE

[Signature] CHIEF, DIVISION OF LAND DEVELOPMENT 5/21/01 DATE

DATE NO. REVISION

OWNER / DEVELOPER
DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
ONE TEXAS STATION COURT
SUITE 100
TIMONIUM, MARYLAND 21093
(443) 689-9000

PROJECT
DORSEY RUN INDUSTRIAL PARK-PARCEL 'C'

AREA TAX MAP NO. 48 BLOCKS 3 & 9
PARCEL C ZONED M-2
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
LANDSCAPE PLAN

RIEMER MUEGGE
a division of
Patton Harris Rust & Associates, pc
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

5-1-01 DATE

DESIGNED BY: A.J.L.

DRAWN BY: A.J.L.

CHECKED BY: D.T.D.

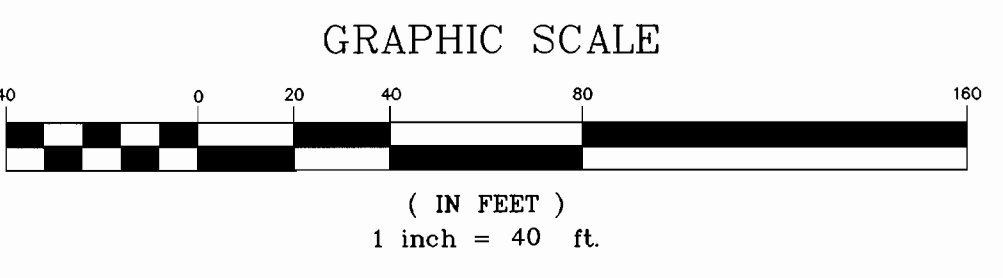
PROJECT NO: 00099 LSCPT.DWG

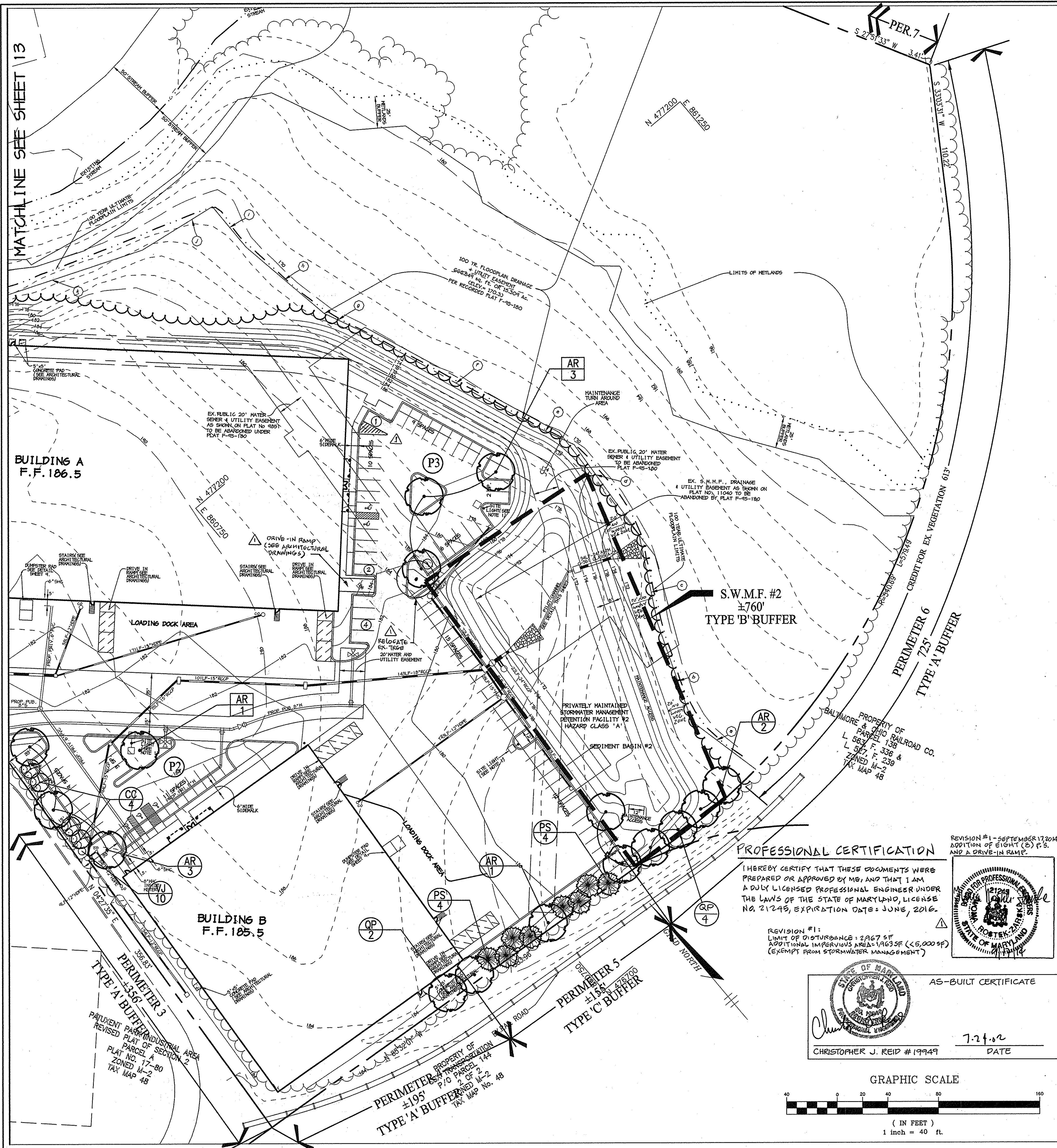
DATE: MAY 3, 2001

SCALE: AS SHOWN

DRAWING NO. 13 OF 17

DAVID T. DOWS #830





PERIMETER	SCHEDULE A - PERIMETER LANDSCAPE EDGE									
	ADJACENT TO PERIMETER PROPERTIES									ADJACENT TO ROADWAYS
LANDSCAPE TYPE	1	2	3	4	5	**6	**7	*8	**9	**10
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	± 600'	± 210'	± 355'	± 195'	± 155'	± 725'	± 1300'	± 315'	± 270'	± 630'
CREDIT FOR EXISTING VEGETATION (YES/NO/ LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES 115'	NO	NO	NO	NO	YES 613'	YES 1330'	NO	YES 270'	YES 450'
CREDIT FOR WALL, FENCE, BERM OR DRIVE AISLE (YES/NO/LINEAR FEET)	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES 60'
LINEAR FEET OF PERIMETER REMAINING	± 485'	± 210'	± 355'	± 195'	± 155'	± 112'	± 0'	± 315'	± 0'	± 140'
NUMBER OF PLANTS REQUIRED	8	5	6	3	4	2	N/A	N/A	N/A	2
SHADE TREES	-	-	-	-	-	-	-	-	-	-
EVERGREEN TREES	-	-	-	-	-	-	-	-	-	-
SHRUBS	-	-	-	-	-	-	-	-	-	-
NUMBER OF PLANTS PROVIDED	16	21	3	10	3	5	N/A	N/A	N/A	4
SHADE TREES	-	-	-	-	-	-	-	-	-	-
EVERGREEN TREES	-	-	-	-	-	-	-	-	-	-
SMALL FLOWERING TREES	-	-	-	-	-	-	-	-	-	-
SHRUBS	-	-	-	-	-	-	-	-	-	-

SCHEDULE 'A' NOTES:

- * REGULATIONS DO NOT REQUIRE LANDSCAPE EDGES, BUFFERING, OR SCREENING BETWEEN INTERNAL LOTS OR PARCELS WITHIN THE SAME DEVELOPMENT. (PAGE 17 OF THE HO. CO. LANDSCAPE MANUAL)
- ** SUFFICIENT VEGETATION TO SATISFY 'TYPE A' REQUIREMENT EXISTS BETWEEN THE SOUTHERN MOST 100-YEAR FLOODPLAIN LINE AND PERIMETERS 6, 7, 9, & 10.
- *** (2) SHADE TREES FROM PERIMETER 4 AND (1) SHADE TREE FROM PERIMETER 5 HAVE BEEN MOVED TO PERIMETER 6 TO HELP BUFFER THE PARKING LOT FROM THE RAILROAD TRACKS.

SUBSTITUTION NOTES:

- PERIMETER 1: (16) EVERGREEN TREES WERE SUBSTITUTED FOR (8) SHADE TREES
- PERIMETER 2: (10) EVERGREENS WERE SUBSTITUTED FOR (5) SHADE TREES
- PERIMETER 3: (4) FLOWERING TREES AND (10) SHRUBS WERE SUBSTITUTED FOR (3) SHADE TREES
- PERIMETER 10: (4) FLOWERING TREES WERE SUBSTITUTED FOR (2) SHADE TREES

S.N.M. PERIMETER	SCHEDULE D - STORMWATER MANAGEMENT LANDSCAPING	
	* 1	* 2
LANDSCAPE TYPE	B	B
LINEAR FEET OF TOTAL PERIMETER	± 850'	± 760'
CREDIT FOR LINEAR FEET SHARED ALONG PERIMETER EDGE	N/A	N/A
LINEAR FEET OF REMAINING PERIMETER	N/A	N/A
CREDIT FOR EX. VEGETATION (NO OR YES & %)	N/A	N/A
CREDIT FOR OTHER LANDSCAPING (NO OR YES & %)	N/A	N/A
NUMBER OF TREES REQUIRED:		
SHADE TREES (1 S.T./50 L.F.)	N/A	N/A
EVERGREEN TREES (1 E.T./40 L.F.)	N/A	N/A
NUMBER OF PLANTS PROVIDED		
SHADE TREES	N/A	N/A
EVERGREEN TREES (2:1 SUBSTITUTION, 50% MAX.)	N/A	N/A

SCHEDULE 'D' NOTES:

- * LANDSCAPING OF NEW OR EXPANDED STORMWATER MANAGEMENT AREAS IS REQUIRED IN ALL ZONING DISTRICTS EXCLUDING M-1 & M-2 PARCELS WHERE STORMWATER MANAGEMENT AREAS ARE NOT ADJACENT TO RESIDENTIAL ZONING OR A PUBLIC ROAD. (PAGE 30 OF THE HO. CO. LANDSCAPE MANUAL)

PARKING LOT	SCHEDULE B - PARKING LOT INTERNAL LANDSCAPING			
	P1	P2	P3	TOTAL
NUMBER OF PARKING SPACES	55	24	54	133
NUMBER OF SHADE TREES REQUIRED (1/20 SPACES)	3	1	3	7
NUMBER OF TREES PROVIDED				
SHADE TREES	3	1	3	7
OTHER TREES (2:1 SUBSTITUTION)	-	-	-	-
NUMBER OF ISLANDS REQUIRED (200 SF./ISLAND)	3	1	3	7
NUMBER OF ISLANDS PROVIDED	3	1	3	7

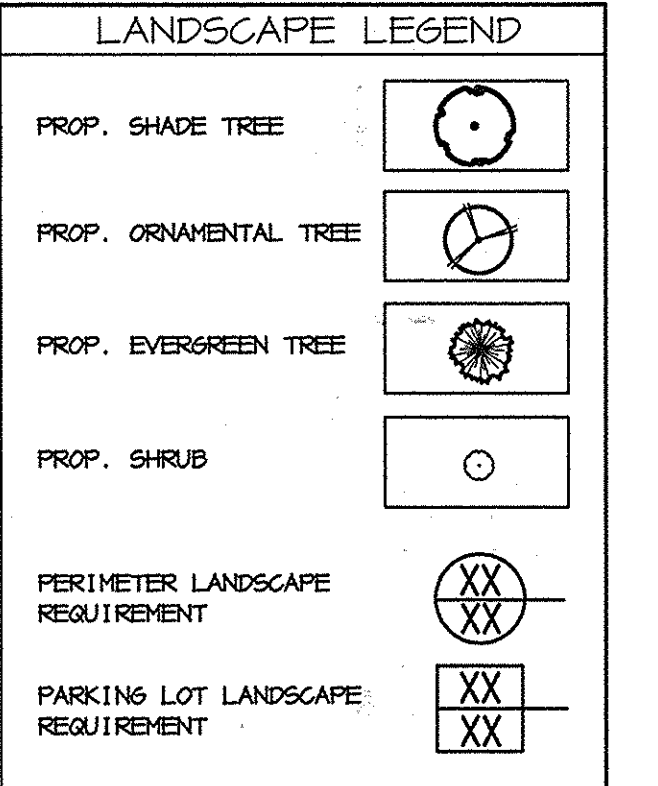
PLANT LIST					
SYMBOL	QTY.	SCIENTIFIC/COMMON NAME	SIZE	ROOT	SPACING
SHADE TREES					
AR	10	ACER RUBRUM 'OCTOBER GLORY'	2 1/2" CAL	B&B	PLANT AS SHOWN
QP	6	QUERCUS PALUSTRIS	2 1/2" CAL	B&B	PLANT AS SHOWN
EVERGREEN TREES					
CL	37	CUPRESSOCYPARIS LEYLANDI	6' HT.	B&B	PLANT 10' O.C.
PS	8	LEYLANDI CYPRESS	8' HT.	B&B	PLANT 15' O.C.
SMALL DECIDUOUS TREES					
CC	4	CERCIS CANADENSIS	1 1/2" CAL.	B&B	PLANT AS SHOWN
PY	4	PRUNUS X YEDOENSIS	1 1/2" CAL.	B&B	PLANT AS SHOWN
SHRUBS					
VJ	10	VIBURNUM X JUDDII	30" HT.	CONT.	PLANT 5' O.C.

GENERAL NOTES:

- * THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$13,950.
- THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.

DEVELOPER'S/BUILDER'S CERTIFICATION:

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.



PROFESSIONAL CERTIFICATION

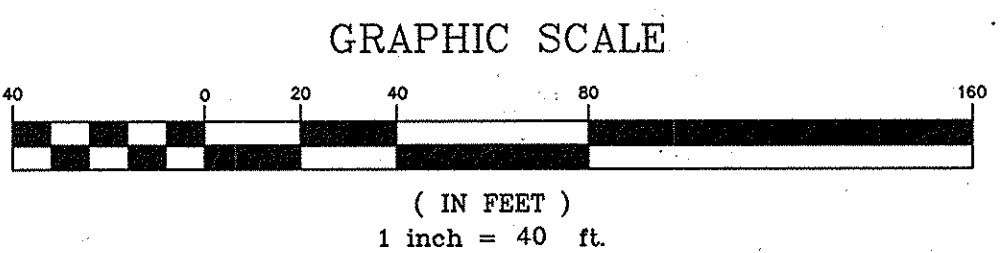
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21248, EXPIRATION DATE: JUNE, 2016.

REVISION #1: LIMIT OF DISTURBANCE: 2,967 SF. ADDITIONAL IMPERVIOUS AREA: 1,963 SF. (<\$5,000 SF) (EXEMPT FROM STORMWATER MANAGEMENT)

AS-BUILT CERTIFICATE

7-24-02 DATE

CHRISTOPHER J. REID #19949



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

[Signature] 5/25/01 DATE

DIRECTOR

[Signature] 5/11/01 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 5/25/01 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT

2/26/14

DATE NO. REVISION

OWNER / DEVELOPER

DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
ONE TEXAS STATION COURT
SUITE 100
TIMONIUM, MARYLAND 21093
(443) 689-9000

PROJECT: **DORSEY RUN INDUSTRIAL PARK-PARCEL 'C'**

AREA: TAX MAP NO. 48 BLOCKS 3 & 9
PARCEL C ZONED M-2
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: **LANDSCAPE PLAN**

RIEMER MUEGGE
a division of:
Patton Harris Rust & Associates, pc
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.8282

5-1-01 DATE

DESIGNED BY: A.J.L.

DRAWN BY: A.J.L.

CHECKED BY: D.T.D.

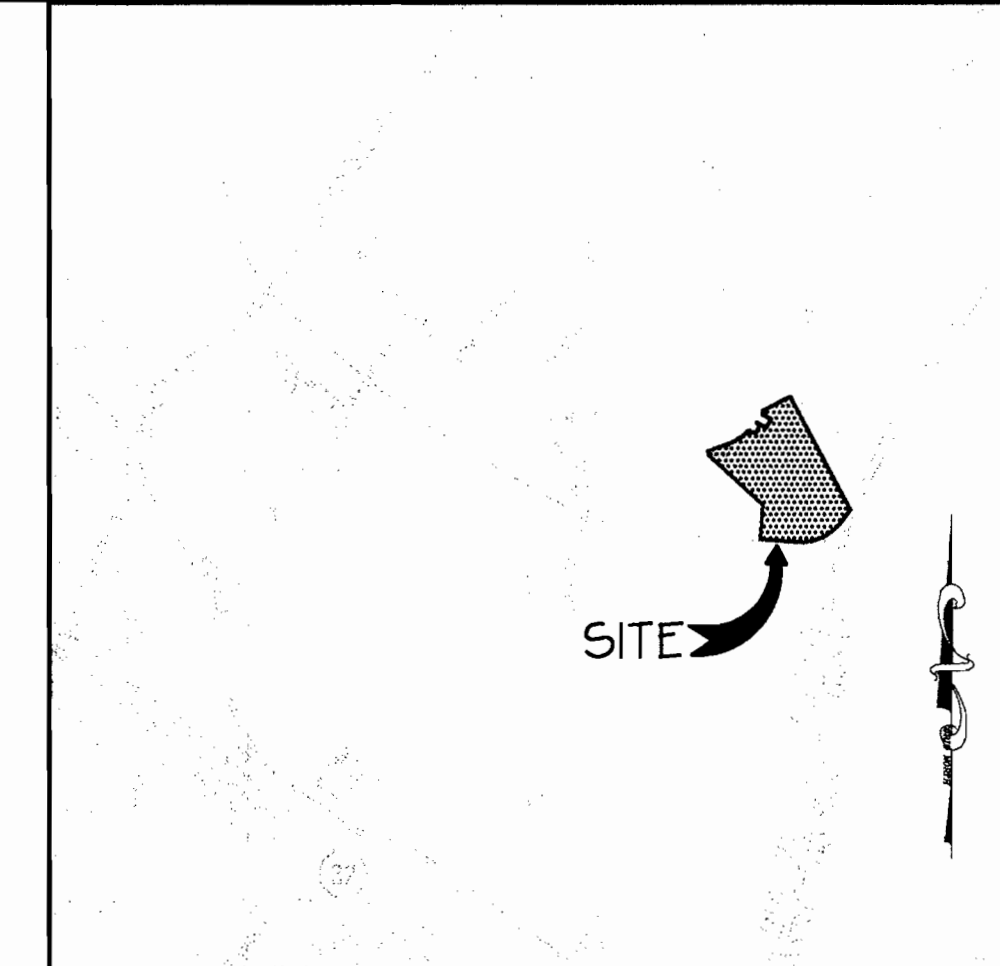
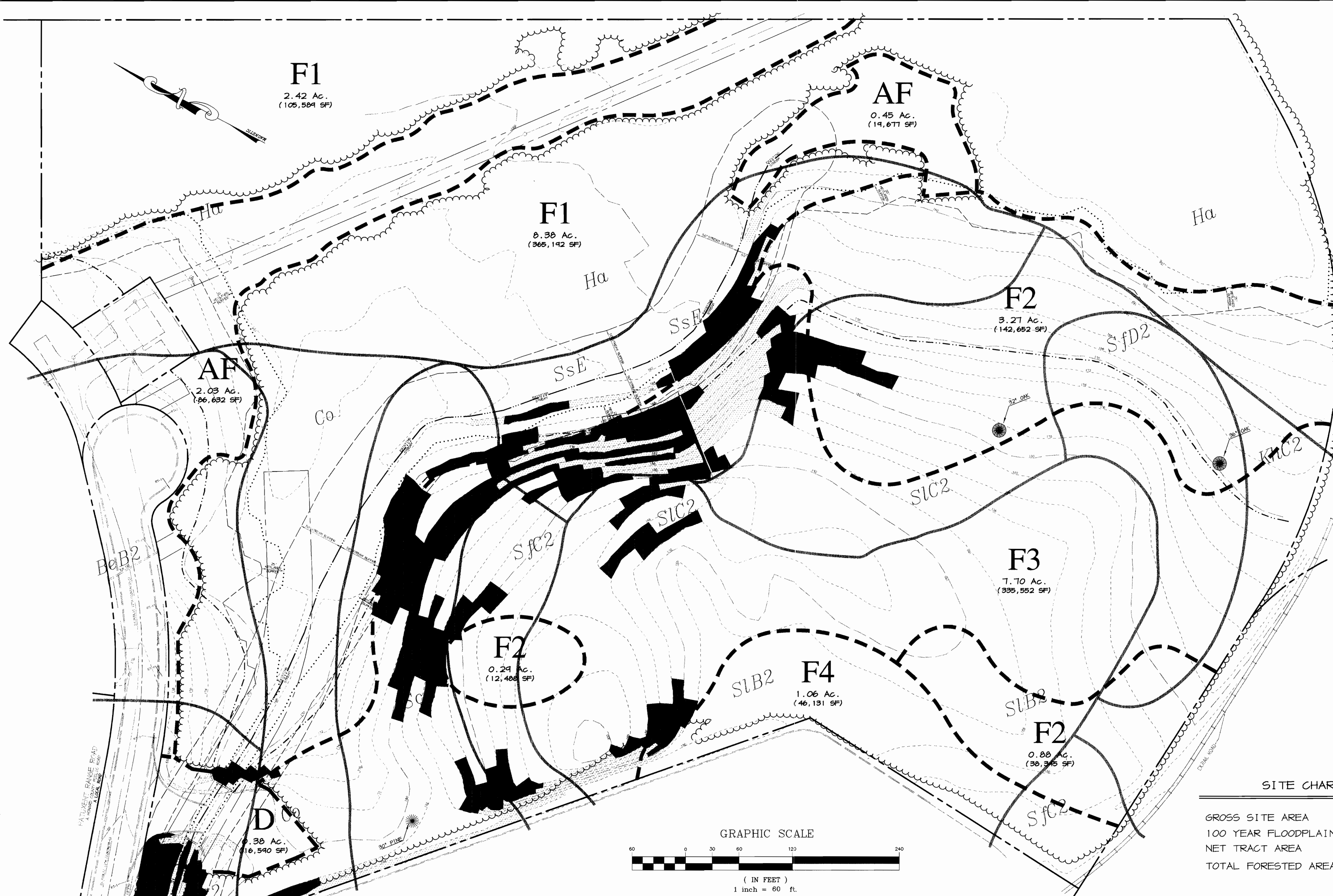
PROJECT NO: 00099
LESCP2

DATE: MAY 3, 2001

SCALE: AS SHOWN

DRAWING NO. 14 OF 17

DAVID T. DOWS #830



VICINITY MAP

SCALE: 1" = 2000'
 Copyright ADC The Map People
 Permitted Use No. 120894285
 Top 20, Grid H-6 & J-6

LEGEND

- EX. TREELINE
- PROPERTY LINE
- SOILS
- SLOPES: 15-24.9%
- SLOPES: 25% & GREATER
- CONTOUR LINES
- PLANT COMMUNITY TYPE
- PLANT COMMUNITY DIVISION LINE
- WETLAND & 25' BUFFER
- STREAM & 50' BUFFER
- 100-YEAR FLOODPLAIN
- SPECIMEN TREES

SITE CHARACTERISTICS

GROSS SITE AREA	26.88 ACRES
100 YEAR FLOODPLAIN AREA	15.06 ACRES
NET TRACT AREA	11.78 ACRES
TOTAL FORESTED AREA	24.0 ACRES

PLANT COMMUNITY SUMMARY

SYMBOL	COMMUNITY	AREA (AC.)	DOMINANT PLANT SPECIES	• Trees •• Understory	SUMMARY
AF	ABANDONED FIELD	2.48 Ac.	Grass species, Honeysuckle, Black Locust, Honey Locust, White Ash, Eastern Red Cedar, Virginia Pine		many grasses and other herbaceous vegetation some tree species starting to move in tree size 1"-2" caliper
F1	FOREST	10.80 Ac.	• Silver Maple (40%), Red Maple, Sycamore, River Birch, Tulip Poplar •• Swamp Dogwood, Mapleleaf Viburnum, Honeysuckle, Multiflora Rose, Wild Grape		low-lying wet area open understory, except along edges early climax, 90% forest cover 12"-18" caliper trees
F2	FOREST	4.44 Ac.	• Black Cherry (30%), Scarlet Oak (30%), Silver Maple, Black Locust, Bitternut Hickory, Virginia Pine, Pitch Pine •• American Holly, Flowering Dogwood, Sassafras, Honeysuckle, Poison Ivy, Multiflora Rose, Wild Grape		mix of open understory & heavy underbrush some steep slopes early to mid-climax, 75% forest cover 6"-18" caliper trees some specimen trees
F3	FOREST	7.70 Ac.	• Virginia Pine (45%), Silver Maple, Red Maple, Scarlet Oak, Pitch Pine, Tulip Poplar •• American Holly, American Beech, Honeysuckle		upland area mix of deciduous & evergreen trees fairly open understory 80% forest cover successional 12"-18" caliper trees
F4	FOREST	1.06 Ac.	• Virginia Pine (90%), Eastern Red Cedar, Pitch Pine •• Honeysuckle		upland area dominated by a dense stand of Virginia Pine 90% forest cover successional stage 2"-6" caliper trees
D	DISTURBED AREA	0.38 Ac.	Some grass cover and woody undergrowth		recently disturbed area site entrance and culverts added
		TOTAL:	26.88 Ac.		

GENERAL NOTES

- THIS FOREST STAND DELINEATION (FSD) IS A SIMPLIFIED FSD PREPARED IN ACCORDANCE WITH THE STATE OF MARYLAND AND HOWARD COUNTY REGULATIONS.
- THIS FSD IS BASED ON FIELD INVESTIGATION BY PETER J. STONE, RLA, OF RIEMER MUEGGE, A DIVISION OF PATTON HARRIS RUST & ASSOCIATES. THE FIELD INVESTIGATION WAS CONDUCTED ON APRIL 2, 2001.
- NO RARE, THREATENED, OR ENDANGERED PLANTS OR ANIMALS OR CRITICAL HABITATS WERE OBSERVED.
- NO STRUCTURES EXIST ON SITE. THE PROPERTY IS NOT LISTED IN THE HOWARD COUNTY HISTORIC BUILDING REGISTER.
- THERE ARE NO KNOWN CEMETERIES OR BURIAL PLOTS ON THE SITE ACCORDING TO THE HOWARD COUNTY CEMETERIES INVENTORY.
- SEVERAL SPECIMEN TREES ARE PRESENT ON THE SITE AND ARE NOTED ON THE PLAN. A SPECIMEN TREE IS DEFINED HERE AS A TREE WHICH HAS A DIAMETER OF 30" OR MORE AT BRESTH HEIGHT, OR HAS A DIAMETER OF 75% OR MORE OF THE CURRENT STATE CHAMPION TREE OF THAT SPECIES.
- TREELINES SHOWN ARE BASED ON AERIAL SURVEY AND FIELD APPROXIMATION.

SOILS CHART

SYMBOL	SOIL NAME	TYPE	SLOPE %	EROSION POTENTIAL	HYDRIC	HYDRIC INCLUSIONS
BeB2	Beltsville	C	1-5%	MODERATE	-	YES
BeC2	Beltsville	C	5-10%	MODERATE	-	YES
Co	Codorous	C	0-2%	-	-	YES
Ha	Hatboro	D	0-2%	-	YES	-
KAC2	Keyport	C	3-10%	MODERATE	-	-
SsE	Sandy & Clayey Land	D	-	MODERATE	-	-
SJC2	Sassafras	B	5-10%	SEVERE	-	-
SJD2	Sassafras	B	10-15%	SEVERE	-	-
SLB2	Sassafras	B	1-5%	MODERATE	-	-
SIC2	Sassafras	B	5-10%	MODERATE	-	-
SsE	Sassafras	B	15-40%	SLIGHT	-	-

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING	
<i>[Signature]</i> DIRECTOR	5/22/01 DATE
<i>[Signature]</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	5/11/01 DATE
<i>[Signature]</i> CHIEF, DIVISION OF LAND DEVELOPMENT	5/24/01 DATE

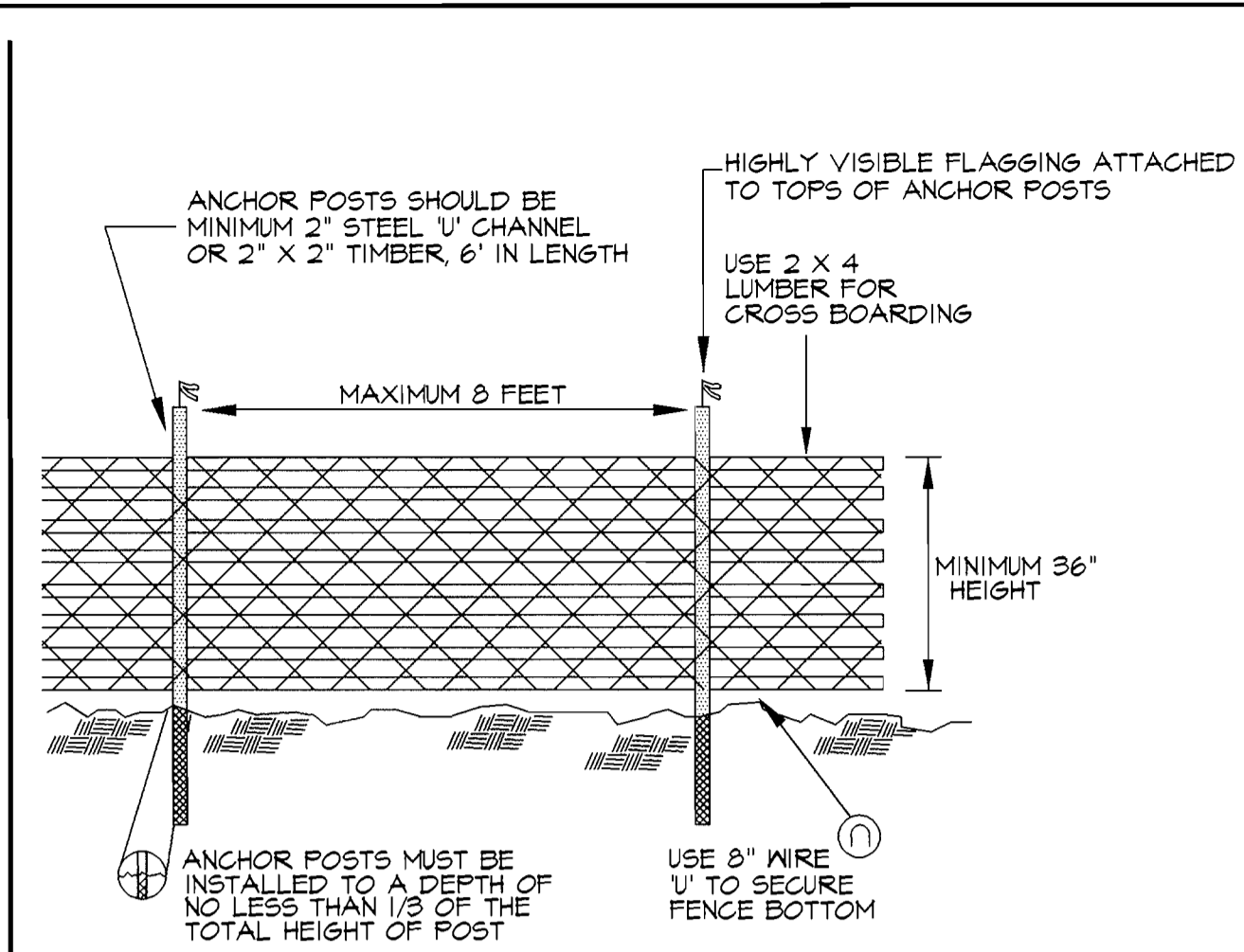
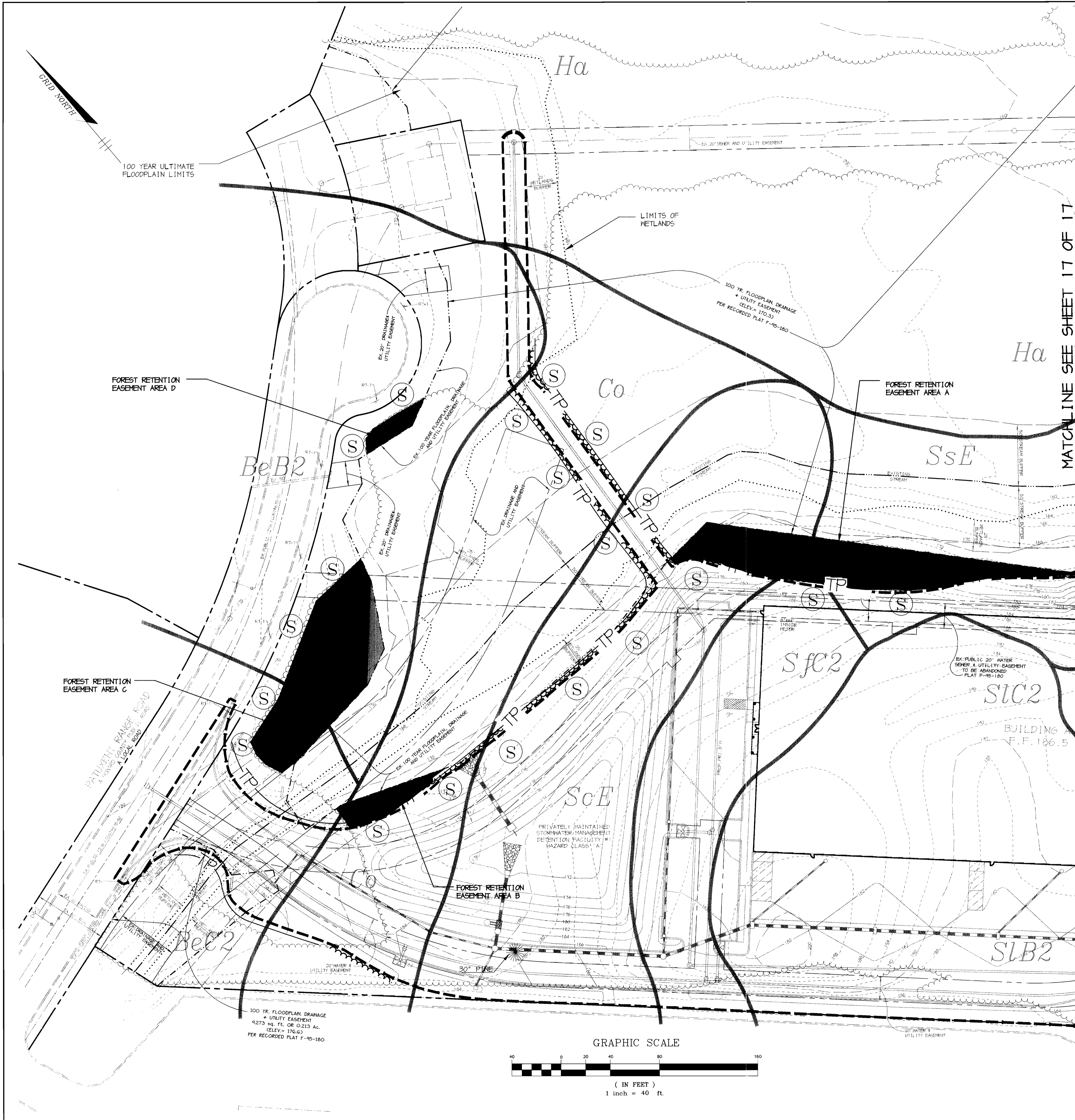
DATE NO.	REVISION
OWNER / DEVELOPER	DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP ONE TEXAS STATION COURT SUITE 100 TIMONIUM, MARYLAND 21093 (443) 689-9000

PROJECT	DORSEY RUN INDUSTRIAL PARK-PARCEL 'C'
AREA	TAX MAP NO. 48 BLOCKS 3 & 9 PARCEL C ZONED M-2 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE
SIMPLIFIED FOREST STAND DELINEATION PLAN

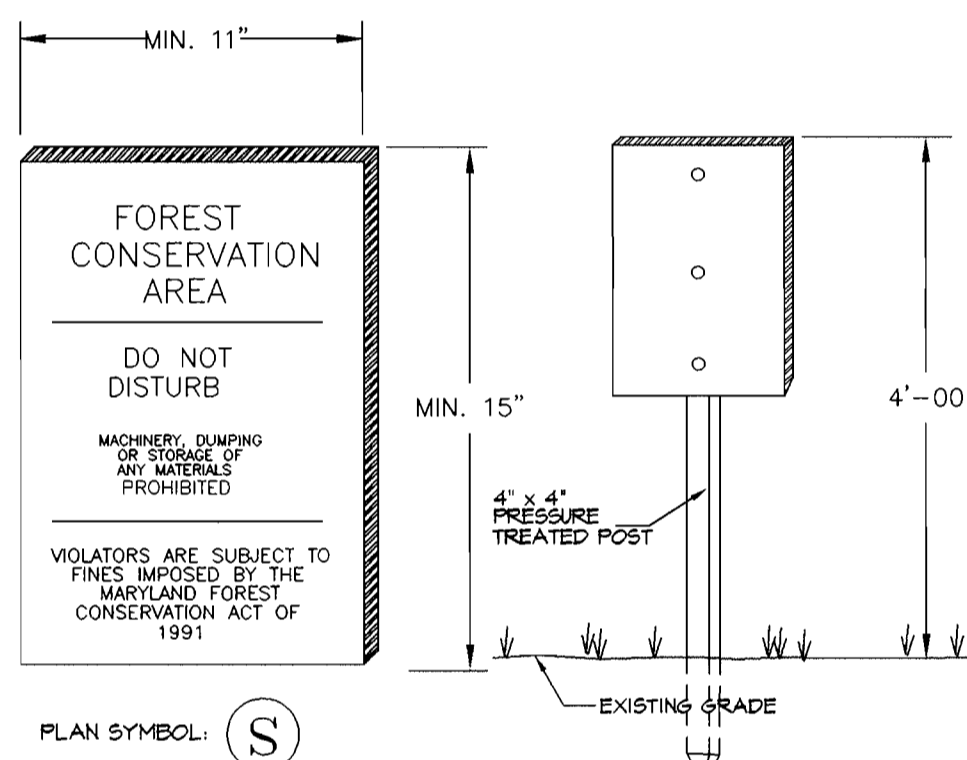
RIEMER MUEGGE
 a division of
Patton Harris Rust & Associates, pc
 ENGINEERS • SURVEYORS • PLANNERS
 LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
 8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

DESIGNED BY: PJS	5-1-01
DRAWN BY: GTH, PJS	
CHECKED BY: DTD	
PROJECT NO: 00099	
DATE: MAY 3, 2001	
SCALE: AS SHOWN	
DRAWING NO. 15 OF 17	



- NOTES:
- BLAZE ORANGE OR BLUE PLASTIC MESH FENCE FOR FOREST PROTECTION DEVICE, ONLY.
 - SUPER SILT FENCE MAY BE SUBSTITUTED FOR TREE PROTECTION FENCING.
 - BOUNDARIES OF RETENTION AREA WILL BE ESTABLISHED AS PART OF THE FOREST CONSERVATION PLAN REVIEW PROCESS.
 - BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
 - AVOID DAMAGE TO CRITICAL ROOT ZONE. DO NOT DAMAGE OR SEVER LARGE ROOTS WHEN INSTALLING POSTS.
 - PROTECTION SIGNS ARE REQUIRED. SEE SIGN DETAIL.
 - FENCING SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.

TREE PROTECTION FENCING
NOT TO SCALE



FOREST CONSERVATION SIGN DETAIL
NOT TO SCALE

- NOTES:
- SIGNAGE SHALL BE LOCATED ON FOREST CONSERVATION EASEMENT BORDER.
 - SEE PLAN FOR SPACING.

FOREST CONSERVATION PROGRAM

- I. OBJECTIVE:
- IT IS THE OBJECTIVE OF THE FOREST RETENTION PORTION OF THE DORSEY RUN PARCEL 'C' SUBDIVISION TO RETAIN ENVIRONMENTAL INTEGRITY BY PRESERVING EXISTING WOODED AREAS.
- II. PRESERVATION:
- FOREST PRESERVATION AREAS SHALL BE PERMANENTLY PROTECTED BY FOREST CONSERVATION EASEMENTS.
- III. GENERAL CONSTRUCTION NOTES:
- THERE WILL BE NO STAGING OR STORING OF EQUIPMENT WITHIN THE LIMIT OF THE NONTIDAL WETLANDS OR THE 25' BUFFER.
- IV. POST CONSTRUCTION MANAGEMENT PRACTICE:
- A TWO (2) YEAR POST-CONSTRUCTION AND MANAGEMENT PROGRAM TO ENSURE PROBABILITY OF A HIGH SURVIVAL RATE INCLUDES THE FOLLOWING:
- MAINTENANCE OF SIGNS, FENCES AND TREE PROTECTION DEVICES TO PREVENT UNWARRANTED INTRUSIONS AND DAMAGE.
 - CAREFUL REMOVAL OF ALL TEMPORARY STRUCTURES AFTER CONSTRUCTION.
 - ROUTINE INSPECTIONS OF FOREST CONSERVATION EASEMENTS.

	EXISTING	PROPOSED
TREES ≥ 30' dbh		
TREELINE		
PROPERTY LINE		
WETLAND 4 25' BUFFER		
STREAM 4 50' BUFFER		
CONTOUR LINES		
LIMIT OF DISTURBANCE		
FOREST RETENTION EASEMENT AREA		
TREE PROTECTION SIGNAGE (SEE DETAIL, THIS SHEET)		
SOILS		
TREE PROTECTION FENCE		
100-YEAR ULTIMATE FLOODPLAIN LIMITS		

FOREST RETENTION EASEMENT AREAS

AREA A:	0.43± AC.
AREA B:	0.03± AC.
AREA C:	0.20± AC.
AREA D:	0.02± AC.
TOTAL:	0.68± AC.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

[Signature] 5/25/01
DIRECTOR DATE

[Signature] 5/11/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 5/21/01
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO.	REVISION

OWNER / DEVELOPER
DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
ONE TEXAS STATION COURT
SUITE 100
TIMONIUM, MARYLAND 21093
(443) 689-9000

PROJECT
DORSEY RUN INDUSTRIAL PARK-PARCEL 'C'

AREA TAX MAP NO. 48 BLOCKS 3 & 9
PARCEL C ZONED M-2
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
FOREST CONSERVATION PLAN

RIEMER MUEGGE
a division of
Patton Harris Rust & Associates, pc
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
3818 Centre Park Drive, Columbia, MD 21045 • Tel 410.997.8800 Fax 410.997.9282

5-1-01
DESIGNED BY: DMD, PJS
DRAWN BY: GTH, PJS
CHECKED BY: DTD
PROJECT NO: 00099 FORCON.DWG
DATE: MAY 3, 2001
SCALE: AS SHOWN
DRAWING NO. 16 OF 17

DAVID T. DOWS #830
DAVID T. DOWS #830

MATCHLINE SEE SHEET 16 OF 17



Howard County Forest Conservation Worksheet

PROJECT NAME: Dorsey Run C COUNTY FILE #: 00099.200
 DATE: 4/10/01 RMA PROJECT #: 00099.200

Site Data

A. Total site area	26.88
B. Areas in 100 year floodplain	15.06
Areas in agriculture use and preservation parcels	0.00
Other: Area zoned NT (New Town district exempt)	0.00
C. Net Tract Area (A-B)	11.82
D. Forest Cover on net tract area	10.32
E. Amount of Net Tract Area Forest to be cleared per plan	9.64
F. Reforestation requirement percent by land use category	0.15
G. Afforestation requirement percent by land use category	0.15

Break Even Point

A. Area of forest above conservation threshold	8.55
B. Amount of forest to retain w/o mitigation	3.48
C. Forest clearing permitted w/o mitigation	6.84

Reforestation Calculations

A. Net Tract Area	11.82
B. Total forest within Net Tract Area	10.32
C. Net Tract Area forests to be cleared by development plan	9.64
D. Forest area remaining	0.68
E. Reforestation threshold in acres	1.77
F. Reforestation Debt	
above threshold	2.14
below threshold	2.19
G. Reforestation credit	0.00
H. REFORESTATION OBLIGATION	4.32

Afforestation Calculations

A. Net Tract Area	11.82
B. Total forest within Net Tract Area	10.32
C. Afforestation threshold in acres	1.77
D. AFFORESTATION OBLIGATION (C-B)	0.00

TOTAL REFORESTATION + AFFORESTATION OBLIGATION **4.32**

FEES IN LIEU @ \$0.30/SF: \$ 56,453.76

LEGEND	EXISTING	PROPOSED
TREES > 30" dbh		
TREELINE		
PROPERTY LINE		
WETLAND & 25' BUFFER		
STREAM & 50' BUFFER		
CONTOUR LINES		
LIMIT OF DISTURBANCE		
FOREST RETENTION EASEMENT AREA		
TREE PROTECTION SIGNAGE (SEE DETAIL, THIS SHEET)		
SOILS		
TREE PROTECTION FENCE		
100-YEAR ULTIMATE FLOODPLAIN LIMITS		

GENERAL NOTES:

- SPECIMEN TREE LOCATIONS AND PORTIONS OF THE TREE LINE ARE FIELD APPROXIMATED.
- NO CRITICAL HABITATS OF RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED.
- NO TREES, SHRUBS, OR PLANTS IDENTIFIED AS RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED.
- THERE ARE NO KNOWN CEMETERIES OR BURIAL PLOTS LOCATED ON THE SITE, ACCORDING TO THE HOWARD COUNTY CEMETERIES INVENTORY.
- NO STRUCTURES EXIST ON SITE. THE PROPERTY IS NOT LISTED IN THE HOWARD COUNTY HISTORIC BUILDING REGISTER.
- THIS SITE CONTAINS ONE HYDRIC SOIL, HATBORO (Ha); AND TWO SOILS WITH POSSIBLE HYDRIC INCLUSIONS, BELTSVILLE (BeB2, BeC2) AND CODOROUS (Co).
- THE FSD, DATED APRIL 4, 2001, HAS BEEN PREPARED BY RIEMER MUEGGE IN CONJUNCTION WITH THIS PROJECT.
- JUSTIFICATION FOR FOREST REMOVAL: IN ORDER TO DEVELOP THE SITE FOR COMMERCIAL PURPOSES, THE FORESTED AREA OUTSIDE OF THE FLOOD PLAIN NEEDS TO BE CLEARED.
- THE HOWARD COUNTY FOREST CONSERVATION MANUAL SUPERCEDES ANY DISCREPANCIES BETWEEN THE MANUAL AND THESE PLANS.
- THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION.
- THE FOREST CONSERVATION OBLIGATION FOR THE PROPOSED SITE DEVELOPMENT IS 4.32 AC OF REFORESTATION. THIS OBLIGATION HAS BEEN MET BY PAYING FEES-IN-LIEU OF \$56,453.76 (108,174 SF x \$0.30/SF). ADDITIONALLY 0.68 AC WILL BE PLACED IN FOREST RETENTION EASEMENTS. SURETY IN THE AMOUNT OF \$2,963.00 HAS BEEN POSTED FOR THESE EASEMENTS.

FOREST CONSERVATION SEQUENCE OF OPERATIONS

- Prior to beginning any grading operations on this site or on a respective lot, there shall be a preconstruction meeting held at the site which is to include the Contractor and representatives from Riemer Muegge, a division of Patton Harris Rust & Associates. The Howard County Department of Planning and Zoning (DPZ) and the owner will be notified by the Contractor as to the time and place of the field meeting, should they wish to send a representative. The purpose of this meeting will be to review the approved FCP and to field verify the correct Limits of Disturbance (LOD).
- The Limits of Disturbance (LOD) pertinent to the preservation of wooded areas shall be staked in the field with final adjustments being made as necessary to insure adequate protection of the Critical Root Zone of trees designated for retention. Stakes to be used shall be those specified for the "TREE PROTECTION DEVICE" to which approved protective material will be attached. Alternate means of defining the LOD may be used if approved by the DPZ.
- All forest retention areas shall be protected by highly visible, well anchored temporary protection devices (see detail), which shall be securely in place prior to any clearing or grading operations.
- Install tree protection signage.
- Grading operations or other construction operations which could dislodge or otherwise damage the protective devices shall be avoided along the edges of the LOD lines if possible. Any protective devices which are damaged during site construction operations shall be properly repaired immediately by the Contractor.
- After site grading, utility access road, and driveway construction have been completed, all trees adjacent to the LOD line shall be inspected for indications of crown die-back (summer indicator), damage within respective critical root zones or any dead wood or other conditions which might be hazardous to pedestrians, buildings, utility lines vehicular access ways or parked vehicles.
- Should there be evidence of any damage to tree trunks, branches or the critical root zone of trees within the protected areas, or to isolated specimen trees to be preserved, the damage shall be examined within a period of two (2) days from the date of observation by a licensed tree care professional. Exposed roots should be covered immediately to a depth of 6 - 8 inches with soil, preferably mixed with 50% peat moss or leaf mold.
- Remove damaged, dead or dying trees or limbs only if the trees or limbs pose an immediate safety hazard to buildings, utility lines, vehicles, or access and egress drives or pedestrian areas. Trees designated for pruning or removal shall be pruned or removed using equipment and methods which will not damage or destroy adjacent large trees or understory trees or shrubs designated for retention.
- All temporary forest protection devices will be carefully removed after all general construction, necessary tree surgery, removal of debris, etc. regrading and reseeding of sediment and erosion control disturbance have been completed and acceptance and approval of the work and site conditions have been given by the DPZ.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
	5/25/01
DIRECTOR	DATE
	5/1/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
	5/24/01
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE

DATE NO.	REVISION
OWNER / DEVELOPER	
DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP ONE TEXAS STATION COURT SUITE 100 TIMONIUM, MARYLAND 21093 (443) 689-9000	
PROJECT	
DORSEY RUN INDUSTRIAL PARK - PARCEL 'C'	
AREA	TAX MAP NO. 48 BLOCKS 3 & 9 PARCEL C ZONED M-2 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

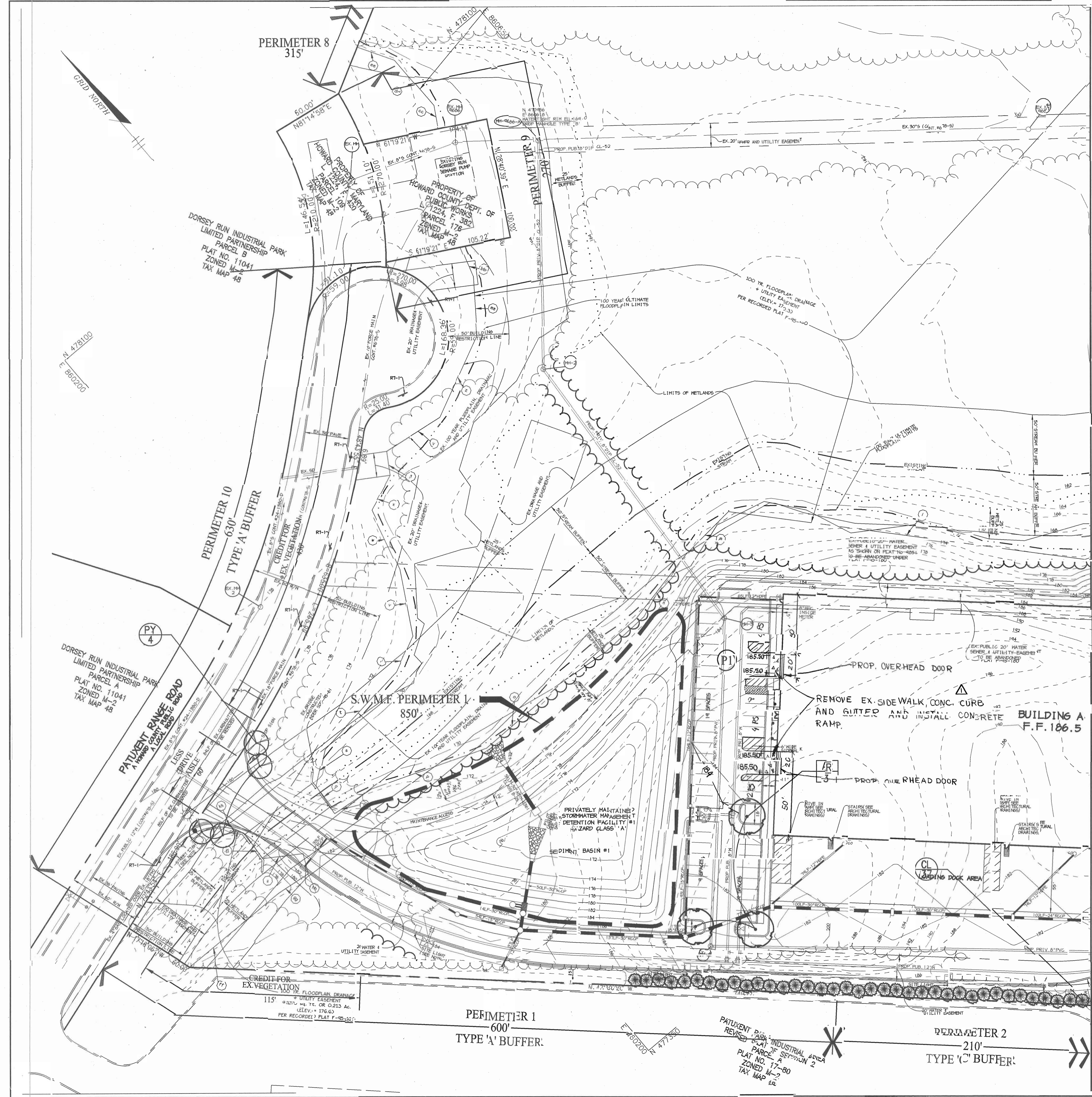
FOREST CONSERVATION PLAN

RIEMER MUEGGE
a division of:
Patton Harris Rust & Associates, pc
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8800 fax 410.997.9282

DATE: 5.1.01

DESIGNED BY: DMD, PJS
DRAWN BY: GTH, PJS
CHECKED BY: DTD
PROJECT NO: 00099 FORCON2.DWG
DATE: MAY 3, 2001
SCALE: AS SHOWN
DRAWING NO. 17 OF 17

DAVID T. DOWS #830

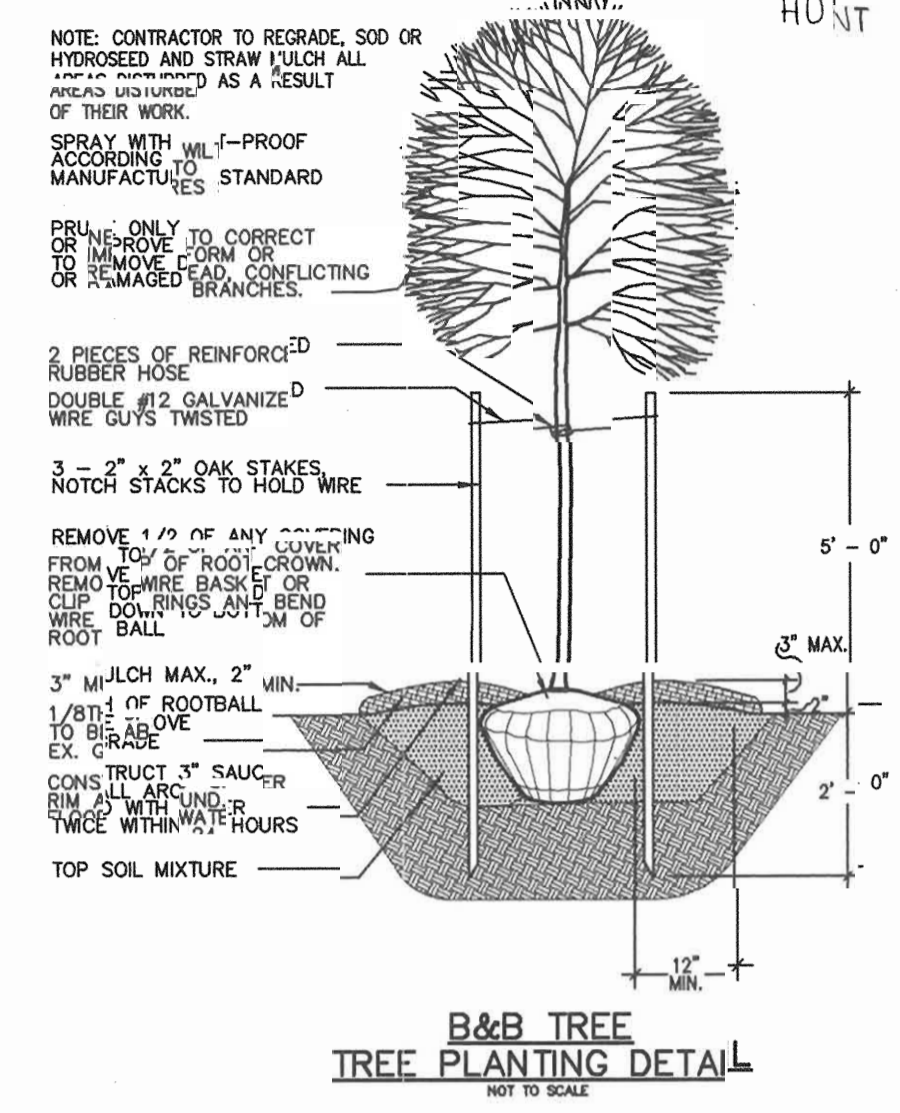


MATCHLINE SEE SHEET 14

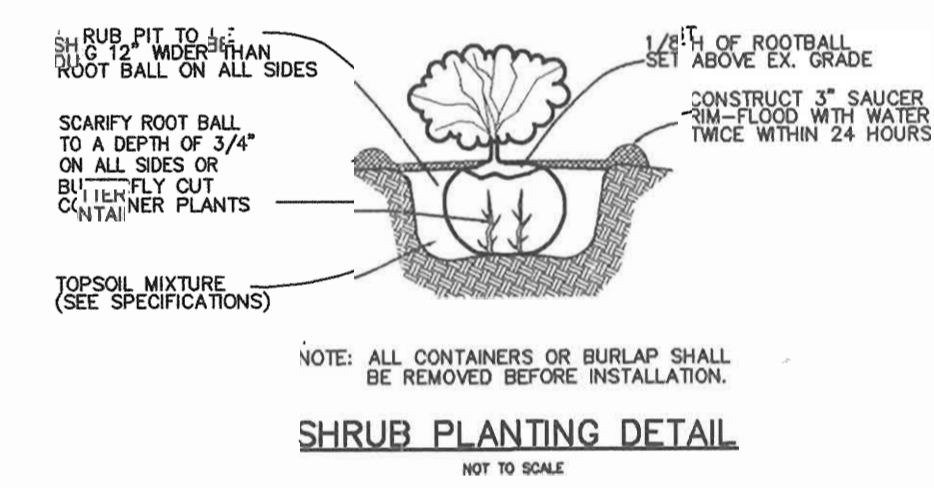
REVISION #1
 A ADDED TWO 20' WIDE OVERHEAD DOORS TO NORTH-WEST SIDE OF BUILDING A
 REVISED PARKING TABULATION.
 REVISION #1 PREPARED BY BALTIMORE LAND DESIGN GROUP, INC.
 CONSULTING ENGINEERS
 222 SCHILLING CIRCLE, SUITE 105
 HUNT VALLEY, MARYLAND 21030



Revision #1 only

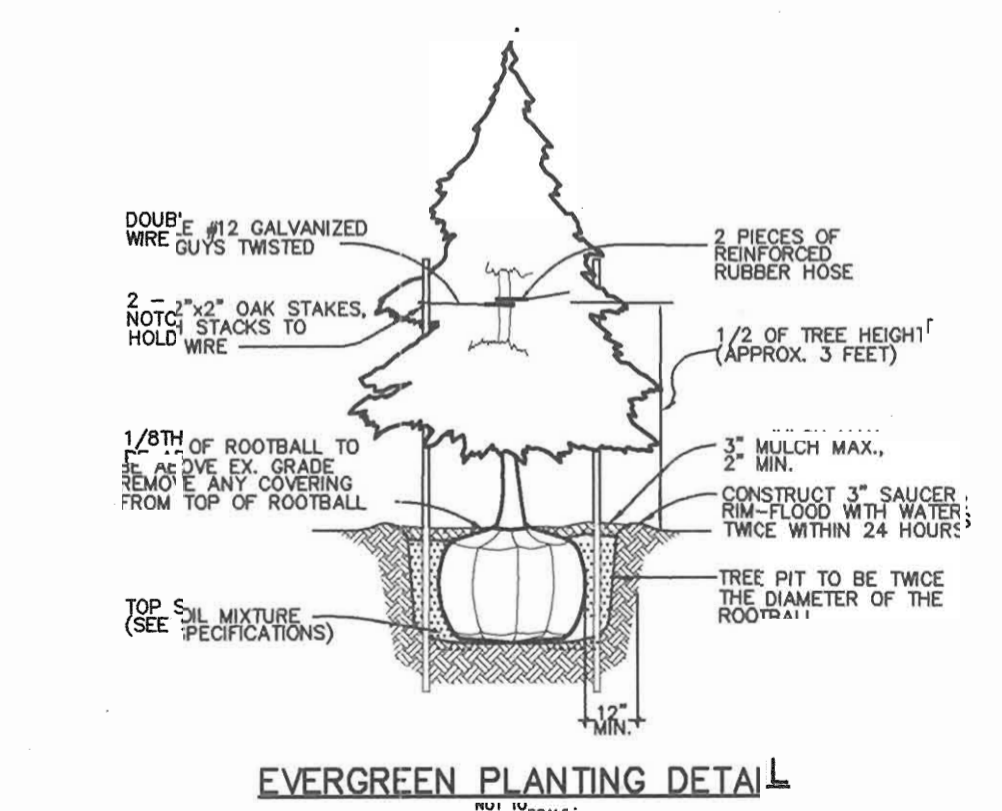


B&B TREE TREE PLANTING DETAIL
NOT TO SCALE



SHRUB PLANTING DETAIL
NOT TO SCALE

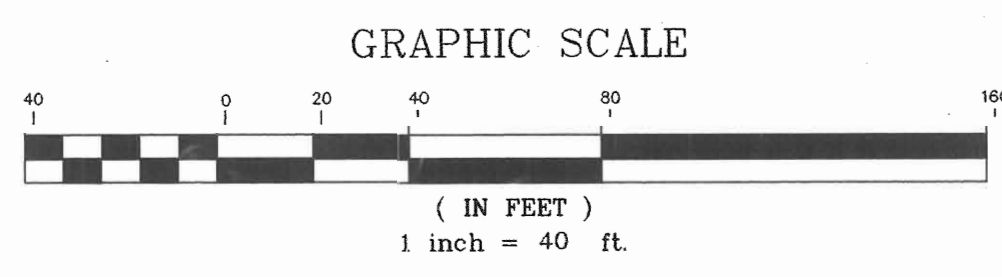
LANDSCAPE LEGEND	
PROP. SHADE TREE	
PROP. ORNAMENTAL TREE	
PROP. EVERGREEN TREE	
PERIMETER LANDSCAPE REQUIREMENT	
PARKING LOT LANDSCAPE REQUIREMENT	



EVERGREEN PLANTING DETAIL
NOT TO SCALE

AS-BUILT CERTIFICATE

STATE OF MARYLAND
 CHRISTOPHER J. REID #19919
 7-29-02
 DATE



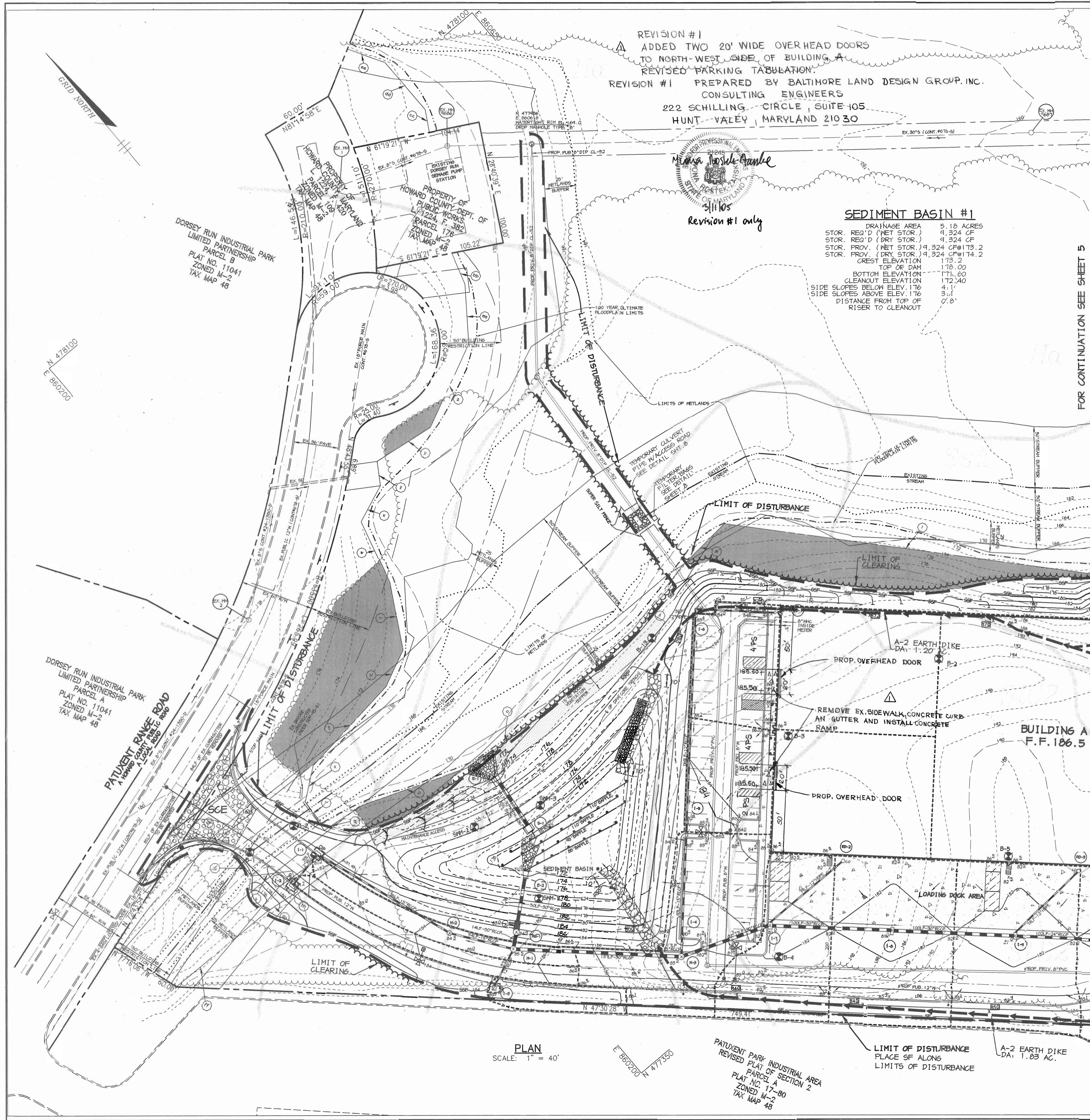
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING	
DIRECTOR	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE

DATE NO.	REVISION
OWNER / REVIEWED	
DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP ONE TEXAS STATION COURT SUITE 100 TIMONIUM, MARYLAND 21093 (443) 689-9000	
PROJECT: DORSEY RUN INDUSTRIAL PARK-PARCEL 'C'	
AREA: TAX MAP NO. 48 BLOCKS 3 & 9 PARCEL C ZONED M-2 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE: LANDSCAPE PLAN	

RIEMER MUEGGE
 a division of:
 Patton Harris Rust & Associates, pc
 ENGINEERS • SURVEYORS • PLANNERS
 LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
 8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

DATE: 5-1-01
 DESIGNED BY: A.J.L.
 DRAWN BY: A.J.L.
 CHECKED BY: D.T.D.
 PROJECT NO: 00-99
 DATE: MAY 3, 2001
 SCALE: AS SHOWN
 DRAWING NO: 13 OF 17

P:\proj\00099\lscpl.dwg Mon Apr 30 13:04:24 2001 RIEMER MUEGGE A DIVISION OF PHRA



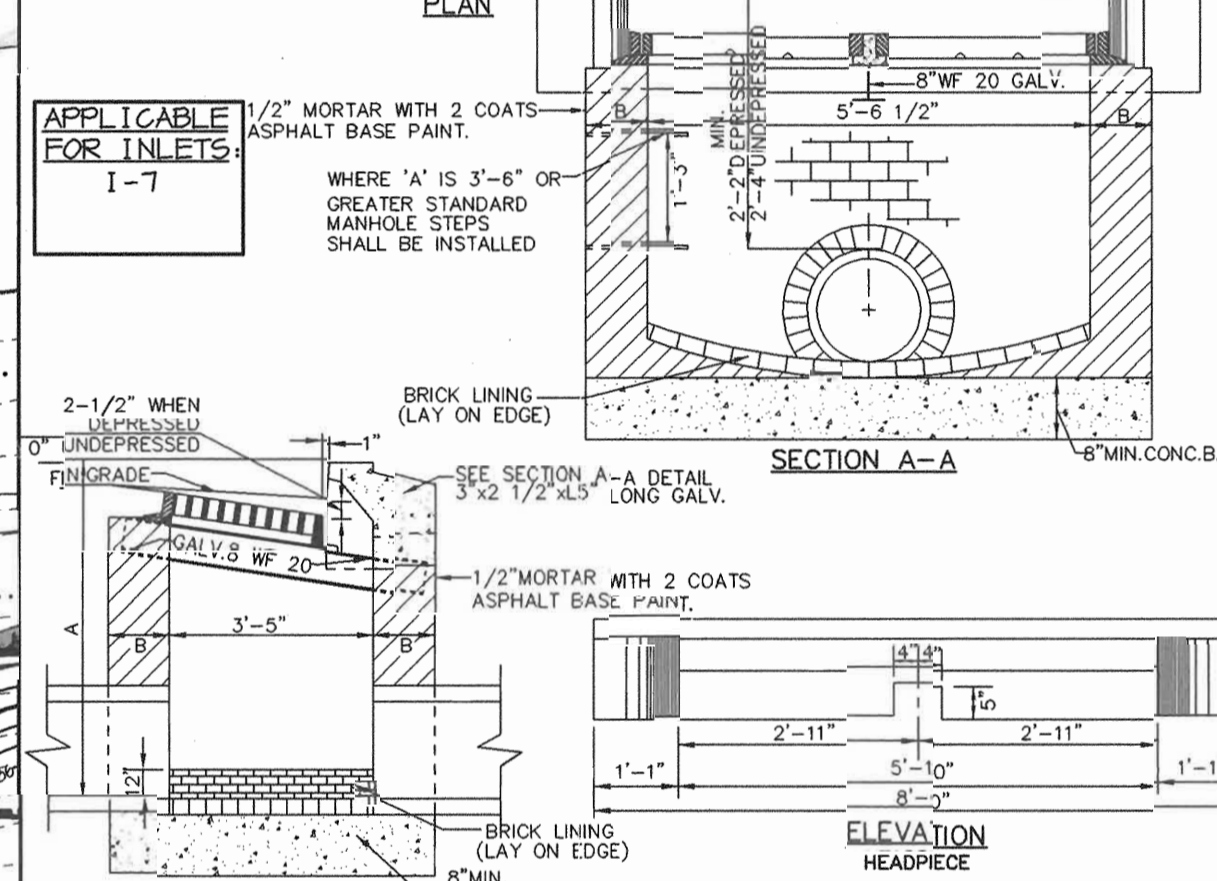
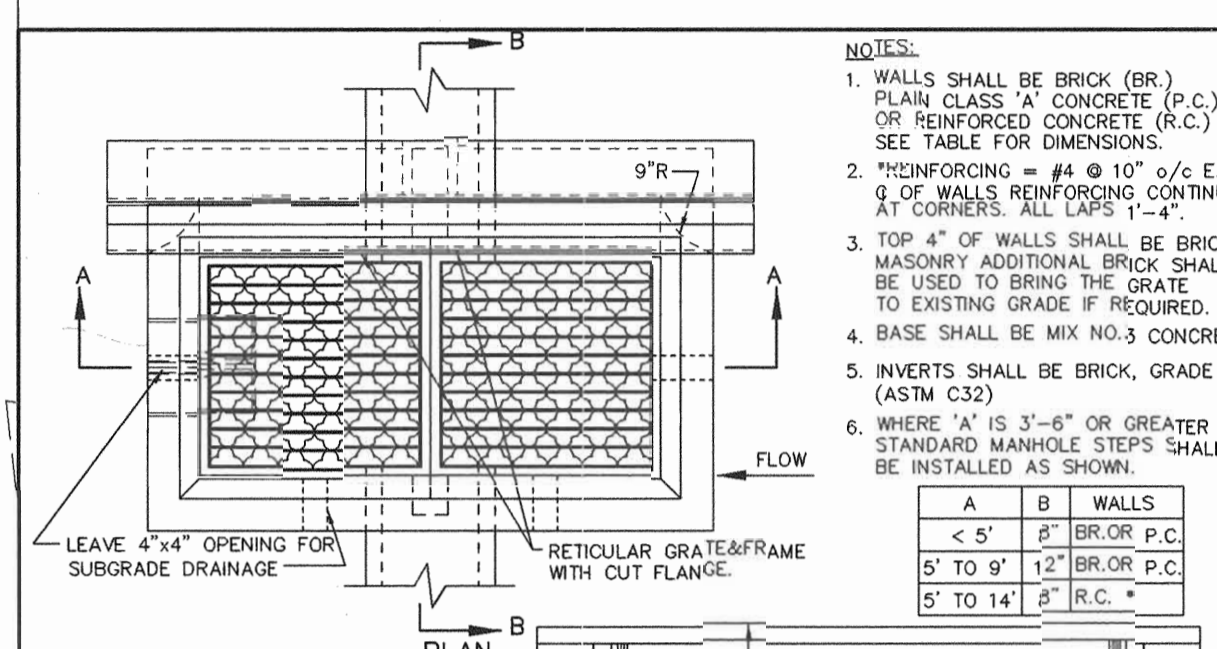
LEGEND

- LIMIT OF DISTURBANCE
- EARTH DIKE
- SUPER SILT FENCE
- SILT FENCE
- SOILS DIVIDE
- INLET DRAINAGE AREA DIVIDE
- STABILIZED CONSTRUCTION ENTRANCE
- STANDARD INLET PROTECTION
- GURD INLET PROTECTION
- RIPRAP INFLOW PROTECTION
- REMOVABLE PUMPING STATION
- STORMDRAIN INLET NO.
- STORMDRAIN MANHOLE NO.
- SPOT ELEVATIONS ALONG EARTH DIKES

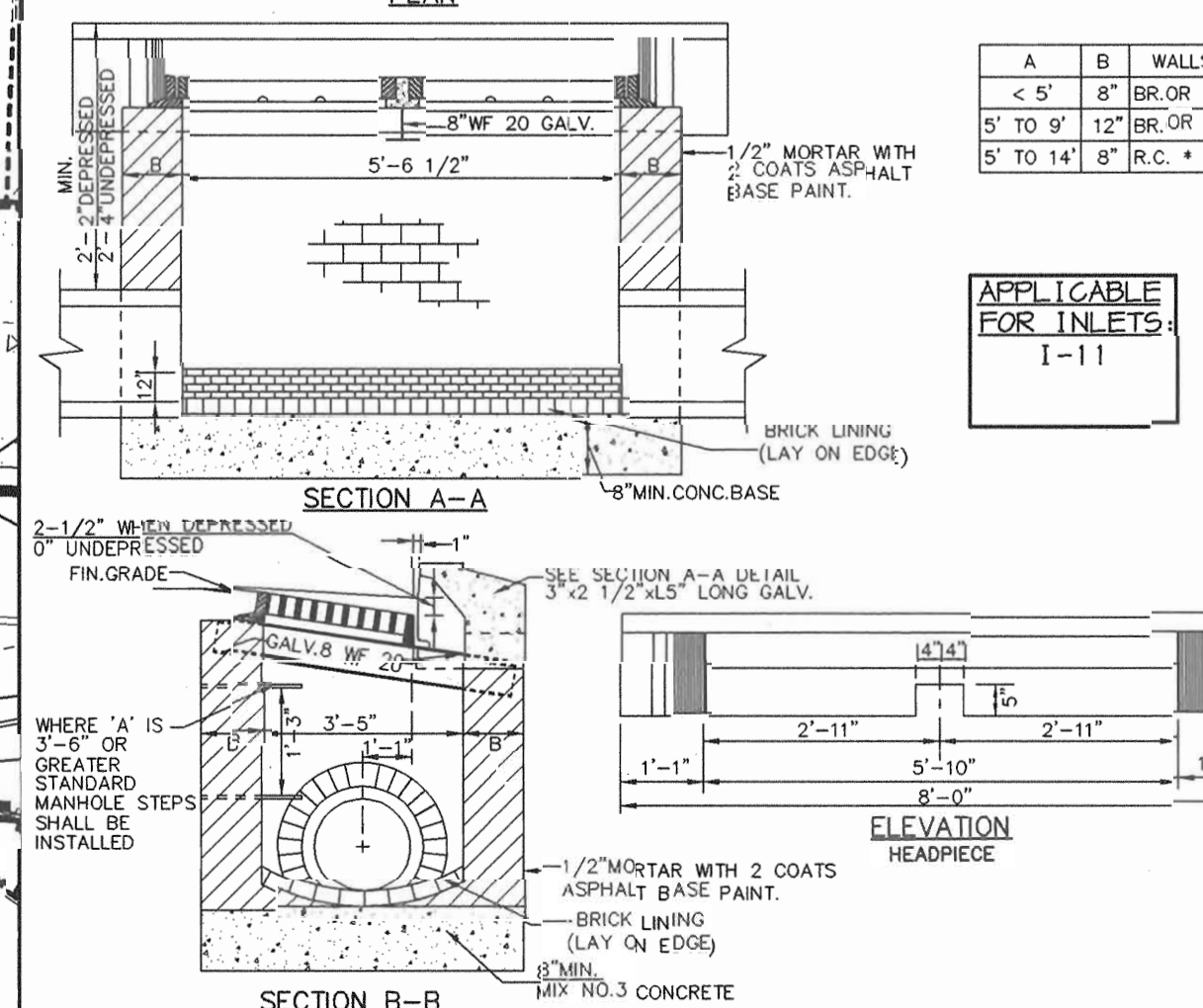
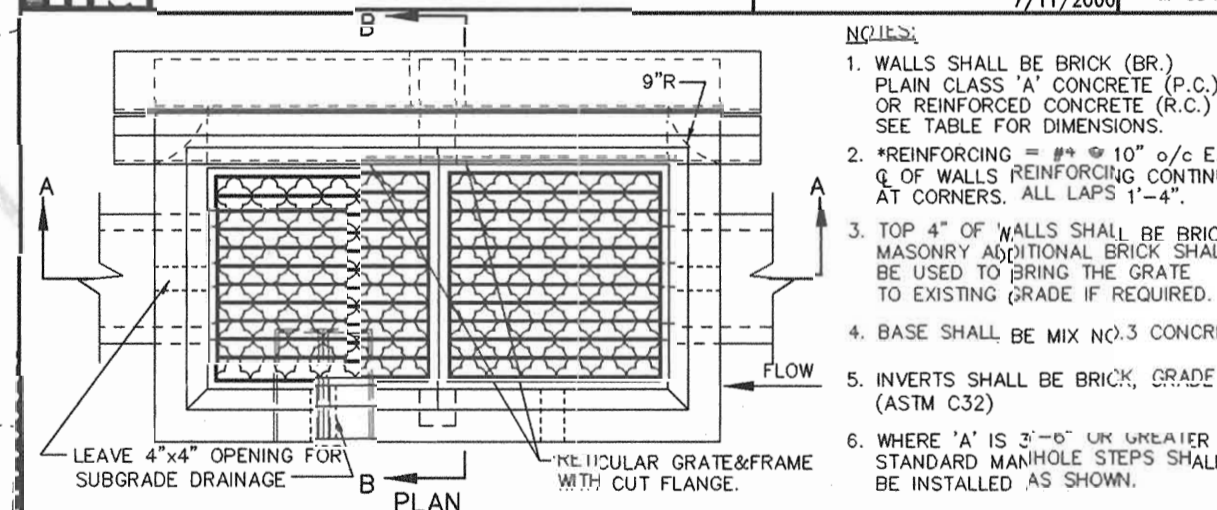
DRAINAGE DATA

INLET NOS.	AREA IN ACRES	'C' FACTOR	PERCENT IMPERVIOUS	INLET NOS.	AREA IN ACRES	'C' FACTOR	PERCENT IMPERVIOUS
1	0.06	0.06	100	RD-1	0.30	0.06	100
2	0.06	0.06	100	RD-2	0.30	0.06	100
3	0.06	0.19	0	RD-3	0.61	0.06	100
4	0.24	0.70	76	RD-4	0.62	0.06	100
5	0.15	0.05	73	RD-5	0.61	0.06	100
6	0.16	0.04	75	RD-6	0.43	0.06	100
7	0.22	0.71	77	RD-7	0.43	0.06	100
8	0.31	0.75	81				
9	0.32	0.75	81				
10	0.26	0.74	82				
11	0.62	0.73	81				
12	0.17	0.82	94				
13	0.37	0.73	81				
14	0.20	0.03	65				
15	0.20	0.19	0				
16	0.40	0.03	45				
17	0.22	0.71	86				

STATE OF MARYLAND
REGISTERED PROFESSIONAL ENGINEER
Christopher J. Reid
5/1/00
DATE



RIEMER MUEGGE & ASSOCIATES INC.
ENGINEERS • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8818 Centre Park Drive, Columbia, MD 21046
tel 410.997.8800 fax 410.997.8282



RIEMER MUEGGE & ASSOCIATES INC.
ENGINEERS • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8818 Centre Park Drive, Columbia, MD 21046
tel 410.997.8800 fax 410.997.8282

BY THE DEVELOPER:
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Carole McFell
DEVELOPER
5.1.01
DATE

BY THE ENGINEER:
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

Chris J. Reid
ENGINEER
5.1.01
DATE

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

Jim Myers
NATURAL RESOURCES CONSERVATION SERVICE
5/1/01
DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

John S. ...
HOWARD SOIL CONSERVATION DISTRICT
5/1/01
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Scott ...
DIRECTOR
5/1/01
DATE

John ...
CHIEF, DEVELOPMENT ENGINEERING DIVISION
5/1/01
DATE

Chris ...
CHIEF, DIVISION OF LAND DEVELOPMENT
5/1/01
DATE

OWNER / DEVELOPER
DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
ONE TEXAS STATION COURT
SUITE 100
TIMONIUM, MARYLAND 21093
(443) 689-9000

PROJECT
DORSEY RUN INDUSTRIAL PARK-PARCEL 'C'

AREA
TAX MAP NO. 48 BLOCKS 3 & 9
PARCEL C ZONED M-2
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

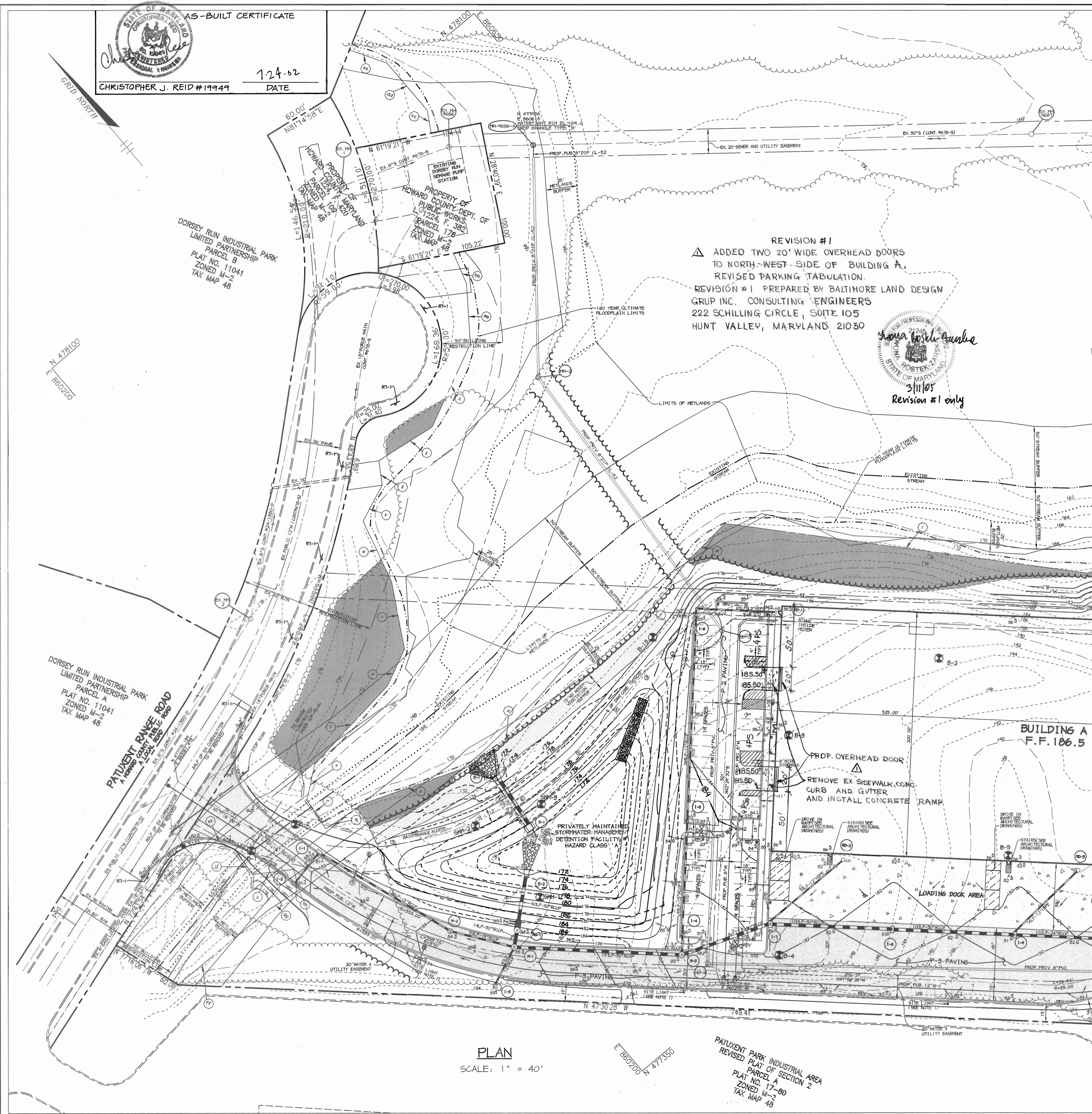
TITLE
GRADING, SEDIMENT CONTROL PLAN & DRAINAGE AREA MAP

RIEMER MUEGGE
a division of:
Patton Harris Rust & Associates, pc
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
8818 Centre Park Drive, Columbia, MD 21046 • tel 410.997.8800 fax 410.997.8282

5.1.01
DATE

DESIGNED BY: C.J.R.
DRAWN BY: K.E.V.
CHECKED BY: C.J.R.
PROJECT NO: 00099
SDP-4 DWG
DATE: MAY 3, 2001
SCALE: AS SHOWN
DRAWING NO: 4 OF 17

Chris J. Reid
CHRISTOPHER J. REID #19949

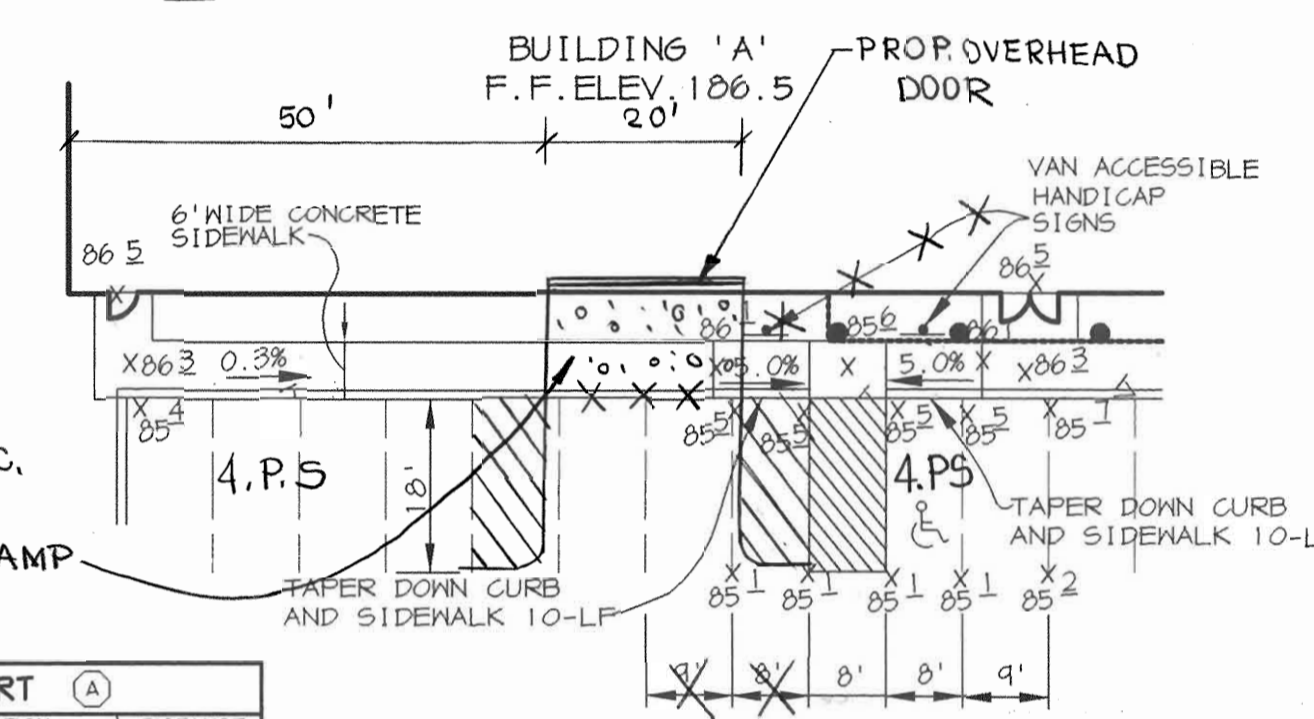


STORMWATER MANAGEMENT DESIGN SUMMARY-SWMF #1							STORMWATER MANAGEMENT DESIGN SUMMARY SWMF #1 & #2 COMBINED AT DESIGN POINT		
DESIGN STORM (YR.)	ALLOWABLE RELEASE (C.F.S.)	FACILITY INFLOW (C.F.S.)	ROUTED DISCHARGE (C.F.S.)	WATER SURFACE ELEVATION (FT.)	STORAGE VOLUME (AC. FT.)	REMARKS	DESIGN STORM (YR.)	ALLOWABLE RELEASE (C.F.S.)	ROUTED DISCHARGE (C.F.S.)
2	*	12.23	0.46	175.03	0.6567	NONE	2	14.40	14.23
10	*	22.09	11.62	175.51	0.7903	NONE	10	46.88	42.35
100	N/A	N/A	N/A	175.84	0.8463	CLOGGED CONDITIONS	100	N/A	N/A

* ALLOWABLE RELEASE WAS COMPUTED FOR BOTH PONDS AT DESIGN POINT.

- LEGEND**
- CONCRETE [Symbol]
 - P-2 PAVING [Symbol]
 - P-3 PAVING [Symbol]
 - FOREST RETENTION EASEMENT AREA [Symbol]
 - STANDARD CURB - REVERSE CURB [Symbol]
 - SITE LIGHT (SINGLE) - SEE NOTE 1 [Symbol]
 - STREET LIGHT (SINGLE) - SEE NOTE 2 [Symbol]
 - STORM DRAIN MANHOLE [Symbol]
 - SEWER MANHOLE [Symbol]
 - STORM DRAIN INLET [Symbol]
 - PROPOSED FIRE HYDRANT [Symbol]
 - TRAFFIC CONTROL DEVICE NO PARKING ANY TIME (RT-1) [Symbol]

- NOTES**
- SITE LIGHTS TO BE 400 WATT METAL HALIDE VERTICAL LAMPS ON SHOEBOXES ON 2'-6" BASE WITH 30' ROUND TAPERED POLE FINISHED IN DARK BRONZE.
 - STREET LIGHT TO BE 250 WATT HPS VAPOR PENDANT FIXTURE (CUTOFF) MOUNTED AT 30' ON A BRONZE FIBER GLASS POLE WITH A 12' ARM, ARM RADIAL TO FILLER.
 - ALL LIGHTS TO BE DIRECTED/REFLECTED AWAY FROM ADJACENT PUBLIC ROADS AND RESIDENTIAL PROPERTIES.
 - ALL CURB RADII ARE 5' UNLESS OTHERWISE LABELED.
 - ALL DIMENSIONS ARE TO FACE OF CURB OR BUILDING UNLESS OTHERWISE LABELED.
 - LIMITS OF STD/REV CURB AND GUTTER.
 - ALL DIMENSIONS FROM BUILDING TO PROPERTY LIMITS ARE SHOWN ON SHEET 1.



100 YR. FLOODPLAIN LINE CHART (A)

LINE	DIRECTION	DISTANCE	LINE	DIRECTION	DISTANCE
a	N 12 55'23" W	63.18'	t	S 82 41'37" W	87.51'
b	N 20 55'16" E	82.22'	u	N 64 57'05" E	32.76'
c	N 28 17'04" E	72.11'	v	N 24 03'44" E	56.38'
d	S 04 23'44" W	87.26'	w	N 19 03'52" E	54.34'
e	N 24 50'34" W	36.06'	x	N 68 03'08" E	33.24'
f	N 20 56'42" W	154.18'	y	S 82 17'48" E	91.36'
g	N 24 33'21" W	33.06'	z	N 64 38'09" E	74.98'
h	N 04 21'58" W	81.27'	aa	N 36 30'14" E	48.85'
i	N 00 28'18" E	41.56'	bb	N 16 56'58" E	27.24'
j	N 81 45'24" W	64.32'	cc	N 24 51'48" E	18.14'
k	N 68 19'24" W	118.54'	dd	N 00 31'17" W	50.11'
l	N 42 10'17" W	298.55'	ee	N 30 27'40" W	32.65'
m	S 85 07'00" W	48.20'	ff	S 84 35'57" E	48.81'
n	N 77 32'07" E	67.55'	gg	S 63 17'53" E	29.74'
o	N 84 07'56" E	164.41'	hh	N 29 37'58" E	17.27'
p	S 64 24'46" E	101.28'	ii	N 56 53'15" W	33.76'
q	N 83 36'04" W	36.81'	jj	N 05 07'03" E	25.17'
r	N 06 28'04" E	67.83'	kk	N 24 10'56" W	39.53'
s	S 52 10'56" W	30.10'	ll	S 32 07'32" W	20.00'

DAM & DATA SWMF #1

①	N 477,597.38	E 860,446.55	①	2' S 74°22'18" W
②	CL STA 0+10.15		②	R = 46.35'
③	CL STA 0+31.42		③	S 74°22'18" W
④	CL STA 0+78.29		④	S 81°14'14" W
⑤	CL STA 1+24.51		⑤	R = 397.77'
⑥	CL STA 1+85.43		⑥	R = 246.72'
⑦	CL STA 2+42.50		⑦	R = 24.05'
⑧	CL STA 3+16.45		⑧	R = 20.88'
⑨	CL STA 3+37.43			
⑩	N 477,622.75	E 860,121.64		

- OPERATION AND MAINTENANCE SCHEDULE OF PRIVATELY OWNED AND MAINTAINED STORMWATER MANAGEMENT FACILITY DETENTION FOND #1**
- ROUTINE MAINTENANCE**
- Facility shall be inspected annually and after major storms. Inspections should be performed during wet weather to determine if the pond is functioning properly.
 - Top and side slopes of the embankment shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes, the bottom of the pond, and maintenance access should be mowed as needed.
 - Debris and litter next to the outlet structure shall be removed during regular mowing operations and as needed.
 - Visible signs of erosion in the pond as well as riprap outlet area shall be repaired as soon as it is noticed.
- NON-ROUTINE MAINTENANCE**
- Structural components of the pond such as the dam, the riser, and the pipes shall be repaired upon the detection of any damage. The components should be inspected during routine maintenance operations.
 - Sediment should be removed when its accumulation significantly reduces the design storage. Interference with the function of the riser, when deemed necessary for aesthetic reasons, or when deemed necessary by the Howard County's Department of Public Works.

HANDICAP DETAIL BY BUILDING A (WEST)
 SCALE: 1" = 20'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 DIRECTOR [Signature] DATE 5/11/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT [Signature] DATE 5/21/01

DATE NO. REVISION
 OWNER / DEVELOPER
 DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
 ONE TEXAS STATION COURT
 SUITE 100
 TIMONIUM, MARYLAND 21093
 (443) 689-9000
 PROJECT
DORSEY RUN INDUSTRIAL PARK-PARCEL 'C'
 AREA TAX MAP NO. 48 BLOCKS 3 & 9
 PARCEL C ZONED M-2
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 TITLE
SITE DEVELOPMENT PLAN

RIEMER MUEGGE
 a division of:
Patton Harris Rust & Associates, pc
 ENGINEERS • SURVEYORS • PLANNERS
 LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
 8818 Centre Park Drive, Columbia, MD 21046 • tel 410.997.8800 fax 410.997.9282
 DATE 5-1-01
 DESIGNED BY: C.J.R.
 DRAWN BY: K.E.V.
 CHECKED BY: C.J.R.
 PROJECT NO: 00099
 SDP2.DWG
 DATE: MAY 3, 2001
 SCALE: AS SHOWN
 DRAWING NO. 2 OF 17

SITE DEVELOPMENT PLAN DORSEY RUN INDUSTRIAL PARK PARCEL 'C' 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

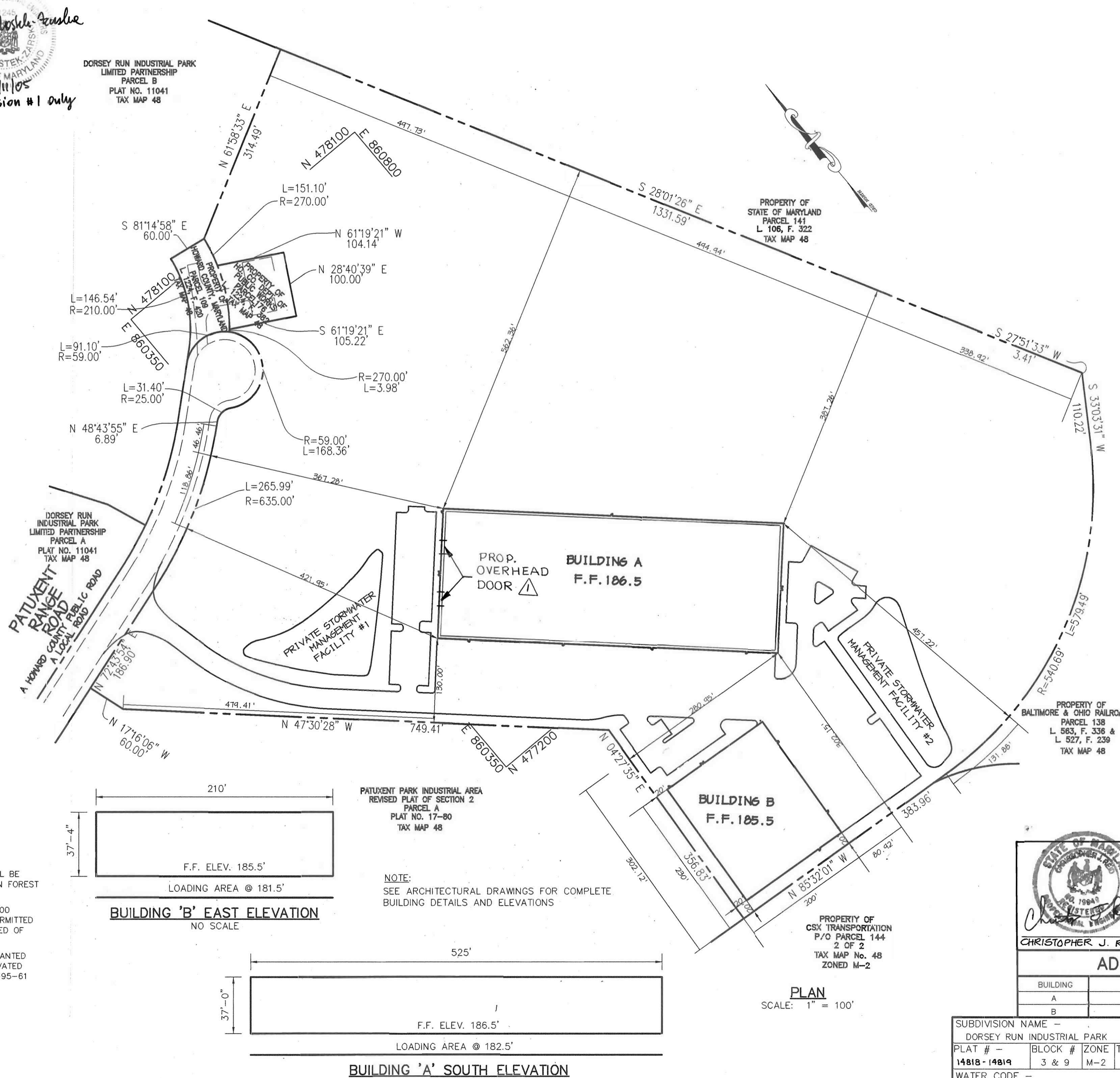
SHEET INDEX :			
NO	DESCRIPTION	NO	DESCRIPTION
1	TITLE SHEET	10	SMY DETAILS & PROFILES
2	SITE DEVELOPMENT PLAN	11	MISCELLANEOUS DETAILS AND NOTES
3	SITE DEVELOPMENT PLAN AND DETAILS	12	BAYSAYER DETAILS AND NOTES
4	GRADING, SEDIMENT CONTROL PLAN AND DRAINAGE AREA MAP	13	LANDSCAPE PLAN
5	GRADING, SEDIMENT CONTROL PLAN AND DRAINAGE AREA MAP	14	LANDSCAPE PLAN
6	PROFILE SHEET & STRUCTURE SCHEDULE	15	SIMPLIFIED FOREST STAND DELINEATION PLAN
7	PROFILE SHEET	16	FOREST CONSERVATION PLAN
8	SEDIMENT CONTROL DETAILS	17	FOREST CONSERVATION PLAN
9	SEDIMENT CONTROL NOTES & DETAILS		

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 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 BEING DONE.
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB AND FACE OF BUILDING UNLESS OTHERWISE NOTED.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY RIEMER MUEGGE ASSOC., INC. DATED NOVEMBER, 1994.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 48DB AND 43GA WERE USED FOR THIS PROJECT.
- WATER IS PUBLIC. CONTRACT NO. 24-3911-D
- SEWER IS PUBLIC. SEWER DRAINAGE AREA: PATUXENT CONTRACT NO. 24-3911-D
- THE STORMWATER MANAGEMENT QUANTITY AND WATER QUALITY PROPOSED FOR THIS SITE IS PROVIDED BY TWO (2) DETENTION FACILITIES AS WELL AS BAYSAYER MANHOLES.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
- A 100-YEAR FLOODPLAIN STUDY IS NOT REQUIRED FOR THIS PROJECT.
- WAIVER PETITION #WP-95-81 APPROVED TO WAIVE SECTION 16.12202(g) FOR A PARTIAL WAIVER TO THE FULL REQUIREMENTS OF THE FOREST CONSERVATION PLAN; AND TO WAIVE SECTION 16.116(g)(1) FOR DISTURBANCE IN THE WETLAND BUFFER. APPROVAL OF SECTION 16.116(g)(1) IS CONDITIONED UPON NOTING THE JOINT PERMIT TRACKING NUMBER ON THE SITE DEVELOPMENT PLAN. DATED MAY 24, 1995, NOW VOID.
- AN APFO TRAFFIC STUDY BY THE TRAFFIC GROUP WAS SUBMITTED ON AUGUST 4, 2000 AND APPROVED ON AUGUST 30, 2000.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- A GEOTECHNICAL STUDY HAS BEEN PREPARED BY HILLIS CARNES INC., NOVEMBER, 1994.
- THE BOUNDARY SURVEY FOR THIS PROJECT HAS BEEN PREPARED BY RIEMER MUEGGE & ASSOC., NOVEMBER, 1994.
- SUBJECT PROPERTY ZONED M-2 PER 10-18-93 COMPREHENSIVE ZONING PLAN.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- SEE DEPARTMENT OF PLANNING AND ZONING FILE NOS: WP-99-88, SDP-95-61, WP-95-81, F-93-105, F-95-180, SDP-92-67, F-01-102.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- ALL STORM DRAIN PIPE BEDDING SHALL BE CLASS 'C' AS SHOWN IN FIG. 11.4, VOLUME 1 OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- PROFILES STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T180.
- THE PAVEMENT DETAILS SHOWN FOR THIS SITE REFLECT THE HOWARD COUNTY STANDARD PAVEMENT SECTIONS AND ARE NOT BASED ON SITE SPECIFIC CONDITIONS. PRIOR TO PAVING THE FINAL PAVEMENT SECTIONS SHALL BE DETERMINED BY A QUALIFIED GEOTECHNICAL ENGINEER BASED ON IN-SITU TESTING OF THE FINISHED SUBGRADE.
- ALL LIGHTING IS TO BE DIRECTED/REFLECTED AWAY FROM ADJACENT PUBLIC ROADS AND RESIDENTIALLY ZONED PROPERTIES, AND BE IN ACCORDANCE WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS.
- THIS PLAN IS EXEMPT FROM FOREST CONSERVATION REQUIREMENTS, UNDER SECTION 16.1202.b.1.iii OF THE SUBDIVISION REGULATIONS.
- BRIDGE CONSTRUCTION HAS BEEN COMPLETED IN ACCORDANCE WITH NON-TIDAL WETLANDS & WATERWAYS WATER QUALITY CERTIFICATION NO.1995563324 AND MARYLAND DEPARTMENT OF THE ENVIRONMENT WATER QUALITY CERTIFICATION NO.95-WQ-0200 EXTENDED UNTIL SEPTEMBER 15, 2000.
- WAIVER PETITION WP-99-88 APPROVED TO WAIVE SECTION 16.156.M.1 OF THE SUBDIVISION REGULATIONS WHICH REQUIRES PERMITS FOR APPROVED SITE DEVELOPMENT PLAN TO BE APPLIED FOR WITHIN ONE YEAR OF SDP APPROVAL AND SECTION 16.156.M.2, WHICH STATES THAT IF PERMITS ARE NOT OBTAINED WITHIN THE ONE YEAR TIME LIMIT, THE SDP SHALL EXPIRE AND A NEW SUBMISSION SHALL BE REQUIRED. APPROVAL OF THE WAIVER PETITION IS SUBJECT TO THE FOLLOWING CONDITIONS:
 - VERIFY THAT THE WETLANDS PERMITS ARE STILL VALID
 - APPLICATION FOR THE PERMITS NECESSARY TO START CONSTRUCTION MUST BE MADE WITHIN ONE YEAR, BY APRIL 30, 2000, IF PERMITS ARE NOT APPLIED FOR BY THAT DEADLINE, THE WAIVER WILL EXPIRE AND THE SDP WILL BE VOIDED.
- THE FOREST CONSERVATION OBLIGATION FOR THE PROPOSED SITE DEVELOPMENT IS 4.32 AC. THIS OBLIGATION WILL BE MET BY PAYING FEE-IN-LIEU OF \$55,453.76 (188,179 SF x \$0.30/SF). ADDITIONALLY 0.68 AC WILL BE PLACED IN FOREST RETENTION EASEMENTS. SURETY IN THE AMOUNT OF \$2,763.00 WILL BE POSTED FOR THESE EASEMENTS.
- THE FOREST CONSERVATION EASEMENTS HAVE BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
- WP-95-81, A REQUEST FOR PARTIAL WAIVER OF FOREST CONSERVATION REGULATIONS SECTION 16.1202(g), WAS GRANTED ON MAY 24, 1995. THE WAIVER WAS INITIALLY VOIDED WHEN SDP-95-61 LAPSED ON 01/04/98, AND WAS REACTIVATED ALONG WITH SDP-95-61 BY WP-99-88 ON 04/13/99. WP-99-88 THEN LAPSED ON 04-13-2000, CAUSING SDP-95-61 AND WP-95-81 TO LAPSE.

REVISION #1
 ▲ ADDED TWO 20' WIDE OVERHEAD DOORS TO NORTH-WEST SIDE OF BUILDING A REVISED PARKING TABULATION
 REVISION NO #1 PREPARED BY BALTIMORE LAND DESIGN GROUP INC. CONSULTING ENGINEERS, 222 SCHILLING CIRCLE, SUITE 105 HUNT VALLEY, MARYLAND 21030

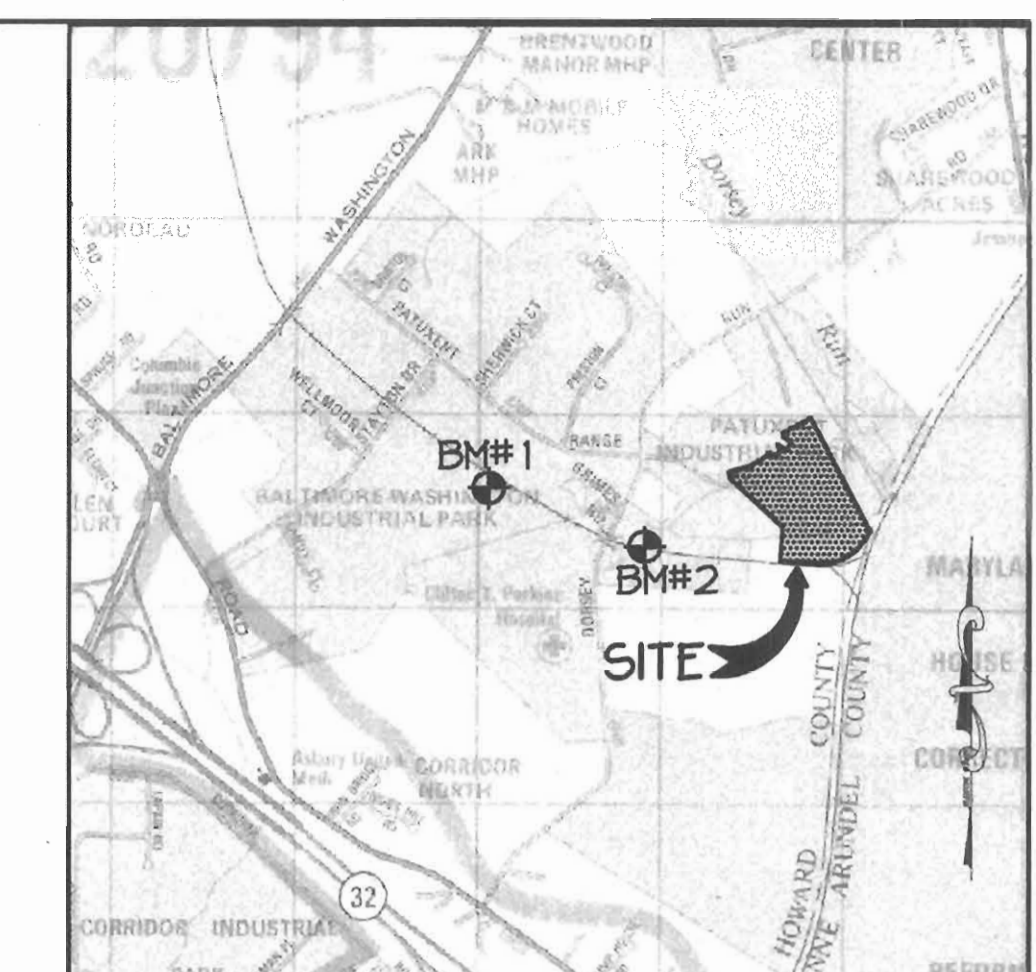
Mona Joseph Gaudin
 PROFESSIONAL ENGINEER
 STATE OF MARYLAND
 3/11/05
 Revision #1 only



AS-BUILT CONTROL BENCHMARKS

BENCHMARK #1
 ✓ HOWARD COUNTY SURVEY CONTROL STATION: 2043004
 N 471,530.479 E 857,445.252
 ELEVATION: 239.274
 CONCRETE MONUMENT, 0.2' ABOVE SURFACE, 500' EAST OF UNITED STATES TRUCKING WAREHOUSE

BENCHMARK #2
 ✓ HOWARD COUNTY SURVEY CONTROL STATION: 2044006-R
 N 476,424.101 E 859,068.366
 ELEVATION: 210.767
 REBAR LOCATED ON B40 RAILROAD SPUR 3' NORTH OF TOP BANK 0.3' BELOW SURFACE, 350' EAST OF BRIDGE ABUTMENT AT DORSEY RUN ROAD



VICINITY MAP
 SCALE: 1" = 2000'
 Copyright APC The Map People
 Permitted Use No.: 2004225
 Map 20, Grid H-6 J-J-6

SITE ANALYSIS

AREA OF PARCEL	26.88 ACRES (1,170,893 SF)
DISTURBED AREA	10.40 ACRES (453,024 SF)
PRESENT ZONING	M-2
PROPOSED USE	2 OFFICE/WAREHOUSE FACILITIES (ONE STORY)
BUILDING COVERAGE (HYBRID OFFICE/WAREHOUSE)	
BUILDING-A	105,000 SF (8.97% OF GROSS AREA)
BUILDING-B	37,800 SF (3.23% OF GROSS AREA)
TOTAL AREA	142,800 SF
# OF PARKING SPACES REQUIRED	
BUILDING COVERAGE @ 0.5 SP/1000:	
BUILDING A COVERAGE	53 SPACES
BUILDING B COVERAGE	19 SPACES
# OF TOTAL PARKING SPACES REQUIRED:	72 SPACES
# OF PARKING SPACES PROVIDED	▲ 125 SPACES (INCLUDING 7 HC)
APPLICABLE REFERENCES	WP-99-88, SDP-95-61, F-01-102 WP-95-81, F-93-105, F-95-180, SDP-92-67

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

James A. Smith 5/25/01
 DIRECTOR DATE

William J. Harrison 5/11/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cindy Hamilton 5/21/01
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER / DEVELOPER
 DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
 ONE TEXAS STATION COURT
 SUITE 100
 TIMONIUM, MARYLAND 21093
 (443) 689-9000

PROJECT
DORSEY RUN INDUSTRIAL PARK-PARCEL 'C'

AREA TAX MAP NO. 48 BLOCKS 3 & 9
 PARCEL C ZONED M-2
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE
TITLE SHEET

RIEMER MUEGGE
 a division of
Patton Harris Rust & Associates, pc
 ENGINEERS • SURVEYORS • PLANNERS
 LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS
 8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

DATE: 5.1.01
 DESIGNED BY: C.J.R.
 DRAWN BY: K.E.V.
 CHECKED BY: C.J.R.
 PROJECT NO.: 00099
 SDPI.DWG
 DATE: MAY 3, 2001
 SCALE: AS SHOWN
 DRAWING NO.: 1 OF 17

Christopher J. Reid
 CHRISTOPHER J. REID #19949

AS-BUILT CERTIFICATE

7-24-02
 DATE

ADDRESS CHART

BUILDING	STREET ADDRESS
A	8205 PATUXENT RANGE ROAD
B	8215 PATUXENT RANGE ROAD

SUBDIVISION NAME - DORSEY RUN INDUSTRIAL PARK
 PLAT # - 1481B-1981A
 BLOCK # - 3 & 9
 ZONE - M-2
 TAX MAP NO - 48
 ELECT. DIST - 6th
 CENSUS TR. - 6069.01
 WATER CODE - 802
 SEWER CODE - 3020000

