

SHEET INDEX

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FINAL PLAN

DORSEY RUN ROAD

STATION 532+58.52 TO 551+11.59

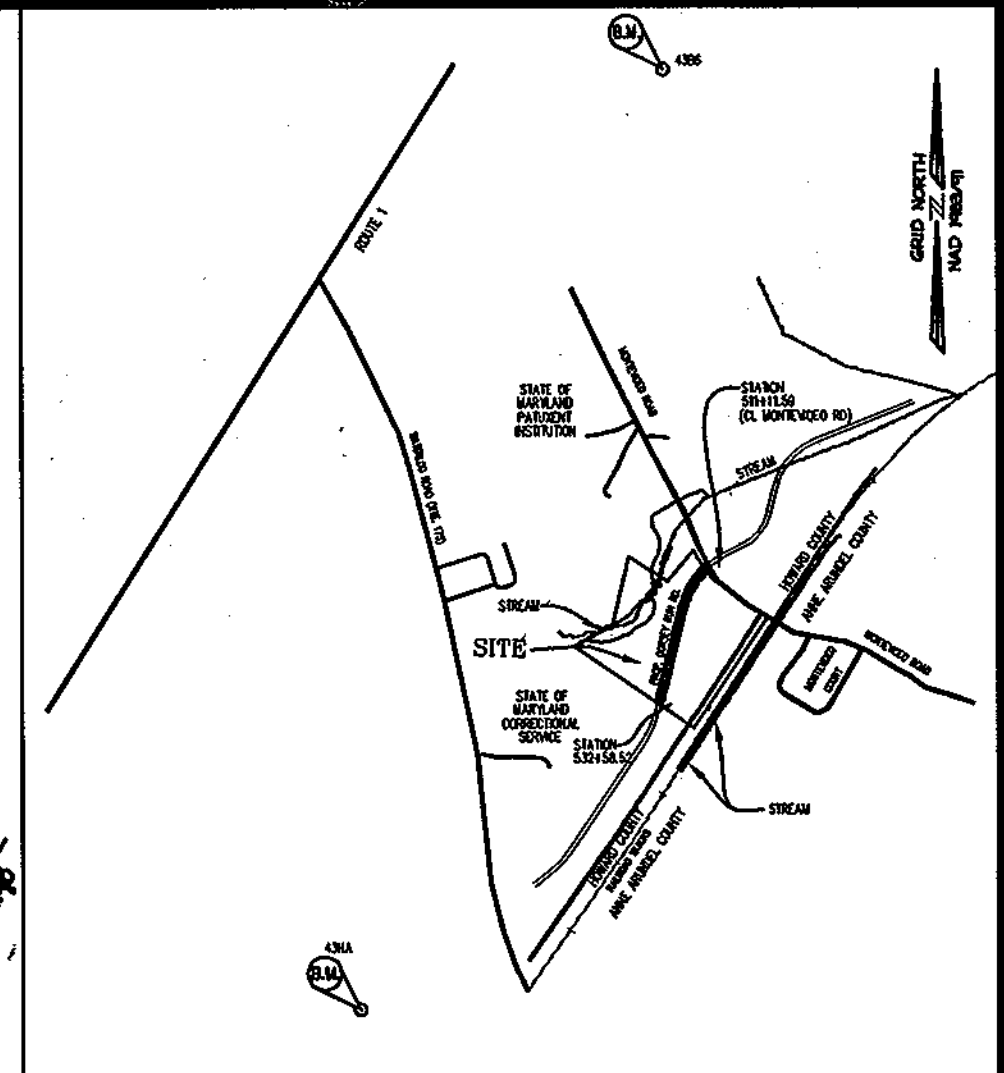
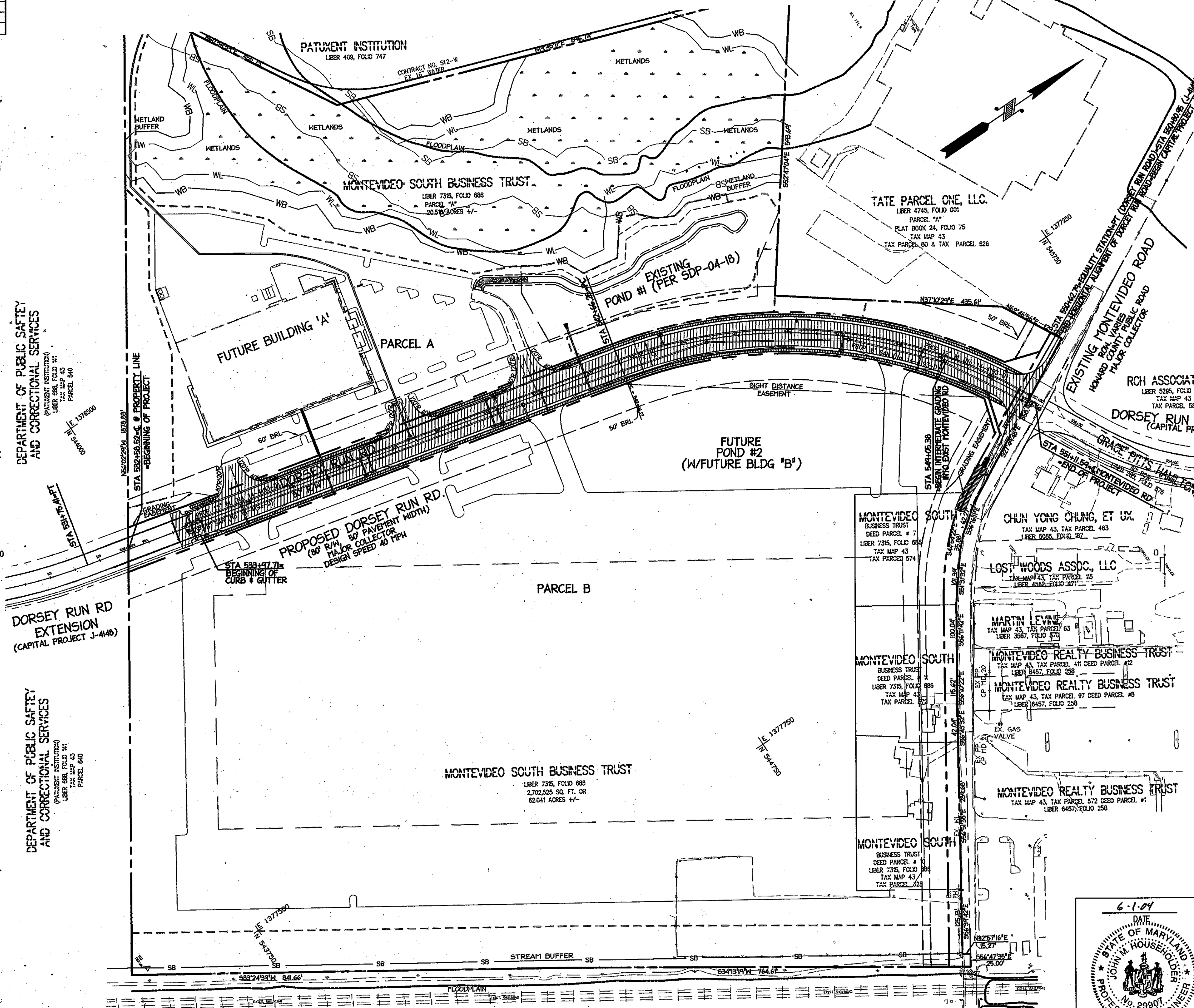
AT DORSEY RUN INDUSTRIAL CENTER

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOL. IV "STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION" PLUS MSHA STANDARDS AND SPECIFICATIONS.
2. 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.
3. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
4. 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.
5. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
6. THE EXISTING TOPOGRAPHY AND SITE BOUNDARY WERE COMPLETED BY THE RBA GROUP ON AND BETWEEN JAN. 8 AND JUNE 25, 2003.
7. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLAN COORDINATE SYSTEM MONUMENT NOS 43HA AND 43BB WERE USED FOR THIS PROJECT (NAD 1983/91).
8. WATER IS PUBLIC. CONTRACT NO. 14-4193-D.
9. SEWER IS PUBLIC CONTRACT NO. 14-4193-D.
10. WATER QUALITY AND WATER QUANTITY MANAGEMENT WILL BE PROVIDED IN A EXTEND DETENTION FACILITY WITH MICROPOOL AS SHOWN AND LABELED AS POND#1 ON MASS GRADING PLAN (GP-04-55 & SDP-04-18).
11. EX. UTILITIES ARE BASED ON FIELD RUN TOPOGRAPHY BY RBA ON AND BETWEEN JAN. 8 AND JAN. 25 2003, AND SUPPLEMENTED WITH HOWARD COUNTY RECORDS.
12. CONTRACTOR SHALL VERIFY SIZE AND LOCATIONS OF ALL UNDERGROUND UTILITIES AND TEST PIT ALL UTILITIES, INCLUDING PROPOSED TIE IN LOCATIONS, AT LEAST 5 DAYS PRIOR TO STARTING ANY WORK ON THESE DRAWINGS. DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER AND IN ADVANCE OF CONSTRUCTION START.
13. ANY DAMAGE CAUSED BY THE CONTRACTOR TO EXISTING PUBLIC RIGHT-OF-WAY, EXISTING PAVING, EXISTING CURB AND GUTTER, EXISTING UTILITIES, ETC. SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
14. ALL FILL AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED AND VERIFIED IN ACCORDANCE WITH AASHTO T-180-STANDARD.
15. CONTRACTOR SHALL MAINTAIN ALL SEDIMENT CONTROL DEVICES WITHIN THE LIMITS OF THE SITE DURING CONSTRUCTION OF THE SITE IMPROVEMENTS. CONTRACTOR SHALL PROVIDE ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES AS MAY BE NECESSARY DURING CONSTRUCTION AND/OR BY GOVERNING AGENCIES.
16. THERE ARE NO KNOWN CEMETERIES OR BURIAL GROUNDS ON THIS SITE. HOWEVER, UPON DISCOVERY OF ANY EVIDENCE OF BURIAL OR GRAVES, THE DEVELOPER WILL BE SUBJECT TO SECTION 16.1305 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
17. ALL ADJACENT PROPERTIES ARE NON-RESIDENTIAL USES.
18. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE WETLANDS, STREAM(S) OR THEIR REQUIRED BUFFERS AND FOREST CONSERVATION EASEMENT AREAS.
19. THE SUBJECT PROPERTY IS ZONED M-2 PER PER THE 1993 COMPREHENSIVE ZONING PLAN.
20. THE CONTRACTOR SHALL TEST PIT ALL EXISTING UTILITIES AT LEAST FIVE (5) DAYS PRIOR TO STARTING ANY WORK SHOWN ON THESE DRAWINGS.
21. OPERATING EXISTING VALVES, SWITCHES, SERVICES OR START UP OF NEW SERVICES SHALL BE COORDINATED WITH THE OWNERS REPRESENTATIVE.
22. FOREST CONSERVATION OBLIGATION, IN ACCORDANCE WITH SECTION 16.1202 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION MANUAL, HAVE BEEN MET BY THE PREPARATION ON MASS GRADING PLAN (SDP-04-18).
23. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
24. LAND DEDICATED TO HOWARD COUNTY, MARYLAND, FOR PURPOSES OF A PUBLIC ROAD: 4.1 ACRES.
25. THE PERMIETER LANDSCAPING REQUIREMENTS HAVE BEEN DEFERRED UNTIL THE SITE PLAN STAGE, FOR DEVELOPMENT OF PARCELS "A" AND "B".
26. "STREET LIGHT WILL BE REQUIRED IN THIS DEVELOPMENT IN ACCORDANCE WITH THE DESIGN MANUAL. STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SELECTED SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AS MODIFIED BY "GUIDELINES FOR LATERAL AND LONGITUDINAL PLACEMENT, A MINIMUM SPACE OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE."
27. ALL STREET LIGHTS SHALL BE LOCATED BETWEEN 2'-0" AND 4'-0" BEHIND FACE OF CURB.

SITE ANALYSIS

1. TOTAL AREA OF PARCELS: 2,325,233 SQ. FT. (62.04 AC.)
2. IMPERVIOUS AREA: 2.18 ACRES
3. DEED REFERENCE: 7315/688
4. PLAT REFERENCE: N/A
5. RELATED FILES FOR THIS SITE: SDP 04-18, WP-04-58, GP-04-55
6. ELECTION DISTRICT NO. 1, HOWARD COUNTY MARYLAND
7. TAX MAP: 43, GRID: 16, PARCELS: 100,325,372,572, & 574
8. (PARCEL #4,5,6,7,10, & 11 AS REFERENCED DEED 7315/688)
9. AREA OF DISTURBANCE: 0.77 ACRES.
10. (ADDITIONAL TO THE MASS GRADING PLAN, GP-04-55 & SDP-04-18)
11. TOTAL AREA OF ROAD RIGHT OF WAY TO BE RECORDED 4.1 ACRES.



VICINITY MAP
SCALE: 1"=2000'

BENCHMARK
Horizontal Datum: Howard County Grid System (NAVD 1927)
Vertical Datum: NAVD 1929
Howard County Monument 43HA
N540761.72, E1373837.37, Elev. 224.90
Howard County Monument 43BB
N550601.61, E1376866.05, Elev. 210.56

APPROVED: DEPARTMENT OF PUBLIC WORKS
William Z. ... 6-28-04
Chief, Bureau of Highways Date

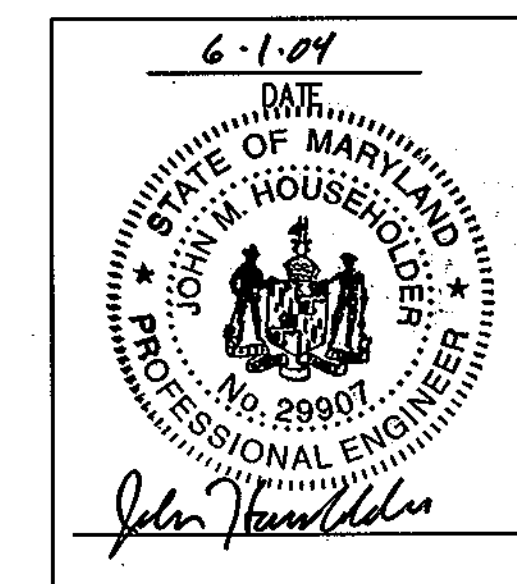
APPROVED: DEPARTMENT OF PLANNING AND ZONING
Cynthia ... 6/20/04
Chief, Division of Land Development Date

... 6/20/04
Chief, Development Engineering Division Date

Date	No.	Revision Description

OWNER / DEVELOPER
MONTEVIDEO SOUTH BUSINESS TRUST
C/O TRANHELL CROW COMPANY
7315 MISSISSIPPI AVENUE SUITE 300 W
BETHESDA, MARYLAND 20814
TEL (301) 530-6200
FAX (301) 530-6131

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engineering - surveying - land planning
christopher consultants, inc.
7172 columbian gateway drive (suite 100) - coltsville, md. 21046-2990
410.872.8800 - memo 301.881.0148 - fax 410.872.9993



DORSEY RUN ROAD
(STA. 532+58.52 TO 551+11.59)
AT DORSEY RUN INDUSTRIAL CENTER

COVER SHEET

DESIGN: XDF
DRAWN: ADL
CHECKED: JMH





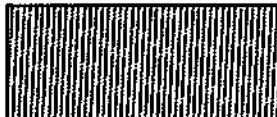
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DATE: 05/10/04
APPROVED:

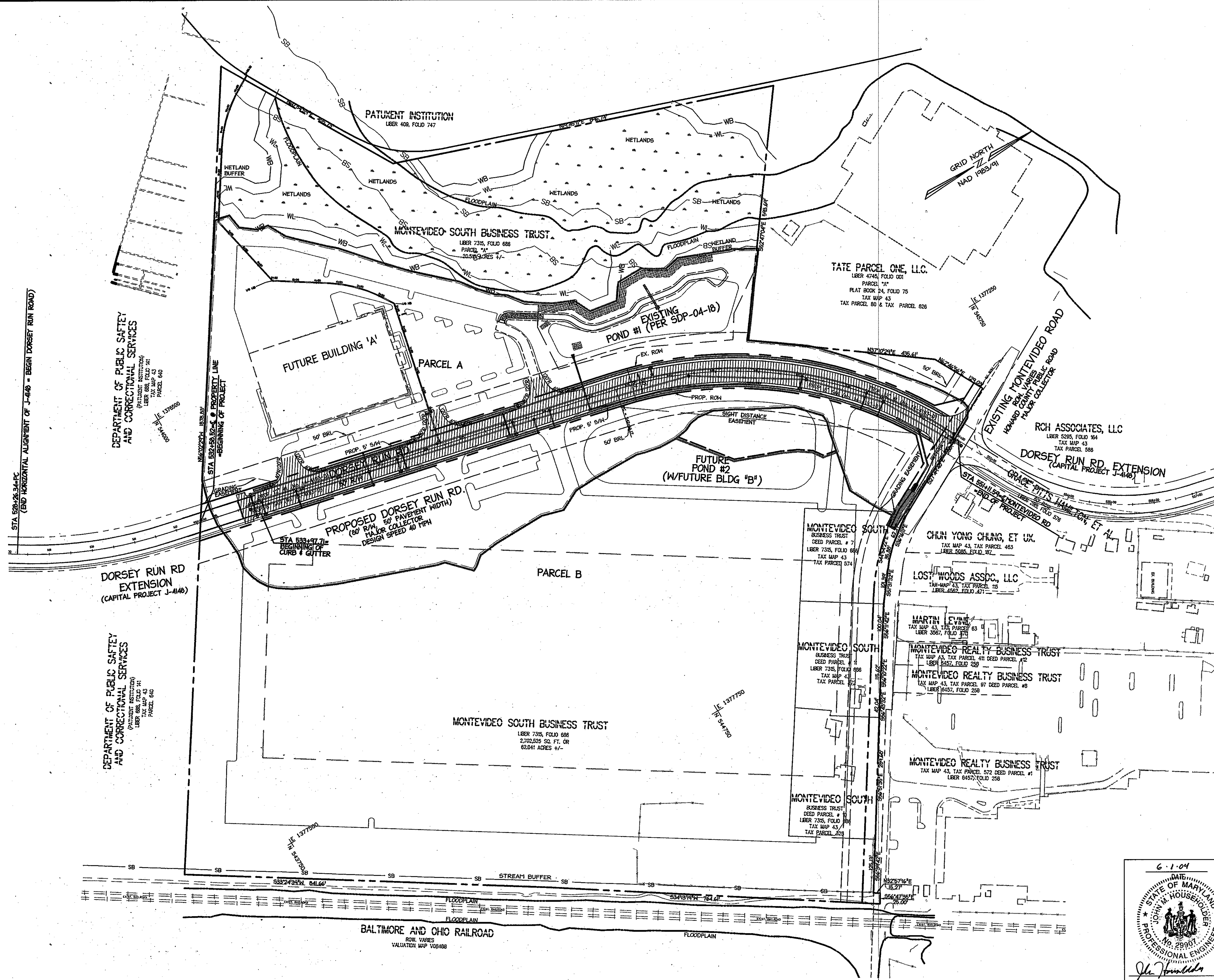
PROJECT: 036701.02
1 OF 13

BALTIMORE AND OHIO RAILROAD
R.M. HARES
VALLEYVIEW MAP V08488

OVERALL VIEW
SCALE: 1"=100'

LEGEND

-  EXISTING LIMITS OF DISTURBANCE (SDP-04-18)
-  LIMITS OF DISTURBANCE
-  PROPOSED STORM SEWER
-  PROPOSED CURB AND GUTTER
-  PROPOSED IMPROVEMENTS PAVEMENT, CURB AND GUTTER, AND SIDEWALK



APPROVED: DEPARTMENT OF PUBLIC WORKS
William F. ... 6-29-04
 Chief, Bureau of Highways Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chris ... 6/30/04
 Chief, Division of Land Development Date

... 6/30/04
 Chief, Development Engineering Division (MRJ) Date

Date	No.	Revision Description

OWNER / DEVELOPER
 MONTEVIDEO SOUTH BUSINESS TRUST
 C/O TRAMELL CROW COMPANY
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 FAX: (301) 530-6131

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 410.872.8800 · memo: 301.681.0148 · fax: 410.872.8883

DORSEY RUN ROAD
 (STA. 532+58.52 TO 551+11.59)
 AT DORSEY RUN INDUSTRIAL CENTER

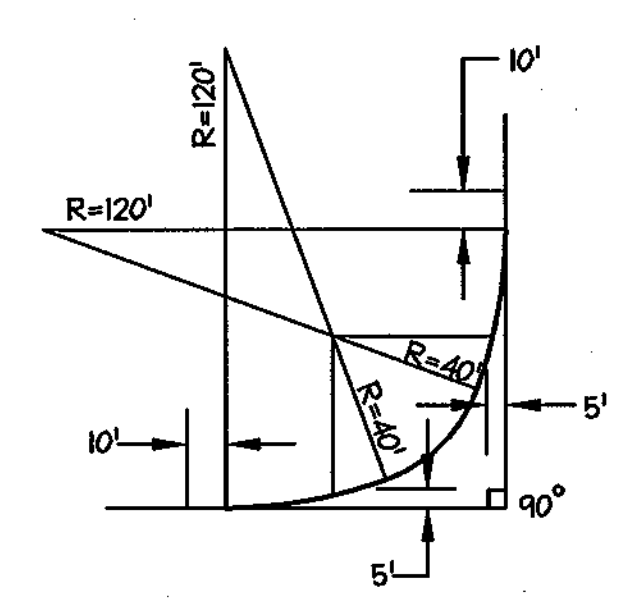
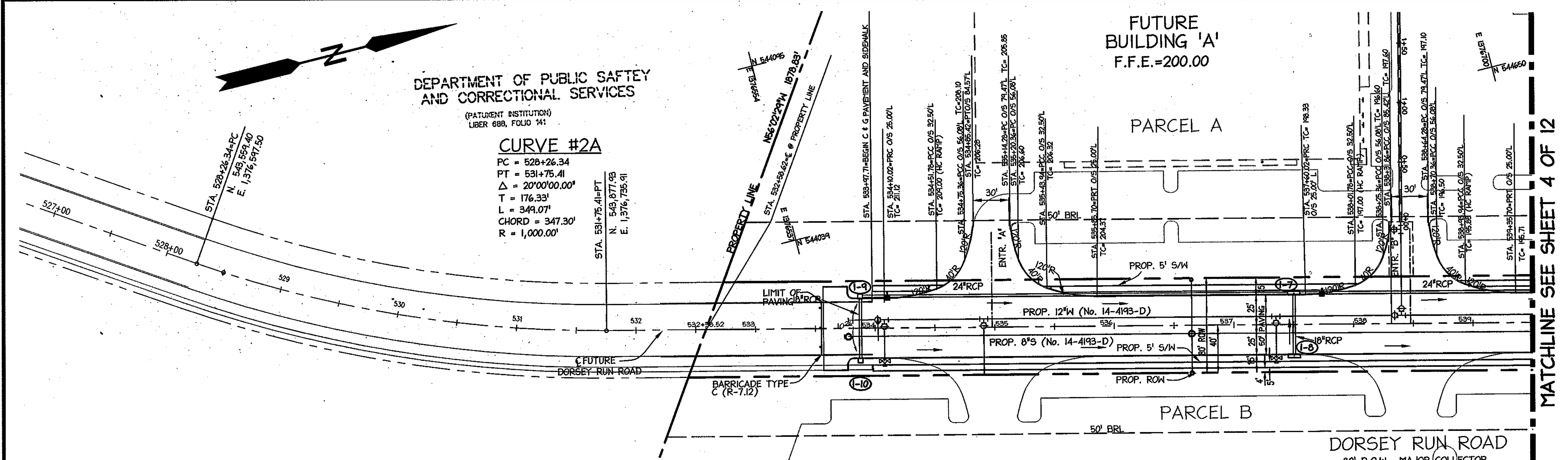
TITLE: **OVERALL ROAD AND STORM DRAIN EXTENSIONS PLAN**

DESIGN: XDF SCALE: 1"=100'
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 CHECKED: JMH APPROVED: *J. ...*

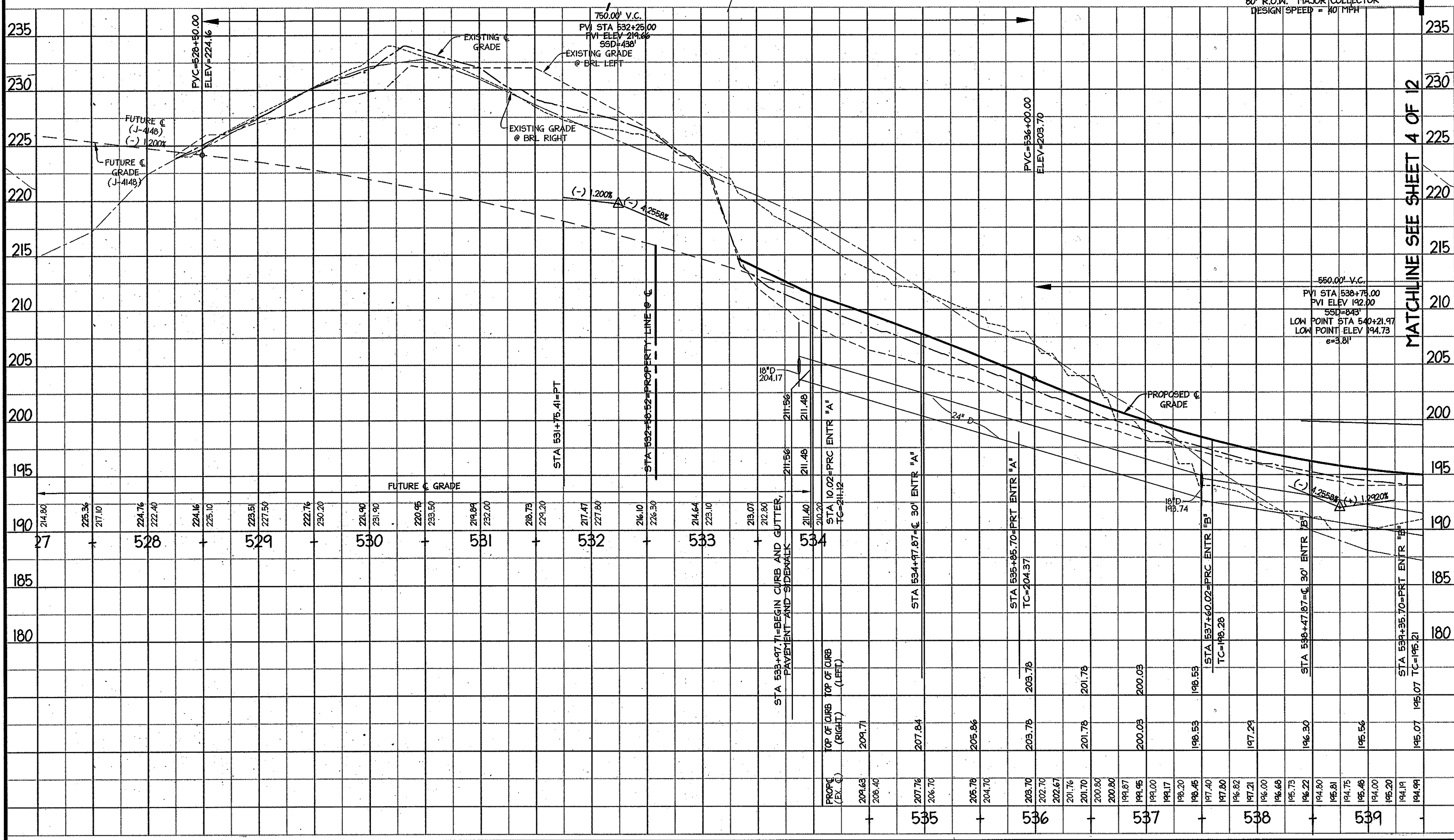
DEPARTMENT OF PUBLIC SAFETY
AND CORRECTIONAL SERVICES
(PATIENT INSTITUTION)
LIBER 688, FOLIO 141

CURVE #2A
PC = 528+26.34
PT = 531+75.41
 $\Delta = 20^{\circ}00'00.00''$
T = 176.33'
L = 349.07'
CHORD = 347.30'
R = 1,000.00'

FUTURE BUILDING 'A'
F.F.E. = 200.00



CHANNELIZATION OF
COMMERCIAL ENTRANCE
3-CENTERED CURVED DATA



MATCHLINE SEE SHEET 4 OF 12

APPROVED: DEPARTMENT OF PUBLIC WORKS		
<i>William F. ...</i>		6-28-04
Chief, Bureau of Highways		Date
APPROVED: DEPARTMENT OF PLANNING AND ZONING		
<i>Candy ...</i>		6/20/04
Chief, Division of Land Development		Date
<i>...</i>		6/23/04
Chief, Development Engineering Division		Date
Date	No.	Revision Description

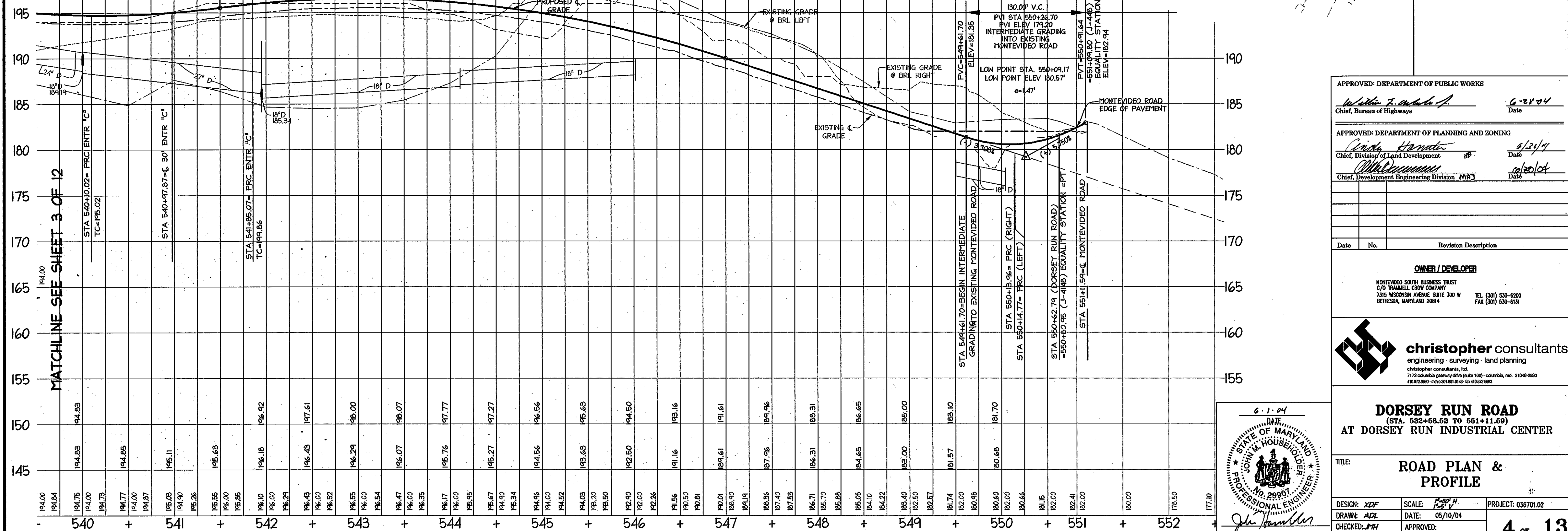
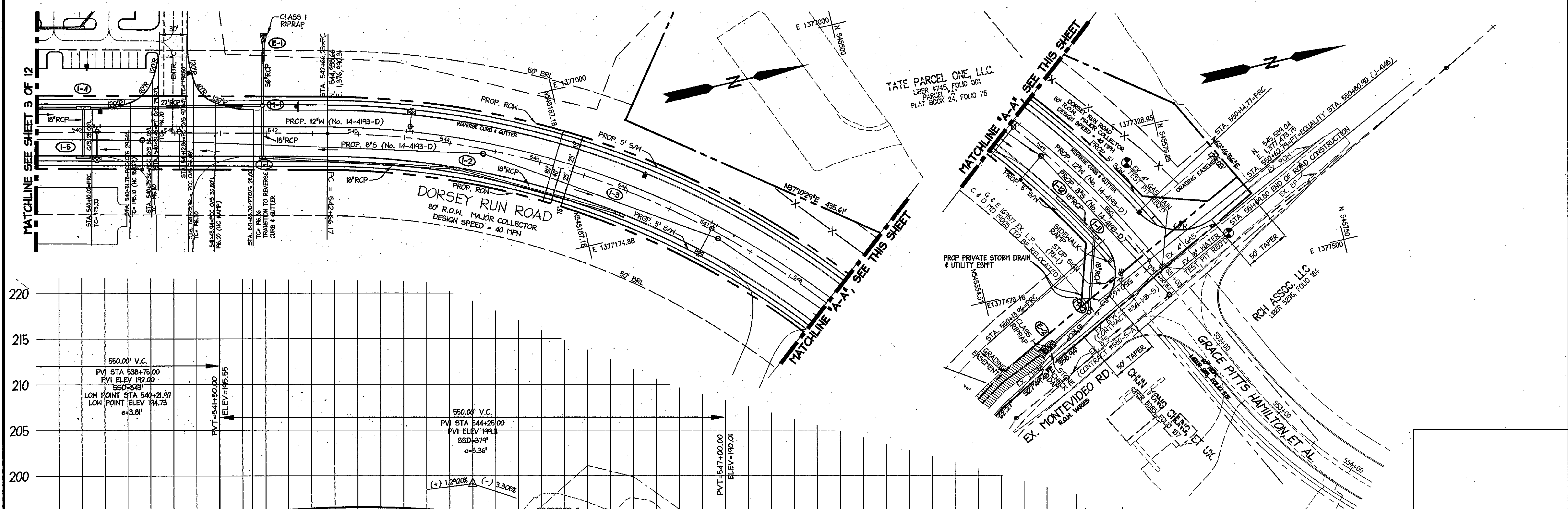
OWNER / DEVELOPER
HOWARD SOUTH BUSINESS TRUST
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7315 WISCONSIN AVENUE SUITE 300 W
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410.252.8990 - main 410.251.8143 - fax 410.822.8993

DORSEY RUN ROAD
(STA. 528+50.00 TO 539+50.00)
AT DORSEY RUN INDUSTRIAL CENTER

TITLE: **ROAD PLAN & PROFILES**
(STA. 528+50.00-539+50.00)

DESIGN: <i>...</i>	SCALE: <i>1/2"=10'</i>	PROJECT: Q36701.02
DRAWN: <i>...</i>	DATE: 05/10/04	
CHECKED: <i>...</i>	APPROVED: <i>...</i>	



APPROVED: DEPARTMENT OF PUBLIC WORKS
Walter F. ... 6-28-04
 Chief, Bureau of Highways Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chris ... 6/28/04
 Chief, Division of Land Development Date

... 10/20/04
 Chief, Development Engineering Division Date

Date	No.	Revision Description

OWNER / DEVELOPER
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 C/O TRANMILL CROW COMPANY
 7315 WISCONSIN AVENUE SUITE 300 W BETHESDA, MARYLAND 20814
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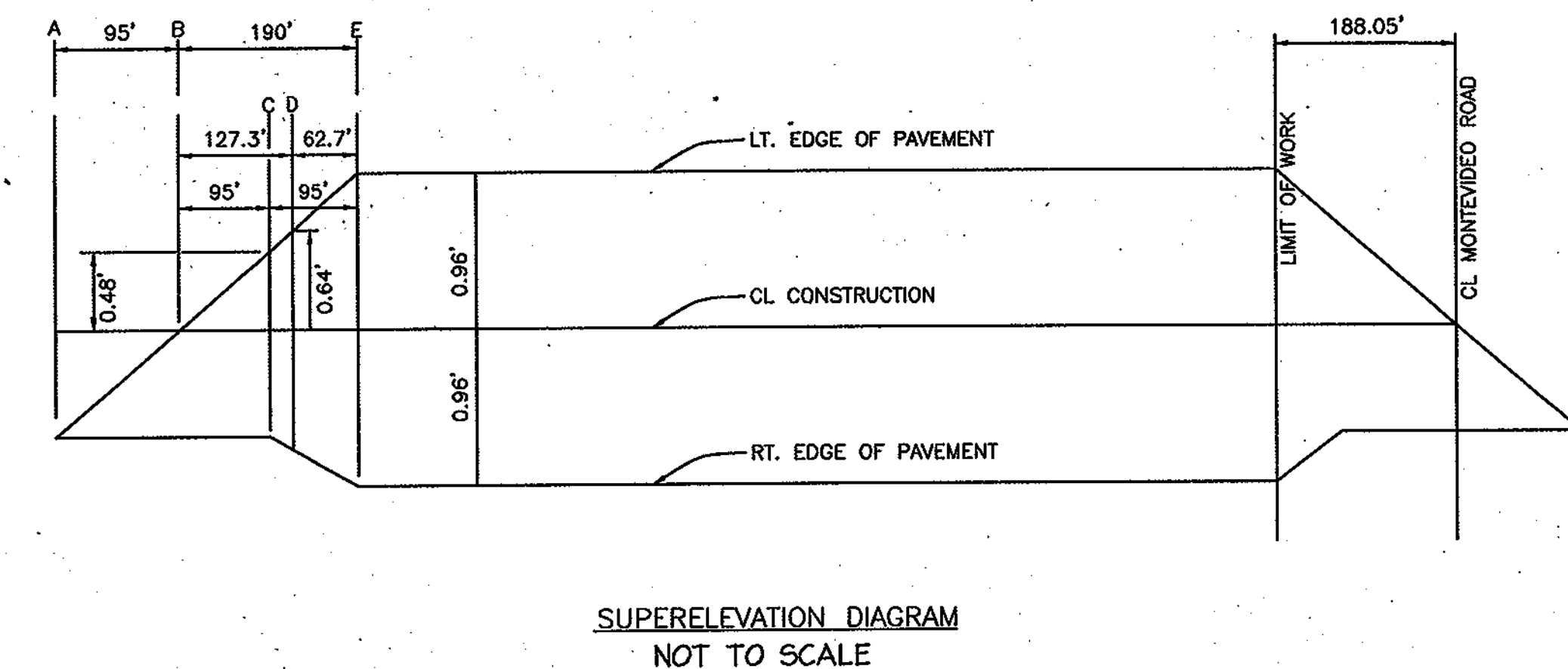
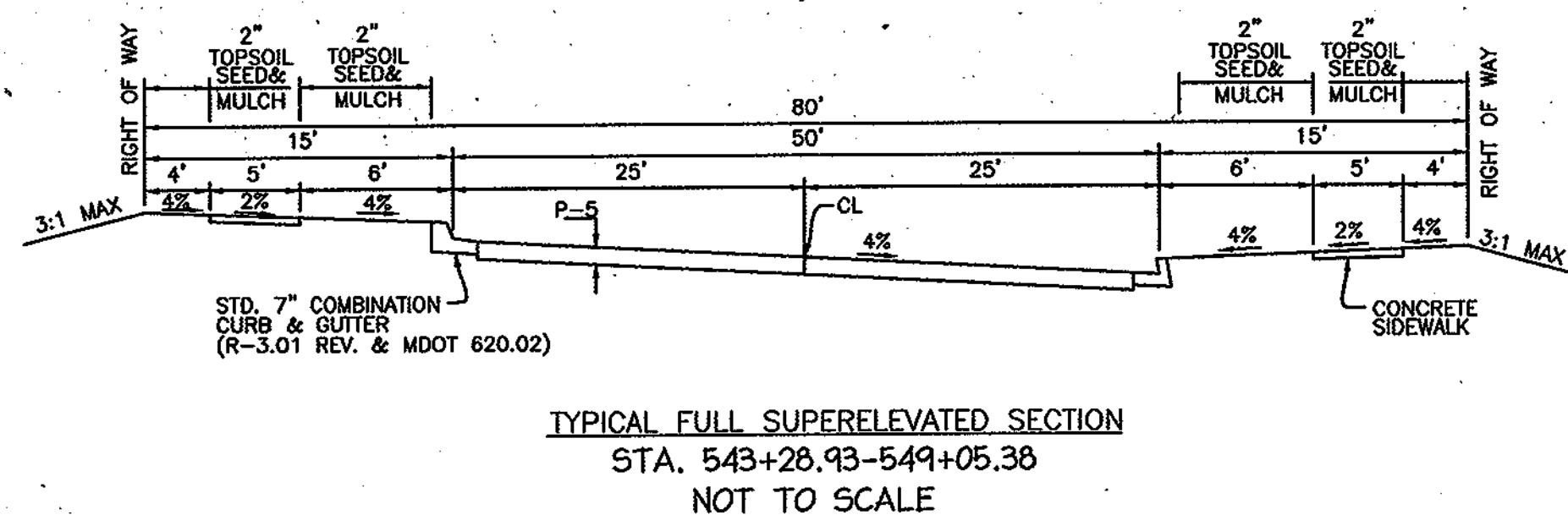
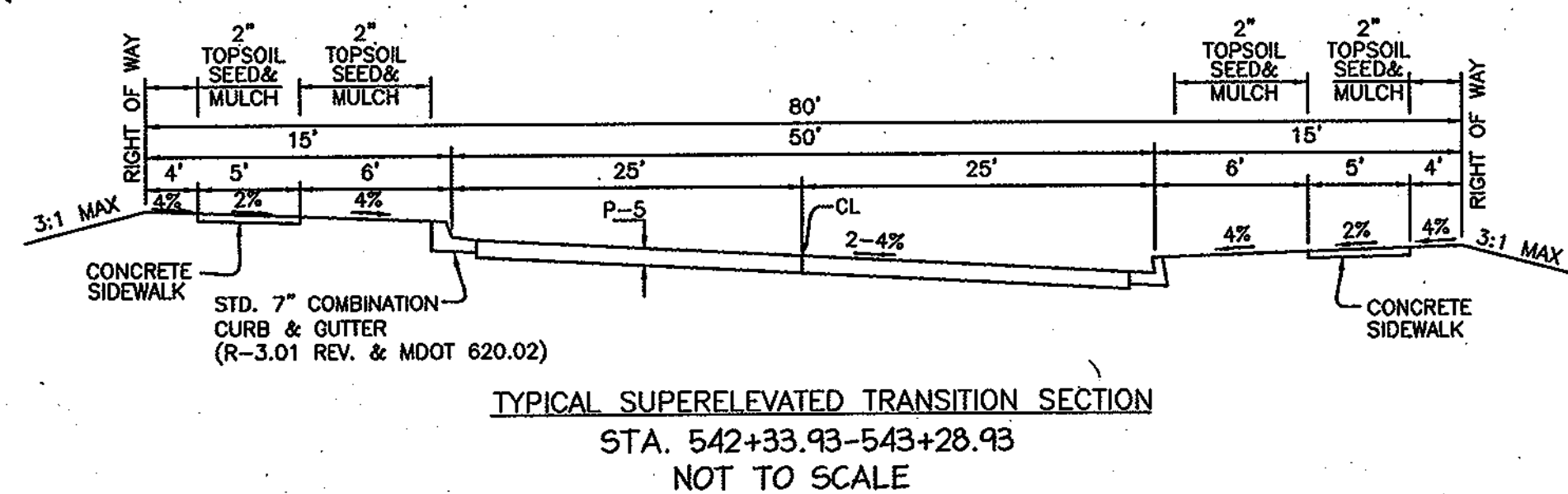
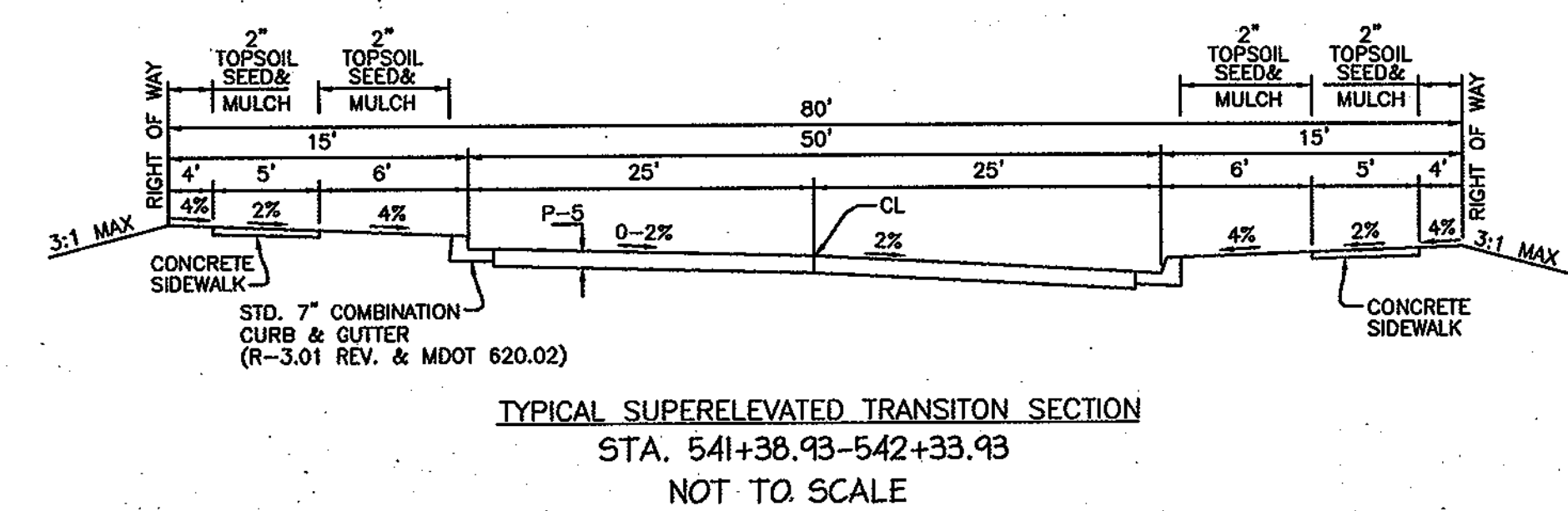
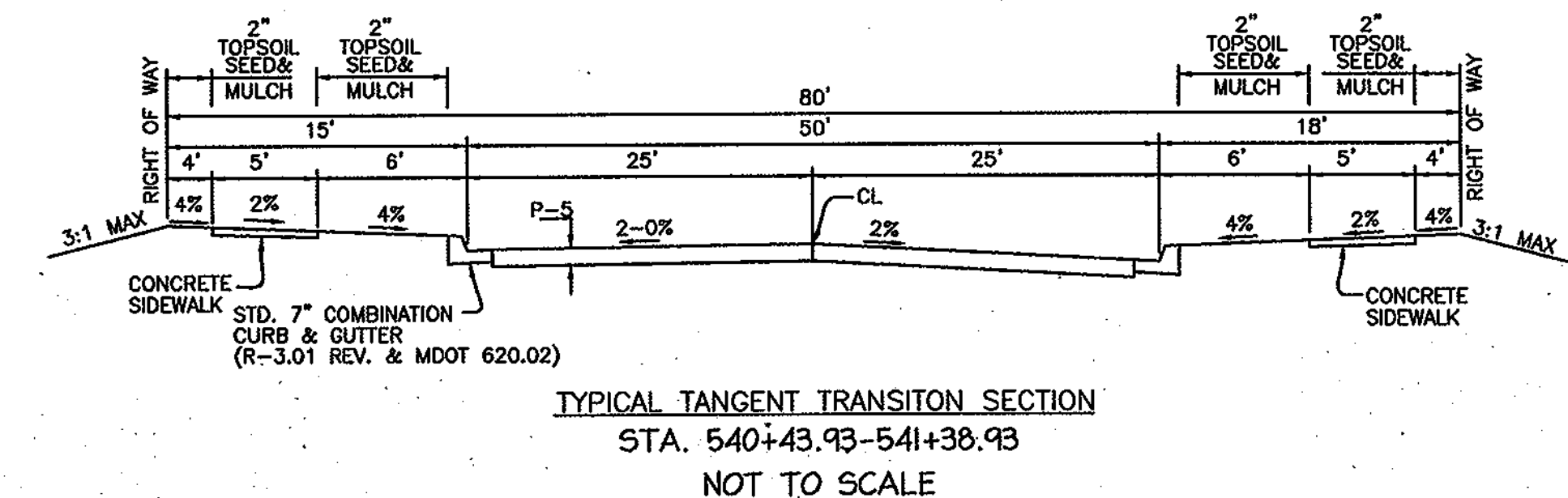
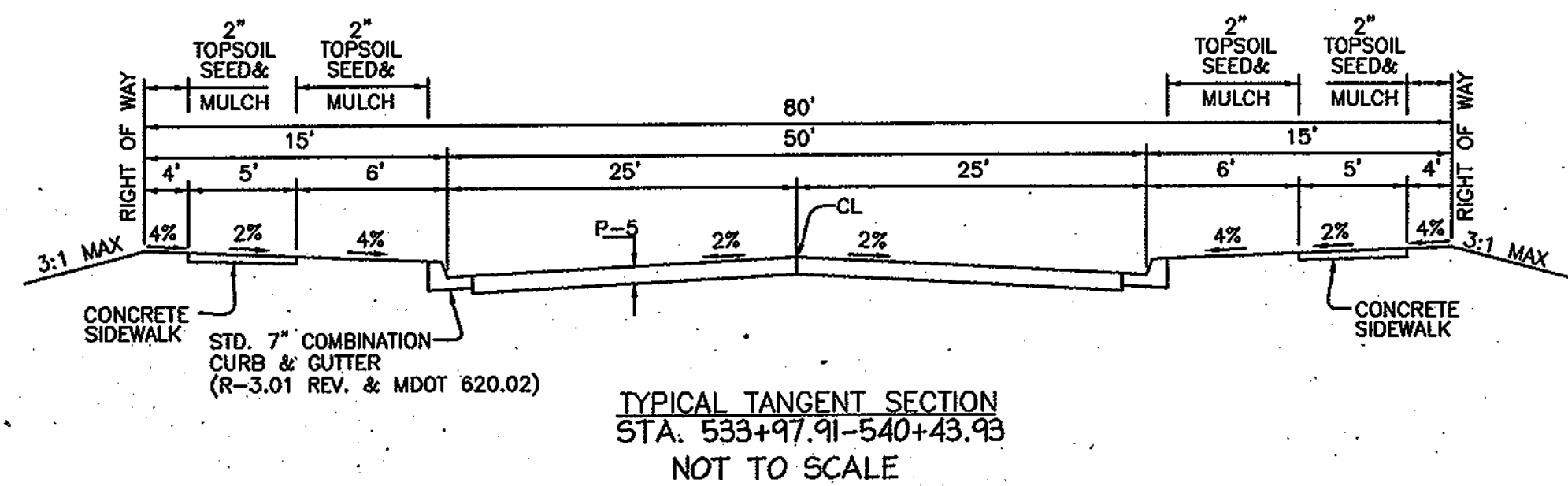


DORSEY RUN ROAD
 (STA. 532+58.52 TO 551+11.59)
 AT DORSEY RUN INDUSTRIAL CENTER

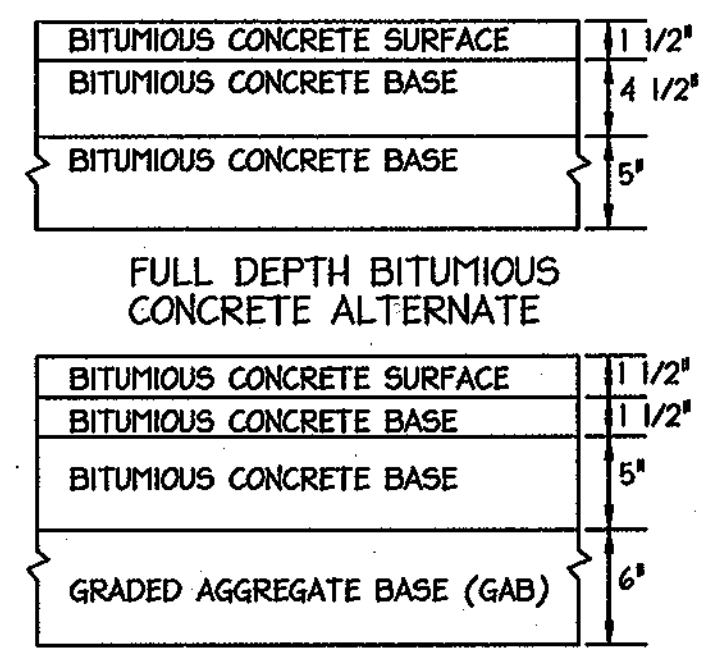
TITLE: **ROAD PLAN & PROFILE**

DESIGN: XDF SCALE: 1"=20' PROJECT: 038701.02
 DRAWN: ADL DATE: 05/10/04
 CHECKED: JMH APPROVED: *John ...*

4 OF 13



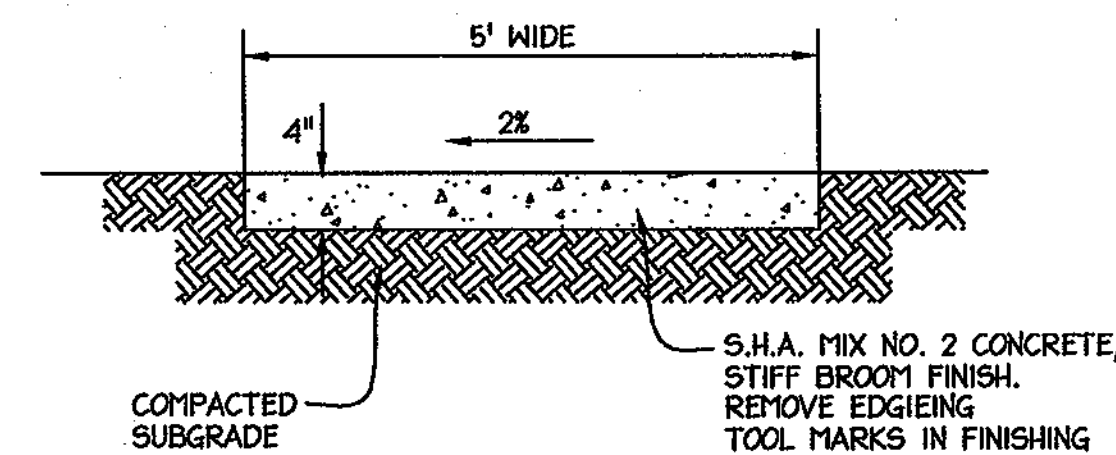
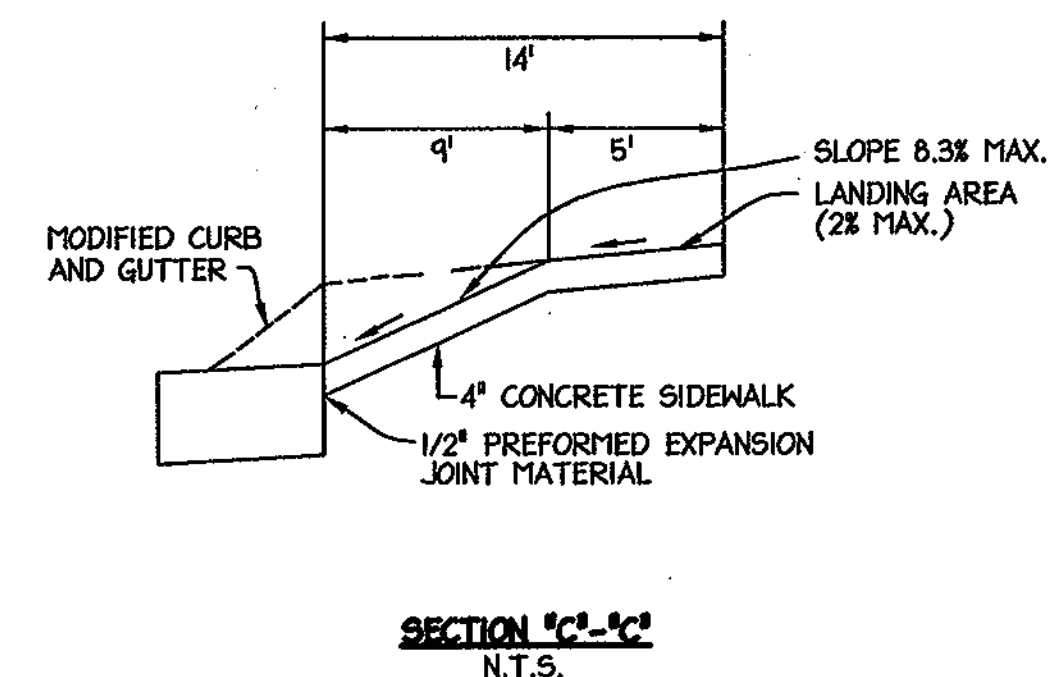
SUPERELEVATION TRANSITION TABLE		
CURVE #9A (STA 542+66.23 TO 550+62.79 (+550+80.95 FOR J-448))		
A	540+43.93	END NORMAL CROWN, BEGIN TRANSITION
B	541+38.93	HALF LEVEL SECTION
C	542+33.93	INCLINED PLANE, 2.00%
D	542+66.23	PC-INCLINED PLANE 2.66%
E	543+28.93	END TRANSITION, BEGIN FULL SUPERELEVATION, 4.00%
F	549+05.36	END FULL SUPERELEVATION, 4.00%, BEGIN FUTURE TRANSITION (J-448), (BEGIN INTERMEDIATE GRADING)
G	551+11.59	FUTURE END TRANSITION (CENTER LINE EX. MONTEVIDEO RD)



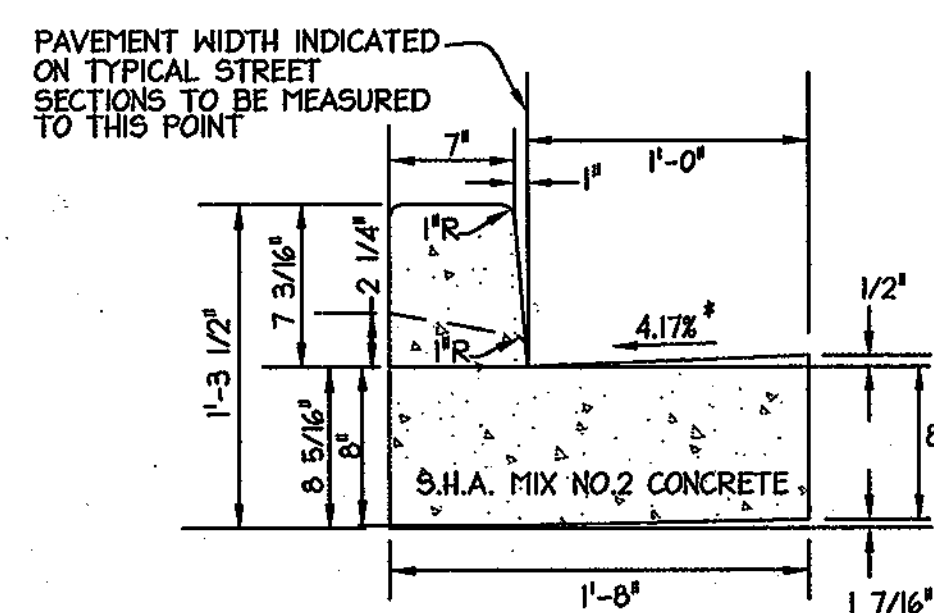
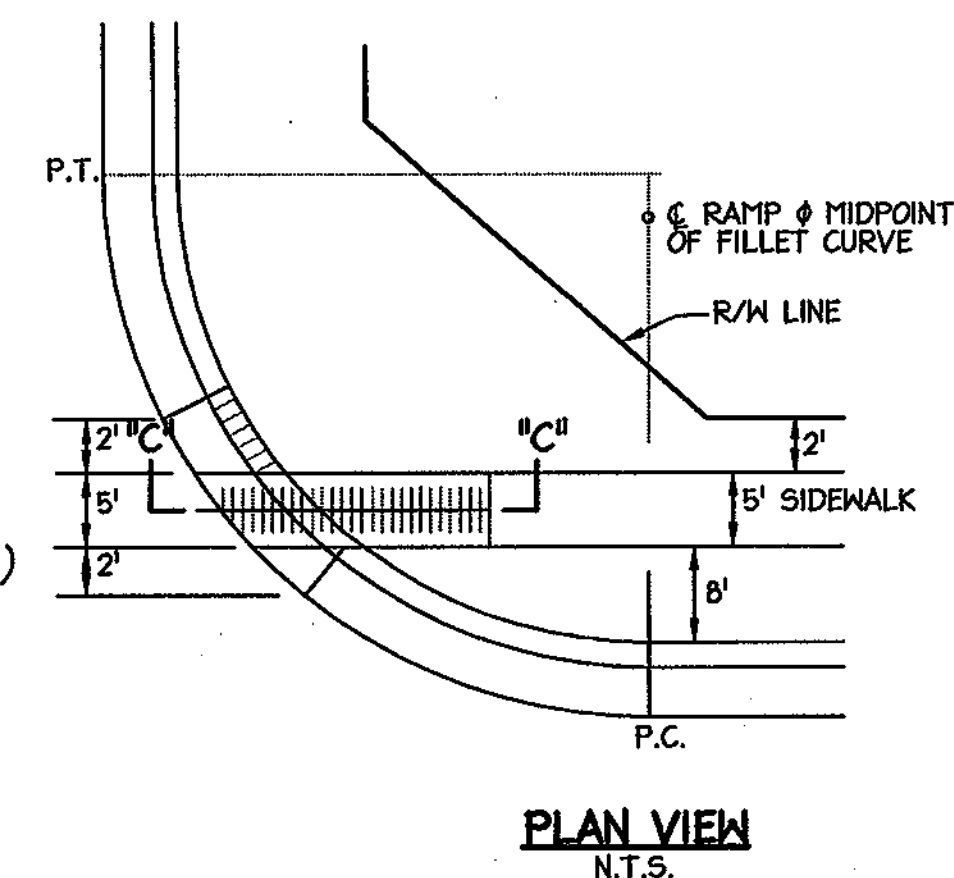
GRANULAR BASE ALTERNATES

HOWARD DESIGN MANUAL VOLUME IV
STANDARD SPECIFICATIONS AND DETAILS
FOR CONSTRUCTION (DRAWING R-2.02)

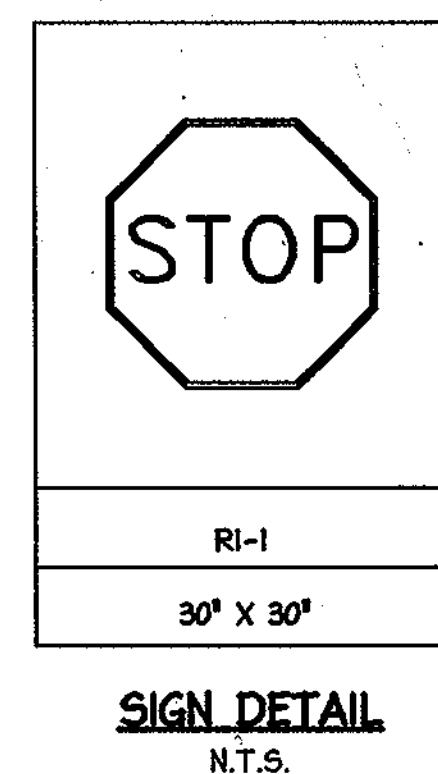
P-5 PAVING
N.T.S.



NOTE:
PROVIDE LATITUDINAL EXPANSION JOINTS AT 15' O.C. (MAX.)
PROVIDE CONTRATION (DUMMY) JOINT AT 5' O.C.
INTERVALS BETWEEN EXPANSION JOINTS.
SIDEWALK TO BE SCRIBED IN 5' MAX. SQUARES.



* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AND IN THE SAME DIRECTIONS AS THE PAVEMENT.



APPROVED: DEPARTMENT OF PUBLIC WORKS	
<i>William F. ...</i>	6-28-04
Chief, Bureau of Highways	Date
APPROVED: DEPARTMENT OF PLANNING AND ZONING	
<i>Candy ...</i>	6/28/04
Chief, Division of Land Development	Date
<i>...</i>	6/28/04
Chief, Development Engineering Division (M&E)	Date

Date	No.	Revision Description
OWNER / DEVELOPER		
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DORSEY RUN ROAD
(STA. 532+58.52 TO 551+11.59)
AT DORSEY RUN INDUSTRIAL CENTER

TITLE: **TYPICAL ROAD SECTIONS & DETAILS**

DESIGN: XDF	SCALE: AS SHOWN	PROJECT: 036701.02
DRAWN: ADL	DATE: 05/10/04	
CHECKED:	APPROVED:	

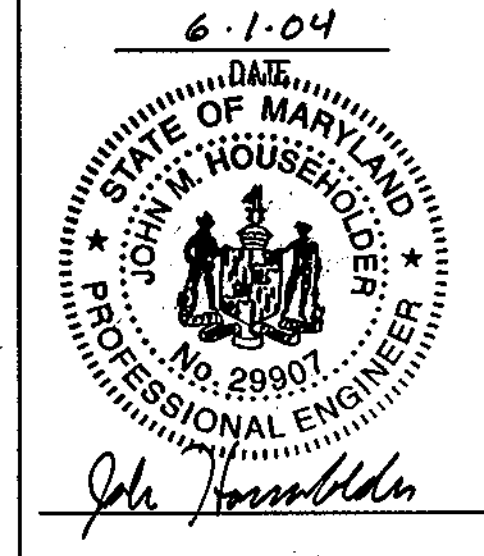
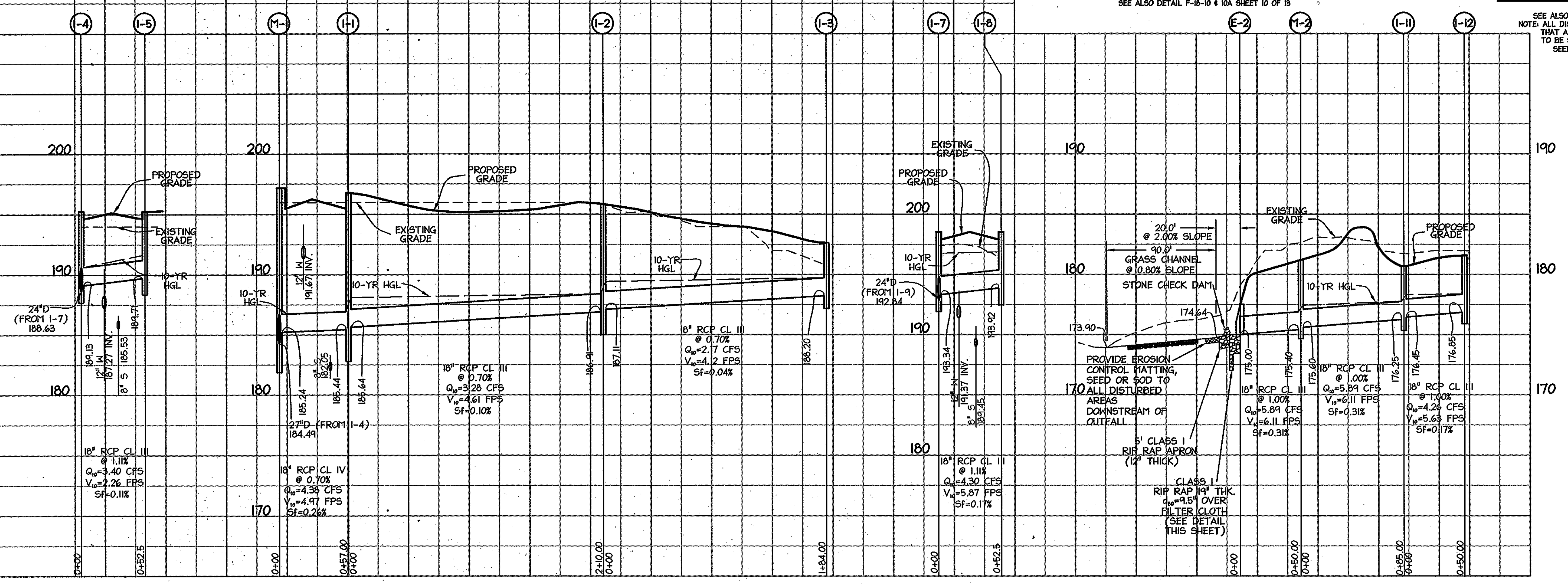
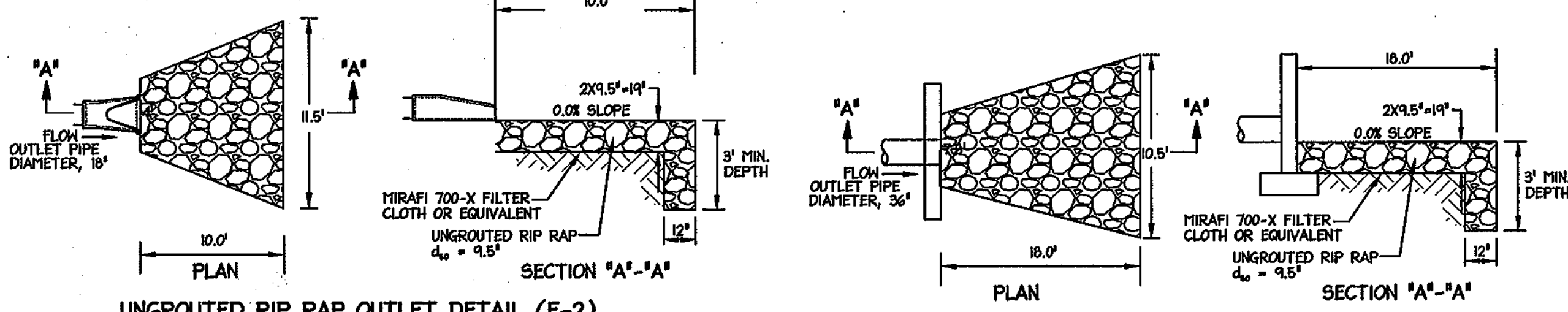
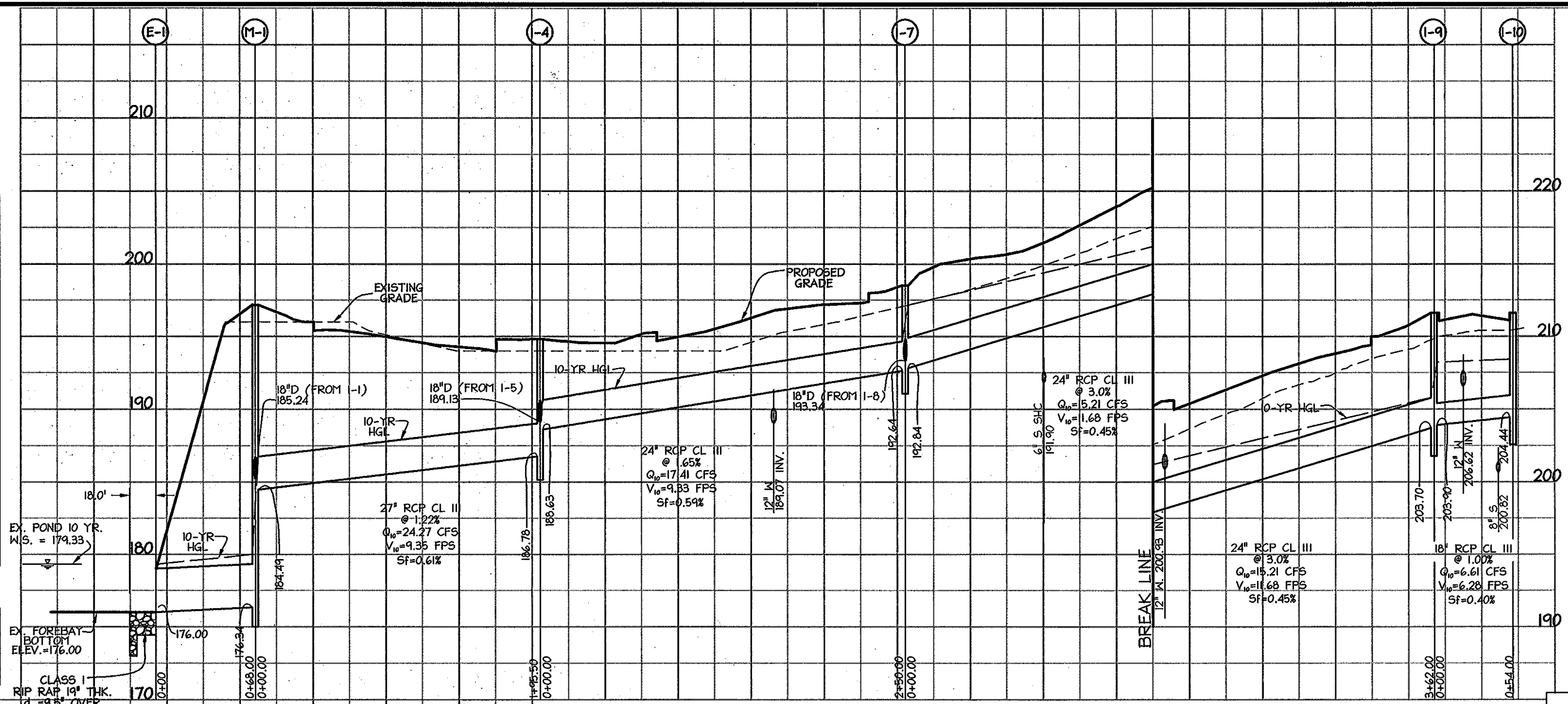


PIPE SCHEDULE		
PIPE LENGTH	SIZE	TYPE
68'	36"	CL IV
57'	18"	CL IV
195'	27"	CL III
612'	24"	CL III
738'	18"	CL III

STRUCTURE SCHEDULE						
STRUCTURE	TYPE	LOCATION	INV. IN	INV. OUT	TOP	REMARKS
I-1	A-5 2.5' WIDE	25.00' RT. OF C. STA. 541+95.37 DORSEY RUN ROAD	185.64 (18")	185.44 (18")	196.12	HOCO STD. DETAIL SD-4.40
I-2	A-5 2.5' WIDE	25.00' RT. OF C. STA. 544+11.18 DORSEY RUN ROAD	187.11 (18")	186.91 (18")	195.72	HOCO STD. DETAIL SD-4.40
I-3	A-10 2.5' WIDE	25.00' RT. OF C. STA. 546+01.73 DORSEY RUN ROAD	188.20 (18")	192.45	192.45	HOCO STD. DETAIL SD-4.41
I-4	SHA COG 3.0' WIDE	25.00' LT. OF C. STA. 540+00.37 DORSEY RUN ROAD	188.63 (24") 189.13 (18")	186.78 (27")	194.83	SHA 15' COG INLET, DETAIL MD 374.62
I-5	SHA COG 3.0' WIDE	25.00' RT. OF C. STA. 540+00.37 DORSEY RUN ROAD	189.13 (18")	189.71 (18")	194.83	SHA 15' COG INLET, DETAIL MD 374.62
I-7	A-10 2.5' WIDE	25.00' LT. OF C. STA. 537+50.37 DORSEY RUN ROAD	192.64 (24") 193.34 (18")	192.64 (24")	198.53	HOCO STD. DETAIL SD-4.41
I-8	A-10 2.5' WIDE	25.00' RT. OF C. STA. 537+50.37 DORSEY RUN ROAD	193.34 (18")	193.92 (18")	198.53	HOCO STD. DETAIL SD-4.41
I-9	TYPE 10 4.0'x4.0'	N 1,376,766.38 E 544,093.21	203.90 (18")	203.70 (24")	211.46	HOCO STD. DETAIL SD-4.39 (THREE THROATS OPEN)
I-10	TYPE 10 4.0'x4.0'	N 1,376,811.12 E 544,079.40	204.44 (18")	211.46	211.46	HOCO STD. DETAIL SD-4.39 (THREE THROATS OPEN)
I-11	A-10 2.5' WIDE	25.00' RT. OF C. STA. 550+02.94 DORSEY RUN ROAD	176.45 (18")	176.25 (18")	180.68	HOCO STD. DETAIL SD-4.41
I-12	SHA COG 3.0' WIDE	25.00' RT. OF C. STA. 549+49.78 DORSEY RUN ROAD	184.49 (27") 185.24 (18")	176.34 (36")	181.57	SHA 15' COG INLET, DETAIL MD 374.62
M-1	MANHOLE	N 1,376,946.70 E 544,878.29	185.24 (18")	176.34 (36")	197.19	HOCO STD. DETAIL G-5.13
M-2	MANHOLE	N 1,377,514.55 E 545,462.13	175.60 (18")	175.40 (18")	181.50	HOCO STD. DETAIL G-5.12

NOTE: LOCATION OF INLETS IS AT THE CENTER OF TOP COVER;
FOR "A" INLETS LOCATION GIVEN FOR CENTER OF OPENING AT FACE OF CURB.

E-1	36" TYPE "C" ENDWALL	201.96' LT. OF C. STA. 541+95.37 DORSEY RUN ROAD	176.00 (36")	180.00	HOCO STD. DETAIL SD-5.21
E-2	18" END SECTION	36.78' RT. OF C. STA. 550+70.97 DORSEY RUN ROAD	175.00 (18")	176.8	HOCO STD. DETAIL SD-5.51



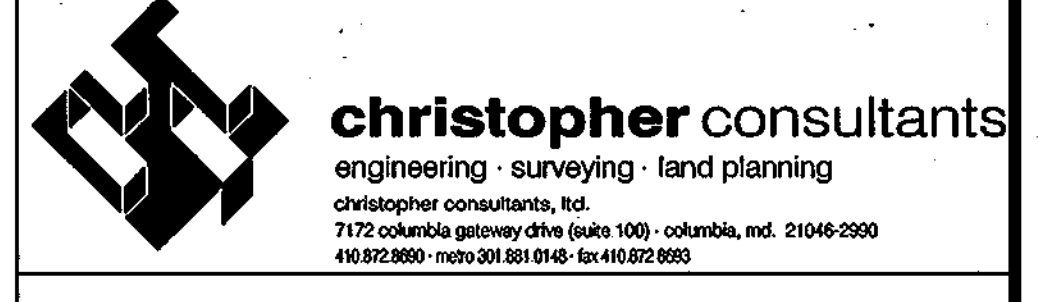
APPROVED: DEPARTMENT OF PUBLIC WORKS
William Z. ... 6-29-04
 Chief, Bureau of Highways Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Arinda ... 6/30/04
 Chief, Division of Land Development Date

... 6/20/04
 Chief, Development Engineering Division M&D Date

Date No. Revision Description

OWNER / DEVELOPER
 MONTVEDO SOUTH BUSINESS TRUST
 C/O TRAMMEL CROW COMPANY
 7315 WISCONSIN AVENUE SUITE 300 W
 BETHESDA, MARYLAND 20814 TEL: (301) 530-6200
 FAX: (301) 530-6131



DORSEY RUN ROAD
 (STA. 532+58.52 TO 551+11.59)
 AT DORSEY RUN INDUSTRIAL CENTER

TITLE:
STORM DRAIN PROFILES

DESIGN: XDF/JPH SCALE: HORIZ=50'
 VERT=1"=4'
 DRAWN: ACH, XDF DATE: 05/10/04 PROJECT: 036701.02
 CHECKED: APPROVED: 6 OF 13

SOILS CLASSIFICATION

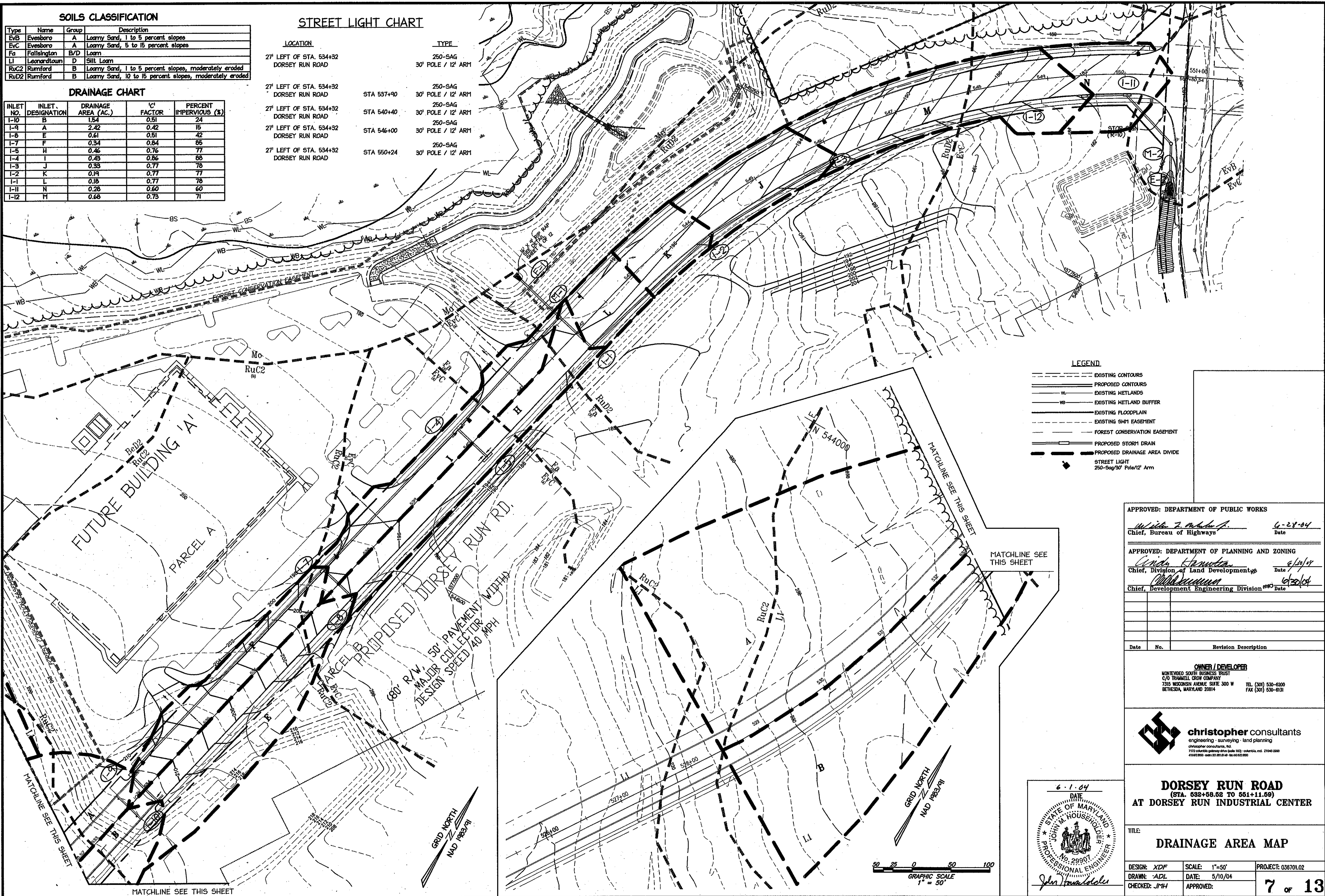
Type	Name	Group	Description
EvB	Evesboro	A	Loamy Sand, 1 to 5 percent slopes
EvC	Evesboro	A	Loamy Sand, 5 to 15 percent slopes
Fa	Fallsington	B/D	Loam
L1	Leonardtown	D	Silt Loam
RuC2	Rumford	B	Loamy Sand, 1 to 5 percent slopes, moderately eroded
RuD2	Rumford	B	Loamy Sand, 10 to 15 percent slopes, moderately eroded

STREET LIGHT CHART

LOCATION	TYPE
27' LEFT OF STA. 534+32 DORSEY RUN ROAD	250-SAG 30' POLE / 12' ARM
27' LEFT OF STA. 534+32 DORSEY RUN ROAD	250-SAG 30' POLE / 12' ARM
27' LEFT OF STA. 534+32 DORSEY RUN ROAD	250-SAG 30' POLE / 12' ARM
27' LEFT OF STA. 534+32 DORSEY RUN ROAD	250-SAG 30' POLE / 12' ARM
27' LEFT OF STA. 534+32 DORSEY RUN ROAD	250-SAG 30' POLE / 12' ARM

DRAINAGE CHART

INLET NO.	INLET DESIGNATION	DRAINAGE AREA (AC.)	C' FACTOR	PERCENT IMPERVIOUS (%)
I-10	B	1.54	0.51	24
I-9	A	2.42	0.42	15
I-8	E	0.61	0.51	42
I-7	F	0.34	0.84	85
I-6	H	0.46	0.76	77
I-4	I	0.43	0.86	88
I-3	J	0.33	0.77	78
I-2	K	0.19	0.77	77
I-1	L	0.18	0.77	78
I-11	N	0.28	0.60	60
I-12	M	0.68	0.73	71



LEGEND

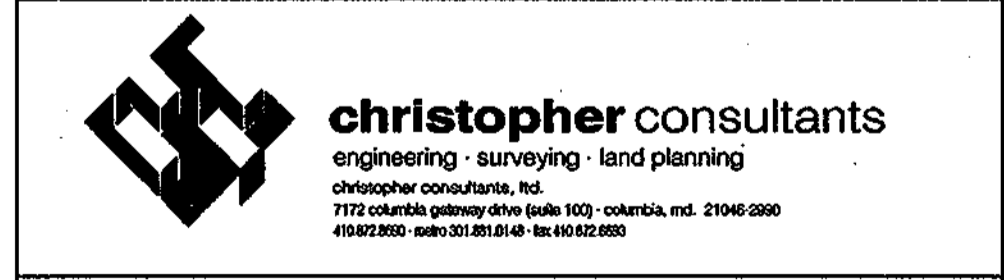
- - - - - EXISTING CONTOURS
- — — — PROPOSED CONTOURS
- WL ——— EXISTING WETLANDS
- WB ——— EXISTING WETLAND BUFFER
- — — — EXISTING FLOODPLAIN
- - - - - EXISTING S&M EASEMENT
- - - - - FOREST CONSERVATION EASEMENT
- — — — PROPOSED STORM DRAIN
- — — — PROPOSED DRAINAGE AREA DIVIDE
- ◆ ——— STREET LIGHT
250-Sag/30' Pole/12' Arm

APPROVED: DEPARTMENT OF PUBLIC WORKS
William Z. ... 6-28-04
 Chief, Bureau of Highways Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chris ... 6/10/04
 Chief, Division of Land Development Date

... 6/30/04
 Chief, Development Engineering Division Date

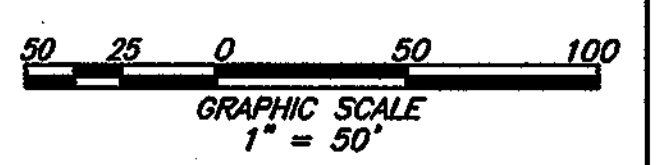
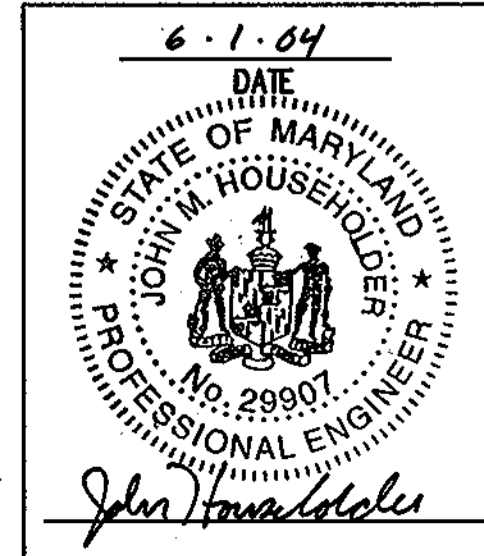
OWNER / DEVELOPER
 MONTVIDEO SOUTH BUSINESS TRUST
 C/O TRANWELL CROW COMPANY
 7310 WISCONSIN AVENUE SUITE 300 W TEL. (301) 530-6200
 BETHESDA, MARYLAND 20814 FAX (301) 530-6131



DORSEY RUN ROAD
 (STA. 632+58.52 TO 551+11.59)
 AT DORSEY RUN INDUSTRIAL CENTER

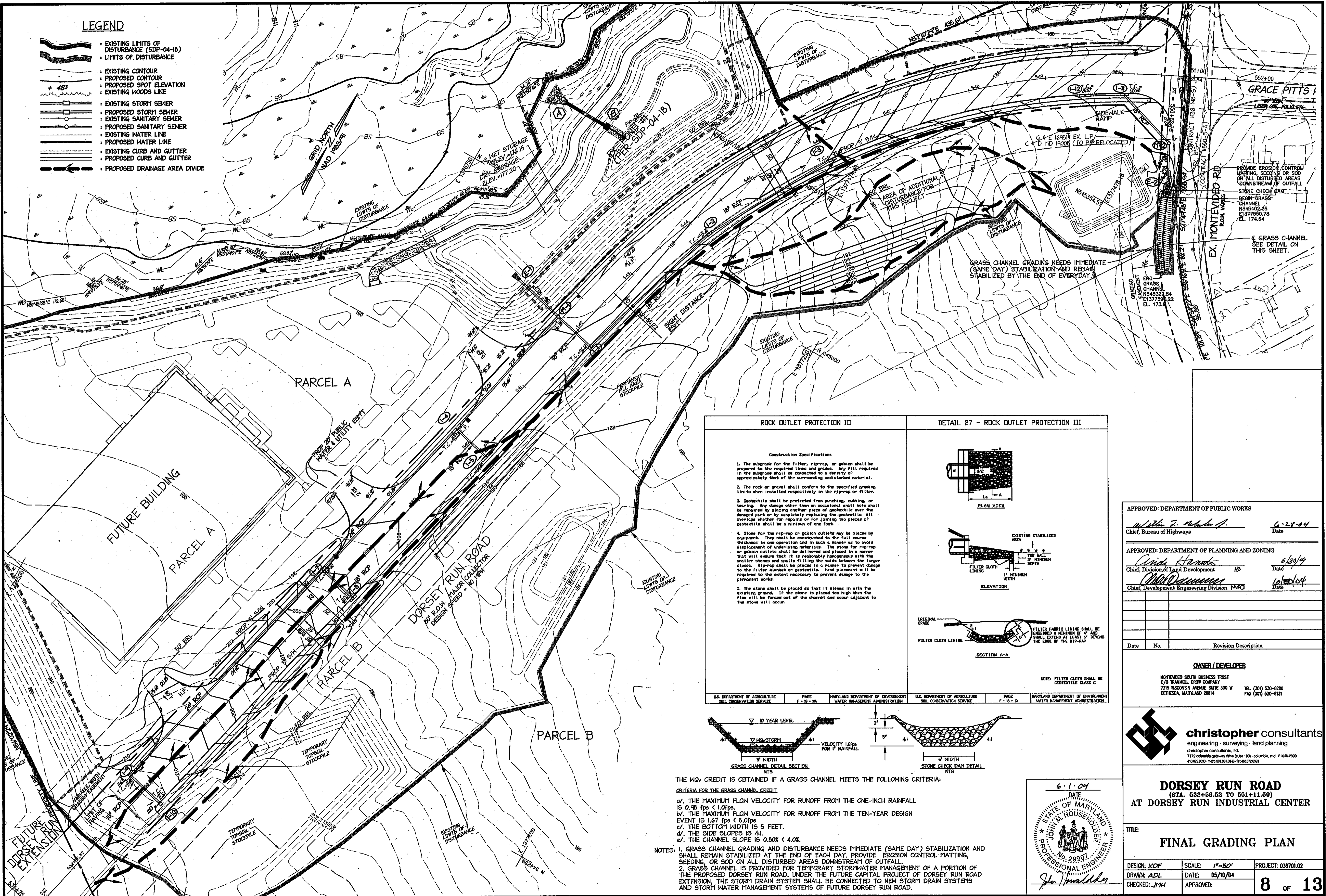
TITLE:
DRAINAGE AREA MAP

DESIGN: XDF SCALE: 1"=50' PROJECT: 038701.02
 DRAWN: ADL DATE: 5/10/04
 CHECKED: JMH APPROVED: *John ...*



LEGEND

- EXISTING LIMITS OF DISTURBANCE (SDP-04-18)
- LIMITS OF DISTURBANCE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING WOODS LINE
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING WATER LINE
- PROPOSED WATER LINE
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- PROPOSED DRAINAGE AREA DIVIDE



ROCK OUTLET PROTECTION III

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 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 over the damaged part or by completely replacing the geotextile. All overlaps whether for repairs or for joining two pieces of geotextile 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. 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 than the flow will be forced out of the channel and scour adjacent to the stone will occur.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE F-18-18A MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE F-18-18 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

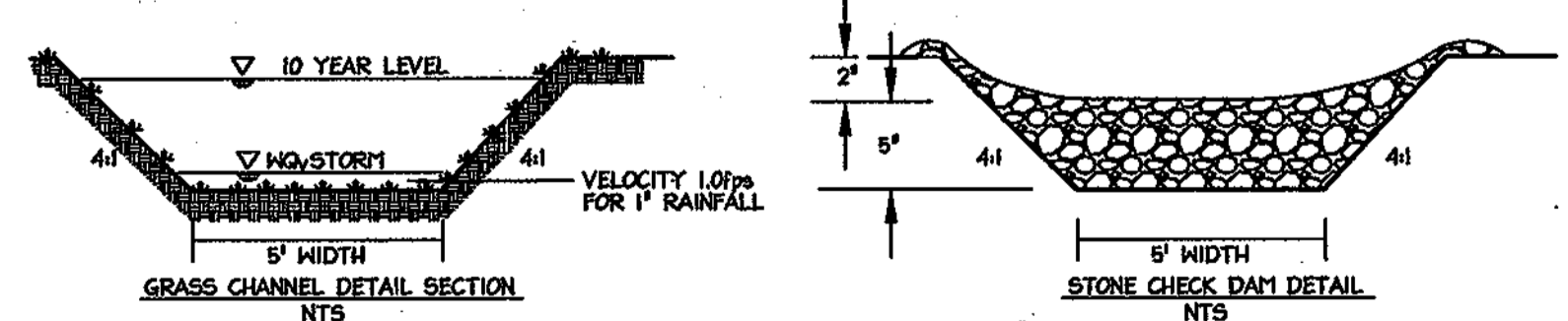
DETAIL 27 - ROCK OUTLET PROTECTION III

PLAN VIEW

ELEVATION

SECTION A-A

NOTE: FILTER CLOTH SHALL BE GEOTEXTILE CLASS C



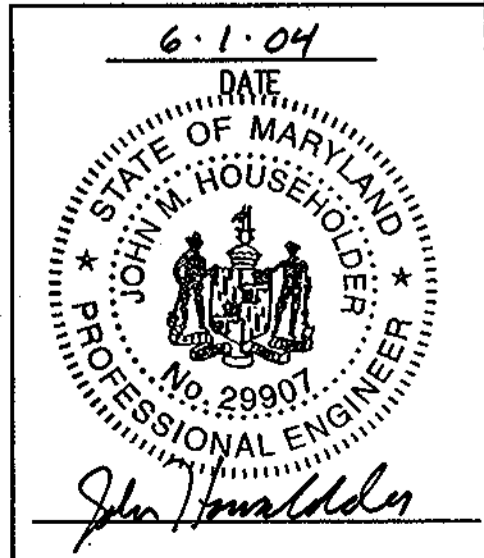
THE WQV CREDIT IS OBTAINED IF A GRASS CHANNEL MEETS THE FOLLOWING CRITERIA:

CRITERIA FOR THE GRASS CHANNEL CREDIT

- THE MAXIMUM FLOW VELOCITY FOR RUNOFF FROM THE ONE-INCH RAINFALL IS 0.98 fps < 1.0fps
- THE MAXIMUM FLOW VELOCITY FOR RUNOFF FROM THE TEN-YEAR DESIGN EVENT IS 1.67 fps < 5.0fps
- THE BOTTOM WIDTH IS 5 FEET.
- THE SIDE SLOPES IS 4:1.
- THE CHANNEL SLOPE IS 0.80% < 4.0%.

NOTES:

- GRASS CHANNEL GRADING AND DISTURBANCE NEEDS IMMEDIATE (SAME DAY) STABILIZATION AND SHALL REMAIN STABILIZED AT THE END OF EACH DAY. PROVIDE EROSION CONTROL MATTING, SEEDING, OR SOD ON ALL DISTURBED AREAS DOWNSTREAM OF OUTFALL.
- GRASS CHANNEL IS PROVIDED FOR TEMPORARY STORMWATER MANAGEMENT OF A PORTION OF THE PROPOSED DORSEY RUN ROAD, UNDER THE FUTURE CAPITAL PROJECT OF DORSEY RUN ROAD EXTENSION, THE STORM DRAIN SYSTEM SHALL BE CONNECTED TO NEW STORM DRAIN SYSTEMS AND STORM WATER MANAGEMENT SYSTEMS OF FUTURE DORSEY RUN ROAD.



APPROVED: DEPARTMENT OF PUBLIC WORKS	
<i>John F. ...</i>	6-28-04
Chief, Bureau of Highways	Date
APPROVED: DEPARTMENT OF PLANNING AND ZONING	
<i>Chris ...</i>	6/30/04
Chief, Division of Land Development	Date
<i>Chris ...</i>	6/28/04
Chief, Development Engineering Division (MPC)	Date
Date	No. Revision Description

OWNER / DEVELOPER

MONTEVIDEO SOUTH BUSINESS TRUST
 C/O TRAMMELL CROW COMPANY
 2315 WISCONSIN AVENUE SUITE 300 W
 BETHESDA, MARYLAND 20814
 TEL (301) 530-6200
 FAX (301) 530-6131



DORSEY RUN ROAD
 (STA. 552+58.52 TO 551+11.59)
 AT DORSEY RUN INDUSTRIAL CENTER

TITLE: FINAL GRADING PLAN		
DESIGN: XDF	SCALE: 1"=50'	PROJECT: 036701.02
DRAWN: ADL	DATE: 05/10/04	
CHECKED: JMH	APPROVED:	8 OF 13

DEVELOPER'S CERTIFICATE

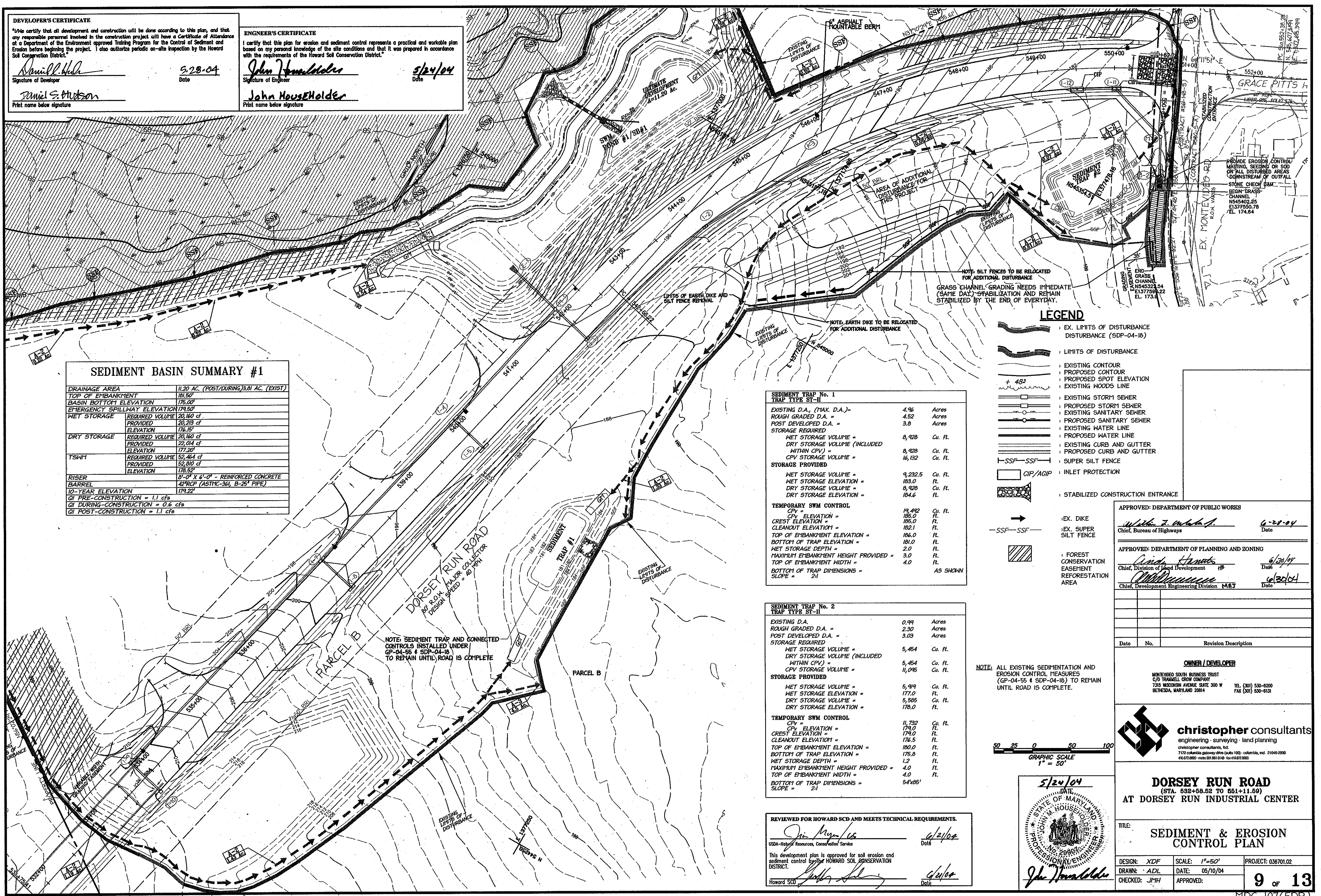
I/we certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment approved Training Program for the Control of Sediment and Erosion before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

Ramell S. Hudson
Signature of Developer
Date: 5/28/04
Ramell S. Hudson
Print name below signature

ENGINEER'S CERTIFICATE

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

John Householder
Signature of Engineer
Date: 5/24/04
John Householder
Print name below signature



SEDIMENT BASIN SUMMARY #1

DRAINAGE AREA	11.20 AC. (POST DURING 3.81 AC. (EXIST))
TOP OF EMBANKMENT	181.80'
BASELINE BOTTOM ELEVATION	178.50'
EMERGENCY SPILLWAY ELEVATION	178.50'
NET STORAGE	REQUIRED VOLUME 20,160 cf PROVIDED VOLUME 20,215 cf ELEVATION 176.15'
DRY STORAGE	REQUIRED VOLUME 20,160 cf PROVIDED VOLUME 22,014 cf ELEVATION 177.20'
TSPMT	REQUIRED VOLUME 52,464 cf PROVIDED VOLUME 52,810 cf ELEVATION 178.52'
RISER	8'-0" X 6'-0" - REINFORCED CONCRETE
BARREL	42" RCP (ASTM C-361, B-25" PIPE)
10-YEAR ELEVATION	179.22'
Q1 PRE-CONSTRUCTION	= 1.1 cfs
Q1 DURING-CONSTRUCTION	= 0.6 cfs
Q1 POST-CONSTRUCTION	= 1.1 cfs

SEDIMENT TRAP No. 1		
TRAP TYPE ST-II		
EXISTING D.A. (MAX. D.A.)	4.96	Acres
ROUGH GRADED D.A.	4.52	Acres
POST DEVELOPED D.A.	3.8	Acres
STORAGE REQUIRED		
NET STORAGE VOLUME	8,928	Cu. Ft.
DRY STORAGE VOLUME (INCLUDED WITHIN CPV)	8,928	Cu. Ft.
CPV STORAGE VOLUME	16,132	Cu. Ft.
STORAGE PROVIDED		
NET STORAGE VOLUME	9,232.5	Cu. Ft.
NET STORAGE ELEVATION	183.0	ft.
DRY STORAGE VOLUME	8,928	Cu. Ft.
DRY STORAGE ELEVATION	184.6	ft.
TEMPORARY SWM CONTROL		
CPV ELEVATION	19,492	Cu. Ft.
CREST ELEVATION	185.0	ft.
CLEANOUT ELEVATION	182.1	ft.
TOP OF EMBANKMENT ELEVATION	186.0	ft.
BOTTOM OF TRAP ELEVATION	181.0	ft.
NET STORAGE DEPTH	2.0	ft.
MAXIMUM EMBANKMENT HEIGHT PROVIDED	3.0	ft.
TOP OF EMBANKMENT WIDTH	4.0	ft.
BOTTOM OF TRAP DIMENSIONS	2:1	AS SHOWN

SEDIMENT TRAP No. 2		
TRAP TYPE ST-II		
EXISTING D.A.	0.99	Acres
ROUGH GRADED D.A.	2.30	Acres
POST DEVELOPED D.A.	3.03	Acres
STORAGE REQUIRED		
NET STORAGE VOLUME	5,454	Cu. Ft.
DRY STORAGE VOLUME (INCLUDED WITHIN CPV)	5,454	Cu. Ft.
CPV STORAGE VOLUME	11,095	Cu. Ft.
STORAGE PROVIDED		
NET STORAGE VOLUME	5,919	Cu. Ft.
NET STORAGE ELEVATION	177.0	ft.
DRY STORAGE VOLUME	5,585	Cu. Ft.
DRY STORAGE ELEVATION	178.0	ft.
TEMPORARY SWM CONTROL		
CPV ELEVATION	11,732	Cu. Ft.
CREST ELEVATION	179.0	ft.
CLEANOUT ELEVATION	176.5	ft.
TOP OF EMBANKMENT ELEVATION	180.0	ft.
BOTTOM OF TRAP ELEVATION	175.8	ft.
NET STORAGE DEPTH	1.2	ft.
MAXIMUM EMBANKMENT HEIGHT PROVIDED	4.0	ft.
TOP OF EMBANKMENT WIDTH	4.0	ft.
BOTTOM OF TRAP DIMENSIONS	54'x85'	
SLOPE	2:1	

- LEGEND**
- EX. LIMITS OF DISTURBANCE (SDP-04-18)
 - LIMITS OF DISTURBANCE
 - EXISTING CONTOUR
 - PROPOSED CONTOUR
 - PROPOSED SPOT ELEVATION
 - EXISTING WOODS LINE
 - EXISTING STORM SEWER
 - PROPOSED STORM SEWER
 - EXISTING SANITARY SEWER
 - PROPOSED SANITARY SEWER
 - EXISTING WATER LINE
 - PROPOSED WATER LINE
 - EXISTING CURB AND GUTTER
 - PROPOSED CURB AND GUTTER
 - SUPER SILT FENCE
 - GIP/AGIP
 - INLET PROTECTION
 - STABILIZED CONSTRUCTION ENTRANCE
 - EX. DIKE
 - SILT FENCE
 - FOREST CONSERVATION EASEMENT REFORESTATION AREA

NOTE: ALL EXISTING SEDIMENTATION AND EROSION CONTROL MEASURES (GP-04-55 & SDP-04-18) TO REMAIN UNTIL ROAD IS COMPLETE.

50 25 0 50 100
GRAPHIC SCALE
1" = 50'

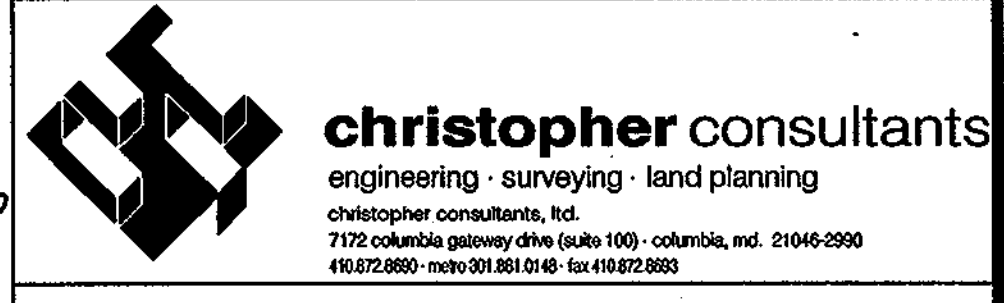
APPROVED: DEPARTMENT OF PUBLIC WORKS
Walter J. ... 6-28-04
Chief, Bureau of Highways Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING
... 6/29/04
Chief, Division of Land Development Date

... 6/30/04
Chief, Development Engineering Division Date

Date	No.	Revision Description

OWNER / DEVELOPER
MONTVEDO SOUTH BUSINESS TRUST
C/O TRAVEL CROW COMPANY
7335 WISCONSIN AVENUE SUITE 300 W
BETHESDA, MARYLAND 20814
TEL: (301) 530-6200
FAX: (301) 530-6131



DORSEY RUN ROAD
(STA. 532+58.52 TO 551+11.59)
AT DORSEY RUN INDUSTRIAL CENTER

TITLE: **SEDIMENT & EROSION CONTROL PLAN**

DESIGN: XDF SCALE: 1"=50' PROJECT: 036701.02
DRAWN: ADL DATE: 05/10/04
CHECKED: JTH APPROVED: *John Householder*

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.
John Householder 6/2/04 Date
USDA-Natural Resources, Conservation Service
This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
John Householder 6/2/04 Date
Howard SCD



3.0 Standards and Specifications for Land Grading

Definitions

Reshaping of the existing land surface in accordance with a plan as determined by engineering survey and layout.

Purpose

The purpose of a land grading specification is to provide for erosion control and vegetative establishment on those areas where the existing land surface is to be reshaped by grading according to plan.

Design Criteria

The grading plan should be based upon the incorporation of building designs and street layouts that fit and utilize existing topography and desirable natural surrounding to avoid extreme grade modifications.

Many countries have regulations and design procedures already established for land grading and cut and fill slopes. Where these requirements exist, they should be followed.

1. Provisions shall be made to safely conduct surface runoff to storm drains, protected outlets or to stable water courses to insure that surface runoff will not damage slopes or other graded areas.

2. Cut and fill slopes that are to be stabilized with grasses shall not be steeper than 2:1. (Where the slope is to be mowed the slope should be no steeper than 3:1. A 4:1 is preferred because of safety factors related to mowing steep slopes.)

3. Reverse benches shall be provided whenever the vertical interval (height) of any 2:1 slopes exceeds 20 feet; for 3:1 slopes it shall be increased to 30 feet and for 4:1 to 40 feet. Benches shall be located to divide the slope face as equally as possible and shall convey the water to a stable outlet.

a. Benches shall be a minimum of six-feet wide to provide ease of maintenance.

b. Benches shall be designed with a reverse slope of 6:1 of flatter to the toe of the upper slope and with a minimum of one foot in depth. Bench gradient to the outlet shall be between 2 percent and 3 percent, unless accompanied by appropriate design and computations.

c. The flow length within a bench shall not exceed 800' unless accompanied by appropriate design and computations. For flow channel stabilization see temporary suales.

4. Surface water shall be diverted from the face of all cut and/or fill slopes by the use of earth dikes, ditches and swales or conveyed downslope by the use of a designed structure, except where:

a. The face of the slope is or shall be stabilized and the face of all graded slopes shall be protected for surface runoff until they are stabilized.

b. The face of the slope shall not be subjected to any concentrated flows of surface water such as from natural drainways, graded suales, downspouts, etc.

c. The face of the slope will be protected by special erosion control materials to include, but not limited to: approved vegetative stabilization practices (see section G), rip-rap or other approved stabilization methods.

5. Cut slopes occurring in ripable rock shall be serrated as shown on the following diagram. These serrations shall be made with conventional equipment as the excavation is made. Each step or serration shall be constructed on the contour and will have steps cut at nominal two-foot intervals with nominal three-foot horizontal shelves. These steps will vary depending on the slope ratio or the cut slope. The nominal slope line is L1. These steps will weather and act to hold moisture, lime, fertilizer and seed thus producing a much quicker and longer lived vegetative cover and better slope stabilization. Over land flow shall be diverted from the top of all serrated cut slopes and carried to a suitable outlet.

6. Surface drainage shall be provided where necessary to intercept seepage that would otherwise adversely affect slope stability or create excessively wet site conditions.

7. Slopes shall not be created close to property lines as the endanger adjoining properties without adequately protecting such properties against sediment, erosion, slippage, settlement, subsidence or other related damages.

8. Fill material shall be free of brush, rubbish, rocks, logs, stumps, building debris, and other objectionable material. It should be free of stones over two (2) inches in diameter where compacted by hand or mechanical tampers over eight (8) inches in diameter where compacted by rollers or other equipment. Frozen material shall not be placed in the fill nor shall the fill material be placed on a frozen foundation.

9. Stockpiles, borrow areas and spoil shall be shown on the plans and shall be subjected to the provisions of the Standard and Specifications.

All disturbed areas shall be stabilized structurally or vegetatively in compliance with 20.0 Standards and Specifications for Vegetative Stabilization.

21.0 Standard and Specifications for Topsoil

Definitions

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

Purpose

To provide a suitable soil medium for vegetative growth. Solid 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 materials 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 Experiment 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. Regardless, 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 7/8" in diameter.
ii. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutgrass, poison ivy, thistle, or other as specified.
iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread to the rate of 4-8 tons/acre (200-400 pounds per 1,000sqare feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked in to the soil in conjunction with tillage operations as described in the following procedures.

For sites having disturbed areas under 5 acres:

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

For sites having disturbed areas over 5 acres:

On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following.

- a. pH for topsoil shall be between 6.0 and 7.5. If tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise pH to 6.5 or higher.
b. Organic content of topsoil shall be not less than 1.5 percent 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 day min.) to permit dissipation of phytotoxic materials.

Note: Topsoil substitutes or amendments as recommended by a qualified agronomist or soil scientist approved by the appropriate approval authority, may be used in lieu of natural topsoil.

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

Topsoil Application

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

Grades in the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4' - 8' higher in elevation.

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.

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

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:

Composted Sludge Materials for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:

- a. Composted sludge shall be supplied by, or originated 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. Composted sludge 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. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.

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.

References: Guideline Specifications, Soil Preparation and Sodding. MD-VA, Pub #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.

30.0 Dust Control

Definition

Controlling dust blowing and movement on construction sites and roads.

Purpose

To prevent blowing and movement of dust from exposed soil surfaces, reduce on and off-site damage, health hazards, and improve traffic safety.

Conditions Where Practice Applies

This practice is applicable to areas subject to dust blowing and movement when in and off-site damage is likely without treatment.

Specifications

Temporary Methods

1. Mulches - See standards for vegetative stabilization with mulches only. Mulch should be crimped or tacked to prevent blowing.

2. Vegetative Cover - See standards for temporary vegetative cover.

3. Tillage - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12' apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.

4. Irrigation - This is generally done as an emergency treatment. Site is sprinkled with water until the surface is moist. Repeat as needed. At no time should the site be irrigated to the point that runoff begins to flow.

5. Barriers - Solid board fences, silt fences, snow fences, burlap fences, straw bales, and similar materials can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 10 times their height are effective in controlling soil blowing.

6. Calcium Chloride - Apply at rates that will keep surface moist. May need reapplication.

Permanent Methods

- 1. Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs may afford valuable protection if left in place.
2. Topsoil - Covering with less erosive materials. See Standards for topsoiling.
3. Stone - Cover surface with crushed stone or coarse gravel.

References

- 1. Agriculture Handbook 346. Wind Erosion Forces in the United States and Their Use in Predicting Soil Loss.
2. Agriculture Information Bulletin 354. How to Control Wind Erosion, USDA - ARS.

PERMANENT SEEDING NOTES

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.

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules:

- 1. Preferred--Apply 2 tons/acre dolomitic limestone (92 lbs/1000 sq. ft.) and 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil. At time of seeding apply 400 lbs/acre 30-0-0 urea form fertilizer (9 lbs/1000 sq. ft.).
2. Acceptable--Apply 2 tons/acre dolomitic limestone (92 lbs/1000 sq. ft.) and 1000 lbs/acre 10-10-10 fertilizer (23 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil.

Seeding -- For the periods March 1 -- April 30 and August 15 -- October 15, seed with 60 lbs/acre (1.4 lbs/1000 sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 -- August 14, seed with 9 lbs/acre of weeping lovegrass (0.7 lbs/1000 sq. ft.). For the period November 16 -- February 28 protect the site by applying 2 tons/acre of well anchored straw mulch and seed as soon as possible in the spring.

Option 1 - Two tons per acre of well anchored straw mulch and seed as soon as possible in the spring.
Option 2 - Use sod. Option 3 - Seed with 60 lbs/acre Kentucky 30 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching -- Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq. ft.) of unrattled small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 2lb gallons per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slope 8 feet or higher, use 348 gal. per acre (8 gal/1000 sq. ft.) for anchoring.

Maintenance -- Inspect all seeding areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be re-disturbed 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.

Soil Amendments: -- Apply 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.).

Seeding -- For periods March 1 -- April 30 and August 15 -- October 15, seed with 2-1/2 bushel per acre of annual rye (3.2 lbs/1000 sq. ft.). For the period May 1 -- August 14, seed with 9 lbs/acre of weeping lovegrass (0.7 lbs/1000 sq. ft.). For the period November 16 -- February 28 protect the site by applying 2 tons/acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching -- Apply 1-1/2 to 2 tons/acre (70 to 90 lbs/1000 sq. ft.) of unrattled small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 2lb gal. per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slope 8 ft. or higher, use 348 gal. per acre (8 gal/1000 sq. ft.) for anchoring.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL for additional rates and methods not covered.

DEVELOPER'S CERTIFICATE

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

Signature of Developer: Daniel L. Hule, 5/28/04
Signature of Engineer: JAIN HOUSEHOLDER, 5/24/04

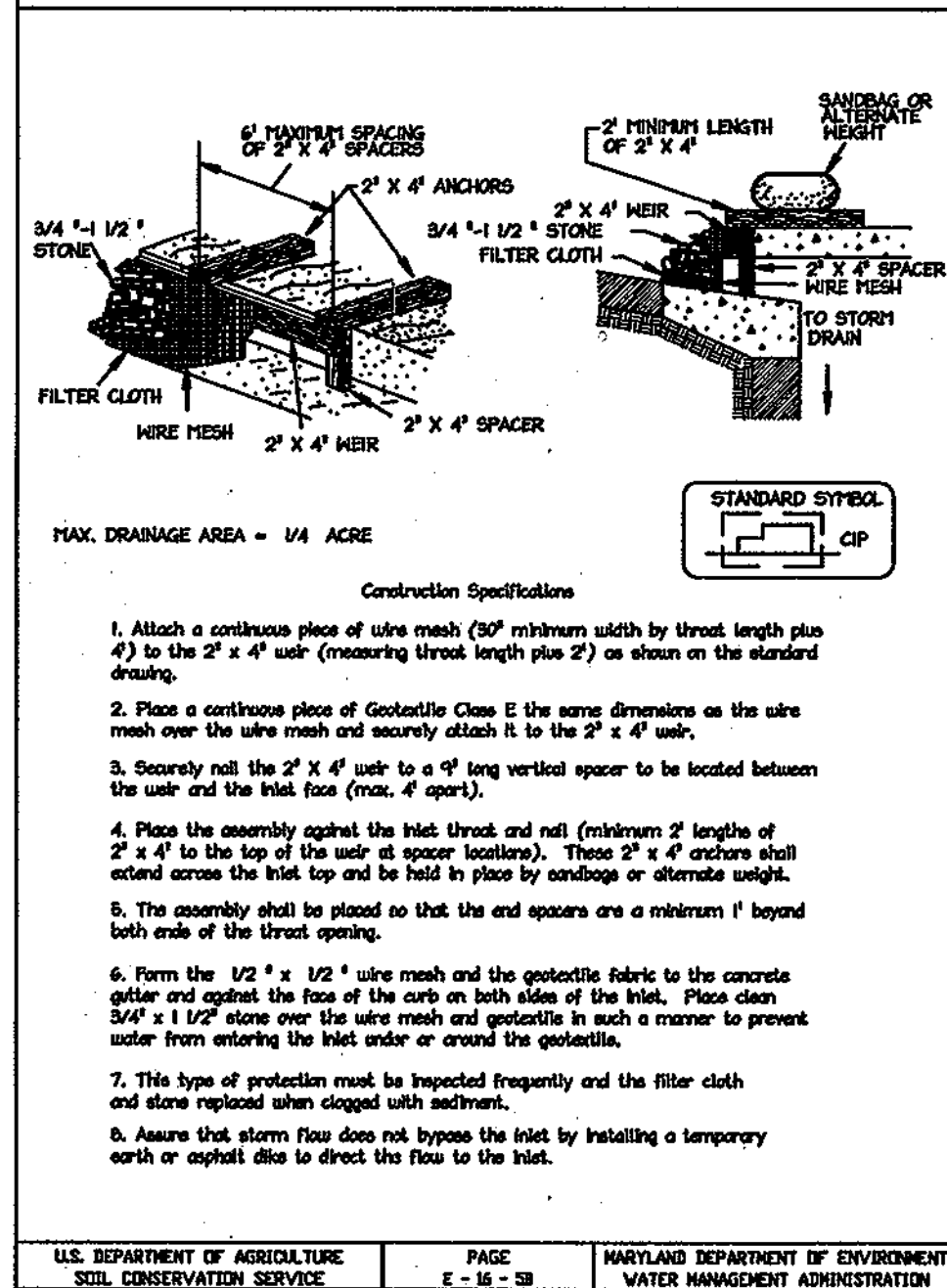
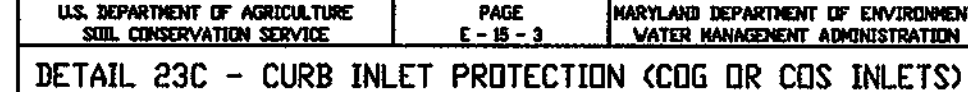
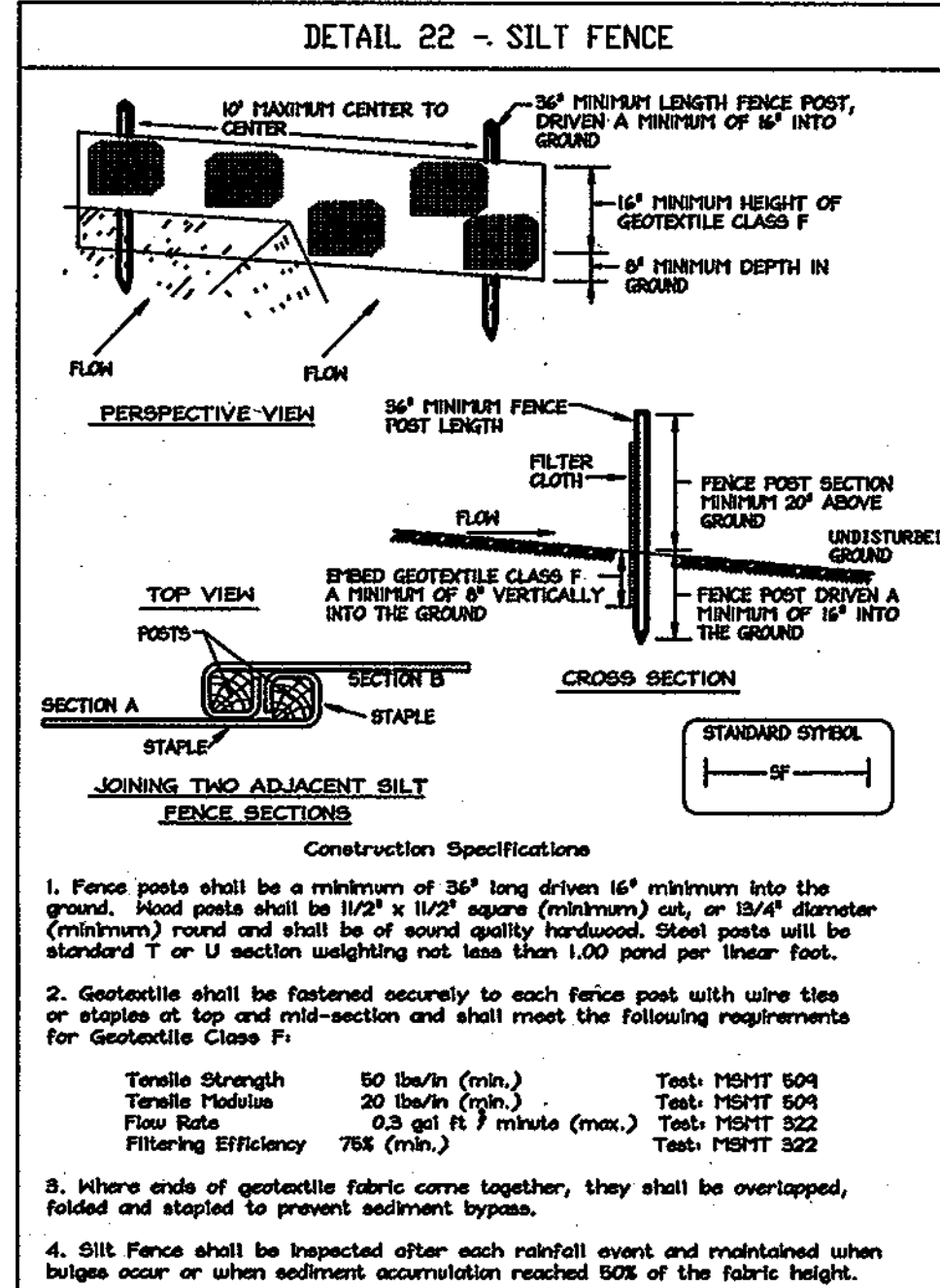
ENGINEER'S CERTIFICATE

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

Signature of Engineer: JAIN HOUSEHOLDER, 5/24/04

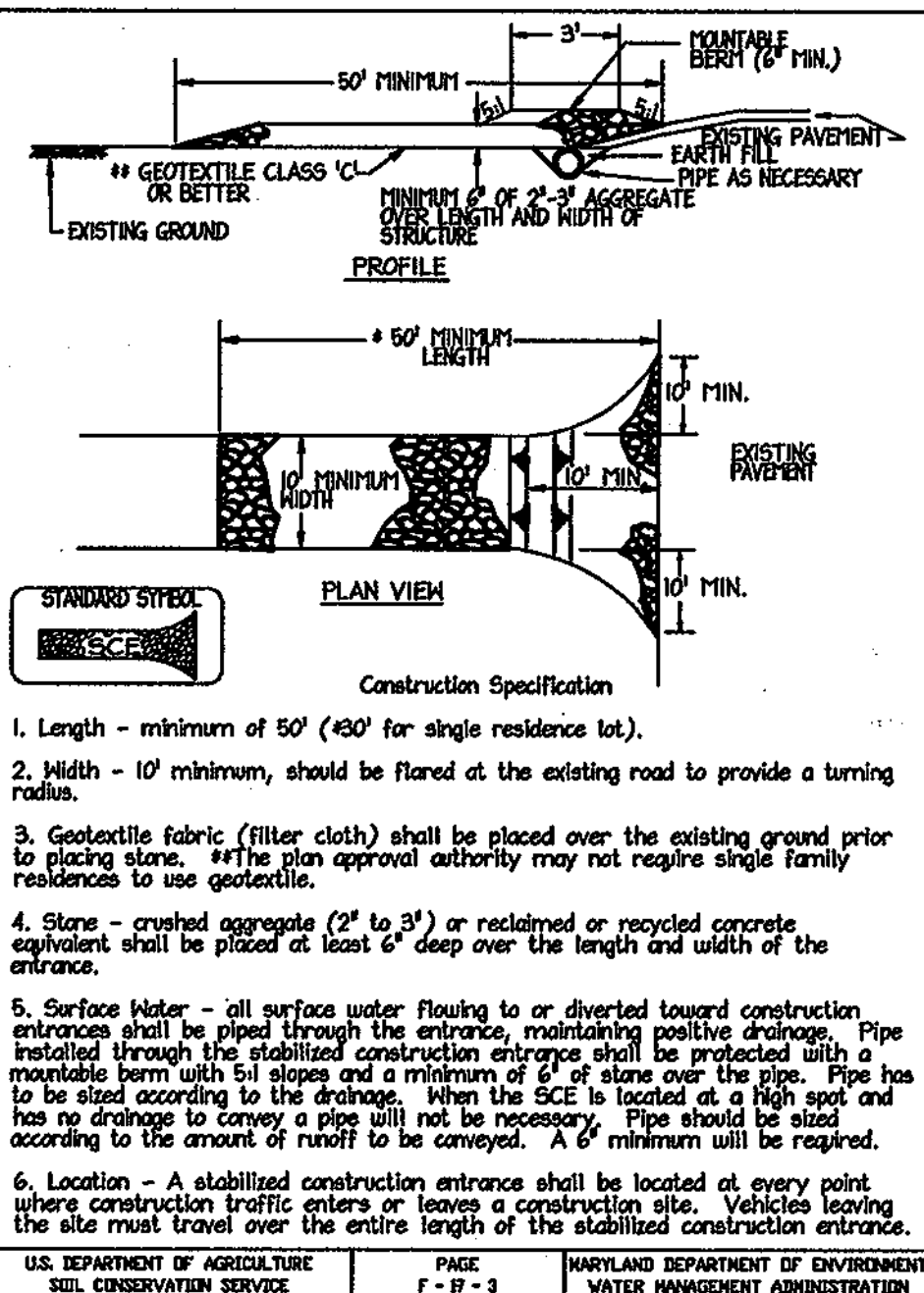
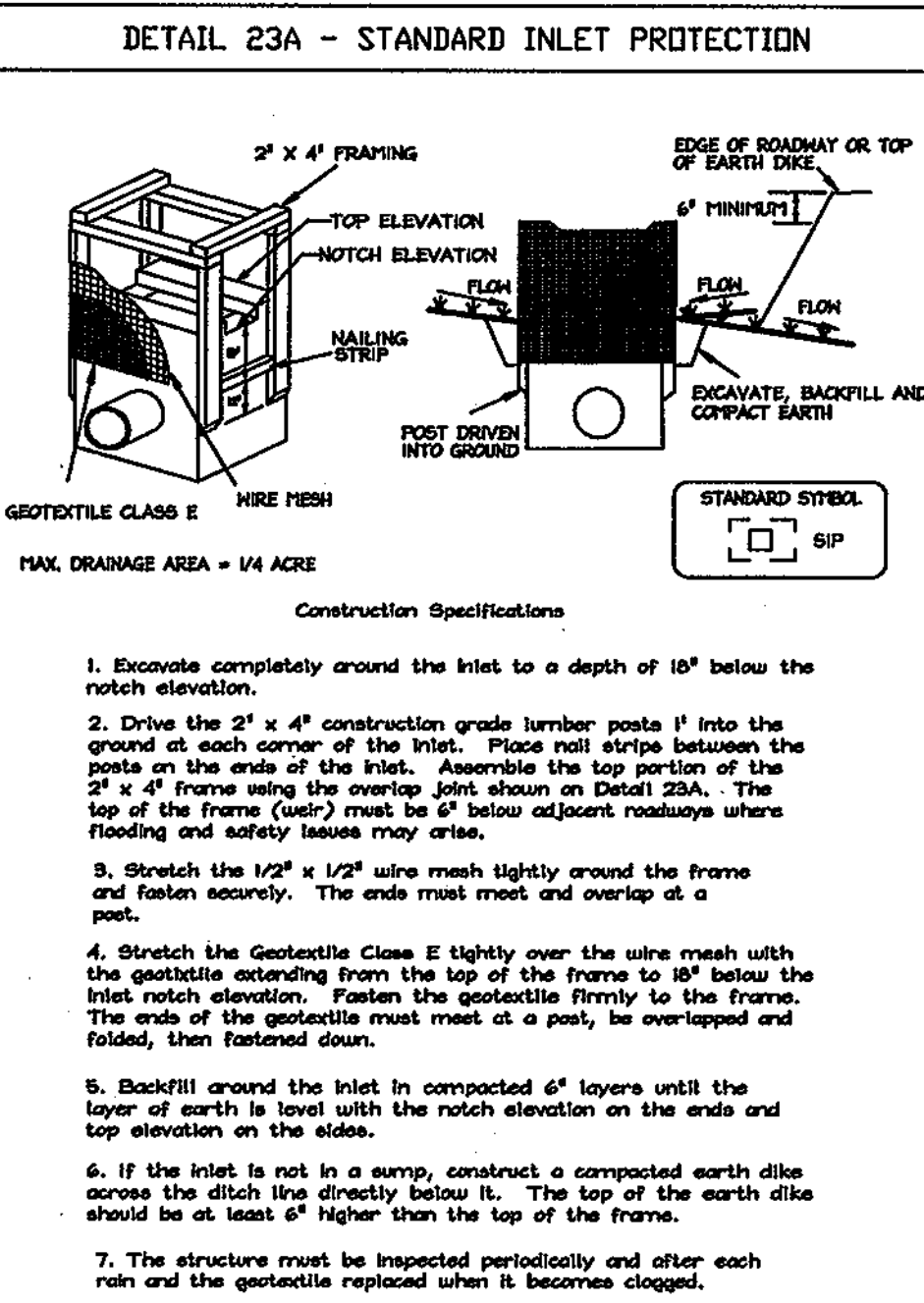
REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS. JIN HOUSEHOLDER, 6/2/04

USDA-Natural Resources, Conservation Service, Date: 6/2/04



HOWARD COUNTY SOIL CONSERVATION DISTRICT 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 (313-1055).
2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the most current 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) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater 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 warning signs posted around their perimeter in accordance with Vol 1, Chapter 12 of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5. All disturbed areas must be stabilized within the time period specific above in accordance with the 1995 MARYLAND STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding (Sec. 51), sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Section 52). Temporary stabilization with mulch along can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained by the Howard County Sediment Control Inspector.
7. Site Analysis: Total Area of Site 62.04 Acres, Area Disturbed 0.77 Acres, Area to be roofed or paved 2.16 Acres, Area to be vegetatively stabilized 4.45 Acres, Total Cut 3,560 Cu. Yds., Total Fill 550 Cu. Yds., Offsite waste/borrow area location: N/A
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 control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
10. On all site with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspections 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 any construction as shown on these plans by the end of each work day, whichever is shorter.



SEQUENCE OF CONSTRUCTION

- 1. Construction as shown on these plans shall not be permitted until controls of GP-04-55 & SDP-04-10 are installed and approved by the Inspector.
2. Obtain the grading permit from Howard County Department of Inspections, Licenses and Permits Division. (1 day)
3. Arrange an on-site pre-construction meeting with county inspectors, the contractor, and engineer prior to the start of construction of the plan. (1 day)
4. Contact a private utility locating company to adequately mark all known existing utilities. (2 days)
5. Install the stabilized construction entrance per the plan. (1 day)
6. Clear and grub for perimeter control install silt fence per plan specification. (14 days)
7. Once all sediment control devices are in place, obtain Inspector's approval prior to grading. (2 days)
8. Once Inspector's approval is obtained, begin on-site grading. maintain positive drainage to existing sediment basin and trap at all times. (20 days)
9. Immediately upon completion of grading, provide stabilization per the seeding tables provided on the plans. (7 days)
10. Once all grading, pavement, curb and gutter are completed and site is stabilized, obtain Inspector's approval prior to removal of any sediment control device. (2 days)
11. Remove all remaining sediment control devices. (4 days)
12. Stabilize any remaining disturbed areas on-site. (4 days)
13. Once all sediment control devices are removed and site is stabilized, obtain final approval from the Inspector. (2 days)

NOTE: PER GP-04-55, ALL PERIMETER CONTROLS SHOWN ON AND INSTALLED PER GP-04-55, ARE TO REMAIN IN PLACE AND SHALL BE FUNCTIONING UNTIL COMPLETION OF CONSTRUCTION AS SHOWN ON THESE PLANS.

APPROVED: DEPARTMENT OF PUBLIC WORKS, Chief, Bureau of Highways, 6-28-04
APPROVED: DEPARTMENT OF PLANNING AND ZONING, Chief, Division of Land Development, 6/20/04
Chief, Development Engineering Division, 6/20/04

Table with 3 columns: Date, No., Revision Description

OWNER / DEVELOPER: MONTVERDE SOUTH BUSINESS TRUST, C/O TRAMMELL CROW COMPANY, 7215 WISCONSIN AVENUE SUITE 300 W, BETHESDA, MARYLAND 20814

christopher consultants engineering - surveying - land planning, christopher consultants, inc., 7172 columbia gateway drive (suite 100) - coltsville, md 21046-2990

DORSEY RUN ROAD (STA. 532+58.52 TO 551+11.59) AT DORSEY RUN INDUSTRIAL CENTER

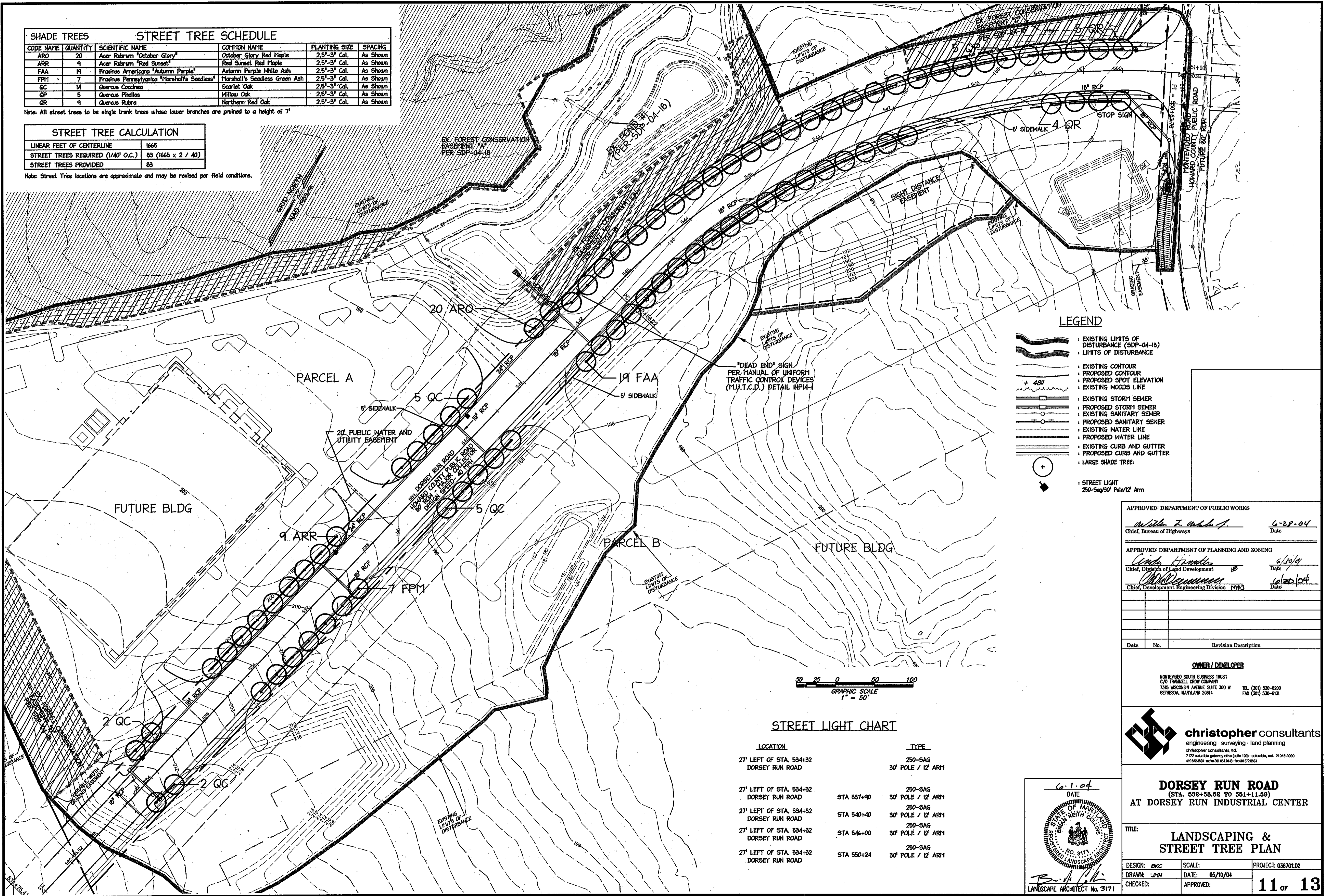
TITLE: SEDIMENT EROSION CONTROL DETAIL SHEET
DESIGN: XDF, SCALE: AS SHOWN, PROJECT: Q36701.02
DRAWING: ADL, DATE: 05/10/04
CHECKED: JMH, APPROVED: 10 OF 13

SHADE TREES		STREET TREE SCHEDULE			
CODE NAME	QUANTITY	SCIENTIFIC NAME	COMMON NAME	PLANTING SIZE	SPACING
ARO	20	Acer Rubrum "October Glory"	October Glory Red Maple	2.5'-3' Cal.	As Shown
ARR	9	Acer Rubrum "Red Sunset"	Red Sunset Red Maple	2.5'-3' Cal.	As Shown
FAA	19	Fraxinus Americana "Autumn Purple"	Autumn Purple White Ash	2.5'-3' Cal.	As Shown
FPM	7	Fraxinus Pennsylvanica "Marshall's Seedless"	Marshall's Seedless Green Ash	2.5'-3' Cal.	As Shown
QC	14	Quercus Coccinea	Scarlet Oak	2.5'-3' Cal.	As Shown
QP	5	Quercus Phellos	Willow Oak	2.5'-3' Cal.	As Shown
QR	9	Quercus Rubra	Northern Red Oak	2.5'-3' Cal.	As Shown

Note: All street trees to be single trunk trees whose lower branches are pruned to a height of 7'

STREET TREE CALCULATION	
LINEAR FEET OF CENTERLINE	1665
STREET TREES REQUIRED (1/40' O.C.)	83 (1665 x 2 / 40)
STREET TREES PROVIDED	83

Note: Street Tree locations are approximate and may be revised per field conditions.



LEGEND

- EXISTING LIMITS OF DISTURBANCE (SDP-04-18)
- LIMITS OF DISTURBANCE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING WOODS LINE
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING WATER LINE
- PROPOSED WATER LINE
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- LARGE SHADE TREE
- STREET LIGHT
250-50q/30' Pole/12' Arm

APPROVED: DEPARTMENT OF PUBLIC WORKS
Walter Z... 6-28-04
 Chief, Bureau of Highways Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING
... 6/29/04
 Chief, Division of Land Development Date

... 6/28/04
 Chief, Development Engineering Division Date

Date	No.	Revision Description

OWNER / DEVELOPER
 MONTWED SOUTH BUSINESS TRUST
 C/O TRAMMELL CROW COMPANY
 715 WISCONSIN AVENUE SUITE 300 W
 BETHESDA, MARYLAND 20814
 TEL (301) 530-6200
 FAX (301) 530-6131

christopher consultants
 engineering · surveying · land planning
 christopher consultants, t.d.
 7172 columbia gateway drive suite 100 · columbia, md 21046-2990
 410.622.8800 · metro 301.581.0146 · fax 410.622.8803

DORSEY RUN ROAD
 (STA. 532+58.52 TO 551+11.50)
 AT DORSEY RUN INDUSTRIAL CENTER

TITLE: **LANDSCAPING & STREET TREE PLAN**

DESIGN: BKC	SCALE:	PROJECT: 036701.02
DRAWN: JMH	DATE: 05/10/04	
CHECKED:	APPROVED:	11 OF 13



STREET LIGHT CHART

LOCATION	TYPE
27' LEFT OF STA. 534+32 DORSEY RUN ROAD	250-SAG 30' POLE / 12' ARM
27' LEFT OF STA. 534+32 DORSEY RUN ROAD	250-SAG 30' POLE / 12' ARM
27' LEFT OF STA. 534+32 DORSEY RUN ROAD	250-SAG 30' POLE / 12' ARM
27' LEFT OF STA. 534+32 DORSEY RUN ROAD	250-SAG 30' POLE / 12' ARM
27' LEFT OF STA. 534+32 DORSEY RUN ROAD	250-SAG 30' POLE / 12' ARM

6-1-04
 DATE

CHRISTOPHER CONSULTANTS
 NO. 3171
 LANDSCAPE ARCHITECT No. 3171

PLANTING SPECIFICATIONS

PART 1 GENERAL

1.01 DESCRIPTION

- A. Work consists of all labor, materials, equipment and services necessary for and incidental to the execution and completion of THE FINAL LANDSCAPE PLAN as indicated on the Drawings and specified herein.
B. Includes:
1. Supply of all labor, materials, equipment and services necessary for and incidental to the execution and completion of THE FINAL LANDSCAPE PLAN as indicated on the Drawings and specified herein.
2. Furnishing of tree protection and planting materials.
3. Preparation, planting operations, mulching and staking.
4. Maintenance.

1.02 REFERENCES AND QUALITY ASSURANCE

- A. Landscape Contractors Association MD-DC-VA (LCA), Landscape Specification Guidelines, latest edition except where superseded by specific requirements herein.
B. American Association of Nurserymen (A.A.N.), American Standard for Nursery Stock, A.N.S.I. Z60.1, latest edition.
C. Nondestructive, in accordance with Hortus Third, latest edition, by the staff of the L. H. Bailey Hortorium, Cornell University.
D. Federal Specification, Q-P-1856 as applicable to Peat Moss.
E. National Arborist Association, Standard for Pruning of Shade Trees, Guying of Shade Trees, Fertilizing Shade and Ornamental Trees and Pest/Disease Application Operations, latest edition.
F. Maryland Department of Transportation, State Highway Administration (MSHA) Standard Specifications for Construction and Materials, October 1993, as amended to date. Delete references to "Measurement" and "Payment".

1.03 STANDARD OF COMPARISON

- A. When requested by the Owner's Representative, the Contractor shall obtain approval of a standard of comparison, prior to the delivery of plant material to the site.
1. Contact the Owner's Representative to schedule an inspection for approval of the standard of comparison to be installed at the project site.
2. Standards shall be assembled at the project site for review and approval, or at the Contractor's principal business location, as determined by the Owner's Representative. Approved standards may be planted at the project site.

1.04 SUBMITTALS

- A. Source: Notify the Owner's Representative, in writing, of the source of all material at least ten (10) working days prior to delivery at the project site.
B. Samples and Certifications:
1. If requested, a mulch sample shall be provided at the site for approval by the Owner's Representative (1 C.F. minimum).
2. Submit certification of peat moss compliance with referenced specifications.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Store plants that cannot be planted within 8 hours in a sheltered place. Water and maintain as required until planted.
B. Transport and handle plants so that foliage and roots are protected from breakage, sun and wind. Tops by roots of plants allowed to dry out or which have been damaged or disturbed root systems may be rejected.
C. B & S (balled and burlapped) plants: Firm, natural balls of soil, with size and depth of ball in accordance with A.A.N. Standards.

1.07 PROJECT CONDITIONS

- A. Planting Season:
1. Primary planting season: September 15 to May 15.
2. Other periods with written approval from the Owner's Representative.
B. Existing Conditions: Notify Miss Utility (1-800-257-7777), and the Owner's Representative prior to planting operations. Verify the location of underground utilities.

1.08 DEFINITIONS

- A. Diameter at Breast Height (DBH): The diameter of a tree measured at a point on the trunk 4.5 feet above the ground.
B. Initial Acceptance: Occurs when all plant material is in place in accordance with the specifications and approved by the Owner's Representative.
C. Maintenance Period: From initial acceptance of the plantings, and continuing thereafter for a period of 12 months.
D. Owner's Representative: The Landscape Architect or other Qualified Professional designated by the Owner or Developer of the Project.
E. Retention: The deliberate holding and protecting of existing trees, shrubs or herbaceous plants on the site.
F. Specimen Trees: A tree which exists on the project site prior to construction or planting having a 30 inch or greater DBH, or tree having 75 percent or more of the diameter of the current, state or county champion tree of that same species.
G. Start of Planting: Installation of plant material into excavated pits or beds.
H. Final Acceptance: Occurs after Contractor has completed all outstanding items, as determined by the Owner's Representative, at the end of the maintenance period.

1.09 SURVIVAL REQUIREMENT AND REPLACEMENTS

- A. The minimum survival rate shall be 100 percent of the total number of trees and shrubs planted at the end of the 12-month maintenance period.
B. Replacement material shall be the same size as the original plant material taking into account any growth that has occurred since original installation.
C. Methods of installation shall be identical to the original.

1.10 PENALTY FOR VIOLATION

- A. Immediately following the completion of construction and installation of the plantings, the owner or owner's representative will be notified for an inspection of the entire project site.
B. If, upon Final Acceptance inspection, trees and other vegetation designated as retention plant material are found to be damaged or dead due to mechanical intrusion or related construction activities associated with the landscape contractors installation and maintenance of the soil plan then replacement material will be required.

PART 2 PRODUCTS

2.01 PLANTS

- A. Plant materials shall meet or exceed the requirements of A.A.N. standards, or as amended herein.
B. Plants shall be typical of the species and variety, and have a normal habit of growth with well established root systems.
C. Sound, healthy, vigorous, free from plant diseases, insect pests or their eggs and without suckers or evidence of suckering.
D. Plants cut back from larger sizes or pruned prior to delivery will not be accepted.
E. Measurement: The caliper of deciduous trees (except seedlings and whips) shall be measured 8 inches above ground level for trees up to and including 4 inch caliper and 12 inches above ground level for material larger than 4 inch caliper. Seedlings and whips shall be measured at the root collar.

2.02 DECIDUOUS STREET TREES

- A. Single straight leader, well branched, and symmetrical, without suckers or evidence of suckering, according to their normal habit.
B. Trees planted within five (5) feet of pedestrian ways, parking lots or roads shall be free from branches up to eight (8) feet in height from finish grade.

2.03 EVERGREENS

Shaded evergreen plant material shall not be acceptable.

2.04 SHRUBS

At least 75% of the individual branches or cones of a shrub shall be to the height specified.

2.05 HERBICIDES

- A. Contact herbicide shall be "Round-up" or approved equal.
B. Pre-emergence herbicide shall be "Snapshot" or approved equal.

2.06 TOPSOIL FOR AMENDING EXISTING SOIL

- A. General Requirements (only where required by details on the Drawings):
1. Natural, friable sand loam topsoil which is free of subsoil, clay lumps, stones, stumps, roots or similar objects larger than 1-inch.
2. Free of brush, objectionable weeds and litter or other substance which is harmful to plant growth.
B. In accordance with M.S.H.A. Item 920.01.02 for Fertilized Topsoil if borrow topsoil is required from an off-site location.

2.07 FERTILIZER FOR POST-PLANTING

- A. 5-10-5 (Plant food by minimum percentages.)
(N) Total Nitrogen 5
(P2O5) Soluble Phosphoric Acid 10
(K2O) Soluble Potash 5
B. Fertilizer shall be slow release over a minimum 3 year period. Fertilizer shall be delivered to the site with formulas attached.

2.08 PEAT MOSS

Baled sphagnum peat moss, Type I-A, conforming to Federal Specification Q-P-1856.

2.09 MULCH

- A. Mulch shall be the following as indicated on the Drawings:
1. Shredded hardwood.
2. Pine Straw.
B. Mulch shall have been prepared within the last four (4) months.

2.10 WATER

Potable, if not available at the site from a public water supply, the Contractor

2.11 ANTI-TRANSPARENT

- Shall be the following or approved equal:
Mil-Pruf
Mil-Pruf Products Inc.
P. O. Box 489
Eagleville, CT 06426
(203) 797-7033
or approved equal.

2.12 ACCESSORIES

- A. Tree Guying:
1. Stakes: 2 inch x 2 inch rough sawn oak stakes, notched to hold wire, length as required to secure the tree.
2. Wire: Galvanized steel wire, doubled.
3. Slings: Nylon reinforced green vinyl hose.
B. Tree Shelters, netting and stakes: Extruded twin-walled polypropylene with ultra-violet stabilizer and anti-abrasion rim as manufactured by:
Tubex
P.O. Box 7097
Saint Paul, MN 55107
(612) 228-0535
or approved equal.
1. Stake shall be oak, painted, 1 inch x 1 inch x 3 feet nominal.
2. Protective netting: Flexible plastic mesh capable of covering the top opening of the tube to prevent entry by birds.

PART 3 EXECUTION

3.01 INITIAL INSPECTIONS

- A. Pre-construction meeting:
1. Prior to the beginning of any clearing, grading or disturbance of the site, a meeting at the project site shall be held with the Contractor and Owner's Representative.
2. The following items, and others as deemed necessary, will be reviewed as applicable to the Project:
a) Staked limits of required retention areas and protection fencing, proposed limits of clearing and grubbing, the proposed location of sediment control devices, and the sequence of operations.
b) Staking and flagging shall be completed by the Contractor prior to the pre-construction meeting.
3. Designated adjustments to the proposed limits and locations of items reviewed in the field during the pre-construction meeting shall be incorporated prior to beginning construction.
B. Pre-planting meeting:
1. Prior to the beginning of planting operations, a meeting shall be held at the project site with the Contractor and Owner's Representative to review the following, as applicable to the project:
a) Staked limits, of proposed planting areas, completed prior to the meeting.
b) Areas to receive selective application of herbicides prior to planting, if applicable.
c) Proposed location of temporary and permanent fencing.
d) Proposed schedule, sequence of planting operations and other requirements.

3.02 PREPARATION

- A. Tree protection fencing, slings and other pre-construction activities noted on the Drawings for retention areas shall be installed prior to any on-site clearing or grading operations.
B. Additional temporary and permanent fencing shall be installed in conjunction with or prior to planting operations as shown on the Drawings.
C. Plant Locations: As shown on the Drawings, to dimensions if shown, or as detailed if not specifically labeled. Locations subject to review by the Owner's Representative prior to planting.
D. Utilities: The Contractor shall locate existing and proposed utilities prior to excavation of planting holes:
1. If a conflict is identified between the location of utilities and proposed planting locations, the Owner's Representative shall establish an alternate location for plants as required to avoid the conflict.
2. Bidders shall notify the Owner's Representative of potential conflicts identified prior to submission of a bid.
E. No plant material shall be installed until the Owner's Representative has approved the final grade of areas to receive planting.

3.03 EXCAVATION

- A. Unclassified: Excavate and remove surplus materials encountered, without additional cost to the Owner. Retain only sufficient soil to form soil walls as shown on the Drawings. Disposal of surplus material may be on-site if approved by the Owner's Representative.
B. Underground obstruction: rock or other obstructions too massive to remove: Notify Owner's Representative for further direction. Alternate locations will be selected. Make such relocations without additional compensation.

3.04 PLANTING PROCEDURES

- A. Do not plant when ground is frozen or excessively wet.
B. Set plants straight and plumb and at such a level that after settlement the first lateral root is flush with the adjacent ground surface.
C. When B&S or container plants are set, planting soil shall be carefully tamped around the base of the balls to prevent voids. All burlap, rope, wires, etc., shall be removed from the tops of balls. Polyethylene cords or cloth shall not be left in place on balled materials.
D. Backfill plants and tamp to two-thirds depth of pit and thoroughly water before bringing backfill up to proper grade. Thoroughly water the plant again after the soil wall has been completely formed in-place.
E. Water Around Trees and Shrubs: After planting is complete, form a soil wall around designated plants, extending to the outer limit of the plant pit in accordance with the planting details shown on the Drawings.
F. Designated Planting Beds: All vegetation growth shall be removed to a sufficient depth to insure a weed-free bed. Till the existing soil to a depth of 8-inches throughout the designated bed areas. The edge of all planting beds shall be cut vertically and the soil redressed within 1 foot of the bed edge so that the mulch is flush with adjacent grade when the installation has been completed.

3.05 MULCHING

Plants and beds shall receive a 2 to 4 inch cover of mulch. Mulch shall be installed within 8 hours after planting has been completed.

3.06 STAKING, WRAPPING AND GUYING

- A. Stake trees, which require staking as shown on the Drawings, during the same day as planting.
B. Guying:
1. Guying shall be in accordance with the Details.
2. Stakes shall be securely driven in ground and plants guyed to provide and maintain adequate support.

3.07 PRUNING AND ANTI-TRANSPARENT APPLICATION

- A. Pruning: Any broken or damaged branches shall be removed. Damage, removal or pruning of tree leaders shall be avoided.
B. Anti-transparent: Deciduous plants, installed from May 1st to September 15th shall receive application in accordance with the manufacturer's recommendations.

3.08 POST-PLANTING FERTILIZATION

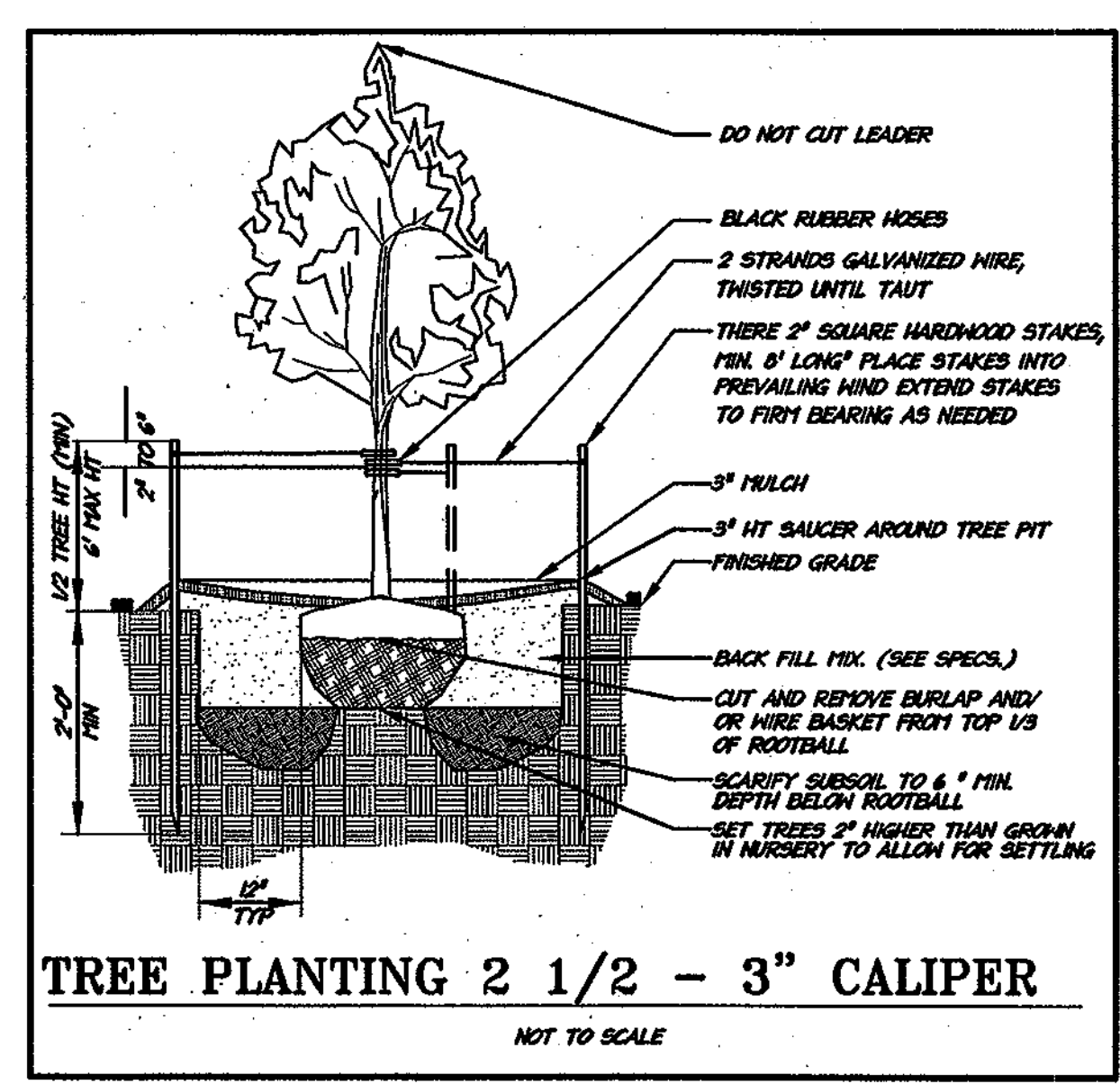
- A. Notify Owner's Representative prior to fertilizing operations.
B. Approximately 1 year after planting, but prior to the maintenance agreement's expiration, the Contractor shall fertilize all plant material. Plant foliage shall be completely dry at the time of application. Fertilizer adhering to plant foliage after application shall be removed. Water thoroughly after application.
C. Rate of application shall be in accordance with the fertilizer manufacturer's recommendations or the following:
1. Shrubs: 4 pounds of 6-10-5 per 100 square feet.
2. Trees: 2 pounds of 6-10-5 per inch of caliper distributed uniformly in slotted sack.

3.09 CLEAN-UP

- A. Excess and waste materials shall be removed from the site before or upon completion of planting operations, or daily if required by the Owner's Representative.
B. Repair turf areas and other existing conditions damaged during planting operations, including regrading, seeding and mulching to the satisfaction of the Owner's Representative.

3.10 MAINTENANCE

- A. Contractor shall inspect and provide necessary services throughout the 12-month maintenance period.
1. Watering as required for local conditions.
2. Inspection for pests and disease shall be performed a minimum of two (2) times within the initial year, after spring leaf-out and at mid-summer, or more frequently if necessary to control problems.
3. Weeding and removal of invasive plants shall be performed a minimum of four (4) times per year, during the first two weeks of the months of May, June, July and August.
4. Plant material shall be re-matched, just prior to the maintenance agreement's expiration, with a minimum 1-inch depth of new mulch.
5. Fencing, signs, stakes and guys shall be tightened, repaired or replaced as necessary throughout the maintenance period in accordance with original details and installation requirements.
B. Remove and replace dead or damaged plant material to comply with the Minimal Survival requirement in accordance with Item 1.09 above.
C. Notify Owner's Representative prior to initiating maintenance operations.



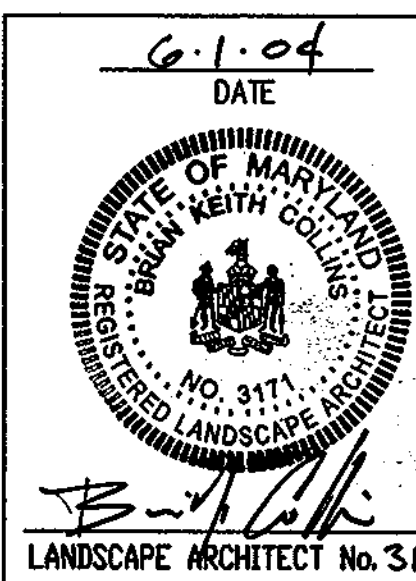
GENERAL NOTES:

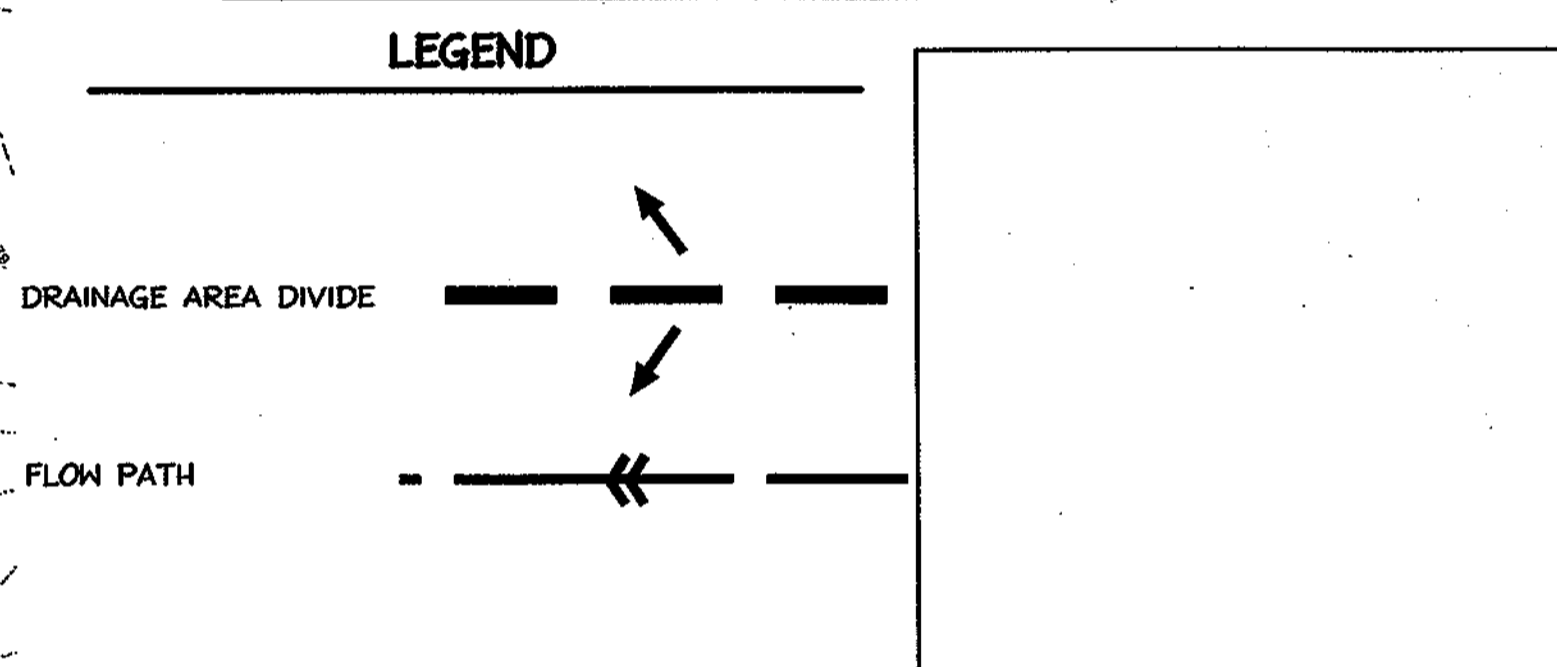
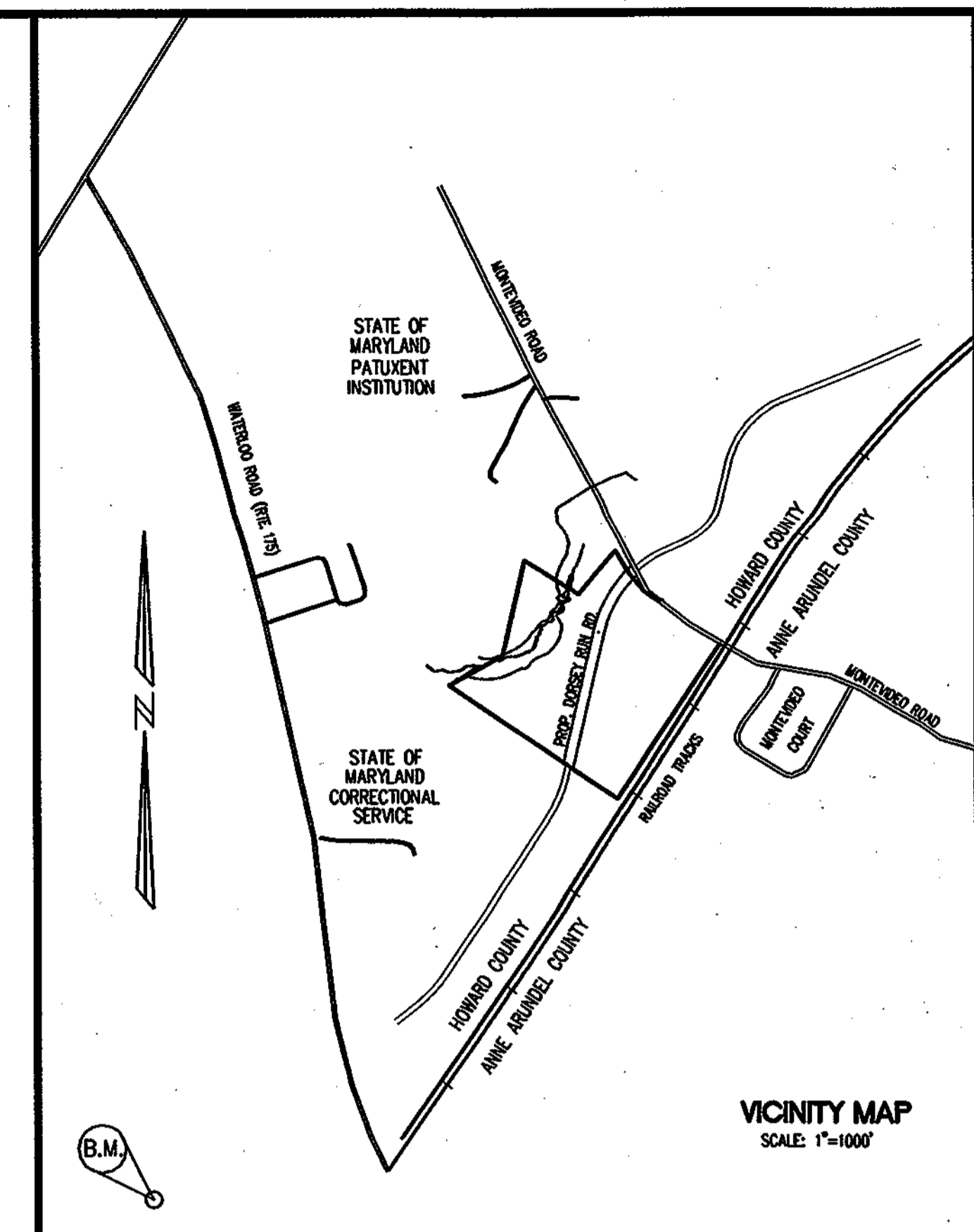
- 1. ALL PLANT MATERIAL SHALL CONFORM TO THE STANDARDS OF NURSERY STOCK OF THE AMERICAN ASSOCIATION OF NURSEYMEN.
2. TREES AND SHRUBS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY, HAVE NORMAL GROWTH HABITS, WELL DEVELOPED, DENSELY FOLIATED BRANCHES, AND VIGOROUS, FIBROUS ROOT SYSTEMS.
3. TREES AND SHRUBS SHALL BE FRESHLY DUG AND NURSERY GROWN. THEY SHALL HAVE BEEN GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT OR PROPERLY ACCLIMATED TO CONDITIONS OF THE LOCALITY OF THE PROJECT.
4. TREES AND SHRUBS SHALL BE FREE FROM DEFECTS AND INJURIES AND CERTIFIED BY APPROPRIATE FEDERAL AND STATE AUTHORITIES TO BE FREE OF DISEASES AND INSECT INFESTATIONS.
5. THE LANDSCAPE CONTRACTOR SHALL WARRANT ALL PLANT MATERIAL FOR A PERIOD OF ONE (1) FULL YEAR AFTER THE DATE OF SUBSTANTIAL COMPLETION AGAINST DEFECTS, UNSATISFACTORY GROWTH, DISEASE OR DEATH. UNSATISFACTORY, UNHEALTHY, DYING OR DEAD PLANT MATERIAL (IN THE OPINION OF THE LANDSCAPE ARCHITECT) SHALL BE REPLACED WITH THE SAME SIZE AND SPECIES.
6. IT SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO ADEQUATELY AND PROPERLY MAINTAIN THE LANDSCAPED AREAS, WHICH SHALL INCLUDE WATERING, CLEANING OF WEEDS AND DEBRIS, PRUNING AND TRIMMING, REPLACEMENT OF DEAD OR DISEASED PLANTINGS, AND FERTILIZING TO MAINTAIN HEALTHY GROWTH FOR THE ONE YEAR WARRANTY PERIOD.
7. THE LANDSCAPE CONTRACTOR SHALL STAKE OUT PLANT LOCATIONS IN THE FIELD. THE LANDSCAPE ARCHITECT OR HIS REPRESENTATIVE SHALL OBSERVE THESE LOCATIONS PRIOR TO COMMENCING PLANT PIT EXCAVATION. THE LANDSCAPE CONTRACTOR SHALL MAKE ANY ADJUSTMENTS AS REQUESTED BY THE LANDSCAPE ARCHITECT.
8. ALL PLANT SAUCERS AND PLANT BEDS SHALL BE MULCHED WITH DOUBLE SHREDDED HARDWOOD MULCH OR PINE STRAW, A MINIMUM OF 3" IN DEPTH.
9. NO SUBSTITUTIONS OF PLANT MATERIAL SHALL BE PERMITTED WITHOUT WRITTEN AUTHORIZATION OF HOWARD COUNTY PLANNING AND ZONING. THIS SHALL APPLY TO SUBSTITUTIONS OF SPECIES, SIZE, QUANTITY AND LOCATION.
10. THE LANDSCAPE CONTRACTOR SHALL INSTALL SHREDDED HARDWOOD BARK MULCH TO A DEPTH OF 3" UNDER AND SURROUNDING ALL NEW LANDSCAPED MASS PLANTING AREAS TO PROVIDE A UNIFORM AND CONTINUOUS SURFACE AND APPEARANCE BETWEEN AND AROUND ALL PLANT MATERIAL, BUILDING LINES AND PAVED AREAS. IN GENERAL, THIS PERTAINS TO ALL PLANT MATERIAL THAT IS PLANTED CLOSER THAN SIX (6) FEET CENTER TO CENTER. IT IS THE INTENT OF THIS CONTRACT TO INSTALL LANDSCAPE MAT UNDER THE ENTIRE AREA OF SHREDDED BARK MULCH.
11. TREES SHALL BE LOCATED A MINIMUM OF 5' FROM SEWER/WATER CONNECTIONS. CONTRACTOR SHALL BE LIABLE FOR DAMAGE TO ANY AND ALL PUBLIC AND PRIVATE UTILITIES, WATER AND SEWER LINES.
12. ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS WHICH ARE GOOD QUALITY AND ARE IN A HEALTHY GROWING CONDITION.
13. CONTRACTOR SHALL SLIGHTLY ADJUST PLANT LOCATIONS IN THE FIELD AS NECESSARY TO BE CLEAR OF DRAINAGE SWALES AND UTILITIES. FINISHED PLANTING BEDS SHALL BE GRADED SO AS NOT TO IMPEDE DRAINAGE AWAY FROM BUILDINGS.
14. TREE STAKING AND GUYING SHALL BE DONE PER DETAILS. CONTRACTOR SHALL ENSURE THAT TREES REMAIN PLUMB AND UPRIGHT FOR THE DURATION OF THE GUARANTEE PERIOD.
15. ALL TREE PITS, SHRUB BEDS, AND PREPARED PLANTING BEDS ARE TO BE COMPLETELY EXCAVATED IN ACCORDANCE WITH THE PLANTING DETAILS.
16. CROWN OF ROOT BALL SHALL BE HIGHER (AFTER SETTING) THAN ADJACENT SOIL.
17. SHADE TREES: HEIGHT SHALL BE MEASURED FROM THE CROWN OF THE ROOT BALL TO THE TOP OF MATURE GROWTH. SPREAD SHALL BE MEASURED TO THE END OF BRANCHING EQUALLY AROUND THE CROWN FROM THE CENTER OF THE TRUNK. MEASUREMENTS ARE NOT TO INCLUDE ANY TERMINAL GROWTH. SINGLE TRUNK TREES SHALL BE FREE OF "Y" CROTCHES THAT COULD BE POINTS OF WEAK LIMB STRUCTURE OR DISEASE INFESTATION.
18. CONTRACTOR MUST CONTACT THE OWNER AT LEAST TEN WORKING DAYS IN ADVANCE TO SCHEDULE ACCEPTANCE INSPECTION(S). CONTRACTOR MUST REPLACE ALL DEAD OR UNACCEPTABLE PLANTS DURING THE FOLLOWING RECOMMENDED PLANTING SEASON.
19. TREES SHALL BE PLANTED DURING ACCEPTABLE PLANTING SEASONS: BETWEEN MARCH 15 AND MAY 15 AND BETWEEN AUGUST 15 AND NOVEMBER 15 OR AS APPROVED BY OWNERS REPRESENTATIVE.
20. ALL TREE STAKING AND GUYING SHALL BE REMOVED BY THE CONTRACTOR AFTER THE TREES ARE ESTABLISHED.
21. SEEDED AREAS THAT WASH OUT MUST BE FILLED AND GRADED AS NECESSARY AND RESEEDED. SOME TYPE OF ANCHORING METHOD SHOULD THEN BE USED TO HOLD SEED AND MULCH IN PLACE. THIS IS ESPECIALLY IMPORTANT AROUND WATER COURSES, IN SWALES AND AREAS OF CONCENTRATED FLOWS, AND ON SLOPES.
22. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 18.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
23. THERE IS NO LANDSCAPE SURETY REQUIRED FOR THIS SUBMITTAL. THE STREET TREES HAVE BEEN INCLUDED IN THE CONSTRUCTION COST ESTIMATE.
24. THE PERIMETER LANDSCAPING REQUIREMENTS HAVE BEEN DEFERRED UNTIL THE SITE PLAN STAGE, FOR DEVELOPMENT OF PARCELS "A" AND "B".

APPROVED: DEPARTMENT OF PUBLIC WORKS
W. F. ... 6-28-04
Chief, Bureau of Highways
Date
APPROVED: DEPARTMENT OF PLANNING AND ZONING
C. ... 6/30/04
Chief, Division of Land Development
Date
APPROVED: DEPARTMENT OF ENGINEERING
D. ... 6/30/04
Chief, Development Engineering Division
Date
OWNER / DEVELOPER
MONTGOMERY SOUTH BUSINESS TRUST
C/O FRANKLIN CROW COMPANY
7315 WISCONSIN AVENUE SUITE 300 W
BETHESDA, MARYLAND 20814
TEL: (301) 530-6200
FAX: (301) 530-6131

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christopher consultants, Inc.
7172 coltsville gateway drive (suite 100) columbi, md. 21046-2999
410.872.8600 - metro 301.981.0248 - fax 410.872.8683

DORSEY RUN ROAD
(Sta. 632+58.52 TO 651+11.59)
AT DORSEY INDUSTRIAL CENTER
TITLE:
LANDSCAPE NOTES
& DETAILS
DESIGN: CB,BB SCALE: PROJECT: 036701.02
DRAWN: EJ,KB DATE: 05/10/04
CHECKED: APPROVED: 12 of 13





APPROVED: DEPARTMENT OF PLANNING AND ZONING

Craig Harvath 6/30/04
 Chief, Division of Land Development HB Date

William M. ... 6/20/04
 Chief, Development Engineering Division MWT Date

Director Date

Date	No.	Revision Description
		SITES "A" & "B" AT DORSEY RUN INDUSTRIAL CENTER OWNER / DEVELOPER HOWARD SOUTH BUSINESS TRACT 620 THAMMILL CROW COMPANY 7215 WOODSON AVENUE SUITE 300 W BETHESDA, MARYLAND 20814 TEL: (301) 530-4000 FAX: (301) 530-4131

christopher consultants
 engineering - surveying - land planning
 christopher consultants, inc.
 7172 columbus gateway drive suite 100 - columbia, md 21046-2000
 410.282.8889 - fax 410.282.8899

6-1-04

John M. Householder

PERMIT INFORMATION CHART

PROJECT NAME	LOT/PARCEL NO.	CENSUS TRACT
BALTIMORE AIR COL	100,325,372,572,574	6067.03
PLAT NO.	ZONE	TAX MAP
N/A	M-2	43
GRID NO.	ELECTION DISTRICT	
16	1ST	
WATER CODE	SEWER CODE	
PUBLIC	PUBLIC	
TITLE:		
100 YEAR FLOODPLAIN DRAINAGE AREA MAP		
DESIGN: RAD/XDF	SCALE: 1"=300'	PROJECT: 036701.01
DRAWN: ADL	DATE: 4/14/04	
CHECKED:	APPROVED:	13 of 13