

**ASBUILT 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. 12415, Expiration Date: May 26, 2020.

Date: 1/28/2020  
 Cori K. Witschick  
 Professional Engineer  
 License Reg. No. 12415

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Chief, Bureau of Highways  
 Date: 1/28/2020

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Chief, Division of Land Development  
 Date: 2-29-16

APPROVED: Chief, Development Engineering Division  
 Date: 2-26-16

PROPOSED CENTERLINE (PGL)  
 EXISTING GRADE (PGL)  
 EX. B.R.L. LEFT  
 EX. B.R.L. RIGHT

**BURTON DRIVE STREET GRADE PROFILE**  
 SCALE: HOR. 1" = 50'  
 VER. 1" = 5'

(50' R/W PUBLIC ACCESS STREET)  
 (24' PAVING)

NOTE:  
 ROAD CLASSIFICATION: ACCESS STREET  
 DESIGN SPEED: 30 MPH  
 POSTED SPEED: 25 MPH  
 FOR TYPICAL ROAD SECTIONS, SEE SHEET 6.

**ASBUILTS**

TOP OF CURB ELEVATION TABLE FOR BURTON DRIVE									
PT. NO.	STATION	OFFSET	ELEV.	ASBUILT	PT. NO.	STATION	OFFSET	ELEV.	ASBUILT
(B1)	0+21.80	5'11" LT	456.12	456.04	(B10)	11+84.62	12'00" RT	430.06	431.13
(B2)	0+58.75	2'10" LT	456.04	456.13	(B11)	2+84.04*	1'00" RT	430.14	430.00
(B3)	1+68.44	2'34" LT	454.10	456.22	(B12)	2+55.15*	1'00" RT	424.37	424.20
(B4)	3+05.82	11'47" LT	451.21	451.14	(B13)	0+38.45*	1'00" RT	424.37	424.37
(B5)	4+45.95	12'00" LT	447.41	447.32	(B14)	0+00.00*	1'00" RT	430.14	429.96
(B6)	6+00.81	12'00" LT	440.42	440.44	(B15)	11+84.62	12'00" RT	431.06	431.02
(B7)	8+80.63	12'00" LT	435.65	435.56	(B16)	10+40.20	12'00" RT	432.43	432.26
(B8)	10+31.18	12'00" LT	433.84	433.73	(B17)	10+31.18	12'00" RT	433.84	433.84
(B9)	10+40.20	12'00" LT	432.85	432.85	(B18)	8+80.63	12'00" RT	435.65	435.56
(B10)	6+00.81	12'00" RT	440.42	440.36	(B19)	6+00.81	12'00" RT	440.42	440.36
(B11)	4+45.95	12'00" RT	447.41	447.37	(B20)	4+45.95	12'00" RT	447.41	447.37
(B12)	2+84.04*	12'00" RT	424.37	424.37	(B21)	3+45.58	12'00" RT	430.38	430.41
(B13)	2+73.81	14'62" RT	431.94	431.86	(B22)	2+73.81	14'62" RT	431.94	431.86
(B14)	0+00.00*	1'00" RT	430.14	429.96	(B23)	1+15.98	21'00" RT	435.15	435.15
(B15)	11+84.62	12'00" RT	431.06	431.02	(B24)	0+64.53	21'00" RT	436.51	436.44
(B16)	10+40.20	12'00" RT	432.43	432.26	(B25)	10+40.20	12'00" RT	432.43	432.36
(B17)	10+31.18	12'00" RT	433.84	433.84	(B26)	0+58.75	12'00" RT	436.61	436.56
(B18)	8+80.63	12'00" RT	435.65	435.56	(B27)	0+58.75	3'00" LT	436.61	436.56
(B19)	6+00.81	12'00" RT	440.42	440.36	(B28)	1+36.66	2'54" LT	435.45	435.34
(B20)	4+45.95	12'00" RT	447.41	447.37	(B29)	1+57.35	4'18" LT	434.41	434.30
(B21)	3+45.58	12'00" RT	424.37	424.37	(B30)	1+56.63	5'74" LT	434.47	434.39
(B22)	2+73.81	14'62" RT	431.94	431.86	(B31)	2+01.81	1'25" LT	433.66	433.54
(B23)	1+15.98	21'00" RT	435.15	435.15	(B32)	2+01.82	1'72" RT	433.66	433.55
(B24)	0+64.53	21'00" RT	436.51	436.44	(B33)	1+45.48	13'00" RT	436.61	436.53
(B25)	10+40.20	12'00" RT	432.43	432.26	(B34)	0+38.44	12'00" LT	430.23	430.14
(B26)	0+58.75	12'00" RT	436.61	436.56	(B35)	0+41.23	12'00" RT	430.02	429.90
(B27)	0+58.75	3'00" LT	436.61	436.56					

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK  
 BURTNSVILLE, MARYLAND 20868  
 TEL: 301-421-4024 BALI: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4196

DES. JRD	DRN. JRD	CHK. DEV	DATE	REVISION	BY	APP'R.

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELIJAH CITY, MARYLAND 21042  
 443-387-0422  
 ATTN: CAMILLA CARROLL

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS 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. 12977, EXPIRATION DATE: MAY 26, 2018.

1/14/16  
 C.K.W.

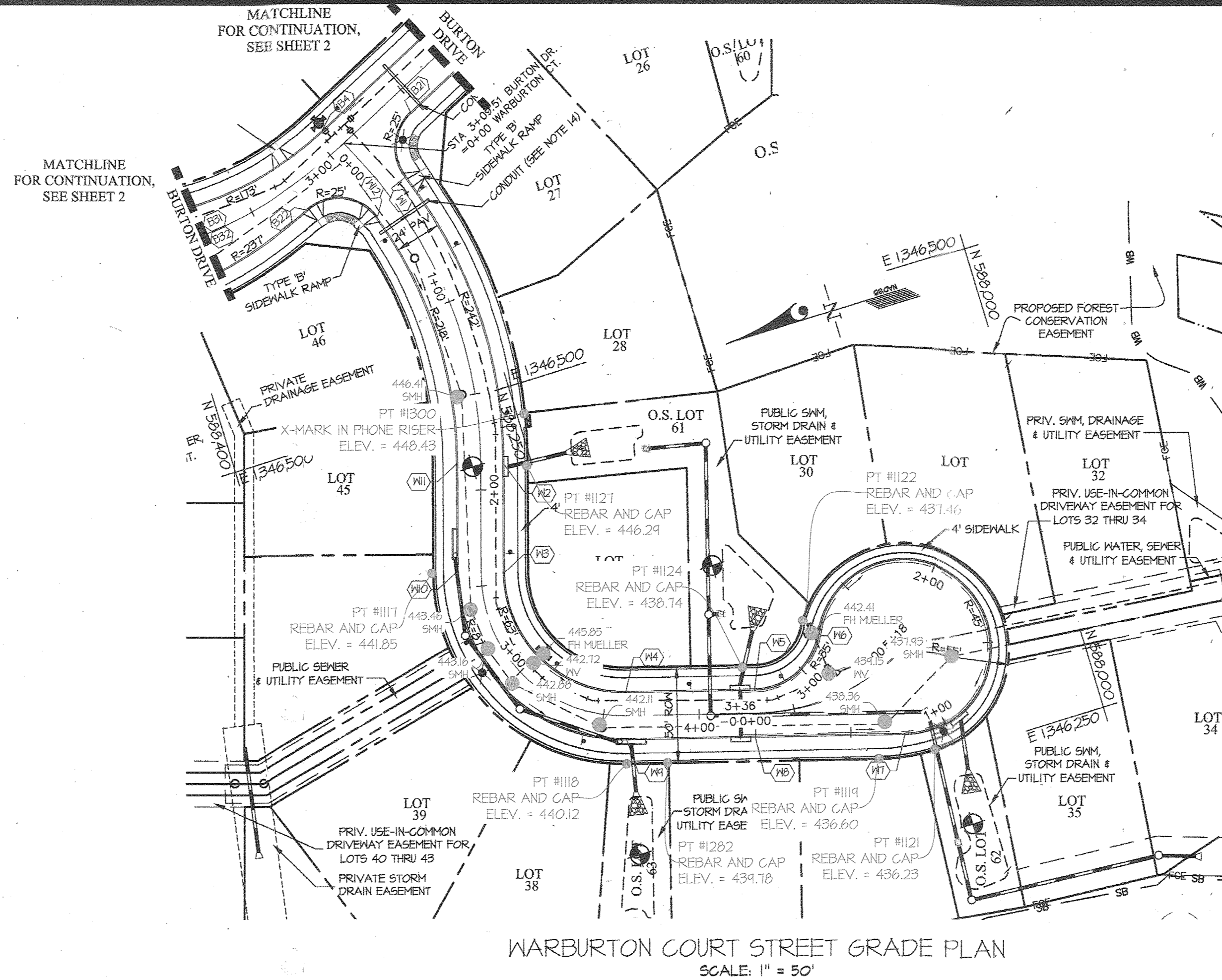
**ROAD CONSTRUCTION PLAN & PROFILES - BURTON DRIVE**

**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
 HOWARD COUNTY, MARYLAND

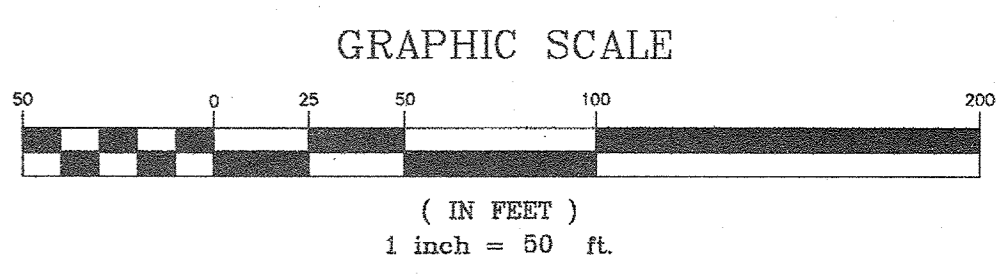
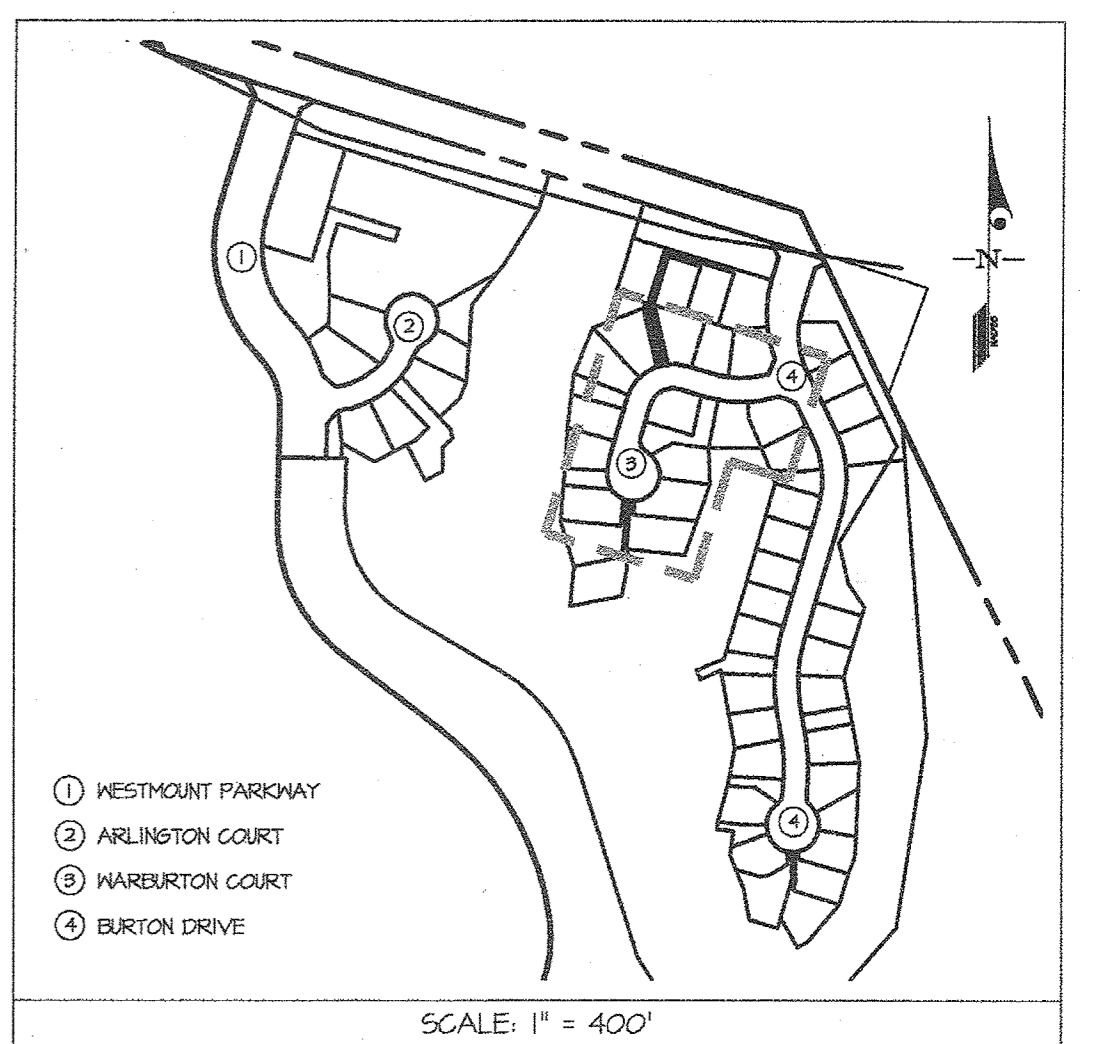
SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JAN. 2020	23-6&12	2 OF 60
JULY, 2016		



- NOTES:
- ALL SIDEWALKS ARE 4' WIDE WITHIN HOWARD COUNTY ROAD R/W UNLESS OTHERWISE NOTED. SIDEWALKS SHALL BE REINFORCED CONCRETE WITHIN THE LIMITS OF BIO ACCESS POINTS, SEE SHEETS 12-14.
  - ALL CURB RADII ARE 25' UNLESS OTHERWISE NOTED.
  - FOR STREET TREE, LANDSCAPING, AND BUFFERING REQUIREMENTS, SEE SHEETS 8 THROUGH 11.
  - FOR CENTERLINE CURVE DATA, SEE SHEET 6.
  - FOR STREET LIGHT LOCATIONS, SEE SHEET 8.
  - FOR TYPICAL SECTIONS, SECTION DIMENSIONS AND ROAD DETAILS, SEE SHEET 6.
  - FOR STORM DRAIN SIZING INFORMATION, SEE SHEETS 15-17.
  - ALL OF THE SEWER SHOWN IS 8" UNLESS OTHERWISE NOTED.
  - ALL OF THE SMC'S SERVING NUMBERED LOTS ARE 4".
  - ALL OF THE WATER SHOWN IS 8" UNLESS OTHERWISE NOTED.
  - ALL OF THE WMC'S SERVING NUMBERED LOTS ARE 1-1/2".
  - WARBURTON COURT IS A PUBLIC ACCESS STREET WITH A 50' R/W AND 24' PAVING WIDTH.
  - UNLESS OTHERWISE NOTED, CURB WITHIN WESTMOUNT PARKWAY AND THE ISLAND IN BURTON AVENUE IS TO BE REVERSE COMBINATION CURB AND GUTTER. ISLANDS WITHIN WESTMOUNT PARKWAY WILL HAVE FLUSH CURB. ALL OTHER CURB WITHIN COUNTY RIGHT-OF-WAY IS STANDARD COMBINATION CURB AND GUTTER. SEE SHEET 6 FOR CURB DETAILS.
  - CONDUIT CROSSING FOR STREET LIGHTS SHALL BE (4) 4" SCHEDULE 80 PVC, INSTALLED FLAT AT A DEPTH OF 36" WITH MARKERS ON BOTH SIDES AND WITH FULL STRINGS INSTALLED. ONE CONDUIT IS TO BE USED FOR EACH OF THE FOLLOWING: ELECTRIC, VERIZON, GAS, AND CABLE.



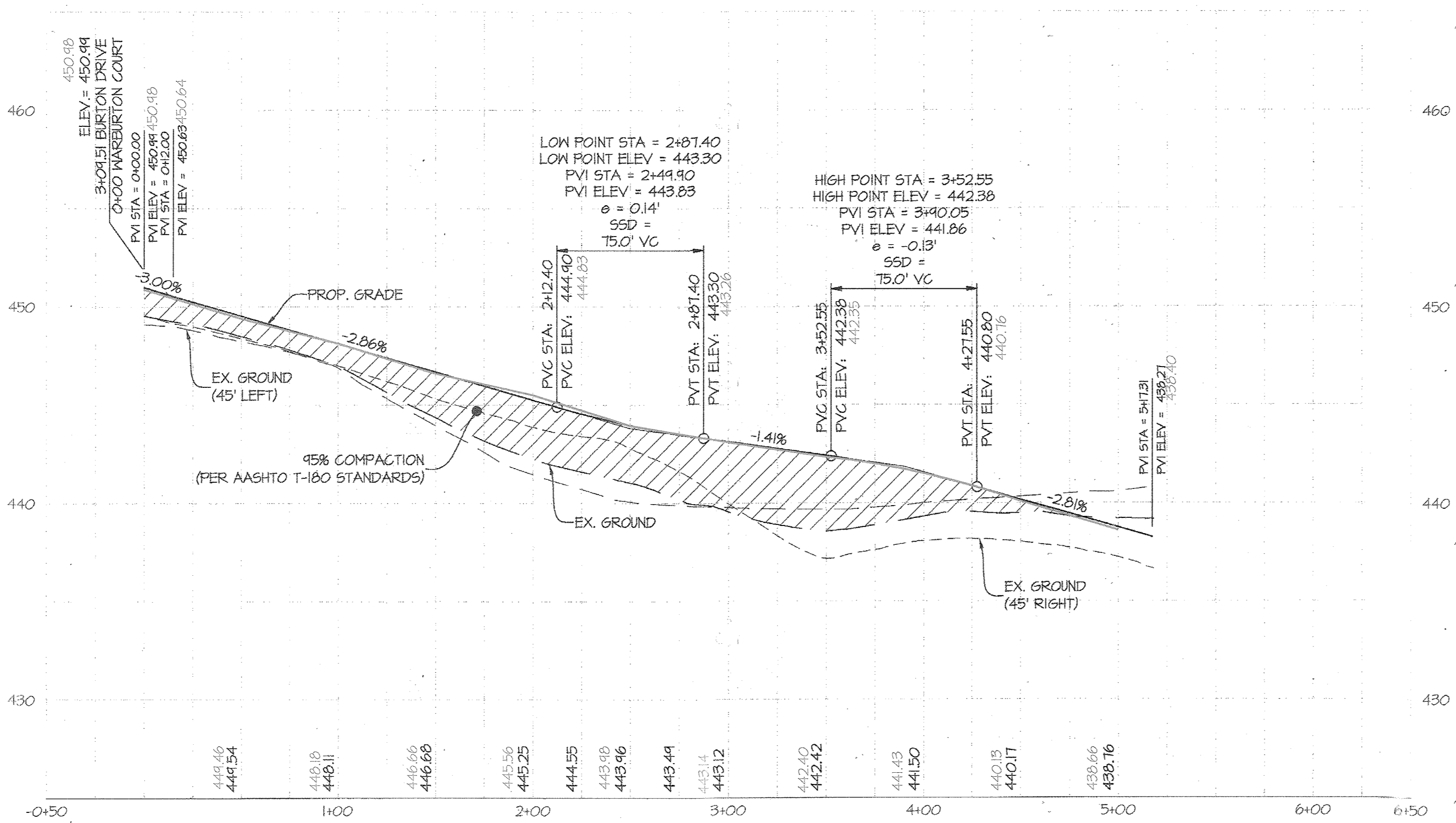
WARBURTON COURT STREET GRADE PLAN  
SCALE: 1" = 50'



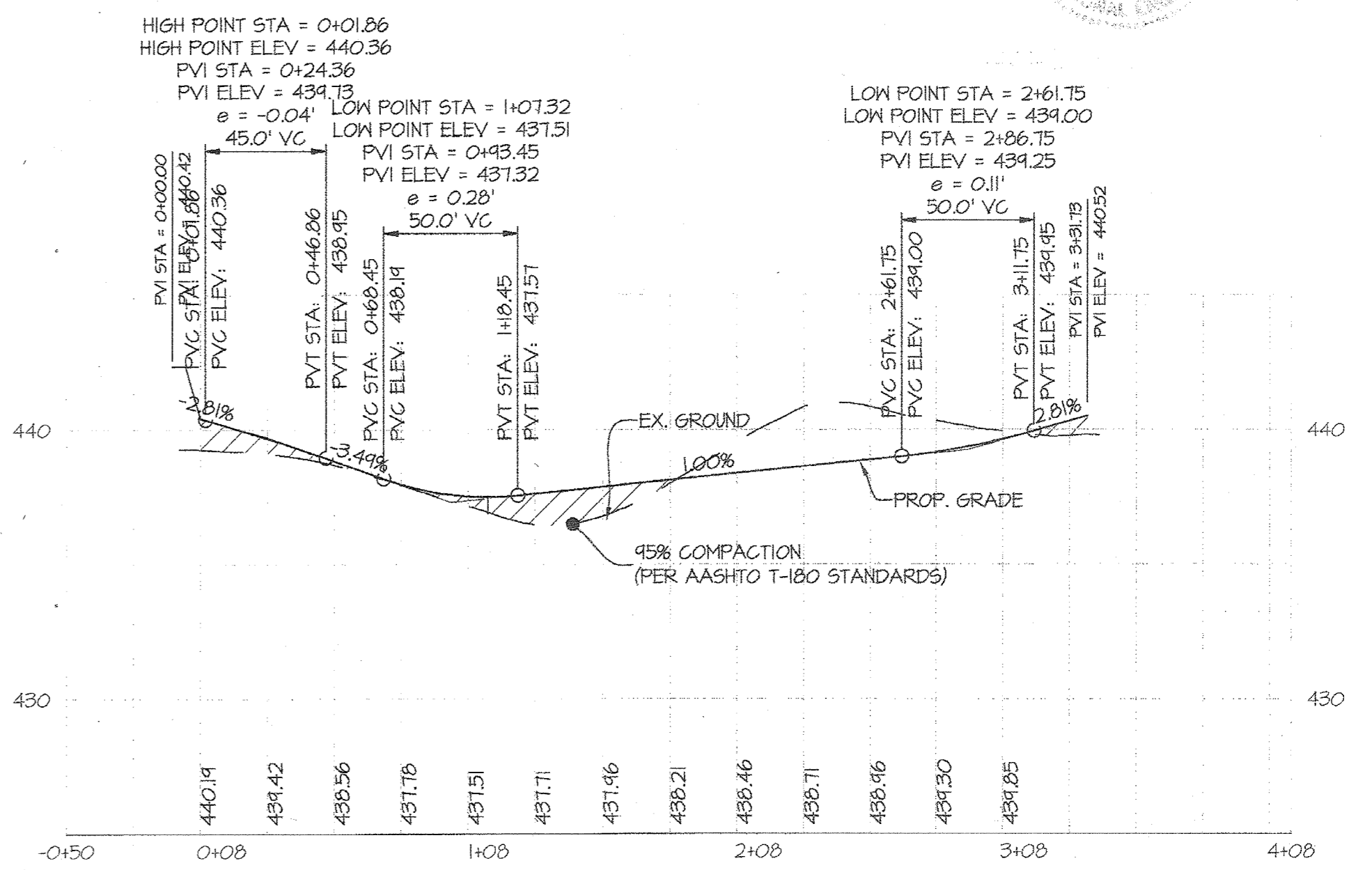
**TOP OF CURB ELEVATION TABLE FOR WARBURTON COURT**

PT. NO	STATION	OFFSET	ELEV.	ASBUILT
(B4)	3+05.82	11.47' LT	451.21	451.14
(B2)	3+45.58	12.00' RT	450.38	450.41
(B2)	2+79.21	14.62' RT	451.54	451.86
(N)	0+33.94	12.00' LT	450.23	450.19
(N2)	1+86.71	12.00' LT	445.86	445.60
(N3)	2+42.75	12.00' LT	444.34	444.25
(N4)	3+61.75	12.00' LT	442.47	442.34
(N5)	3+28.40*	12.00' RT	440.91	440.79
(N6)	2+78.81*	12.00' RT	439.76	439.86
(N7)	0+78.40*	12.00' RT	438.44	438.50
(N8)	0+00.00*	12.00' RT	440.97	440.79
(N8)	3+61.75	12.00' RT	442.47	442.03
(N10)	2+42.75	12.00' RT	444.34	444.23
(N11)	1+86.71	12.00' RT	445.86	445.75
(N12)	0+41.23	12.00' RT	450.01	449.90

\* INDICATES THAT STATION IS BASED ON CUL-DE-SAC ALIGNMENT, WHICH IS AT THE GUTTER PAN, 1' FROM THE FACE OF CURB.



WARBURTON COURT STREET GRADE PROFILE  
SCALE: HOR. 1" = 50'  
VER. 1" = 5'



WARBURTON COURT CUL-DE-SAC PROFILE  
SCALE: HOR. 1" = 50'  
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**ASBUILT 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. 12915, Expiration Date: May 26, 2020.

1/28/2020  
Date

*[Signature]*  
Professional Engineer  
Maryland Reg. No. 12915

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 7/27/2016  
Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*[Signature]* 8-29-16  
Chief, Division of Land Development Date

*[Signature]* 8-26-16  
Chief, Development Engineering Division Date

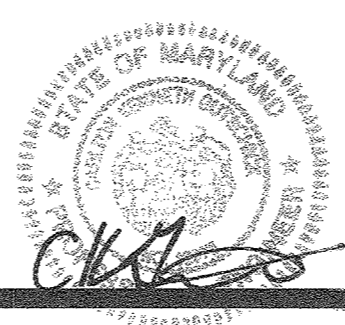
**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
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DES. JRD	DRN. JRD	CHK. DEV	DATE	REVISION	BY	APPR.

PREPARED FOR:  
WESTMOUNT DEVELOPMENT CORPORATION  
3500 MANOR LANE  
ELLCOTT CITY, MARYLAND 21042  
443-367-0422  
ATTN: CAMILLA CARROLL

**PROFESSIONAL CERTIFICATION**  
I HEREBY CERTIFY THAT THESE PLANS 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. 12915, EXPIRATION DATE: MAY 26, 2020

7/14/16 *[Signature]*



**ROAD CONSTRUCTION PLAN & PROFILES - WARBURTON COURT**

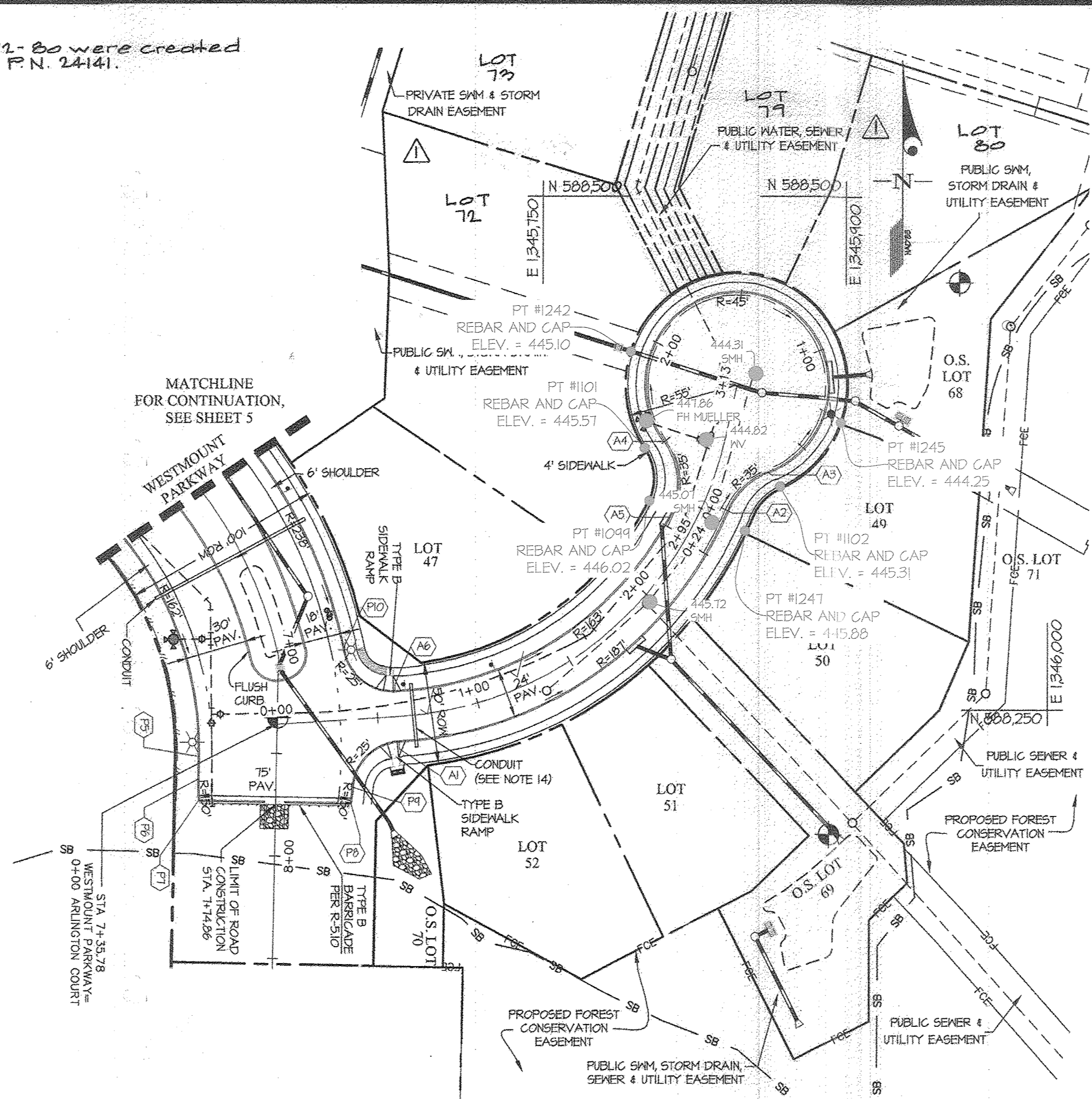
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JAN. 2020 JULY, 2016	23-6&12	3 OF 60

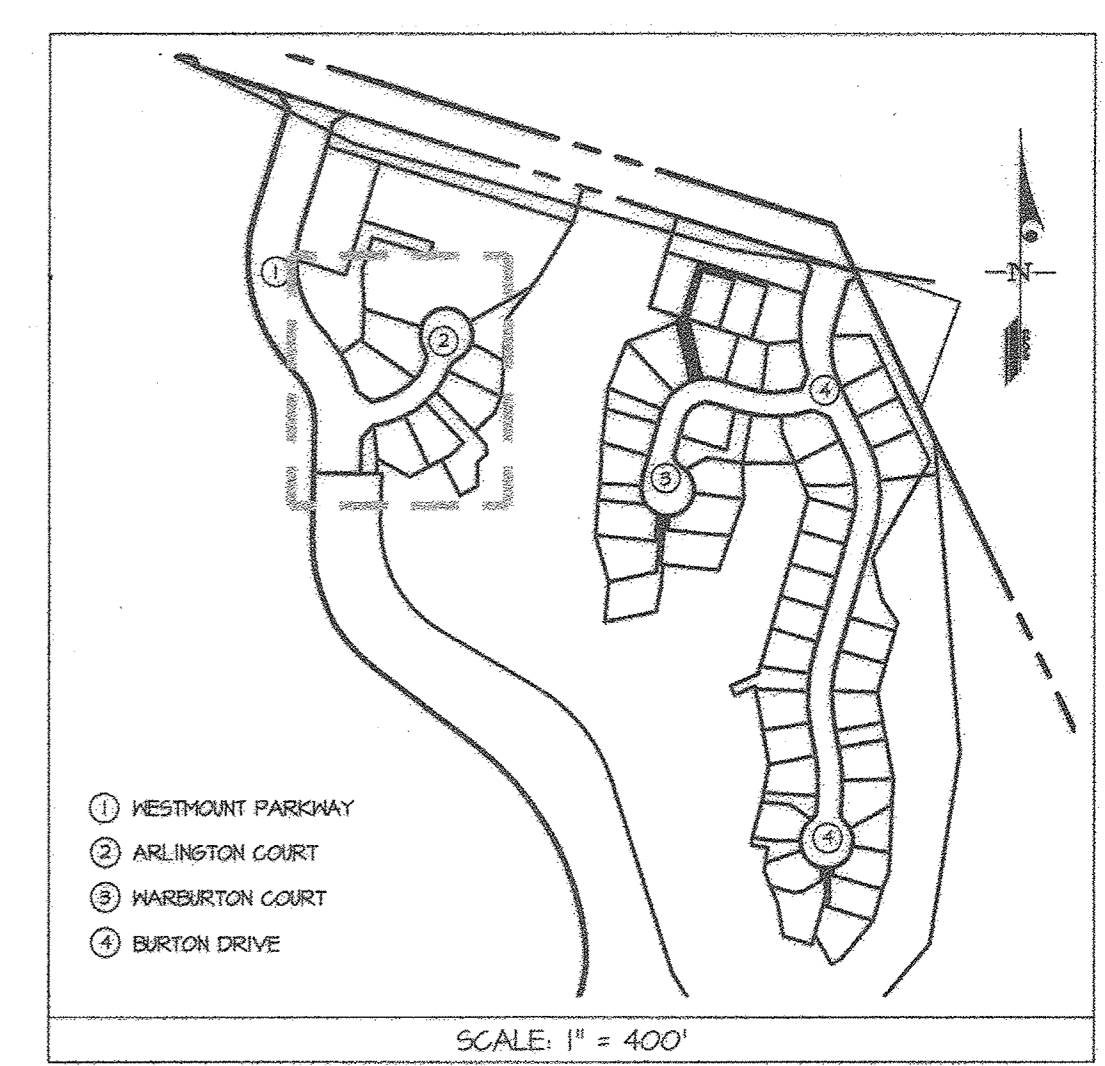


- NOTES:
- ALL SIDEWALKS ARE 4' WIDE WITHIN HOWARD COUNTY ROAD R/W UNLESS OTHERWISE NOTED. SIDEWALKS SHALL BE REINFORCED CONCRETE WITHIN THE LIMITS OF BIO ACCESS POINTS. SEE SHEETS 12-14.
  - ALL CURB RADII ARE 25' UNLESS OTHERWISE NOTED.
  - FOR STREET TREE, LANDSCAPING, AND BUFFERING REQUIREMENTS, SEE SHEETS 8 THROUGH 11.
  - FOR CENTERLINE CURVE DATA, SEE SHEET 6.
  - FOR STREET LIGHT LOCATIONS, SEE SHEET 6.
  - FOR TYPICAL SECTIONS, SECTION DIMENSIONS AND ROAD DETAILS, SEE SHEET 6.
  - FOR STORM DRAIN SIZING INFORMATION, SEE SHEETS 15-17.
  - ALL OF THE SEWER SHOWN IS 8" UNLESS OTHERWISE NOTED.
  - ALL OF THE SHC'S SERVING NUMBERED LOTS ARE 4".
  - ALL OF THE WATER SHOWN IS 8" UNLESS OTHERWISE NOTED.
  - ALL OF THE MHC'S SERVING NUMBERED LOTS ARE 1-1/2".
  - ARLINGTON COURT IS A PUBLIC ACCESS STREET WITH A 50' R/W AND 24' PAVING WIDTH.
  - UNLESS OTHERWISE NOTED, CURB WITHIN WESTMOUNT PARKWAY AND THE ISLAND IN BURTON AVENUE IS TO BE REVERSE COMBINATION CURB AND GUTTER. ISLANDS WITHIN WESTMOUNT PARKWAY WILL HAVE FLUSH CURB. ALL OTHER CURB WITHIN COUNTY RIGHT-OF-WAY IS STANDARD COMBINATION CURB AND GUTTER. SEE SHEET 6 FOR CURB DETAILS.
  - CONDUIT CROSSING FOR STREET LIGHTS SHALL BE (4) 4" SCHEDULE 80 PVC, INSTALLED FLAT AT A DEPTH OF 36" WITH MARKERS ON BOTH SIDES AND WITH PULL STRINGS INSTALLED. ONE CONDUIT IS TO BE USED FOR EACH OF THE FOLLOWING: ELECTRIC, VERIZON, GAS, AND CABLE. FOR MORE SPOT ELEVATIONS AT THE INTERSECTION OF WESTMOUNT PARKWAY AND ARLINGTON COURT, SEE SHEET 1.

Note: Lots 71-80 were created under P.N. 24141.



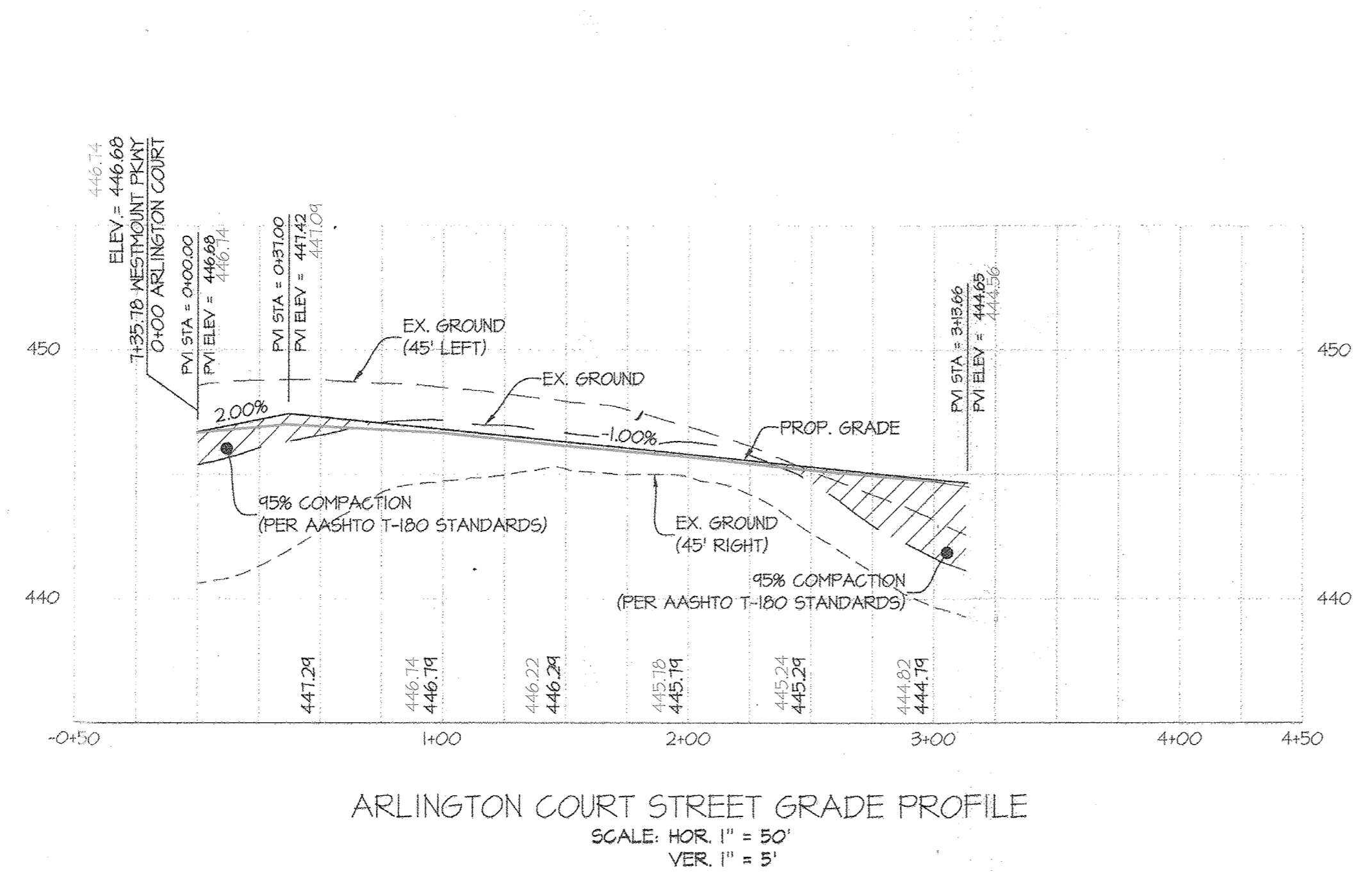
ARLINGTON COURT STREET GRADE PLAN  
SCALE: 1" = 50'



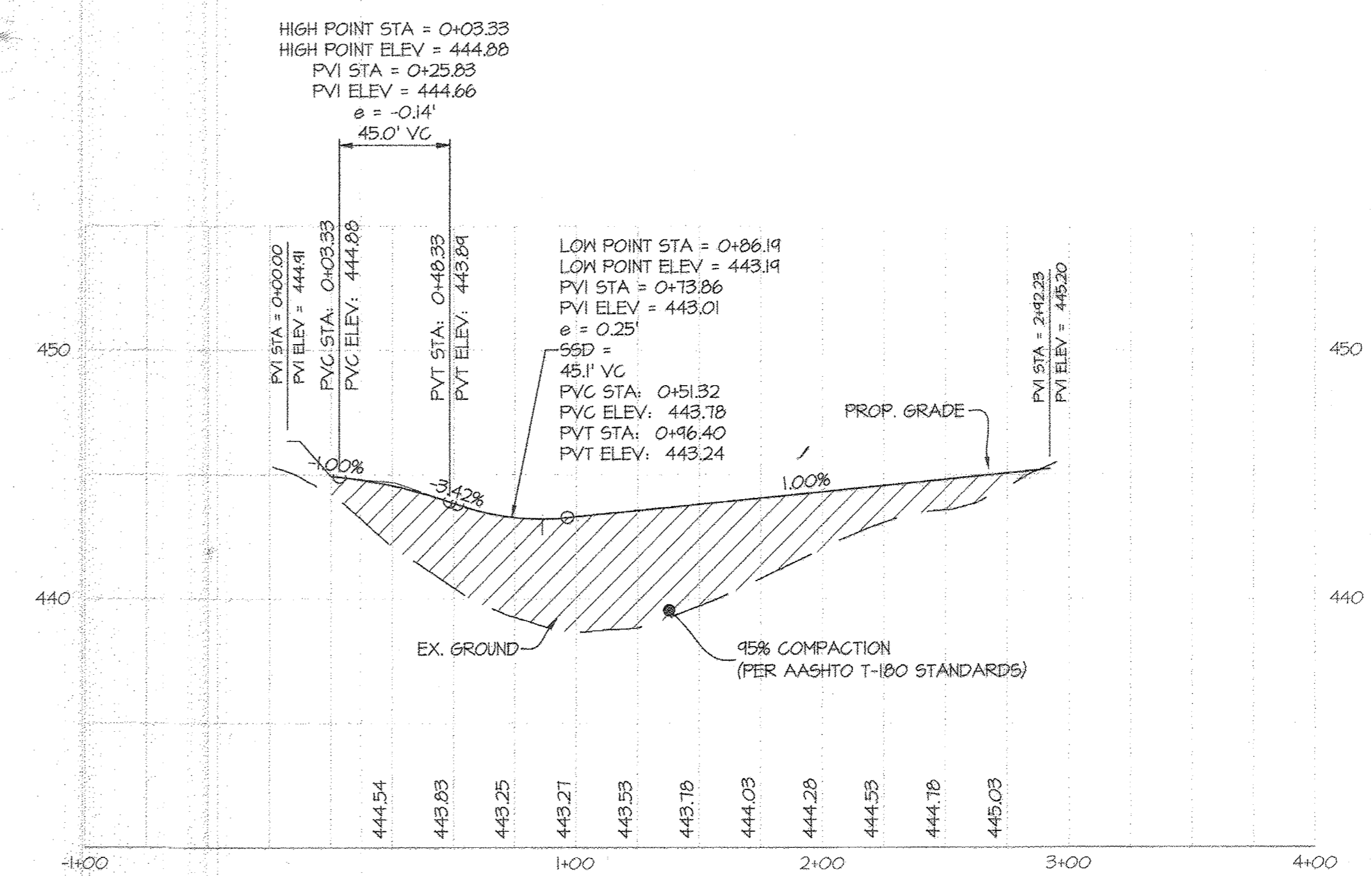
TOP OF CURB ELEVATION TABLE FOR ARLINGTON COURT

PT. NO	STATION	OFFSET	ELEV.	ASBUILT
(A1)	0+59.82	11.91' RT	441.42	446.92
(A2)	0+00.00*	1.00' RT	445.46	445.46
(A3)	0+24.25*	1.00' RT	444.91	444.91
(A4)	2+44.62*	1.00' RT	445.32	445.32
(A5)	2+40.85*	1.00' RT	445.74	445.67
(A6)	0+51.24	12.02' LT	441.48	446.84
(F5)	7+52.15	30.00' RT	441.83	441.66
(F6)	7+63.43	30.00' RT	441.68	441.38
(F7)	7+81.86	30.86' RT	441.45	441.11
(F8)	7+81.86	35.11' LT	441.31	441.48
(F9)	7+65.66	31.45' LT	441.64	441.56
(F10)	7+08.04	32.43' LT	448.31	448.20

\* INDICATES THAT STATION IS BASED ON CUL-DE-SAC ALIGNMENT, WHICH IS AT THE GUTTER PAN 1' FROM THE FACE OF CURB.



ARLINGTON COURT STREET GRADE PROFILE  
SCALE: HOR. 1" = 50'  
VER. 1" = 5'



ARLINGTON COURT CUL-DE-SAC PROFILE  
SCALE: HOR. 1" = 50'  
VER. 1" = 5'

PROPOSED CENTERLINE (PGL) ———  
EXISTING GRADE (PGL) - - - - -  
EX. B.R.L. LEFT - - - - -  
EX. B.R.L. RIGHT - - - - -

NOTE:  
ROAD CLASSIFICATION: ACCESS STREET  
DESIGN SPEED: 25 MPH  
FOR TYPICAL ROAD SECTIONS, SEE SHEET 6.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*[Signature]* Chief, Bureau of Highways  
*[Signature]* Date

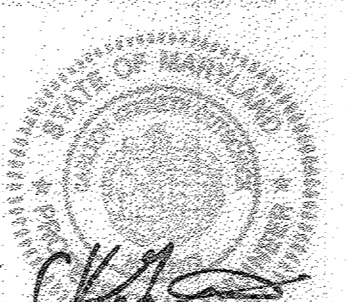
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*[Signature]* Chief, Division of Land Development  
*[Signature]* Date  
*[Signature]* Chief, Development Engineering Division  
*[Signature]* Date

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TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DES. JRD	DRN. JRD	CHK. DEV	DATE	REVISION	BY	APP'R.
			6-12-17	Revised Lot Lines & Numbers	JD	DEV.

PREPARED FOR:  
WESTMOUNT DEVELOPMENT CORPORATION  
3500 MANOR LANE  
ELLCOTT CITY, MARYLAND 21042  
443-367-0422  
ATTN: CAMILLA CARROLL

PROFESSIONAL CERTIFICATION  
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EXPIRATION DATE: MAY 26, 2018  
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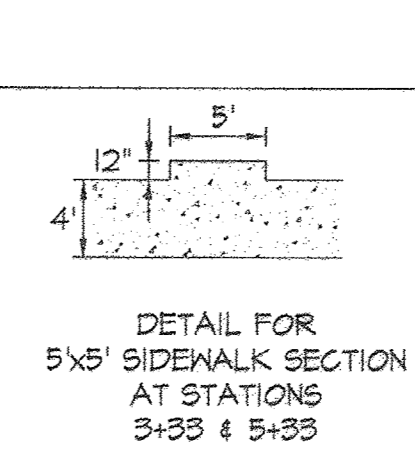
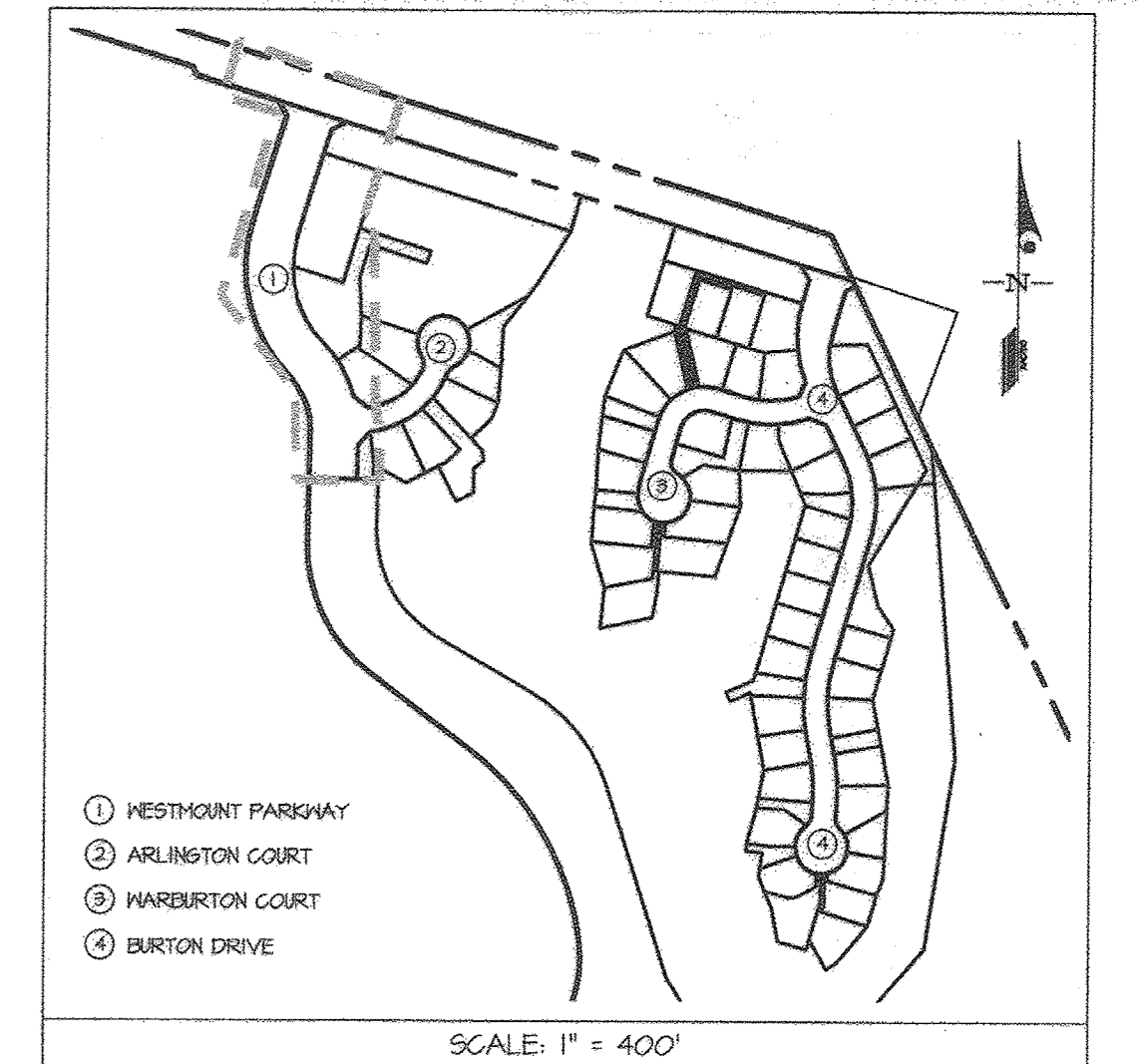
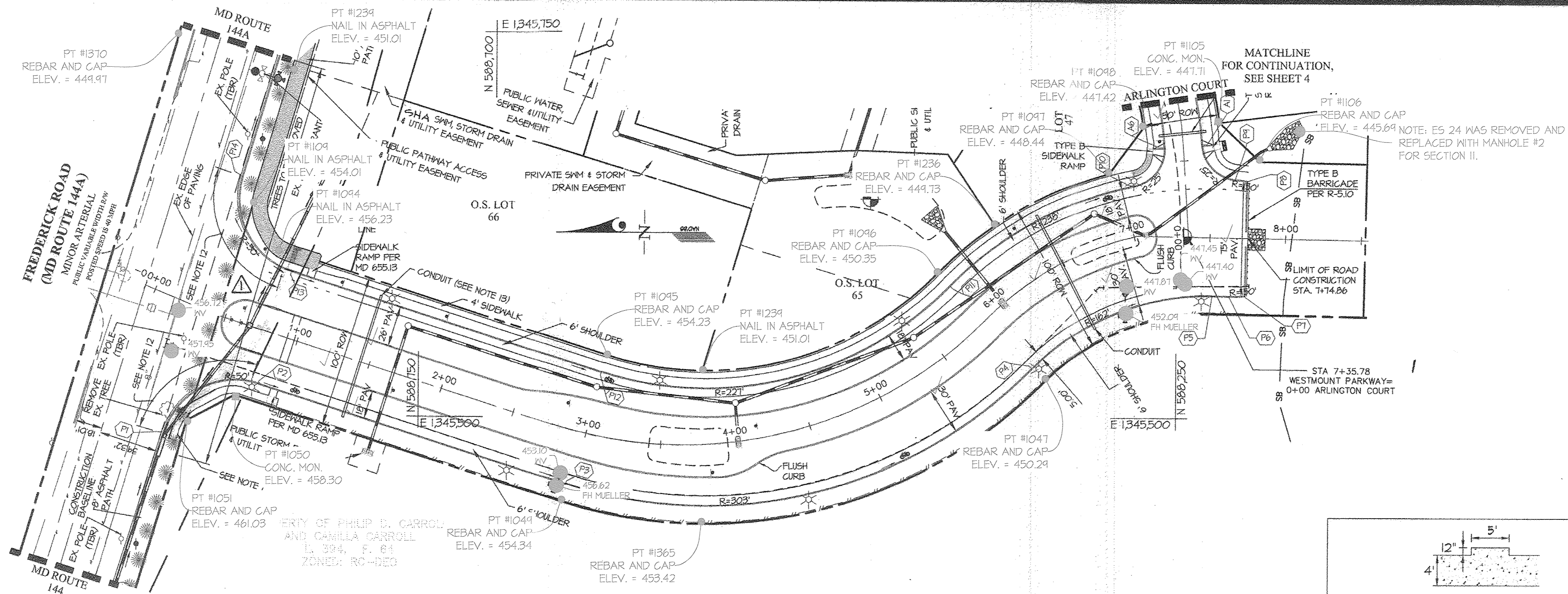
ROAD CONSTRUCTION PLAN & PROFILES - ARLINGTON COURT  
**WESTMOUNT - PHASE 1**  
CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71 AND NON-BUILDABLE BULK PARCELS B & C  
A REUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
ELECTION DISTRICT No. 2 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JAN. 2020 JULY, 2016	23-6&12	4 OF 60

ASBUILT 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. 12975, Expiration Date: May 26, 2020.  
Date: 1/28/2020  
*[Signature]*  
Carl K. Gutschick  
Professional Engineer  
Maryland Reg. No. 12975



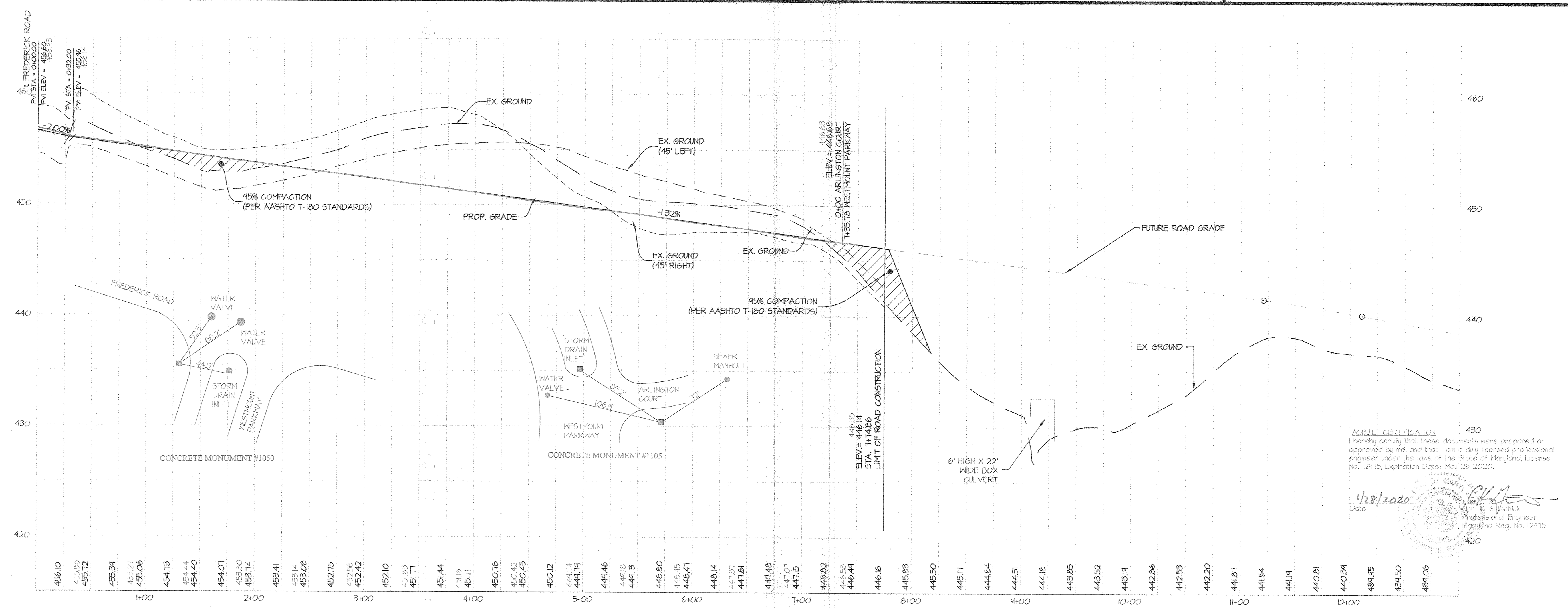
- NOTES:
- SIDEWALKS WITHIN SHA R/W ARE 5' WIDE. ALL SIDEWALKS ARE 4' WIDE WITHIN HOWARD COUNTY ROAD R/W UNLESS OTHERWISE NOTED. SIDEWALKS SHALL BE REINFORCED CONCRETE WITHIN THE LIMITS OF BIO ACCESS POINTS, SEE SHEETS 12-14. A 5'X5' SECTION WILL BE PROVIDED EVERY 200' ALONG WESTMOUNT PARKWAY TO ALLOW FOR WHEELCHAIRS TO PASS.
  - ALL CURB RADI ARE 25' UNLESS OTHERWISE NOTED.
  - FOR STREET TREE, LANDSCAPING, AND BUFFERING REQUIREMENTS, SEE SHEETS 8 THROUGH 11.
  - FOR CENTERLINE CURVE DATA, SEE SHEET 6.
  - FOR STREET LIGHT LOCATIONS, SEE SHEET 8.
  - FOR TYPICAL SECTIONS, SECTION DIMENSIONS AND ROAD DETAILS, SEE SHEET 6.
  - FOR STORM DRAIN SIZING INFORMATION, SEE SHEETS 15-17.
  - ALL OF THE SEWER SHOWN IS 8" UNLESS OTHERWISE NOTED.
  - ALL OF THE SHC'S SERVING NUMBERED LOTS ARE 4".
  - ALL OF THE WATER SHOWN IS 8" UNLESS OTHERWISE NOTED.
  - ALL OF THE MHC'S SERVING NUMBERED LOTS ARE 1-1/2".
  - CONTRACTOR TO TRANSITION FROM 8" CURB HEIGHT WITHIN SHA R/W TO 7 1/2" CURB HEIGHT WITHIN COUNTY R/W UNLESS OTHERWISE NOTED. CURB WITHIN WESTMOUNT PARKWAY AND THE ISLAND IN BURTON AVENUE IS TO BE REVERSE COMBINATION CURB AND GUTTER. ISLANDS WITHIN WESTMOUNT PARKWAY WILL HAVE FLUSH CURB. ALL OTHER CURB WITHIN COUNTY RIGHT-OF-WAY IS STANDARD COMBINATION CURB AND GUTTER. SEE SHEET 6 FOR CURB DETAILS.
  - CONDUIT CROSSINGS FOR STREET LIGHTS SHALL BE (4) 4" SCHEDULE 80 P.V.C. INSTALLED FLAT AT A DEPTH OF 36" WITH MARKERS ON BOTH SIDES AND WITH FULL STRINGS INSTALLED. ONE CONDUIT IS TO BE USED FOR EACH OF THE FOLLOWING: ELECTRIC, VERIZON, GAS, AND CABLE. FOR MORE SPOT ELEVATIONS AT THE INTERSECTION OF WESTMOUNT PARKWAY AND ARLINGTON COURT, SEE SHEET 7.



**TOP OF CURB ELEVATION TABLE FOR WESTMOUNT PARKWAY**

PT. NO	STATION	OFFSET	ELEV.	ASBUILT
(P1)	0+40.15	84.54' RT	461.21	461.36
(P2)	0+83.16	34.00' RT	456.74	457.34
(P3)	2+15.11	34.66' RT	463.71	453.70
(P4)	5+85.50	44.00' RT	450.15	450.07
(P5)	7+52.15	38.00' RT	447.83	447.66
(P6)	7+63.43	38.00' RT	447.66	447.38
(P7)	7+73.86	37.64' RT	447.45	447.14
(P8)	7+73.86	36.52' LT	447.31	447.48
(P9)	7+65.66	37.45' LT	447.64	447.56
(P10)	7+03.04	32.43' LT	448.31	448.20
(P11)	5+85.50	32.00' LT	444.41	444.21
(P12)	3+00.80	41.14' LT	459.82	453.75
(P13)	0+82.27	42.00' LT	456.68	456.60
(P14)	0+25.40	40.01' LT	452.98	453.14
(A1)	0+94.82	11.91' RT	447.42	446.92
(A6)	2+54.25	12.02' LT	447.43	446.84

WESTMOUNT PARKWAY STREET GRADE PLAN  
SCALE: 1" = 50'



PROPOSED CENTERLINE (PGL) ————  
 EXISTING GRADE (PGL) - - - - -  
 EX. B.R.L. LEFT ————  
 EX. B.R.L. RIGHT ————

NOTE:  
ROAD CLASSIFICATION: MINOR COLLECTOR  
DESIGN SPEED: 30 MPH  
FOR TYPICAL ROAD SECTIONS, SEE SHEET 6.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Chief, Bureau of Highways *[Signature]* Date: 7/27/2016

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Chief, Division of Land Development *[Signature]* Date: 8-29-16  
 Chief, Development Engineering Division *[Signature]* Date: 8-26-16

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 FAX: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

WESTMOUNT PARKWAY STREET GRADE PROFILE  
 SCALE: HOR. 1" = 50'  
 VER. 1" = 5'  
 (100' R/W MINOR COLLECTOR)  
 (PAVING WIDTH VARIES)

ASBUILT 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. 12915, Expiration Date: May 26, 2020.  
 Date: 1/28/2020  
*[Signature]*  
 Professional Engineer  
 Maryland Reg. No. 12915

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN: CAMILLA CARROLL

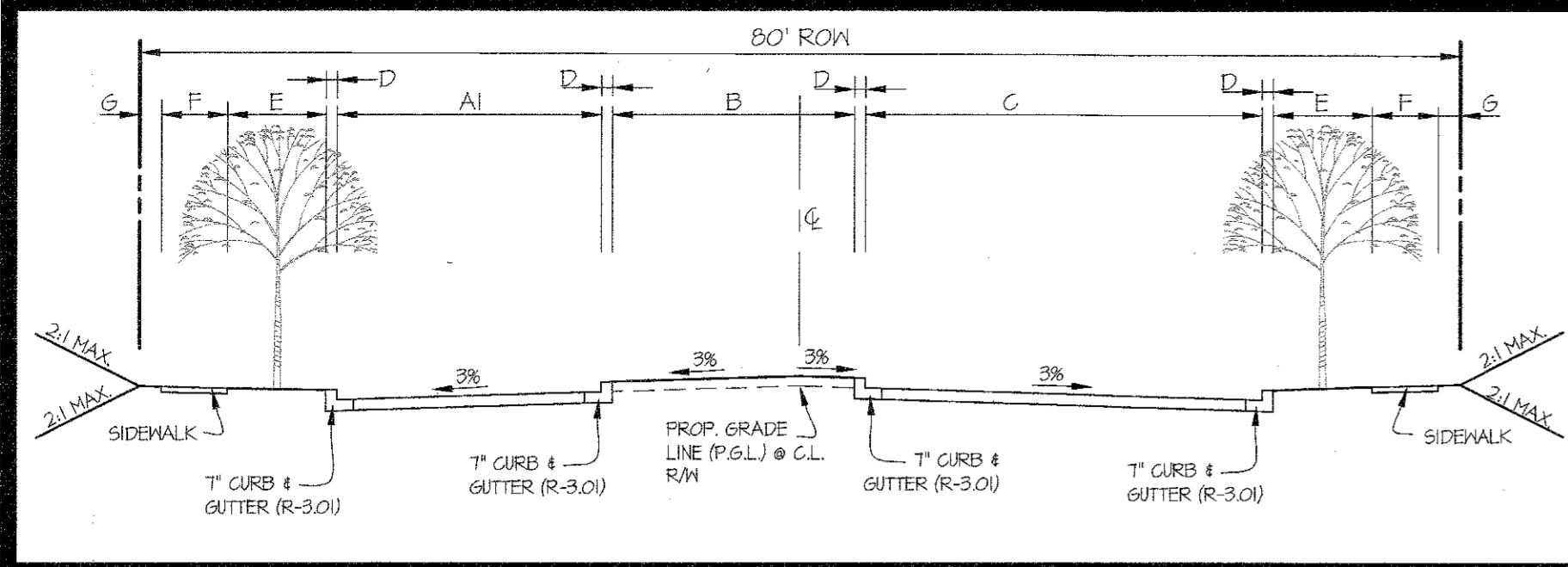
PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12915, EXPIRATION DATE: MAY 26, 2020.  
 7/14/16  
*[Signature]*

ROAD CONSTRUCTION PLAN & PROFILES - WESTMOUNT PARKWAY

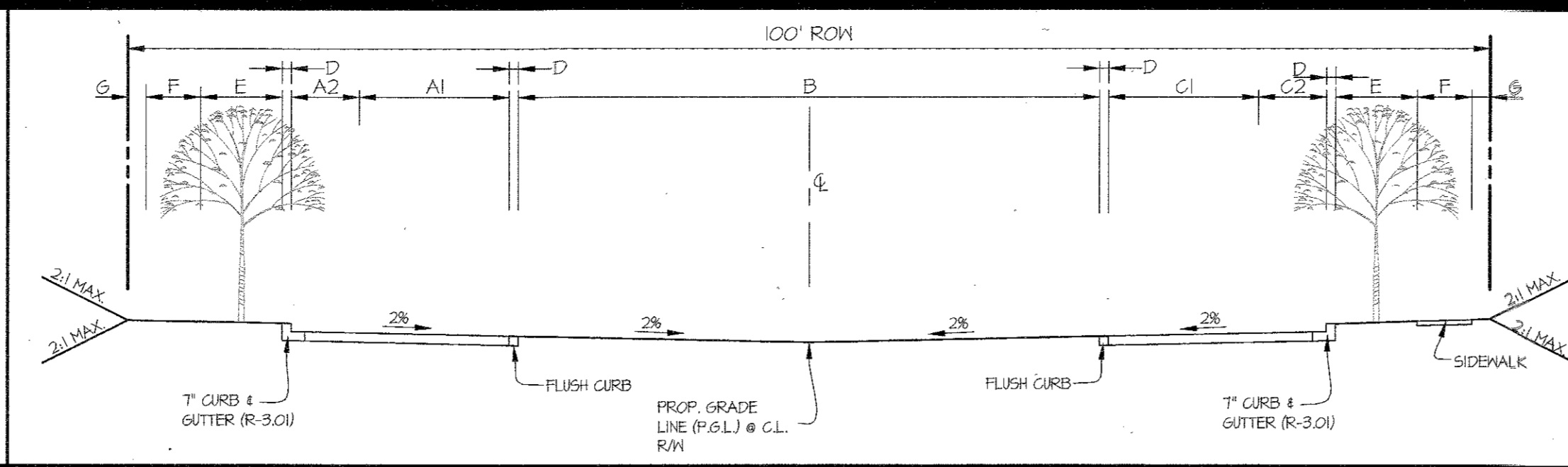
**WESTMOUNT - PHASE I**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
 ELECTION DISTRICT No. 2

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	13-013
DATE	REV.	SHEET
JAN 2020	23-6&12	5 OF 60
JULY, 2016	23-6&12	5 OF 60

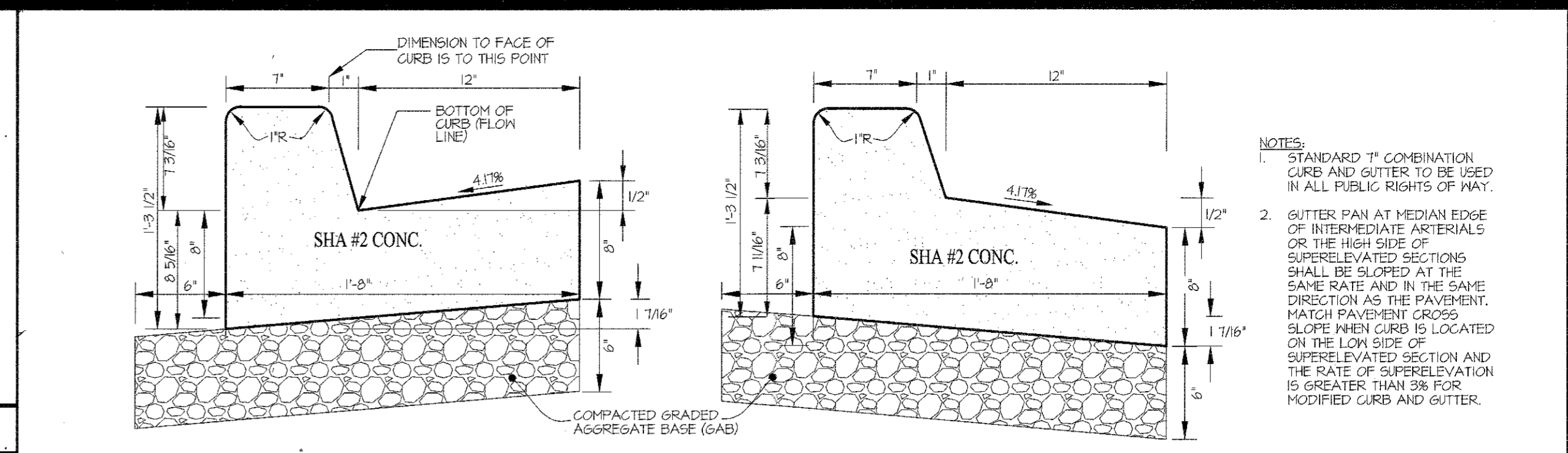




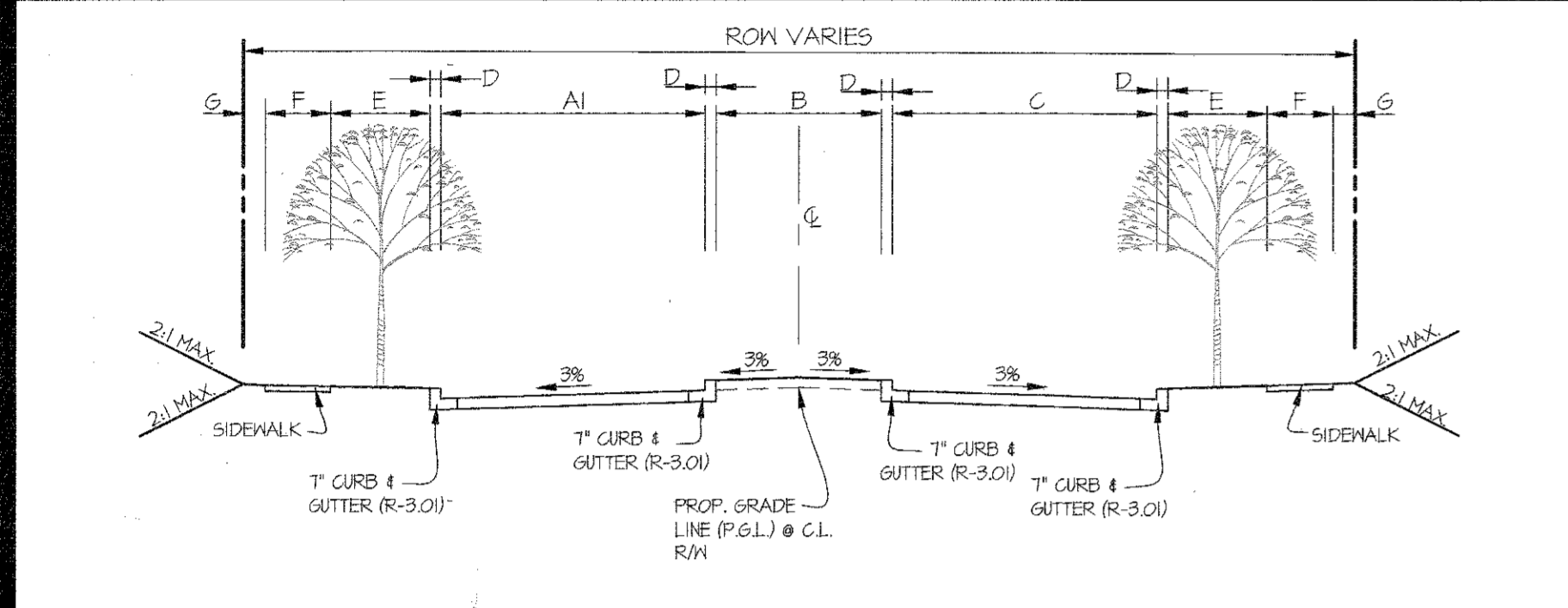
1 TYPICAL SECTION FOR 80' R/W WITH ISLAND NO SCALE



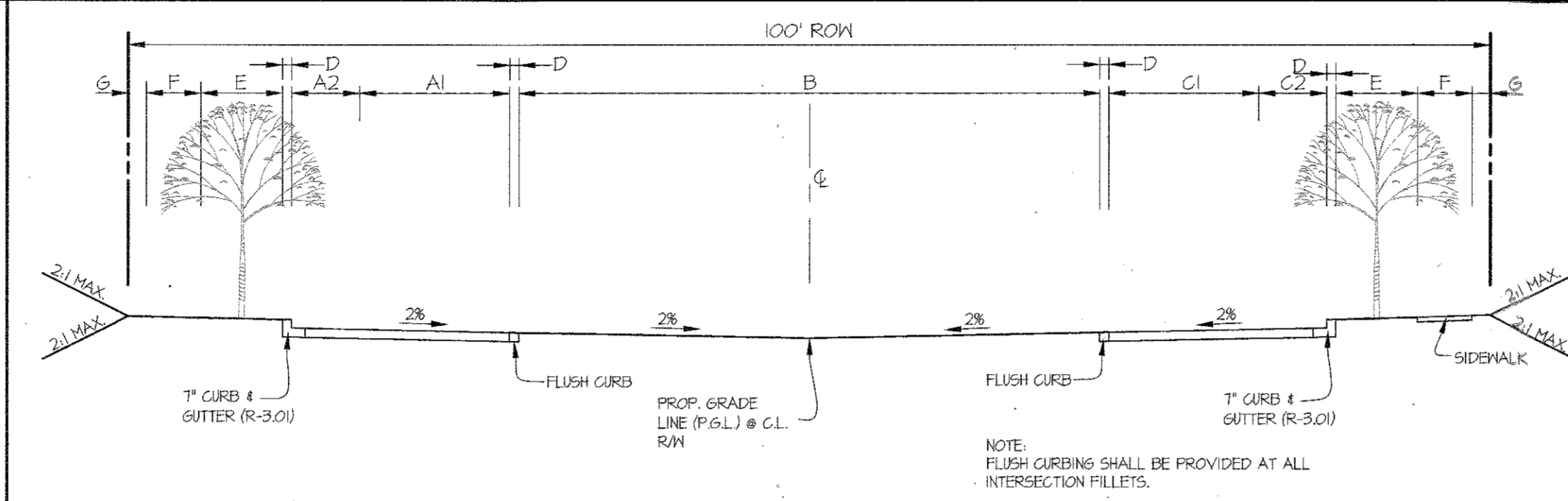
4 TYPICAL SECTION FOR 100' R/W WITH VARYING PAVING AND ISLAND NO SCALE



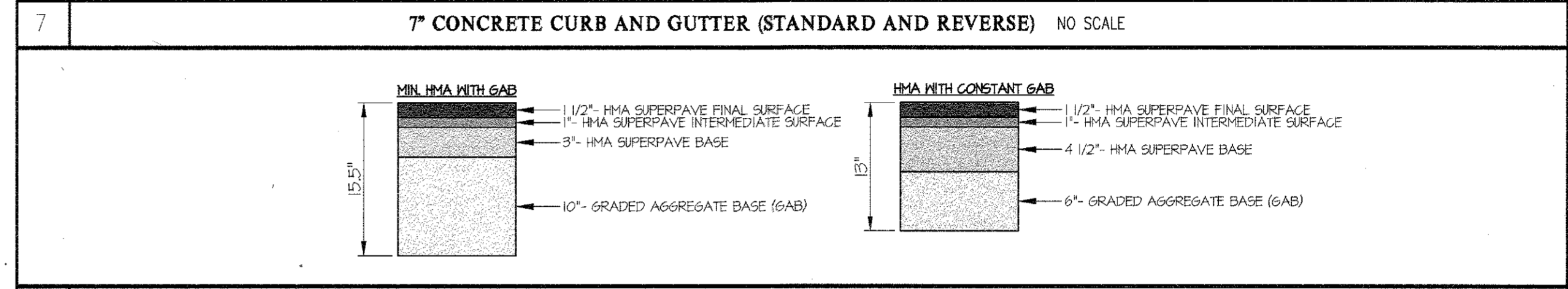
7 7" CONCRETE CURB AND GUTTER (STANDARD AND REVERSE) NO SCALE



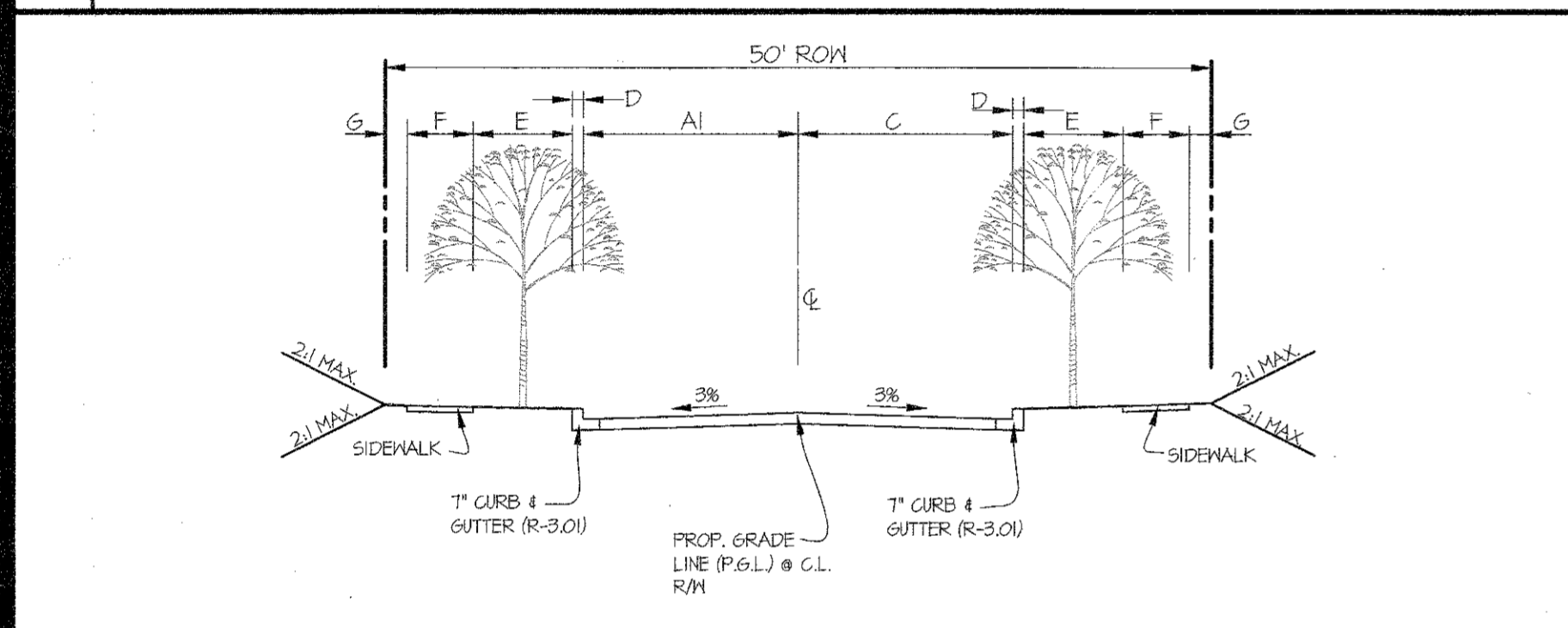
2 TYPICAL SECTION FOR CROWNED ROAD WITH VARYING R/W AND ISLAND NO SCALE



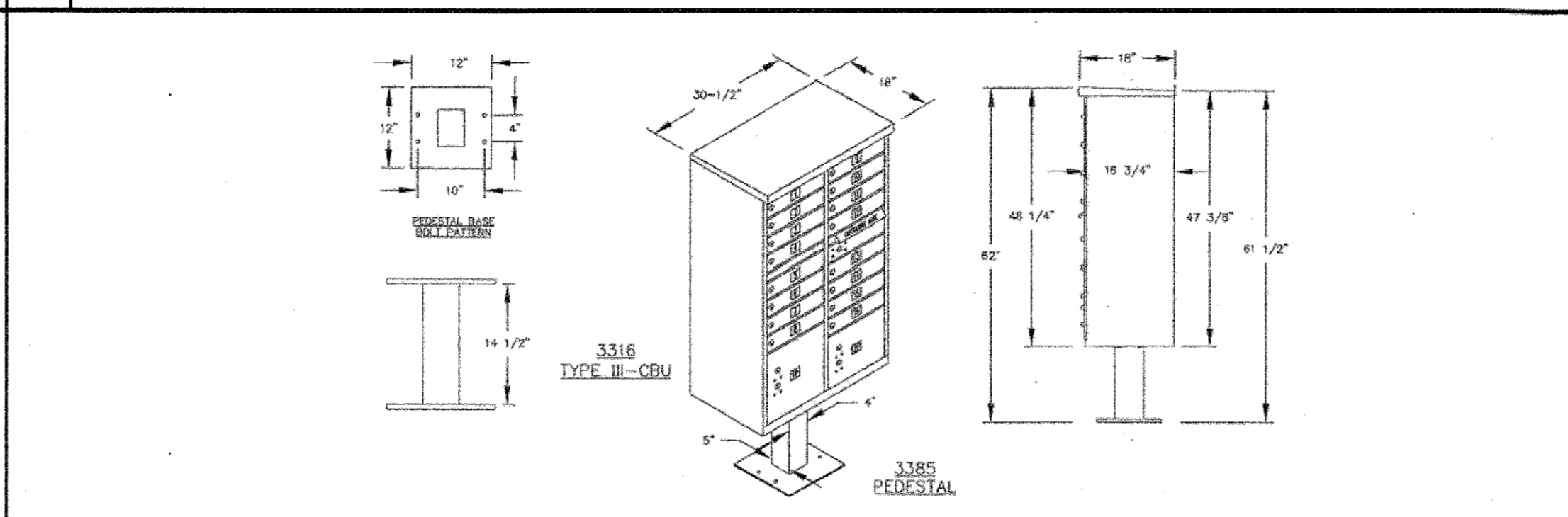
5 TYPICAL SECTION FOR 100' R/W WITH VARYING ISLAND & GREEN SPACE NO SCALE



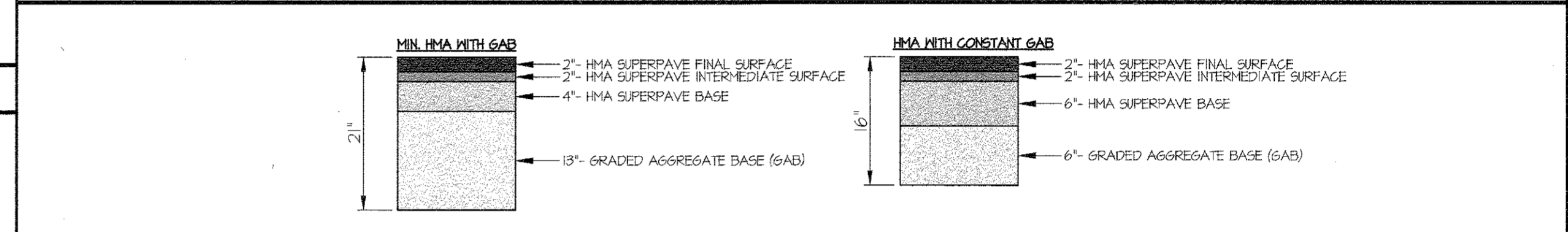
8 P-3 PAVING SECTIONS NO SCALE



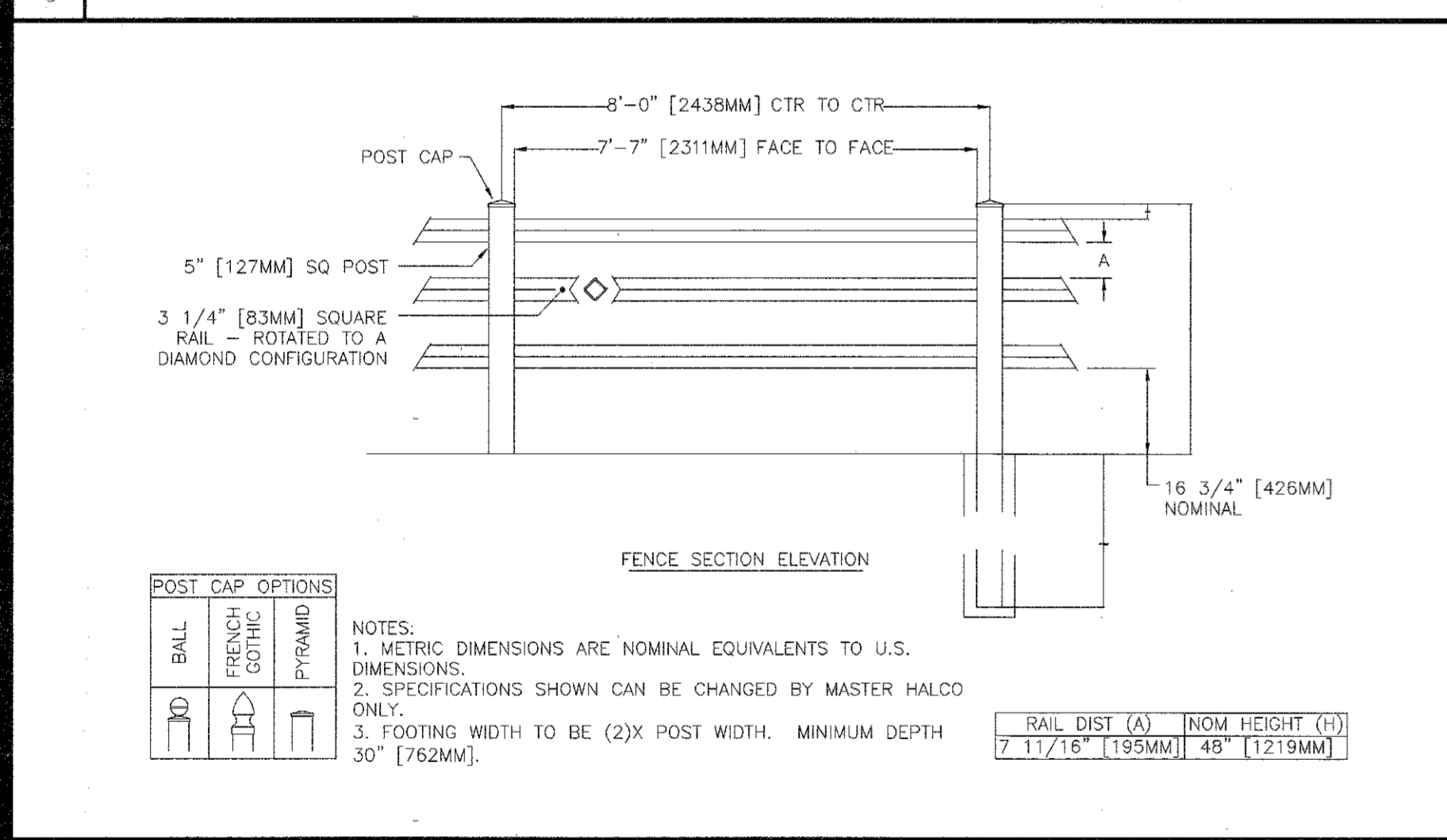
3 TYPICAL SECTION FOR 50' R/W NO SCALE



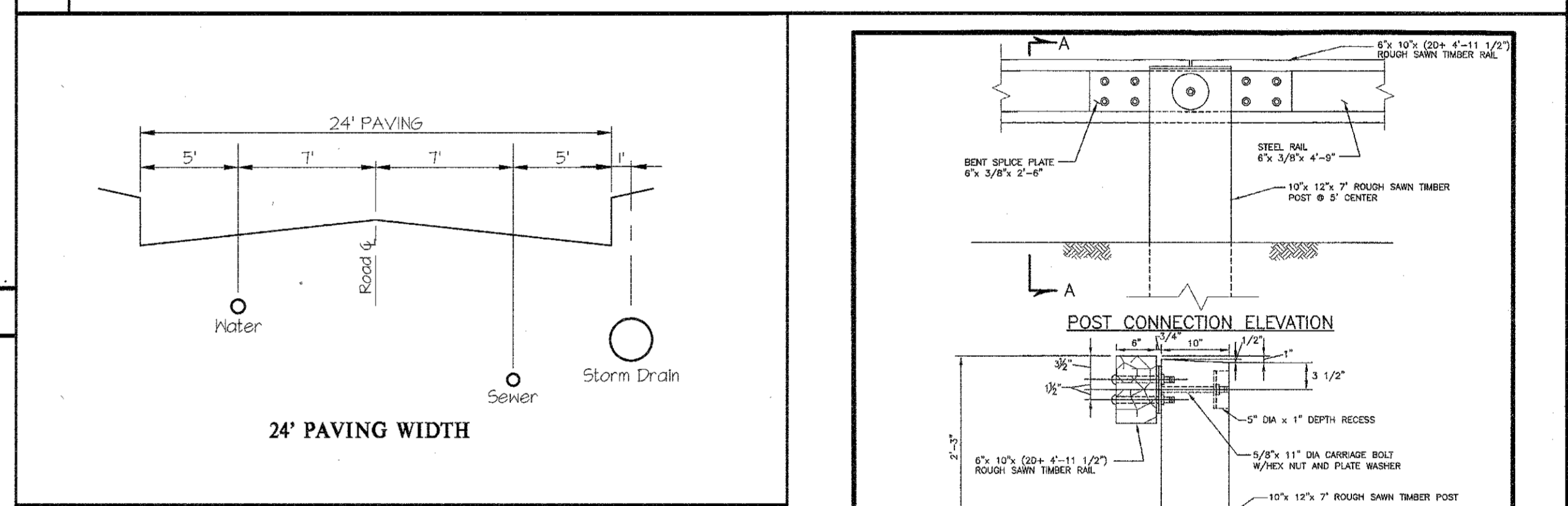
6 MAIL BOX DETAILS NO SCALE



9 P-4 PAVING SECTIONS NO SCALE



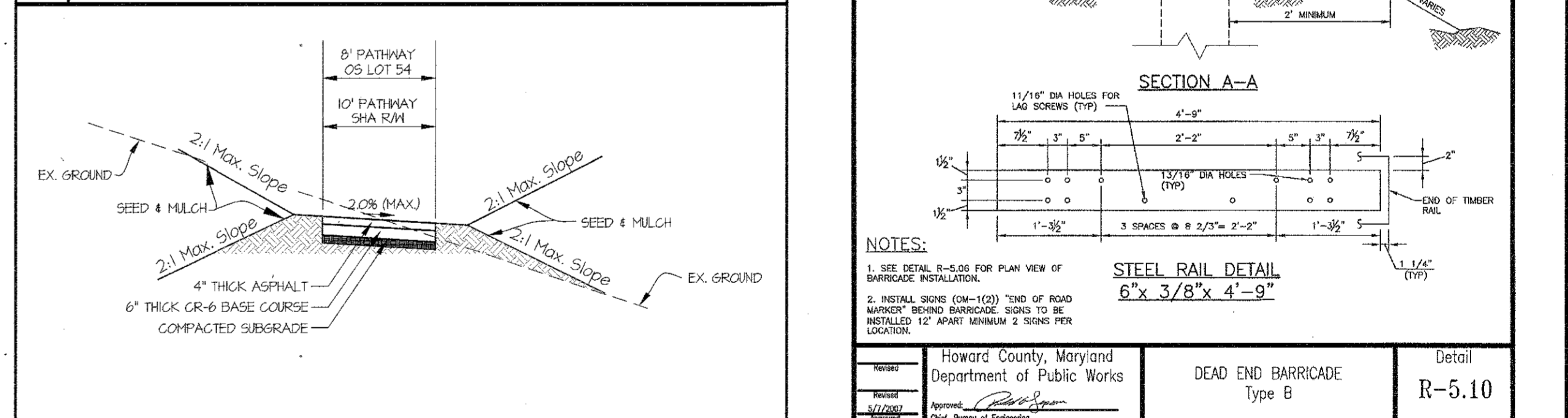
POST & RAIL VINYL FENCE DETAIL NO SCALE



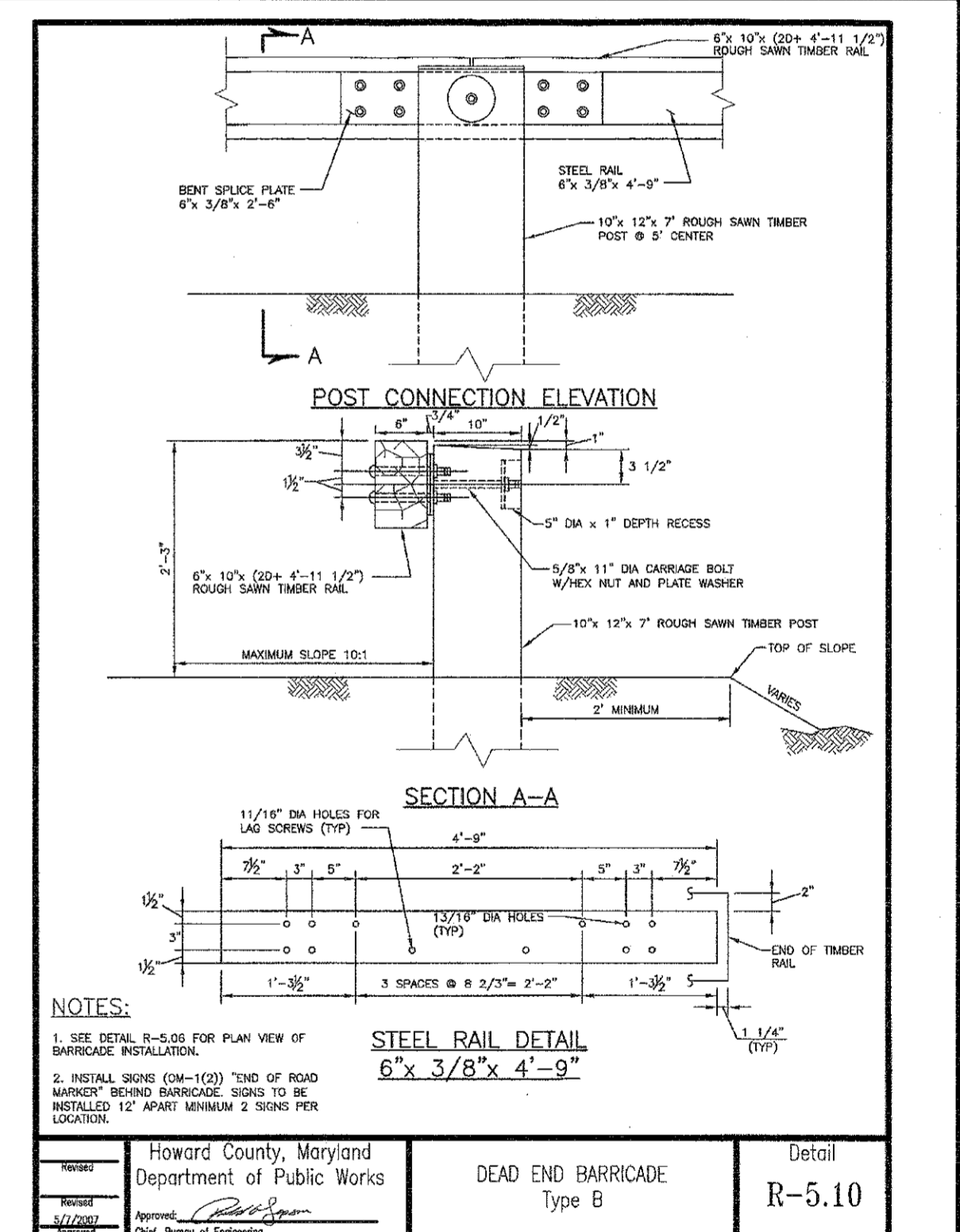
10 TYPICAL UTILITY LOCATIONS SCALE: 1"=6'

ROAD INFORMATION															
ROAD NAME	STATION	CLASSIFICATION	DESIGN SPEED	A1	A2	B	C1	C2	D	E	F	G	R/W	PAVING SECTION	DETAIL
BURTON DRIVE	0+00 TO 1+23	ACCESS STREET	25 MPH	16'	-	14'-6"	24'	-	8'	7'	4'	1'-4"	80'	P-3	1
BURTON DRIVE	1+23 TO 3+53	ACCESS STREET	25 MPH	16'	-	VARIES	16'	-	8'	7'	4'	1'-4"	VARIES	P-3	2
BURTON DRIVE	3+53 TO 12+13	ACCESS STREET	25 MPH	12'	-	-	12'	-	8'	7'	4'	1'-4"	50'	P-3	3
WARBURTON COURT	0+00 TO 4+30	ACCESS STREET	25 MPH	12'	-	-	12'	-	8'	7'	4'	1'-4"	50'	P-3	3
ARLINGTON COURT	0+00 TO 2+40	ACCESS STREET	25 MPH	12'	-	-	12'	-	8'	7'	4'	1'-4"	50'	P-3	3
WESTMOUNT PARKWAY	0+00 TO 1+64	MINOR COLLECTOR	30 MPH	VARIES	6'	VARIES	VARIES	6'	8'	6'	4'	1'-4"	100'	P-4	4
WESTMOUNT PARKWAY	1+64 TO 7+15	MINOR COLLECTOR	30 MPH	16'	6'	VARIES	11'	6'	8'	6'	4'	VARIES	100'	P-4	5

CURVE DATA CHART									
CURVE	STREET NAME	PC STA.	PT STA.	RADIUS	TANGENT	ARC	CHORD	BEARING	DELTA
A1	BURTON DRIVE	1+29.29	3+16.51	250.00'	98.24'	187.22'	182.87'	S4°35'12"E	42°54'24"
A2	BURTON DRIVE	4+52.95	6+07.81	210.00'	81.14'	154.85'	151.37'	S4°54'55"E	42°14'57"
A3	BURTON DRIVE	8+87.63	10+38.78	325.00'	76.97'	151.16'	149.80'	S2°53'07"W	26°38'53"
A4	BURTON DRIVE	10+97.20	11+76.62	325.00'	39.90'	79.41'	79.22'	S3°26'19"E	14°00'00"
B1	WARBURTON COURT	0+14.78	1+86.71	230.00'	90.20'	171.93'	167.95'	S85°22'30"W	42°49'47"
B2	WARBURTON COURT	2+42.75	3+61.75	75.00'	76.20'	119.00'	106.91'	S61°20'00"W	90°54'47"
B3	WARBURTON COURT	4+29.65	5+16.47	112.00'	45.72'	86.82'	84.66'	S6°19'51"E	44°24'55"
C1	ARLINGTON COURT	0+62.54	2+88.66	175.00'	131.95'	226.12'	210.71'	N49°19'30"E	74°01'54"
W1	WESTMOUNT PARKWAY	3+04.19	5+95.87	265.00'	162.59'	291.67'	277.17'	S13°56'30"E	63°03'47"
W2	WESTMOUNT PARKWAY	5+95.87	7+58.16	200.00'	85.91'	162.29'	157.87'	S22°13'37"E	46°29'32"



11 ASPHALT PATHWAY DETAIL NO SCALE



STEEL RAIL DETAIL 6"x 3/8"x 4'-9"

NOTE: ALL TYPICAL SECTIONS HAVE BEEN SHOWN LOOKING UP STATION

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 7/27/2016  
 Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*[Signature]* 8-29-16  
 Chief, Division of Land Development

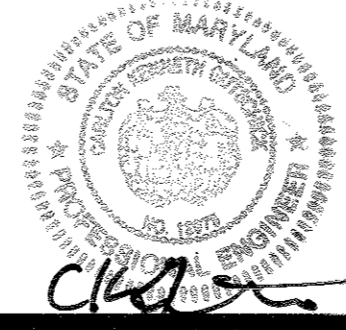
*[Signature]* 8-26-16  
 Chief, Development Engineering Division

GLWGUTSCHICK LITTLE & WEBER, P.A.  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BAL: 410-880-1820 DC: 301-989-2524 FAX: 301-421-4186

DES. JRD	DRN. JRD	CHK. DEV	DATE	REVISION	BY	APP'R

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN: CAMILLA CARROLL

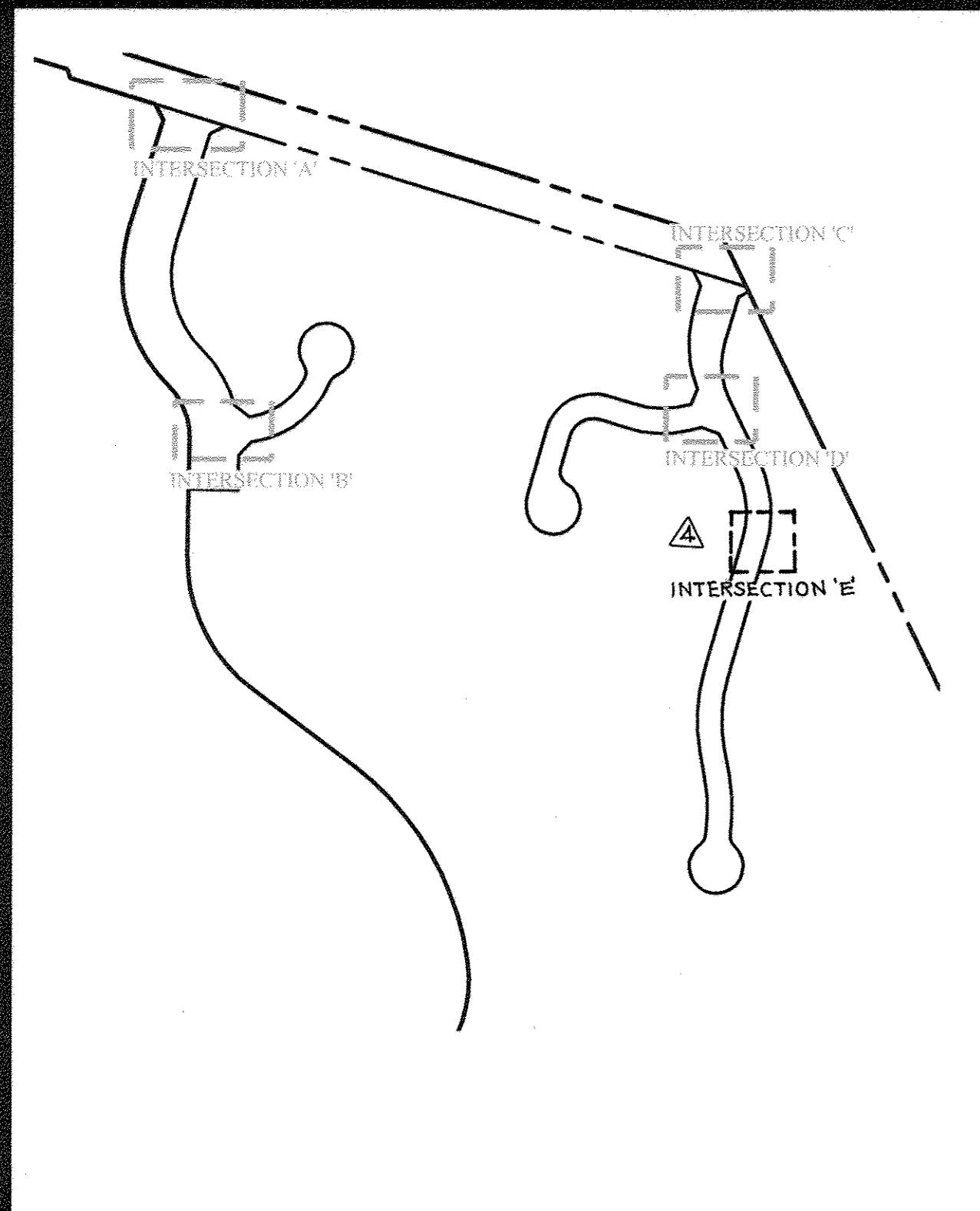
PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12975  
 EXPIRATION DATE: MAY 26, 2018  
 7/14/16 *[Signature]*



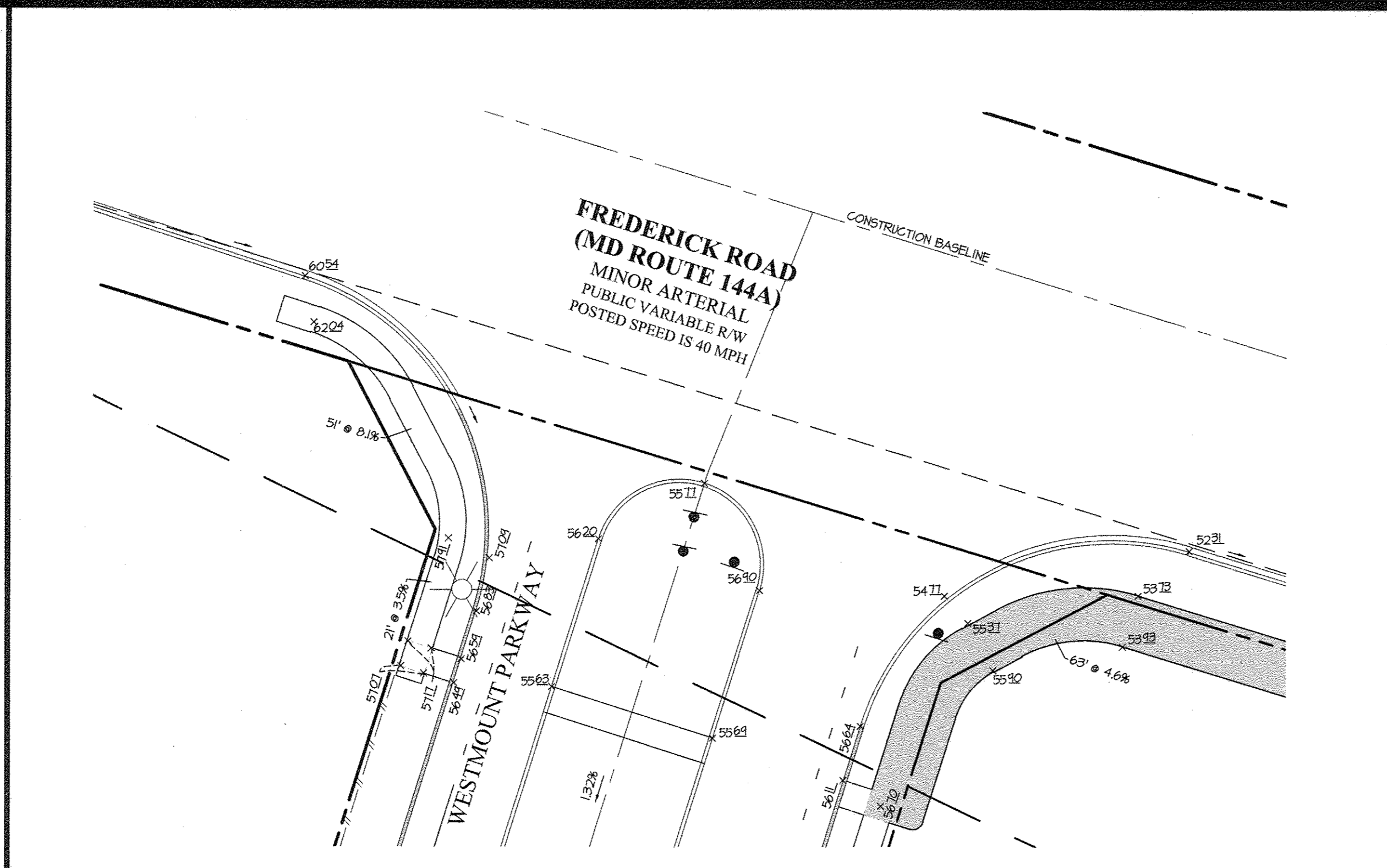
ROAD DETAILS  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A AND REVISION TO CREDITED OPEN SPACE LOT 1  
 ELECTION DISTRICT No. 2  
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	6 OF 60

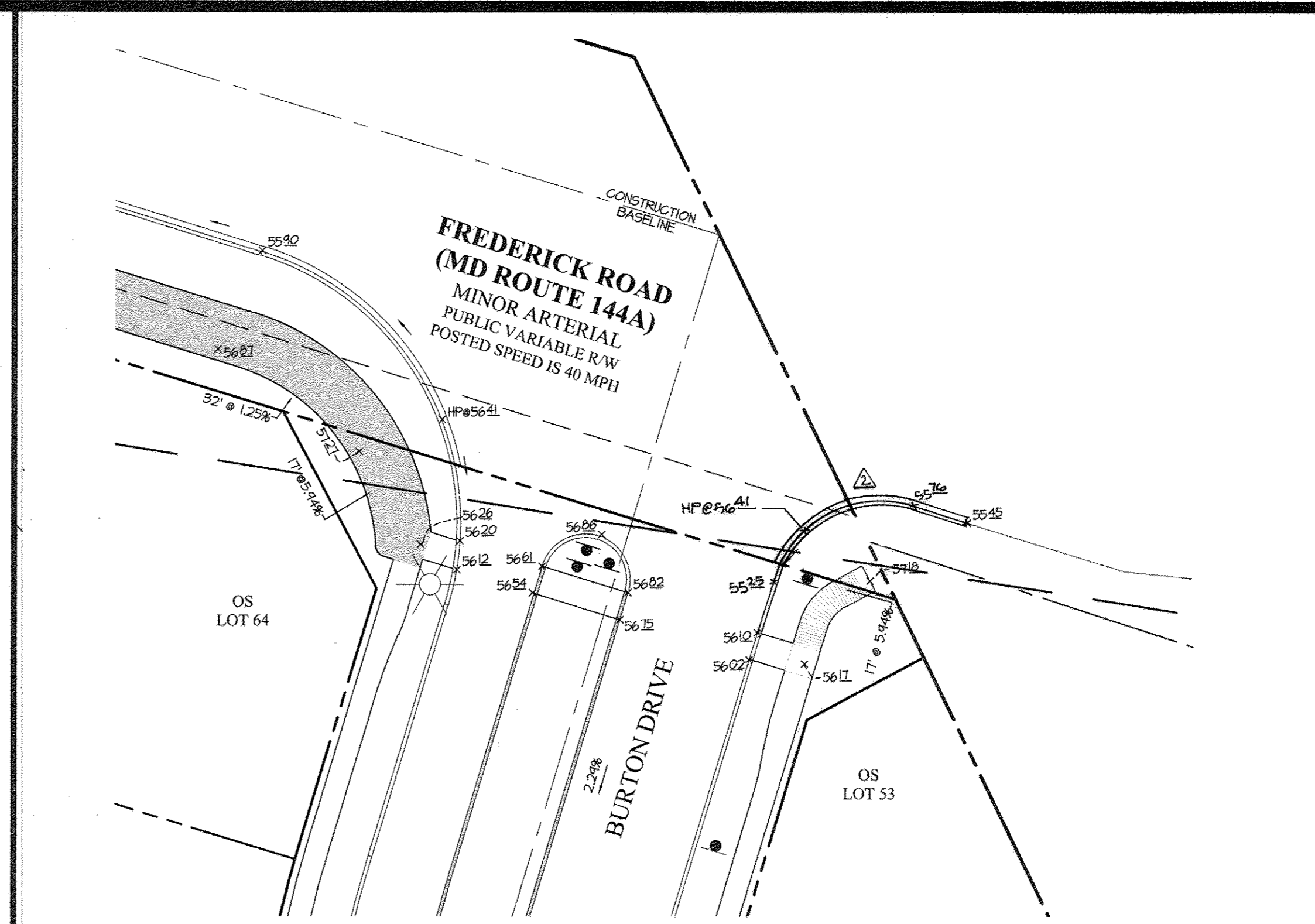




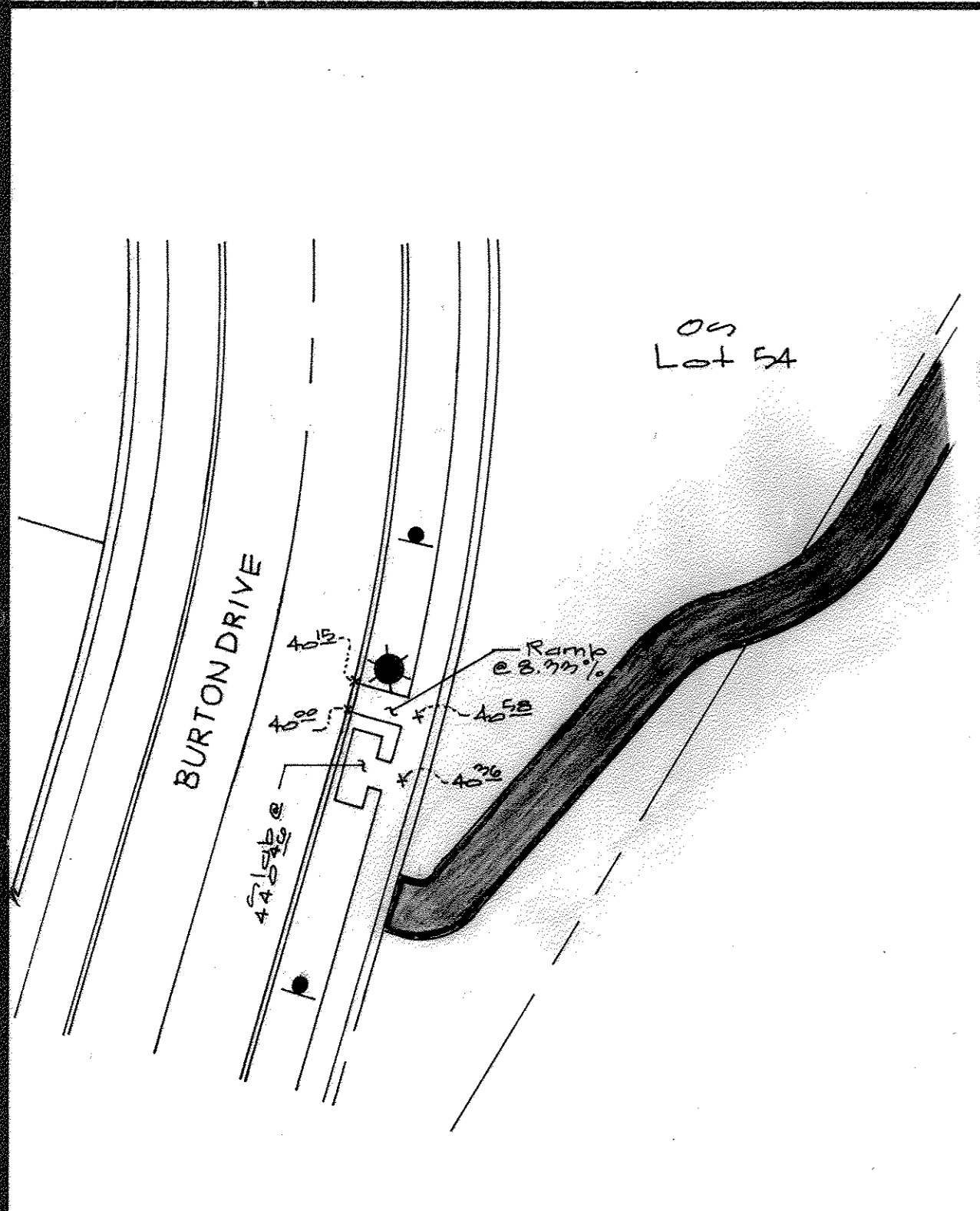
KEY MAP SCALE: 1"=300'



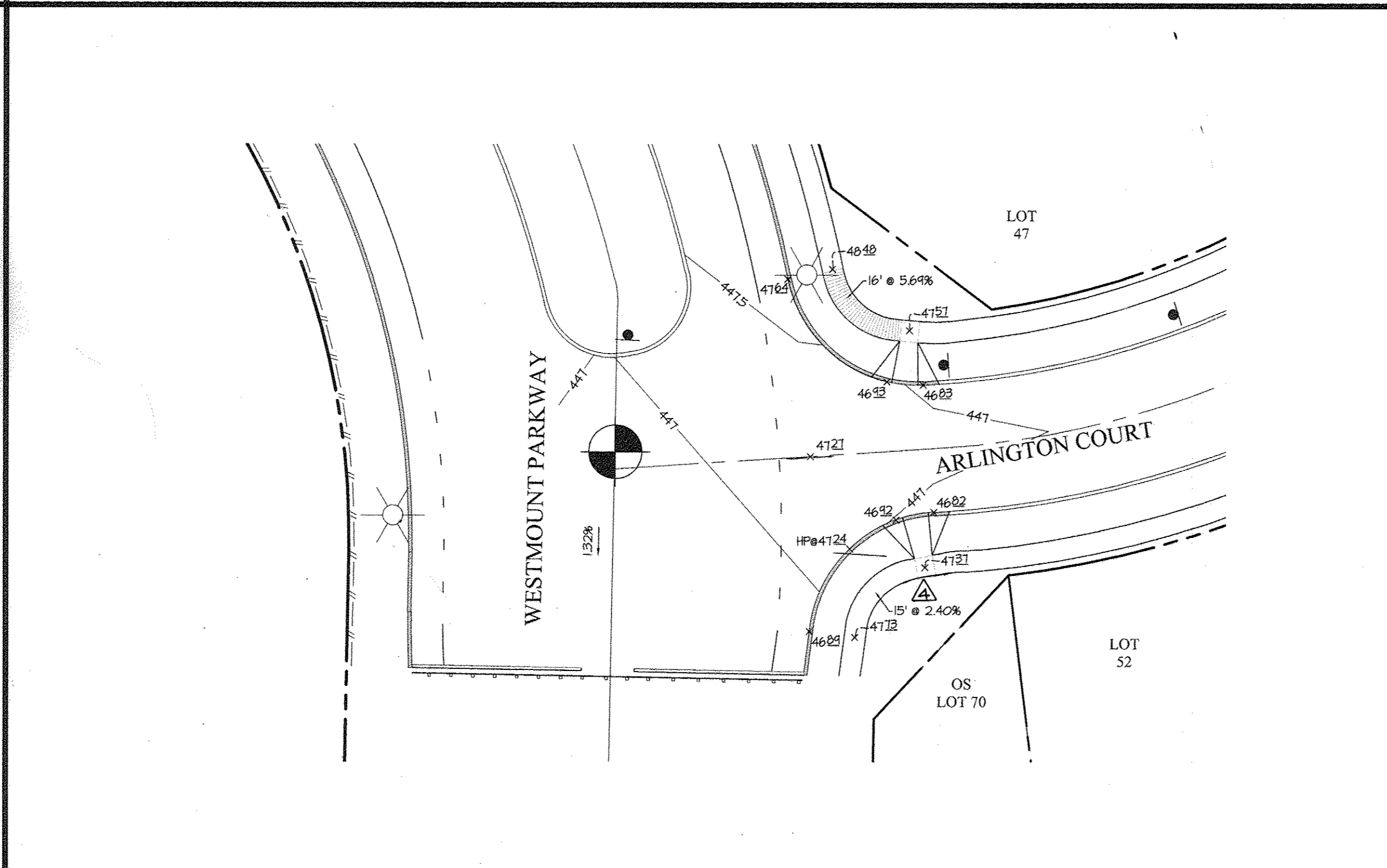
INTERSECTION 'A'



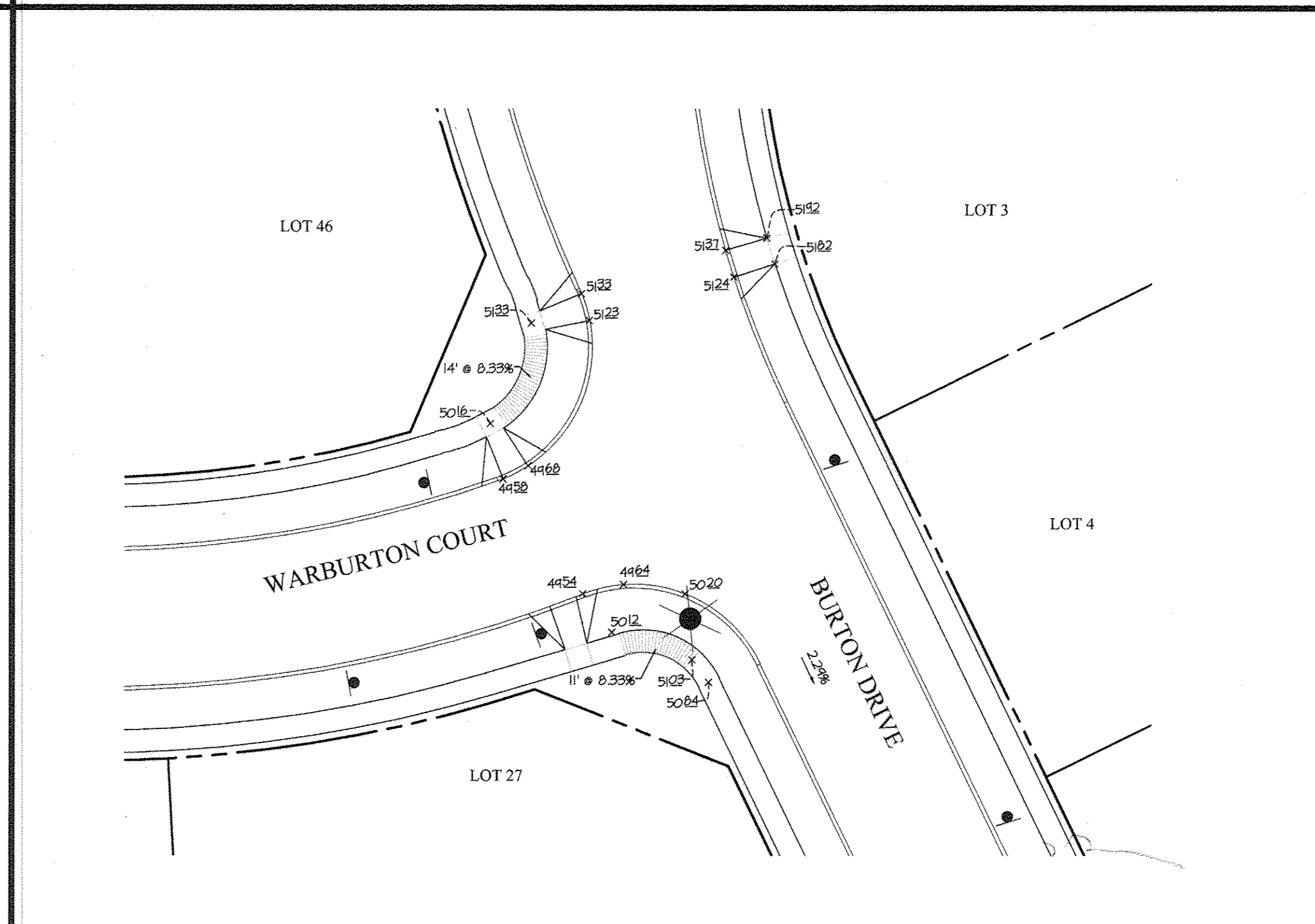
INTERSECTION 'C'



INTERSECTION 'E'



INTERSECTION 'B'



INTERSECTION 'D'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 7/27/16  
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*[Signature]* 8-29-16  
 Chief, Division of Land Development Date  
*[Signature]* 8-26-16  
 Chief, Development Engineering Division Date

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-889-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.
1-21-16	REMOVED MAIL BOX LOCATION AND ADDED ADA RAMP AT NEW MAIL BOX PAD	9+	DEV
1-21-16	Revised Curb Radius	9+	DEV

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN: CAMILLA CARROLL

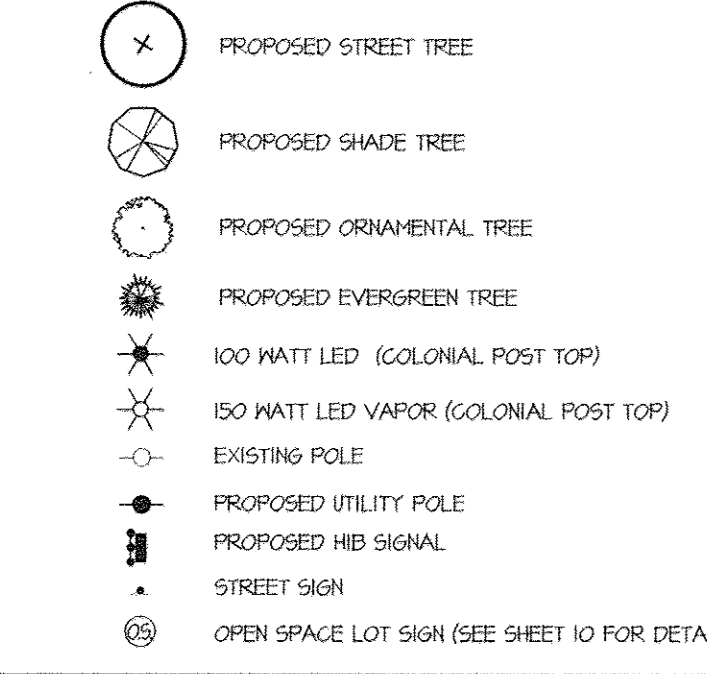
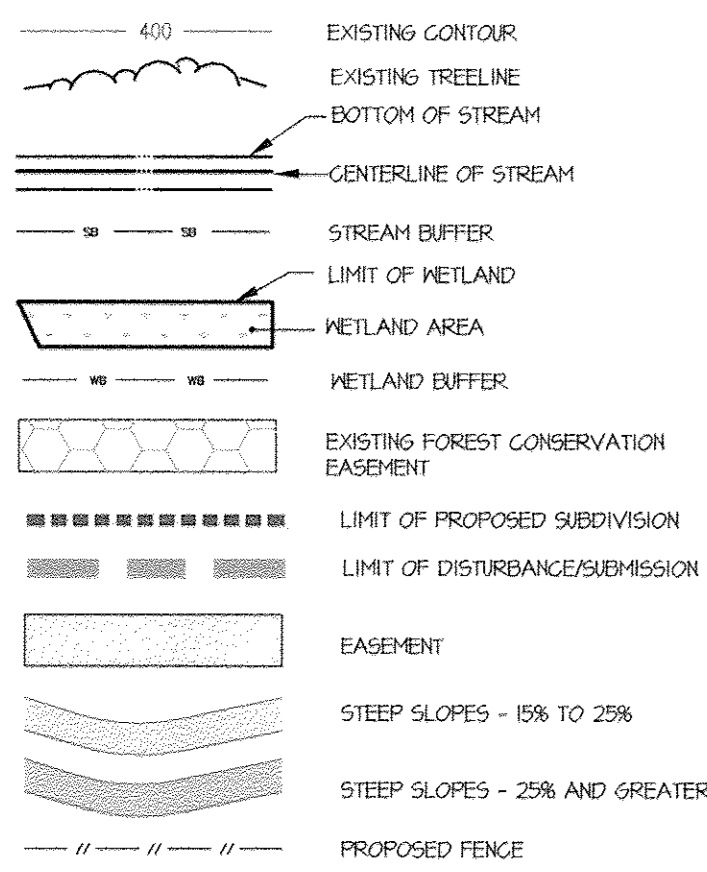
PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 29975 EXPIRATION DATE: MAY 26, 2018  
 7/14/16 *[Signature]*

ADA COMPLIANT SIDEWALK RAMPS  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A AND REVISION TO CREDITED OPEN SPACE LOT 1  
 ELECTION DISTRICT No. 2 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=20'	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	7 OF 60



**LANDSCAPE LEGEND**



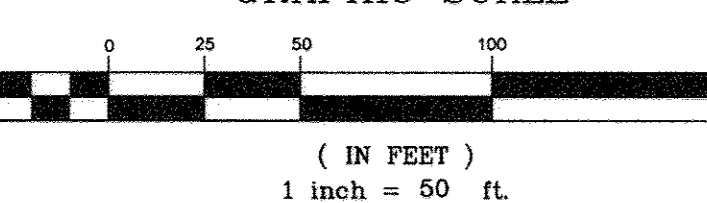
**LANDSCAPING NOTES**

- STREET TREES ARE BEING PROVIDED AS PART OF THIS FINAL PLAN.
- INTERNAL PLANTING WILL BE PROVIDED WITH THE SITE DEVELOPMENT PLANS AND FINAL PLANS.
- THE BUFFERS SHOWN IN THE SCHEDULES ARE IN ACCORDANCE WITH THE LANDSCAPE MANUAL. THE FOLLOWING ARE THE MINIMUM PLANTING TO BE PROVIDED ALONG A PERIMETER EDGE:
  - SHADE TREES: 150 LINEAR FEET OF MEASURED PERIMETER EDGE, AND SMALL ORNAMENTAL DECIDUOUS TREES, 160 LINEAR FEET OF MEASURED PERIMETER EDGE AND EVERGREEN TREES, 120 LINEAR FEET OF MEASURED PERIMETER EDGE.
- AFFORESTATION PLANTING SIZE SHALL BE LARGE ENOUGH TO MEET THE LANDSCAPE BUFFERING REQUIREMENT ALONG EXTERNAL PERIMETERS WHERE APPLICABLE.
- UNLESS NOTED, ALL STEEP SLOPE AREAS WITHIN THE LIMITS OF SUBMISSION ARE LESS THAN 5000 SF.
- STREET TREES SHALL BE PLACED A MINIMUM OF 15' FROM ALL SIGNS AND INTERSECTIONS WHEN PLANTED BETWEEN THE SIDEWALK AND CURB, AND BE LOCATED WITH CONSIDERATION TO UNDERGROUND UTILITIES AND STRUCTURES. STREET TREES MAY NOT BE PLANTED WITHIN 5' OF A DRAIN INLET STRUCTURE, WITHIN 5' OF AN OPEN SPACE ACCESS STRIP, AND WITHIN 10' OF A DRIVEWAY. A 20' MINIMUM DISTANCE SHALL BE MAINTAINED BETWEEN ANY TREES LOCATED ALONG THE CURB LINE AND ANY STREET LIGHT. FINAL PLACEMENT OF THE STREET TREES WILL BE DETERMINED IN THE FIELD BY THE DEPARTMENT OF PUBLIC WORKS TO BEST ACCOMMODATE THESE SETBACKS WHILE PROVIDING THE MAXIMUM NUMBER OF STREET TREES REQUIRED.
- ALL PAVEMENT MARKINGS AND SIGN LOCATIONS SHALL BE APPROVED BY HOWARD COUNTY TRAFFIC DIVISION PRIOR TO ANY INSTALLATION (410-315-5752).
- TREES CANNOT BE PLANTED WITHIN 40' OF STOP SIGN LOCATIONS ON THE APPROACH SIDE FOR VISIBILITY CONCERNS.

**NOTES**

- AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN, SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS.
- THE OWNER AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIALS AND BERRIS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIAL TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
- SEE SHEET 51 FOR THE PAVEMENT MARKING PLAN FOR FREDERICK ROAD AND ITS INTERSECTIONS WITH WESTMOUNT PARKWAY AND BURTON DRIVE.

**GRAPHIC SCALE**



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Chief, Bureau of Highways  
 Date: 7/27/2016

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Chief, Division of Land Development  
 Date: 8-29-16  
 Chief, Development Engineering Division  
 Date: 8-26-16

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTNSVILLE, MARYLAND 20866  
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**STREET TREE REQUIREMENTS**

ROAD	LENGTH OF CURB (L.F.)	# OF TREES REQUIRED	# OF TREES PROVIDED
BURTON DRIVE	2514'	64	64
WARBURTON COURT	1113'	28	21
ARLINGTON COURT	703'	18	14
WESTMOUNT PARKWAY	1453	36	36
TOTAL		146	146

SYMBOL	NAME (BOTANICAL/COMMON)	SIZE	REMARKS
(X)	ACER SACHARUM / GREEN MOUNTAIN SUGAR MAPLE	2 1/2" cal.	B & B FULL HEADS

MINIMUM TREE QUANTITIES AND PREFERRED SPACINGS ARE AS FOLLOWS:  
 1 TREE PER 40 LINEAR FEET, BOTH SIDES, FOR ALL STREET.

**STREET LIGHT SCHEDULE**

ROAD NAME	CENTERLINE STATION / COORDINATE	OFFSET	LAMP TYPE	FIXTURE	POLE TYPE
BURTON DRIVE	0+67	31' RT	150 LED	COLONIAL POST	14" BLACK FIBERGLASS
BURTON DRIVE	2+11	21' LT	150 LED	COLONIAL POST	14" BLACK FIBERGLASS
BURTON DRIVE	3+33	20' RT	100 LED	COLONIAL POST	14" BLACK FIBERGLASS
BURTON DRIVE	5+90	16' LT	100 LED	COLONIAL POST	14" BLACK FIBERGLASS
BURTON DRIVE	7+93	16' LT	100 LED	COLONIAL POST	14" BLACK FIBERGLASS
BURTON DRIVE	10+78	16' LT	100 LED	COLONIAL POST	14" BLACK FIBERGLASS
BURTON DRIVE CUL-DE-SAC	12+70	48' RT	100 LED	COLONIAL POST	14" BLACK FIBERGLASS
WARBURTON COURT	2+65	16' RT	100 LED	COLONIAL POST	14" BLACK FIBERGLASS
WARBURTON COURT CUL-DE-SAC	N 1,346,262 E 588,084	---	100 LED	COLONIAL POST	14" BLACK FIBERGLASS
ARLINGTON COURT CUL-DE-SAC	N 1,345,881 E 588,493	---	100 LED	COLONIAL POST	14" BLACK FIBERGLASS
WESTMOUNT PARKWAY	0+67	38' RT	150 LED	COLONIAL POST	14" BLACK FIBERGLASS
WESTMOUNT PARKWAY	1+51	46' LT	150 LED	COLONIAL POST	14" BLACK FIBERGLASS
WESTMOUNT PARKWAY	2+57	38' RT	150 LED	COLONIAL POST	14" BLACK FIBERGLASS
WESTMOUNT PARKWAY	3+47	42' LT	150 LED	COLONIAL POST	14" BLACK FIBERGLASS
WESTMOUNT PARKWAY	4+37	46' RT	150 LED	COLONIAL POST	14" BLACK FIBERGLASS
WESTMOUNT PARKWAY	5+41	36' LT	150 LED	COLONIAL POST	14" BLACK FIBERGLASS
WESTMOUNT PARKWAY	5+89	47' RT	150 LED	COLONIAL POST	14" BLACK FIBERGLASS
WESTMOUNT PARKWAY	7+03	36' LT	150 LED	COLONIAL POST	14" BLACK FIBERGLASS
WESTMOUNT PARKWAY	7+45	42' RT	150 LED	COLONIAL POST	14" BLACK FIBERGLASS

**REQUIREMENTS FOR TYPE 'B' BUFFER ALONG SCENIC ROAD**

SYMBOL	TREE TYPE	NAMES (BOTANICAL/SCIENTIFIC)	SIZE	REMARKS	REQUIRED	PROVIDED
(O)	ORNAMENTAL	COMUS KOUSA / KOUSA DOGWOOD	12"-14" HT.	B&B FULL HEADS	0	12
(X)	SHADE	ACER GINNALA / AMUR MAPLE	2"-2 1/2" CAL.	B&B FULL HEADS	20	24
(*)	EVERGREEN	PINUS STROBUS / WHITE PINE	10' HT.	B&B	25	25

**RESIDENTIAL LOT LANDSCAPE PERIMETER REQUIREMENTS SCHEDULE**

RESIDENTIAL LOT LINE	LENGTH OF SIDE PERIMETER	REQUIRED LANDSCAPING
R1	6'	THE REQUIRED LOT LANDSCAPING PER THE HOWARD COUNTY LANDSCAPE DESIGN MANUAL SHALL BE PROVIDED AT SDP STAGE
R2	6'	
R3	12'	

**EXTERNAL PERIMETER PLANTING SCHEDULE - SCHEDULE A**

PERIMETER	LAND USE	ADJACENT LAND USE	TYPE OF BUFFER	LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	NUMBER OF PLANTS REQUIRED	CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) DESCRIBE BELOW IF NEEDED.	CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) DESCRIBE BELOW IF NEEDED.	NUMBER OF PLANTS PROVIDED		
					SHADE TREES	ORNAMENTALS	EVERGREEN TREES	SHADE TREES	ORNAMENTALS	EVERGREEN TREES
PERIMETER 1	SFD RESIDENTIAL	SFD RESIDENTIAL	'A' Buffer	364'	6	---	---	0	---	---
PERIMETER 2	SFD RESIDENTIAL	SFD RESIDENTIAL	SEE NOTE ①	1662'	28	---	---	0	---	---
PERIMETER 3	SFD RESIDENTIAL	SFD RESIDENTIAL	'A' Buffer	1084'	28	---	---	0	EXISTING WOODLAND	---
PERIMETER 4	SFD RESIDENTIAL	SFD RESIDENTIAL	'A' Buffer	523'	4	---	---	0	EXISTING WOODLAND	---
PERIMETER 5	SFD RESIDENTIAL	SFD RESIDENTIAL	'A' Buffer	735'	13	---	---	0	---	---
PERIMETER 6	SFD RESIDENTIAL	ROADWAY	'B' Buffer	946'	20	0	25	24	12	25
					TOTAL	30	12	25		

- FOR THIS PERIMETER BUFFER, THE ON SITE LAND USE IS AN OPEN SPACE LOT THAT WILL BE CONVEYED TO HOWARD COUNTY PARKS AND RECREATION. THE ADJACENT LAND USE IS THE KIRWAN-PALLACE PARK. ULTIMATELY, THESE TWO PARCELS WILL BE A CONTIGUOUS TRACT OF LAND OWNED BY THE HOWARD COUNTY PARKS AND RECREATION.
- CREDIT FOR FOREST RETENTION ALONG THIS PERIMETER.
- CREDIT FOR FENCE TO BE CONSTRUCTED ALONG THIS PERIMETER.

DATE	REVISION	BY	APPR.
6-12-16	Revised mailbox location, sidewalk, trees & lights	JG	DEV
6-12-17	Revised Lot lines and numbers	JG	DEV.

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN: CAMILLA CARROLL

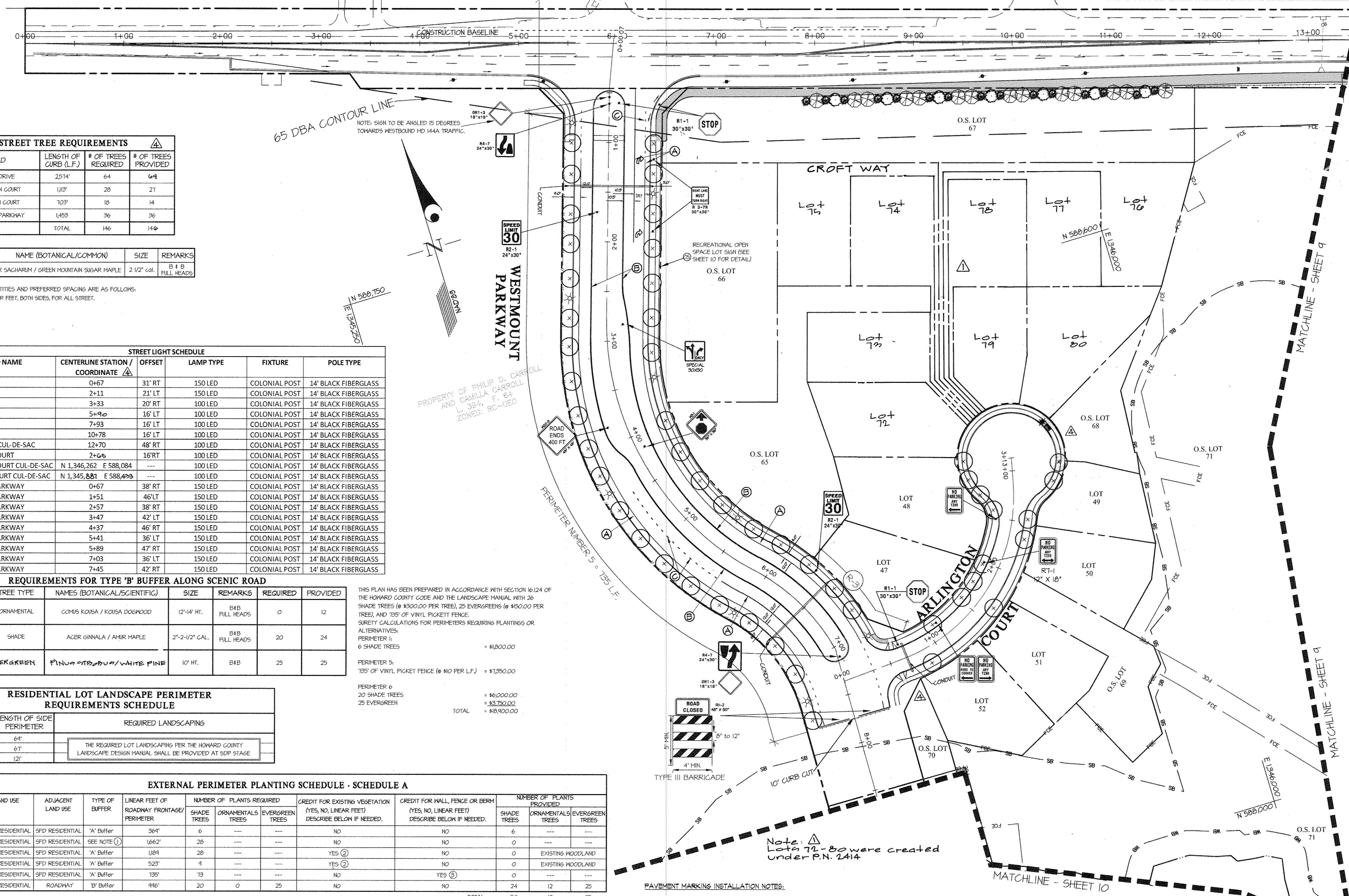
PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12975  
 EXPIRATION DATE: MAY 26, 2018  
 7/11/16

**SIGNING, STREET TREE, LIGHTING & LANDSCAPE PLAN**  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT No. 2

SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	8 OF 60

**FREDERICK ROAD (MD ROUTE 144A)**  
**MINOR ARTERIAL**  
 PUBLIC VARIABLE WIDTH R/W  
 POSTED SPEED IS 40 MPH

P/O PERIMETER NUMBER 6 = 946 L.F. (1268 L.F. TOTAL MINUS 272 L.F. FOR ROAD RIGHT-OF-WAY)

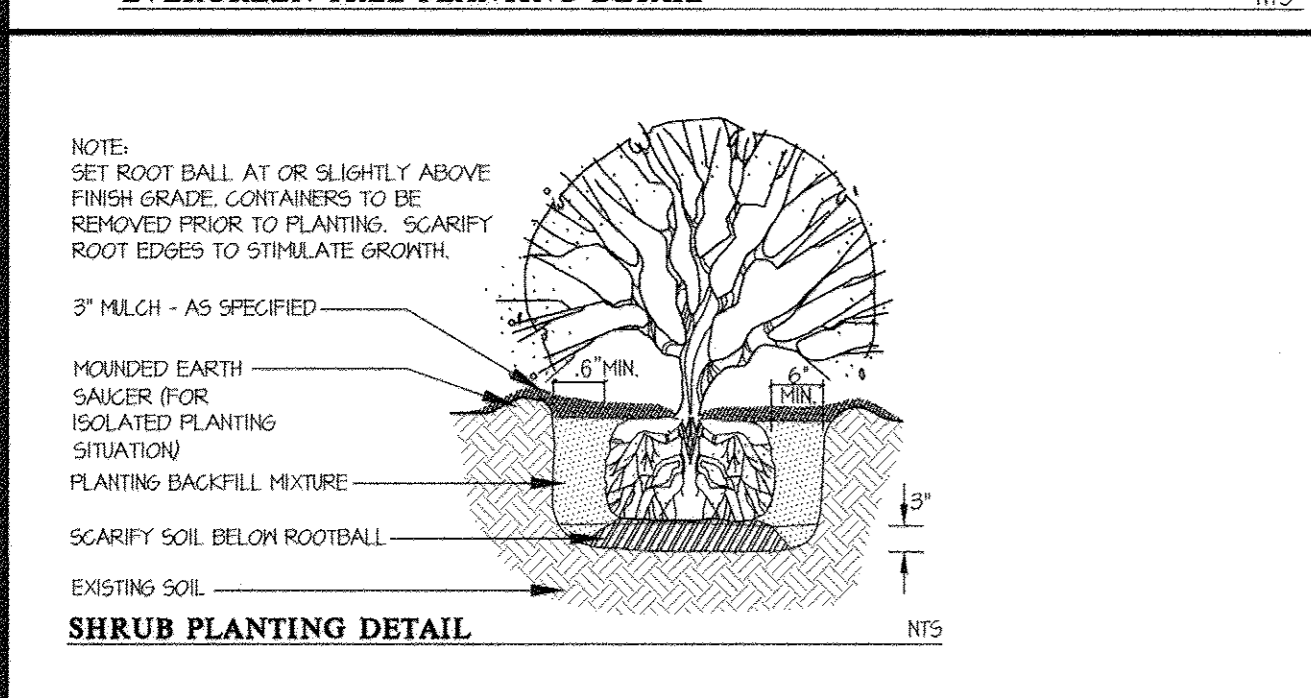
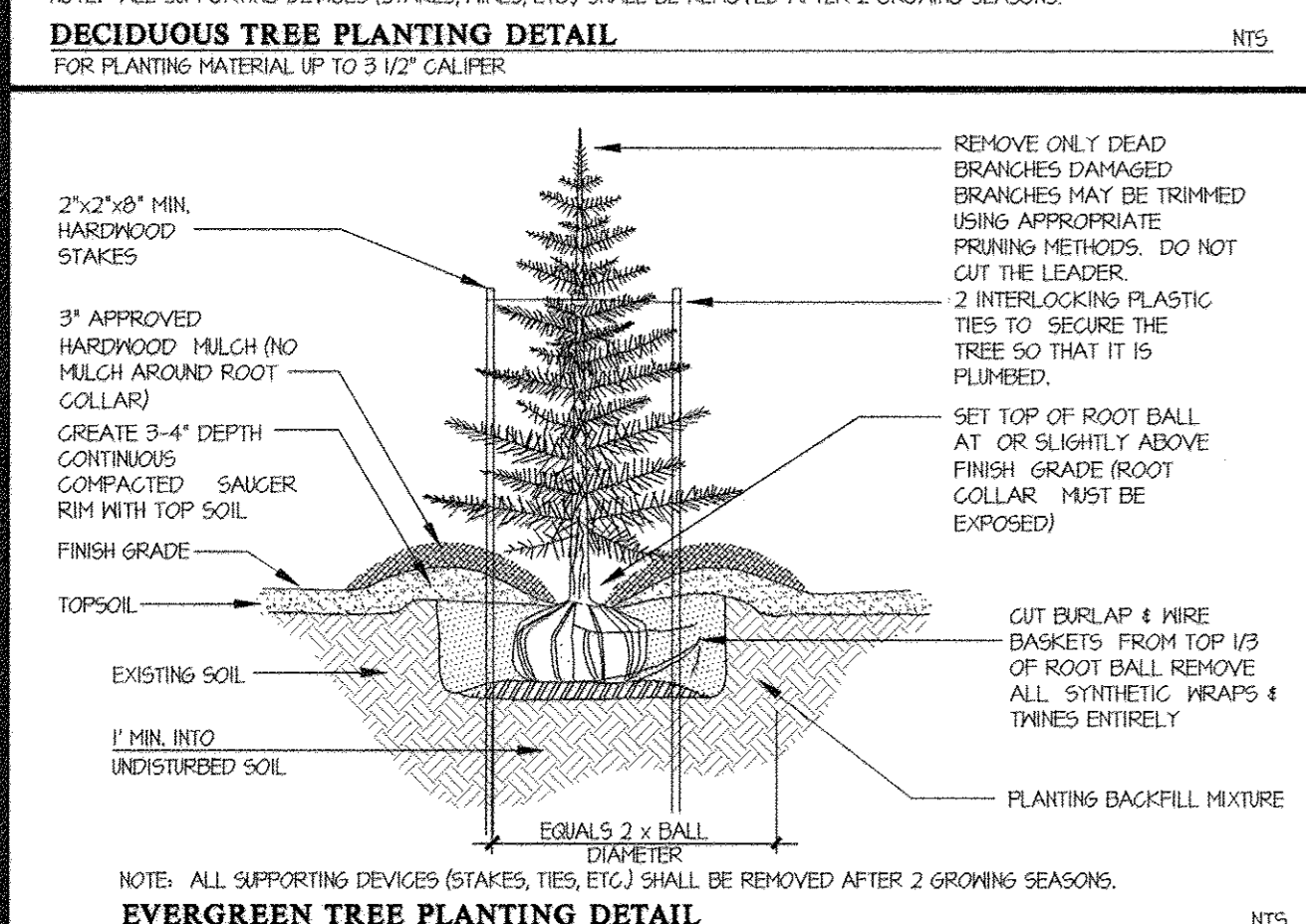
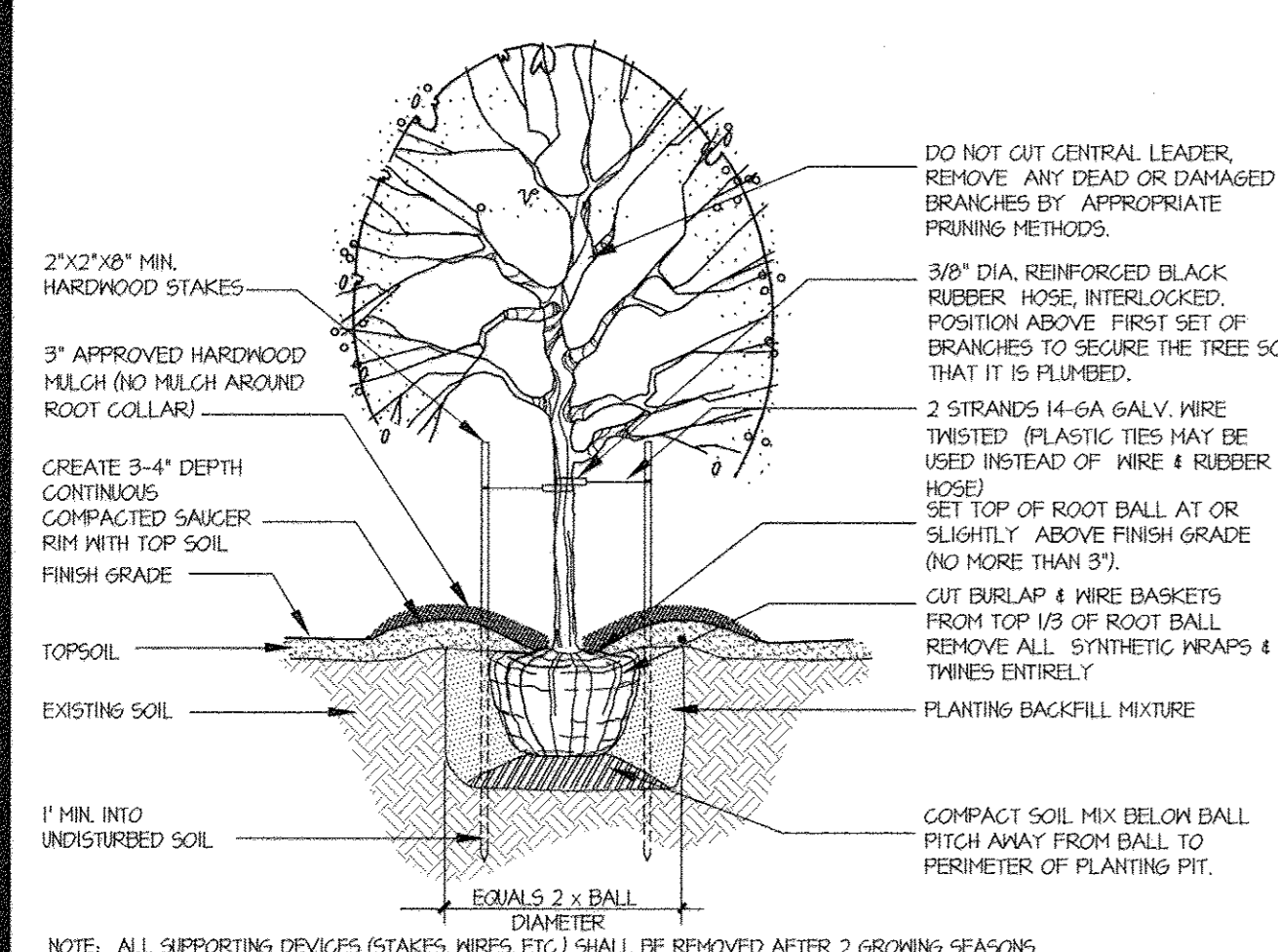


- PAVEMENT MARKING INSTALLATION NOTES:**
- INSTALL 5" WHITE PAVEMENT MARKING
  - INSTALL 5" YELLOW PAVEMENT MARKING
  - INSTALL 5" WHITE PAVEMENT MARKING (2" STRIPE, 6" SPACING)

- NOTES:**
- SEE SHEET 9 FOR SHA LANDSCAPING NOTES
  - SEE SHEET 51 FOR SHA FOR PAVEMENT MARKING AND SIGNS

Note: Lots 72-80 were created under P.N. 2414





NOTE: SEE SHEET 51 FOR SHA FOR PAVEMENT MARKING AND SIGNS

**PAVEMENT MARKING INSTALLATION NOTES:**

INSTALL 5" WHITE PAVEMENT MARKINGS

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Chief, Bureau of Highways  
 Date: 7/27/16

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Chief, Division of Land Development  
 Date: 8-29-16

Chief, Development Engineering Division  
 Date: 8-26-16

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 FAX: 301-989-2524 FAX: 301-421-4186

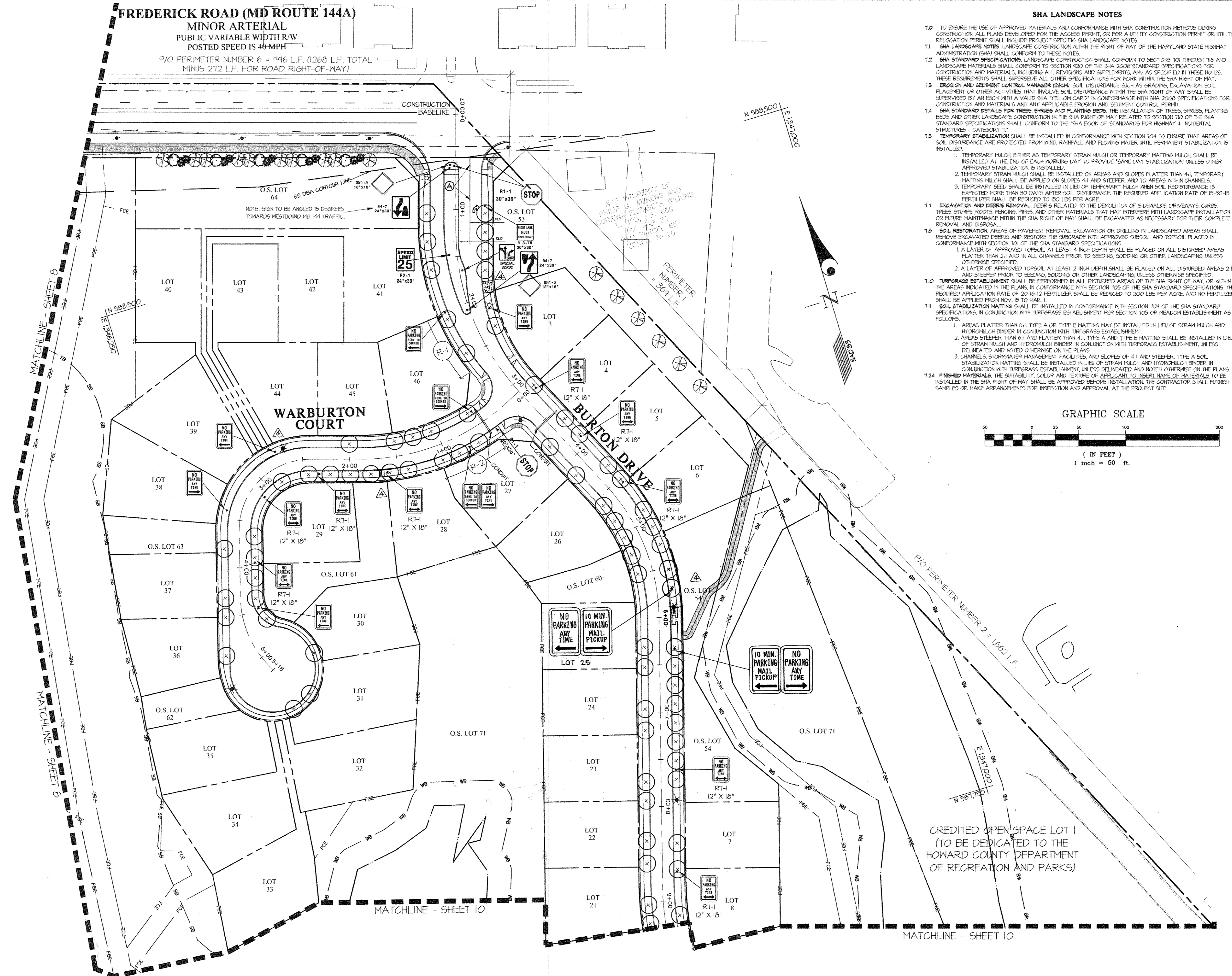
DATE	REVISION	BY	APP'R.
08-14-16	REVISED MAIL BOX LOCATIONS, SIDEWALK, LIGHTS, TREES, SIGNAGE AND ADDED BUS PAD	GL	DEV

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN: CAMILLA CARROLL

**PROFESSIONAL CERTIFICATION**  
 I HEREBY CERTIFY THAT THESE PLANS 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. 12975  
 EXPIRATION DATE: MAY 26, 2016  
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**WESTMOUNT - PHASE 1**  
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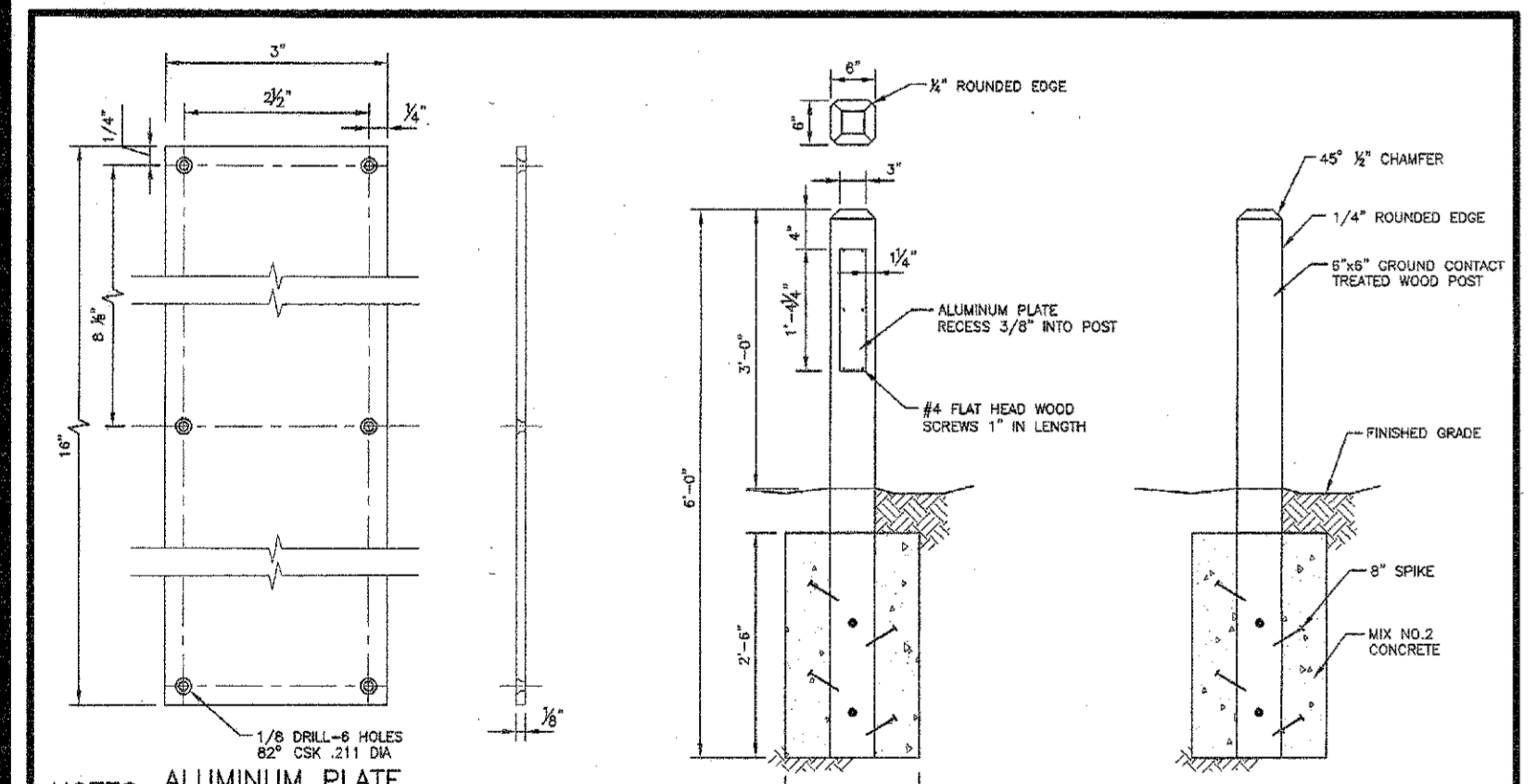
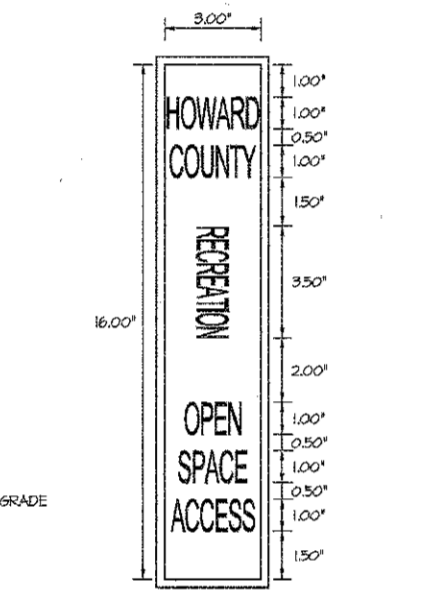
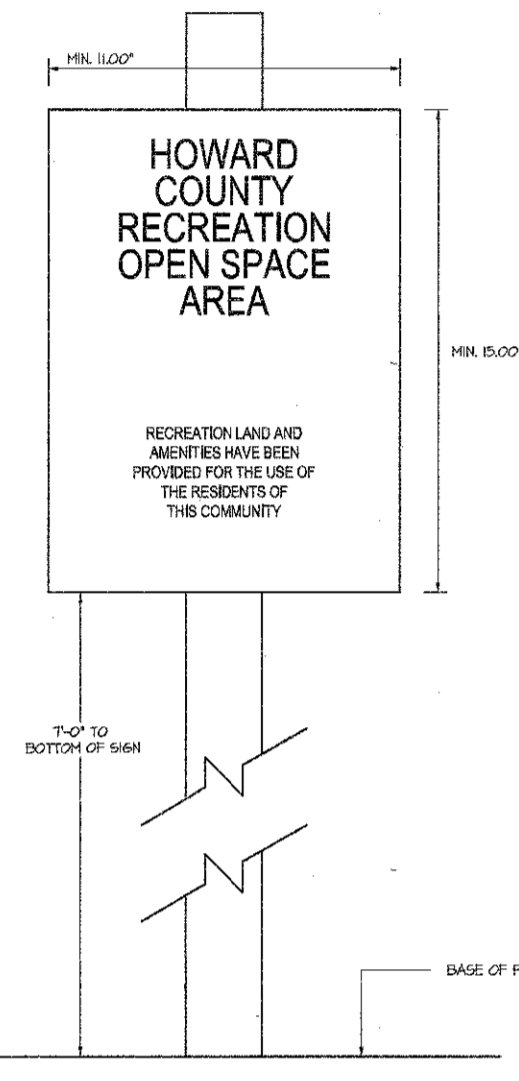
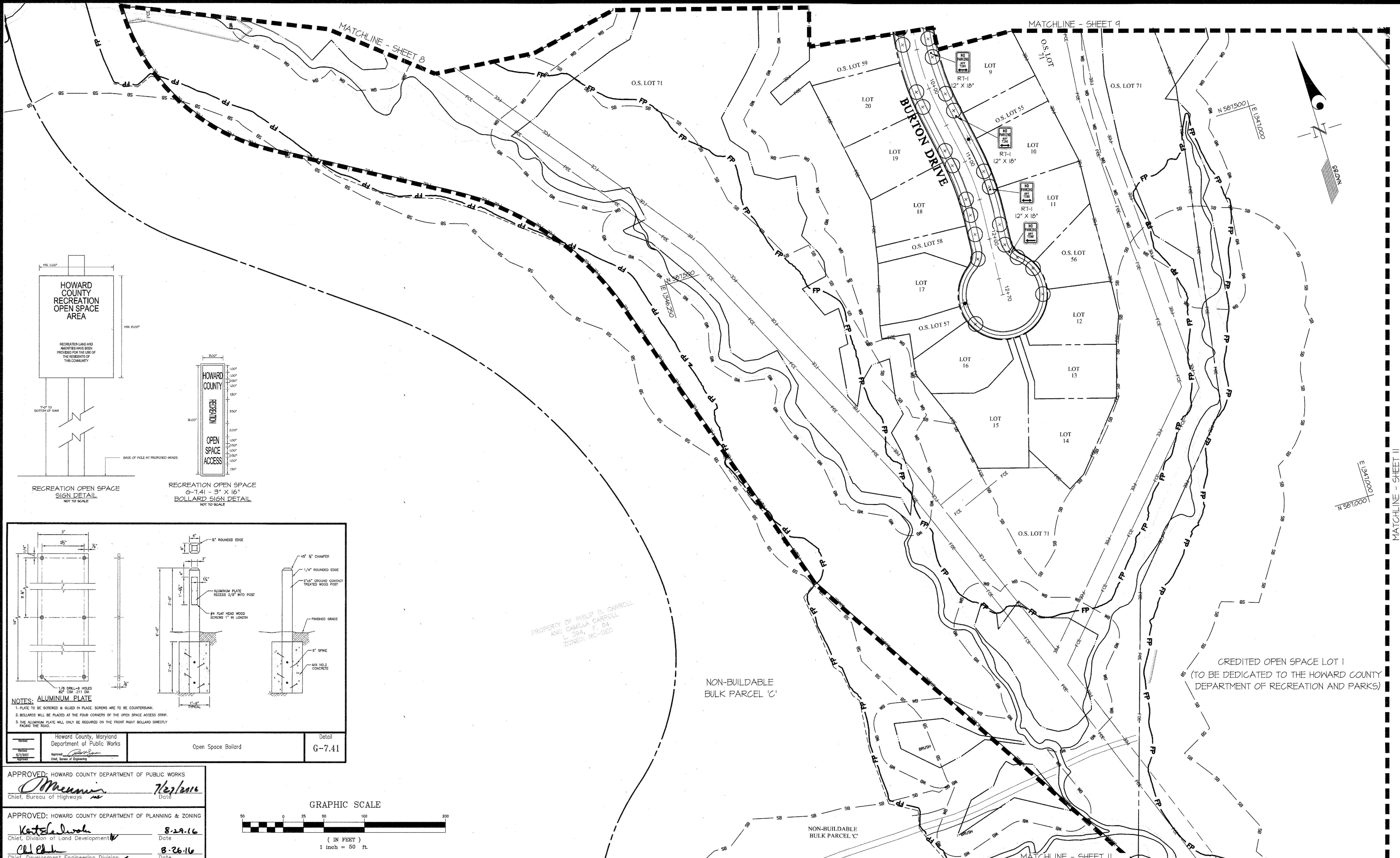
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JULY, 2016	23-6&12	9 OF 60



- SHA LANDSCAPE NOTES**
- TO ENSURE THE USE OF APPROVED MATERIALS AND CONFORMANCE WITH SHA CONSTRUCTION METHODS DURING CONSTRUCTION, ALL PLANS DEVELOPED FOR THE ACCESS PERMIT, OR FOR A UTILITY CONSTRUCTION PERMIT OR UTILITY RELOCATION PERMIT SHALL INCLUDE PROJECT SPECIFIC SHA LANDSCAPE NOTES.
  - SHA LANDSCAPE NOTES, LANDSCAPE CONSTRUCTION WITHIN THE RIGHT OF WAY OF THE MARYLAND STATE HIGHWAY ADMINISTRATION (SHA) SHALL CONFORM TO THESE NOTES.
  - SHA STANDARD SPECIFICATIONS, LANDSCAPE CONSTRUCTION SHALL CONFORM TO SECTIONS 101 THROUGH 106 AND LANDSCAPE MATERIALS SHALL CONFORM TO SECTION 420 OF THE SHA 2008 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, INCLUDING ALL REVISIONS AND SUPPLEMENTS, AND AS SPECIFIED IN THESE NOTES. THESE REQUIREMENTS SHALL SUPERSEDE ALL OTHER SPECIFICATIONS FOR WORK WITHIN THE SHA RIGHT OF WAY.
  - EROSION AND SEDIMENT CONTROL (ESC), SOIL DISTURBANCE SUCH AS GRADING, EXCAVATION, SOIL PLACEMENT OR OTHER METHODS THAT INCREASE SOIL DISTURBANCE WITHIN THE SHA RIGHT OF WAY SHALL BE SUPERVISED BY AN ESCM WITH A VALID SHA "YELLOW CARD" IN CONFORMANCE WITH SHA 2008 SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS AND ANY APPLICABLE EROSION AND SEDIMENT CONTROL PERMIT.
  - SHA STANDARD DETAILS FOR TREES, SHRUBS AND PLANTING BEDS, THE INSTALLATION OF TREES, SHRUBS, PLANTING BEDS AND OTHER LANDSCAPE CONSTRUCTION IN THE SHA RIGHT OF WAY RELATED TO SECTION 101 OF THE SHA STANDARD SPECIFICATIONS SHALL CONFORM TO THE "SHA BOOK OF STANDARDS FOR HIGHWAY & INCIDENTAL STRUCTURES - CATEGORY 1".
  - TEMPORARY STABILIZATION SHALL BE INSTALLED IN CONFORMANCE WITH SECTION 104 TO ENSURE THAT AREAS OF SOIL DISTURBANCE ARE PROTECTED FROM WIND, RAINFALL AND FLOWING WATER UNTIL PERMANENT STABILIZATION IS INSTALLED.
    - TEMPORARY MULCH, EITHER AS TEMPORARY STRAW MULCH OR TEMPORARY MATTING MULCH, SHALL BE INSTALLED AT THE END OF EACH WORKING DAY TO PROVIDE "SAME DAY STABILIZATION" UNLESS OTHER APPROVED STABILIZATION IS INSTALLED.
    - TEMPORARY STRAW MULCH SHALL BE INSTALLED ON AREAS AND SLOPES FLATTER THAN 4:1. TEMPORARY MATTING MULCH SHALL BE APPLIED ON SLOPES 4:1 AND STEEPER, AND TO AREAS WITHIN CHANNELS.
    - TEMPORARY SEED SHALL BE INSTALLED IN LIEU OF TEMPORARY MULCH WHEN SOIL REDISTURBANCE IS EXPECTED MORE THAN 30 DAYS AFTER SOIL DISTURBANCE. THE REQUIRED APPLICATION RATE OF 15-30-15 FERTILIZER SHALL BE REDUCED TO 80 LBS PER ACRE.
  - EXCAVATION AND DEBRIS REMOVAL. DEBRIS RELATED TO THE DEMOLITION OF SIDEWALKS, DRIVEWAYS, CURBS, TREES, STAMPS, ROOTS, FENCING, PIPES, AND OTHER MATERIALS THAT MAY INTERFERE WITH LANDSCAPE INSTALLATION OR FUTURE MAINTENANCE WITHIN THE SHA RIGHT OF WAY SHALL BE EXCAVATED AS NECESSARY FOR THEIR COMPLETE REMOVAL AND DISPOSAL.
  - SOIL RESTORATION. AREAS OF PAVEMENT REMOVAL, EXCAVATION OR DRILLING IN LANDSCAPED AREAS SHALL REMOVE EXCAVATED DEBRIS AND RESTORE THE SUBGRADE WITH APPROVED SUBSOIL AND TOPSOIL PLACED IN CONFORMANCE WITH SECTION 101 OF THE SHA STANDARD SPECIFICATIONS.
    - A LAYER OF APPROVED TOPSOIL, AT LEAST 4 INCH DEPTH SHALL BE PLACED ON ALL DISTURBED AREAS FLATTER THAN 2:1 AND IN ALL CHANNELS PRIOR TO SEEDING, SODDING OR OTHER LANDSCAPING, UNLESS OTHERWISE SPECIFIED.
    - A LAYER OF APPROVED TOPSOIL, AT LEAST 2 INCH DEPTH SHALL BE PLACED ON ALL DISTURBED AREAS 2:1 AND STEEPER PRIOR TO SEEDING, SODDING OR OTHER LANDSCAPING, UNLESS OTHERWISE SPECIFIED.
  - TURFGRASS ESTABLISHMENT SHALL BE PERFORMED IN ALL DISTURBED AREAS OF THE SHA RIGHT OF WAY, OR WITHIN THE AREAS INDICATED IN THE PLANS, IN CONFORMANCE WITH SECTION 105 OF THE SHA STANDARD SPECIFICATIONS. THE REQUIRED APPLICATION RATE OF 20-16-12 FERTILIZER SHALL BE REDUCED TO 200 LBS PER ACRE, AND NO FERTILIZER SHALL BE APPLIED FROM NOV. 15 TO MAR. 1.
  - SOIL STABILIZATION MATTING SHALL BE INSTALLED IN CONFORMANCE WITH SECTION 104 OF THE SHA STANDARD SPECIFICATIONS, IN CONJUNCTION WITH TURFGRASS ESTABLISHMENT PER SECTION 105 OR MEADOW ESTABLISHMENT AS FOLLOWS:
    - AREAS FLATTER THAN 6:1. TYPE A OR TYPE E MATTING MAY BE INSTALLED IN LIEU OF STRAW MULCH AND HYDROMULCH BINDER IN CONJUNCTION WITH TURFGRASS ESTABLISHMENT.
    - AREAS STEEPER THAN 6:1 AND FLATTER THAN 4:1. TYPE A AND TYPE E MATTING SHALL BE INSTALLED IN LIEU OF STRAW MULCH AND HYDROMULCH BINDER IN CONJUNCTION WITH TURFGRASS ESTABLISHMENT, UNLESS DELINEATED AND NOTED OTHERWISE ON THE PLANS.
    - CHANNELS, STORMWATER MANAGEMENT FACILITIES, AND SLOPES OF 4:1 AND STEEPER. TYPE A SOIL STABILIZATION MATTING SHALL BE INSTALLED IN LIEU OF STRAW MULCH AND HYDROMULCH BINDER IN CONJUNCTION WITH TURFGRASS ESTABLISHMENT, UNLESS DELINEATED AND NOTED OTHERWISE ON THE PLANS.
  - FINISHED MATERIALS, THE STABILITY, COLOR, AND TEXTURE OF APPLICANT TO INSPECT NAME OF MATERIALS TO BE INSTALLED IN THE SHA RIGHT OF WAY SHALL BE APPROVED BEFORE INSTALLATION. THE CONTRACTOR SHALL FURNISH SAMPLES OR MAKE ARRANGEMENTS FOR INSPECTION AND APPROVAL AT THE PROJECT SITE.

L:\CADD\DRAWINGS\13013\PLANS BY QLR\06-15-16\13013\_06-15-16.dwg, 7/12/2016 8:47:04 AM, jennifer, 11





**NOTES: ALUMINUM PLATE**

1. PLATE TO BE SCREWED & GLUED IN PLACE. SCREWS ARE TO BE COUNTERSUNK.
2. BOLLARDS WILL BE PLACED AT THE FOUR CORNERS OF THE OPEN SPACE ACCESS STRIP.
3. THE ALUMINUM PLATE WILL ONLY BE REQUIRED ON THE FRONT RIGHT BOLLARD DIRECTLY FACING THE ROAD.

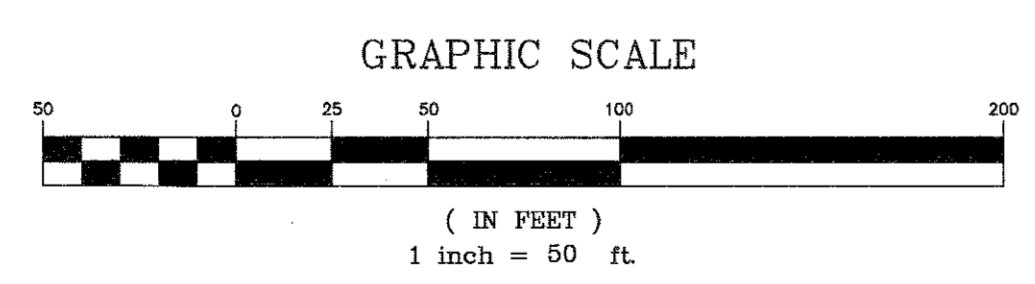
Howard County, Maryland  
Department of Public Works

Approved: *[Signature]* 7/27/2016  
Chief, Bureau of Highways

Approved: *[Signature]* 8-29-16  
Chief, Division of Land Development

Approved: *[Signature]* 8-26-16  
Chief, Development Engineering Division

Open Space Bollard Detail G-7.41



**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3509 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20866  
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DES. JRD	DRN. JRD	CHK. DEV	DATE	REVISION	BY	APPR.

PREPARED FOR:  
WESTMOUNT DEVELOPMENT CORPORATION  
3500 MANOR LANE  
ELLCOTT CITY, MARYLAND 21042  
443-367-0422  
ATTN: CAMILLA CARROLL

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE PLANS 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. 12075  
EXPIRATION DATE: MAY 28, 2018

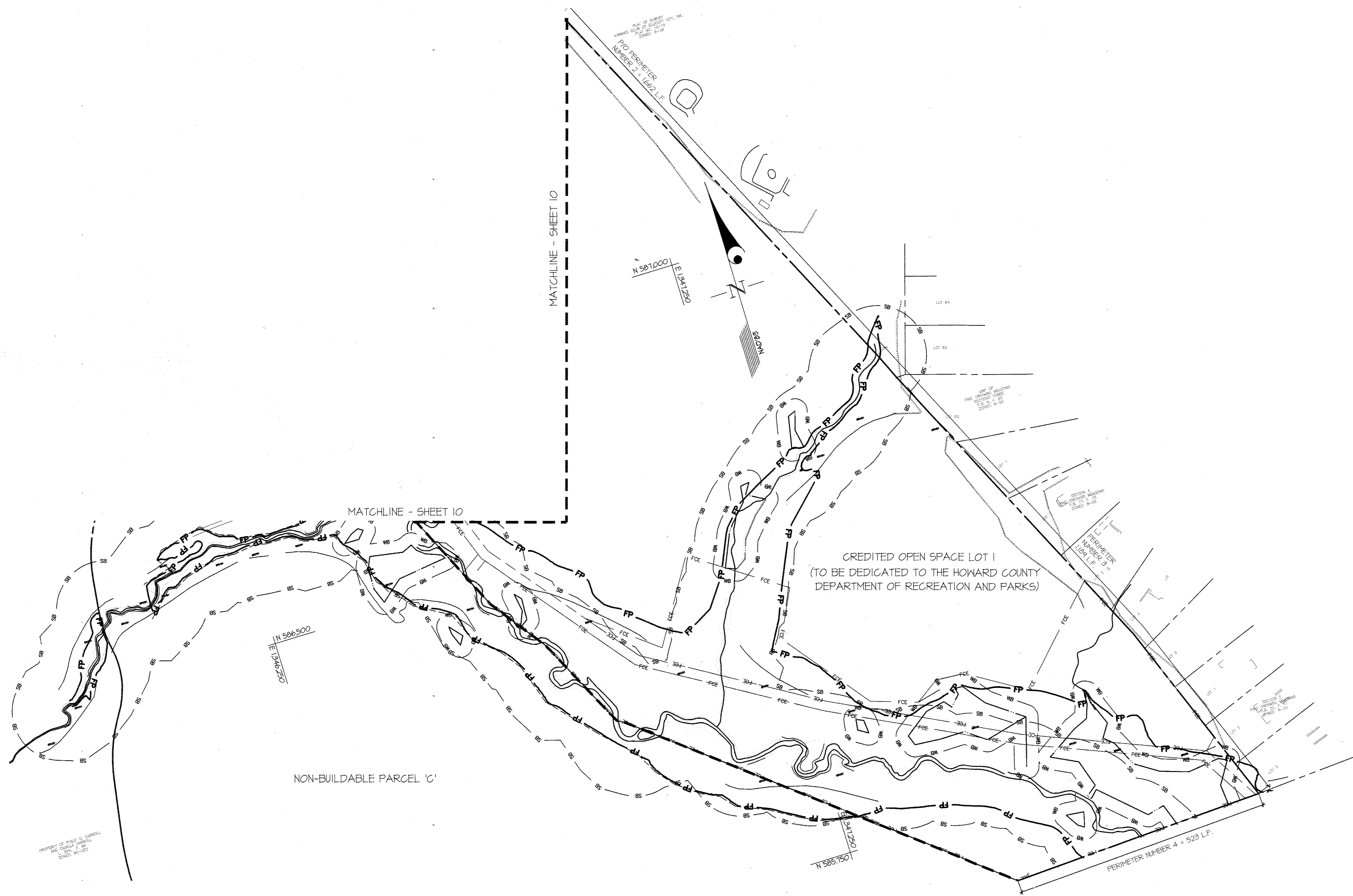
*[Signature]* 7/14/16

SIGNING, STREET TREE, LIGHTING & LANDSCAPE PLAN

**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A AND REVISION TO CREDITED OPEN SPACE LOT 1  
HOWARD COUNTY, MARYLAND  
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SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	10 OF 60





APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 7/27/2016  
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*[Signature]* 8-29-16  
 Chief, Division of Land Development Date  
*[Signature]* 8-26-16  
 Chief, Development Engineering Division Date

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3509 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VAC: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.

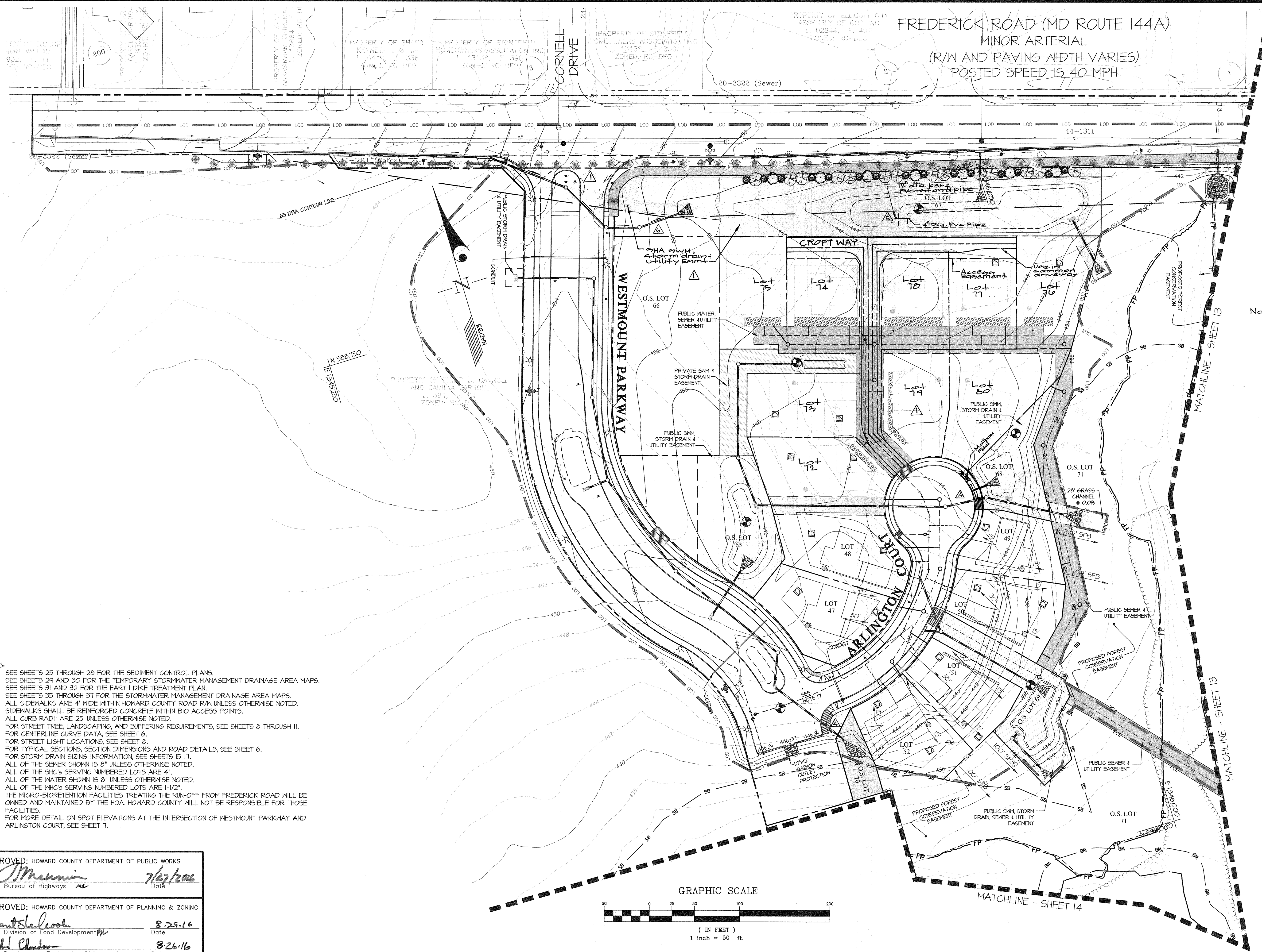
PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN: CAMILLA CARROLL

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS 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. 12273  
 EXPIRATION DATE: MAY 28, 2018  
 7/11/16 *[Signature]*

SIGNING, STREET TREE, LIGHTING & LANDSCAPE PLAN  
**WESTMOUNT - PHASE 1**  
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JULY, 2016.	23-6&12	11 OF 60





**LEGEND**

	RAIN BARREL (M-1)
	DRY WELL (M-5)
	ROOFTOP DISCONNECT (M-1)
	SHEET FLOW TO BUFFER (M-3)
	MICRO BIO-RETENTION FACILITY (M-6)
	ACCESS POINT TO BIO-RETENTION FACILITY (SIDEWALK WITHIN THIS REGION SHOULD BE REINFORCED CONCRETE)
	10' WATER/SEWER OFFSET UTILITY EASEMENT WITHIN ERL

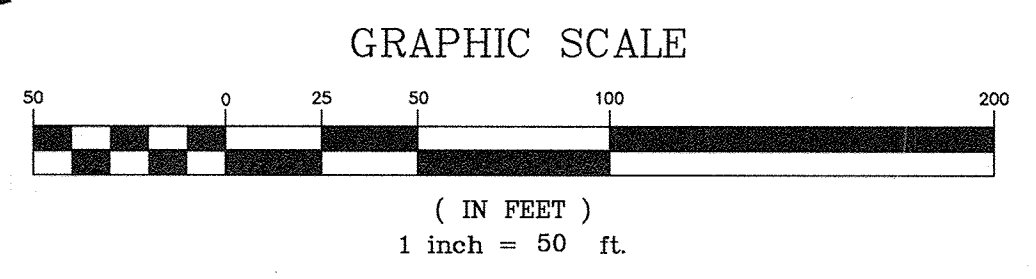
Note:  $\Delta$  Lots 72-80 and access Easement were created under P.N. 24141

- NOTES:**
- SEE SHEETS 25 THROUGH 28 FOR THE SEDIMENT CONTROL PLANS.
  - SEE SHEETS 29 AND 30 FOR THE TEMPORARY STORMWATER MANAGEMENT DRAINAGE AREA MAPS.
  - SEE SHEETS 31 AND 32 FOR THE EARTH DIKE TREATMENT PLAN.
  - SEE SHEETS 33 THROUGH 37 FOR THE STORMWATER MANAGEMENT DRAINAGE AREA MAPS.
  - ALL SIDEWALKS ARE 4' WIDE WITHIN HOWARD COUNTY ROAD R/W UNLESS OTHERWISE NOTED. SIDEWALKS SHALL BE REINFORCED CONCRETE WITHIN BIO ACCESS POINTS.
  - ALL CURB RADII ARE 25' UNLESS OTHERWISE NOTED.
  - FOR STREET TREE, LANDSCAPING, AND BUFFERING REQUIREMENTS, SEE SHEETS 8 THROUGH 11.
  - FOR CENTERLINE CURVE DATA, SEE SHEET 6.
  - FOR STREET LIGHT LOCATIONS, SEE SHEET 6.
  - FOR TYPICAL SECTIONS, SECTION DIMENSIONS AND ROAD DETAILS, SEE SHEET 6.
  - FOR STORM DRAIN SIZING INFORMATION, SEE SHEETS 15-17.
  - ALL OF THE SEWER SHOWN IS 8" UNLESS OTHERWISE NOTED.
  - ALL OF THE SHC'S SERVING NUMBERED LOTS ARE 4".
  - ALL OF THE WATER SHOWN IS 8" UNLESS OTHERWISE NOTED.
  - ALL OF THE WHC'S SERVING NUMBERED LOTS ARE 1-1/2".
  - THE MICRO-BIORETENTION FACILITIES TREATING THE RUN-OFF FROM FREDERICK ROAD WILL BE OWNED AND MAINTAINED BY THE HOA. HOWARD COUNTY WILL NOT BE RESPONSIBLE FOR THOSE FACILITIES.
  - FOR MORE DETAIL ON SPOT ELEVATIONS AT THE INTERSECTION OF WESTMOUNT PARKWAY AND ARLINGTON COURT, SEE SHEET 7.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*J. McNeill* 7/27/2016  
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Kent Schaefer* 8-25-16  
 Chief, Division of Land Development Date

*Chad Chudson* 8-26-16  
 Chief, Development Engineering Division Date



THE PURPOSE OF THIS PLAN IS TO CLEARLY SHOW THE GRADING THAT WILL BE USED ON OTHER SHEETS IN THE PLAN SET FOR THE DESIGN OF THE STORM DRAINS, STORMWATER MANAGEMENT AND SEDIMENT CONTROL.

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BALT: 410-880-1820 DC/WA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
7-26-19	Revised storm drain	3+	DEV
11-9-18	Added standpipe in Forebay	3+	DEV
6-14-18	Revised MAIL BOX LOCATION, SIDEWALK, LIGHT AND MICRO-BIO ACCESS	3+	DEV
6-17-17	Relocated 1-97; Revised Lot Lines; numbers, added use in common driveway	3+	DEV

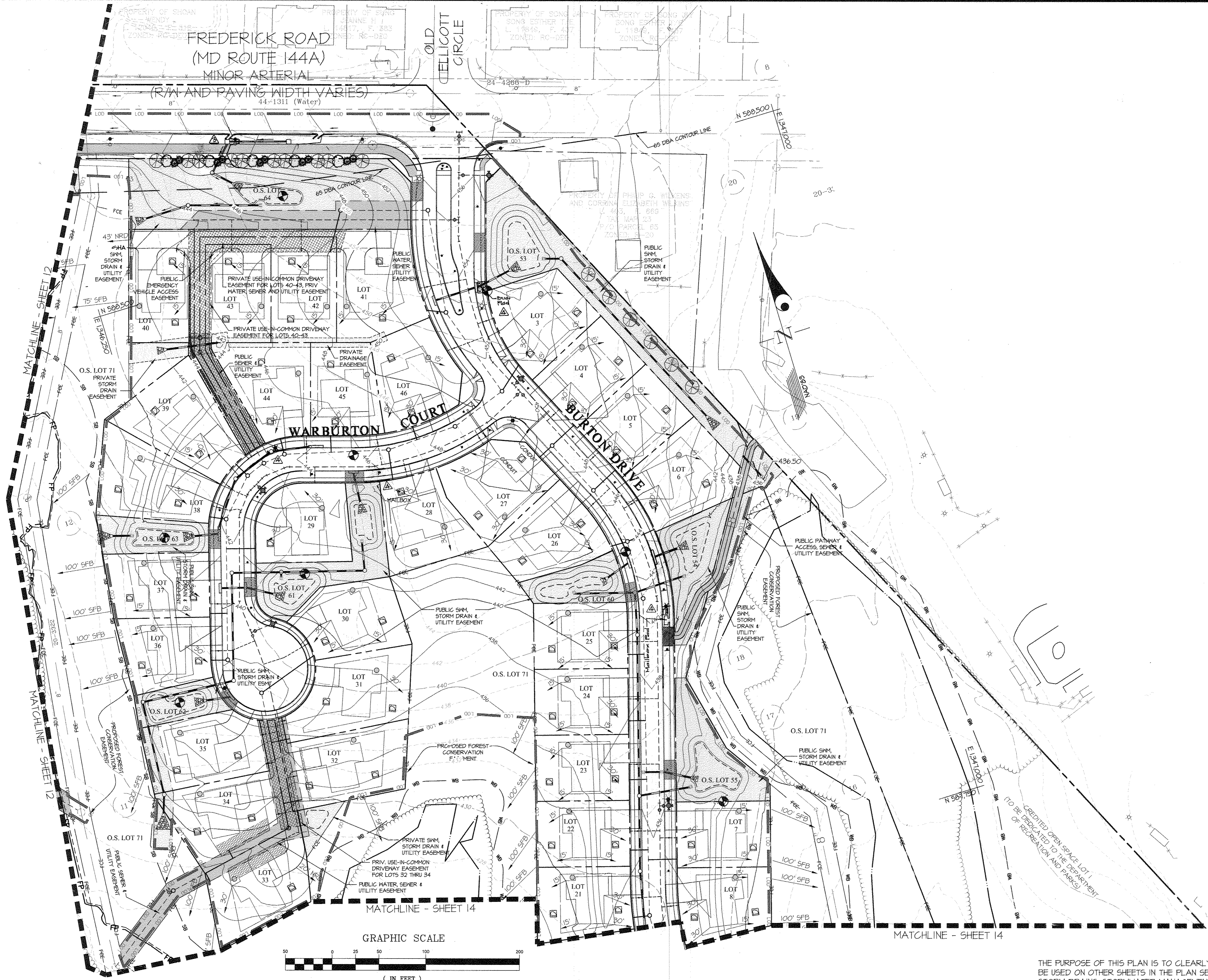
PREPARED FOR:  
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 ATTN: CAMILLA CARROLL

PROFESSIONAL CERTIFICATION  
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 EXPIRATION DATE: MAY 26, 2018  
 7/14/16

**GRADING PLAN**  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
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- NOTES:
- SEE SHEETS 25 THROUGH 28 FOR THE SEDIMENT CONTROL PLANS.
  - SEE SHEETS 24 AND 30 FOR THE TEMPORARY STORMWATER MANAGEMENT DRAINAGE AREA MAPS.
  - SEE SHEETS 31 AND 32 FOR THE EARTH DIKE TREATMENT PLAN.
  - SEE SHEETS 35 THROUGH 37 FOR THE STORMWATER MANAGEMENT DRAINAGE AREA MAPS.
  - SEE SHEET 16 FOR LIMITS OF TURF REINFORCEMENT WITHIN PUBLIC EMERGENCY VEHICLE ACCESS EASEMENT.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 7/27/2016  
 Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*[Signature]* 8-29-16  
 Chief, Division of Land Development

*[Signature]* 8-26-16  
 Chief, Development Engineering Division

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
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 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

NO.	DATE	REVISION	BY	APPR.
1	10-14-16	REVISED MAIL BOX LOCATIONS, SIDEWALKS, LIGHTS, MICRO-BIO ACCESS, ADDED BUS PAD	g+	DEV
2	2-23-18	REVISED storm drain	g+	DEV

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN.: CAMILLA CARROLL

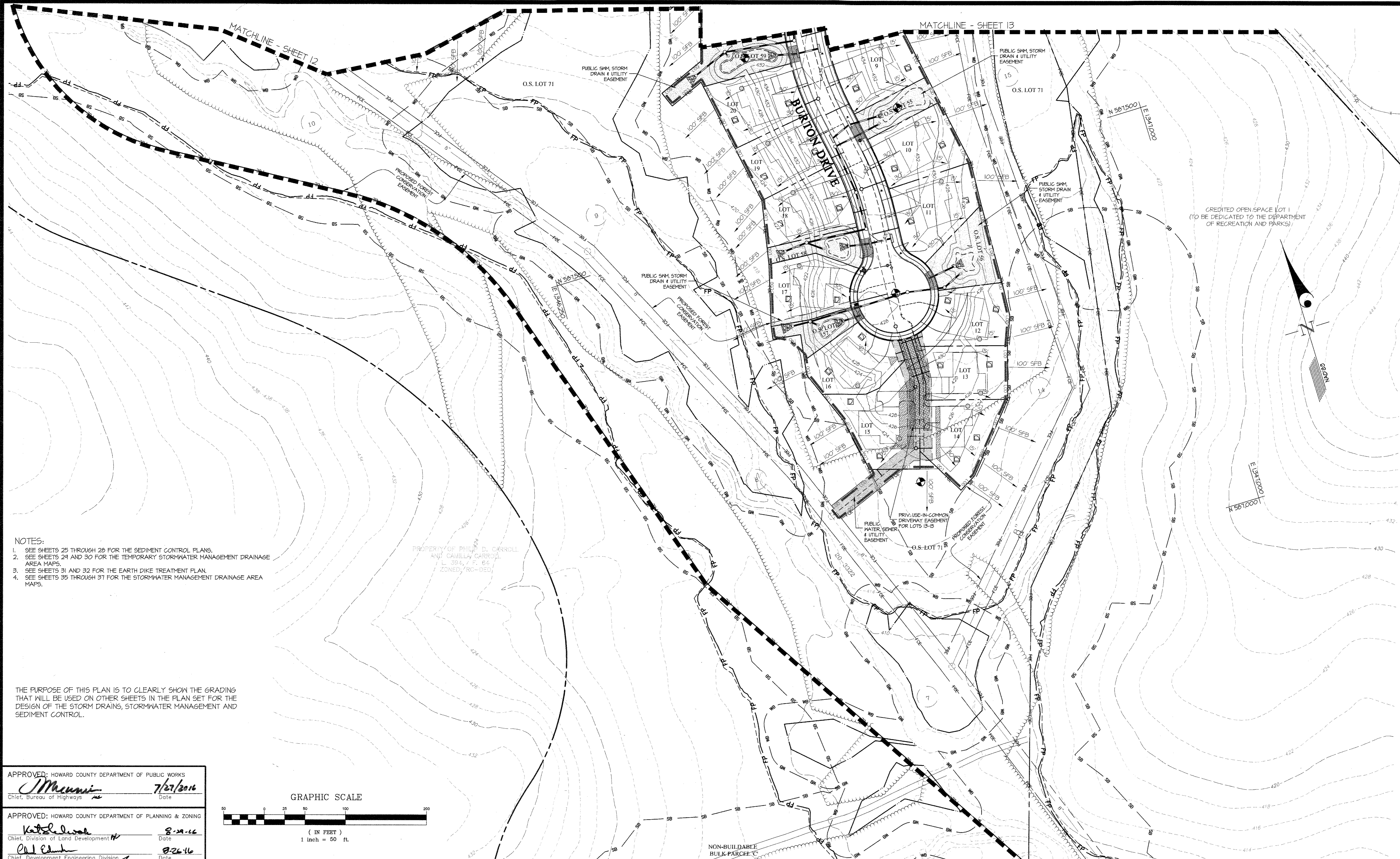
PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12975  
 EXPIRATION DATE: MAY 28, 2018  
 7/14/16 *[Signature]*

**GRADING PLAN**  
**WESTMOUNT LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A AND REVISION TO CREDITED OPEN SPACE LOT 1  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT No. 2

SCALE	ZONING	G. L. W. FILE NO.
1" = 50'	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	13 OF 60

THE PURPOSE OF THIS PLAN IS TO CLEARLY SHOW THE GRADING THAT WILL BE USED ON OTHER SHEETS IN THE PLAN SET FOR THE DESIGN OF THE STORM DRAINS, STORMWATER MANAGEMENT AND SEDIMENT CONTROL.





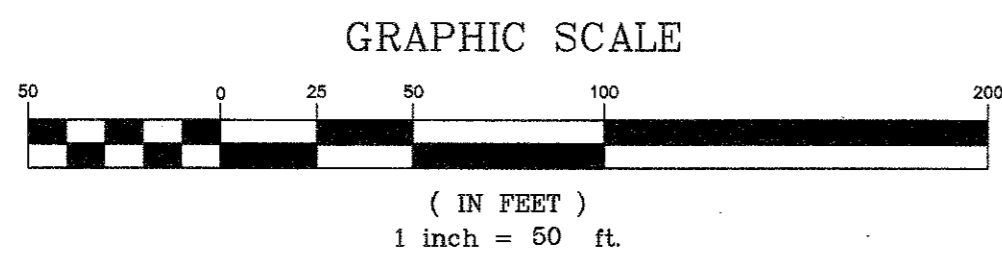
- NOTES:
1. SEE SHEETS 25 THROUGH 28 FOR THE SEDIMENT CONTROL PLANS.
  2. SEE SHEETS 24 AND 30 FOR THE TEMPORARY STORMWATER MANAGEMENT DRAINAGE AREA MAPS.
  3. SEE SHEETS 31 AND 32 FOR THE EARTH DIKE TREATMENT PLAN.
  4. SEE SHEETS 35 THROUGH 37 FOR THE STORMWATER MANAGEMENT DRAINAGE AREA MAPS.

THE PURPOSE OF THIS PLAN IS TO CLEARLY SHOW THE GRADING THAT WILL BE USED ON OTHER SHEETS IN THE PLAN SET FOR THE DESIGN OF THE STORM DRAINS, STORMWATER MANAGEMENT AND SEDIMENT CONTROL.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*J. McManis* 7/27/2016  
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Kathleen Lewis* 8-24-16  
 Chief, Division of Land Development Date

*Paul Edinger* 8-26-16  
 Chief, Development Engineering Division Date



**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN.: CAMILLA CARROLL

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS 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. 19275  
 EXPIRATION DATE: MAY 26, 2018  
 7/14/16 *[Signature]*

GRADING PLAN  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT No. 2

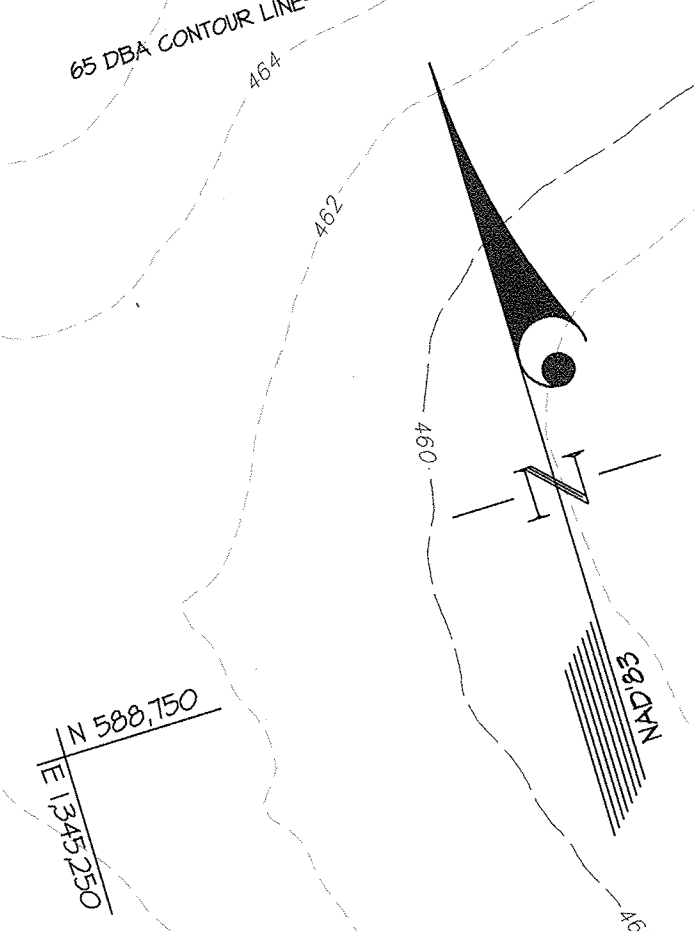
SCALE	ZONING	G. L. W. FILE No.
1" = 50'	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	14 OF 60



**FREDERICK ROAD  
(MD ROUTE 144A)**

MINOR ARTERIAL  
PUBLIC VARIABLE WIDTH R/W  
POSTED SPEED IS 40 MPH

EXISTING 66' TURNPIKE R/W



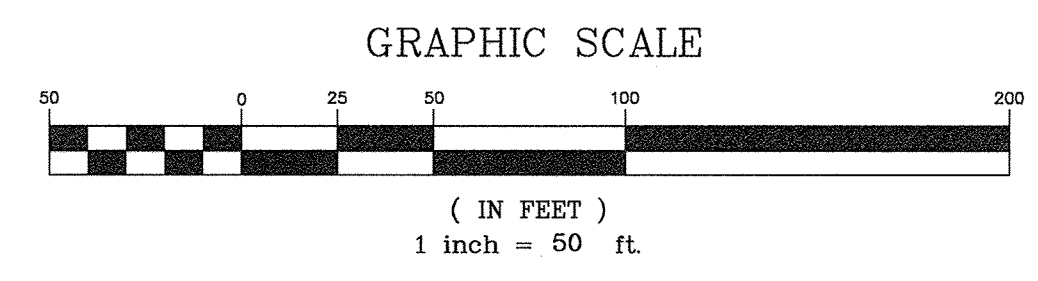
FROM NO.	TO NO.	DIA. (IN) & TYPE OF PIPE	L (ft)
I-10	MH-30	18" HDPE	83
MH-30	MH-24	18" HDPE	121
MH-24	MH-20	18" HDPE	84
RS-20A	MH-20	18" HDPE	22
MH-20	MH-21	18" HDPE	121
MH-21	MH-26	18" HDPE	141
MH-26	RS-25	18" HDPE	34
RS-25	ES-24	18" HDPE	41
I-10	ES-17	18" HDPE	62
ES-17	RS-7	---	---
RS-13	MH-11	15" HDPE	63
MH-11	MH-8	15" HDPE	100
MH-8	RS-7	15" HDPE	52
RS-7	I-6	18" HDPE	132
I-6	MH-5	18" HDPE	71
MH-5	MH-4	18" HDPE	42
MH-4	MH-2	18" HDPE	21
I-16	ES-15	18" HDPE	14
ES-15	RS-3	---	---
RS-3	MH-2	18" HDPE	1
MH-2	ES-1	18" HDPE	64
I-23	MH-21A	15" HDPE	66
I-22	MH-21A	15" HDPE	16
MH-21A	ES-21	15" HDPE	121
ES-21	RS-20	---	---
RS-20	MH-14A	15" HDPE	5
MH-14A	ES-14	15" HDPE	43
I-41	I-40	18" RCCP	151
I-40	I-47	18" RCCP	95
I-47	MH-103	18" RCCP	58
ES-46	RS-45	---	---
I-40	I-84	18" RCCP	164
I-84	I-80A	18" RCCP	64
I-80	I-80A	15" RCCP	81
I-80A	ES-45A	18" RCCP	40
ES-45A	RS-45	---	---
RS-45	ES-43	18" RCCP	56
I-87	EH-87A	33" RCCP	32
MH-102	MH-102	18" RCCP	33
MH-102	ES-96	18" RCCP	47

FOR RIP RAP INFORMATION FOR COUNTY STORM DRAIN, SEE STORM DRAIN PROFILES, SHEETS 21 THROUGH 24.  
FOR RIP RAP INFORMATION FOR STATE STORM DRAIN, SEE STORM DRAIN PROFILES, SHEET 53.  
FOR MICRO-BIORETENTION UNDERDRAIN PIPE LENGTHS, SEE SHEETS 34 THROUGH 42.  
STRUCTURES 9, 10 AND 12 HAVE INTENTIONALLY BEEN OMITTED.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Howard* 7/27/16  
Chief, Bureau of Highways  
Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*K. J. ...* 8-29-16  
Chief, Division of Land Development  
Date

*Chad ...* 8-26-16  
Chief, Development Engineering Division  
Date



Note: Lots 72-80 were created under PN 24141

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20866  
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.
7-27-16	Revised storm drain	gt	DEV.
11-19-16	Added standpipe in Forebay	gt	DEV.
6-14-17	Relocated I-97 & Revised Lot lines numbers	gt	DEV.

PREPARED FOR:  
WESTMOUNT DEVELOPMENT CORPORATION  
3500 MANOR LANE  
ELLCOTT CITY, MARYLAND 21042  
443-367-0422  
ATTN.: CAMILLA CARROLL

PROFESSIONAL CERTIFICATION  
HEREBY CERTIFY THAT THESE PLANS 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. 12975  
EXPIRATION DATE: MAY 28, 2018  
7/11/16 *CLW*

**STORM DRAIN INFORMATION PLAN**  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71 AND NON-BUILDABLE BULK PARCELS B & C**  
A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
ELECTION DISTRICT No. 2

SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	15 OF 60



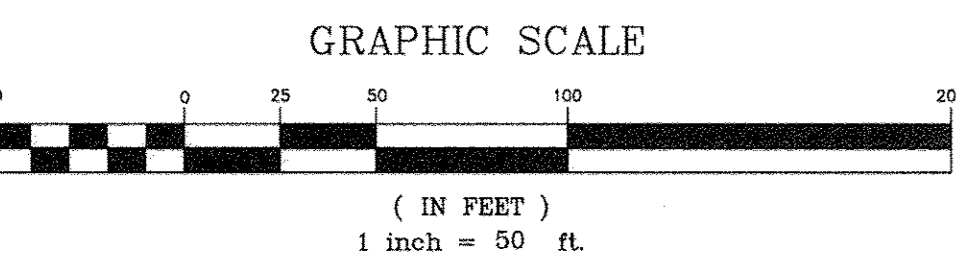
**FREDERICK ROAD  
(MD ROUTE 144A)**  
MINOR ARTERIAL  
PUBLIC VARIABLE WIDTH R/W  
POSTED SPEED IS 40 MPH

FROM NO.	TO NO.	DIA. (IN) & TYPE OF PIPE	L (FT)
I-40	ES-34	15" HDPE	34
ES-34	RS-38	---	---
RS-38	MH-31	15" HDPE	28
MH-31	MH-36	15" HDPE	25
I-45	I-44	15" HDPE	24
I-44	ES-43	15" HDPE	32
ES-43	RS-35	---	---
RS-35	MH-36	15" HDPE	3
MH-36	MH-34	15" HDPE	44
MH-34	MH-33	15" HDPE	110
MH-33	RS-32	15" HDPE	65
I-42	ES-41	15" HDPE	24
ES-41	RS-32	---	---
RS-32	MH-31B	24" HDPE	21
MH-31B	MH-31A	24" HDPE	96
MH-31A	ES-31	24" HDPE	21
I-7A	MH-6A	15" HDPE	35
MH-6A	MH-5A	15" HDPE	46
MH-5A	I-4A	15" HDPE	52
I-4A	ES-3A	15" HDPE	30
ES-3A	RS-2A	---	---
RS-2A	ES-1A	18" HDPE	22
ES-1A	ES-8A	15" HDPE	58
I-50	I-44	15" HDPE	43
I-44	ES-48	15" HDPE	41
ES-48	RS-47	---	---
RS-47	MH-46A	15" HDPE	15
MH-46A	ES-46	15" HDPE	224
I-58	ES-51	15" HDPE	24
ES-51	RS-54	---	---
RS-54	MH-52	15" HDPE	63
I-56	ES-55	15" HDPE	28
ES-55	RS-53	---	---
RS-53	MH-52	15" HDPE	52
MH-52	MH-51	15" HDPE	41
MH-51	MH-54	15" HDPE	167
I-63	I-62	15" HDPE	16
I-62	ES-61	15" HDPE	33
ES-61	RS-60	---	---
RS-60	MH-54	15" HDPE	52
MH-54	MH-64C	18" HDPE	16
MH-64C	MH-64B	18" HDPE	65
I-42	I-41	18" RCCP	62
I-41	MH-101B	18" RCCP	24
MH-101B	ES-101A	18" RCCP	24
ES-101A	RS-101	---	---
RS-101	MH-100A	18" RCCP	74
MH-100A	ES-100	18" RCCP	48

FOR RIP RAP INFORMATION FOR COUNTY STORM DRAIN, SEE STORM DRAIN PROFILES, SHEETS 21 THROUGH 24.

FOR RIP RAP INFORMATION FOR STATE STORM DRAIN, SEE STORM DRAIN PROFILES, SHEET 53.

FOR MICRO-BIORETENTION UNDERDRAIN PIPE LENGTHS, SEE SHEETS 34 THROUGH 42.



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*M. M. M. M.* 7/22/16  
Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*K. S. S. S.* 8-24-16  
Chief, Division of Land Development Date

*D. E. E. E.* 8-26-16  
Chief, Development Engineering Division Date

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3509 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20866  
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

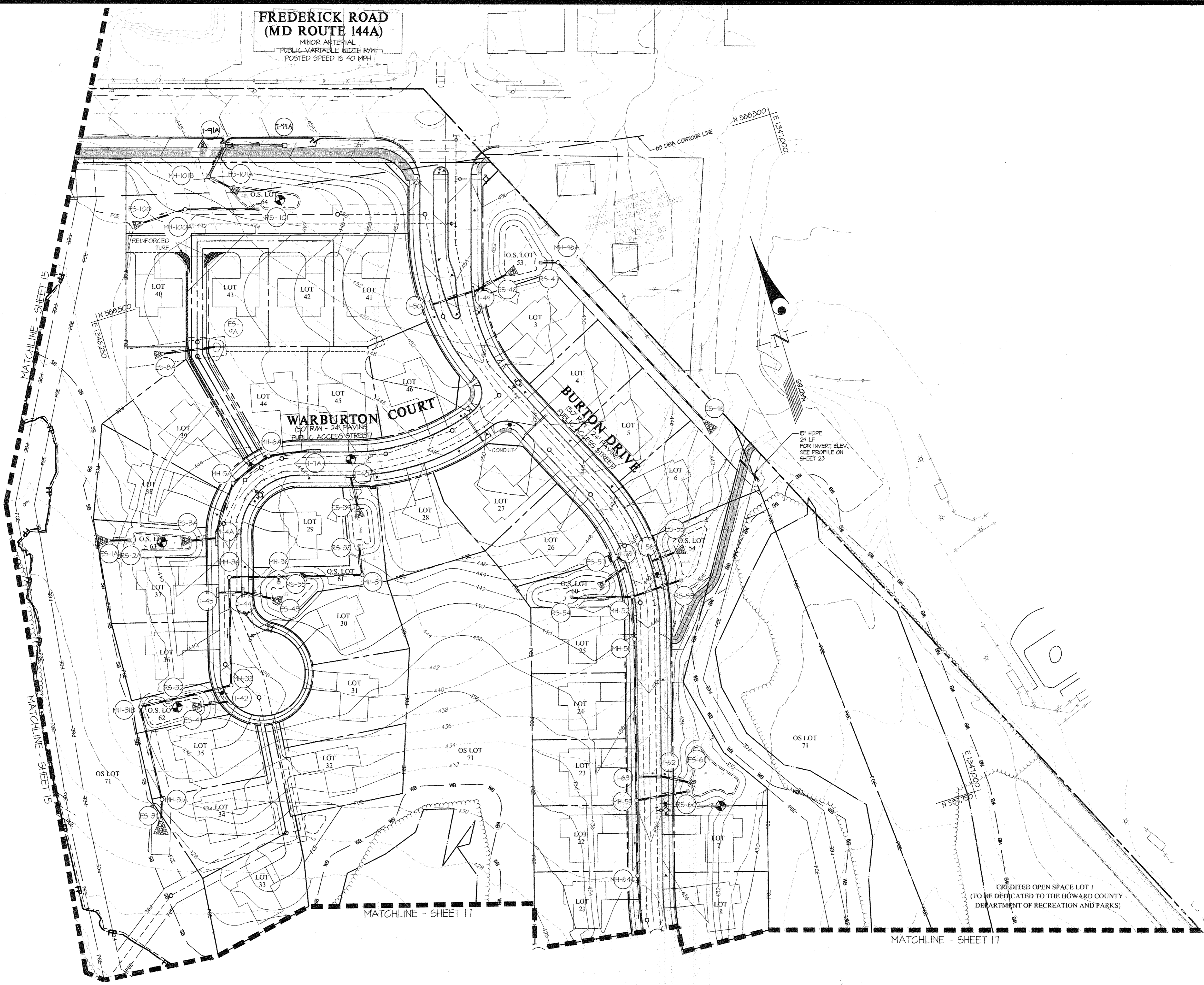
DATE	REVISION	BY	APPR.
1-23-16	Revised storm drain	JD	DEV

PREPARED FOR:  
WESTMOUNT DEVELOPMENT CORPORATION  
3500 MANOR LANE  
ELLCOTT CITY, MARYLAND 21042  
443-367-0422  
ATTN: CAMILLA CARROLL

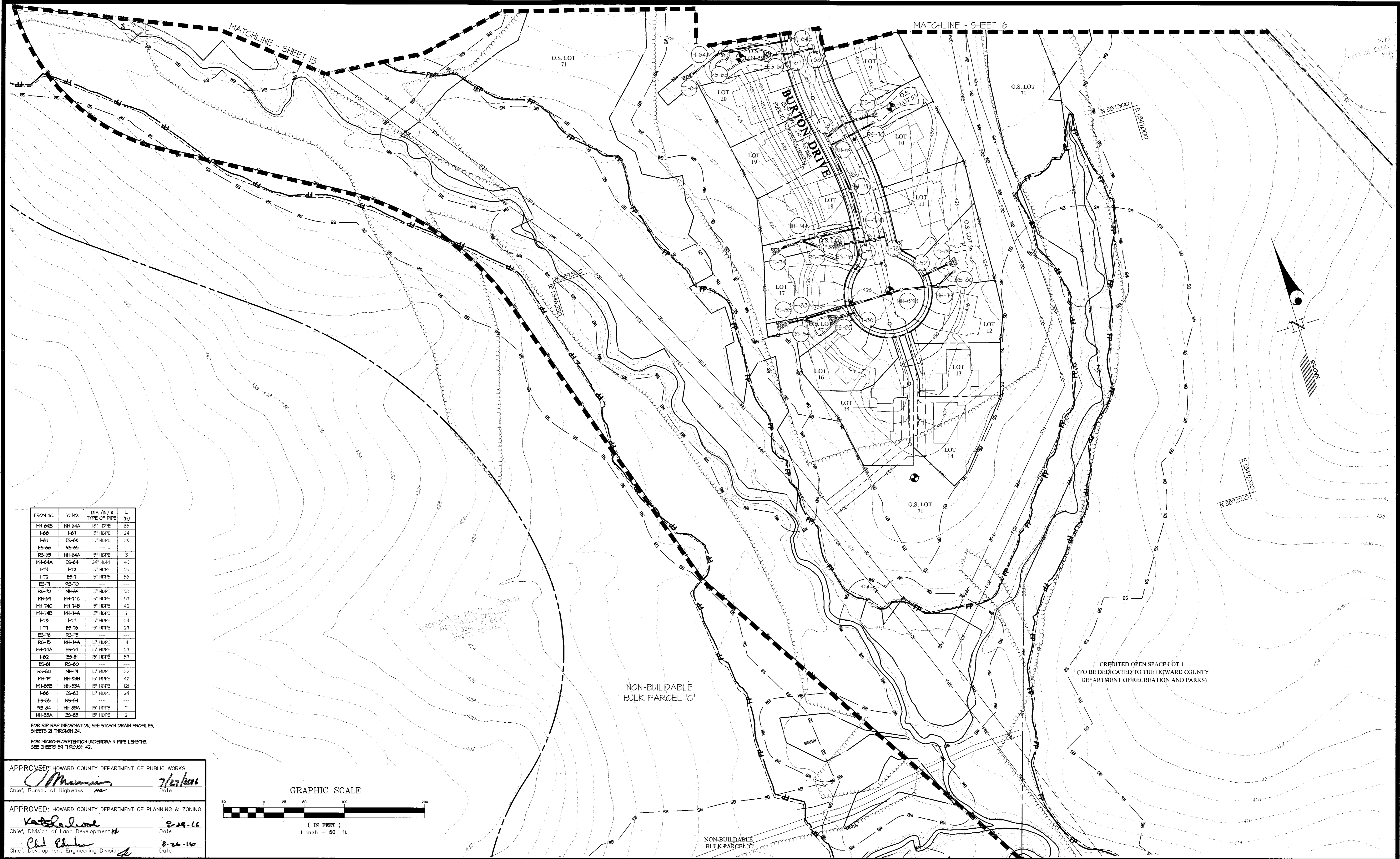
PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12935  
EXPIRATION DATE: MAY 28, 2018  
7/14/16 *CLW*

**STORM DRAIN INFORMATION PLAN**  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71 AND NON-BUILDABLE BULK PARCELS B & C**  
A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
HOWARD COUNTY, MARYLAND  
ELECTION DISTRICT No. 2

SCALE	ZONING	G. L. W. FILE NO.
1"=50'	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	16 OF 60







FROM NO.	TO NO.	DIA. (IN) & TYPE OF PIPE	L (FT)
MH-64B	MH-64A	18" HDPE	83
I-66	I-67	15" HDPE	24
I-67	E5-66	15" HDPE	26
E5-66	RS-65	---	---
RS-65	MH-64A	15" HDPE	3
MH-64A	E5-64	24" HDPE	45
I-73	I-72	15" HDPE	25
I-72	RS-70	15" HDPE	36
RS-70	MH-64	15" HDPE	58
MH-64	MH-74C	15" HDPE	57
MH-74C	MH-74B	15" HDPE	42
MH-74B	MH-74A	15" HDPE	7
I-78	I-77	15" HDPE	24
I-77	E5-76	15" HDPE	21
E5-76	RS-75	---	---
RS-75	MH-74A	15" HDPE	14
MH-74A	E5-74	15" HDPE	21
I-82	E5-81	15" HDPE	37
E5-81	RS-80	---	---
RS-80	MH-74	15" HDPE	22
MH-74	MH-83B	15" HDPE	42
MH-83B	MH-83A	15" HDPE	121
I-86	E5-85	15" HDPE	24
E5-85	RS-84	---	---
RS-84	MH-83A	15" HDPE	7
MH-83A	E5-83	15" HDPE	21

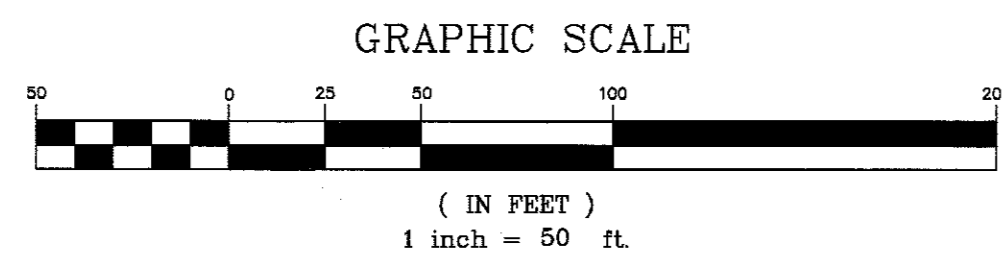
FOR RIP RAP INFORMATION, SEE STORM DRAIN PROFILES, SHEETS 21 THROUGH 24.

FOR MICRO-BIODEGRADABLE UNDERDRAIN PIPE LENGTHS, SEE SHEETS 34 THROUGH 42.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*J. Munnis* 7/27/16  
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Kathleen* 8-29-16  
 Chief, Division of Land Development Date

*Phil* 8-26-16  
 Chief, Development Engineering Division Date

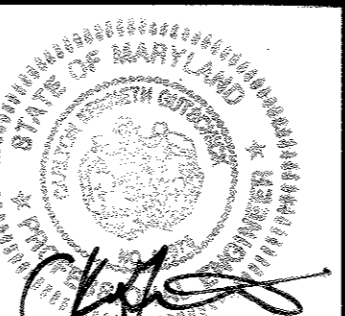


**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3509 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN: CAMILLA CARROLL

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS 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. 12875  
 EXPIRATION DATE: MAY 26, 2018  
 7/14/16 *[Signature]*



**STORM DRAIN INFORMATION PLAN**  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A AND REVISION TO CREDITED OPEN SPACE LOT 1  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT No. 2

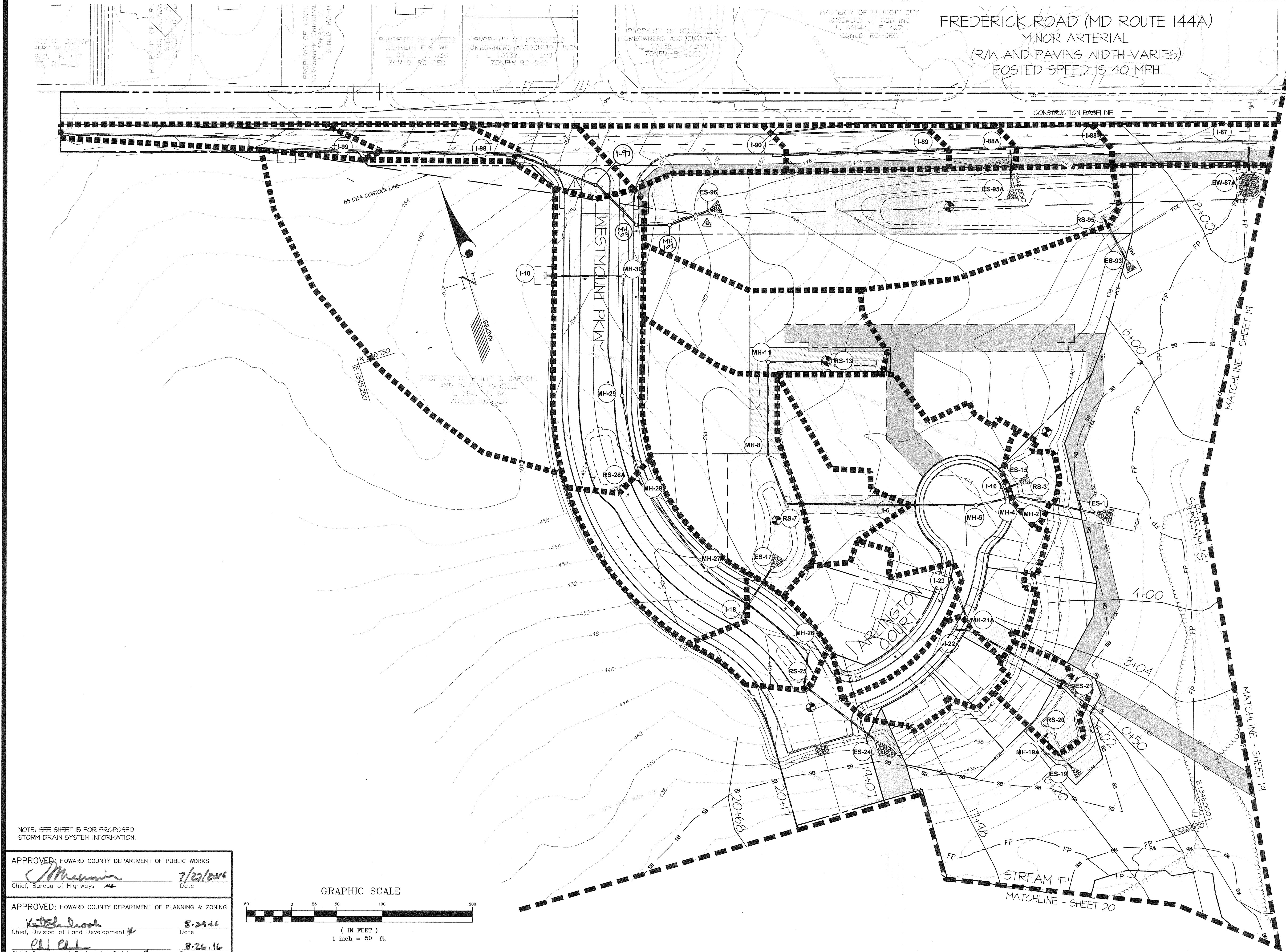
SCALE	ZONING	G. L. W. FILE NO.
1"=50'	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	17 OF 60



FREDERICK ROAD (MD ROUTE 144A)  
MINOR ARTERIAL  
(R/W AND PAVING WIDTH VARIES)  
POSTED SPEED IS 40 MPH

C FACTOR COMPUTATIONS			
STRUCTURE	AREA (AC.)	C	IMPERVIOUS
I-4A	0.45	0.67	6%
I-5	0.25	0.67	6%
I-7A	0.54	0.67	6%
ES-4A	0.20	0.67	6%
I-10	1.12	0.35	18%
I-16	0.41	0.67	6%
I-18	0.45	0.71	76%
I-22	0.25	0.67	6%
I-23	0.42	0.67	6%
I-40	0.25	0.67	6%
I-42	0.54	0.67	6%
I-44	0.22	0.67	6%
I-45	0.07	0.67	6%
I-48	0.16	0.67	6%
I-50	0.22	0.67	6%
I-56	0.46	0.67	6%
I-58	0.25	0.67	6%
I-62	0.13	0.71	76%
I-63	0.30	0.67	6%
I-67	0.28	0.67	6%
I-68	0.22	0.67	6%
I-12	0.15	0.67	6%
I-13	0.16	0.67	6%
I-17	0.18	0.67	6%
I-18	0.18	0.67	6%
I-82	0.22	0.67	6%
I-86	0.26	0.67	6%
I-87	0.32	0.67	6%
I-88	0.11	0.67	6%
I-88A	0.08	0.67	6%
I-89	0.20	0.67	6%
I-40	0.25	0.67	6%
I-41	0.15	0.67	6%
I-42	0.12	0.67	6%
I-47	0.11	0.67	6%
I-88	0.15	0.67	6%
I-49	0.14	0.67	6%
RS-2A	0.10	0.34	16%
RS-3	0.10	0.34	16%
RS-6	0.11	0.34	16%
RS-13	0.54	0.67	6%
RS-20	0.16	0.34	16%
RS-25	0.23	0.71	76%
RS-28A	0.14	0.71	76%
RS-32	0.10	0.34	16%
RS-35	0.15	0.67	6%
RS-38	0.08	0.34	16%
RS-47	0.15	0.34	16%
RS-53	0.04	0.34	16%
RS-54	0.04	0.34	16%
RS-60	0.07	0.34	16%
RS-65	0.07	0.34	16%
RS-10	0.08	0.34	16%
RS-15	0.06	0.34	16%
RS-80	0.05	0.34	16%
RS-84	0.06	0.34	16%
RS-85	1.32	0.34	16%
RS-101	0.31	0.34	16%

FLOODPLAIN ELEVATIONS	
STATION	ELEVATION
STREAM 'G'	
0+50	423.25
3+04	427.43
4+00	424.27
6+00	433.87
8+00	437.71
STREAM 'F'	
15+22	424.18
16+20	424.54
17+48	427.32
19+07	424.36
20+17	431.35
20+68	432.10

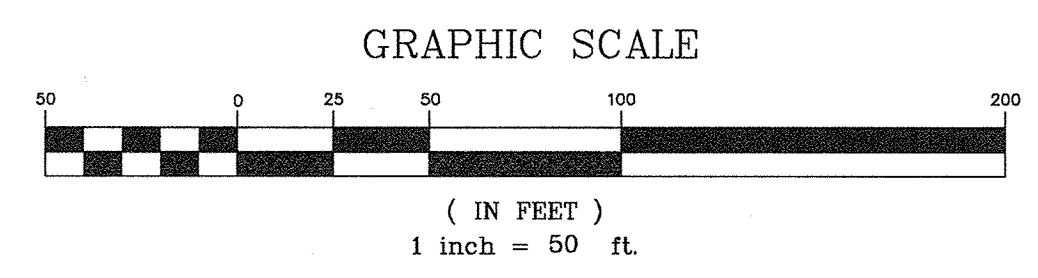


NOTE: SEE SHEET 15 FOR PROPOSED STORM DRAIN SYSTEM INFORMATION.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 7/27/2016  
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*[Signature]* 8-29-16  
 Chief, Division of Land Development Date

*[Signature]* 8-26-16  
 Chief, Development Engineering Division Date



**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3509 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.
7-27-16	Revised storm drain	gt	DEV.
8-14-17	Relocated I-97	gt	DEV.

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN: CAMILLA CARROLL

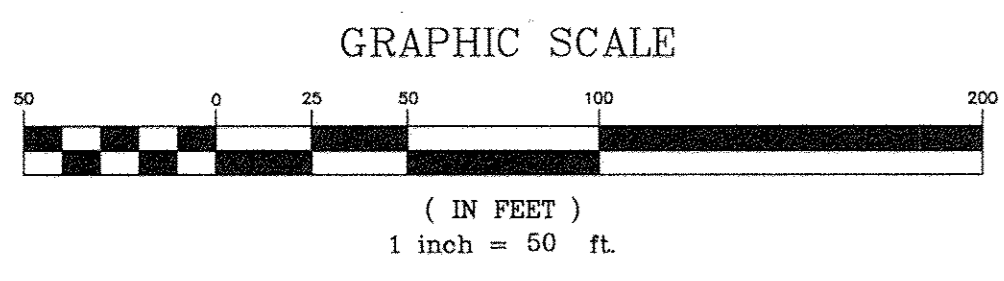
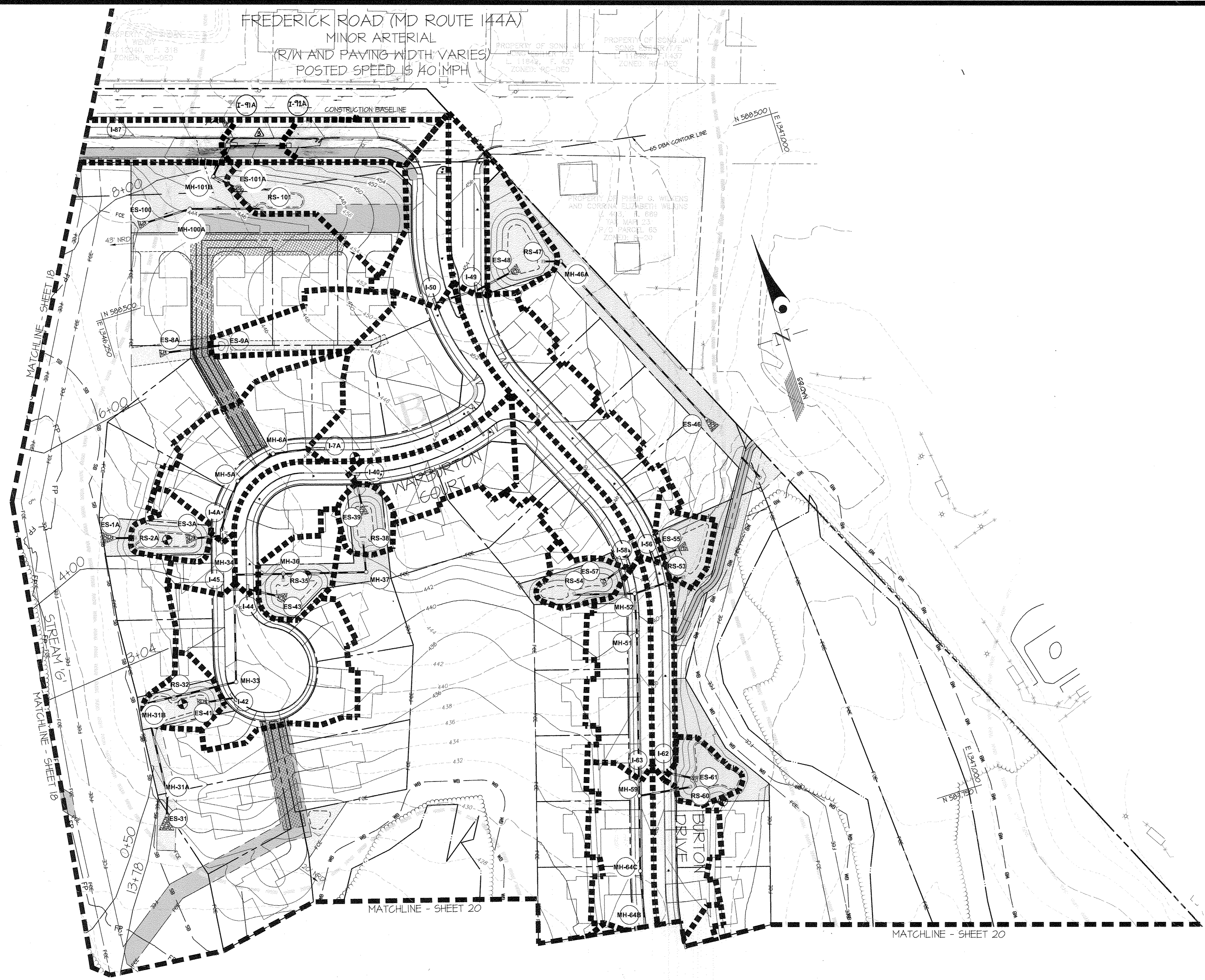
PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 15275  
 EXPIRATION DATE: MAY 26, 2018  
 7/14/16 *[Signature]*

STORM DRAIN DRAINAGE AREA MAP  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
 ELECTION DISTRICT No. 2 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1" = 50'	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	18 OF 60



FLOODPLAIN ELEVATIONS	
STATION	ELEVATION
STREAM '0'	
0+50	423.25
3+04	421.43
4+00	424.21
6+00	433.87
8+00	431.71



NOTE: SEE SHEET 16 FOR PROPOSED STORM DRAIN SYSTEM INFORMATION.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 7/27/2016  
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*[Signature]* 8-29-16  
 Chief, Division of Land Development Date

*[Signature]* 8-26-16  
 Chief, Development Engineering Division Date

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
7/14/16	Revised storm drain drainage divide	JD	Dev

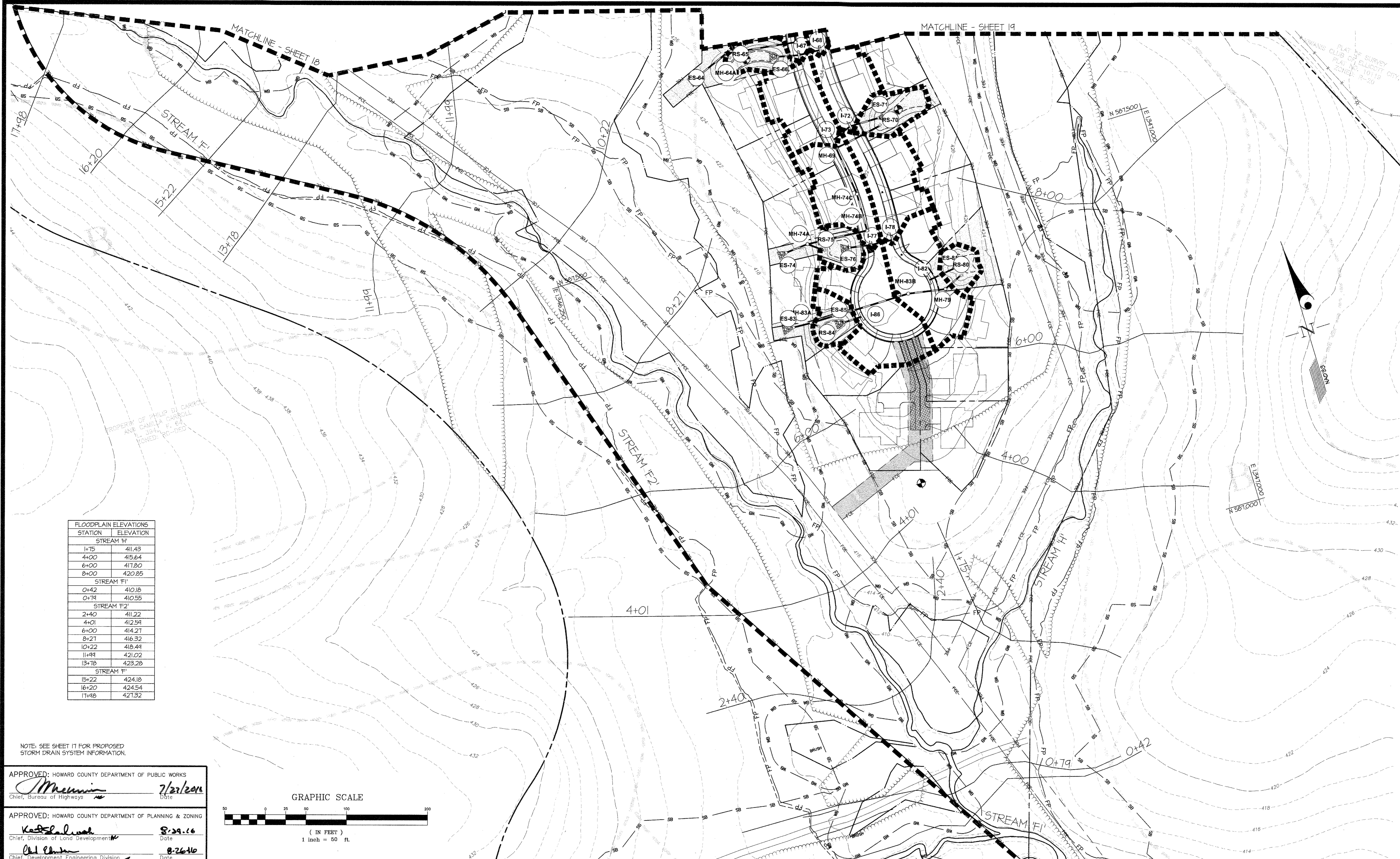
PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN: CAMILLA CARROLL

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS 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. 12975  
 EXPIRATION DATE: MAY 26, 2018  
 7/14/16 *[Signature]*

**STORM DRAIN DRAINAGE AREA MAP**  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
 ELECTION DISTRICT No. 2  
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	19 OF 60





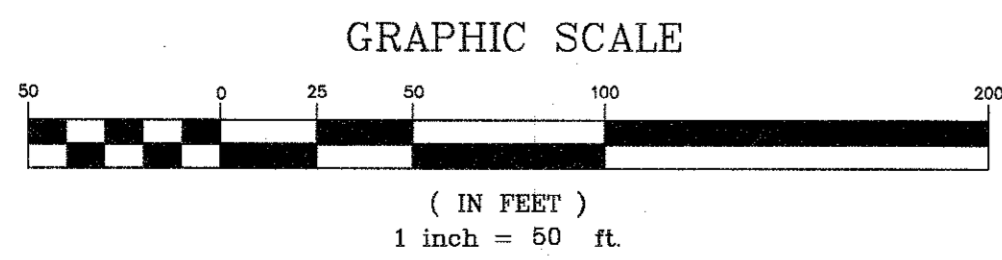
STATION	ELEVATION
STREAM H'	
1+75	411.43
4+00	415.64
6+00	417.80
8+00	420.85
STREAM F1'	
0+42	410.18
0+79	410.55
STREAM F2'	
2+40	411.22
4+01	412.54
6+00	414.27
8+21	416.32
10+22	418.44
11+99	421.02
13+18	423.26
STREAM F'	
15+22	424.18
16+20	424.54
17+98	427.32

NOTE: SEE SHEET 17 FOR PROPOSED STORM DRAIN SYSTEM INFORMATION.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*M. McNeill* 7/23/2011  
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*K. Schell* 8-29-16  
 Chief, Division of Land Development Date

*Ch. Chason* 8-26-16  
 Chief, Development Engineering Division Date



**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK  
 BURTNSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN: CAMILLA CARROLL

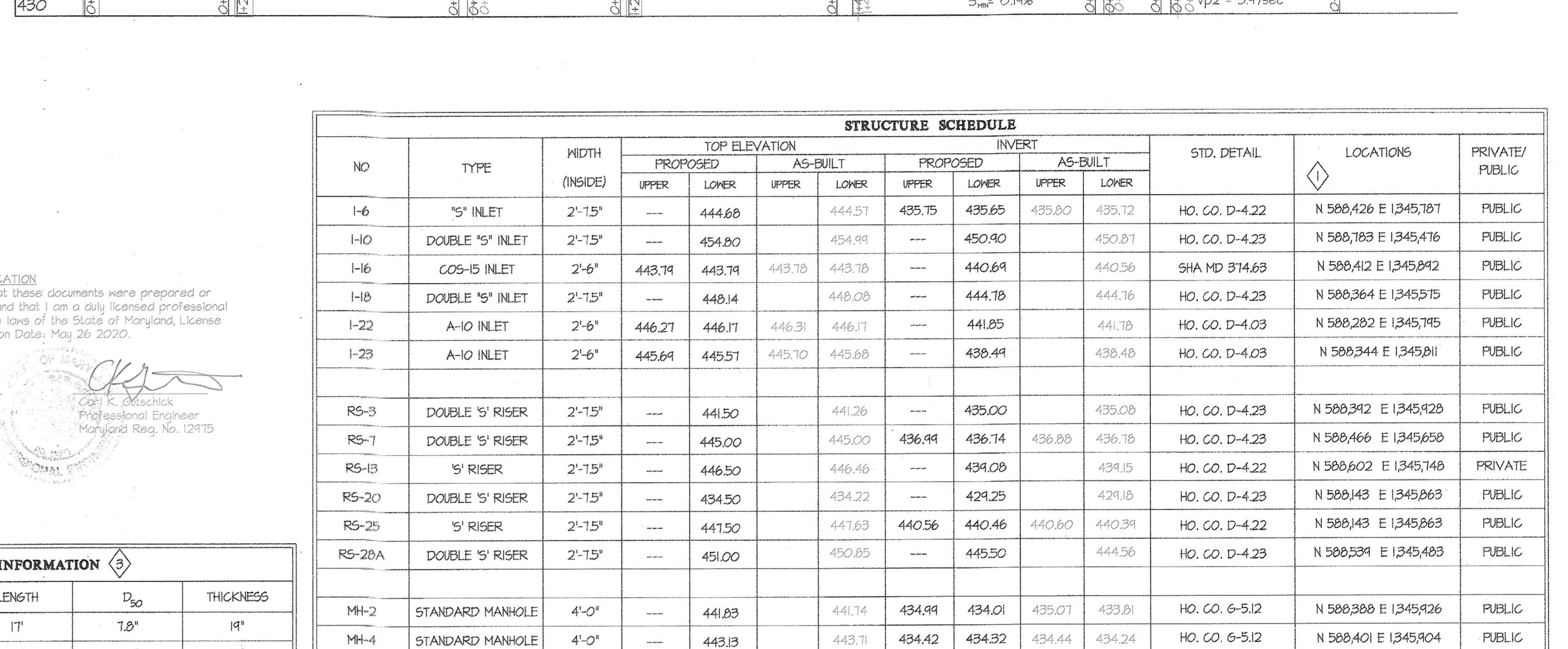
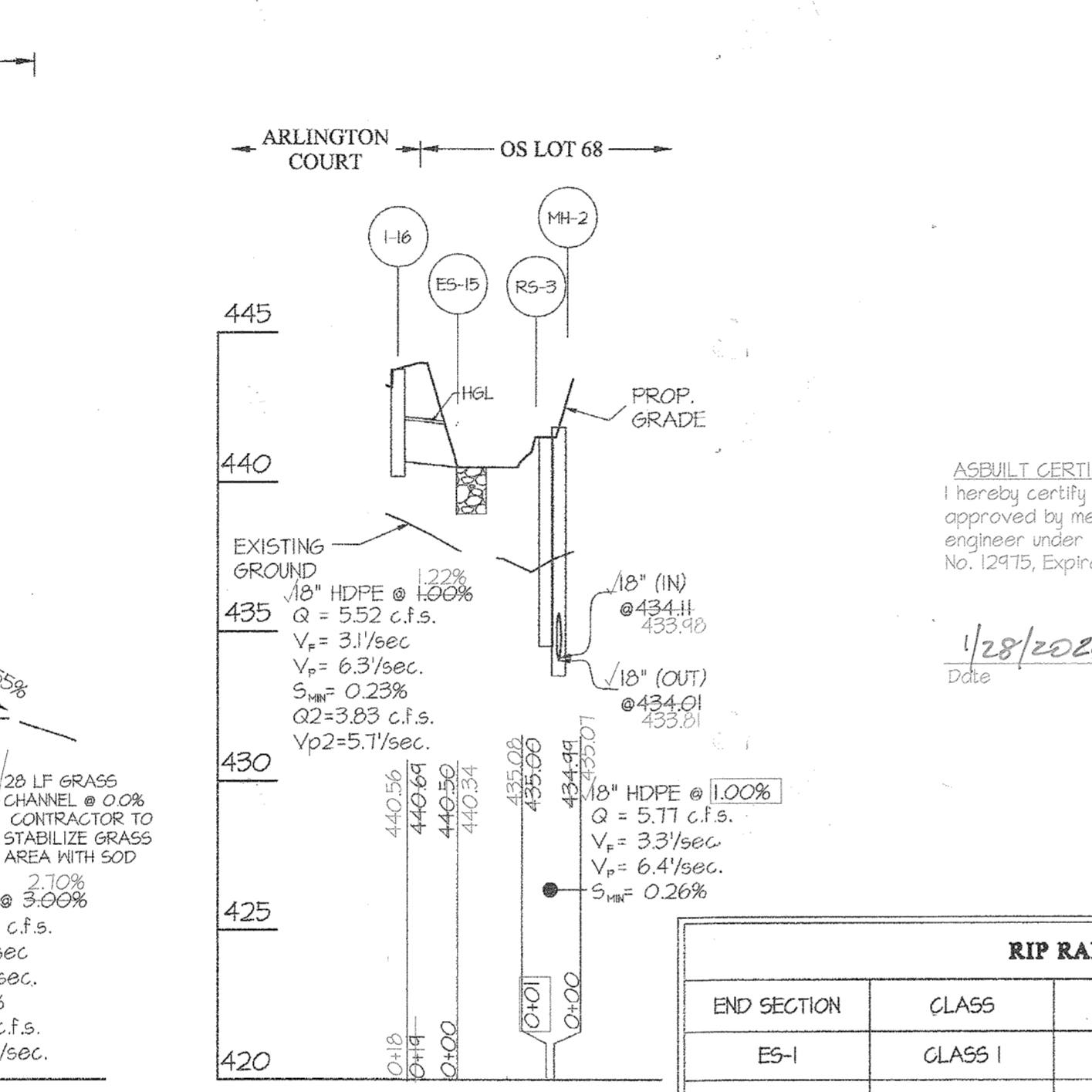
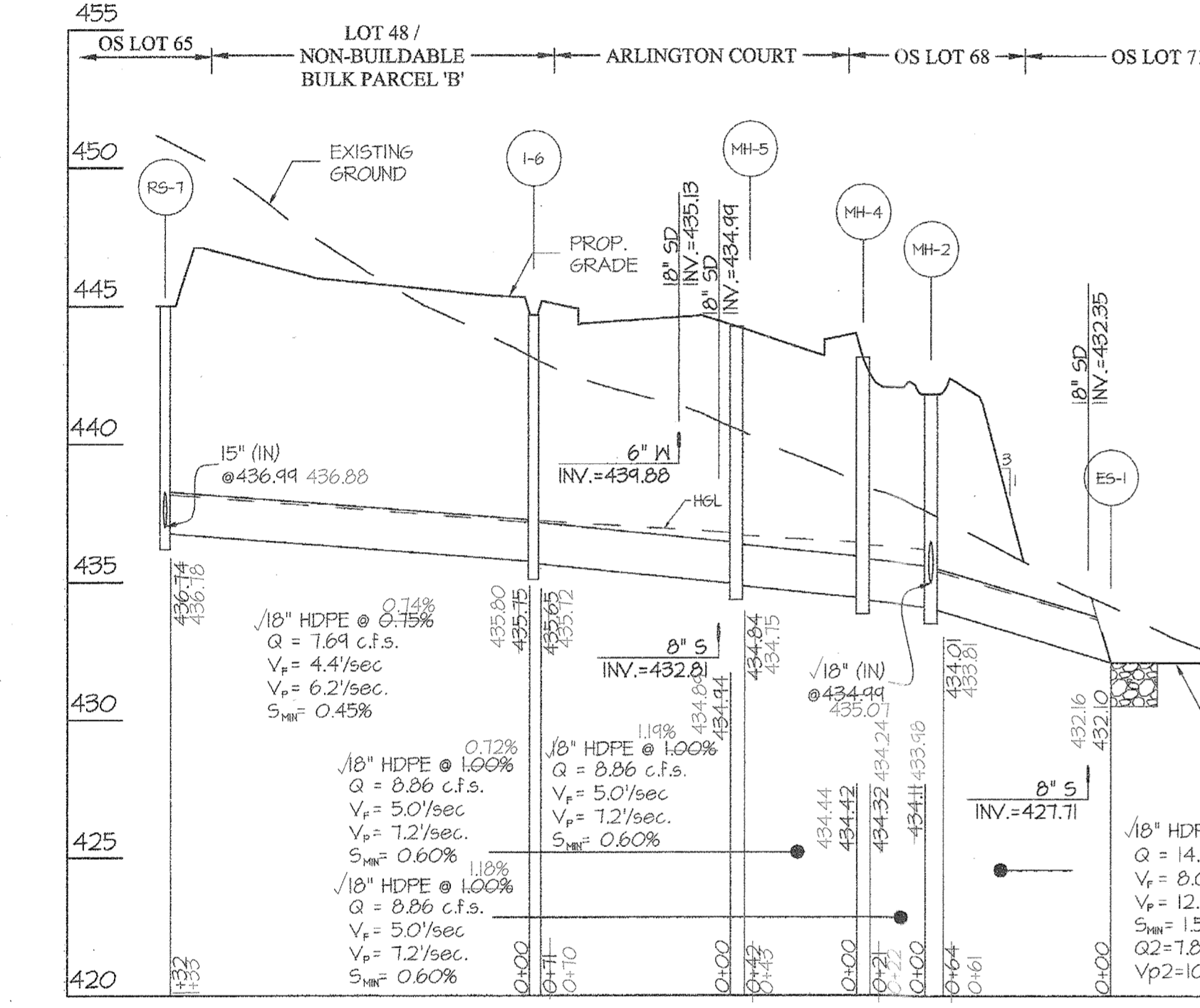
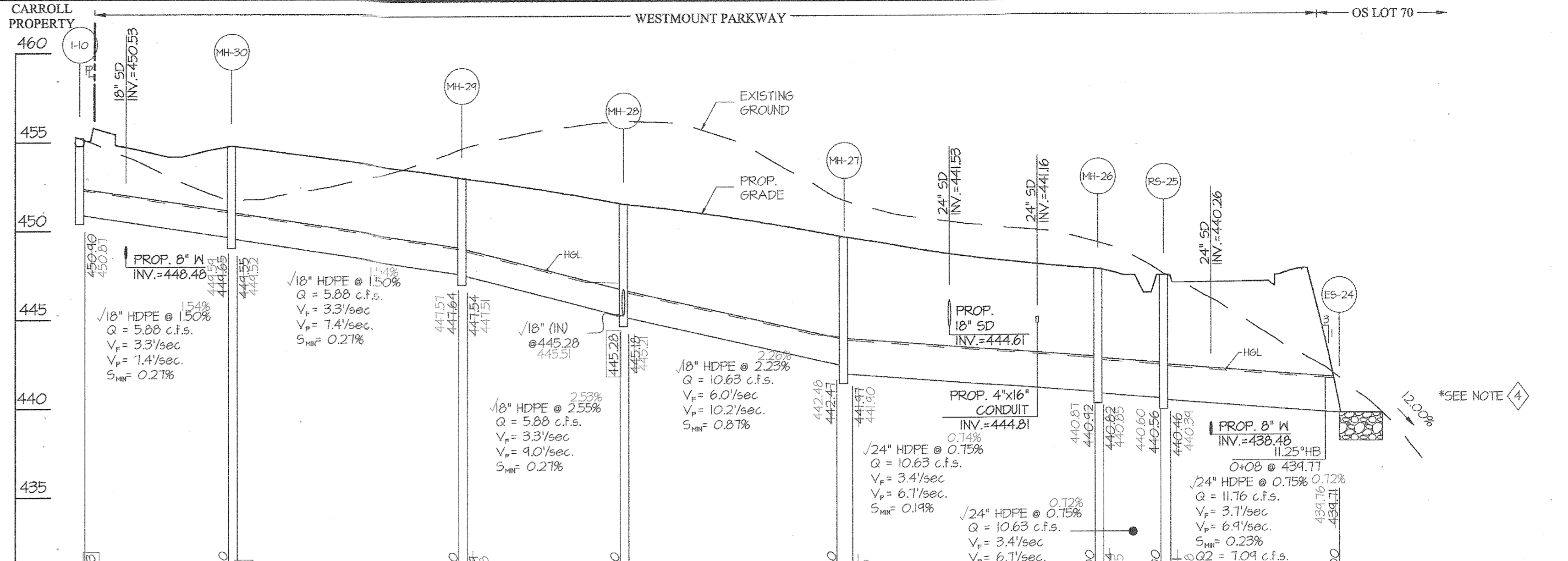
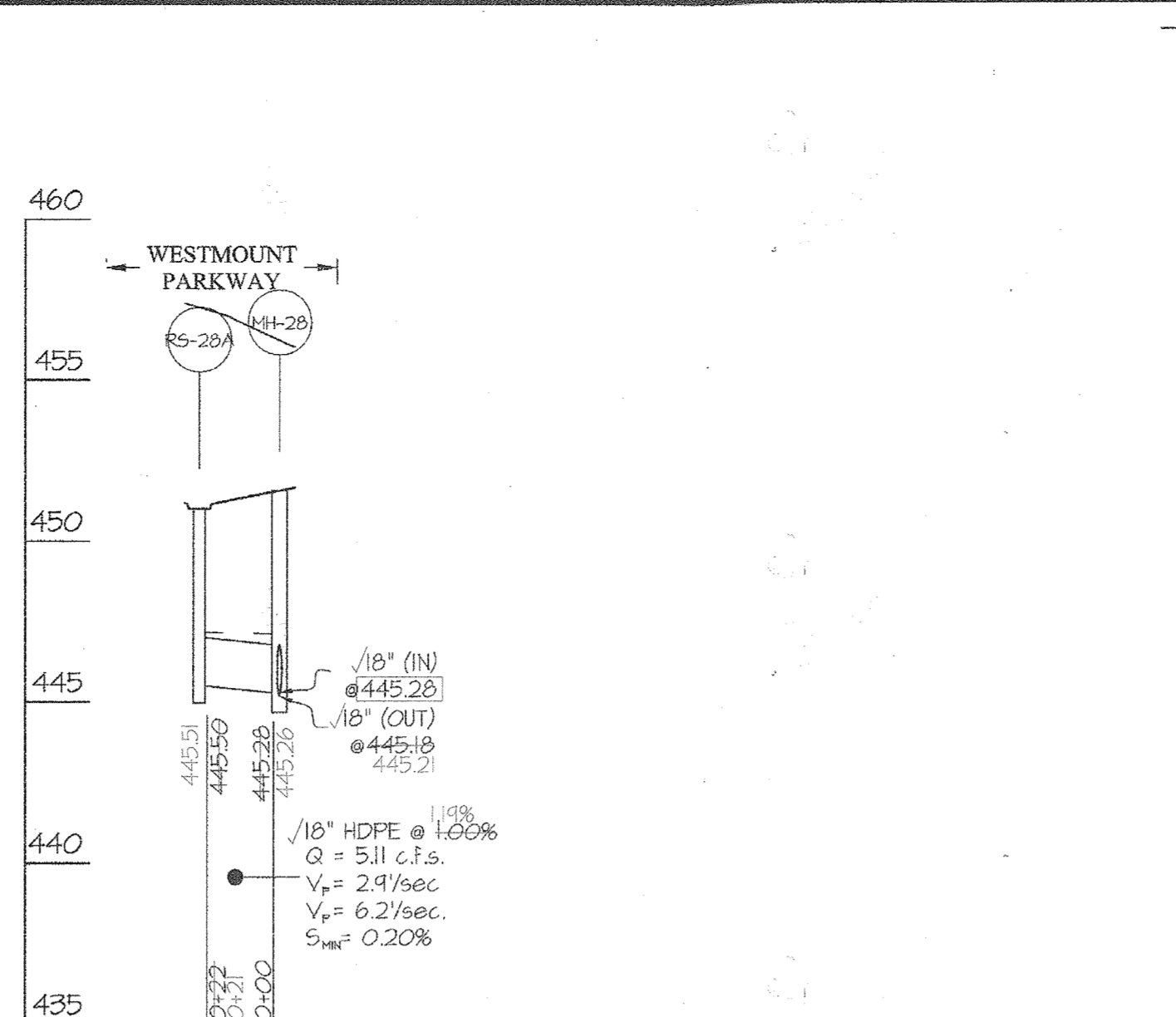
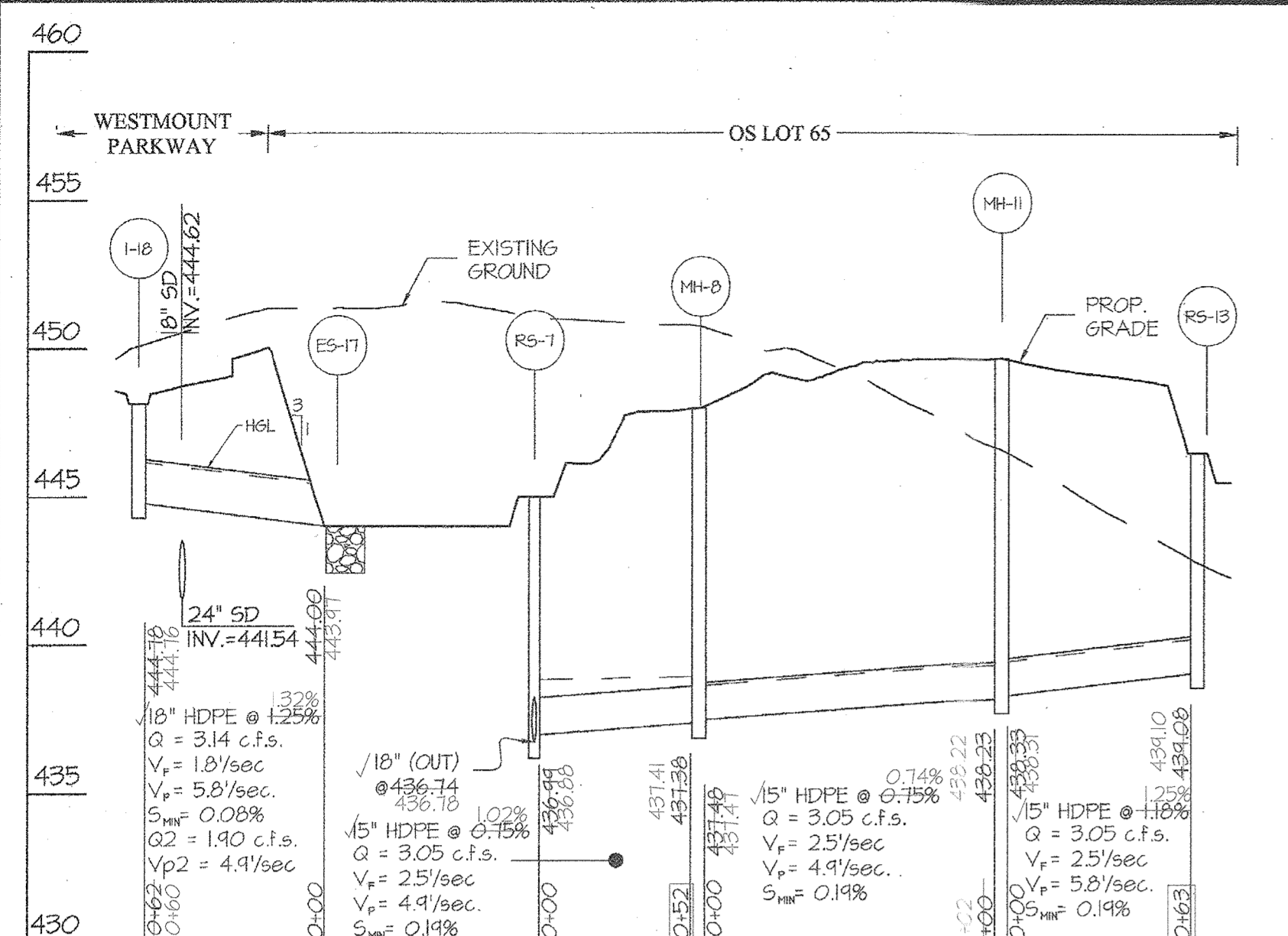
PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12975  
 EXPIRATION DATE: MAY 28, 2018  
 7/14/16 *Chason*



STORM DRAIN DRAINAGE AREA MAP  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT No. 2

SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	20 OF 60





SIZE	TYPE	QUANTITY (LF)	REMARKS
15"	HDPE	2631	
18"	HDPE	1100	
24"	HDPE	455	

THIS PIPE SCHEDULE IS FOR THE STORM DRAIN ON SHEETS 21-24 ONLY. FOR THE PIPE SCHEDULE FOR THE UNDERDRAIN WITHIN MICRO-BIORETENTION FACILITIES SEE SHEET 34. FOR THE PIPE SCHEDULE OF STORM DRAIN WITHIN THE STATE RIGHT-OF-WAY, SEE SHEET 53.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Chief, Bureau of Highways  
 Date: 7/27/2016

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Chief, Division of Land Development  
 Date: 8-24-16

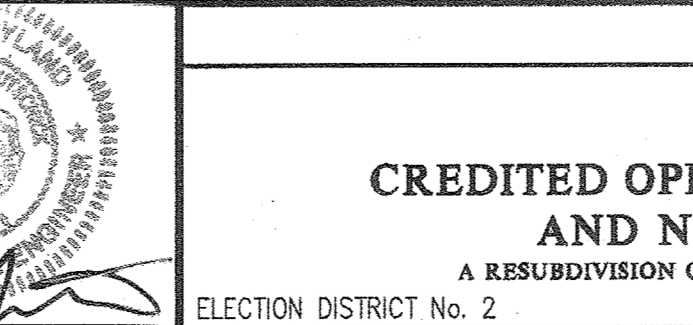
Chief, Development Engineering Division  
 Date: 8-26-16

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20886  
 TEL: 301-421-4024 FAX: 410-880-1820 DC/VA: 301-988-2524 FAX: 301-421-4186

NO.	DATE	REVISION	BY	APPR.

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN: CAMILLA CARROLL

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS 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. 12975  
 EXPIRATION DATE: MAY 26, 2018  
 Date: 7/16/16



**STORM DRAIN PROFILES**  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT No. 2

SCALE	ZONING	G. L. W. FILE NO.
1"=50' (H) 1"=5' (V)	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JAN. 2020 JULY, 2016	23-6&12	21 OF 60

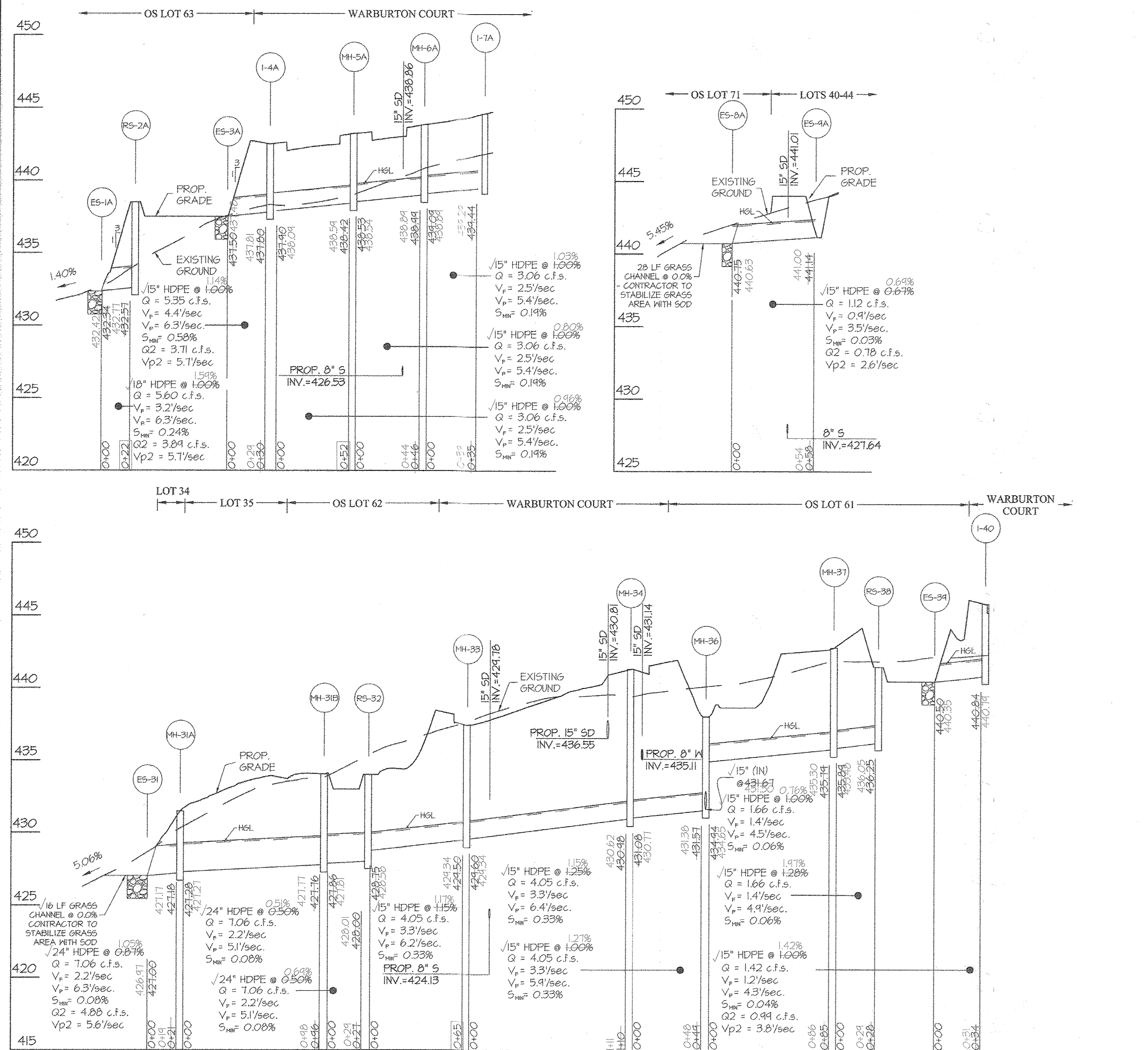
END SECTION	CLASS	LENGTH	D <sub>50</sub>	THICKNESS
ES-1	CLASS I	17'	1.8"	14"
ES-15	CLASS I	10'	4.2"	14"
ES-17	CLASS I	13'	4.8"	14"
ES-19	CLASS I	9'	3.6"	14"
ES-21	CLASS I	15'	6"	14"
ES-24	CLASS I	18'	7.8"	14"

ASBUILT 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. 12975, Expiration Date: May 26, 2020.  
 Date: 1/28/2020  
 Carl K. Gutschick  
 Professional Engineer  
 Maryland Reg. No. 12975

NO	TYPE	WIDTH (INSIDE)	TOP ELEVATION		INVERT		STD. DETAIL	LOCATIONS	PRIVATE/PUBLIC
			PROPOSED	AS-BUILT	PROPOSED	AS-BUILT			
I-6	5" INLET	2'-15"	---	444.68	---	435.75	HO. CO. D-4.22	N 588,426 E 1345,787	PUBLIC
I-10	DOUBLE 5" INLET	2'-15"	---	454.80	---	450.90	HO. CO. D-4.23	N 588,783 E 1345,416	PUBLIC
I-16	COS-15 INLET	2'-6"	443.74	443.74	443.78	443.78	SHA MD 314.63	N 588,412 E 1345,842	PUBLIC
I-18	DOUBLE 5" INLET	2'-15"	---	448.14	---	444.78	HO. CO. D-4.23	N 588,364 E 1345,575	PUBLIC
I-22	A-10 INLET	2'-6"	446.27	446.17	446.31	446.17	HO. CO. D-4.03	N 588,282 E 1345,795	PUBLIC
I-23	A-10 INLET	2'-6"	445.64	445.57	445.70	445.68	HO. CO. D-4.03	N 588,344 E 1345,811	PUBLIC
RS-3	DOUBLE 5" RISER	2'-15"	---	441.50	---	435.00	HO. CO. D-4.23	N 588,342 E 1345,928	PUBLIC
RS-7	DOUBLE 5" RISER	2'-15"	---	445.00	---	436.99	HO. CO. D-4.23	N 588,466 E 1345,658	PUBLIC
RS-13	5" RISER	2'-15"	---	446.50	---	439.08	HO. CO. D-4.22	N 588,602 E 1345,748	PRIVATE
RS-20	DOUBLE 5" RISER	2'-15"	---	434.50	---	429.25	HO. CO. D-4.23	N 588,143 E 1345,863	PUBLIC
RS-25	5" RISER	2'-15"	---	441.50	---	440.56	HO. CO. D-4.22	N 588,143 E 1345,863	PUBLIC
RS-28A	DOUBLE 5" RISER	2'-15"	---	451.00	---	445.50	HO. CO. D-4.23	N 588,539 E 1345,483	PUBLIC
MH-2	STANDARD MANHOLE	4'-0"	---	441.83	441.74	434.99	HO. CO. G-5.12	N 588,388 E 1345,926	PUBLIC
MH-4	STANDARD MANHOLE	4'-0"	---	443.13	443.71	434.42	HO. CO. G-5.12	N 588,401 E 1345,904	PUBLIC
MH-5	STANDARD MANHOLE	4'-0"	---	443.78	444.30	434.94	HO. CO. G-5.12	N 588,404 E 1345,858	PUBLIC
MH-8	STANDARD MANHOLE	4'-0"	---	447.91	448.02	437.48	HO. CO. G-5.12	N 588,522 E 1345,654	PUBLIC
MH-11	STANDARD MANHOLE	4'-0"	---	444.70	446.71	438.33	HO. CO. G-5.12	N 588,621 E 1345,884	PRIVATE
MH-19A	STANDARD MANHOLE	4'-0"	---	433.96	434.25	429.20	HO. CO. G-5.12	N 588,139 E 1345,855	PUBLIC
MH-21A	STANDARD MANHOLE	4'-0"	---	446.51	446.19	441.69	HO. CO. G-5.12	N 588,274 E 1345,914	PUBLIC
MH-26	STANDARD MANHOLE	4'-0"	---	447.85	447.84	440.82	HO. CO. G-5.12	N 588,305 E 1345,634	PUBLIC
MH-27	STANDARD MANHOLE	4'-0"	---	449.64	449.68	442.41	HO. CO. G-5.12	N 588,423 E 1345,552	PUBLIC
MH-28	STANDARD MANHOLE	4'-0"	---	451.57	451.56	445.28	HO. CO. G-5.12	N 588,541 E 1345,509	PUBLIC
MH-24	STANDARD MANHOLE	4'-0"	---	453.06	453.00	447.64	HO. CO. G-5.12	N 588,638 E 1345,594	PUBLIC
MH-30	STANDARD MANHOLE	4'-0"	---	454.84	454.84	449.65	HO. CO. G-5.12	N 588,757 E 1345,558	PUBLIC
ES-1	END SECTION	1'-6"	433.60	---	---	432.10	2	N 588,336 E 1345,983	PUBLIC
ES-15	END SECTION	1'-6"	446.00	---	---	444.50	2	N 588,414 E 1345,913	PUBLIC
ES-17	END SECTION	1'-6"	445.50	---	---	444.00	2	N 588,405 E 1345,624	PUBLIC
ES-19	END SECTION	1'-3"	429.42	---	---	428.67	2	N 588,095 E 1345,878	PUBLIC
ES-21	END SECTION	1'-3"	434.75	---	---	433.50	2	N 588,185 E 1345,848	PUBLIC
ES-24	END SECTION	2'-0"	441.71	---	---	439.71	2	N 588,156 E 1345,682	PUBLIC

COORDINATE POINT GIVEN IS TO THE CENTER OF STRUCTURE FOR INLETS AND TO THE CENTERLINE OF STRUCTURE FOR MANHOLES AND END SECTIONS.  
 CONCRETE OR HDPE END SECTION.  
 SEE SHEET 43 FOR RIP RAP DETAILS.  
 THE CUTFILL HERE IS TEMPORARY AND SET TO PREVENT STREAM BUFFER DISTURBANCE IN THIS AREA DURING PHASE 1. IT WILL BE RELOCATED IN PHASE 2. TO MITIGATE THE EFFECTS OF THE TEMPORARY EROSION GREATER THAN 100% ADDITIONAL 10' OF RIP RAP HAS BEEN PROVIDED.

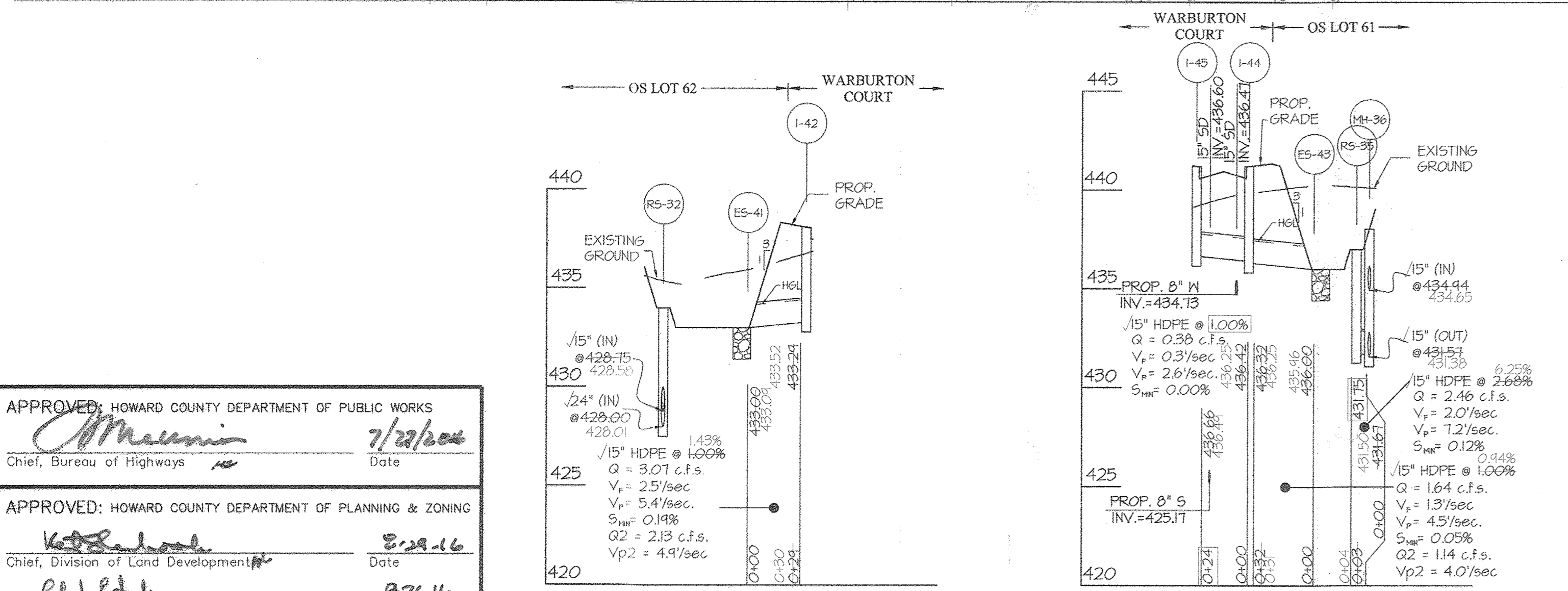




NO	TYPE	WIDTH (INSIDE)	STRUCTURE SCHEDULE								STD. DETAIL	LOCATIONS	PRIVATE/PUBLIC
			TOP ELEVATION				INVERT						
			PROPOSED UPPER	PROPOSED LOWER	AS-BUILT UPPER	AS-BUILT LOWER	PROPOSED UPPER	PROPOSED LOWER	AS-BUILT UPPER	AS-BUILT LOWER			
I-4A	A-15 INLET	2'-6"	442.56	442.31	442.44	442.26	431.90	431.80	438.04	431.81	PG 50 10.1	N 508,245 E 1346,305	PUBLIC
I-7A	A-15 INLET	2'-6"	444.93	444.52	444.00	444.52	---	439.44	---	439.29	PG 50 10.1	N 508,301 E 1346,420	PUBLIC
I-40	A-10 INLET	2'-6"	445.45	445.66	445.96	445.65	---	440.84	---	440.79	HO. CO. D-4.03	N 508,263 E 1346,461	PUBLIC
I-42	A-10 INLET	2'-6"	438.11	438.11	438.13	438.13	---	433.24	---	433.52	HO. CO. D-4.03	N 508,074 E 1346,267	PUBLIC
I-44	A-10 INLET	2'-6"	441.34	441.05	441.30	441.04	---	436.42	---	436.32	HO. CO. D-4.03	N 508,174 E 1346,315	PUBLIC
I-45	A-10 INLET	2'-6"	441.34	441.05	441.24	441.01	---	436.66	---	436.44	HO. CO. D-4.03	N 508,187 E 1346,289	PUBLIC
RS-2A	5' RISER	2'-15"	---	438.50	---	438.41	---	432.57	---	432.77	HO. CO. D-4.22	N 508,260 E 1346,215	PUBLIC
RS-32	5' RISER	2'-15"	---	434.00	---	434.02	---	428.75	---	428.00	HO. CO. D-4.22	N 508,093 E 1346,205	PUBLIC
RS-35	5' RISER	2'-15"	---	437.00	---	437.44	---	431.75	---	431.75	HO. CO. D-4.22	N 508,178 E 1346,354	PUBLIC
RS-38	5' RISER	2'-15"	---	441.50	---	441.56	---	436.25	---	436.05	HO. CO. D-4.22	N 508,190 E 1346,446	PUBLIC
MH-5A	STANDARD MANHOLE	4'-0"	---	443.23	---	443.22	---	438.53	---	438.54	HO. CO. 6-5.12	N 508,293 E 1346,338	PUBLIC
MH-6A	STANDARD MANHOLE	4'-0"	---	443.85	---	443.39	---	439.04	---	438.84	HO. CO. 6-5.12	N 508,310 E 1345,383	PUBLIC
MH-31A	STANDARD MANHOLE	4'-0"	---	431.47	---	431.52	---	427.28	---	427.10	HO. CO. 6-5.12	N 507,945 E 1346,168	PUBLIC
MH-31B	STANDARD MANHOLE	5'-0"	---	434.03	---	433.58	---	427.86	---	427.81	HO. CO. 6-5.13	N 508,095 E 1346,175	PUBLIC
MH-33	STANDARD MANHOLE	4'-0"	---	437.44	---	437.81	---	424.60	---	424.50	HO. CO. 6-5.12	N 508,089 E 1346,274	PUBLIC
MH-34	STANDARD MANHOLE	4'-0"	---	441.34	---	441.38	---	431.08	---	430.98	HO. CO. 6-5.12	N 508,194 E 1346,305	PUBLIC
MH-36	STANDARD MANHOLE	4'-0"	---	438.04	---	437.66	---	434.94	---	434.65	HO. CO. 6-5.12	N 508,184 E 1346,356	PUBLIC
MH-37	STANDARD MANHOLE	4'-0"	---	442.81	---	442.23	---	435.84	---	435.74	HO. CO. 6-5.12	N 508,160 E 1346,442	PUBLIC
ES-1A	END SECTION	1'-6"	433.84	---	---	---	---	432.34	---	432.42	2	N 508,274 E 1346,912	PUBLIC
ES-3A	END SECTION	1'-3"	438.75	---	---	---	---	437.50	---	437.48	2	N 508,248 E 1346,276	PUBLIC
ES-8A	END SECTION	1'-3"	442.00	---	---	---	---	440.75	---	440.63	2	N 508,446 E 1346,305	PRIVATE
ES-9A	END SECTION	2'-0"	442.37	---	---	---	---	441.14	---	441.00	2	N 508,436 E 1346,363	PRIVATE
ES-31	END SECTION	2'-0"	424.00	---	---	---	---	427.00	---	426.97	2	N 507,973 E 1346,161	PUBLIC
ES-34	END SECTION	1'-3"	441.75	---	---	---	---	440.50	---	440.35	2	N 508,228 E 1346,458	PUBLIC
ES-41	END SECTION	1'-3"	434.25	---	---	---	---	433.00	---	433.04	2	N 508,078 E 1346,237	PUBLIC
ES-43	END SECTION	1'-3"	437.25	---	---	---	---	436.00	---	435.96	2	N 508,163 E 1346,344	PUBLIC

- 1 COORDINATE POINT GIVEN IS TO THE CENTER OF STRUCTURE FOR INLETS AND TO THE CENTERLINE OF STRUCTURE FOR MANHOLES AND END SECTIONS.
- 2 CONCRETE OR HDPE END SECTION.
- 3 SEE SHEET 43 FOR RIP RAP DETAILS.

RIP RAP INFORMATION				
END SECTION	CLASS	LENGTH	D <sub>50</sub>	THICKNESS
ES-1A	CLASS I	10'	4.2"	19"
ES-3A	CLASS I	4'	3.6"	19"
ES-8A	CLASS I	7'	3"	19"
ES-31	CLASS I	14'	5.4"	19"
ES-34	CLASS I	4'	3.6"	19"
ES-41	CLASS I	4'	3.6"	19"
ES-43	CLASS I	4'	3.6"	19"



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Chief, Bureau of Highways  
 Date: 7/22/2020

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Chief, Division of Land Development  
 Date: 8-24-16

Chief, Development Engineering Division  
 Date: 8-26-16

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONTOWN, MARYLAND 20866  
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4188

DATE	REVISION	BY	APP'R.
04.17.17	changed cog-15 inlets to A-15 inlets	gt	DEV

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN: CAMILLA CARROLL

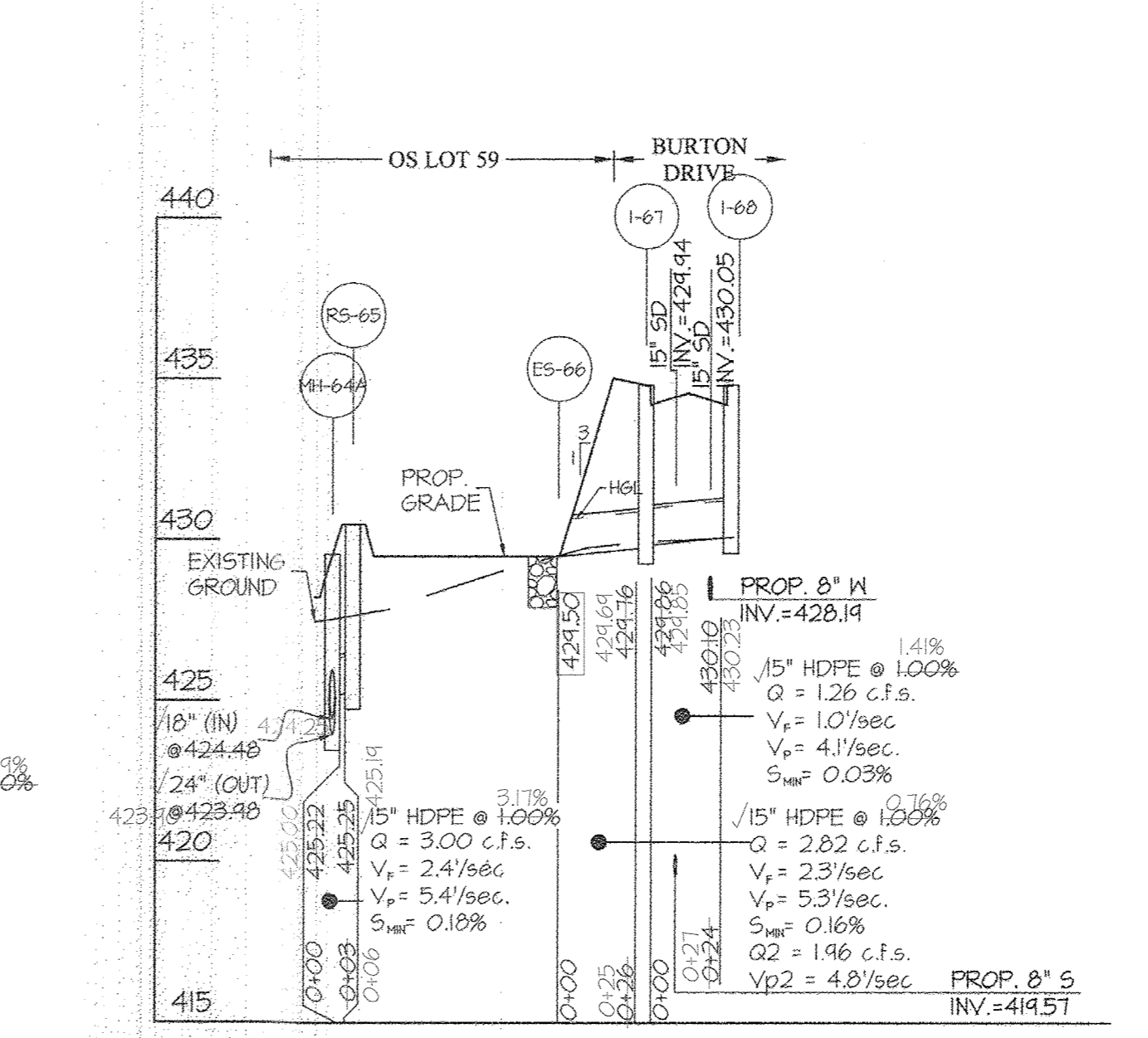
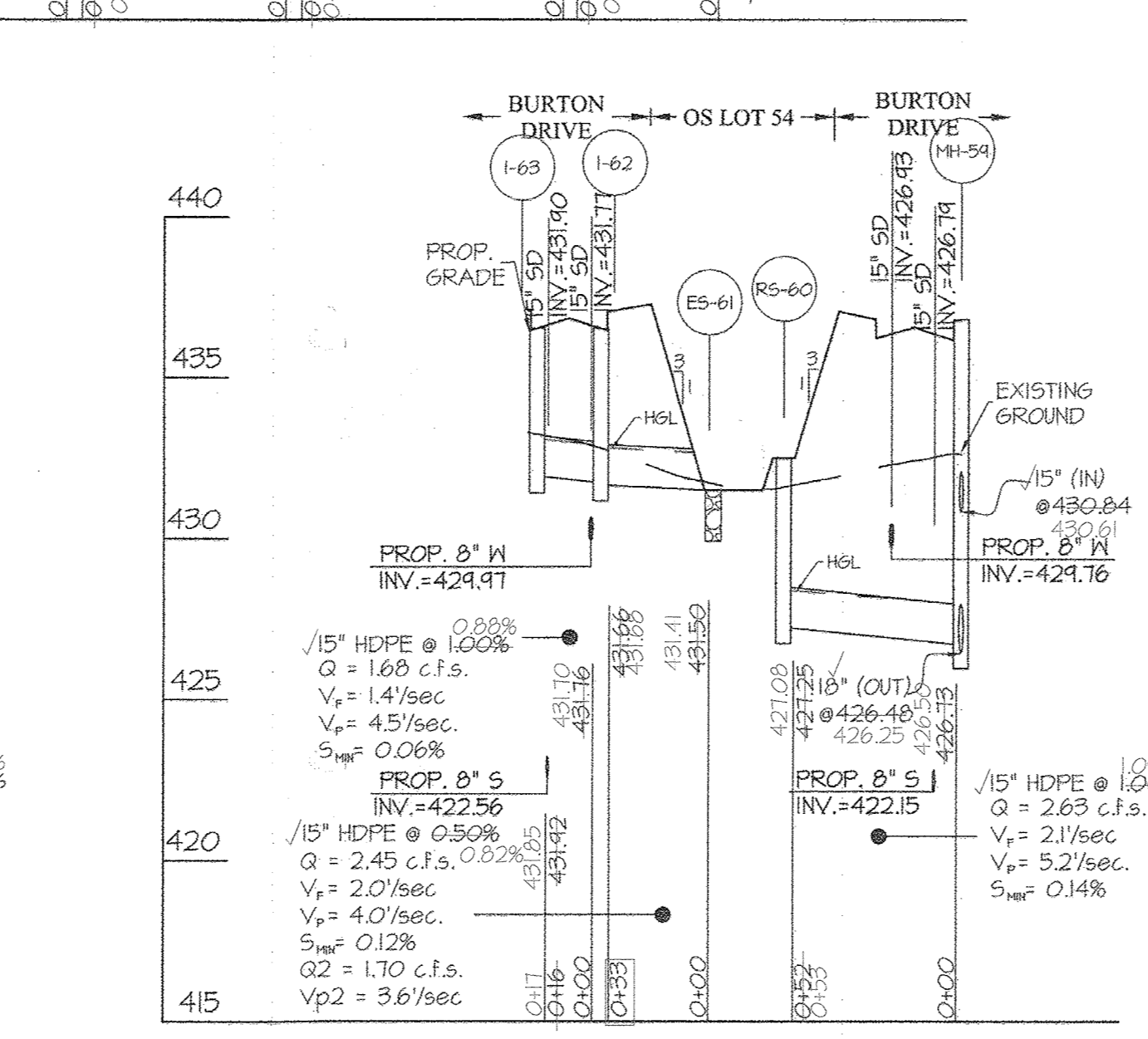
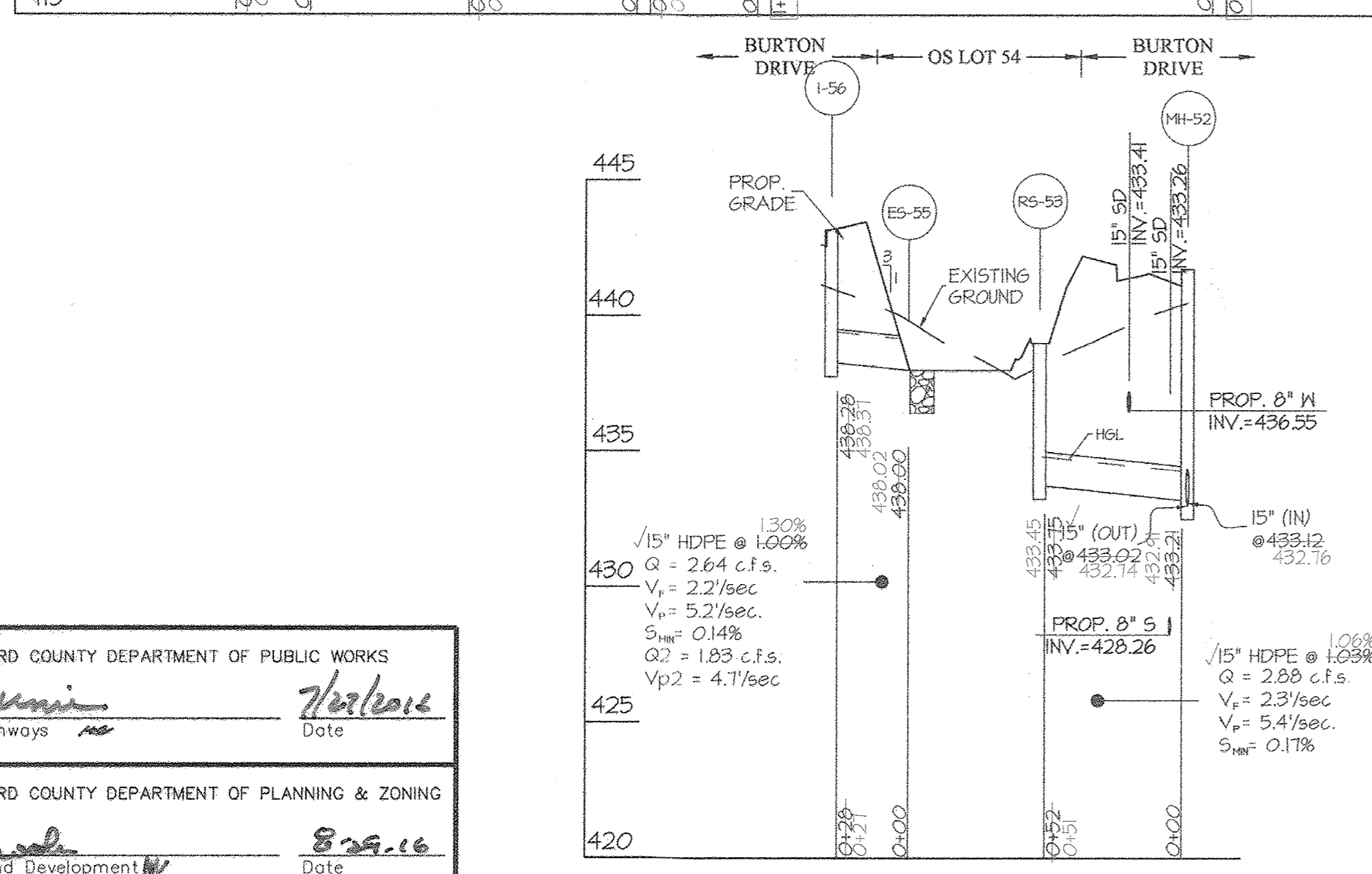
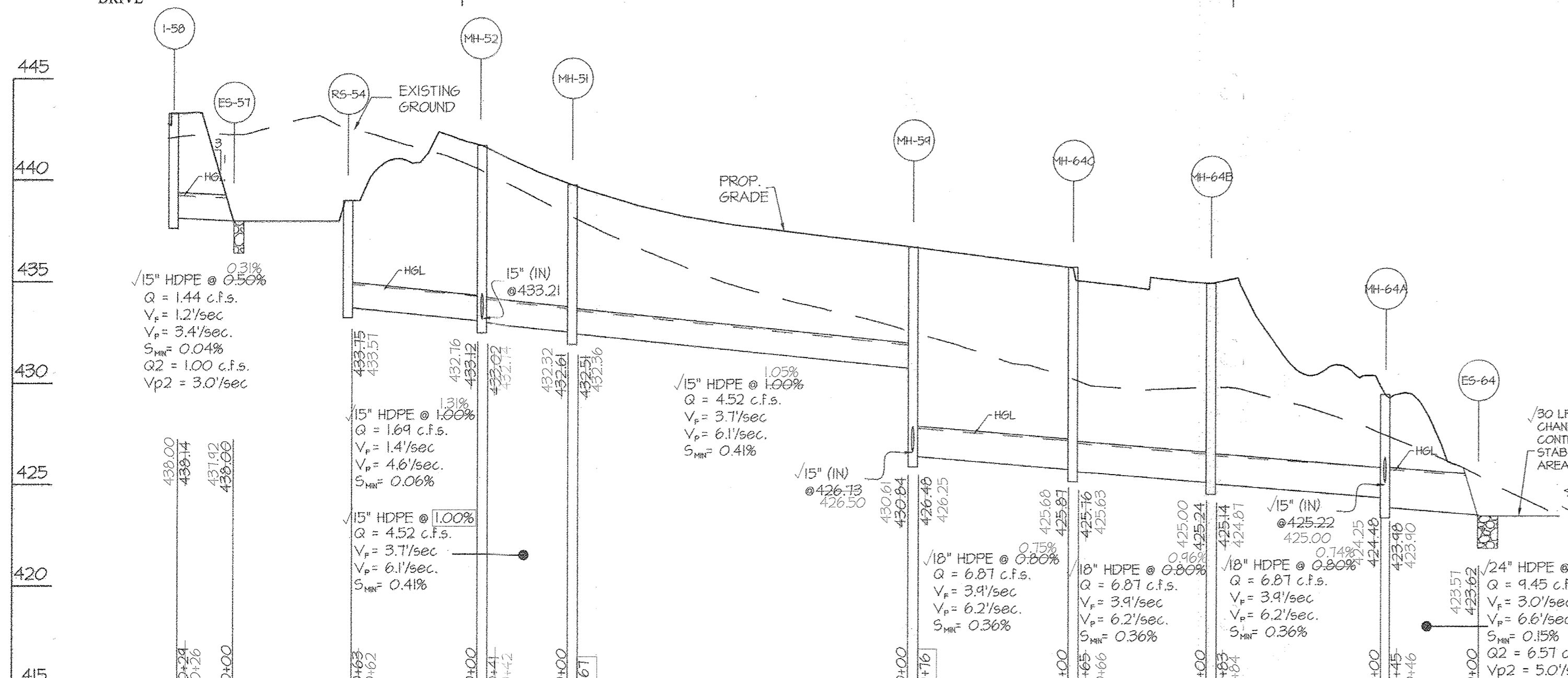
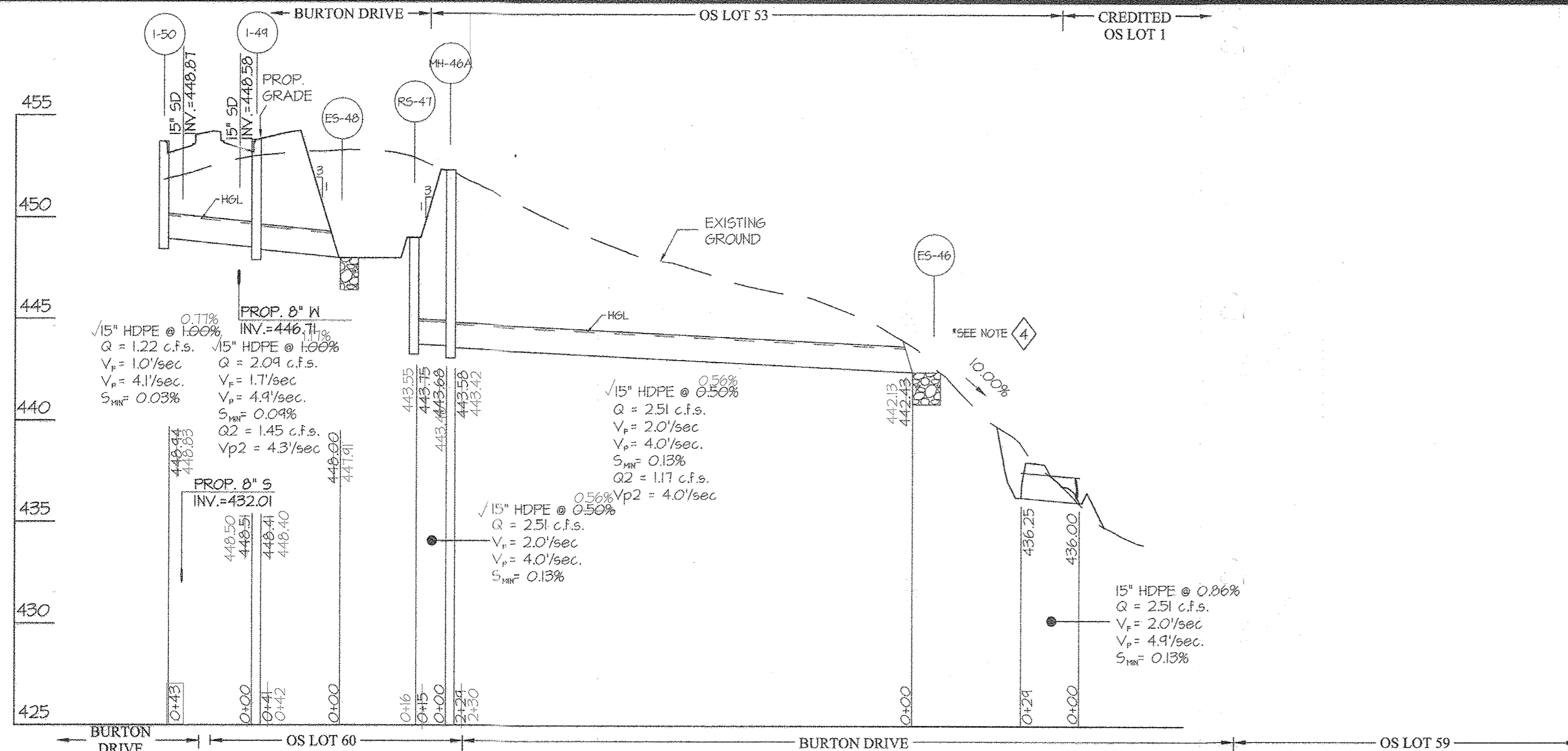
PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12975  
 EXPIRATION DATE: MAY 28, 2018  
 Date: 7/14/16  
 Signature: [Signature]

**ASBUILTS**  
 STORM DRAIN PROFILES  
**WESTMOUNT - PHASE I**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A AND REVISION TO CREDITED OPEN SPACE LOT 1  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT No. 2

SCALE	ZONING	G. L. W. FILE NO.
1"=50' (H) 1"=5' (V)	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JAN 2020 JULY, 2016	23-6&12	22 OF 60

ASBUILT 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. 12975, Expiration Date: May 26 2020.  
 Date: 1/28/2020  
 Signature: [Signature]  
 Professional Engineer  
 Maryland Reg. No. 12975





NO	TYPE	WIDTH (INSIDE)	TOP ELEVATION				INVERT				STD. DETAIL	LOCATIONS	PRIVATE/PUBLIC
			PROPOSED		AS-BUILT		PROPOSED		AS-BUILT				
			UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER			
I-11	A-10 INLET	2'-6"	453.05	453.65	453.84	453.70	448.51	448.41	448.50	448.40	HO. CO. D-4.03	N 588,412 E 1346,643	PUBLIC
I-50	A-10 INLET	2'-6"	453.71	453.50	453.69	453.51	---	448.44	---	448.83	HO. CO. D-4.03	N 588,412 E 1346,646	PUBLIC
I-56	A-15 INLET	2'-6"	443.51	442.81	443.41	442.86	---	438.28	---	438.31	PG 910 1.01	N 588,086 E 1346,741	PUBLIC
I-58	A-10 INLET	2'-6"	443.54	443.00	443.55	443.03	---	438.14	---	438.31	HO. CO. D-4.03	N 588,085 E 1346,714	PUBLIC
I-62	5' INLET	2'-7.5"	431.07	431.04	431.04	431.03	431.76	431.66	431.70	431.68	HO. CO. D-4.22	N 587,863 E 1346,683	PUBLIC
I-63	5' INLET	2'-7.5"	431.07	431.04	431.04	431.03	---	431.92	---	431.85	HO. CO. D-4.22	N 587,864 E 1346,664	PUBLIC
I-61	A-10 INLET	2'-6"	434.88	434.74	434.92	434.73	429.86	429.76	429.85	429.84	HO. CO. D-4.03	N 587,866 E 1346,616	PUBLIC
I-68	A-10 INLET	2'-6"	434.88	434.74	434.99	434.76	---	430.10	---	430.23	HO. CO. D-4.03	N 587,864 E 1346,642	PUBLIC
R5-47	5' RISER	2'-7.5"	---	444.00	---	448.96	---	443.75	---	443.59	HO. CO. D-4.22	N 588,421 E 1346,721	PUBLIC
R5-53	5' RISER	2'-7.5"	---	434.00	---	438.92	---	438.75	---	438.45	HO. CO. D-4.22	N 588,056 E 1346,768	PUBLIC
R5-54	5' RISER	2'-7.5"	---	434.00	---	439.04	---	438.75	---	438.51	HO. CO. D-4.22	N 588,078 E 1346,644	PUBLIC
R5-60	5' RISER	2'-7.5"	---	432.50	---	432.42	---	427.25	---	427.08	HO. CO. D-4.22	N 587,894 E 1346,708	PUBLIC
R5-65	5' RISER	2'-7.5"	---	430.50	---	430.34	---	425.25	---	425.19	HO. CO. D-4.22	N 587,708 E 1346,533	PUBLIC
MH-46A	STANDARD MANHOLE	4'-0"	---	452.32	---	451.88	443.68	443.58	443.46	443.42	HO. CO. 6-5.12	N 588,415 E 1346,738	PUBLIC
MH-51	STANDARD MANHOLE	4'-0"	---	434.18	---	434.99	432.61	432.51	432.36	432.32	HO. CO. 6-5.12	N 588,010 E 1346,700	PUBLIC
MH-52	STANDARD MANHOLE	4'-0"	---	441.15	---	441.80	433.12	433.02	432.91	432.74	HO. CO. 6-5.12	N 588,054 E 1346,711	PUBLIC
MH-54	STANDARD MANHOLE	4'-0"	---	436.23	---	436.77	430.84	426.46	430.61	426.25	HO. CO. 6-5.12	N 587,846 E 1346,653	PUBLIC
MH-64A	12" DIA. MANHOLE	6'-0"	---	424.51	---	424.38	425.22	423.98	423.90	423.90	SHA MD 384.05	N 587,714 E 1346,526	PUBLIC
MH-64B	STANDARD MANHOLE	4'-0"	---	434.71	---	434.98	425.24	425.14	425.00	424.87	HO. CO. 6-5.12	N 587,764 E 1346,616	PUBLIC
MH-64C	STANDARD MANHOLE	4'-0"	---	435.43	---	435.96	425.87	425.76	425.68	425.63	HO. CO. 6-5.12	N 587,764 E 1346,630	PUBLIC
ES-46	END SECTION	1'-3"	443.68	---	---	---	---	442.43	---	442.13	2	N 588,208 E 1346,640	PUBLIC
ES-48	END SECTION	1'-3"	444.25	---	---	---	---	448.00	---	447.91	2	N 588,420 E 1346,684	PUBLIC
ES-55	END SECTION	1'-3"	434.25	---	---	---	---	438.00	---	438.02	2	N 588,088 E 1346,710	PUBLIC
ES-51	END SECTION	1'-3"	434.25	---	---	---	---	438.00	---	437.99	2	N 588,076 E 1346,686	PUBLIC
ES-61	END SECTION	1'-3"	432.75	---	---	---	---	431.50	---	431.41	2	N 587,847 E 1346,714	PUBLIC
ES-64	END SECTION	2'-0"	425.62	---	---	---	---	423.62	---	423.57	2	N 587,696 E 1346,487	PUBLIC
ES-66	END SECTION	1'-3"	430.75	---	---	---	---	424.50	---	424.50	2	N 587,642 E 1346,589	PUBLIC

- 1 COORDINATE POINT GIVEN IS TO THE CENTER OF STRUCTURE FOR INLETS AND TO THE CENTERLINE OF STRUCTURE FOR MANHOLES AND END SECTIONS.
- 2 CONCRETE OR HDPE END SECTION.
- 3 SEE SHEET 43 FOR RIP RAP DETAILS.
- 4 TO MITIGATE THE EFFECTS OF THE 10% SLOPE, AN ADDITIONAL 8" OF RIP RAP HAS BEEN PROVIDED.

RIP RAP INFORMATION				
END SECTION	CLASS	LENGTH	D <sub>50</sub>	THICKNESS
ES-46	CLASS I	14'	4.8"	14"
ES-48	CLASS I	9'	3.6"	14"
ES-55	CLASS I	9'	3.6"	14"
ES-51	CLASS I	5'	2.4"	14"
ES-61	CLASS I	5'	2.4"	14"
ES-64	CLASS I	10'	4.2"	14"
ES-66	CLASS I	9'	3.6"	14"

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Chief, Bureau of Highways  
 Date: 8/29/16

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Chief, Division of Land Development  
 Date: 8/26/16

APPROVED: Chief, Development Engineering Division  
 Date: 8/26/16

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20886  
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-889-2524 FAX: 301-421-4186

DES. JRD	DRN. JRD	CHK. DEV

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN: CAMILLA CARROLL

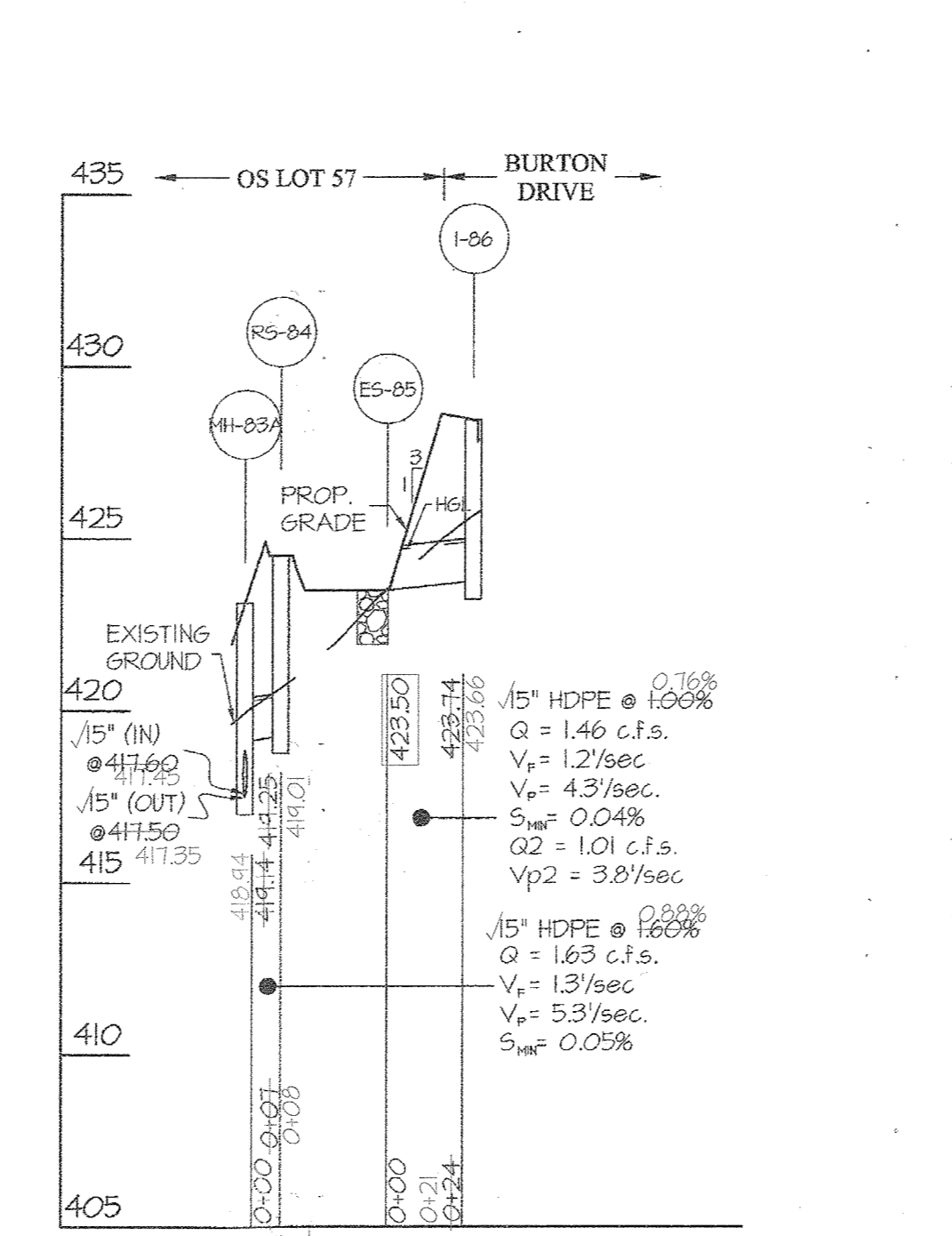
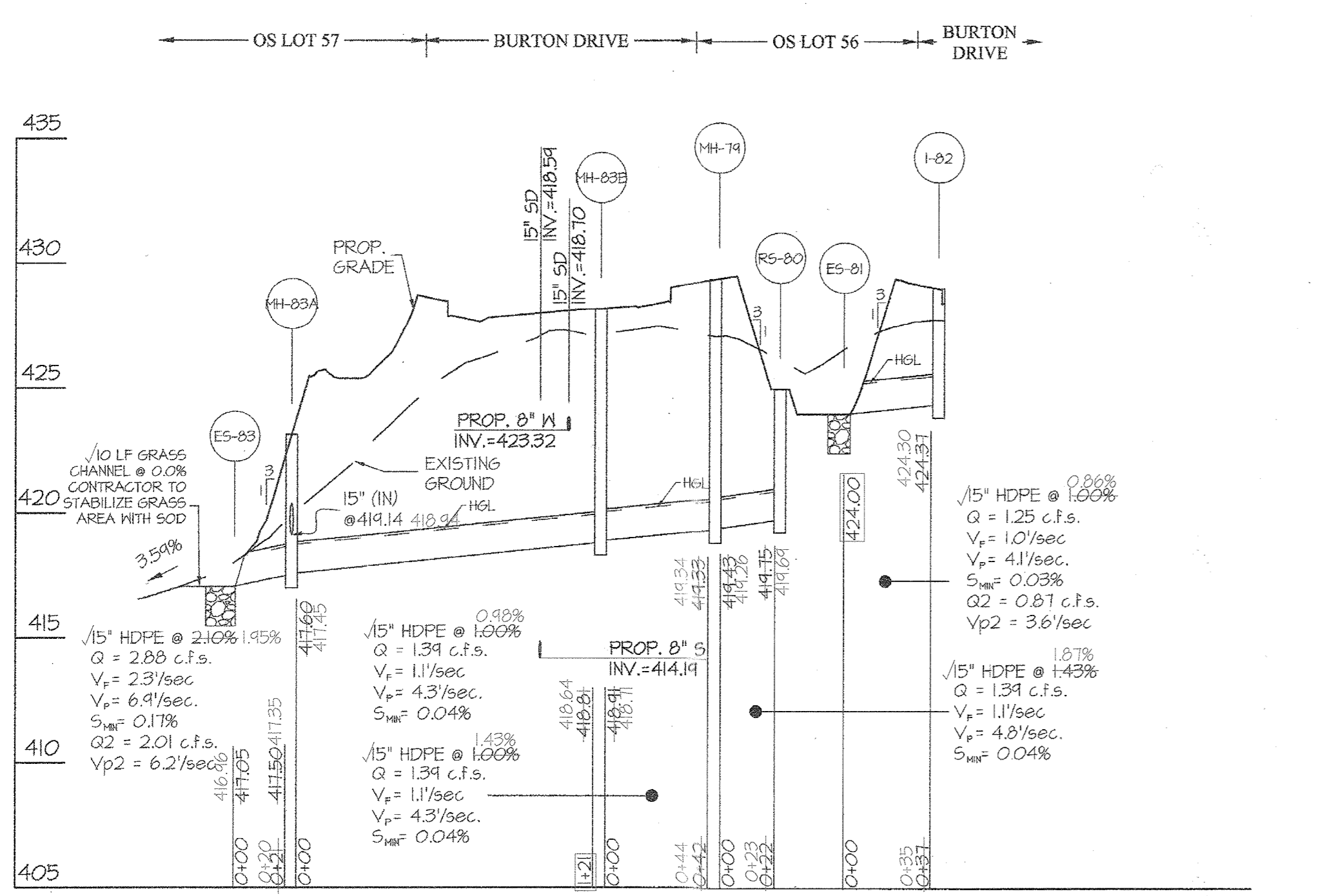
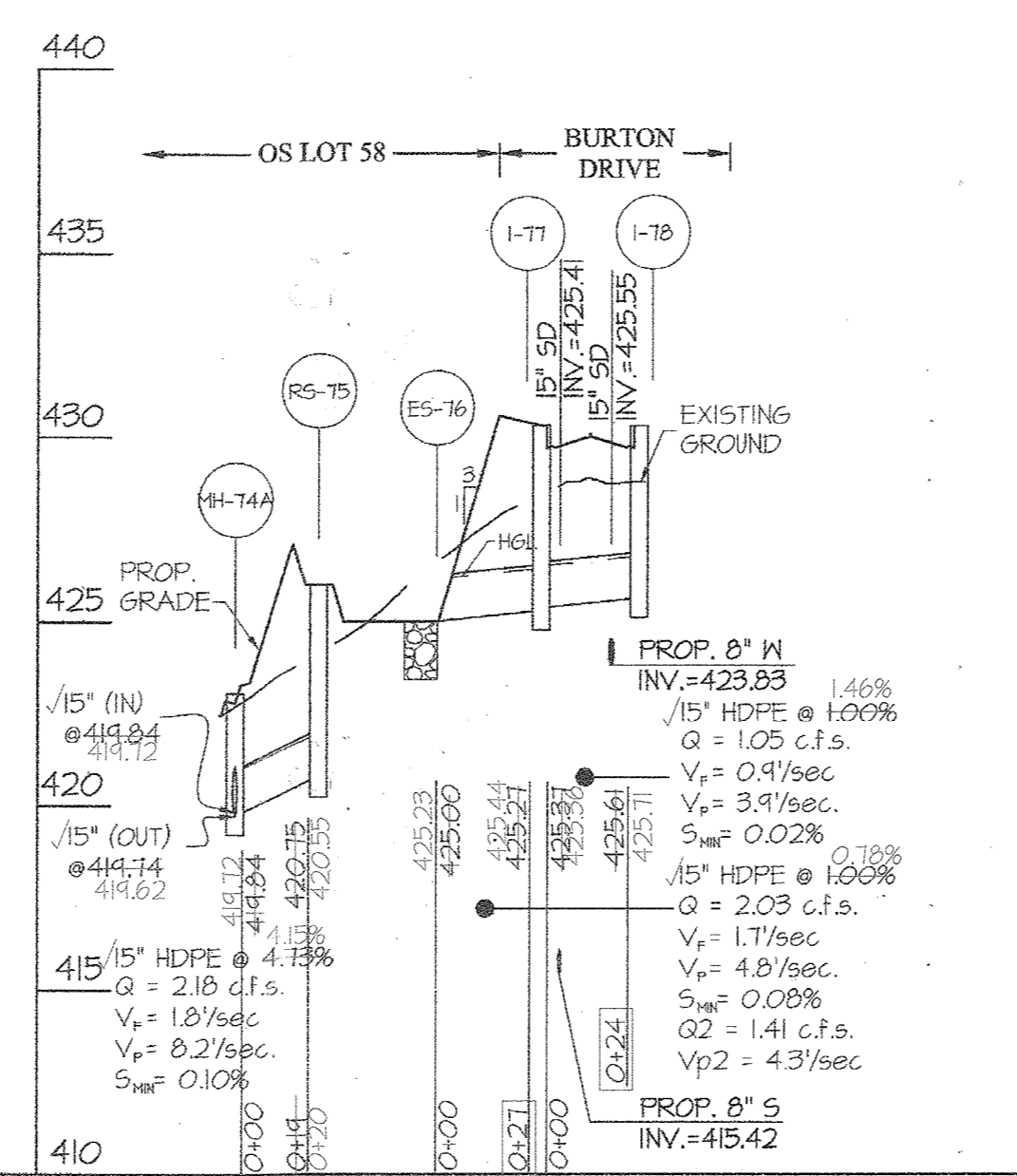
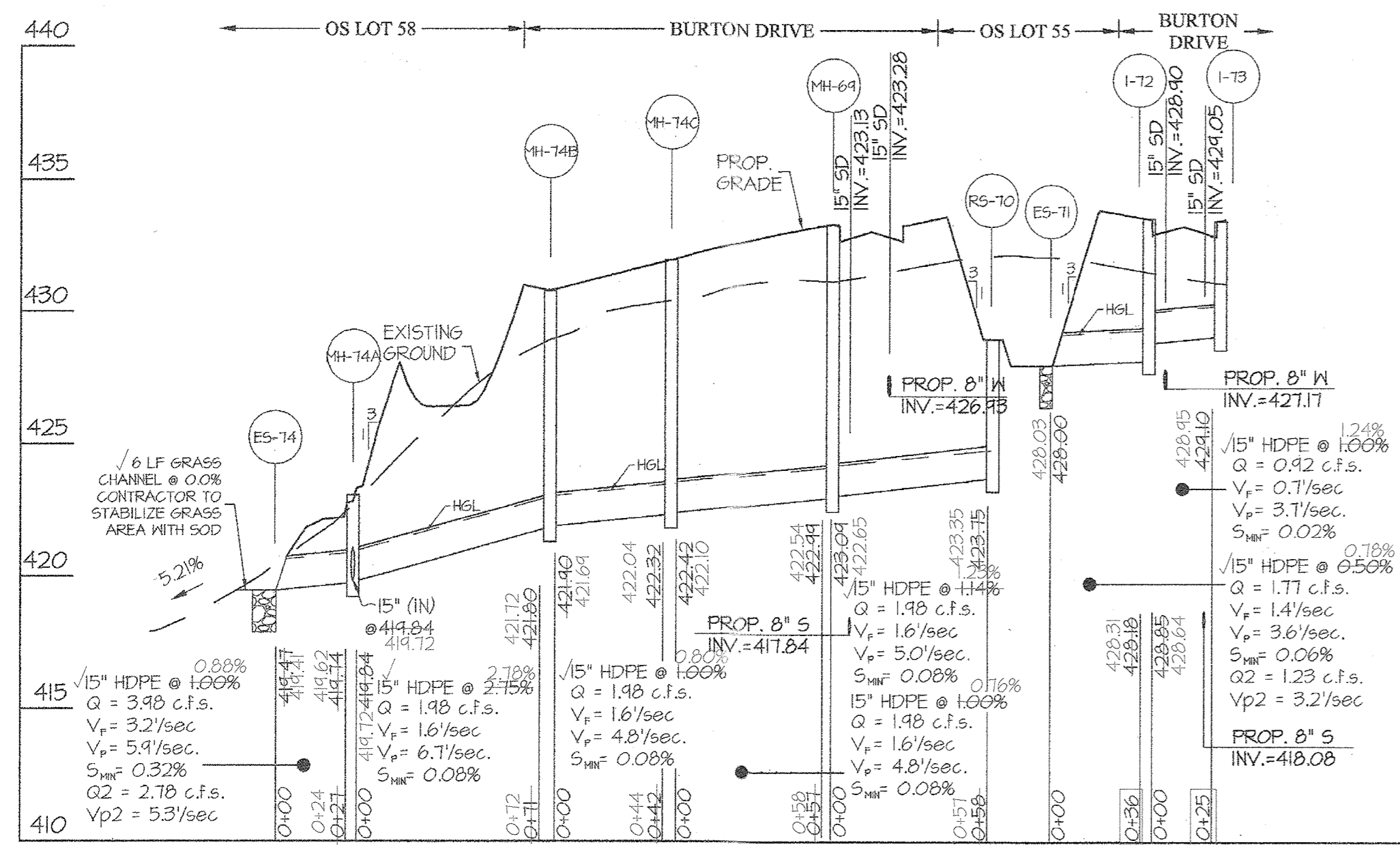
PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12875  
 EXPIRATION DATE: MAY 26, 2028  
 7/14/16

**ASBUILTS**  
 STORM DRAIN PROFILES  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A AND REVISION TO CREDITED OPEN SPACE LOT 1  
 ELECTION DISTRICT No. 2  
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
1"=50' (H) 1"=5' (V)	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JAN. 2020 JULY, 2016	23-6&12	23 OF 60

ASBUILT 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. 12875, Expiration Date: May 26, 2028.  
 1/28/2020  
 Date  
 [Signature]  
 Professional Engineer  
 Maryland Reg. No. 12875





NO	TYPE	WIDTH (INSIDE)	TOP ELEVATION				INVERT				STD. DETAIL	LOCATIONS	PRIVATE/PUBLIC
			PROPOSED		AS-BUILT		PROPOSED		AS-BUILT				
			UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER			
I-12	A-10 INLET	2'-6"	433.64	433.40	433.52	433.41	428.85	428.10	428.64	428.31	HO. CO. D-4.03	N 501514 E 1346651	PUBLIC
I-13	A-10 INLET	2'-6"	433.56	433.31	433.52	433.34	---	429.10	---	428.95	HO. CO. D-4.03	N 501514 E 1346626	PUBLIC
I-17	A-10 INLET	2'-6"	430.44	430.18	430.47	430.18	425.37	425.21	425.44	425.36	HO. CO. D-4.03	N 501430 E 1346634	PUBLIC
I-18	A-10 INLET	2'-6"	430.44	430.18	430.52	430.21	---	425.61	---	425.71	HO. CO. D-4.03	N 501436 E 1346660	PUBLIC
I-82	A-10 INLET	2'-6"	429.05	429.05	429.25	429.20	---	424.37	---	424.30	HO. CO. D-4.03	N 501375 E 1346681	PUBLIC
I-86	A-10 INLET	2'-6"	428.40	428.40	428.40	428.46	---	423.74	---	423.66	HO. CO. D-4.03	N 501362 E 1346545	PUBLIC
RS-10	5' RISER	2'-15"	---	429.00	---	429.00	---	423.75	---	423.35	HO. CO. D-4.22	N 501575 E 1346686	PUBLIC
RS-15	5' RISER	2'-15"	---	426.00	---	425.74	---	420.75	---	420.55	HO. CO. D-4.22	N 501440 E 1346571	PUBLIC
RS-80	5' RISER	2'-15"	---	425.00	---	425.03	---	419.75	---	419.64	HO. CO. D-4.22	N 501369 E 1346724	PUBLIC
RS-84	5' RISER	2'-15"	---	424.50	---	424.47	---	419.25	---	419.01	HO. CO. D-4.22	N 501360 E 1346543	PUBLIC
MH-64	STANDARD MANHOLE	4'-0"	---	433.64	---	433.36	423.09	422.49	422.65	422.54	HO. CO. G-5.12	N 501563 E 1346626	PUBLIC
MH-74A	STANDARD MANHOLE	4'-0"	---	422.82	---	422.85	419.84	419.74	419.72	419.62	HO. CO. G-5.12	N 501461 E 1346558	PUBLIC
MH-74B	STANDARD MANHOLE	4'-0"	---	430.74	---	430.81	421.90	421.80	421.72	421.69	HO. CO. G-5.12	N 501456 E 1346634	PUBLIC
MH-74C	STANDARD MANHOLE	4'-0"	---	431.45	---	431.87	422.42	422.32	422.10	422.04	HO. CO. G-5.12	N 501502 E 1346635	PUBLIC
MH-74D	STANDARD MANHOLE	4'-0"	---	429.43	---	429.10	419.43	419.33	419.36	419.26	HO. CO. G-5.12	N 501359 E 1346705	PUBLIC
MH-83A	STANDARD MANHOLE	4'-0"	---	423.54	---	423.71	419.14	417.50	418.44	417.35	HO. CO. G-5.12	N 501367 E 1346535	PUBLIC
MH-83B	STANDARD MANHOLE	4'-0"	---	420.16	---	428.87	418.91	418.81	418.71	418.64	HO. CO. G-5.12	N 501367 E 1346660	PUBLIC
ES-71	END SECTION	1'-3"	429.25	---	---	---	---	428.00	---	428.03	2	N 501584 E 1346804	PUBLIC
ES-74	END SECTION	1'-3"	420.12	---	---	---	---	419.47	---	419.41	2	N 501458 E 1346524	PUBLIC
ES-76	END SECTION	1'-3"	426.25	---	---	---	---	425.00	---	425.02	2	N 501442 E 1346605	PUBLIC
ES-81	END SECTION	1'-3"	425.25	---	---	---	---	424.00	---	424.00	2	N 501381 E 1346721	PUBLIC
ES-83	END SECTION	1'-3"	418.30	---	---	---	---	417.05	---	416.96	2	N 501368 E 1346511	PUBLIC
ES-85	END SECTION	1'-3"	424.75	---	---	---	---	423.50	---	423.44	2	N 501356 E 1346512	PUBLIC

- 1 COORDINATE POINT GIVEN IS TO THE CENTER OF STRUCTURE FOR INLETS AND TO THE CENTERLINE OF STRUCTURE FOR MANHOLES AND END SECTIONS.
- 2 CONCRETE OR HDPE END SECTION.
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RIP RAP INFORMATION				
END SECTION	CLASS	LENGTH	D <sub>50</sub>	THICKNESS
ES-71	CLASS 1	5'	2.4"	14"
ES-74	CLASS 1	4'	3.6"	14"
ES-76	CLASS 1	4'	3.6"	14"
ES-81	CLASS 1	4'	3.6"	14"
ES-83	CLASS 1	12'	4.8"	14"
ES-85	CLASS 1	4'	3.6"	14"

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Chief, Bureau of Highways  
 Date: 7/27/2016

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Chief, Division of Land Development  
 Date: 8-24-16

APPROVED: Chief, Development Engineering Division  
 Date: 8-26-16

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE, SUITE 250 - BURTONTOWNE OFFICE PARK  
 BURTONTOWNE, MARYLAND 20886  
 TEL: 301-421-4024 FAX: 301-989-2524

DES. JRD	DRN. JRD	CHK. DEV	DATE	REVISION	BY	APPR.

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN: CAMILLA CARROLL

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS 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. 12976, EXPIRATION DATE: MAY 28, 2018

7/14/16

ASBUILTS  
 STORM DRAIN PROFILES  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT No. 2

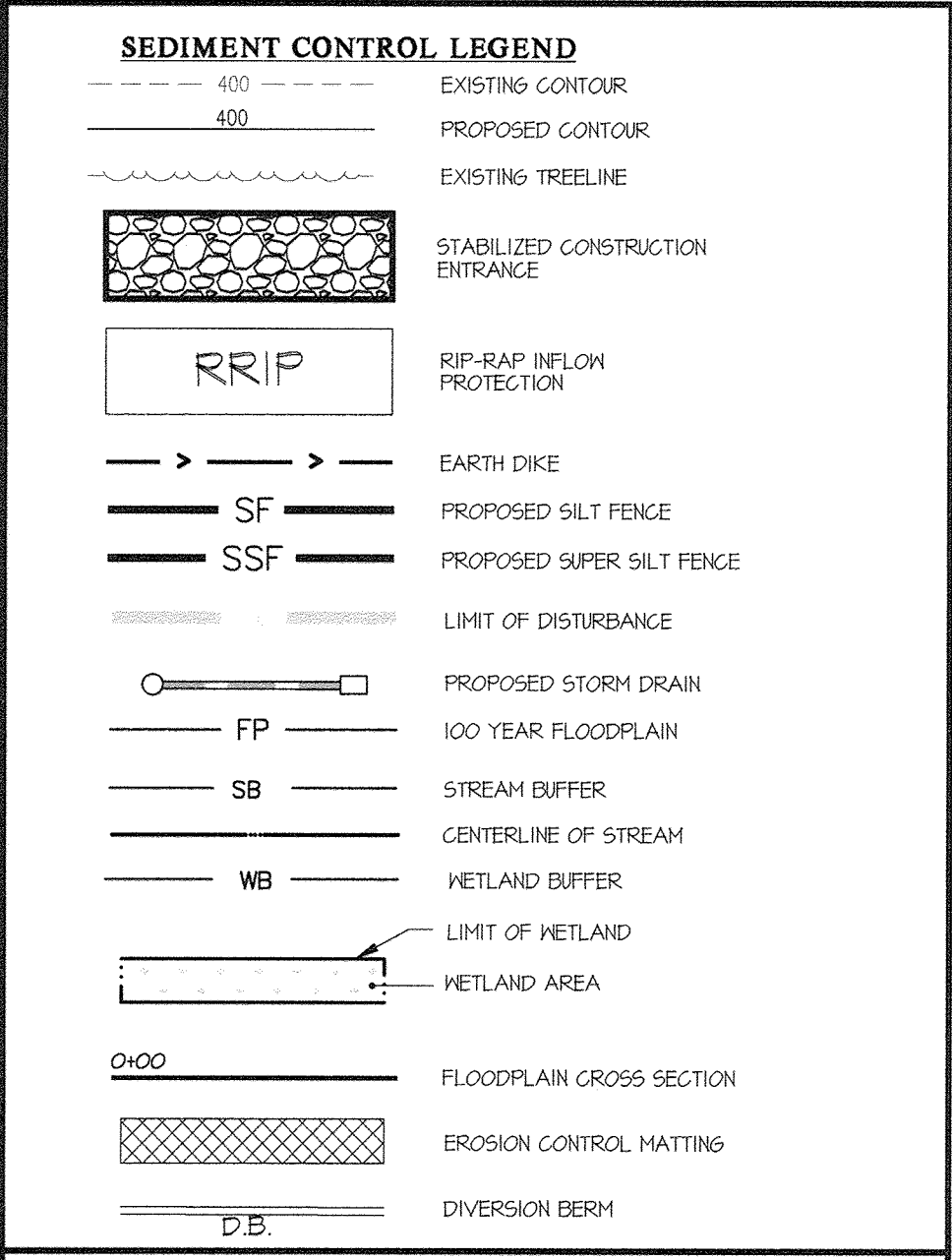
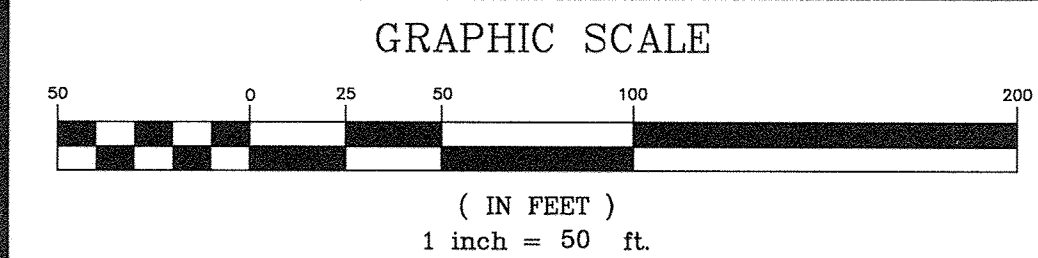
SCALE	ZONING	G. L. W. FILE NO.
1"=50' (H) 1"=5' (V)	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JAN. 2020 JULY, 2016	23-6&12	24 OF 60

ASBUILT 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. 12475, Expiration Date: May 28, 2020.

1/28/2020  
 Date

Scott R. Paschick  
 Professional Engineer  
 Maryland Reg. No. 12475





- ### NOTES:
- FOR STORM DRAIN SIZES SEE SHEETS 10-11.
  - WHERE L.O.D. IS NOT SHOWN, THE SEDIMENT CONTROL DEVICES WILL INDICATE THE LIMIT OF DISTURBANCE.
  - CONTRACTOR MUST TURN ALL SILT FENCE AND SUPER SILT FENCE UPHILL BY 2' IN ELEVATION EVERY 25 FEET.
  - FOR DUST CONTROL INFORMATION SEE SHEET 33.
  - CONTRACTOR IS TO STABILIZE DISTURBED AREAS WITH SHA RIGHT-OF-WAY WITH 50D.
  - CONTRACTOR IS TO UTILIZE GRAVEL OR ASPHALT BERMS WITHIN THE ROADWAY TO DIRECT RUNOFF TO THE INLET.

100 YEAR FLOODPLAIN STUDY		100 YEAR FLOODPLAIN STUDY	
CROSS SECTION	WEL. FT.	CROSS SECTION	WEL. FT.
15+22	424.18	15+22	423.25
16+20	424.54	16+20	421.43
17+18	421.32	17+18	424.21
18+07	424.36	18+07	433.81
20+11	431.35	20+11	437.11
20+68	432.10	20+68	437.11

SEDIMENT CONTROL DESIGN INFORMATION					
TRAP #	TRAP 1	TRAP 2	TRAP 3	TRAP 5	TRAP 6
TYPE OF TRAP	STONE OUTLET	STONE OUTLET	STONE OUTLET	STONE OUTLET	STONE OUTLET
PRE-DEVELOPMENT DRAINAGE AREA	2.1 AC.	2.4 AC.	1.8 AC.	2.4 AC.	4.1 AC.
POST DEVELOPMENT DRAINAGE AREA	3.0 AC.	3.1 AC.	1.9 AC.	1.9 AC.	3.2 AC.
TOTAL STORAGE REQUIRED (NET AND DRY VOLUME)	16,991 C.F.	11,224 C.F.	11,342 C.F.	11,417 C.F.	20,056 C.F.
TOTAL STORAGE PROVIDED	33,940 C.F.	22,241 C.F.	20,656 C.F.	15,744 C.F.	23,680 C.F.
NET STORAGE REQUIRED	5,400 C.F.	3,900 C.F.	3,900 C.F.	4,220 C.F.	8,460 C.F.
NET STORAGE PROVIDED	15,280 C.F.	13,720 C.F.	13,720 C.F.	10,280 C.F.	15,220 C.F.
DRY STORAGE REQUIRED	11,991 C.F.	11,544 C.F.	11,812 C.F.	10,747 C.F.	11,596 C.F.
DRY STORAGE PROVIDED	18,560 C.F.	12,521 C.F.	11,240 C.F.	10,368 C.F.	13,600 C.F.
EXISTING GROUND ELEV. AT OUTLET (NET STORAGE ELEV.)	428.50	411.40	428.00	431.20	433.00
TRAP BOTTOM ELEVATION	426.30	416.00	421.00	430.00	431.00
TRAP BOTTOM DIMENSIONS	28" X 11"	10" X 33"	10" X 41"	15" X 34"	18" X 32"
TRAP LENGTH	18'	12'	10'	10'	30'
TRAP RISE (DRY STORAGE) ELEVATION	430.50	414.80	425.00	433.00	435.00
CLEANOUT ELEVATION	421.40	416.95	422.50	430.60	432.00
TOP OF EMBANKMENT ELEVATION	431.50	420.80	426.00	434.00	436.00
SIDE SLOPE	2:1	2:1	2:1	2:1	2:1
EMBANKMENT TOP WIDTH	4'	4'	4'	4'	4'
OUTLET PROTECTION - LENGTH	10' MIN	10' MIN	10' MIN	10' MIN	10' MIN
OUTLET PROTECTION - DEPTH	14' MIN	14' MIN	14' MIN	14' MIN	14' MIN

NOTE: FOR SEDIMENT TRAP DETAILS, SEE SHEET 34.

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

*John R. Blanton* 7/13/16  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
DATE

*Mark Cornell* 12 July 2016  
SIGNATURE OF DEVELOPER/BUILDER  
DATE

*John M. Meunier* 7/23/2016  
Chief, Bureau of Highways  
DATE

*Keith Shalovich* 8-23-16  
Chief, Division of Land Development  
DATE

*Chris Chubb* 8-26-16  
Chief, Development Engineering Division  
DATE

### BUILDER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR 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 MARYLAND 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 DOD."

*Mark Cornell* 12 July 2016  
SIGNATURE OF DEVELOPER/BUILDER  
DATE

### 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 COUNTY DEPARTMENT OF PUBLIC WORKS."

*Chris Chubb* 7/11/16  
SIGNATURE OF ENGINEER  
DATE

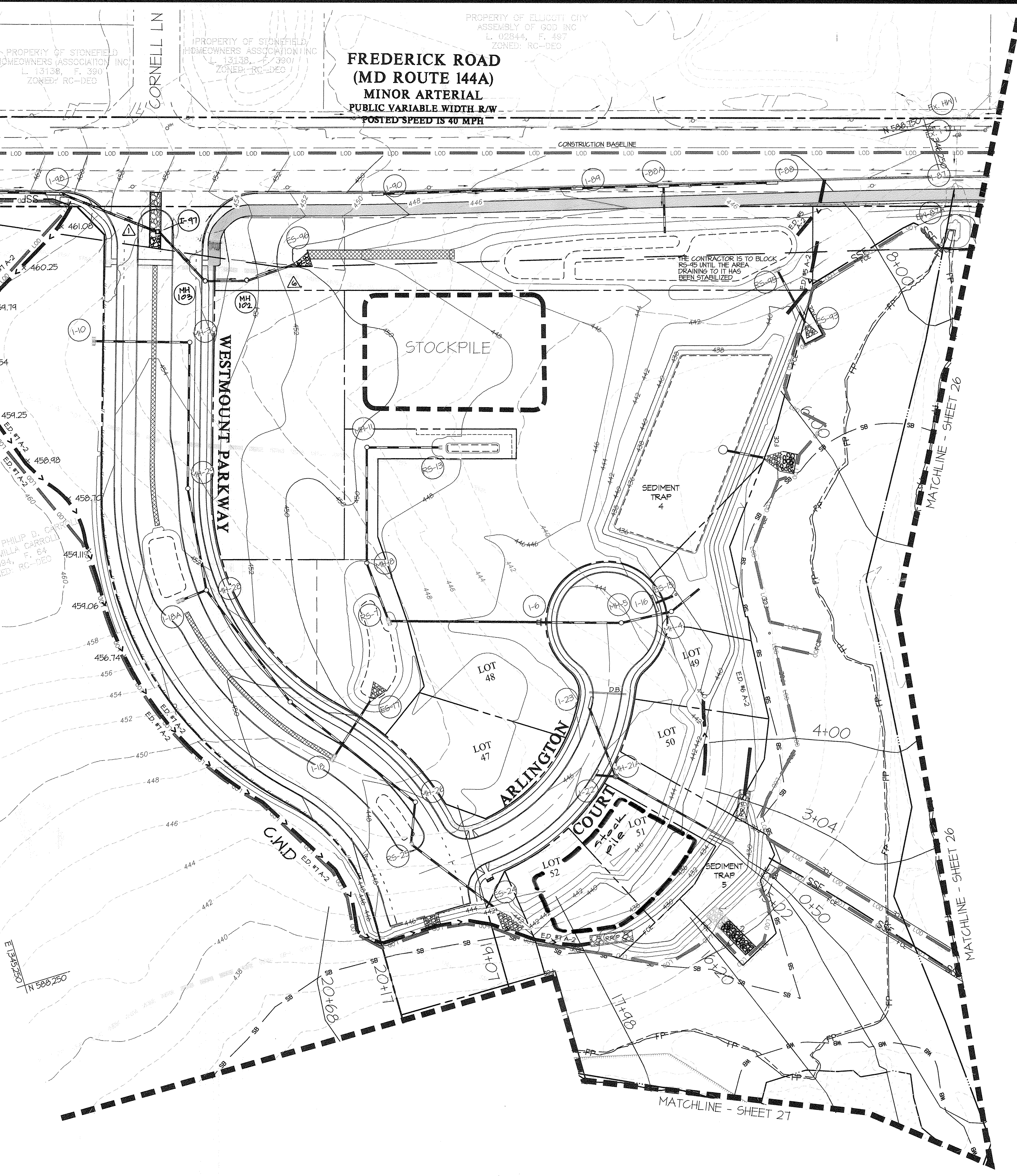
DATE	REVISION	BY	APP'D.
2-27-19	Revised storm drain	gt	Dev.
6-14-17	Relocated I-97	gt	Dev.

### TRAP 4 SEDIMENT CONTROL DESIGN INFORMATION

TYPE OF TRAP	STONE OUTLET
PRE-DEVELOPMENT DRAINAGE AREA	7.6 AC.
POST DEVELOPMENT DRAINAGE AREA	8.1 AC.
TOTAL STORAGE REQUIRED	41,084 C.F.
TOTAL STORAGE PROVIDED	54,221 C.F.
NET STORAGE REQUIRED	14,590 C.F.
NET STORAGE PROVIDED	18,248 C.F.
DRY STORAGE REQUIRED	26,484 C.F.
DRY STORAGE PROVIDED	35,903 C.F.
TRAP BOTTOM ELEVATION	435.50
TRAP BOTTOM DIMENSIONS	VARIABLE
TRAP RISE (DRY STORAGE) ELEVATION	438.15
CLEANOUT ELEVATION	436.15
TOP OF EMBANKMENT ELEVATION	440.00
SIDE SLOPE	2:1
EMBANKMENT TOP WIDTH	4'
TRAP DIAMETER	42" MIN
BARREL DIAMETER	30" MIN
TRASH RACK DIAMETER	60" MIN
TRASH RACK HEIGHT	20"
ANTI-SLEEP COLLAR DIMENSIONS	4'-6" X 4'-6"
OUTLET PROTECTION - LENGTH	15' MIN
OUTLET PROTECTION - WIDTH	11' MIN
OUTLET PROTECTION - DEPTH	14' MIN

PREPARED FOR:  
WESTMOUNT DEVELOPMENT CORPORATION  
3500 MANOR LANE  
ELLCOTT CITY, MARYLAND 21042  
443-367-0422  
ATTN: CAMILLA CARROLL

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE PLANS 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. 12972  
EXPIRATION DATE: MAY 26, 2018  
*Chris Chubb* 7/14/16  
ENGINEER



### SEDIMENT CONTROL PLAN - INTERIM

#### WESTMOUNT - PHASE 1

#### CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71 AND NON-BUILDABLE BULK PARCELS B & C

A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A AND REVISION TO CREDITED OPEN SPACE LOT 1  
HOWARD COUNTY, MARYLAND

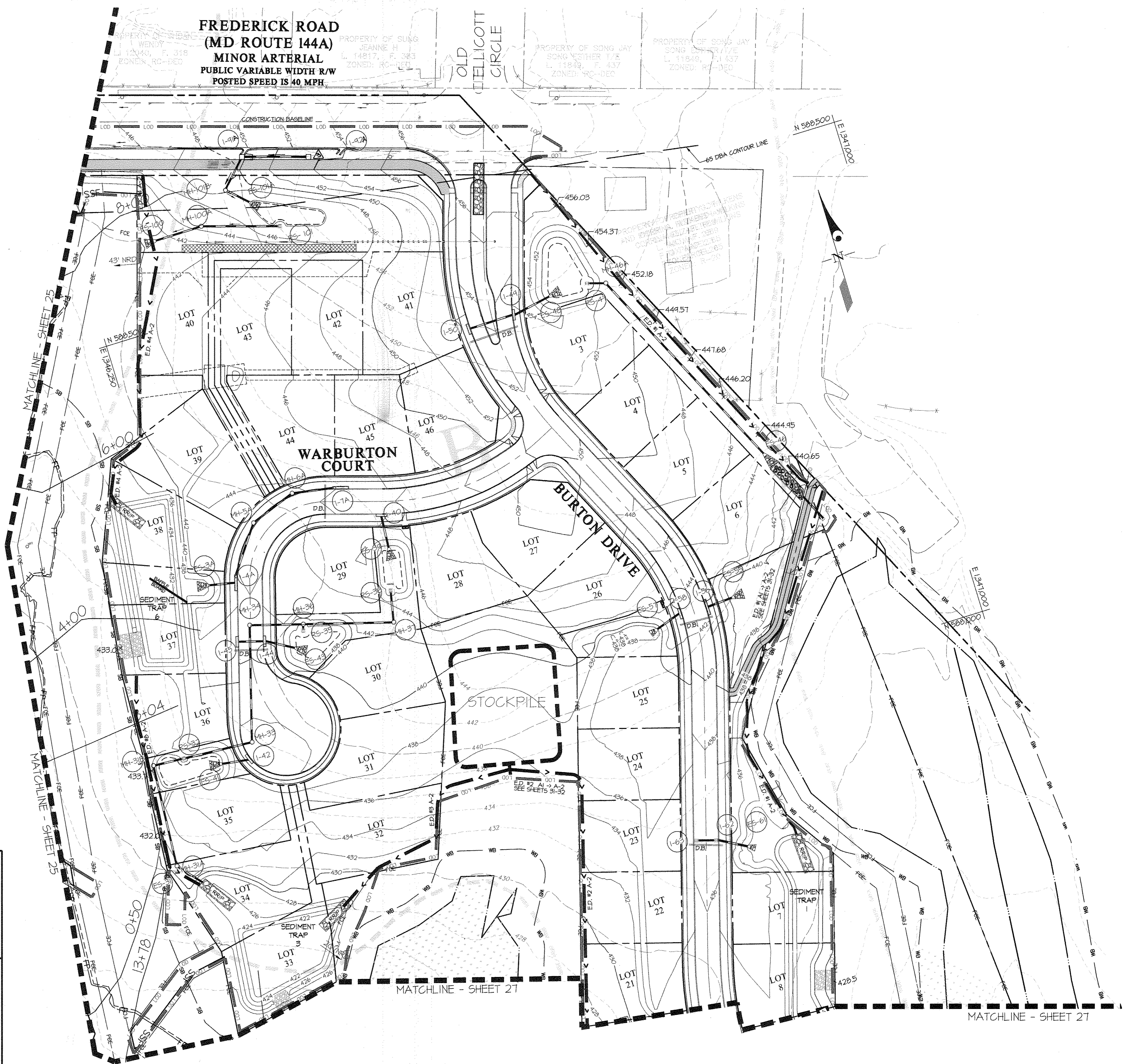
SCALE	ZONING	G. L. W. FILE NO.
1"=50'	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	25 OF 60

ELECTION DISTRICT No. 2



FREDERICK ROAD  
(MD ROUTE 144A)  
MINOR ARTERIAL  
PUBLIC VARIABLE WIDTH R/W  
POSTED SPEED IS 40 MPH

OLD ELLICOTT CIRCLE

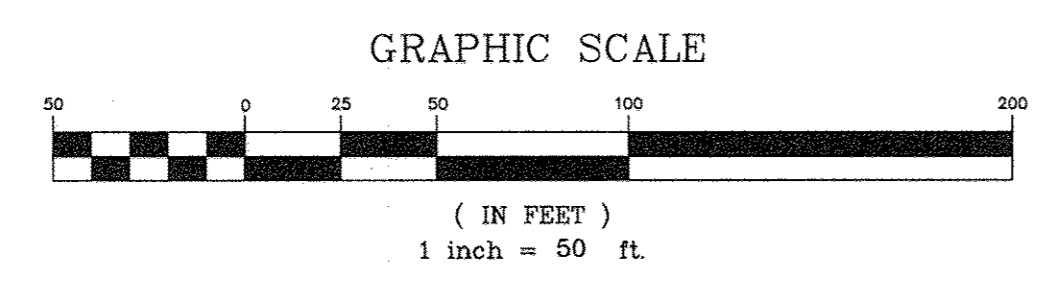


**SEDIMENT CONTROL LEGEND**

- 400 EXISTING CONTOUR
- 400 PROPOSED CONTOUR
- EXISTING TREELINE
- STABILIZED CONSTRUCTION ENTRANCE
- RRIP RIP-RAP INFLOW PROTECTION
- EARTH DIKE
- SF PROPOSED SILT FENCE
- SSF PROPOSED SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- PROPOSED STORM DRAIN
- FP 100 YEAR FLOODPLAIN
- SB STREAM BUFFER
- CENTERLINE OF STREAM
- WB WETLAND BUFFER
- LIMIT OF WETLAND
- WETLAND AREA
- FLOODPLAIN CROSS SECTION
- EROSION CONTROL MATTING
- D.B. DIVERSION BERM

- NOTES:**
- FOR STORM DRAIN SIZES SEE SHEETS 15-17.
  - WHERE L.O.D. IS NOT SHOWN, THE SEDIMENT CONTROL DEVICES WILL INDICATE THE LIMIT OF DISTURBANCE.
  - CONTRACTOR MUST TURN ALL SILT FENCE AND SUPER SILT FENCE UPHILL BY 2' IN ELEVATION EVERY 25 FEET.
  - FOR DUST CONTROL INFORMATION SEE SHEET 33.
  - CONTRACTOR IS TO STABILIZE DISTURBED AREAS WITH SMA RIGHT-OF-WAY WITH 50D.
  - CONTRACTOR IS TO UTILIZE GRAVEL OR ASPHALT BERMS WITHIN THE ROADWAY TO DIRECT RUNOFF TO THE INLET.

100 YEAR FLOODPLAIN STUDY		100 YEAR FLOODPLAIN STUDY	
CROSS SECTION	WELLS FT.	CROSS SECTION	WELLS FT.
STREAM F	423.20	0+50	423.25
		3+04	421.40
		4+00	421.21
		6+00	433.01
		8+00	431.71



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

*John R. Khatib* 7/15/16  
H.S.D. SCD

**BUILDER'S CERTIFICATE**

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR 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 MARYLAND 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 HSCD."

*Talk...* 12 JULY 2016  
SIGNATURE OF DEVELOPER/BUILDER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*M...* 7/27/2016  
Chief, Bureau of Highways Date

**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."

*...* 7/14/16  
SIGNATURE OF ENGINEER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*K...* 8-29-16  
Chief, Division of Land Development Date

*...* 8-26-16  
Chief, Development Engineering Division Date

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3509 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20866  
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.
7-27-16	Revised storm drain		

PREPARED FOR:  
WESTMOUNT DEVELOPMENT CORPORATION  
3500 MANOR LANE  
ELLCOTT CITY, MARYLAND 21042  
443-367-0422  
ATTN.: CAMILLA CARROLL

**PROFESSIONAL CERTIFICATION**

I HEREBY CERTIFY THAT THESE PLANS 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. 12975  
EXPIRATION DATE: MAY 26, 2018

*...* 7/14/16

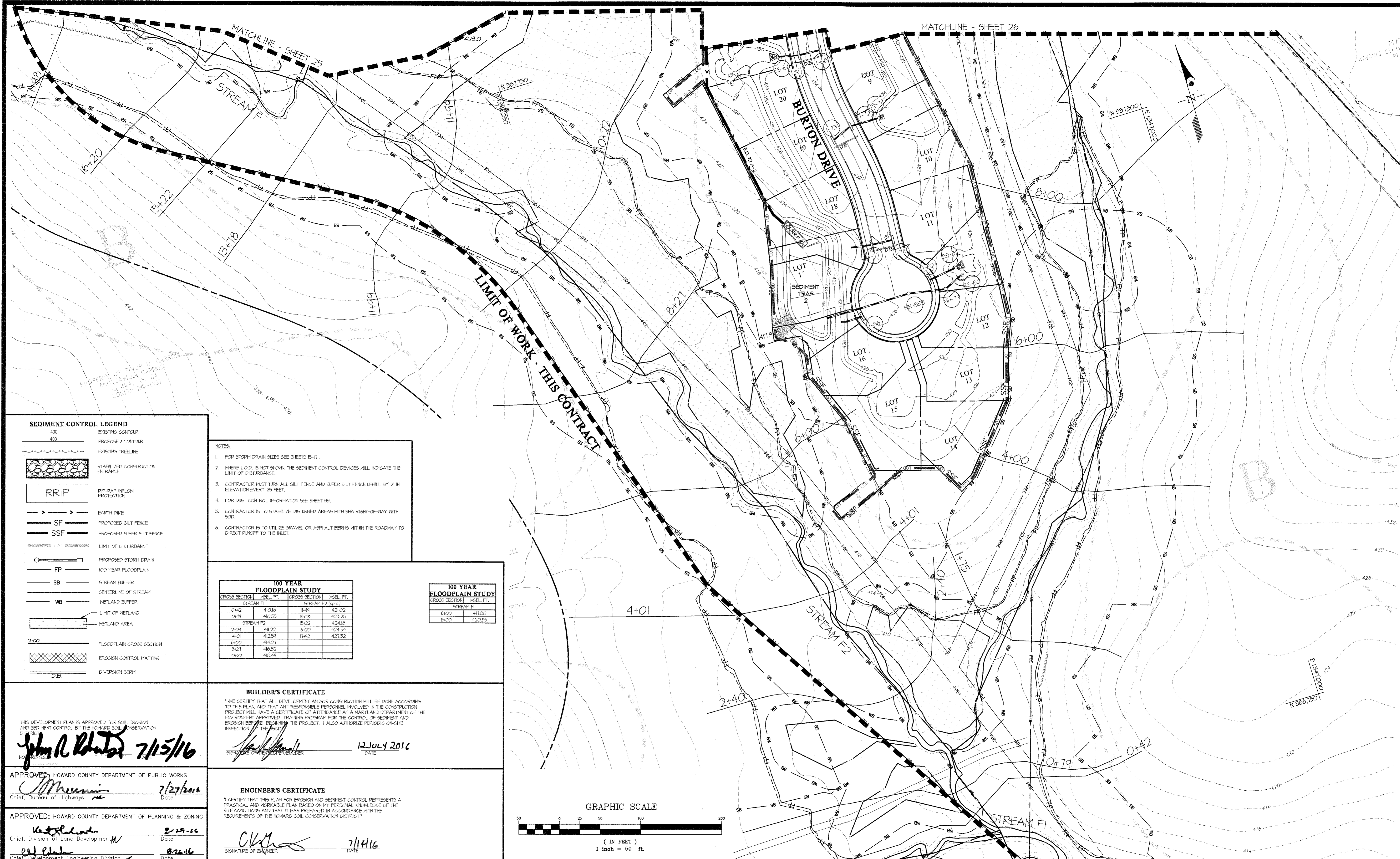
**SEDIMENT CONTROL PLAN - INTERIM**

**WESTMOUNT - PHASE 1**  
CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71  
AND NON-BUILDABLE BULK PARCELS B & C

A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
1"=50'	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	26 OF 60





**SEDIMENT CONTROL LEGEND**

- 400 --- EXISTING CONTOUR
- 400 --- PROPOSED CONTOUR
- --- EXISTING TREELINE
- STABILIZED CONSTRUCTION ENTRANCE
- RIP-RAP INFLOW PROTECTION
- EARTH DIKE
- PROPOSED SILT FENCE
- PROPOSED SUPER SILT FENCE
- --- LIMIT OF DISTURBANCE
- PROPOSED STORM DRAIN
- --- 100 YEAR FLOODPLAIN
- --- STREAM BUFFER
- --- CENTERLINE OF STREAM
- --- WETLAND BUFFER
- --- LIMIT OF WETLAND
- --- WETLAND AREA
- --- FLOODPLAIN CROSS SECTION
- EROSION CONTROL MATTING
- --- DIVERSION BERM

- NOTES:**
1. FOR STORM DRAIN SIZES SEE SHEETS 15-17.
  2. WHERE L.O.D. IS NOT SHOWN THE SEDIMENT CONTROL DEVICES WILL INDICATE THE LIMIT OF DISTURBANCE.
  3. CONTRACTOR MUST TURN ALL SILT FENCE AND SUPER SILT FENCE UPHILL BY 2' IN ELEVATION EVERY 25 FEET.
  4. FOR DUST CONTROL INFORMATION SEE SHEET 33.
  5. CONTRACTOR IS TO STABILIZE DISTURBED AREAS WITH SHA RIGHT-OF-WAY WITH SOG.
  6. CONTRACTOR IS TO UTILIZE GRAVEL OR ASPHALT BERMS WITHIN THE ROADWAY TO DIRECT RUNOFF TO THE INLET.

**100 YEAR FLOODPLAIN STUDY**

CROSS SECTION	WHEEL FT.	CROSS SECTION	WHEEL FT.
0142	410.18	1144	421.02
0171	410.55	13+18	423.20
		15+22	424.18
		16+20	424.54
		17+18	421.32

**100 YEAR FLOODPLAIN STUDY**

CROSS SECTION	WHEEL FT.
6+00	417.80
8+00	420.85

**BUILDER'S CERTIFICATE**

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR 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 MARYLAND 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 SCSD.

*John A. Rhoads* 7/15/16  
 SIGNATURE OF SUBMITTER/BUILDER  
 12 JULY 2016  
 DATE

**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.

*CKW* 7/14/16  
 SIGNATURE OF ENGINEER  
 DATE

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

*John A. Rhoads* 7/15/16  
 HOWARD SOIL CONSERVATION DISTRICT

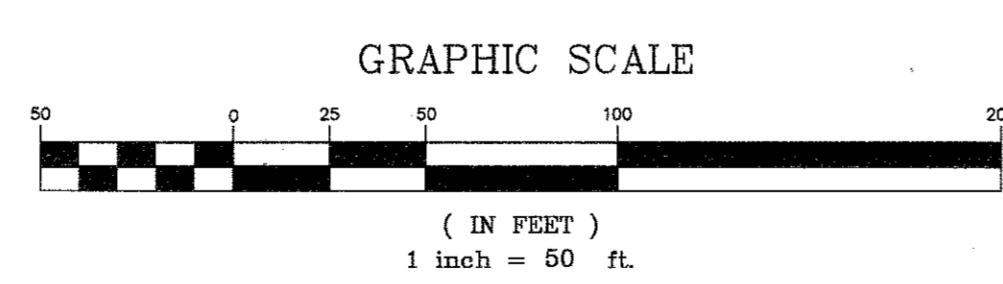
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*M. Munnis* 7/27/2016  
 Chief, Bureau of Highways  
 Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*W. G. ...* 3-29-16  
 Chief, Division of Land Development  
 Date

*Ed Clark* 8-26-16  
 Chief, Development Engineering Division  
 Date



**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN: CAMILLA CARROLL

**PROFESSIONAL CERTIFICATION**

I HEREBY CERTIFY THAT THESE PLANS 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. 12275  
 EXPIRATION DATE: MAY 28, 2018

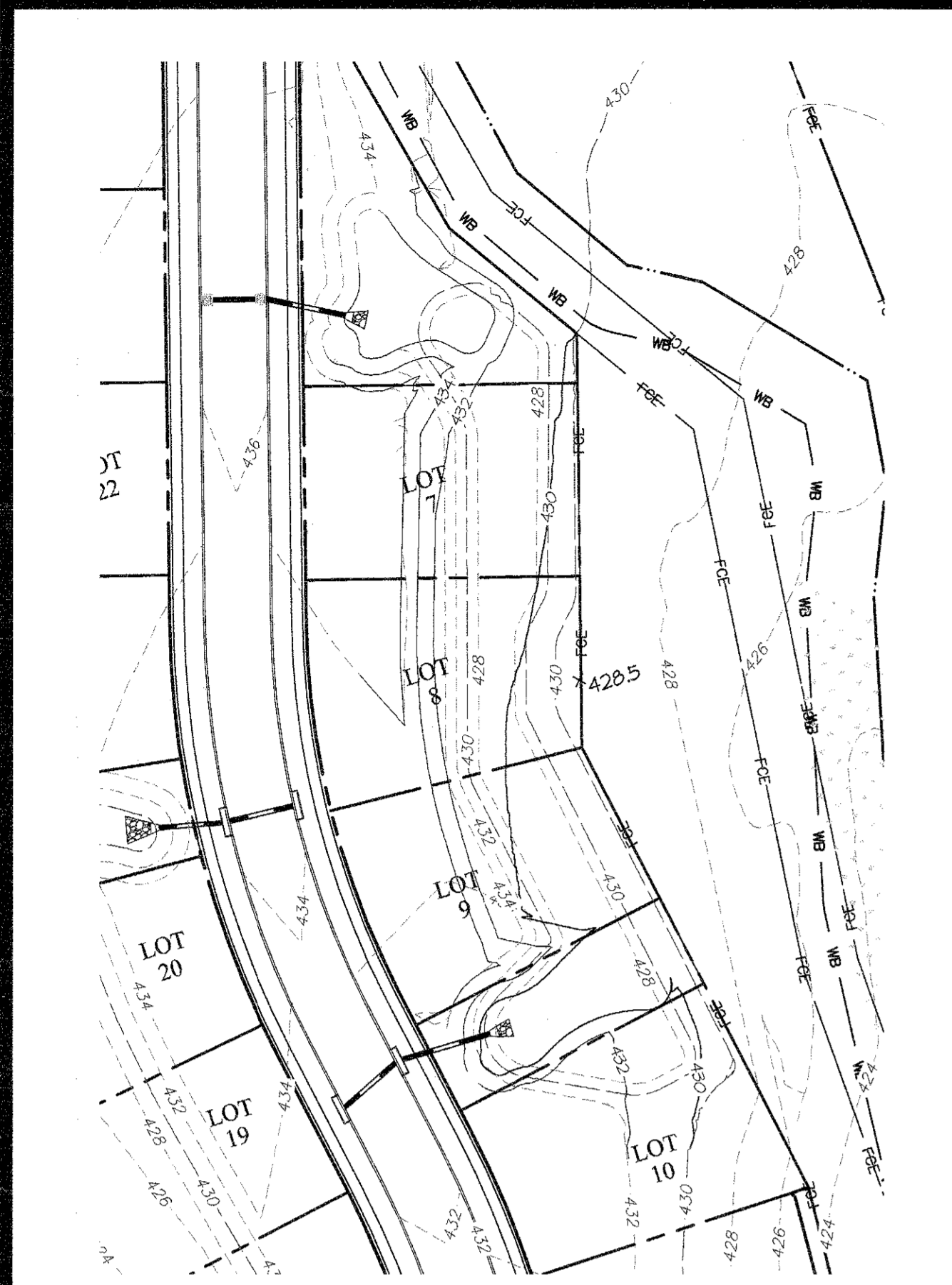
7/14/16 *CKW*

**SEDIMENT CONTROL PLAN - INTERIM**

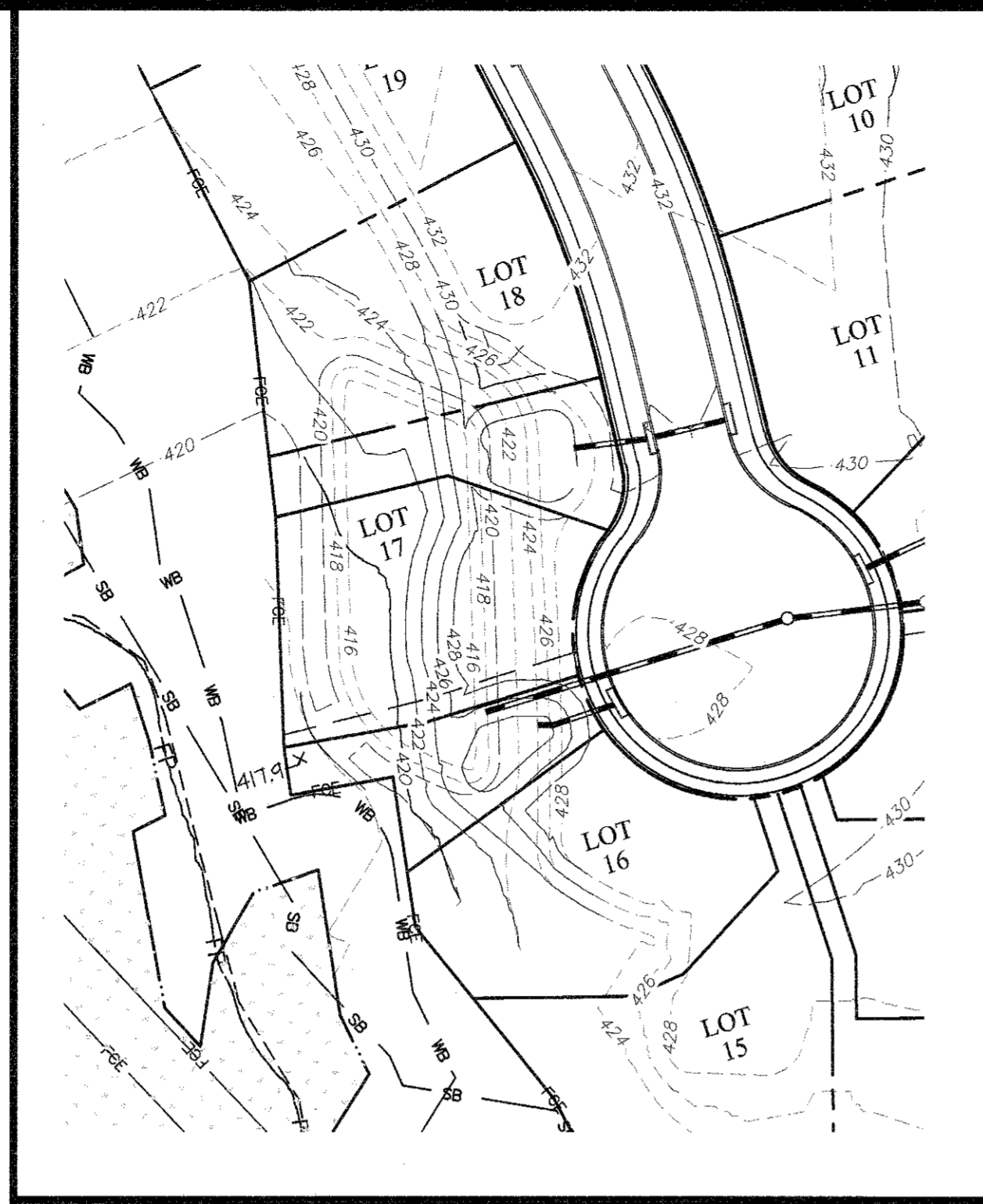
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A AND REVISION TO CREDITED OPEN SPACE LOT 1  
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	27 OF 60

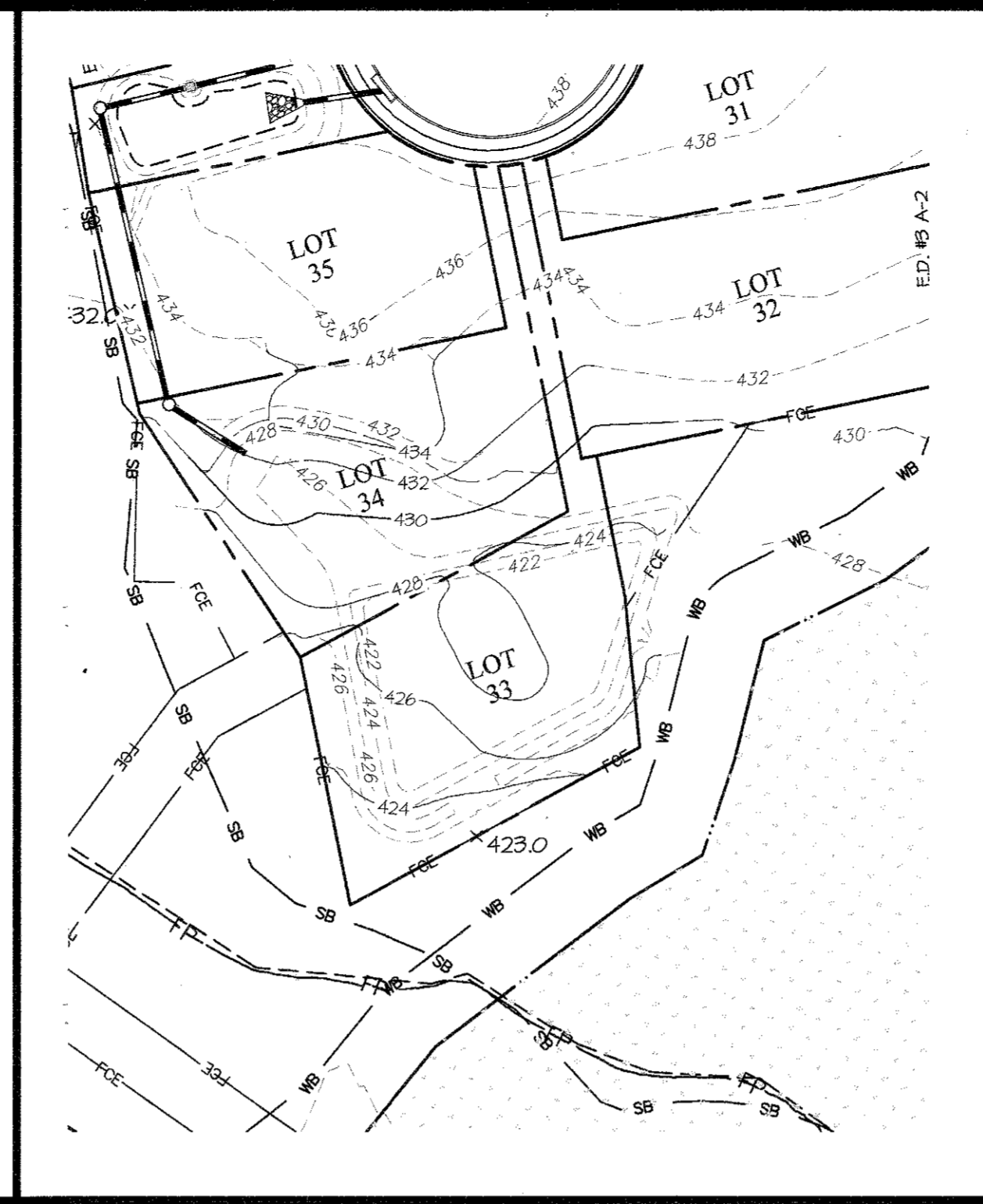




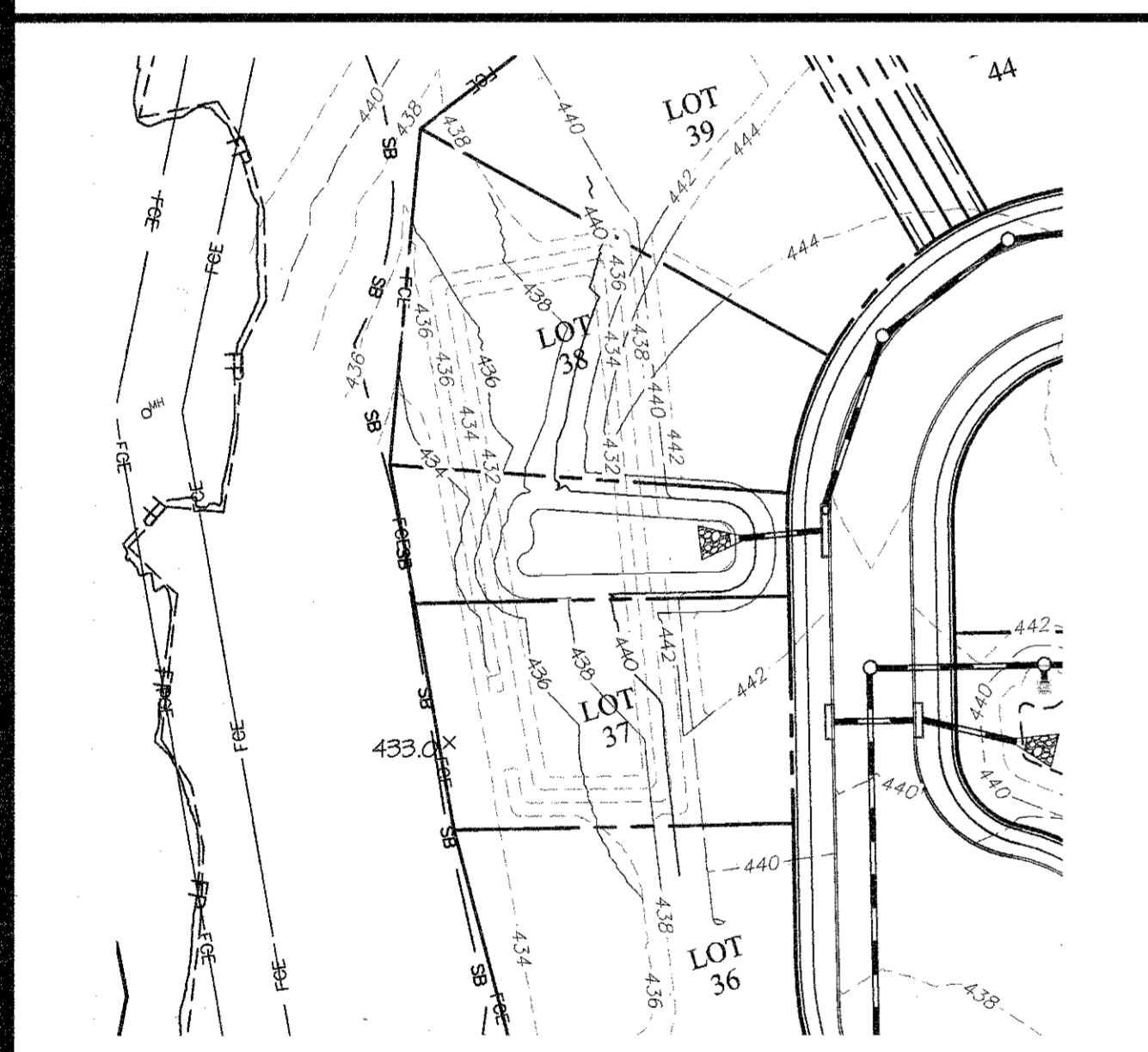
SEDIMENT TRAP #1



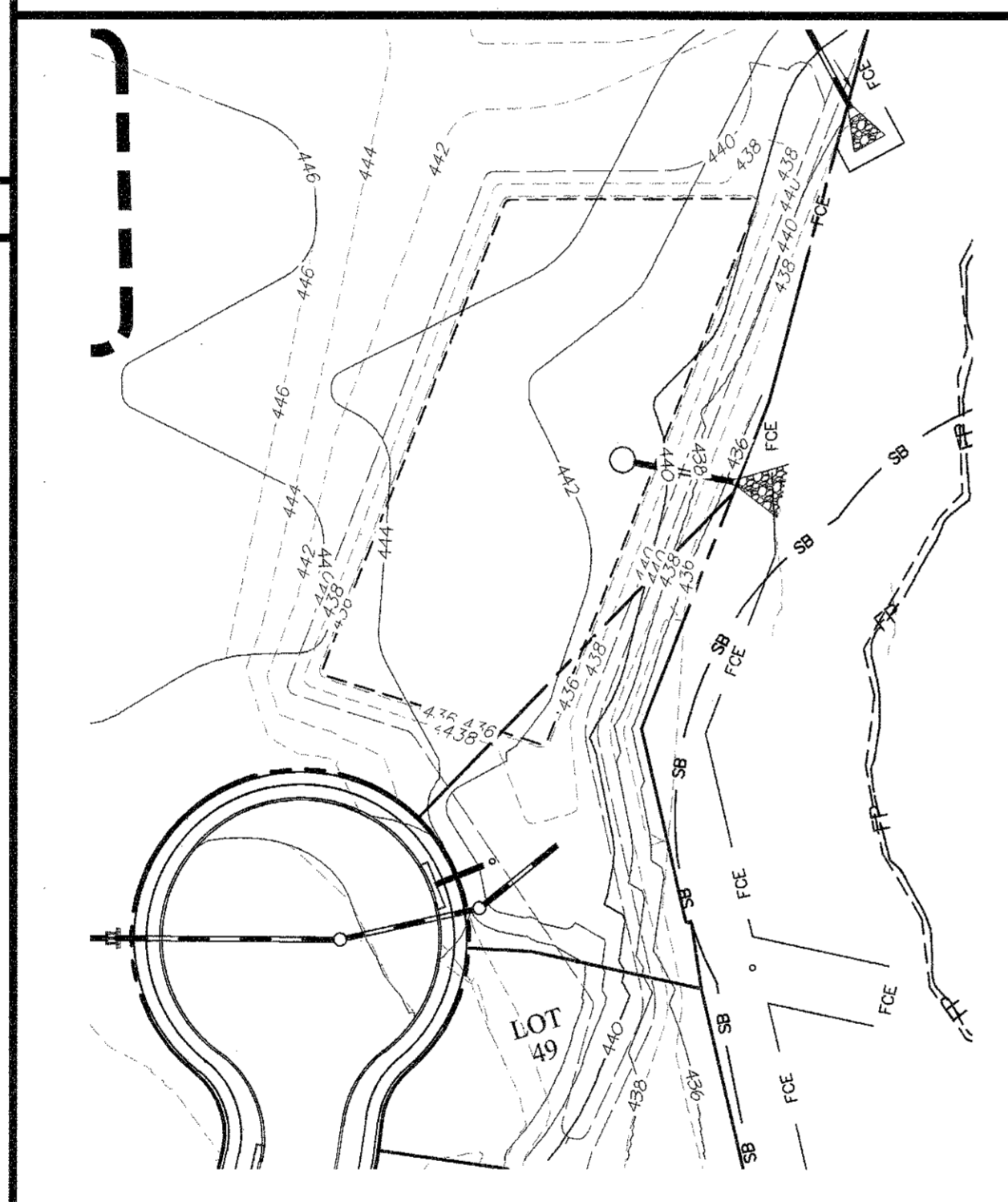
SEDIMENT TRAP #2



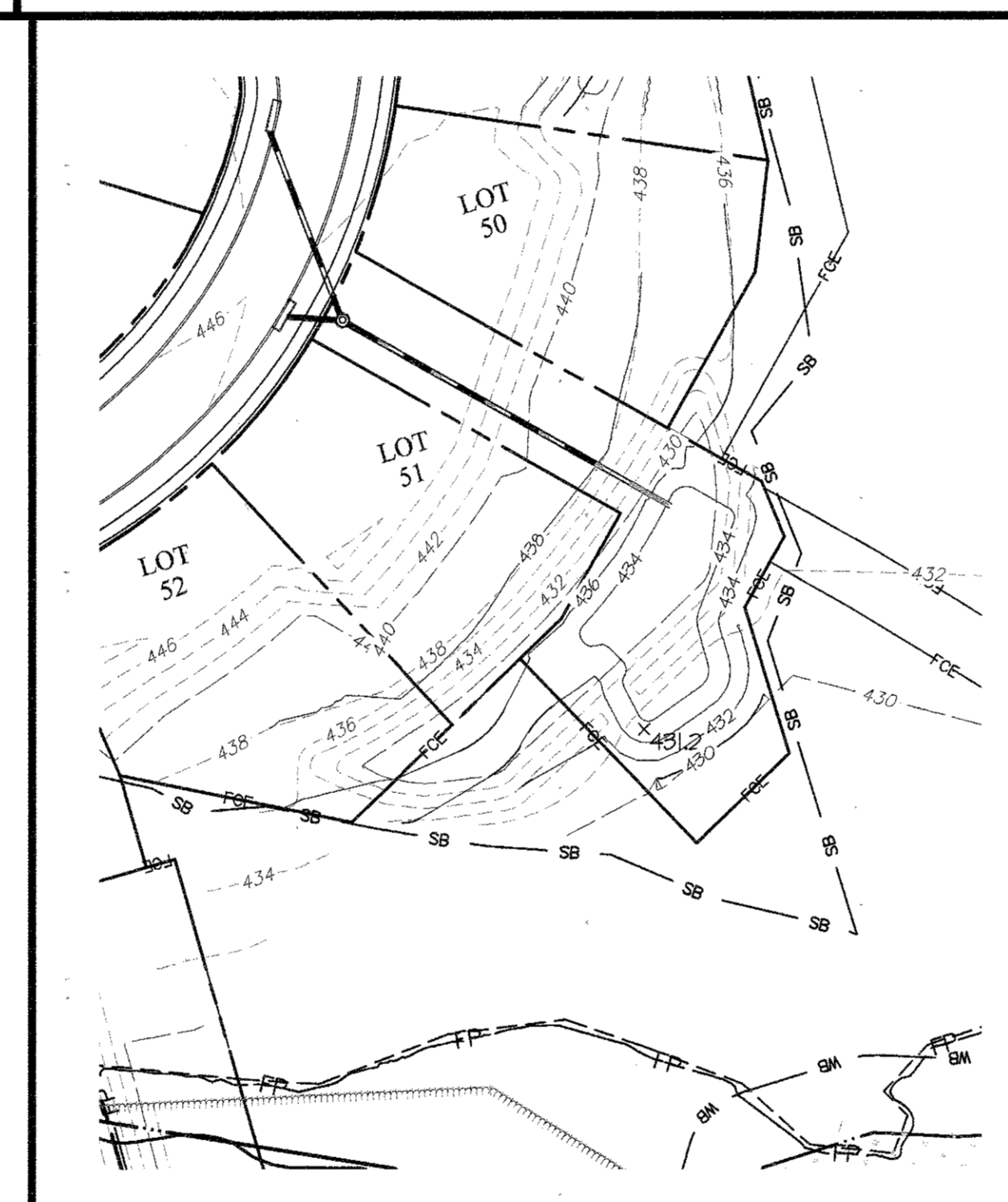
SEDIMENT TRAP #3



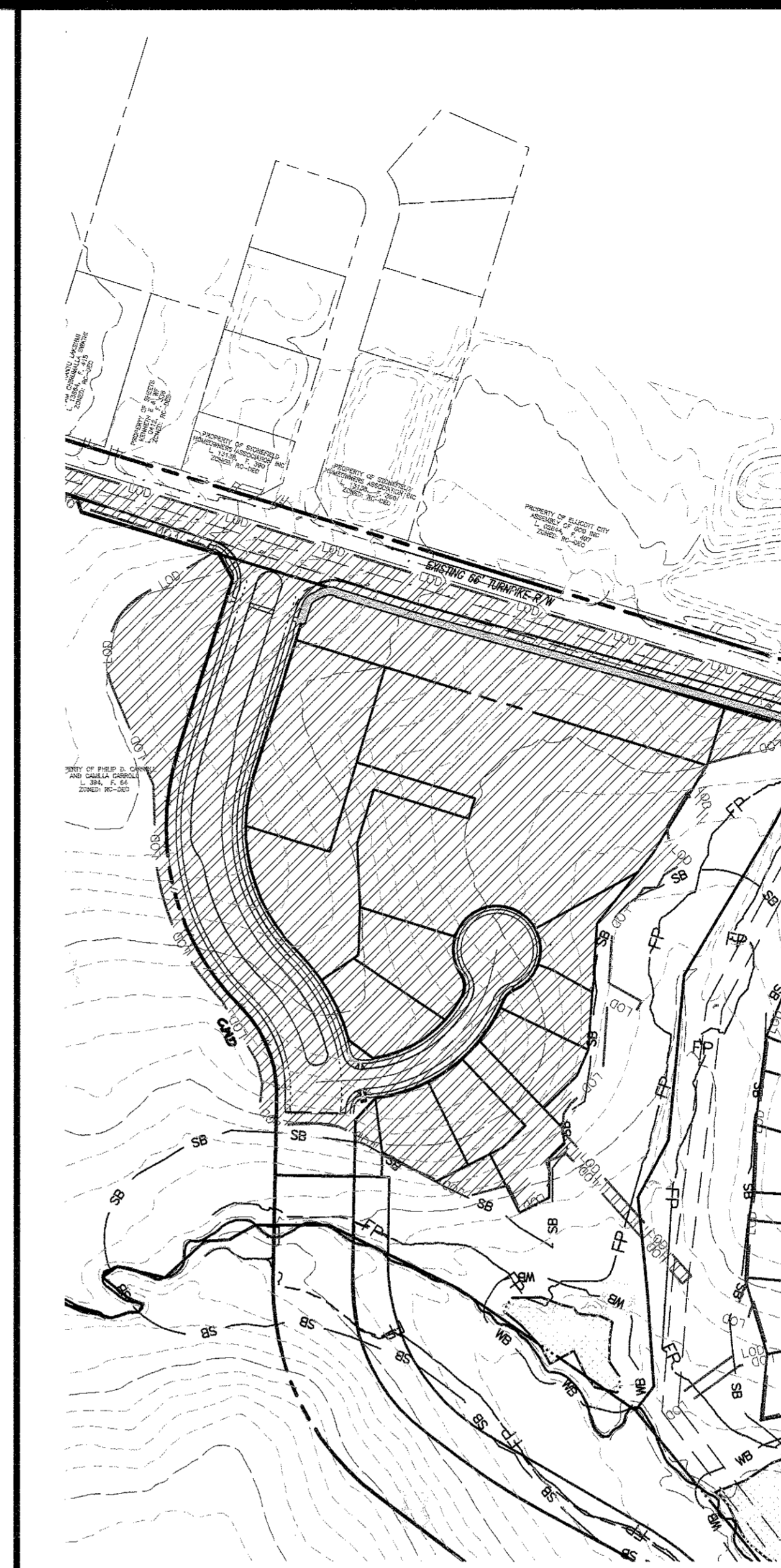
SEDIMENT TRAP #6



SEDIMENT TRAP #4



SEDIMENT TRAP #5



PHASE 2 = 10.6 Ac.



PHASE 1 = 13.9 Ac.

SEDIMENT CONTROL PHASING PLAN

SCALE: 1"=150'

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

*John R. Roberts* 7/15/16  
HOWARD S.C.D.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*M. Meunier* 7/27/2016  
Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Karl Schuler* 8-29-16  
Chief, Division of Land Development

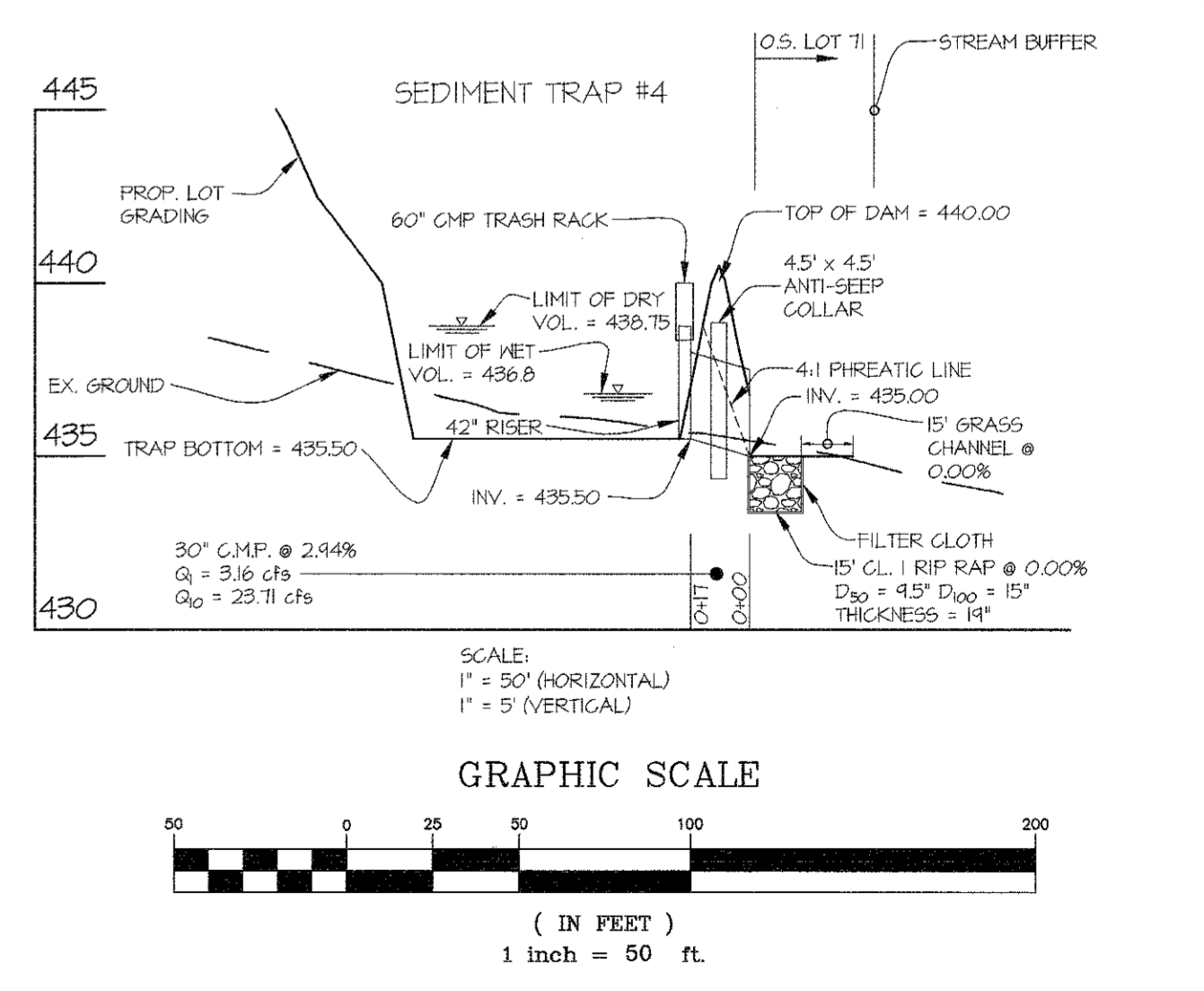
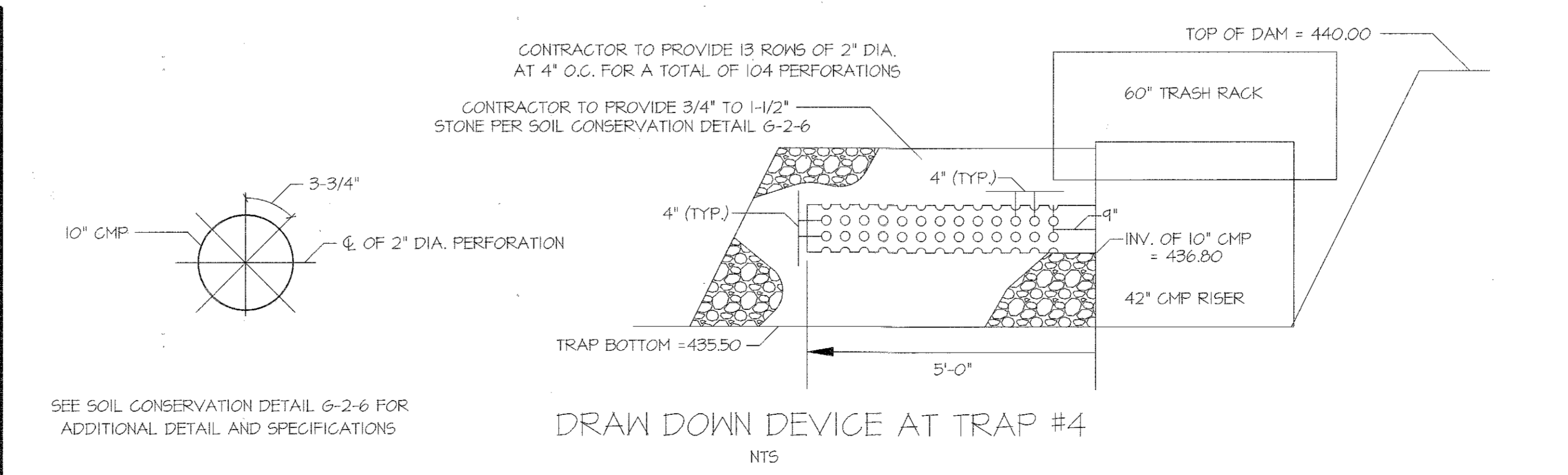
*Chad Clark* 8-26-16  
Chief, Development Engineering Division

**BUILDER'S CERTIFICATE**  
"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR 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 MARYLAND 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 OF THE SCD."

*[Signature]* 12 JULY 2016  
SIGNATURE OF DEVELOPER/BUILDER DATE

**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]* 7/14/16  
SIGNATURE OF ENGINEER DATE



**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20866  
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.

PREPARED FOR:  
WESTMOUNT DEVELOPMENT CORPORATION  
3500 MANOR LANE  
ELLCOTT CITY, MARYLAND 21042  
443-367-0422  
ATTN: CAMILLA CARROLL

**PROFESSIONAL CERTIFICATION**  
I HEREBY CERTIFY THAT THESE PLANS 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. 12978  
EXPIRATION DATE: MAY 28, 2018  
7/14/16 *[Signature]*

**SEDIMENT TRAP BACKFILL PLAN**  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A AND REVISION TO CREDITED OPEN SPACE LOT 1  
ELECTION DISTRICT No. 2

SCALE	ZONING	G. L. W. FILE NO.
1"=50'	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	28 OF 60





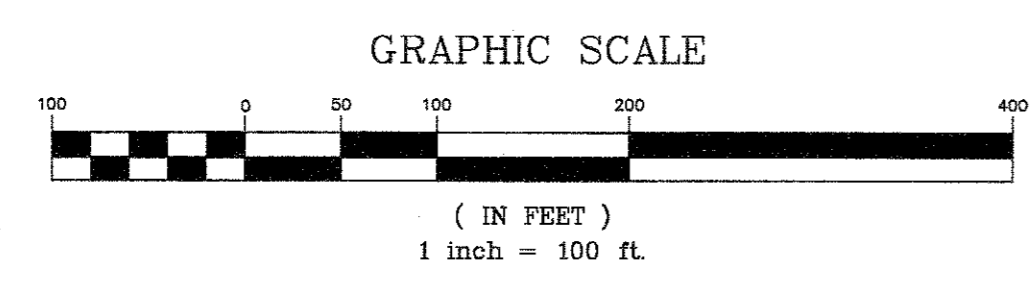
**LEGEND**

	B SOILS		DRAINAGE DIVIDE
	C SOILS		TG PATH
	D SOILS	(A) (B)	

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 7/27/2016  
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*[Signature]* 8-26-16  
 Chief, Division of Land Development Date

*[Signature]* 8-26-16  
 Chief, Development Engineering Division Date

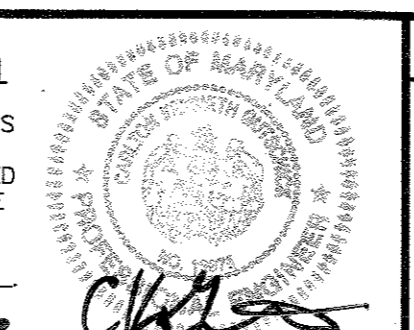


**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
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 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN.: CAMILLA CARROLL

**PROFESSIONAL CERTIFICATION**  
 I HEREBY CERTIFY THAT THESE PLANS 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. 12975  
 EXPIRATION DATE: MAY 28, 2018  
 7/14/16 *[Signature]*



**TEMPORARY SWM DRAINAGE AREA MAP (PRE-DEVELOPMENT)**

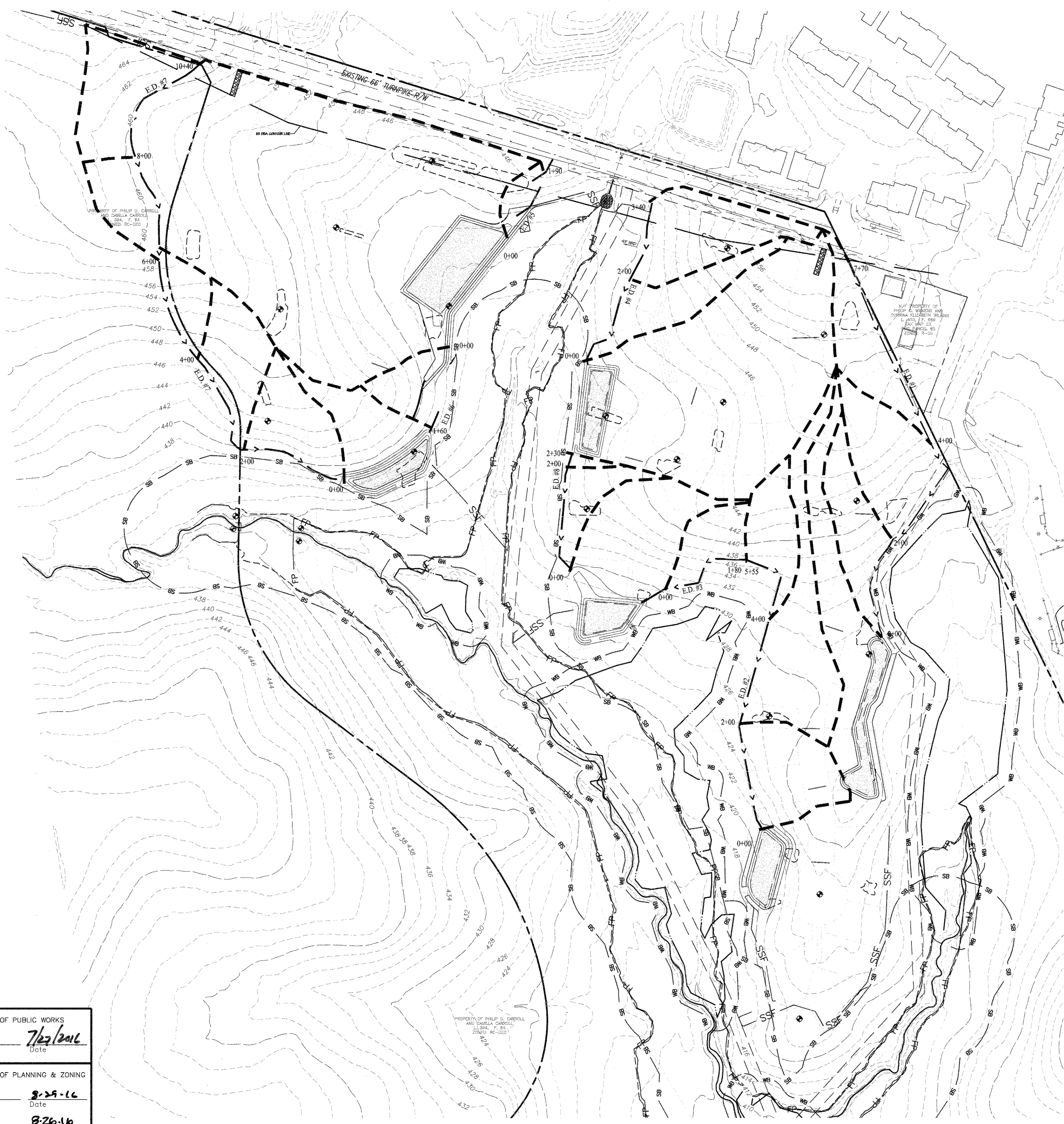
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
 ELECTION DISTRICT No. 2 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=100'	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	29 OF 60









**LEGEND**

	EXISTING CONTOUR		EXISTING TREELINE
	PROPOSED CONTOUR		100 YEAR FLOODPLAIN
	STABILIZED CONSTRUCTION ENTRANCE		STREAM BUFFER
	EARTH DIKE		CENTERLINE OF STREAM
	PROPOSED SILT FENCE		WETLAND BUFFER
	PROPOSED SUPER SILT FENCE		LIMIT OF WETLAND
			DRAINAGE DIVIDE

**EARTH DIKE SIZING FOR EXISTING CONDITIONS**

**EARTH DIKE TREATMENT (ED #1) - LOCATED ALONG EASTERN LIMIT OF DISTURBANCE**

STARTING STATION	ENDING STATION	PERCENT	INCREMENTAL AREA	TOTAL AREA	TREATMENT	SHEAR STRESS	SOIL STABILIZATION
1710	4100	4.9%	20,174 SF	0.48 AC.	A-2	0.71 LB/FT <sup>2</sup>	TEMPORARY
4100	2100	2.40%	30,444 SF	1.14 AC.	A-1	0.71 LB/FT <sup>2</sup>	TEMPORARY
2100	0100	2.60%	11,404 SF	0.40 AC.	A-2	0.71 LB/FT <sup>2</sup>	TEMPORARY

**EARTH DIKE TREATMENT (ED #2) - LOCATED ALONG SOUTH EASTERN LIMIT OF DISTURBANCE**

STARTING STATION	ENDING STATION	PERCENT	INCREMENTAL AREA	TOTAL AREA	TREATMENT	SHEAR STRESS	SOIL STABILIZATION
5180	4100	3.62%	16,418 SF	0.42 AC.	A-1	0.54 LB/FT <sup>2</sup>	TEMPORARY
4100	2100	2.47%	46,481 SF	1.07 AC.	A-2	0.54 LB/FT <sup>2</sup>	TEMPORARY
2100	0100	2.85%	27,841 SF	0.64 AC.	A-2	0.54 LB/FT <sup>2</sup>	TEMPORARY

**EARTH DIKE TREATMENT (ED #3) - LOCATED ALONG SOUTH EASTERN LIMIT OF DISTURBANCE**

STARTING STATION	ENDING STATION	PERCENT	INCREMENTAL AREA	TOTAL AREA	TREATMENT	SHEAR STRESS	SOIL STABILIZATION
1480	0100	3.9%	15,012 SF	0.34 AC.	A-2	0.71 LB/FT <sup>2</sup>	TEMPORARY

**EARTH DIKE TREATMENT (ED #4) - LOCATED ALONG MID-EASTERN LIMIT OF DISTURBANCE**

STARTING STATION	ENDING STATION	PERCENT	INCREMENTAL AREA	TOTAL AREA	TREATMENT	SHEAR STRESS	SOIL STABILIZATION
3140	2100	0.80%	24,448 SF	0.56 AC.	A-2	0.28 LB/FT <sup>2</sup>	TEMPORARY
2100	0100	2.74%	14,886 SF	0.45 AC.	A-2	0.28 LB/FT <sup>2</sup>	TEMPORARY

**EARTH DIKE TREATMENT (ED #5) - LOCATED ALONG MID-WESTERN LIMIT OF DISTURBANCE**

STARTING STATION	ENDING STATION	PERCENT	INCREMENTAL AREA	TOTAL AREA	TREATMENT	SHEAR STRESS	SOIL STABILIZATION
1480	0100	5.9%	8,380 SF	0.19 AC.	A-2	0.54 LB/FT <sup>2</sup>	TEMPORARY

**EARTH DIKE TREATMENT (ED #6) - LOCATED ALONG MID-WESTERN LIMIT OF DISTURBANCE**

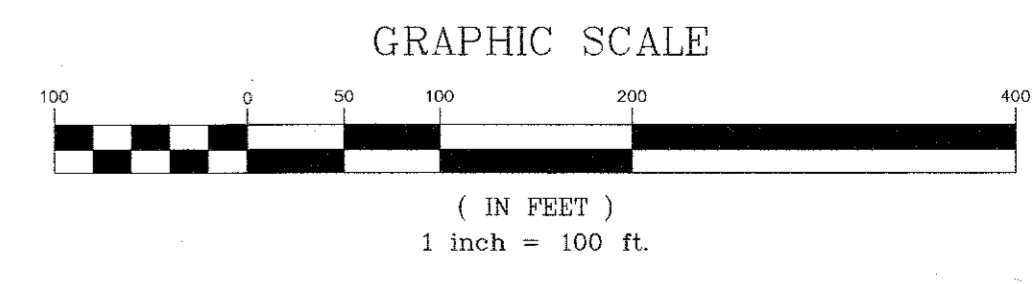
STARTING STATION	ENDING STATION	PERCENT	INCREMENTAL AREA	TOTAL AREA	TREATMENT	SHEAR STRESS	SOIL STABILIZATION
1480	0100	0.80%	14,999 SF	0.34 AC.	A-2	0.06 LB/FT <sup>2</sup>	TEMPORARY

**EARTH DIKE TREATMENT (ED #7) - LOCATED ALONG WESTERN LIMIT OF DISTURBANCE**

STARTING STATION	ENDING STATION	PERCENT	INCREMENTAL AREA	TOTAL AREA	TREATMENT	SHEAR STRESS	SOIL STABILIZATION
10150	6100	1.27%	29,040 SF	0.67 AC.	A-2	0.04 LB/FT <sup>2</sup>	TEMPORARY
6100	6100	0.50%	16,056 SF	0.41 AC.	A-2	0.04 LB/FT <sup>2</sup>	TEMPORARY
6100	4100	5.91%	6,835 SF	0.20 AC.	A-2	0.54 LB/FT <sup>2</sup>	TEMPORARY
4100	2100	4.0%	26,584 SF	0.61 AC.	A-2	0.54 LB/FT <sup>2</sup>	TEMPORARY
2100	0100	1.35%	22,548 SF	0.52 AC.	A-2	0.54 LB/FT <sup>2</sup>	TEMPORARY

**EARTH DIKE TREATMENT (ED #8) - LOCATED ALONG MID-EASTERN LIMIT OF DISTURBANCE**

STARTING STATION	ENDING STATION	PERCENT	INCREMENTAL AREA	TOTAL AREA	TREATMENT	SHEAR STRESS	SOIL STABILIZATION
2130	2100	1.00%	1,641 SF	0.04 AC.	A-1	0.25 LB/FT <sup>2</sup>	TEMPORARY
2100	0100	2.46%	12,001 SF	0.28 AC.	A-1	0.25 LB/FT <sup>2</sup>	TEMPORARY



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*M. McComin* 7/29/2016  
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*K. Schaefer* 8-29-16  
 Chief, Division of Land Development Date

*C. Chen* 8-26-16  
 Chief, Development Engineering Division Date

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DES.	JRD.	DRN.	JRD.	CHK.	DEV.
DATE	REVISION	BY	APPR.		

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN: CAMILLA CARROLL

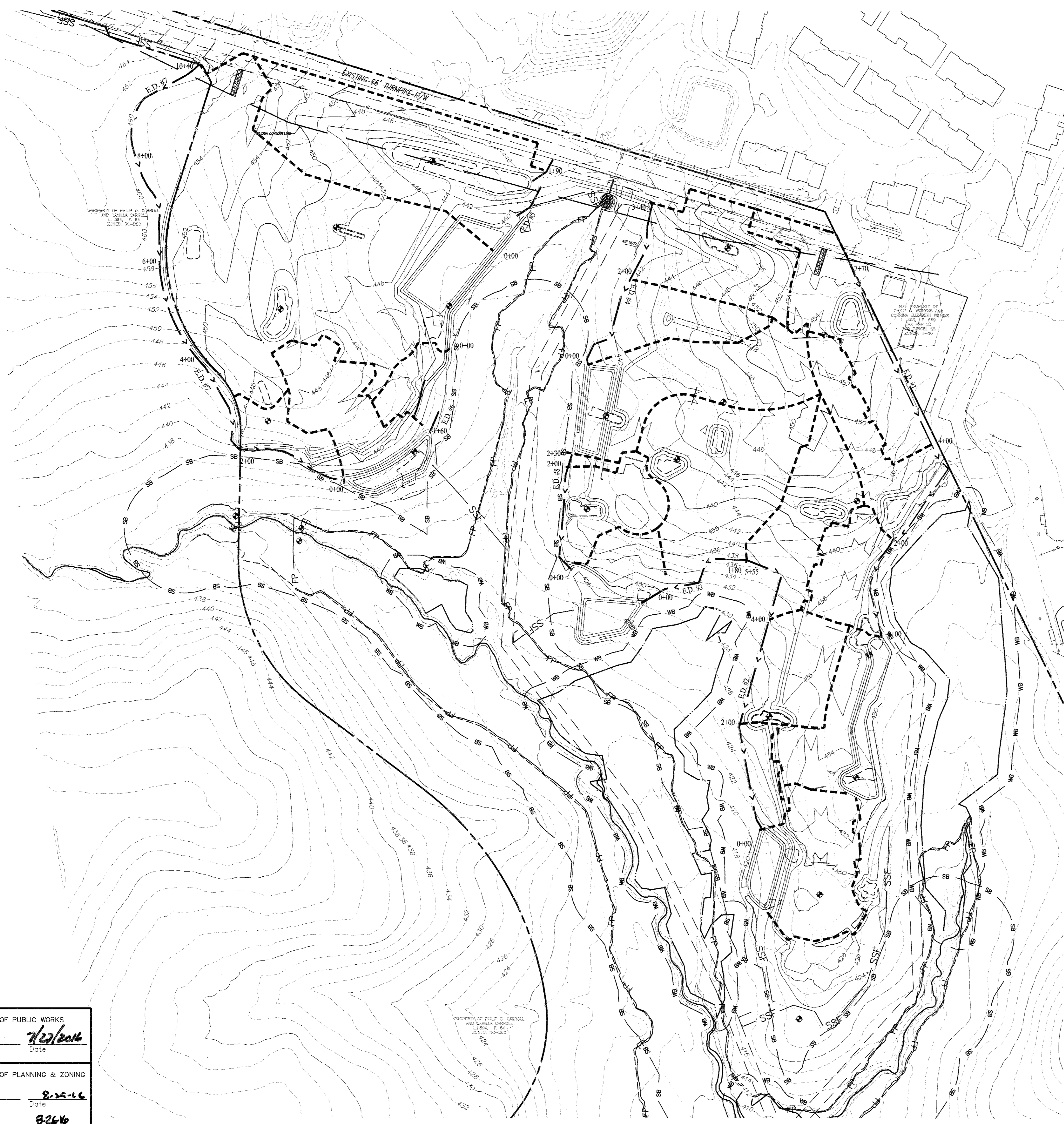
PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12915  
 EXPIRATION DATE: MAY 26, 2018  
 7/14/16 *[Signature]*

**EARTH DIKE TREATMENT PLAN - EXISTING CONDITIONS**

**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A AND REVISION TO CREDITED OPEN SPACE LOT 1  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT No. 2

SCALE	ZONING	G. L. W. FILE NO.
1"=100'	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	31 OF 60





**LEGEND**

— 400 —	EXISTING CONTOUR	— FP —	100 YEAR FLOODPLAIN
— 400 —	PROPOSED CONTOUR	— SB —	STREAM BUFFER
	STABILIZED CONSTRUCTION ENTRANCE	— WB —	CENTERLINE OF STREAM
—	EARTH DIKE	—	WETLAND BUFFER
— SF —	PROPOSED SILT FENCE	—	LIMIT OF WETLAND
— SSF —	PROPOSED SUPER SILT FENCE	—	DRAINAGE DIVIDE

**EARTH DIKE SIZING FOR PROPOSED CONDITIONS**

**EARTH DIKE TREATMENT (ED #1) - LOCATED ALONG EASTERN LIMIT OF DISTURBANCE**

STARTING STATION	ENDING STATION	PERCENT	INCREMENTAL AREA	TOTAL AREA	TREATMENT	SHEAR STRESS	SOIL STABILIZATION
1+10	4+00	4.18%	45,100 SF	1.04 AC.	A-2	0.71 LB/FT <sup>2</sup>	TEMPORARY
4+00	2+00	2.40%	30,000 SF	0.69 AC.	A-2	0.71 LB/FT <sup>2</sup>	TEMPORARY
2+00	0+00	2.60%	24,000 SF	0.55 AC.	A-2	0.71 LB/FT <sup>2</sup>	TEMPORARY

**EARTH DIKE TREATMENT (ED #2) - LOCATED ALONG SOUTH EASTERN LIMIT OF DISTURBANCE**

STARTING STATION	ENDING STATION	PERCENT	INCREMENTAL AREA	TOTAL AREA	TREATMENT	SHEAR STRESS	SOIL STABILIZATION
5+80	4+00	3.62%	39,600 SF	0.91 AC.	A-2	0.54 LB/FT <sup>2</sup>	TEMPORARY
4+00	2+00	2.41%	24,000 SF	0.56 AC.	A-2	0.54 LB/FT <sup>2</sup>	TEMPORARY
2+00	0+00	2.85%	13,000 SF	0.26 AC.	A-2	0.54 LB/FT <sup>2</sup>	TEMPORARY

**EARTH DIKE TREATMENT (ED #3) - LOCATED ALONG SOUTH EASTERN LIMIT OF DISTURBANCE**

STARTING STATION	ENDING STATION	PERCENT	INCREMENTAL AREA	TOTAL AREA	TREATMENT	SHEAR STRESS	SOIL STABILIZATION
1+40	0+00	3.91%	15,500 SF	1.83 AC.	A-2	0.71 LB/FT <sup>2</sup>	TEMPORARY

**EARTH DIKE TREATMENT (ED #4) - LOCATED ALONG MID-EASTERN LIMIT OF DISTURBANCE**

STARTING STATION	ENDING STATION	PERCENT	INCREMENTAL AREA	TOTAL AREA	TREATMENT	SHEAR STRESS	SOIL STABILIZATION
3+40	2+00	0.80%	45,300 SF	1.04 AC.	A-2	0.28 LB/FT <sup>2</sup>	TEMPORARY
2+00	0+00	2.14%	26,033 SF	0.60 AC.	A-2	0.28 LB/FT <sup>2</sup>	TEMPORARY

**EARTH DIKE TREATMENT (ED #5) - LOCATED ALONG MID-WESTERN LIMIT OF DISTURBANCE**

STARTING STATION	ENDING STATION	PERCENT	INCREMENTAL AREA	TOTAL AREA	TREATMENT	SHEAR STRESS	SOIL STABILIZATION
1+40	0+00	5.31%	42,400 SF	2.12 AC.	A-2	0.54 LB/FT <sup>2</sup>	TEMPORARY

**EARTH DIKE TREATMENT (ED #6) - LOCATED ALONG MID-WESTERN LIMIT OF DISTURBANCE**

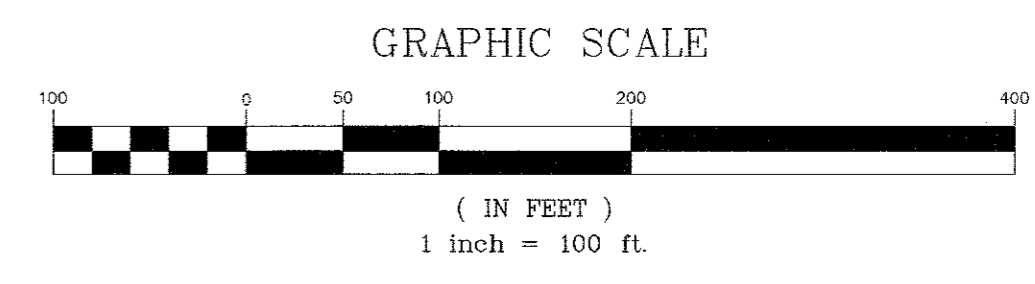
STARTING STATION	ENDING STATION	PERCENT	INCREMENTAL AREA	TOTAL AREA	TREATMENT	SHEAR STRESS	SOIL STABILIZATION
1+60	0+00	0.80%	13,450 SF	0.32 AC.	A-2	0.06 LB/FT <sup>2</sup>	TEMPORARY

**EARTH DIKE TREATMENT (ED #7) - LOCATED ALONG WESTERN LIMIT OF DISTURBANCE**

STARTING STATION	ENDING STATION	PERCENT	INCREMENTAL AREA	TOTAL AREA	TREATMENT	SHEAR STRESS	SOIL STABILIZATION
10+30	8+00	1.27%	24,040 SF	0.61 AC.	A-2	0.04 LB/FT <sup>2</sup>	TEMPORARY
8+00	6+00	0.50%	10,056 SF	0.41 AC.	A-2	0.04 LB/FT <sup>2</sup>	TEMPORARY
6+00	4+00	5.49%	6,235 SF	0.20 AC.	A-2	0.54 LB/FT <sup>2</sup>	TEMPORARY
4+00	2+00	4.01%	26,584 SF	0.61 AC.	A-2	0.54 LB/FT <sup>2</sup>	TEMPORARY
2+00	0+00	1.95%	22,540 SF	0.52 AC.	A-2	0.54 LB/FT <sup>2</sup>	TEMPORARY

**EARTH DIKE TREATMENT (ED #8) - LOCATED ALONG MID-EASTERN LIMIT OF DISTURBANCE**

STARTING STATION	ENDING STATION	PERCENT	INCREMENTAL AREA	TOTAL AREA	TREATMENT	SHEAR STRESS	SOIL STABILIZATION
2+30	2+00	1.00%	1,436 SF	0.04 AC.	A-1	0.25 LB/FT <sup>2</sup>	TEMPORARY
2+00	0+00	2.46%	25,900 SF	0.59 AC.	A-1	0.25 LB/FT <sup>2</sup>	TEMPORARY



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
  
 Chief, Bureau of Highways  
 Date: 7/27/16

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
  
 Chief, Division of Land Development  
 Date: 8-25-16

Chief, Development Engineering Division  
 Date: 8-26-16

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3929 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
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DES.	DRN.	CHK.	DEV.	DATE	REVISION	BY	APP'R.

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN.: CAMILLA CARROLL

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS  
 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. 12979  
 EXPIRATION DATE: MAY 26, 2018  
 7/14/16

**EARTH DIKE TREATMENT PLAN - ULTIMATE CONDITIONS**

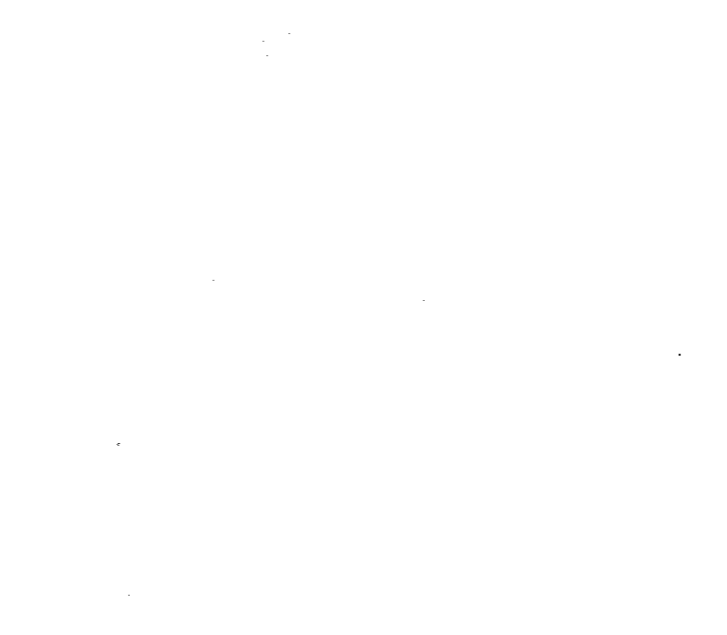
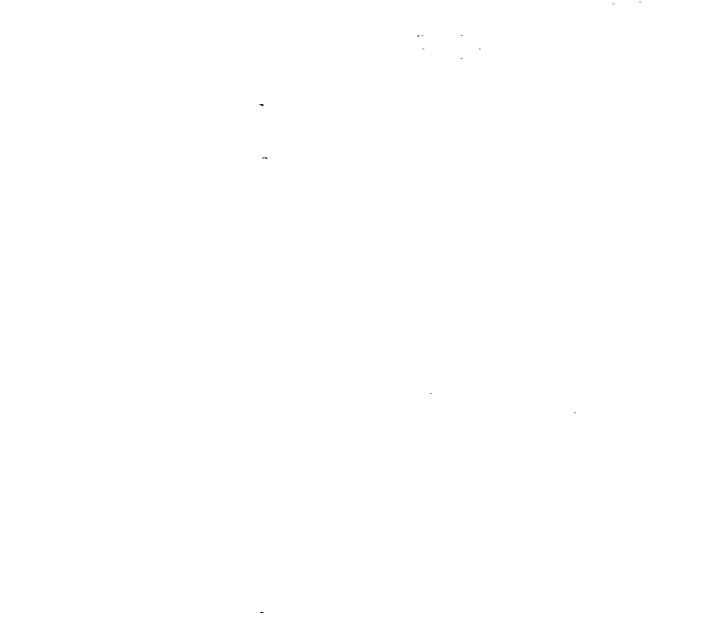
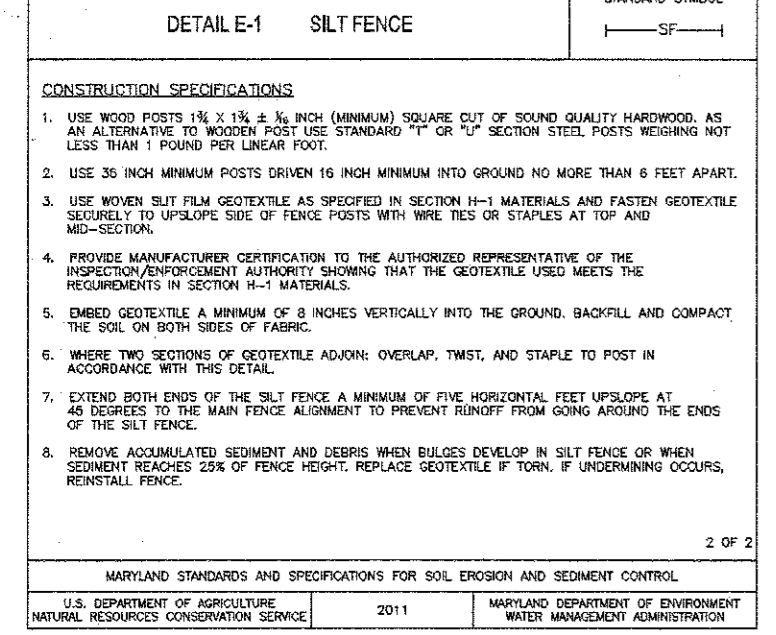
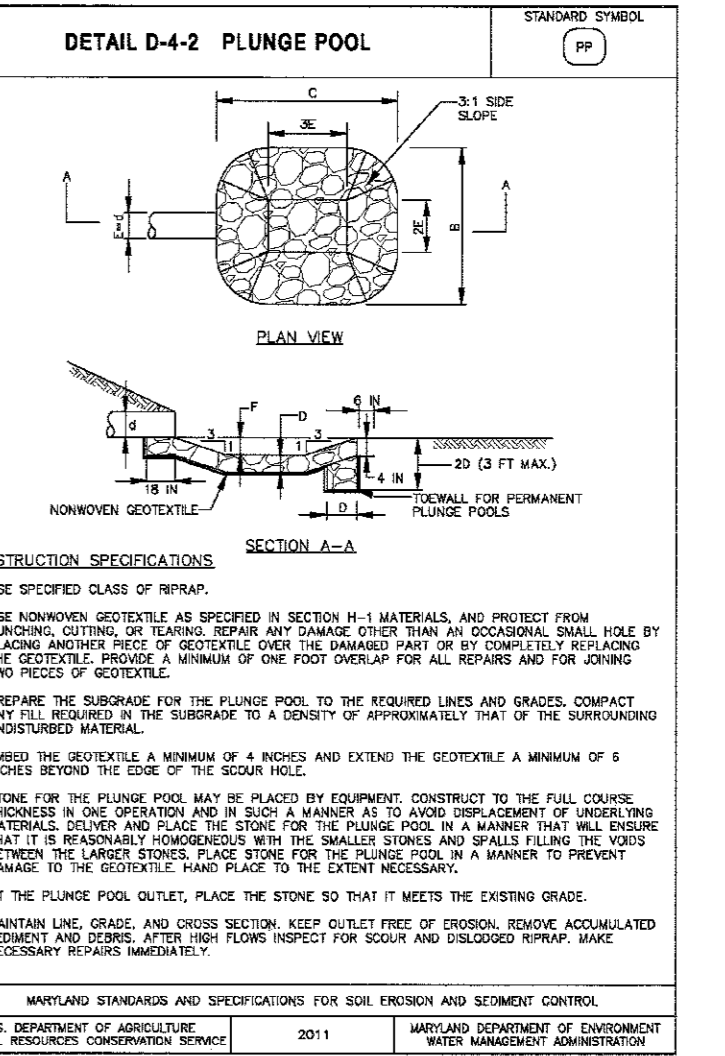
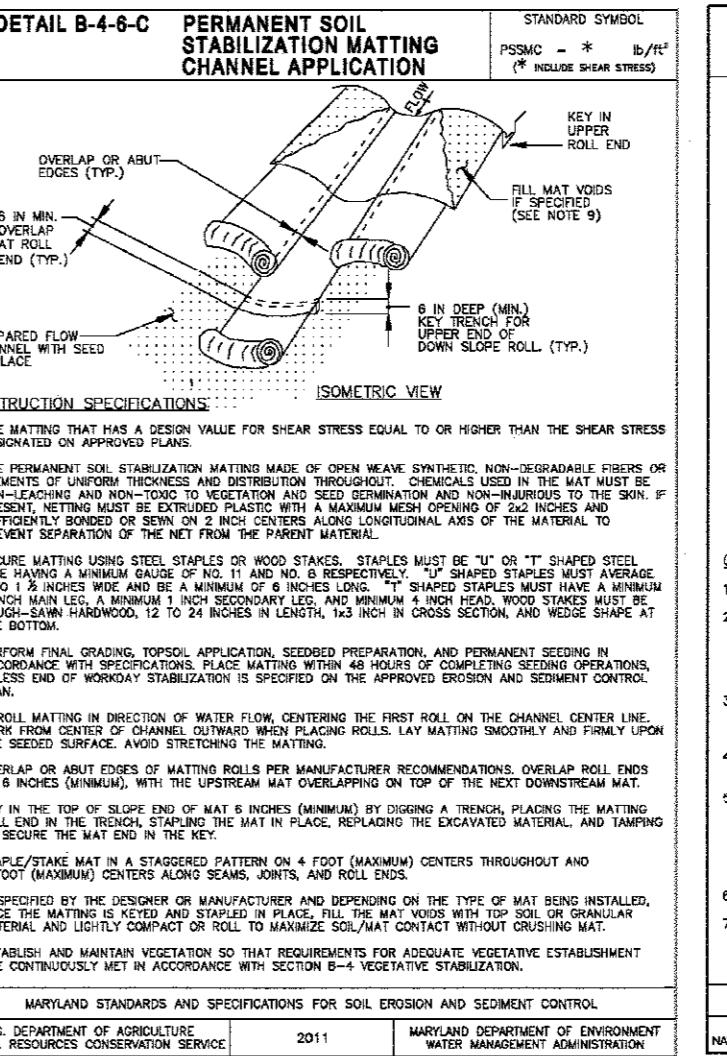
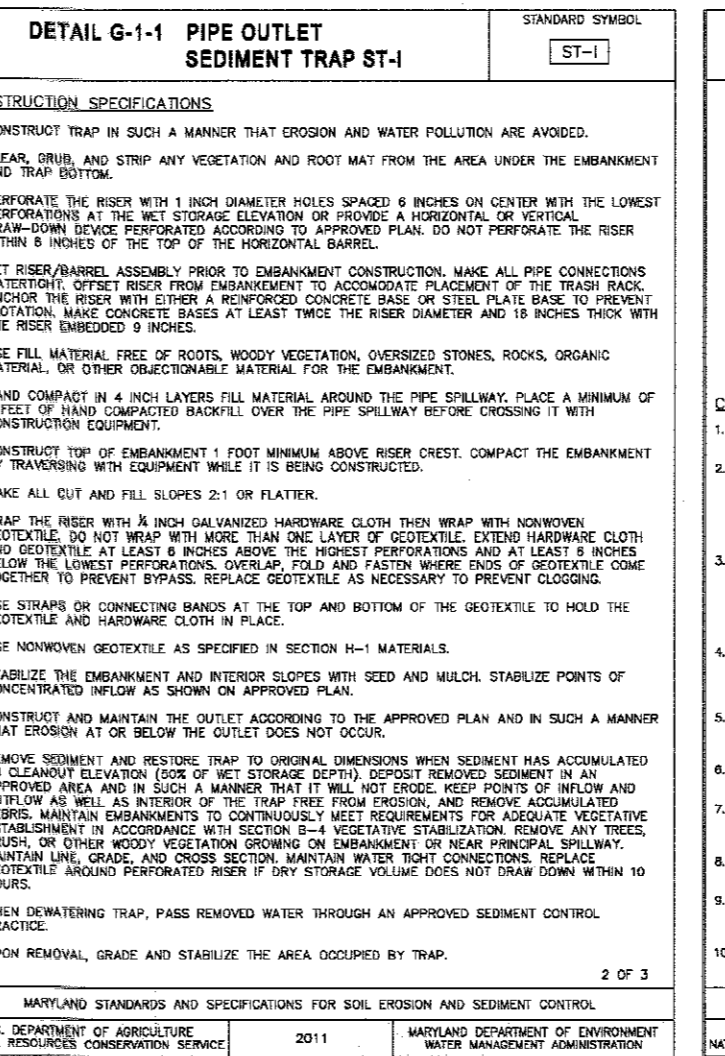
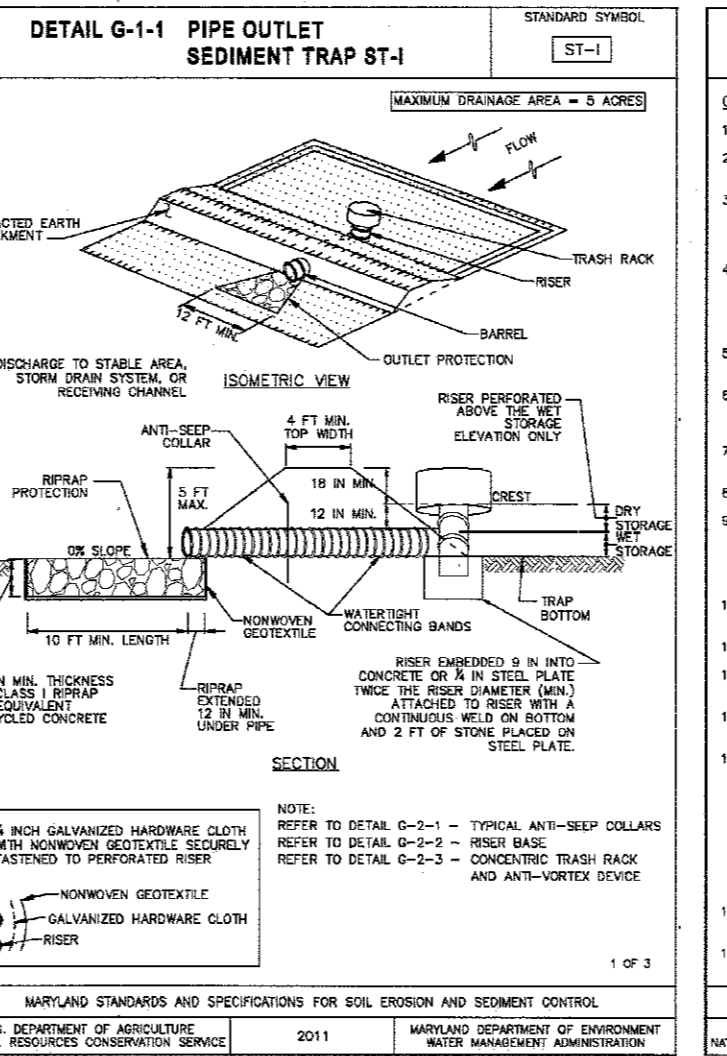
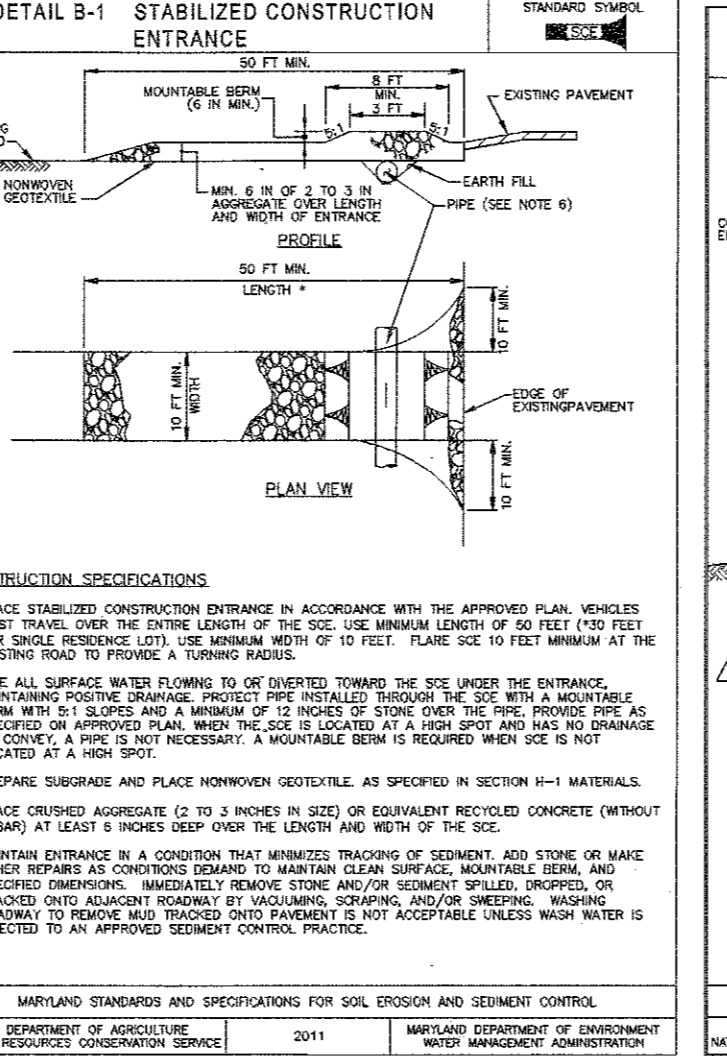
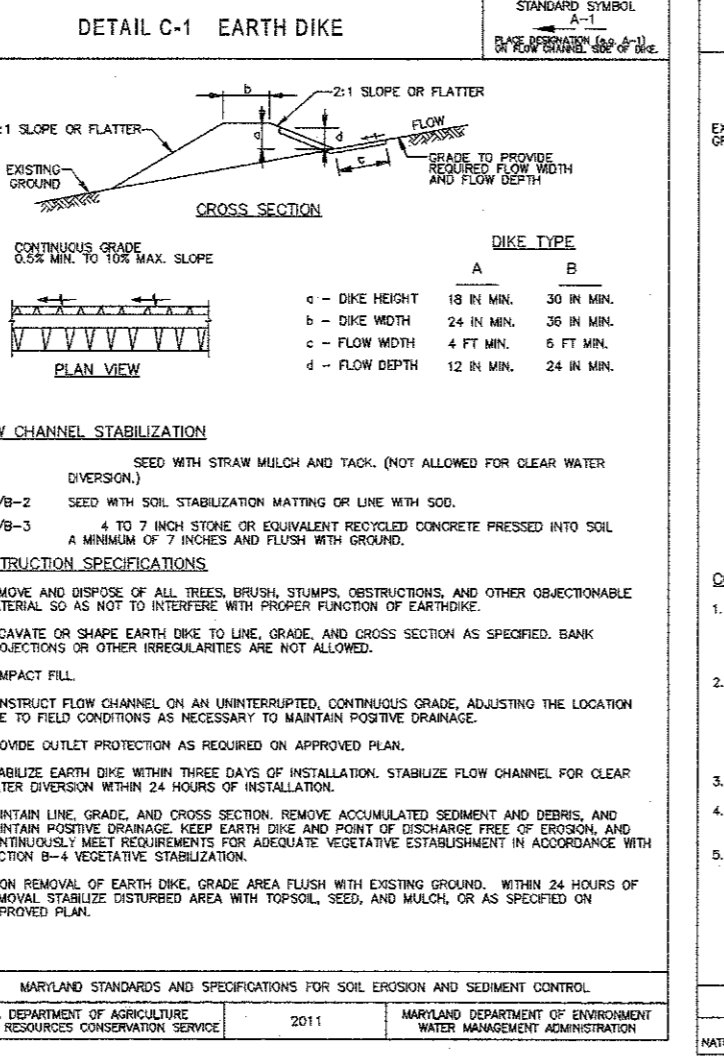
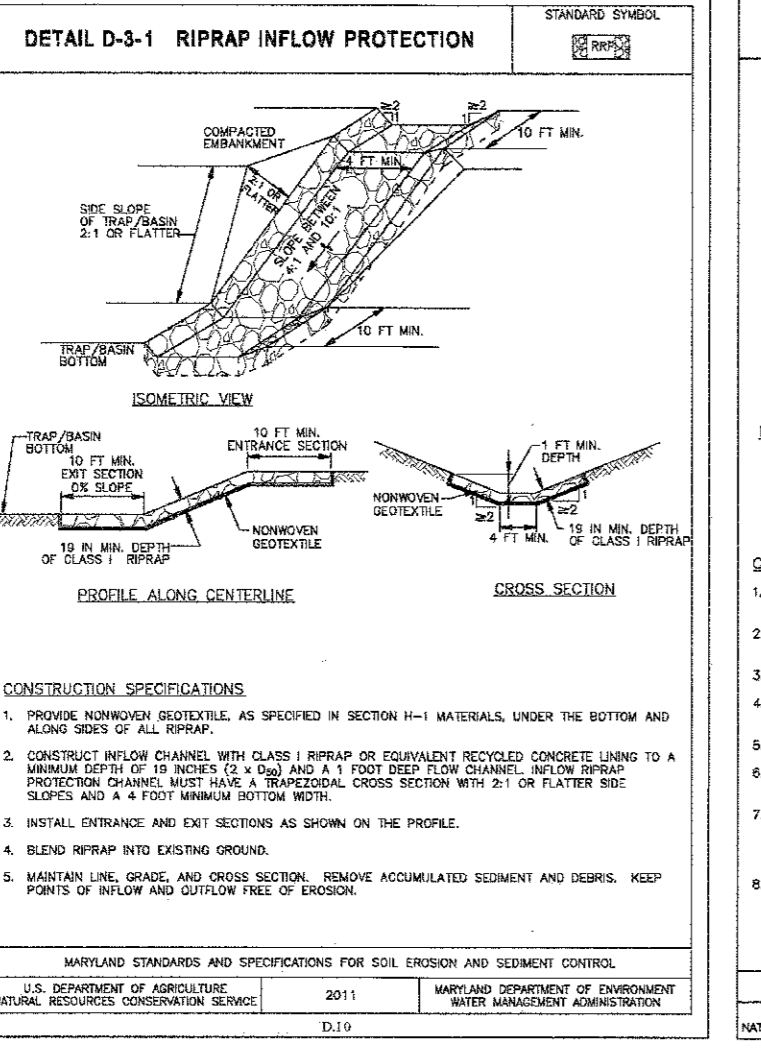
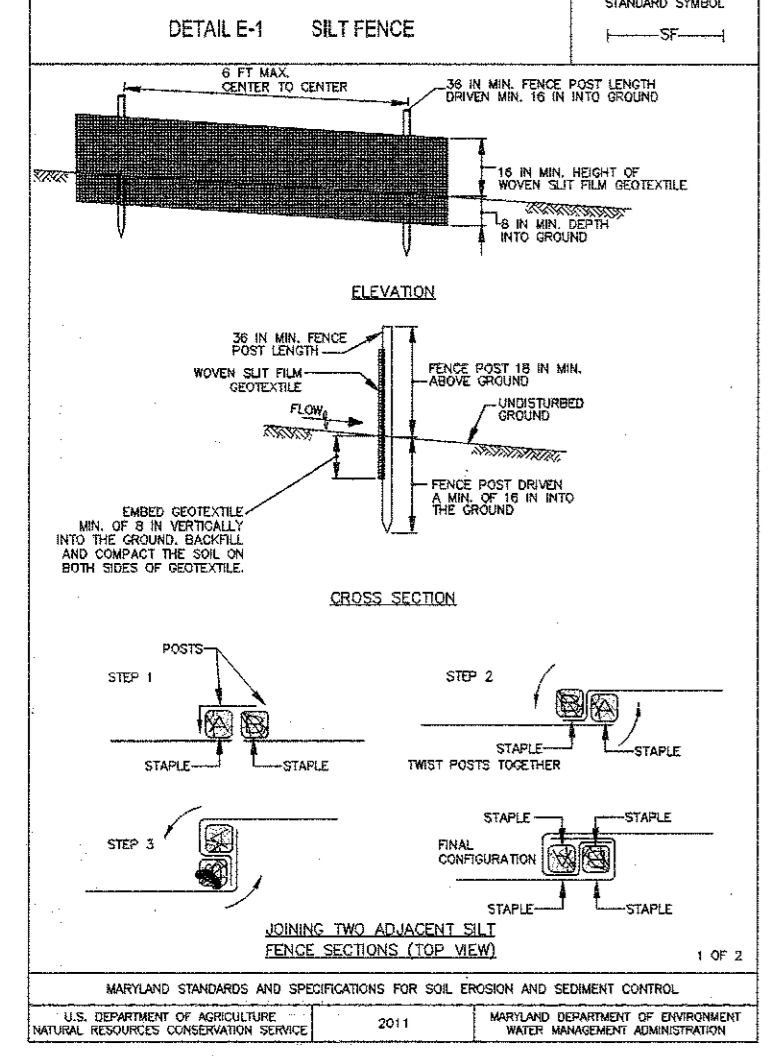
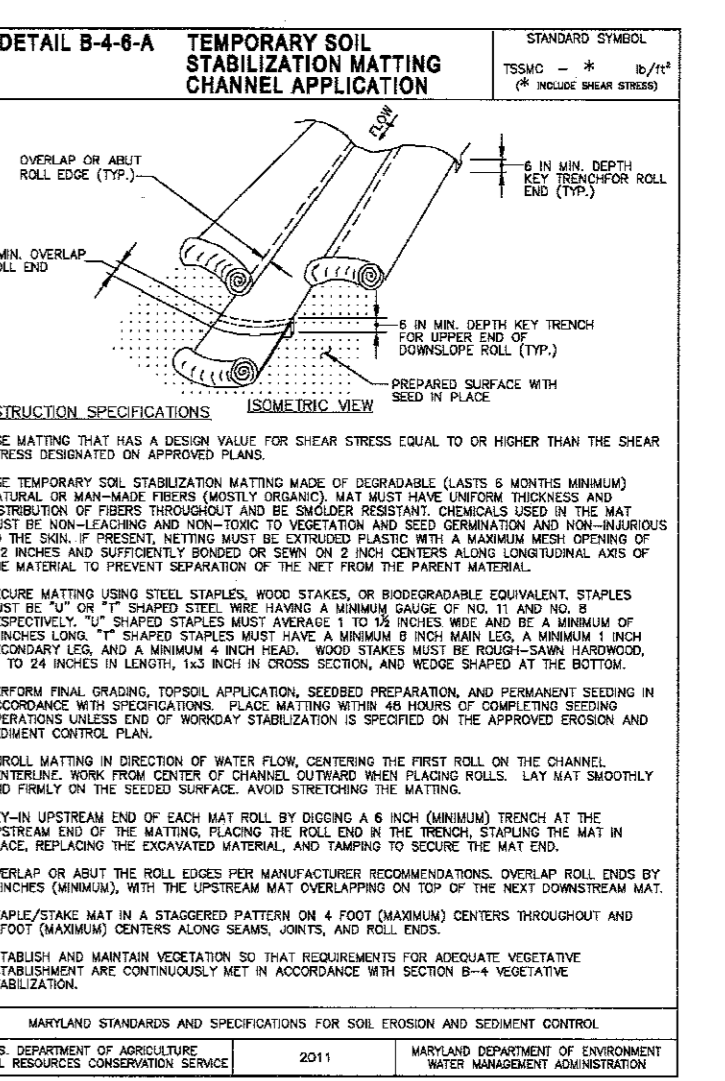
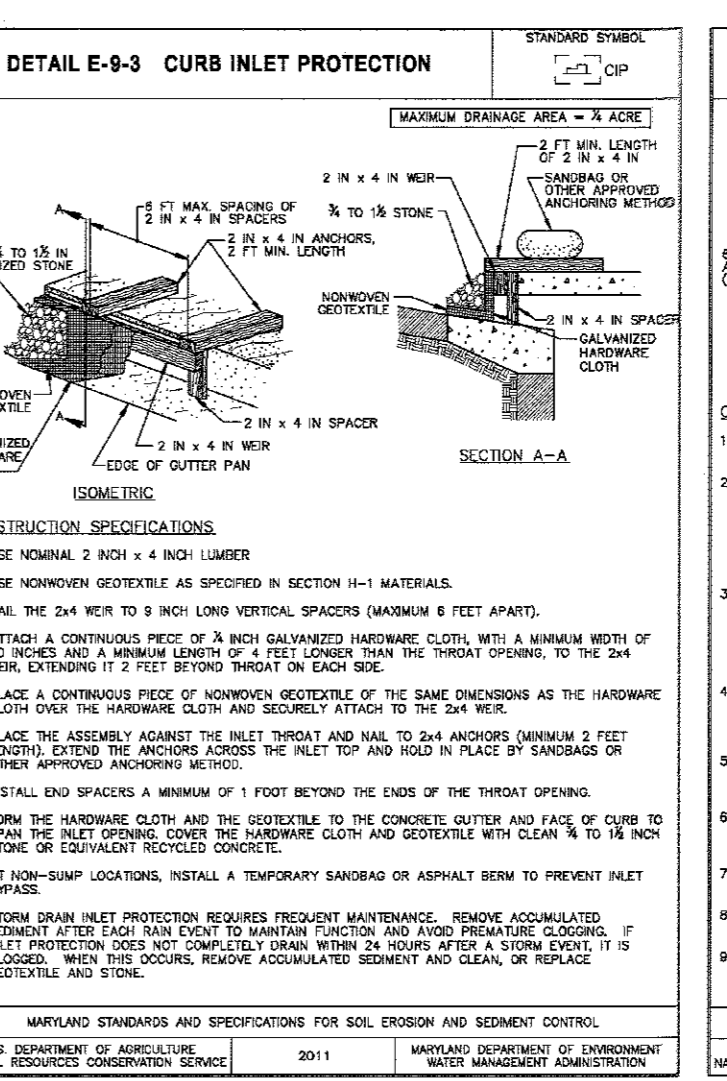
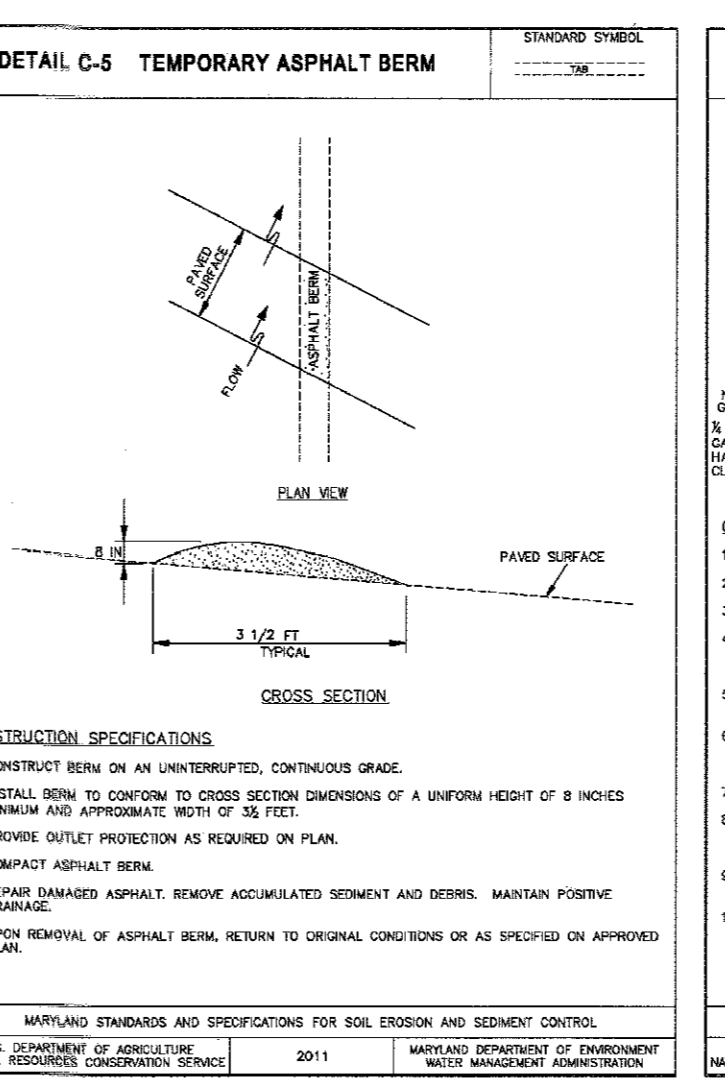
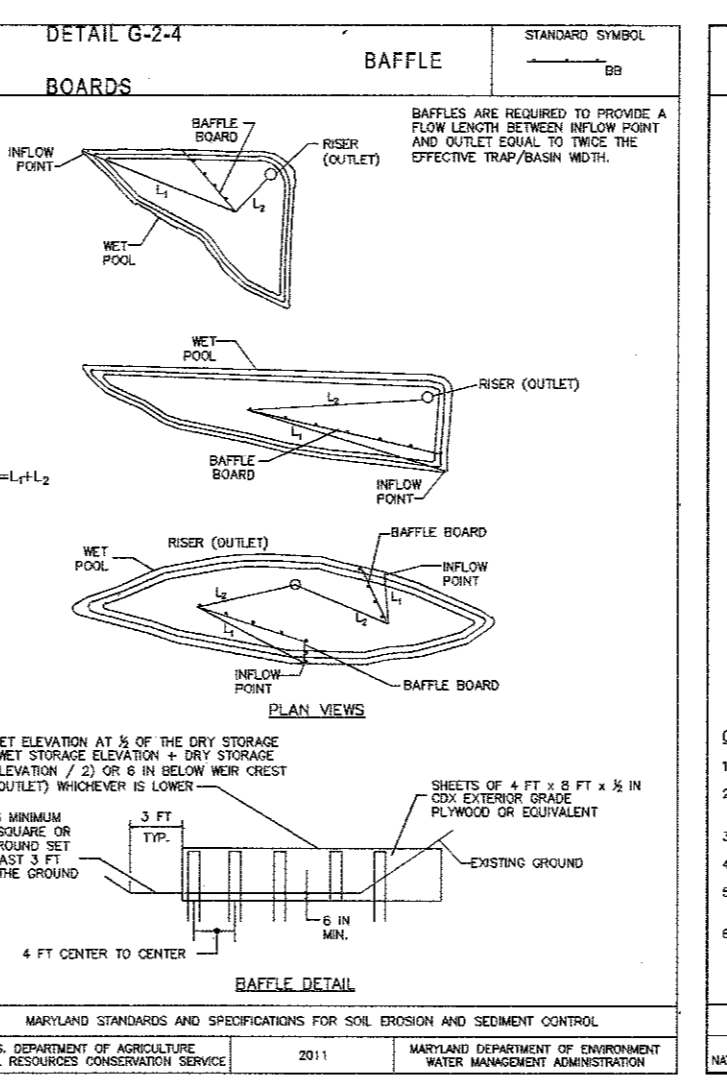
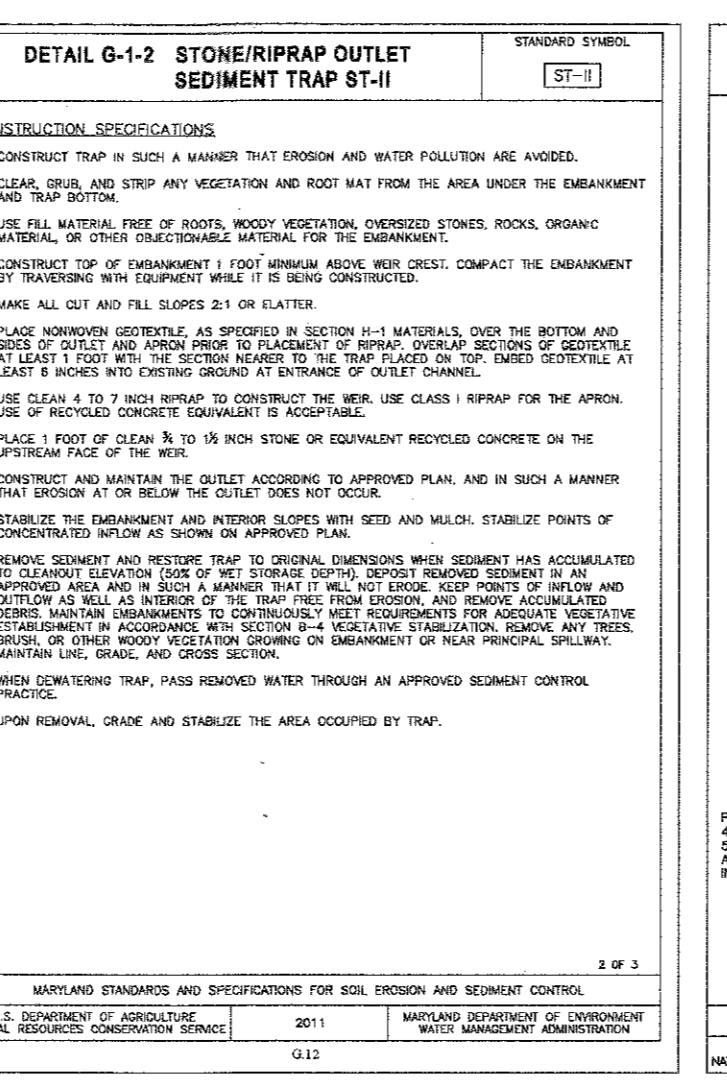
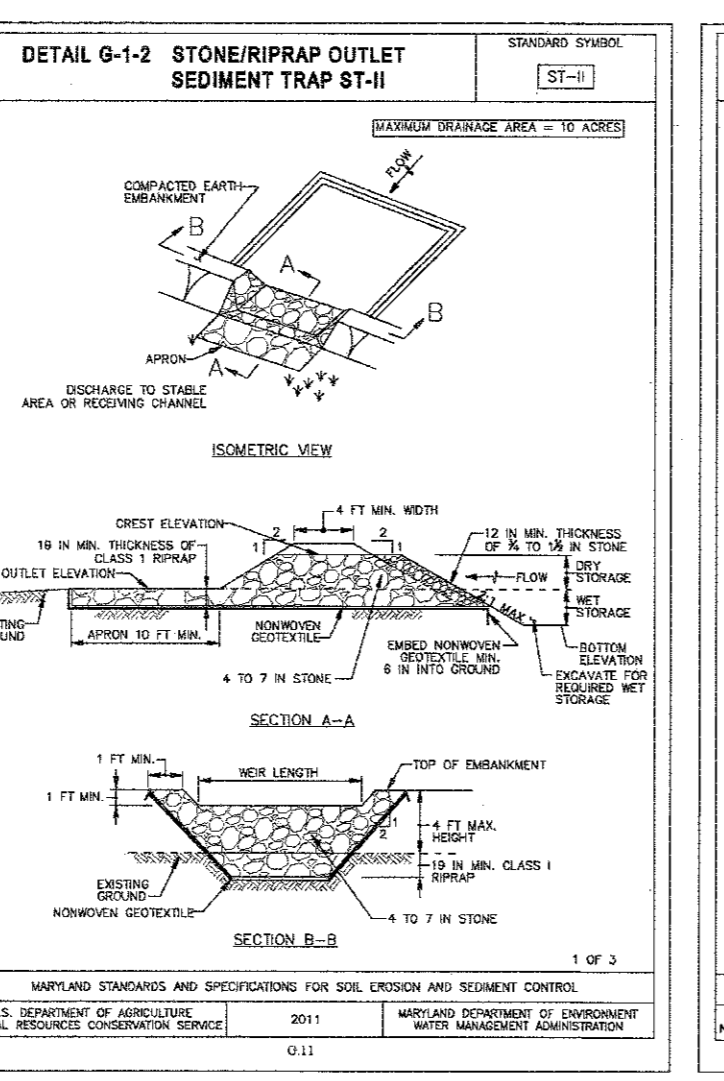
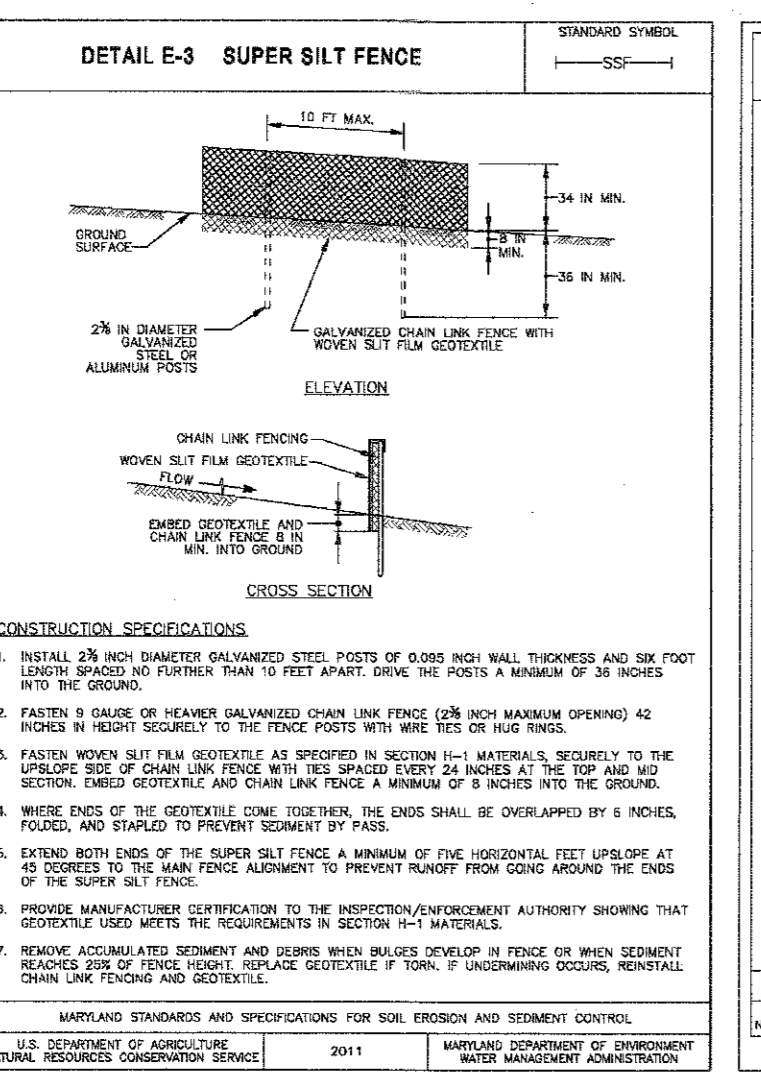
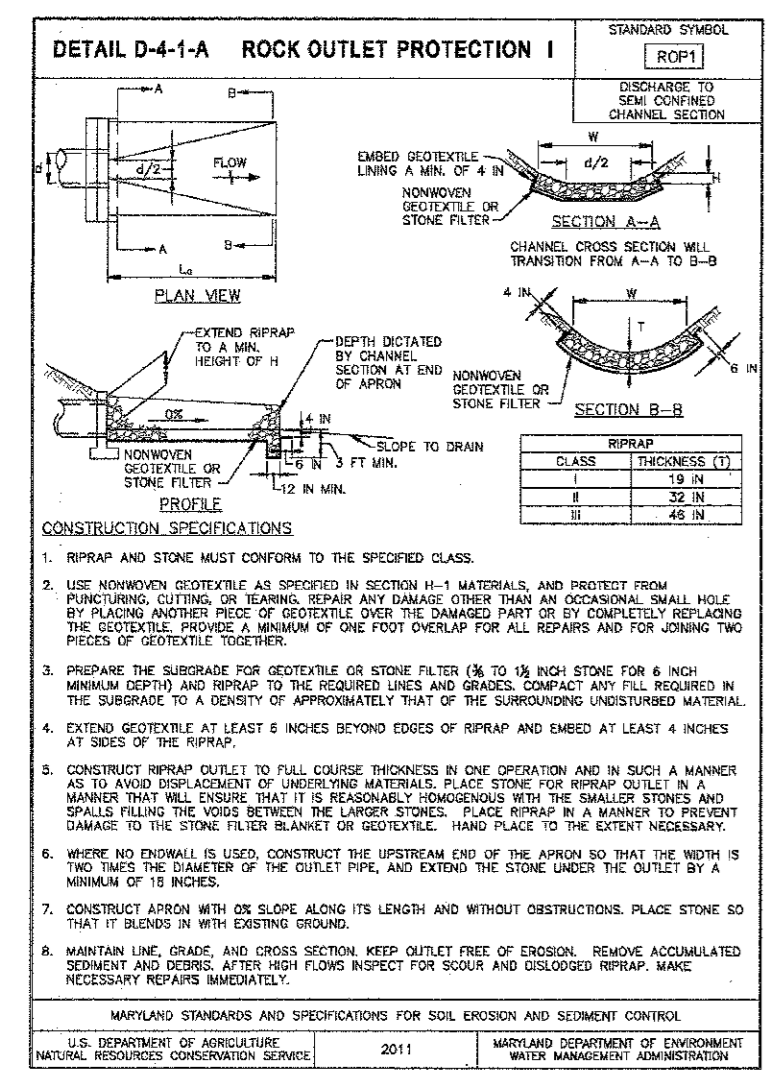
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A AND REVISION TO CREDITED OPEN SPACE LOT 1  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT No. 2

SCALE	ZONING	G. L. W. FILE No.
1"=100'	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	32 OF 60









THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

*[Signature]* 7/15/16  
Chief, Bureau of Highways

*[Signature]* 8-22-16  
Chief, Division of Land Development

*[Signature]* 8-26-16  
Chief, Development Engineering Division

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 250 - BURTONVILLE OFFICE PARK  
BURTONVILLE, MARYLAND 20866  
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-988-2524 FAX: 301-421-4186

**BUILDER'S CERTIFICATE**  
I, THE SIGNER, CERTIFY THAT ALL DEVELOPMENT AND/OR 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 MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES (DENR) TRAINING PROGRAM FOR THE CONTROL OF SOIL EROSION AND SEDIMENTATION. I ALSO INSURE PERIODIC ON-SITE INSPECTION BY THE DENR.

*[Signature]* 12 JULY 2016  
SIGNATURE OF DEVELOPER/BUILDER DATE

**ENGINEER'S CERTIFICATE**  
I, THE SIGNER, CERTIFY THAT THIS PLAN FOR SOIL EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

*[Signature]* 7/14/16  
SIGNATURE OF ENGINEER DATE

PREPARED FOR:  
WESTMOUNT DEVELOPMENT CORPORATION  
3500 MANOR LANE  
ELLICOTT CITY, MARYLAND 21042  
443-367-0422  
ATTN: CAMILLA CARROLL

**PROFESSIONAL CERTIFICATION**  
I HEREBY CERTIFY THAT THESE PLANS 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. 12275.  
EXPIRATION DATE: MAY 28, 2018  
*[Signature]* 7/14/16

**SEDIMENT CONTROL NOTES and DETAILS**  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
HOWARD COUNTY, MARYLAND  
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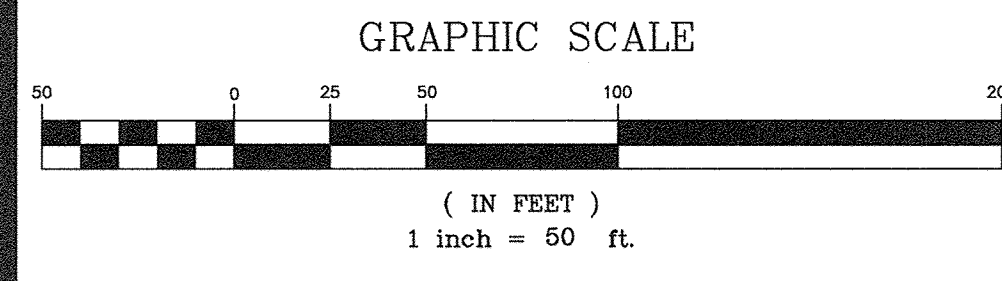
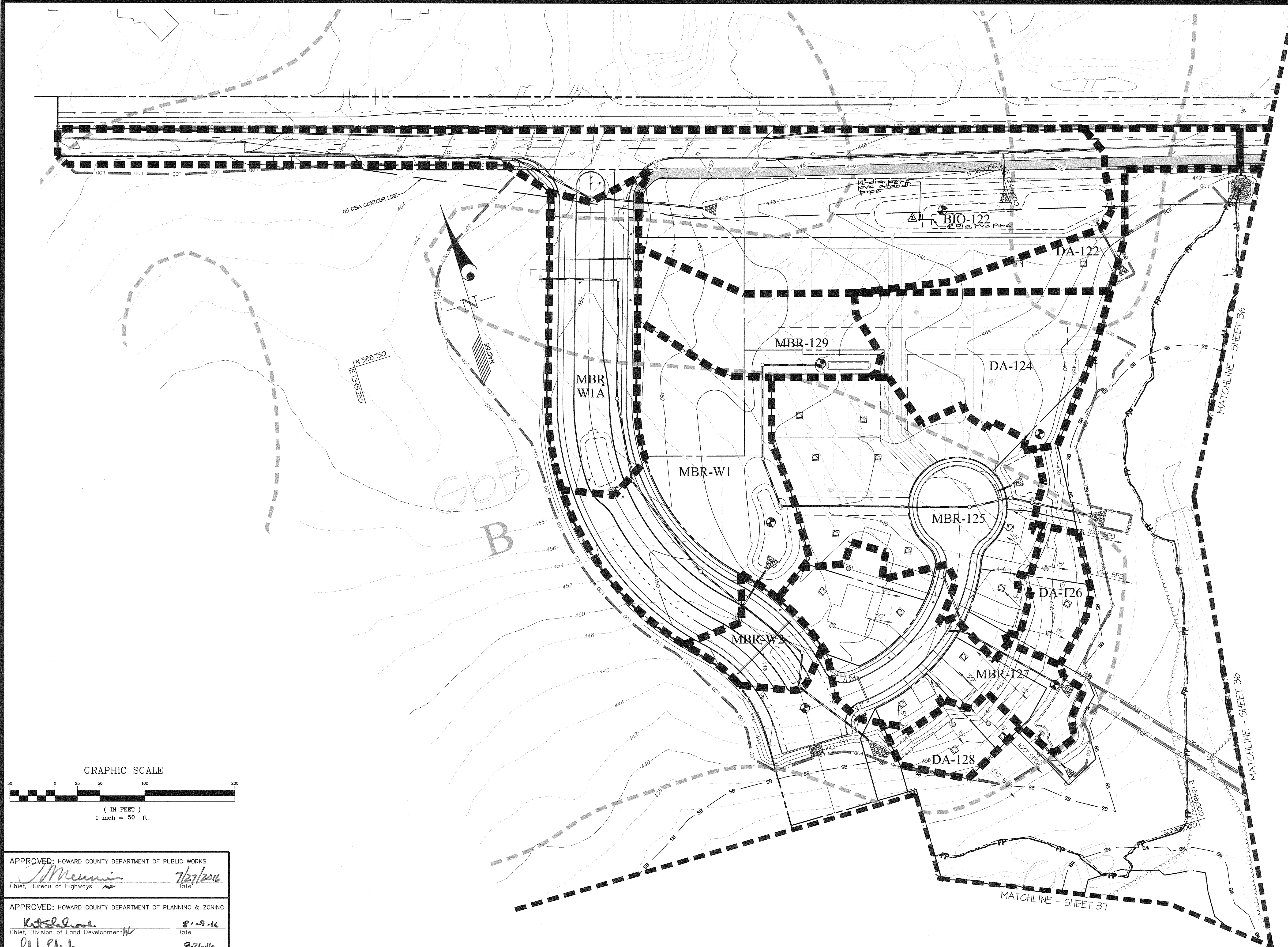
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ZONING: R-ED  
G. L. W. FILE NO.: 13-013  
DATE: JULY, 2016  
TAX MAP - GRID: 23-6&12  
SHEET: 34 OF 60

SHA TRACKING NO. 14APH0018XX  
F 15-087



- LEGEND**
- DRAINAGE DIVIDE
  - SOIL TYPE BOUNDARY
  - SOIL TYPE / SOIL GROUP
  - RAIN BARREL (M-1)
  - DRY WELL (M-5)
  - ROOFTOP DISCONNECT (N-1)
  - SHEET FLOW TO BUFFER (N-3)
  - MICRO BIO-RETENTION FACILITY (M-6)

SOIL SYMBOL	SOIL DESCRIPTION	SOIL TYPE
G6B	GLADSTONE LOAM, 3 to 8 PERCENT SLOPES	B
G6C	GLADSTONE LOAM, 8 to 15 PERCENT SLOPES	B
G6B	GLENNVILLE-BAILE SALT LOAMS, 0 to 8 PERCENT SLOPES	C



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 7/27/2016  
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*[Signature]* 8-19-16  
 Chief, Division of Land Development Date

*[Signature]* 8-26-16  
 Chief, Development Engineering Division Date

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
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 TEL: 301-421-4024 BALT: 410-880-1820 DC,VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.
11-19-16	Added Standip in Forebay	g+	DEV

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN: CAMILLA CARROLL

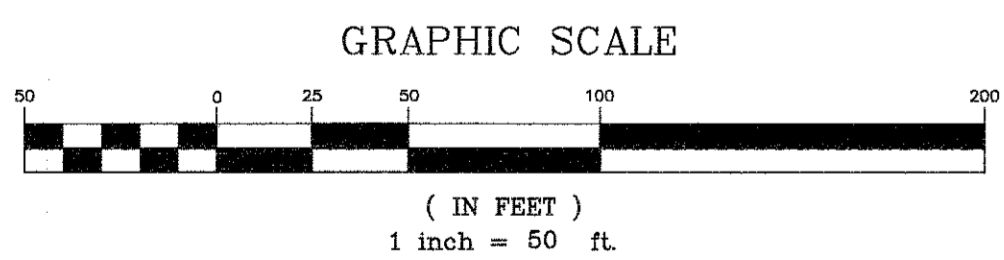
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 EXPIRATION DATE: MAY 26, 2018  
 7/14/16 *[Signature]*

**STORMWATER MANAGEMENT DRAINAGE AREA MAP**

**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
 ELECTION DISTRICT No. 2 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1" = 50'	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	35 OF 60





APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Meunier* 7/27/2016  
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Kortshorn* 8-29-16  
 Chief, Division of Land Development Date

*Chen* 8-26-16  
 Chief, Development Engineering Division Date

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3809 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DES.	JRD	DRN.	JRD	CHK.	DEV.

DATE	REVISION	BY	APPR.

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN.: CAMILLA CARROLL

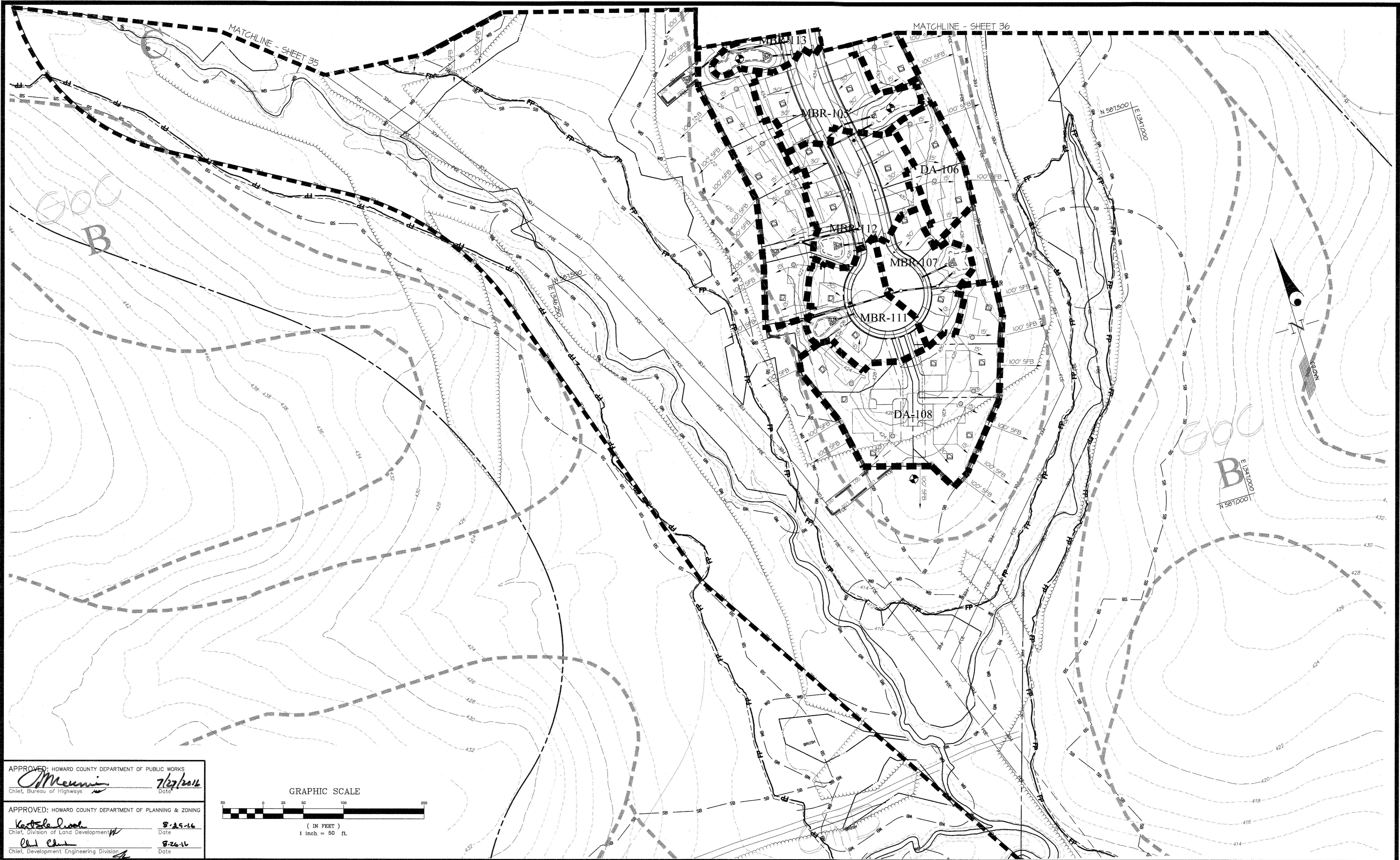
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 EXPIRATION DATE: MAY 28, 2018  
 7/14/16 *Chen*



STORMWATER MANAGEMENT DRAINAGE AREA MAP  
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SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	36 OF 60

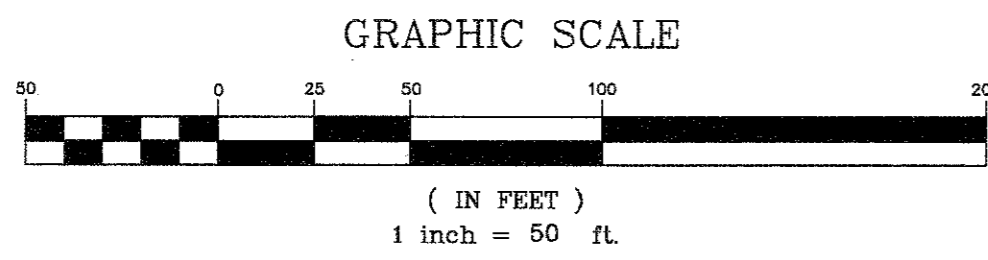




APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*McMinn* 7/27/16  
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Kestelove* 8-25-16  
 Chief, Division of Land Development Date

*Chen* 8-26-16  
 Chief, Development Engineering Division Date



**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
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DATE	REVISION	BY	APPR.

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN: CAMILLA CARROLL

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS 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. 12275  
 EXPIRATION DATE: MAY 26, 2018  
 7/1/16 *[Signature]*



STORMWATER MANAGEMENT DRAINAGE AREA MAP

**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
 ELECTION DISTRICT No. 2 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	37 OF 60



ESD COMPUTATION SUMMARY - COUNTY

DRAINAGE AREA NO.	DRAINAGE AREA (AC.)	IMPERVIOUS AREA (AC.)	PERVIOUS AREA (AC.)	ESDV REQUIRED (C.F.)	ESDV PROVIDED (C.F.)	P <sub>6</sub> REQUIRED (IN.)	P <sub>6</sub> PROVIDED (IN.)	PUBLIC/PRIVATE/JOINT OWNERSHIP	PUBLIC/PRIVATE/JOINT MAINTENANCE
MBR 101	0.52	0.23	0.29	1545.17	2123.00	1.80"	2.41"	PUBLIC	JOINT
MBR 102	0.55	0.26	0.21	1837.52	2202.00	1.80"	2.16"	PUBLIC	JOINT
MBR 103	0.44	0.21	0.22	1777.04	2502.00	1.80"	2.53"	PUBLIC	JOINT
MBR 105	0.34	0.14	0.20	1274.38	1840.00	1.80"	1.46"	PUBLIC	JOINT
MBR 107	0.21	0.11	0.16	760.48	1013.00	1.80"	2.40"	PUBLIC	JOINT
MBR 111	0.52	0.17	0.15	130.78	853.00	1.80"	1.36"	PUBLIC	JOINT
MBR 112	0.42	0.22	0.20	1404.84	1962.00	1.80"	1.53"	PUBLIC	JOINT
MBR 113	0.57	0.24	0.28	1888.25	2075.00	1.80"	1.92"	PUBLIC	JOINT
MBR 114	0.34	0.16	0.18	1264.44	1436.00	1.80"	2.42"	PUBLIC	JOINT
MBR 115	0.38	0.18	0.20	1402.24	1534.00	1.80"	2.28"	PUBLIC	JOINT
MBR 116	0.44	0.20	0.24	1330.20	1401.74	1.80"	1.40"	PUBLIC	JOINT
MBR 118	0.64	0.34	0.30	2144.13	2221.00	1.80"	1.82"	PUBLIC	JOINT
MBR 120	1.06	0.50	0.56	3281.15	2431.21	1.80"	1.39"	PUBLIC	JOINT
MBR 125	1.32	0.44	0.83	3242.24	2834.48	1.80"	1.55"	PUBLIC	JOINT
MBR 127	0.83	0.35	0.48	2351.61	310.48	1.80"	2.42"	PUBLIC	JOINT
MBR 128	0.54	0.04	0.50	411.64	541.00	1.80"	2.58"	PRIVATE	PRIVATE
MBR 116A	0.74	0.48	0.26	3057.38	2402.67	1.80"	1.71"	PUBLIC	JOINT
MBR 117	1.23	0.30	0.43	2183.36	3011.04	1.80"	2.55"	PUBLIC	JOINT
MBR 112	0.28	0.15	0.08	943.55	444.00	1.80"	1.80"	PUBLIC	JOINT
DA 102	0.48	0.10	0.33	124.74	552.45	1.80"	1.36"	---	---
DA 104	0.28	0.08	0.20	533.66	645.21	1.80"	2.18"	---	---
DA 106	0.21	0.05	0.16	362.43	370.48	1.80"	1.84"	---	---
DA 108	0.77	0.27	0.50	1826.66	1463.64	1.80"	1.44"	---	---
DA 117	2.83	0.54	2.24	4428.02	3644.43	1.80"	1.50"	---	---
DA 118	0.57	0.13	0.44	426.35	948.7	1.80"	1.84"	---	---
DA 124	0.74	0.18	0.61	1245.85	767.54	1.80"	1.07"	---	---
DA 126	0.20	0.05	0.15	360.44	250.48	1.80"	1.29"	---	---
DA 128	0.14	0.04	0.15	248.10	388.48	1.80"	2.16"	---	---

TOTAL FOR SITE (MBR, DA)	17.50	6.34	11.11	43,311.50	44,385.12	1.80"	1.84"
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\* THIS SUMMARY CORRESPONDS TO ESD FACILITIES USED TO TREAT STORMWATER RUNOFF WITHIN THE COUNTY LIMITS.

ESD COMPUTATION SUMMARY - STATE

DRAINAGE AREA NO.	DRAINAGE AREA (AC.)	IMPERVIOUS AREA (AC.)	PERVIOUS AREA (AC.)	ESDV REQUIRED (C.F.)	ESDV PROVIDED (C.F.)	P <sub>6</sub> REQUIRED (IN.)	P <sub>6</sub> PROVIDED (IN.)	PUBLIC/PRIVATE/JOINT OWNERSHIP	PUBLIC/PRIVATE/JOINT MAINTENANCE
MBR 121	0.58	0.14	0.34	1052.55	1822.00	1.64"	2.52"	PRIVATE	PRIVATE
BIO 122	2.55	1.01	1.54	4747.40	7857.00	1.64"	2.08"	PRIVATE	PRIVATE
DA 121	1.12	0.48	0.64	2475.27	1854.83	1.64"	1.11"	---	---
DA 122	0.51	0.21	0.30	1815.44	2471.00	1.64"	0.32"	---	---

TOTAL FOR SITE (MBR, DA)	4.76	1.84	2.87	10,140.65	7,845.83	1.64"	1.64"
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\* THIS SUMMARY CORRESPONDS TO ESD FACILITIES USED TO TREAT STORMWATER RUNOFF WITHIN THE STATE RIGHT-OF-WAY.

ON-LOT STORMWATER MANAGEMENT PRACTICES

LOT NUMBER	ADDRESS	DISCONNECTION OF ROOFTOP RUNOFF		DISCONNECTION OF NON-ROOFTOP RUNOFF		SHEETFLOW TO CONSERVATION AREAS		RAINFALL HARVESTING		DRY WELLS	
		N-1 (NUMBER)	N-2 (NUMBER)	N-1 (NUMBER)	N-2 (NUMBER)	N-3 (Y/N)	M-1 (NUMBER)	M-2 (NUMBER)	M-1 (NUMBER)	M-2 (NUMBER)	
3	BURTON DRIVE	4	0	0	0	N	0	0	0	0	0
4	BURTON DRIVE	4	0	0	0	N	0	0	0	0	0
5	BURTON DRIVE	4	0	0	0	N	0	0	0	0	0
6	BURTON DRIVE	2	0	0	0	N	0	0	0	0	0
7	BURTON DRIVE	4	0	0	0	Y	0	0	0	0	0
8	BURTON DRIVE	4	0	0	0	Y	0	0	0	0	0
9	BURTON DRIVE	4	0	0	0	Y	0	0	0	0	0
10	BURTON DRIVE	4	0	0	0	Y	0	0	0	0	0
11	BURTON DRIVE	4	0	0	0	Y	0	0	0	0	0
12	BURTON DRIVE	3	0	0	0	Y	0	0	0	0	0
13	BURTON DRIVE	2	0	0	0	Y	0	0	0	0	0
14	BURTON DRIVE	3	0	0	0	Y	0	0	0	0	0
15	BURTON DRIVE	1	0	0	0	Y	0	0	0	0	0
16	BURTON DRIVE	1	0	0	0	Y	0	0	0	0	0
17	BURTON DRIVE	3	0	0	0	Y	0	0	0	0	0
18	BURTON DRIVE	3	0	0	0	Y	0	0	0	0	0
19	BURTON DRIVE	4	0	0	0	Y	0	0	0	0	0
20	BURTON DRIVE	4	0	0	0	Y	0	0	0	0	0
21	BURTON DRIVE	4	0	0	0	Y	0	0	0	0	0
22	BURTON DRIVE	4	0	0	0	Y	0	0	0	0	0
23	BURTON DRIVE	4	0	0	0	Y	0	0	0	0	0
24	BURTON DRIVE	4	0	0	0	Y	0	0	0	0	0
25	BURTON DRIVE	4	0	0	0	N	0	0	0	0	0
26	BURTON DRIVE	2	0	0	0	N	0	0	0	0	0
27	BURTON DRIVE	4	0	0	0	N	0	0	0	0	0
28	WARBURTON COURT	3	0	0	0	N	0	0	0	0	0
29	WARBURTON COURT	2	0	0	0	N	0	0	0	0	0
30	WARBURTON COURT	3	0	0	0	N	0	0	0	0	0
31	WARBURTON COURT	1	0	0	0	N	0	0	0	0	0
32	WARBURTON COURT	0	0	0	0	Y	0	0	0	0	0
33	WARBURTON COURT	1	1	1	1	Y	0	0	0	0	0
34	WARBURTON COURT	0	0	0	0	Y	0	0	0	0	0
35	WARBURTON COURT	0	0	0	0	Y	0	0	0	0	0
36	WARBURTON COURT	3	0	0	0	Y	0	0	0	0	0
37	WARBURTON COURT	3	0	0	0	Y	0	0	0	0	0
38	WARBURTON COURT	1	0	0	0	Y	0	0	0	0	0
39	WARBURTON COURT	2	0	0	0	N	0	0	0	0	0
40	WARBURTON COURT	2	1	1	1	Y	0	0	0	0	0
41	WARBURTON COURT	2	0	0	0	N	0	0	0	0	0
42	WARBURTON COURT	2	0	0	0	N	0	0	0	0	0
43	WARBURTON COURT	2	0	0	0	N	0	0	0	0	0
44	WARBURTON COURT	2	0	0	0	N	0	0	0	0	0
45	WARBURTON COURT	2	0	0	0	N	0	0	0	0	0
46	WARBURTON COURT	3	0	0	0	N	0	0	0	0	0
47	ARLINGTON COURT	2	0	0	0	N	0	0	0	0	0
48	ARLINGTON COURT	0	0	0	0	N	0	0	0	0	0
49	ARLINGTON COURT	3	0	0	0	Y	0	0	0	0	0
50	ARLINGTON COURT	4	0	0	0	N	0	0	0	0	0
51	ARLINGTON COURT	4	0	0	0	Y	0	0	0	0	0
52	ARLINGTON COURT	3	0	0	0	Y	0	0	0	0	0
FUT. 72	ARLINGTON COURT	3	0	0	0	N	0	0	0	0	0
FUT. 73	ARLINGTON COURT	2	0	0	0	N	0	0	0	0	0
FUT. 74	ARLINGTON COURT	3	0	0	0	N	0	0	0	0	0
FUT. 75	ARLINGTON COURT	4	0	0	0	N	0	0	0	0	0
FUT. 76	ARLINGTON COURT	0	0	0	0	N	0	0	0	0	0
FUT. 77	ARLINGTON COURT	0	0	0	0	N	0	0	0	0	0
FUT. 78	ARLINGTON COURT	4	0	0	0	N	0	0	0	0	0
FUT. 79	ARLINGTON COURT	1	0	0	0	N	0	0	0	0	0
FUT. 80	ARLINGTON COURT	1	0	0	0	Y	0	0	0	0	0

NOTES:  
 1. ALL ON LOT STORMWATER MANAGEMENT DEVICES WILL BE PRIVATE AND OWNED/MAINTAINED BY THE HOMEOWNER.  
 2. ON LOT STORMWATER MANAGEMENT FOR FUTURE LOTS WITHIN NON-BUILDABLE BULK PARCEL 'B' ARE SHOWN ON THE STORMWATER MANAGEMENT DRAINAGE AREA MAP AND IN THE ON LOT STORMWATER MANAGEMENT PRACTICE CHART BECAUSE THEY WERE ACCOUNTED FOR IN THE STORMWATER MANAGEMENT COMPUTATIONS.

**INTRODUCTION**  
 THIS REPORT SUMMARIZES THE STORMWATER MANAGEMENT DESIGN FOR THE PHASE I SITE OF WESTMOUNT. IT INCLUDES STORMWATER MANAGEMENT PRACTICES, JUSTIFIES WHY THOSE PRACTICES ARE USED, AND THE COMPUTATIONS THAT SUPPORT THEM. THE REPORT REVIEWS EXISTING AND PROPOSED SITE CONDITIONS, WHILE INDICATING ANY IMPACTS OR AFFECTS THAT THE LATTER MAY HAVE ON THE FORMER, OR HOW THOSE POSSIBLE IMPACTS ARE BEING CONTROLLED.

**SITE DESCRIPTION**  
 WESTMOUNT IS LOCATED IN THE SECOND ELECTION DISTRICT OF HOWARD COUNTY. IT IS BOUNDED BY MD ROUTE 144 TO THE NORTH, THE KIWANIS-WALLACE PARK AND NEIGHBORHOODS SUCH AS CHATEAU RIDGE AND CENTENNIAL MANOR ARE TO THE EAST, AND THE DOUGHERGAN MANOR IS TO THE WEST. KINGSDORF AT BURLING MANOR IS ADJACENT TO A PORTION OF THE SOUTH BOUNDARY OF THE SITE. IT SHOULD BE MENTIONED THAT THE REMAINING PROPERTY ADJACENT TO OUR SITE TO THE SOUTH AND ALL OF THE AREA TO THE WEST HAS BEEN PLACED IN AGRICULTURAL PRESERVATION PARCELS AND CAN NEVER BE DEVELOPED. THE OWNER OF THIS PROPERTY BEING DEVELOPED ALSO HAS CONTROL OF THE PRESERVATION PARCELS TO THE WEST. THE LIMIT OF PHASE ONE IS IN THE NORTHERN LIMITS OF WESTMOUNT, ADJACENT TO MD ROUTE 144 AND THE KIWANIS-WALLACE PARK.

THE ZONING FOR THIS PROPERTY IS R-ED AND THE PHASE ONE LIMIT IS APPROXIMATELY 78 ACRES. ACCESS TO THE SITE WILL BE FROM MD ROUTE 144. TWO ENTRANCES ARE BEING PROPOSED. THE FIRST ENTRANCE IS APPROXIMATELY 1400' FROM THE INTERSECTION OF MD ROUTE 144 AND MD ROUTE 40. THE SECOND ENTRANCE IS APPROXIMATELY 600' WEST OF THE FIRST. THE ROAD THAT WILL SERVE THE MAJORITY OF THE SITE HAS BEEN DESIGNED WITH THE INVT OF FIRE AND RESCUE. OUR CLIENT ACKNOWLEDGED EARLY ON IN THE PROCESS THAT SERVING THIS MANY LOTS WITH ONLY ONE WAY IN AND OUT WOULD GIVE FIRE AND RESCUE CONCERN. THE SOLUTION WAS THE ROAD ALIGNMENT SHOWN, WITH LARGE SHEEPING RADI AND PERIODIC BREAKS IN THE ISLANDS FOR THE FIRE TRUCK TO GET TO THE OTHER SIDE IF THE NEED SHOULD ARISE.

THE SITE IS WOODED IN THE AREAS OF CONCENTRATED FLOWS, AND MEADOW IN THE AREAS OF HIGHER ELEVATION. THE EXISTING TOPOGRAPHY ON THE SITE IS MODERATELY SLOPED DRAINING PREDOMINATELY FROM THE NORTHWEST CORNER OF THE SITE TO THE SOUTHEAST. THE SITE DRAINS TO SEVERAL AREAS OF CONCENTRATED FLOWS, MAKING UP THE THREE MAJOR TRIBUTARIES ANALYZED IN OUR FLOODPLAIN STUDY. THE COMPUTATIONS FOR THE FLOODPLAIN STUDY HAVE BEEN PROVIDED IN A SEPARATE REPORT. THESE AREAS EVENTUALLY DRAIN TO THE LITTLE PATUXENT RIVER. THE SITE LIES WITHIN THE LITTLE PATUXENT WATERSHED. THE LITTLE PATUXENT RIVER IS A TYPE IV-P STREAM.

IN ADDITION TO THE FLOODPLAIN, THE SITE CONTAINS STEEP SLOPES, WETLANDS, AND STRAINS. ANY DISTURBANCES OF THESE AREAS HAVE BEEN DETERMINED AS NECESSARY BY THE DEPARTMENT OF PLANNING AND ZONING IN REVIEW OF THE PRELIMINARY EQUIVALENT SKETCH PLAN.

THE SITE IS SUBJECT TO A DEVELOPER'S RIGHTS AND RESPONSIBILITIES AGREEMENT WHICH IDENTIFIES THE DEVELOPMENT CRITERIA FOR THE PROJECT.

**STORM DRAIN**  
 STORM DRAIN INLETS ARE USED TO COLLECT RUNOFF FROM THE ROAD AND LOT DRAINAGE. THE STORM DRAIN WILL TAKE THE RUNOFF TO A MICRO-BIORETENTION FACILITY. THE RUNOFF THAT DOES NOT INFILTRATE AT THE MICRO-BIORETENTION FACILITY WILL BE COLLECTED BY THE UNDER DRAIN OR OVERFLOW RISER AND ENTER A STORM DRAIN SYSTEM THAT WILL OUTFALL THE RUNOFF TO OPEN SPACE. OTHER WATER WILL ENTER THE STORM DRAIN SYSTEM BY OVERLAND FLOW TO A MICRO-BIORETENTION FACILITY, EITHER AS SHEET FLOW OR BY A SHALE.

C FACTORS FOR THE STORM DRAIN DRAINAGE AREAS WERE ESTABLISHED BASED ON THREE TYPICAL CONDITIONS FOUND THROUGHOUT THE SITE: 1) DRAINAGE AREA CONSISTS PRIMARILY OF OPEN SPACE (C=0.34) 2) DRAINAGE AREA CONSISTS PRIMARILY OF RESIDENTIAL LOTS (C=0.67) AND 3) DRAINAGE AREA CONSISTS PRIMARILY OF ROAD RIGHT-OF-WAY (C=0.70).

WE BELIEVE THAT THE MANNER IN WHICH WE WILL OUTFALL THE RUNOFF, ALONG WITH THE SEDIMENT CONTROL MEASURES TAKEN DURING CONSTRUCTION, THE NATURAL VEGETATION AND ECO-SYSTEM THAT EXISTS TODAY WILL NOT BE ADVERSELY IMPACTED AND WILL CONTINUE TO THRIVE. ALSO, BECAUSE THE STORM DRAIN SYSTEM OUTFALLS TO OPEN SPACE, IT DOES NOT AFFECT ANY EXISTING STORM DRAIN UTILITIES.

**WATER AND SEWER**  
 PROPOSED STORMWATER MANAGEMENT FACILITIES HAVE BEEN LOCATED IN SUCH A WAY SO THAT SEWER OUTFALLS AND WATER MAINS CONNECTING MULTIPLE PHASES DO NOT RUN ALONG COMMON PROPERTY LINES. THIS ALLOWS FOR BOTH THE INITIAL CONSTRUCTION AND FUTURE MAINTENANCE OF THE PUBLIC SYSTEMS.

**SEDIMENT CONTROL**  
 SEDIMENT CONTROL FOR THE SITE WILL CONSIST OF PERIMETER EARTH DIKES TO DIRECT THE RUNOFF TO SEDIMENT TRAPS, STONE OUTLET STRUCTURES, AND GABION OUTLET STRUCTURES. SILT FENCE OR SUPER SILT FENCE WILL BE UTILIZED IN AREAS THAT ARE CLOSE IN PROXIMITY AND THE DRAINAGE AREA TO THE DEVICE IS APPROPRIATE. THE LOCATION OF PERMANENT STORMWATER MANAGEMENT HAS TAKEN INTO CONSIDERATION DURING THE DESIGN OF SEDIMENT CONTROL. WE HAVE ALSO PROVIDED STOCKPILE AREAS FOR THE EXCESS MATERIAL THAT WILL BE GENERATED BY THE LOT AREAS AND USED IN AREAS SUCH AS ROAD CROSSINGS. THE SITE DOES BALANCE WITHIN ITSELF, THEREFORE, AN OFFSITE AREA FOR EXCESS OR BOTTOM MATERIAL WILL NOT BE REQUIRED.

**STORMWATER MANAGEMENT**  
 STORMWATER MANAGEMENT FOR THIS SITE WILL BE PROVIDED IN ACCORDANCE WITH CHAPTER 5 OF THE RECENTLY REVISED MDE STORMWATER MANAGEMENT DESIGN MANUAL. TWO PE VALUES WERE CALCULATED FOR THE SITE. THE FIRST IS FOR THE AREA OF THE SITE WITHIN THE COUNTY LIMITS AND SECOND FOR THE AREA OF SITE WITHIN THE STATE RIGHT-OF-WAY. BASED ON TABLE 5.3, THIS SITE HAS A TARGET PE OF 1.0' WITHIN THE COUNTY RIGHT-OF-WAY AND A TARGET PE OF 1.64' WITHIN THE STATE RIGHT-OF-WAY. THE METHODOLOGY APPLIED IN OUR DESIGN AND THE FACILITIES BEING USED TO SATISFY OUR ESD VOLUMES FOLLOW THE HIERARCHY OF THE DESIGN MANUAL GUIDELINES AS THE PREFERRED MEANS OF PROVIDING ESD TO THE BMP. IN ORDER TO FULFILL THE STORMWATER MANAGEMENT REQUIREMENTS, A COMBINATION OF ROOFTOP DISCONNECTS, NON-ROOFTOP DISCONNECTS, RAINWATER HARVESTING, SHEET FLOW TO CONSERVATION AREAS, DRY WELLS MICRO STORAGE IN MICRO-BIORETENTION FACILITIES, A RAIN GARDEN, AND BIOSHALES WILL BE USED. THE STORMWATER MANAGEMENT COMPUTATIONS HAVE BEEN SUBMITTED TO ESTABLISH WHICH ESD FACILITIES ARE USED TO TREAT THE STORMWATER RUNOFF WITHIN THE COUNTY LIMITS OF THE SITE, AND WHICH ARE USED TO TREAT THE STORMWATER RUNOFF GENERATED WITHIN THE LIMITS OF THE STATE RIGHT-OF-WAY.

ALTHOUGH THE PERCENT IMPERVIOUS FOR THE AREA WITHIN OUR LIMIT OF DISTURBANCE IS 37%, THE TARGET PE VALUES WERE DETERMINED BASED ON A CONSERVATIVE SITE IMPERVIOUSNESS OF 30%. THIS SITE HAS MANY GREEN AREAS WITHIN IT, WHICH BRINGS THE COMPOSITE PERCENT IMPERVIOUS AREA DOWN, BUT EACH FACILITY HAS BEEN DESIGNED ON A CASE BY CASE BASIS AND THE PERCENTS OF IMPERVIOUS AREA WILL VARY. THE EXISTING SITE CONDITION CONSISTED OF NO IMPERVIOUS AREA.

DEPENDING ON THE LOT CONFIGURATION THE ROOFTOP DRAINAGE WILL BE TREATED BY A COMBINATION OF ROOFTOP DISCONNECT, RAINWATER HARVESTING, SHALES, AND DRY WELLS. FOR LOTS THAT BACK TO OPEN SPACE, THE BACK HALF OF THE ROOF WILL BE TREATED BY DRY WELLS AND RAINWATER HARVESTING. THE DRY WELLS WERE DESIGNED TO PROVIDE THE FULL ESD VOLUME FOR THE ROOF. THE NUMBER OF DRY WELLS BEING PROPOSED WILL GENERATE THE REV REQUIRED FOR THE SITE. ANY DRY WELLS THAT ARE IN FILL HAVE NOT BEEN INCLUDED IN THE CALCULATED REV PROVIDED BY THE SITE. THE RAINWATER HARVESTING WILL BE FILLED BY NO MORE THAN ONE 200 GALLON RAIN BARRELL PER LOT TO ASSIST IN TREATING THE RUNOFF FROM THE BACK HALF OF ROOFS. FOR INTERIOR LOTS THAT BACK TO OTHER LOTS, ANY PORTION OF THE ROOF THAT DOES NOT DRAIN TO A DRY WELL OR RAIN BARRELL WILL RECEIVE PARTIAL TREATMENT FROM ROOFTOP DISCONNECT PROVIDED THAT IT MEETS THE MDE REQUIREMENTS FOR ROOFTOP DISCONNECT. A BENEFIT OF USING MANY OF THE STORMWATER MANAGEMENT DEVICES IS THAT THEY REDUCE THE SURFACE AREA REQUIRED FOR THE MICRO-BIORETENTION FACILITIES WHILE REQUIRING LITTLE SURFACE AREA THEMSELVES. THE FACT THAT THE LOTS ARE LARGE, THE SITE HAS WIDE ENVIRONMENTAL BUFFERS, AND THE HOUSES ON THE LOTS ARE SINGLE FAMILY DETACHED, WE ARE ABLE TO TAKE ADVANTAGE OF DEVICES SUCH AS ROOFTOP DISCONNECT, SHEET FLOW TO BUFFER, AND RAINWATER HARVESTING.

MICRO-BIORETENTION FACILITIES WILL BE LOCATED THROUGHOUT THE SITE ON OPEN SPACE LOTS. THESE FACILITIES WILL TREAT THE ROAD AREA AND ANY LOT AREA DRAINING TO THE FACILITY BY EITHER OVERLAND FLOW OR PIPING. PART OF WESTMOUNT PARKWAY IS DESIGNED TO SLOPE TOWARD THE GREENSPACE ALONG THE CENTERLINE OF THE ROAD, RATHER THAN WITH A CROWN, TO UTILIZE THE GREEN SPACE FOR STORMWATER MANAGEMENT PRACTICES LIKE MICRO-BIORETENTION FACILITIES. ESD STORAGE IN MICRO-BIORETENTION FACILITIES IS PROVIDED IN THE LOT OF PONDING ABOVE THE FACILITY AND THE STORAGE IN THE STONE UNDER THE PLANTING SOIL. ALL OF THE MICRO-BIORETENTION FACILITIES WILL HAVE AN UNDER DRAIN SYSTEM AND AN OVERFLOW INLET TO PASS LARGE STORMS. IF THE FACILITY CAN PROVIDE THE FULL PE AND IS ADJACENT TO AN OPEN SPACE LOT DRAINING AWAY FROM THE SITE, THE FACILITY WILL OUTFALL TO THE OPEN SPACE LOT.

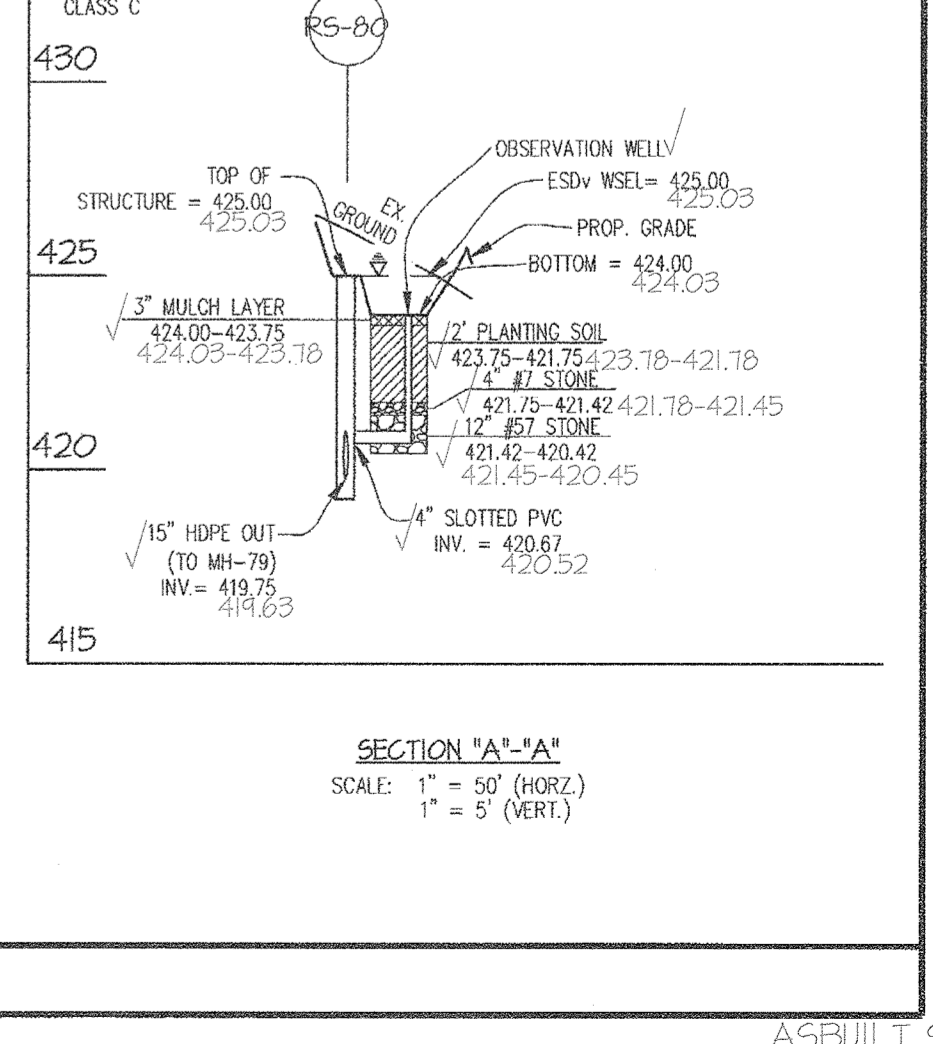
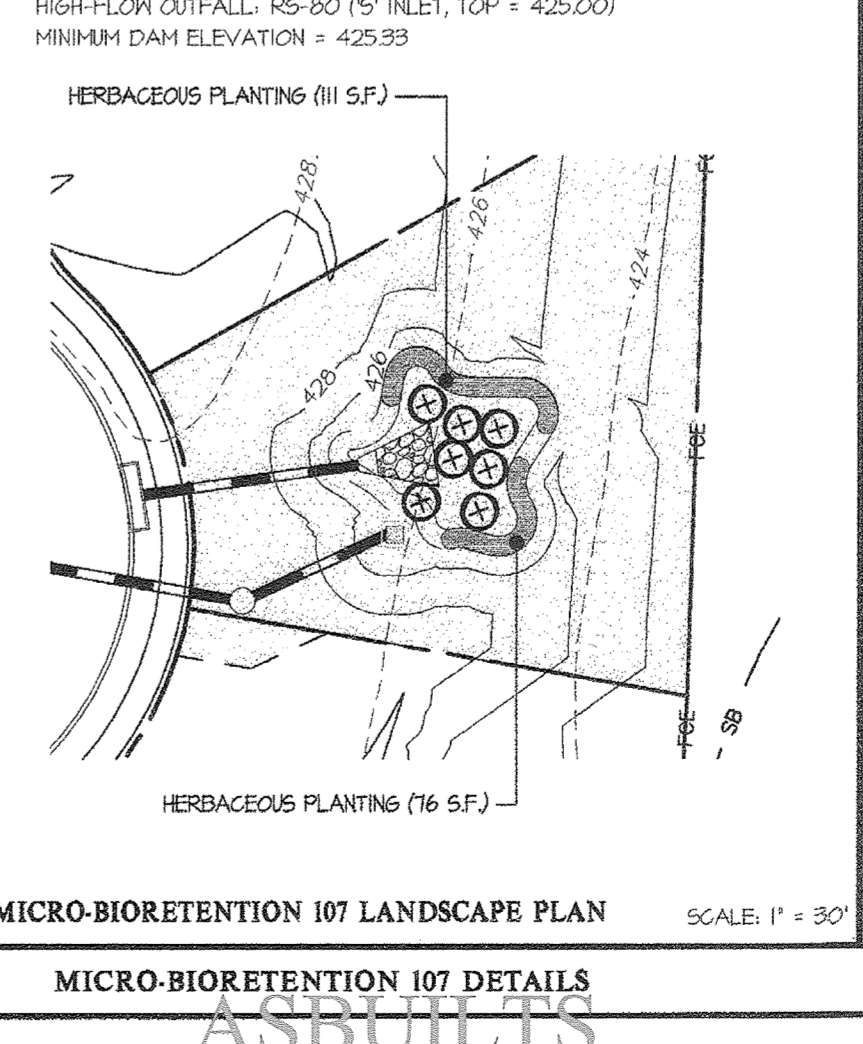
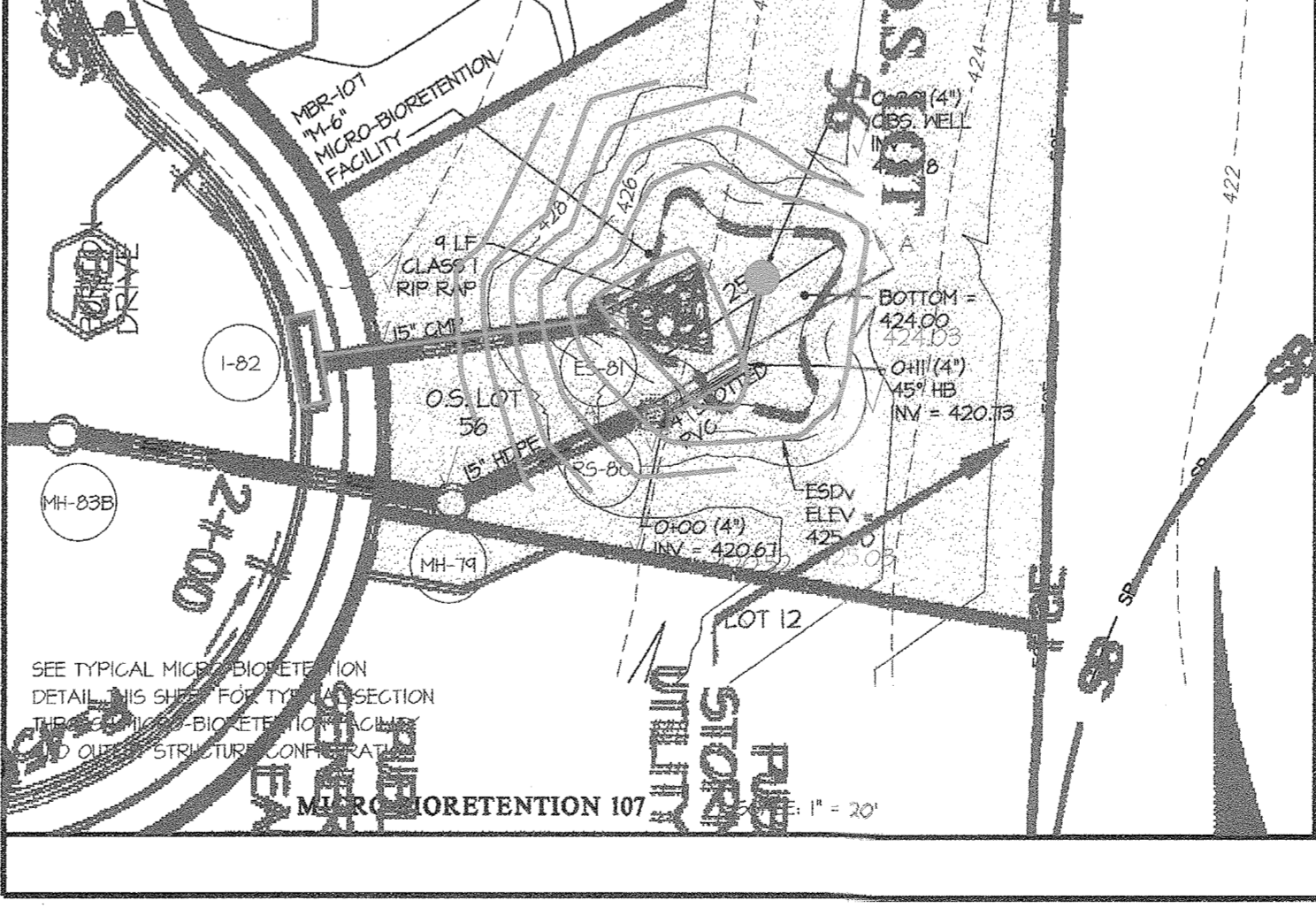
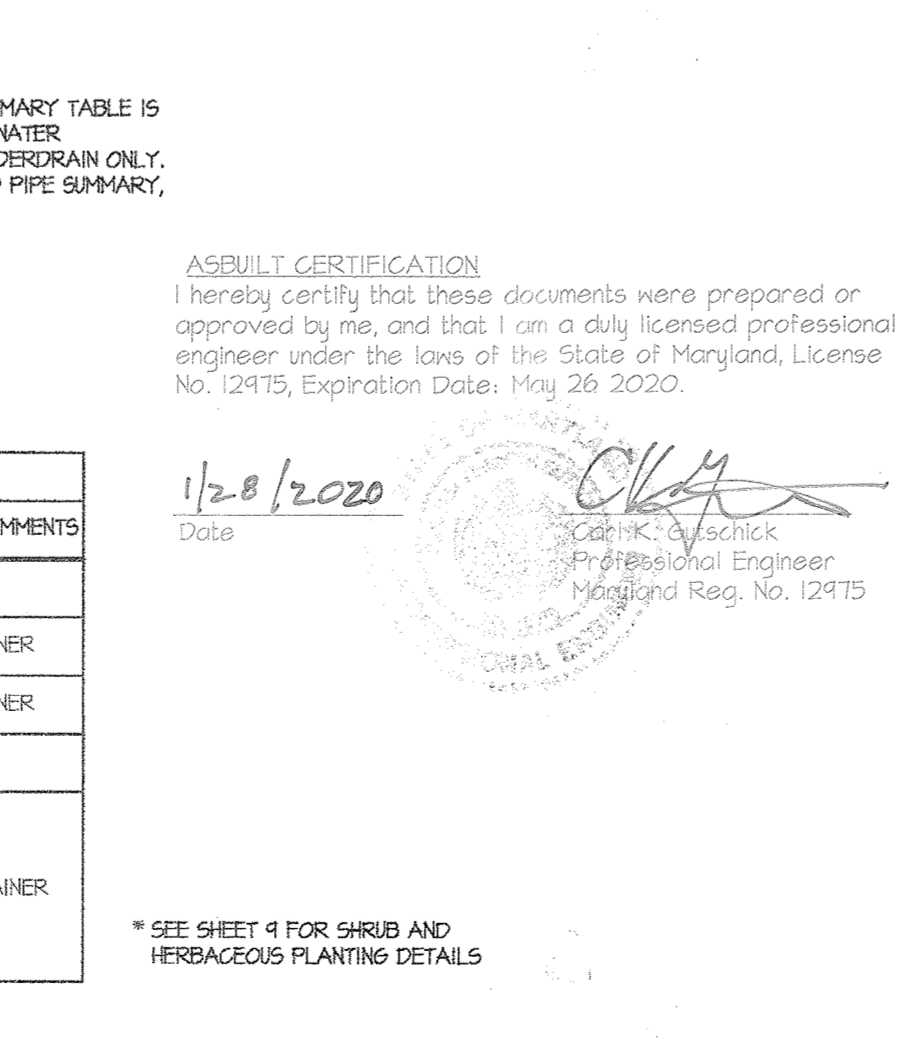
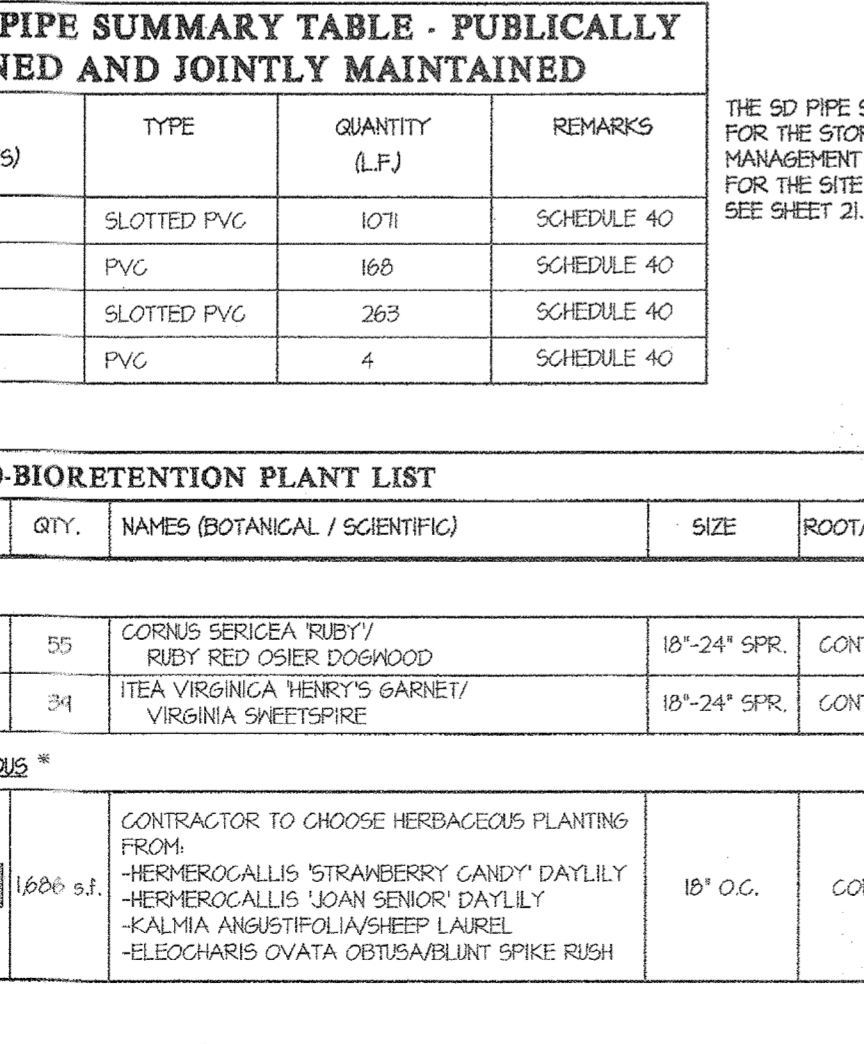
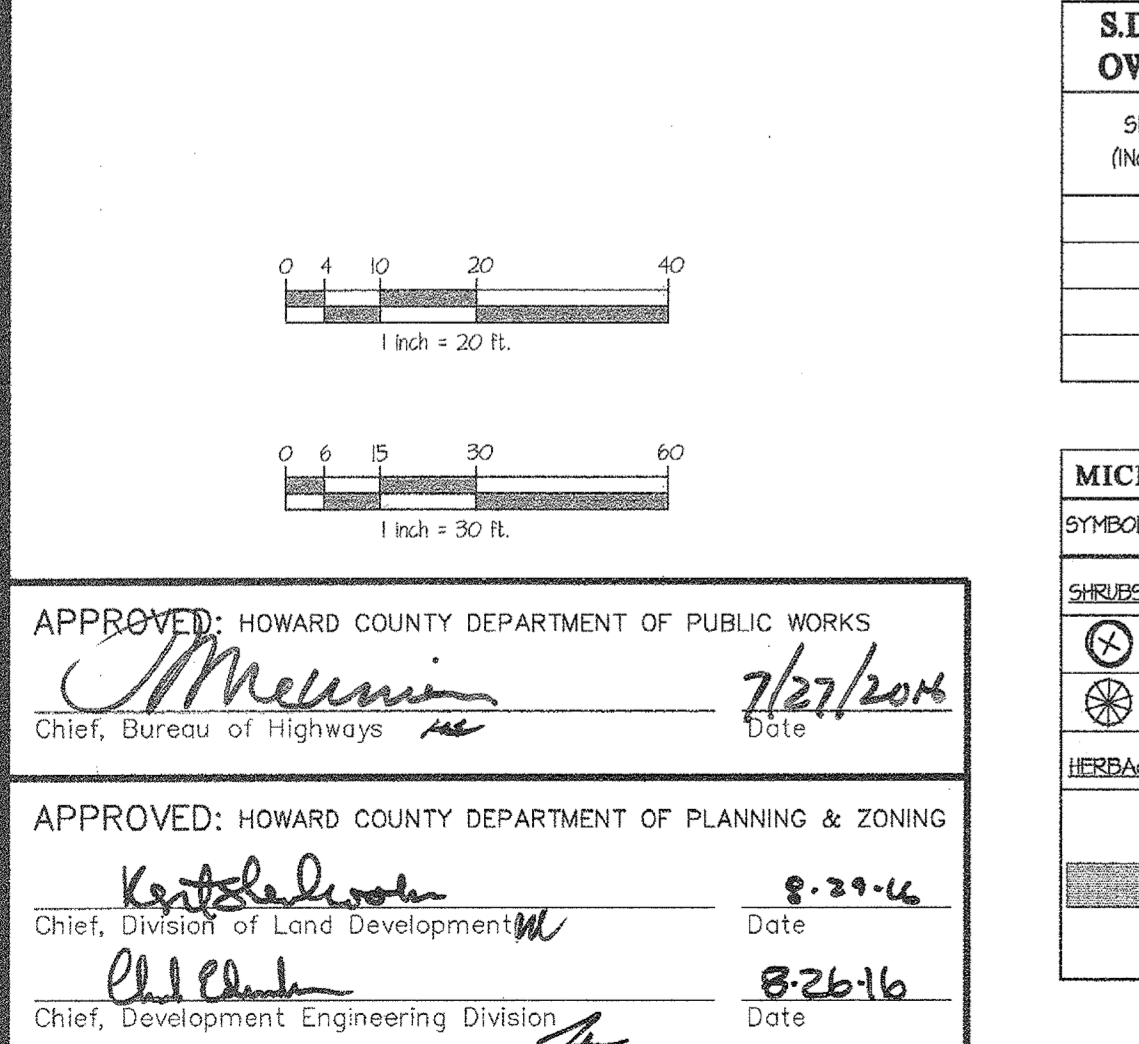
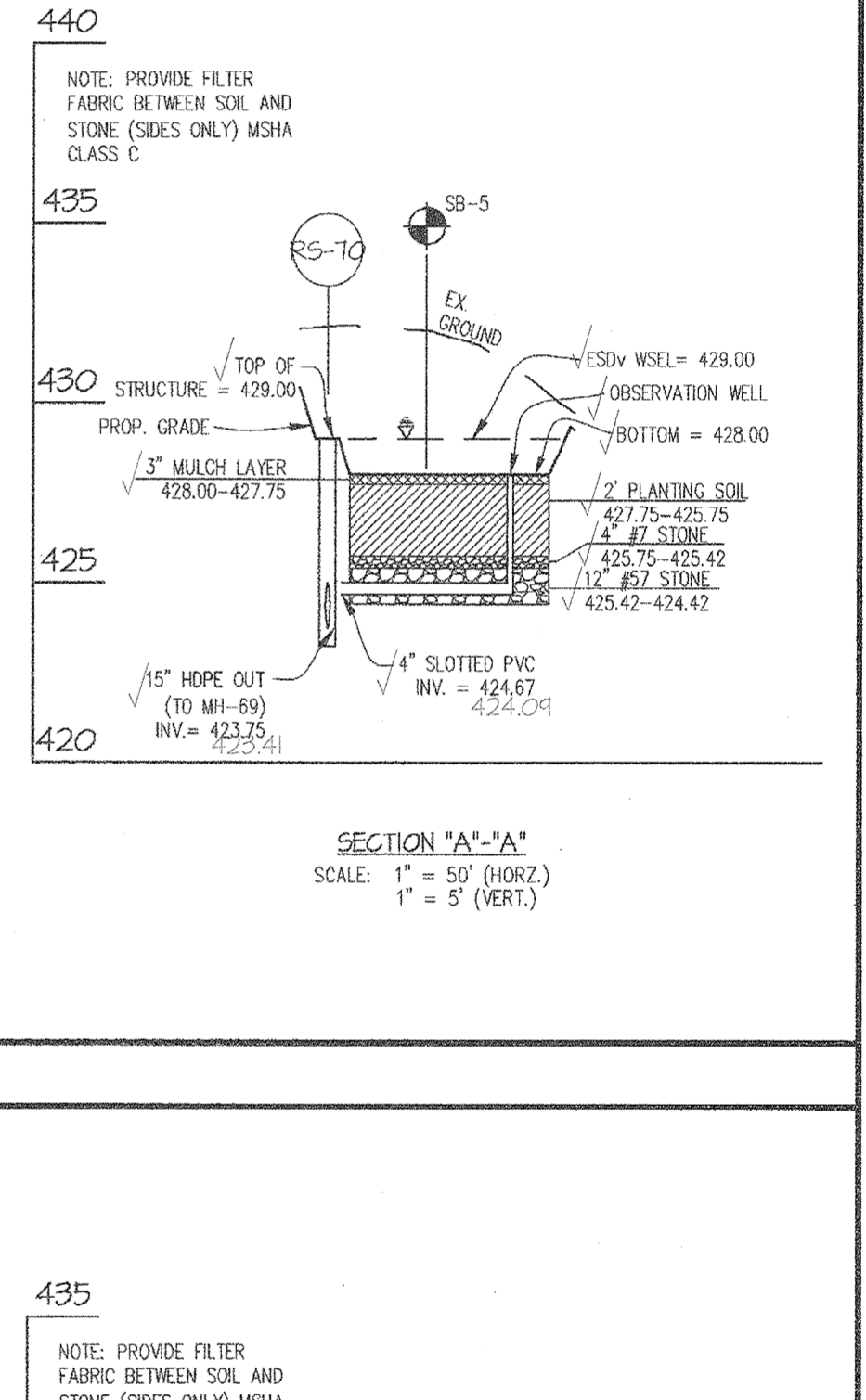
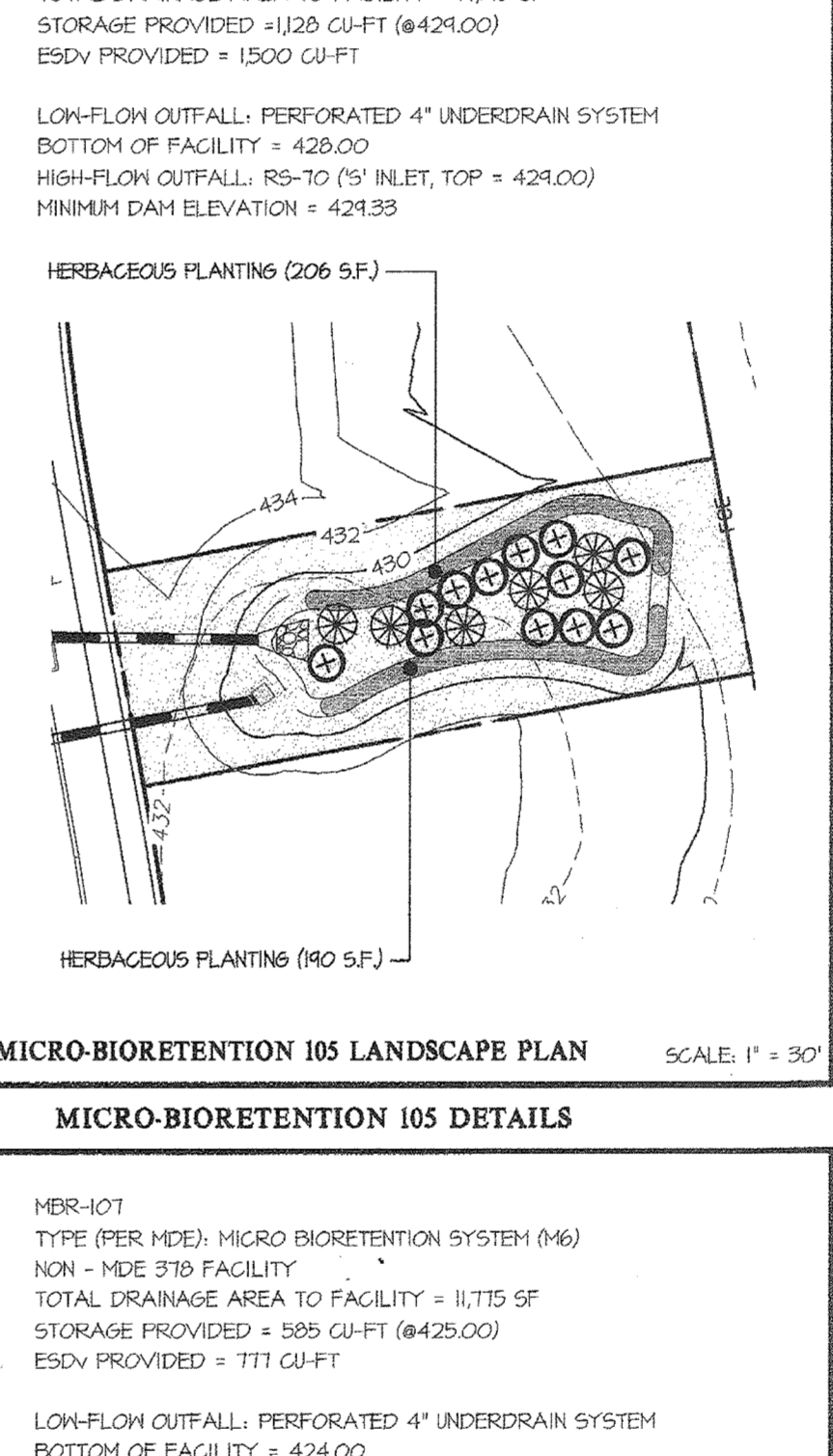
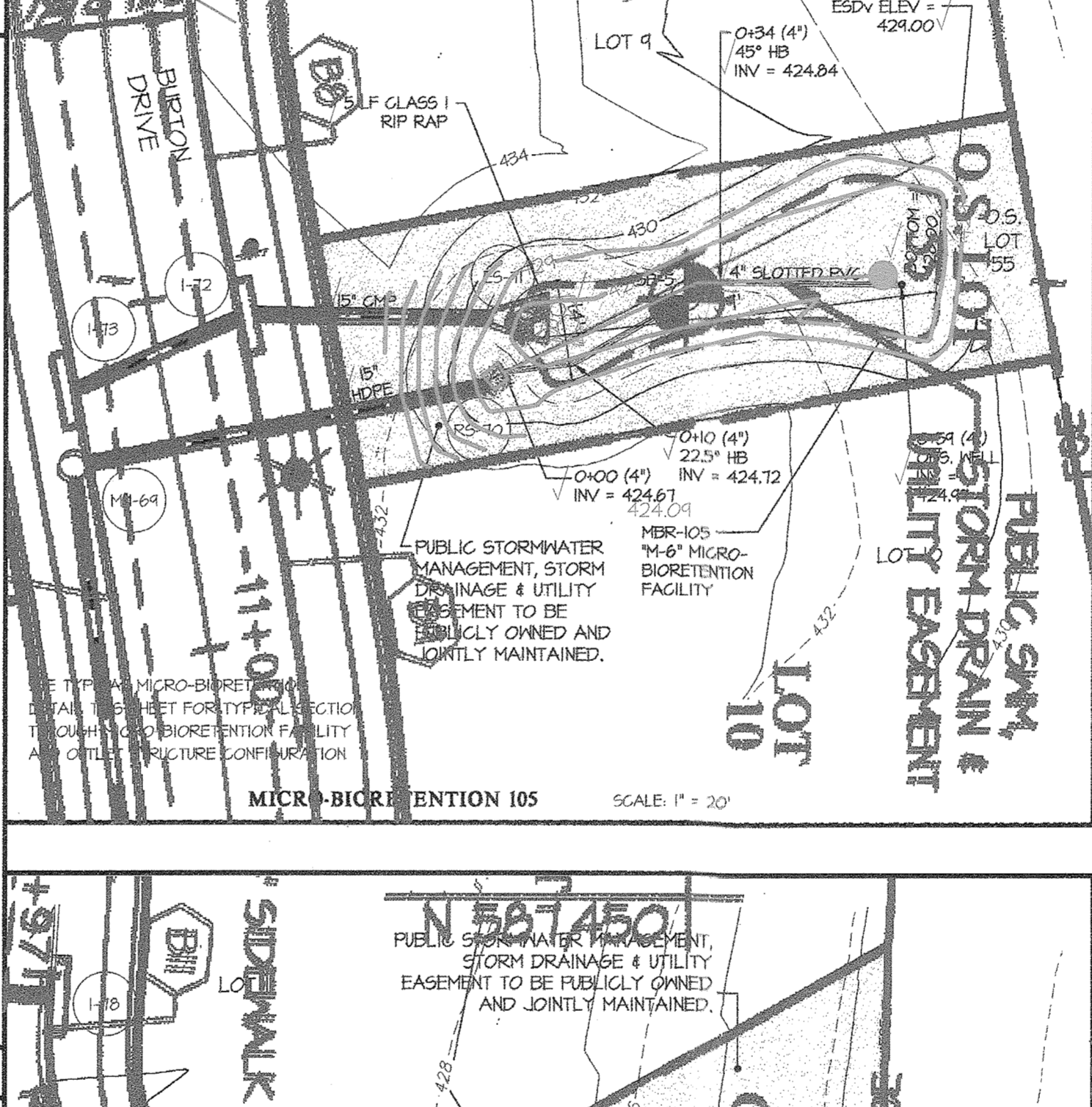
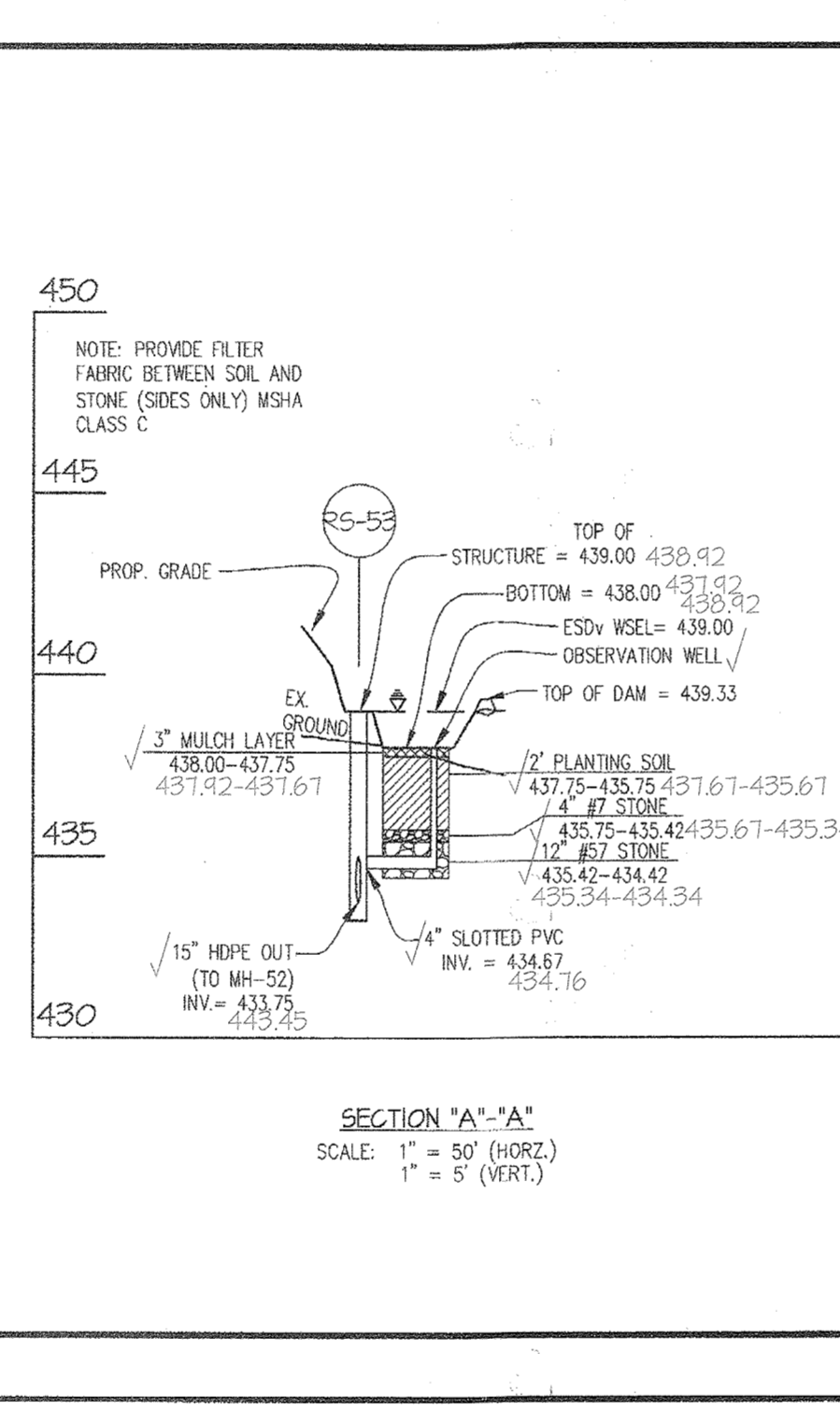
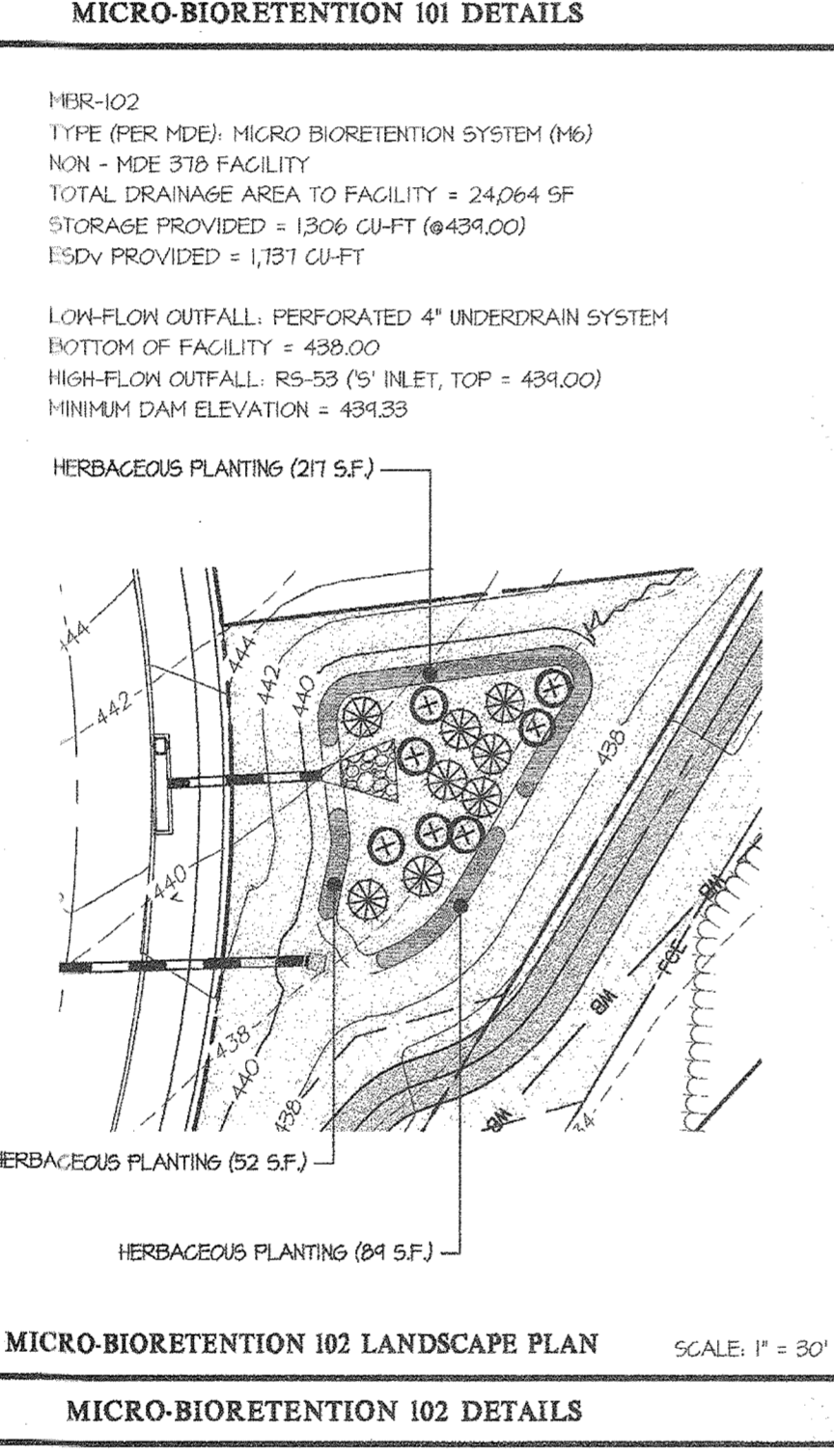
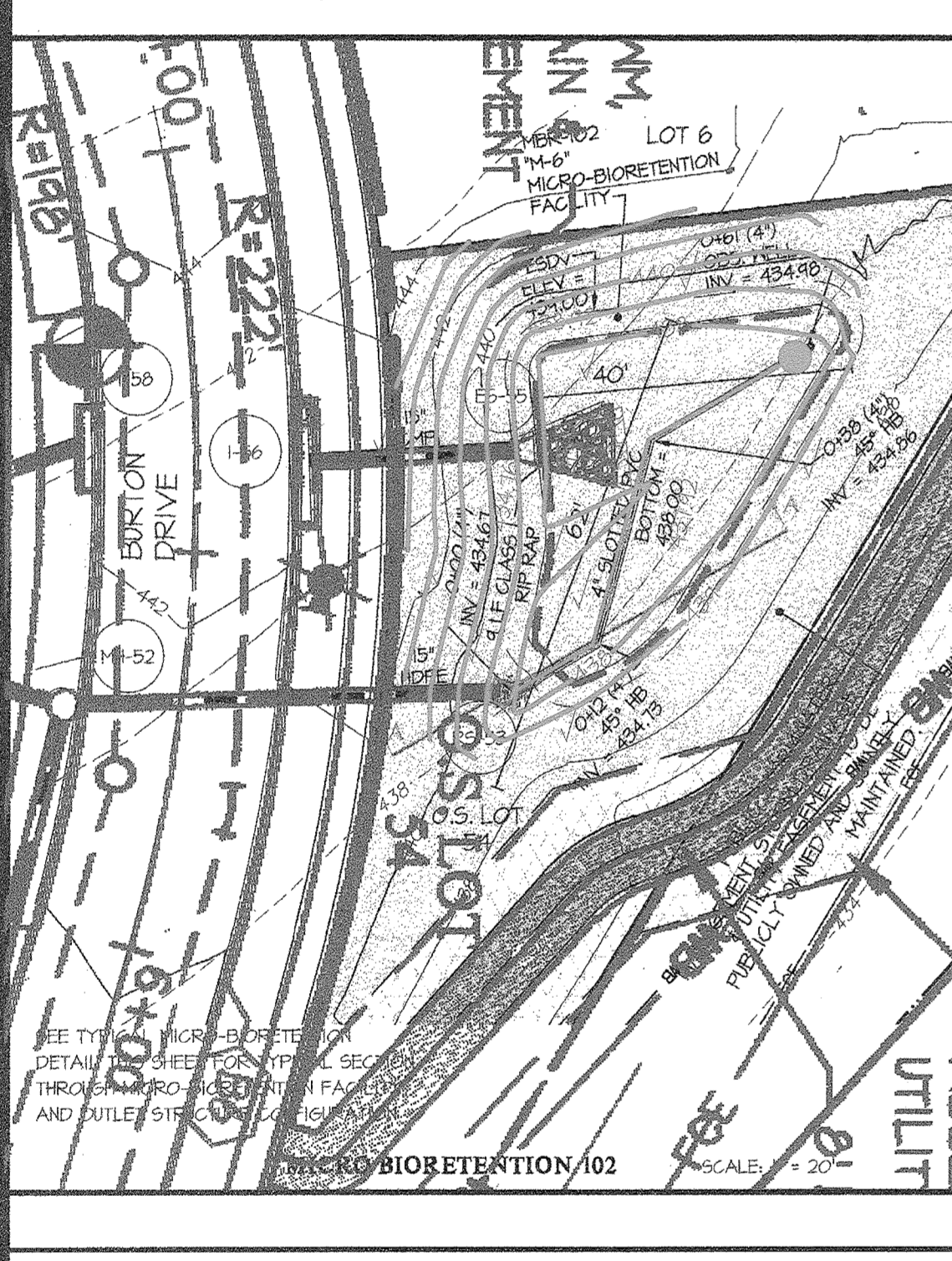
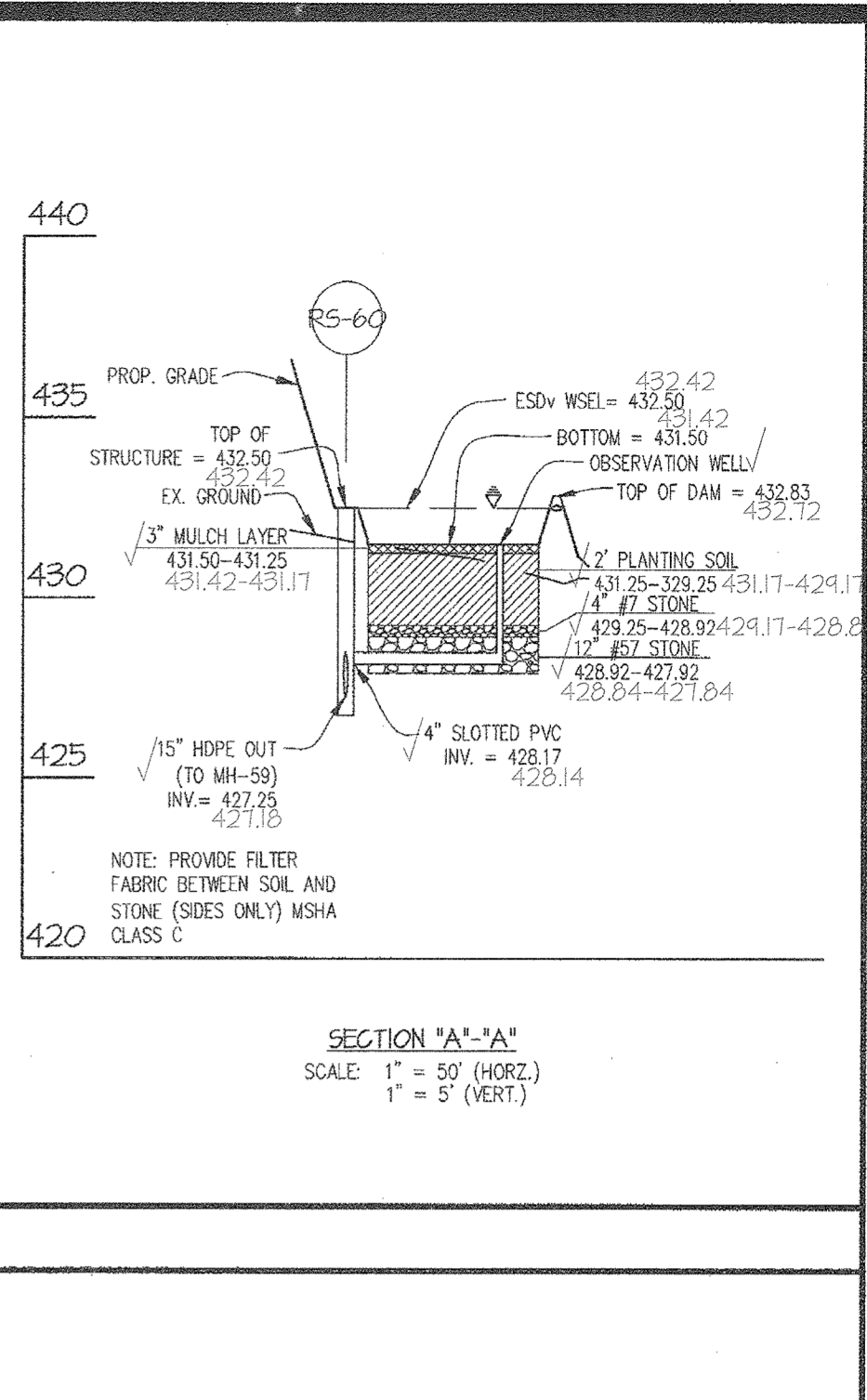
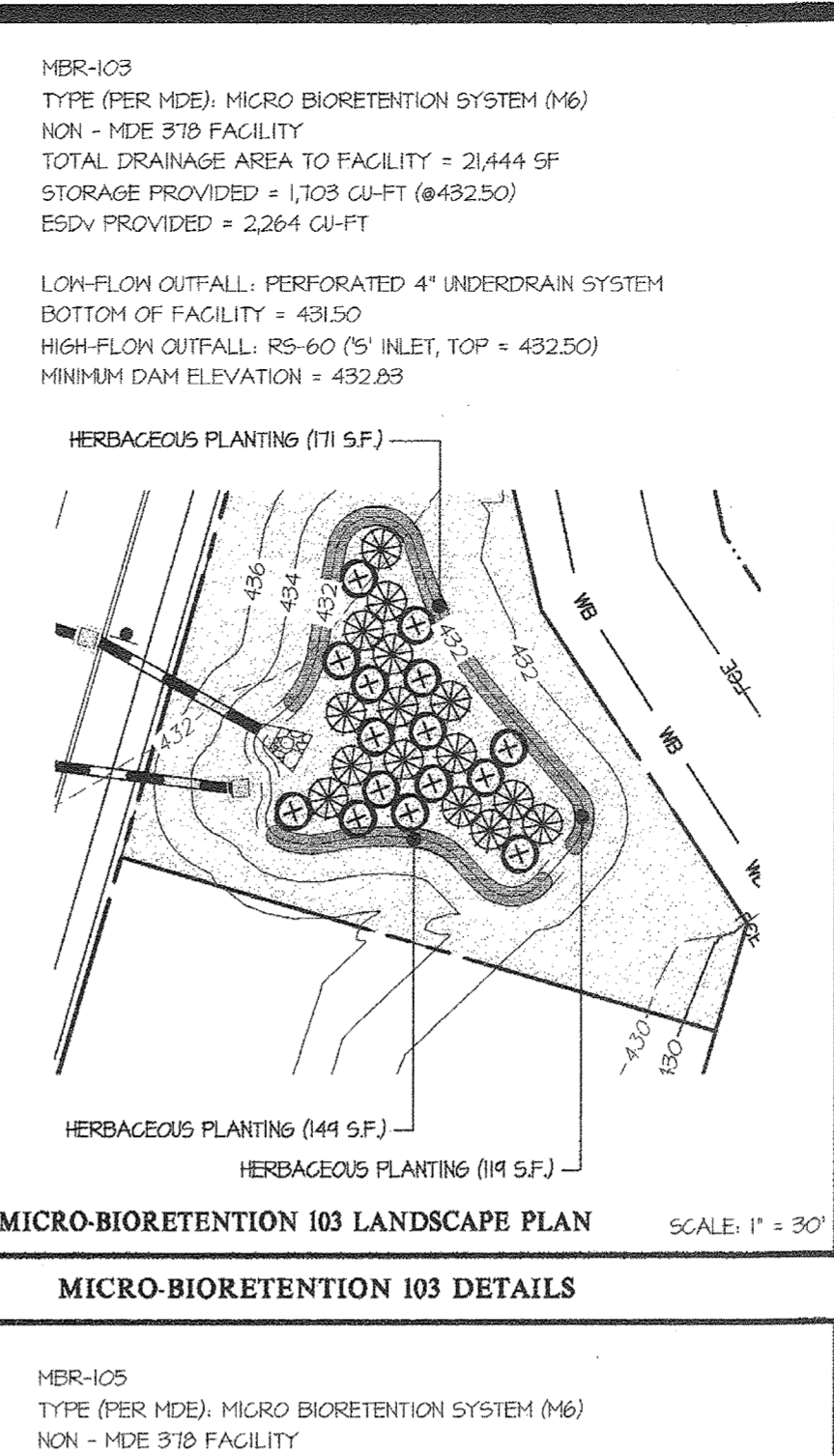
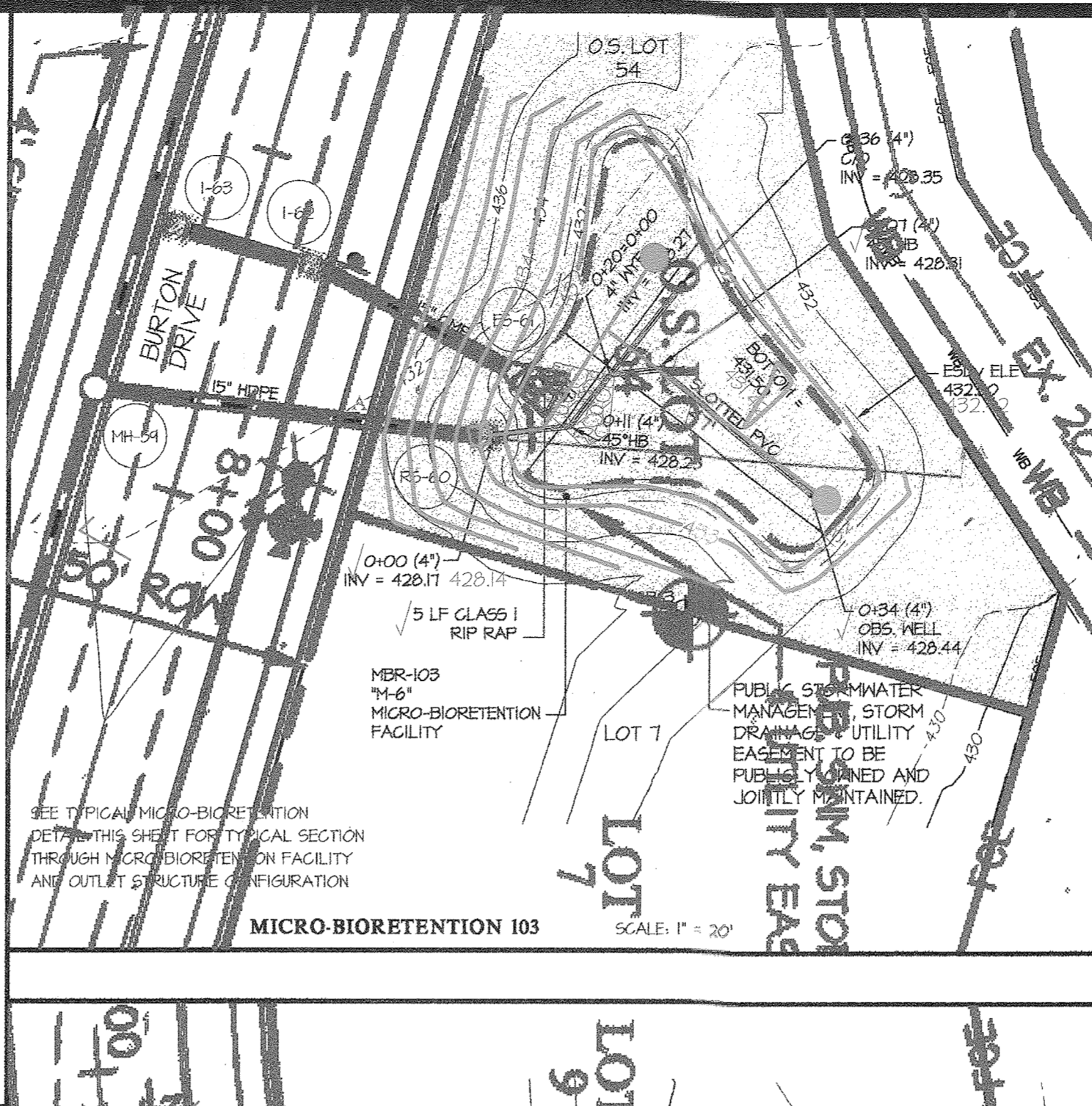
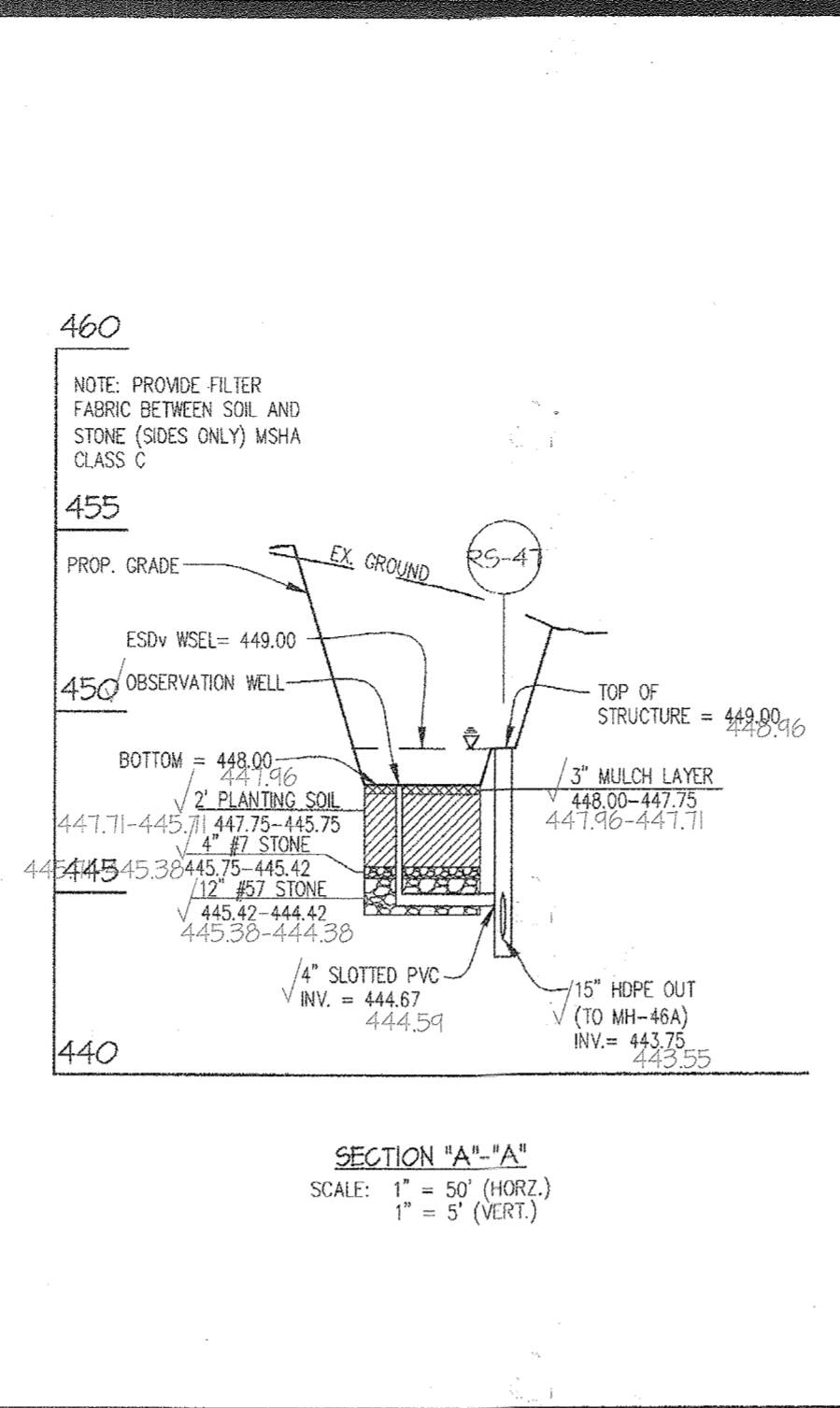
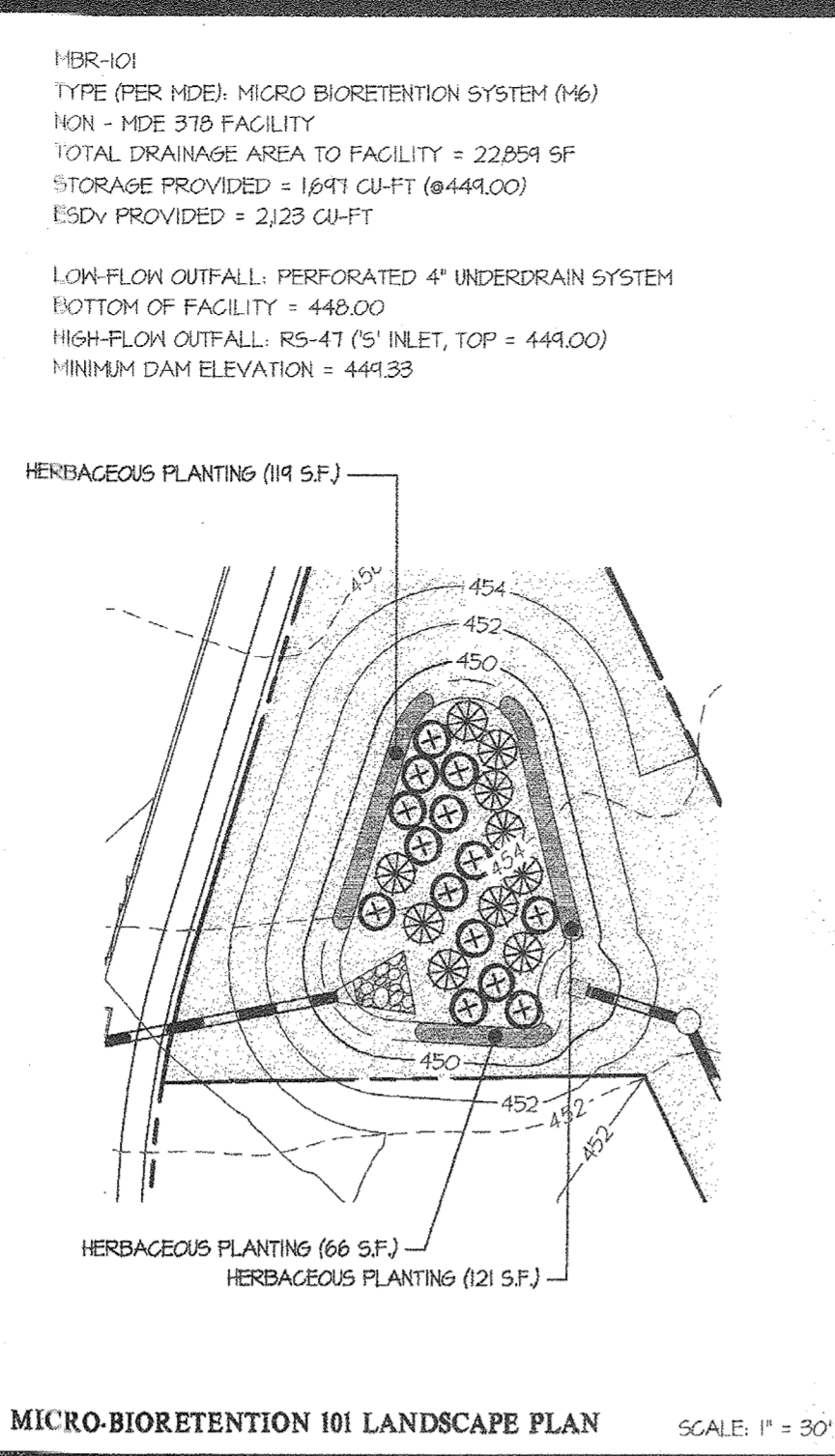
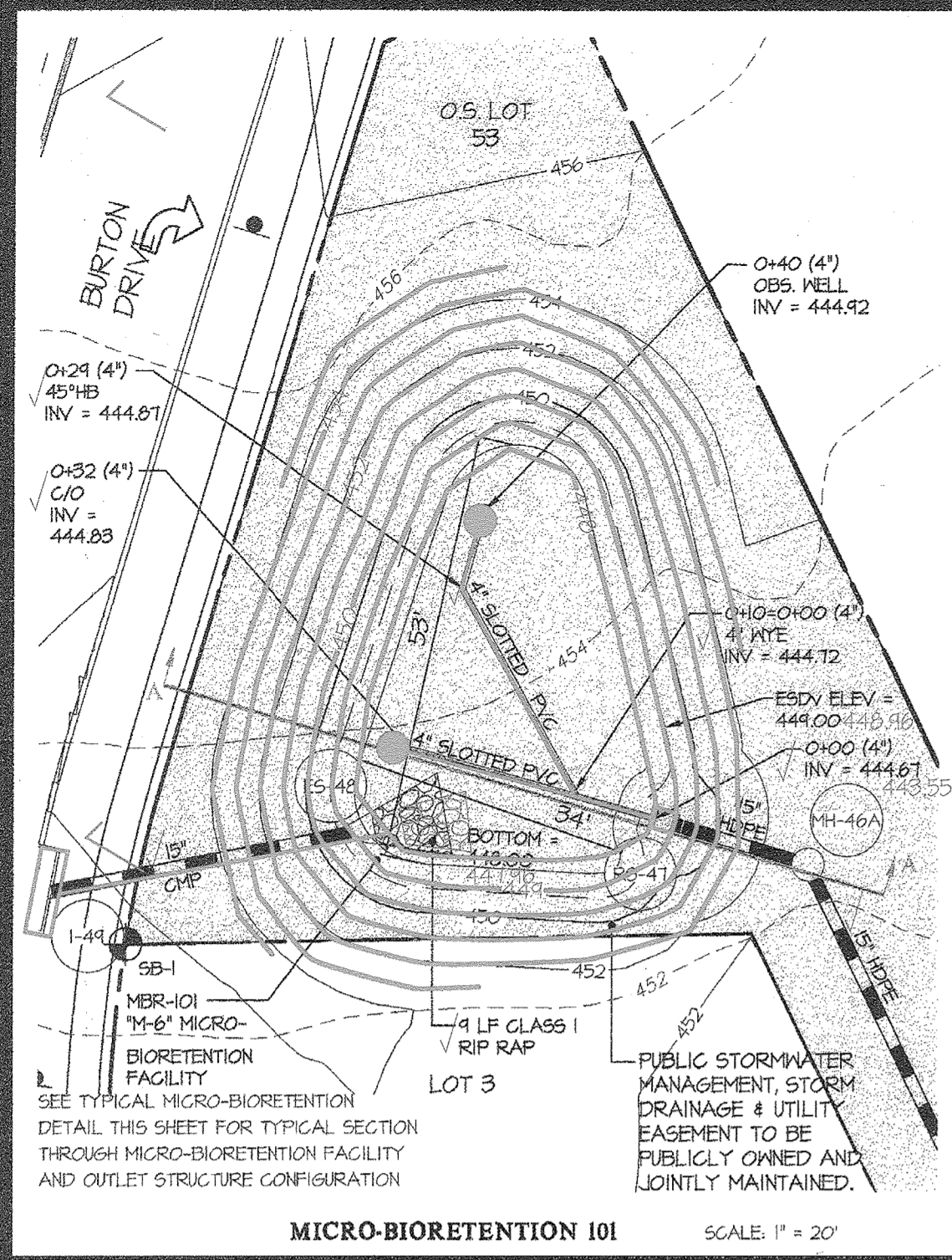
THE ENVIRONMENTAL SITE DESIGN PRESENTED IN THIS REPORT UTILIZES VARIOUS TYPES OF FACILITIES, SHALES, ETC. TO CAPTURE THE RUNOFF IN A NUMBER OF LOCATIONS WITHIN A WATERSHED IN AN ATTEMPT TO RECHARGE THE GROUNDWATER IN SEVERAL LOCATIONS. WE BELIEVE THIS IS MUCH BETTER THAN RELYING ON ONE OR TWO LOCATIONS, MANY TIMES LOWER IN THE SITE'S WATERSHED, AND NOT BEING EFFECTIVE. THE PROPOSED APPROACH REDUCES THE FOOTPRINT REQUIRED FOR THE ABOVE GROUND FACILITY NEEDED TO PROVIDE THE WATER QUALITY, THEREBY PRESERVING THE EXISTING VEGETATION.

MOST MICRO-BIORETENTION DEVICES WILL BE COUNTY OWNED AND JOINTLY MAINTAINED BY THE COUNTY AND THE HOMEOWNER'S ASSOCIATION (HOA). ANY MICRO-BIORETENTIONS SOLELY WITHIN THE WESTMOUNT PARKWAY RIGHT-OF-WAY WILL BE OWNED BY THE COUNTY AND JOINTLY MAINTAINED. ANY FACILITIES THAT SOLELY TREAT LOT RUNOFF WILL BE BOTH OWNED AND MAINTAINED BY HOA. THE MICRO-BIORETENTIONS ALONG MD ROUTE 144A (FREDERICK ROAD) WILL BE OWNED AND MAINTAINED BY THE HOA. ALL ON LOT DEVICES WILL BE PRIVATELY OWNED AND MAINTAINED BY THE INDIVIDUAL HOME OWNERS.

**CONCLUSION**  
 WE BELIEVE THAT BY PROVIDING THE NUMBER OF MICRO BIO-RETENTION FACILITIES AS WE HAVE, ALONG WITH THEIR LOCATION AND THE OTHER DEVICES BEING PROPOSED, WE HAVE CREATED A STRATEGY THAT ALLOWS FOR THE PROPOSED DEVELOPMENT WITHOUT ADVERSELY AFFECTING THE RECEIVING WATERS AND OTHER ENVIRONMENTALLY SENSITIVE AREAS.

THE DESIGN, FOR BOTH STORMWATER MANAGEMENT AND SEDIMENT CONTROL, PRESENTED IN THIS REPORT AND ON THE FINAL PLAN DOES NOT ADVERSE





**S.D. PIPE SUMMARY TABLE - PUBLICALLY OWNED AND JOINTLY MAINTAINED**

SIZE (INCHES)	TYPE	QUANTITY (L.F.)	REMARKS
4	SLOTTED PVC	1071	SCHEDULE 40
4	PVC	168	SCHEDULE 40
6	SLOTTED PVC	263	SCHEDULE 40
6	PVC	4	SCHEDULE 40

**MICRO-BIORETENTION PLANT LIST**

SYMBOL	QTY.	NAMES (BOTANICAL / SCIENTIFIC)	SIZE	ROOT/COMMENTS
SR125*	55	CORNUS SERICEA 'RUBY' / RUBY RED OSER DOGWOOD	18"-24" SFR.	CONTAINER
SR126*	34	ITEA VIRGINICA 'HENRY'S GARNET' / VIRGINIA SNETSPIRE	18"-24" SFR.	CONTAINER
HERBACEOUS*	1686 S.F.	CONTRACTOR TO CHOOSE HERBACEOUS PLANTING FROM: -HERMEROCALLIS 'STRAWBERRY CANDY' DAYLILY -HERMEROCALLIS 'JOAN SENIOR' DAYLILY -KALMIA ANGUSTIFOLIA/SHEEP LAUREL -HELEORHIS OVATA/OSTIA/BLUNT SPIKE RUSH	18" O.C.	CONTAINER

**ASBUILTS 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. 12915, Expiration Date: May 26 2020.

1/28/2020  
Date  
Camilia Carroll  
Professional Engineer  
Maryland Reg. No. 12915

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
Chief, Bureau of Highways  
Date: 7/27/2016

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
Chief, Division of Land Development  
Date: 8-29-16

Chief, Development Engineering Division  
Date: 8-26-16

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20886  
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-589-2524 FAX: 301-421-4186

PREPARED FOR:  
WESTMOUNT DEVELOPMENT CORPORATION  
3500 MANOR LANE  
ELLCOTT CITY, MARYLAND 21042  
443-367-0422  
ATTN.: CAMILLA CARROLL

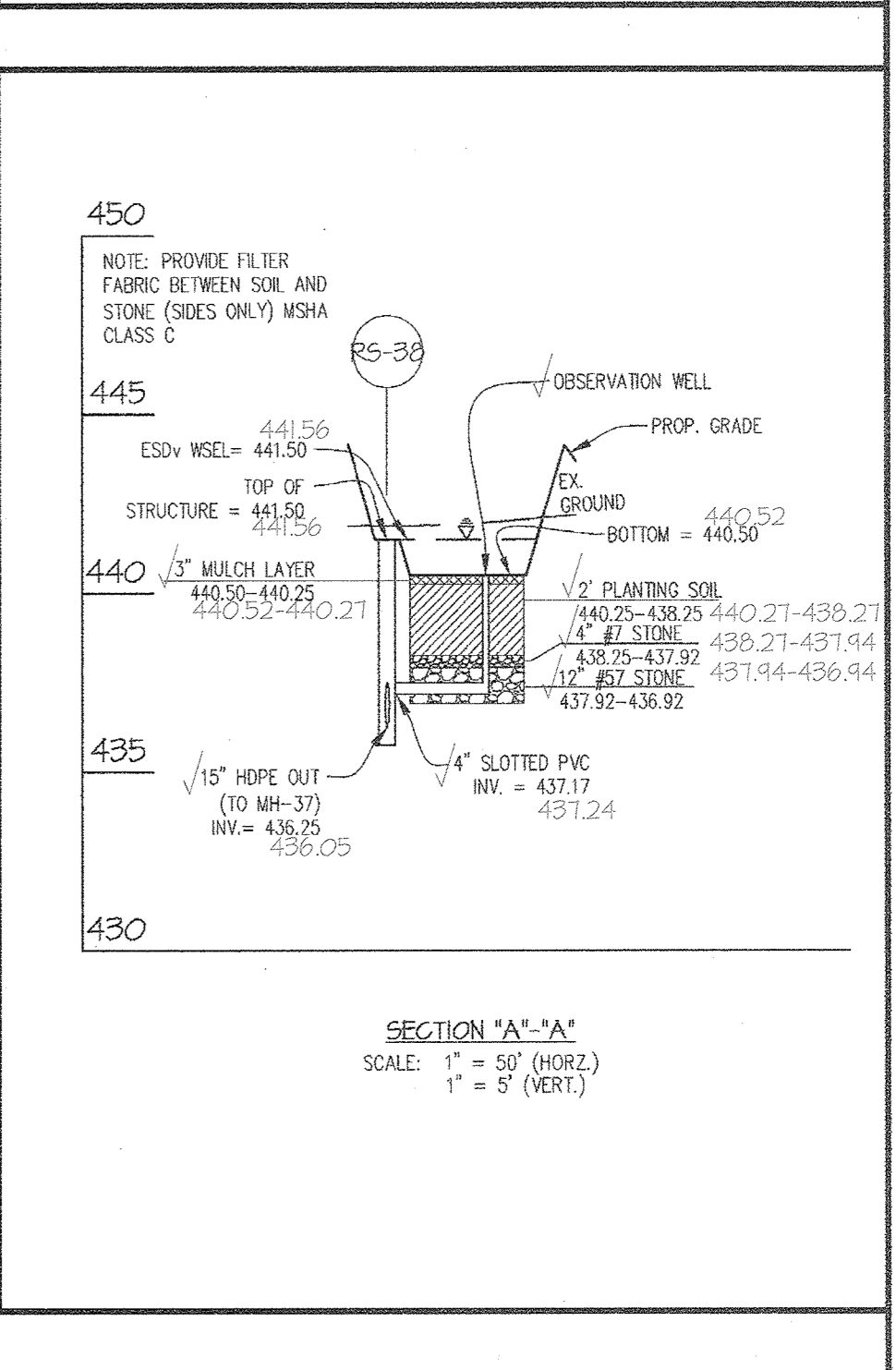
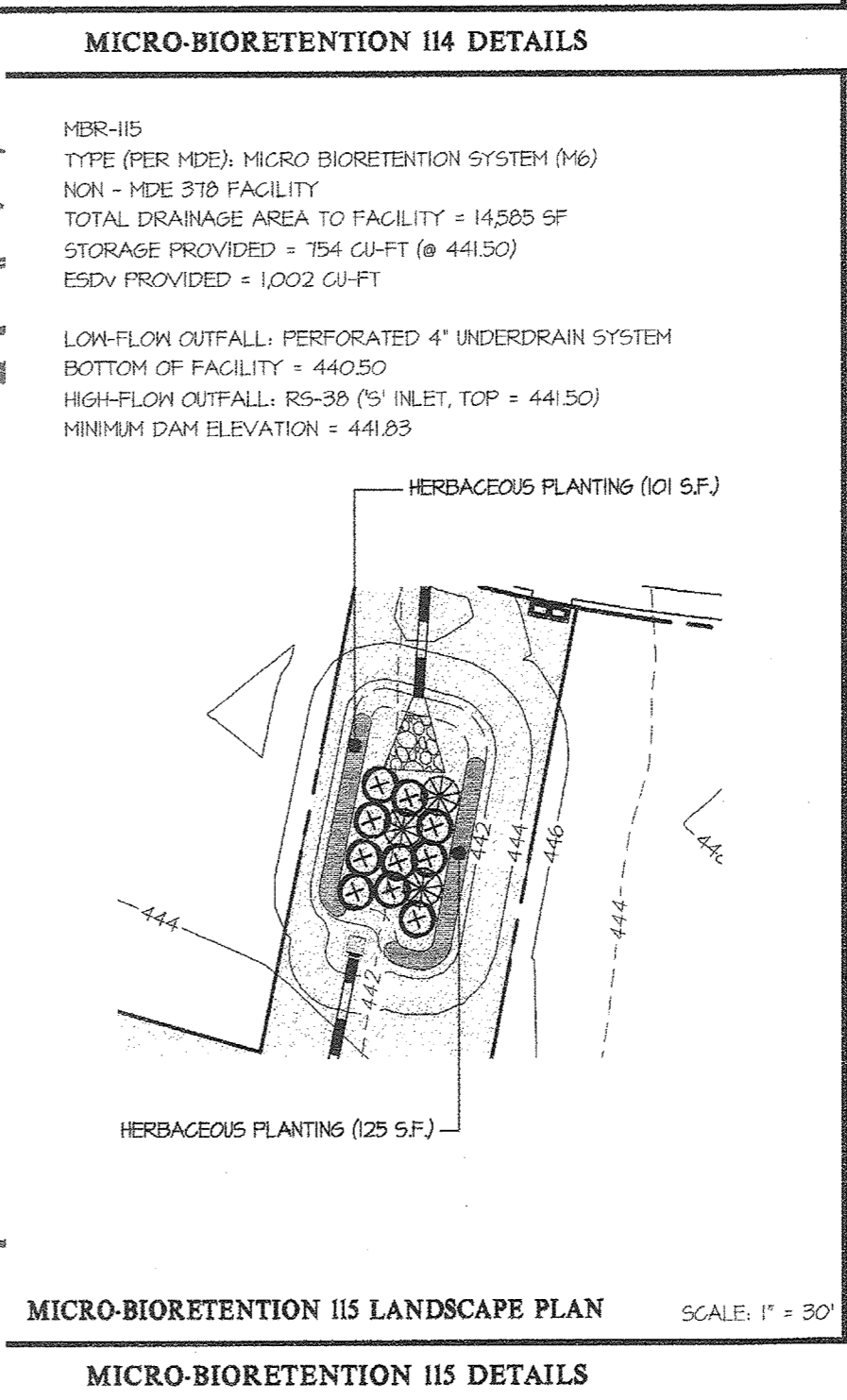
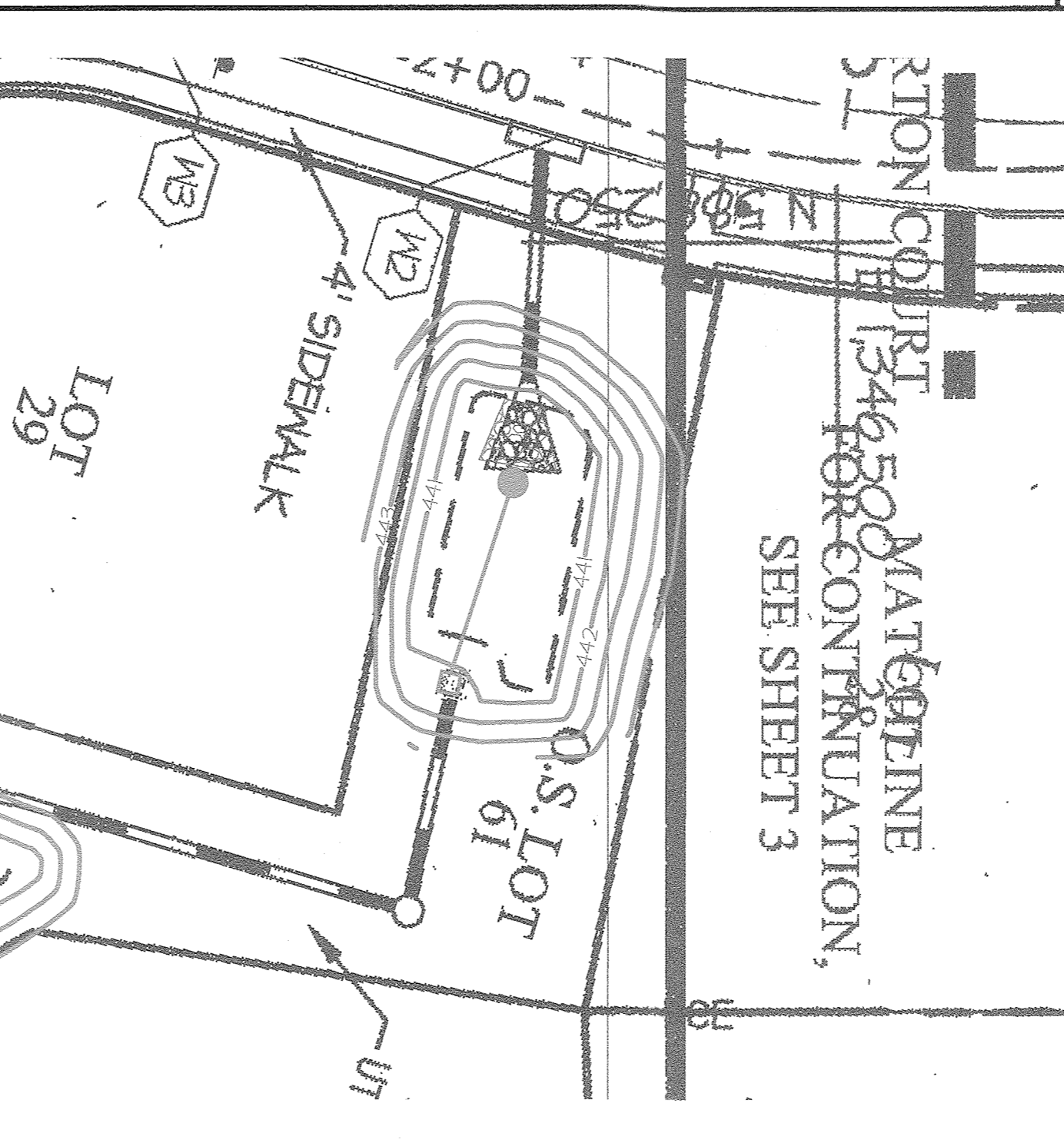
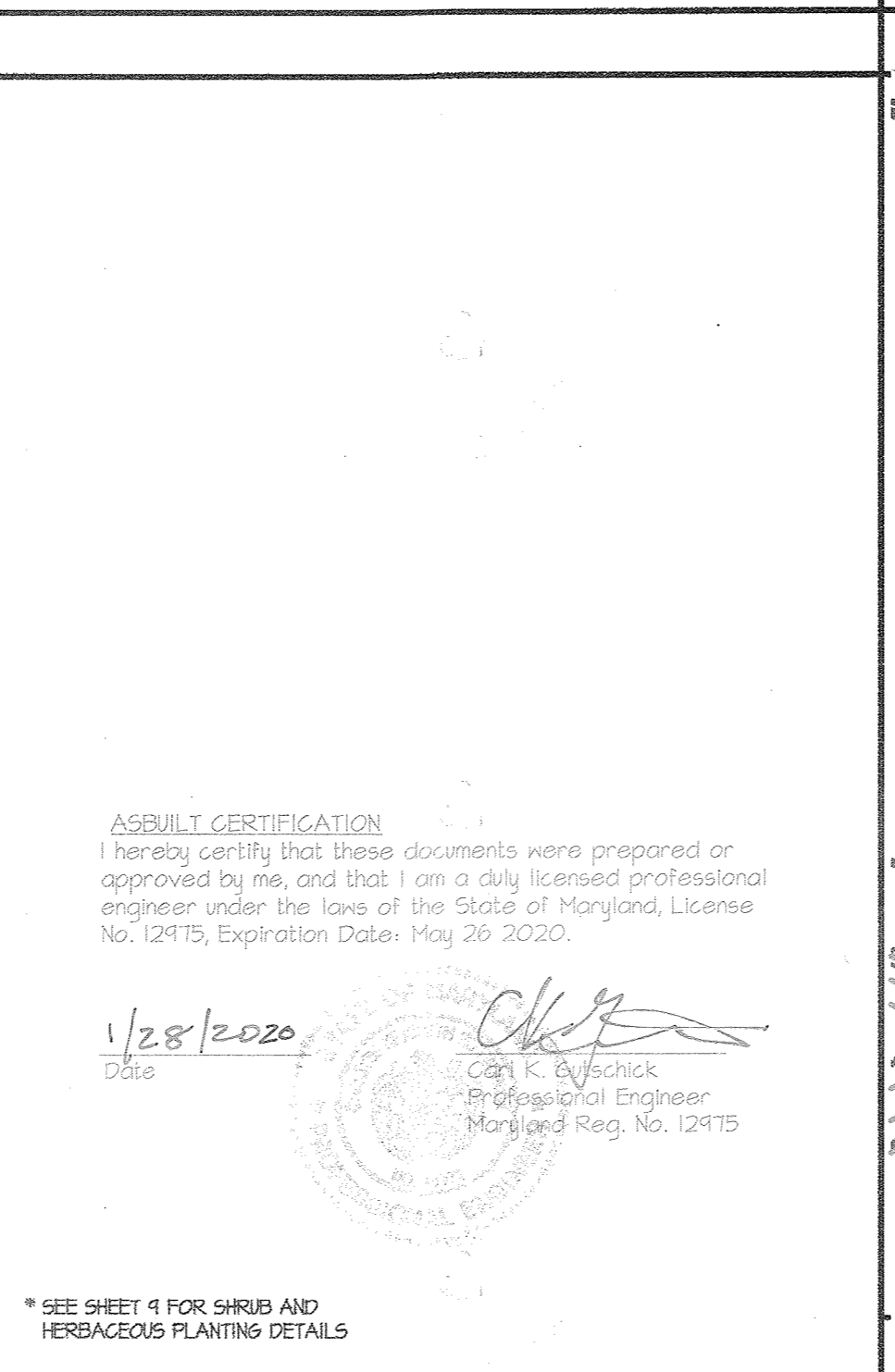
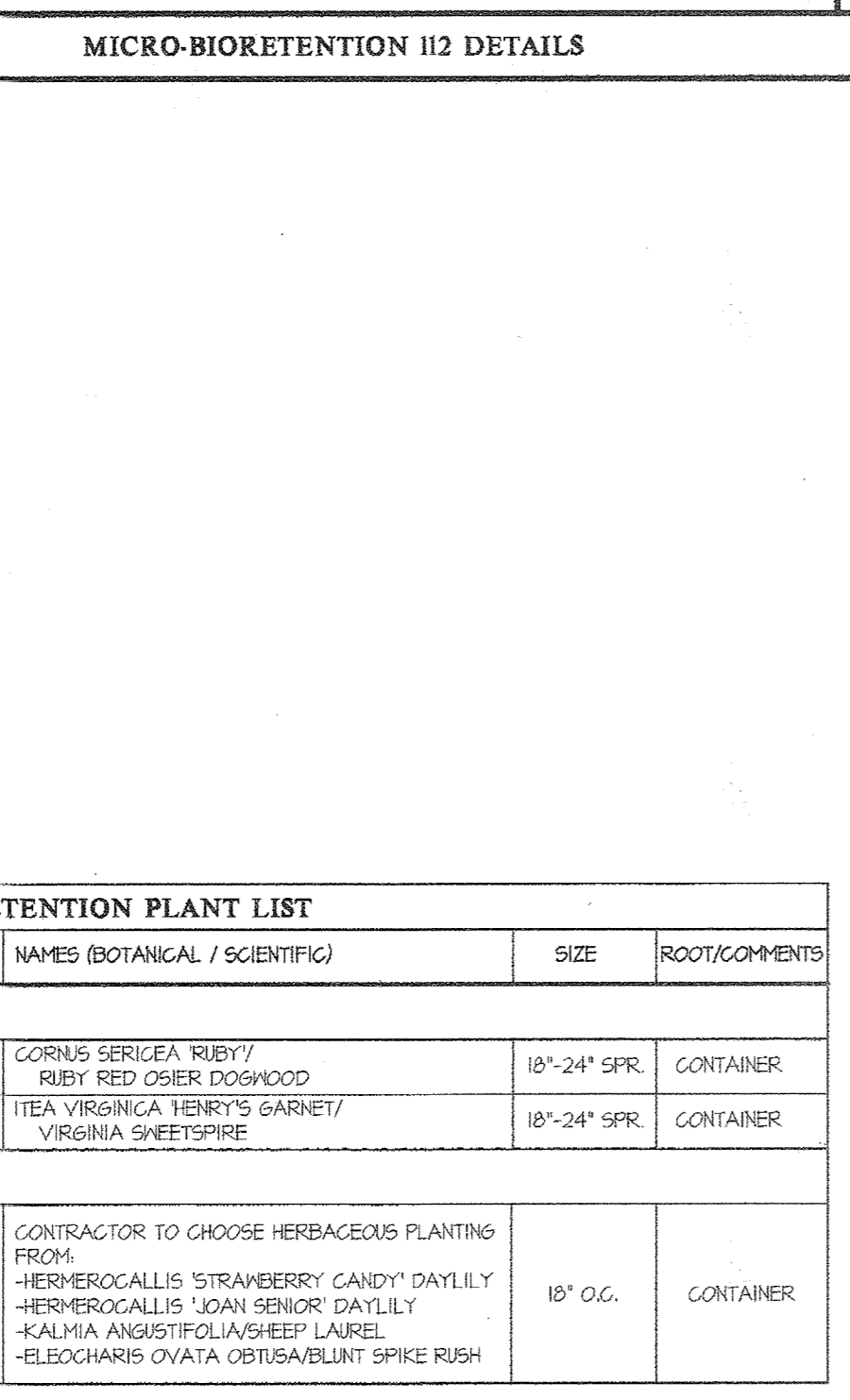
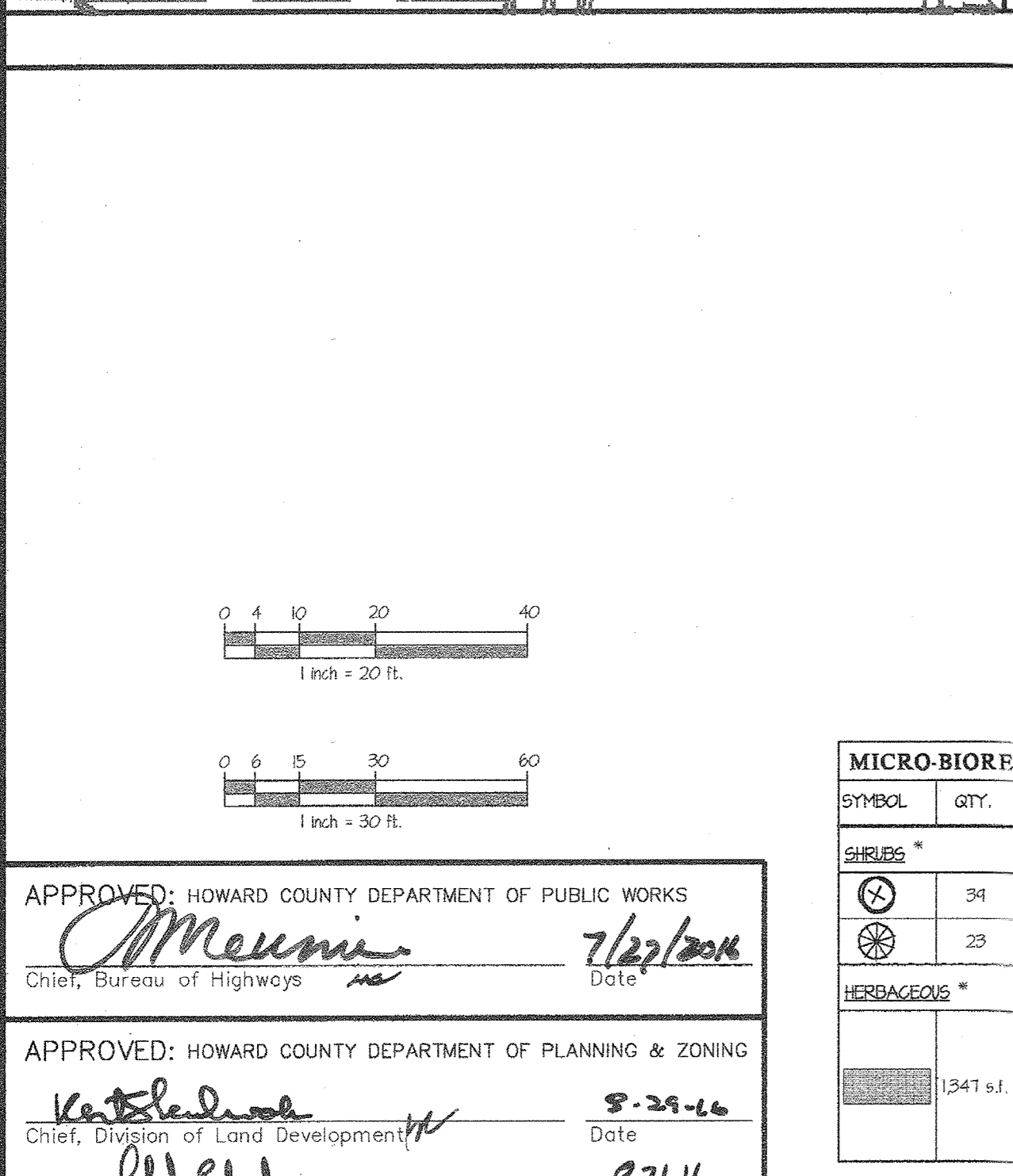
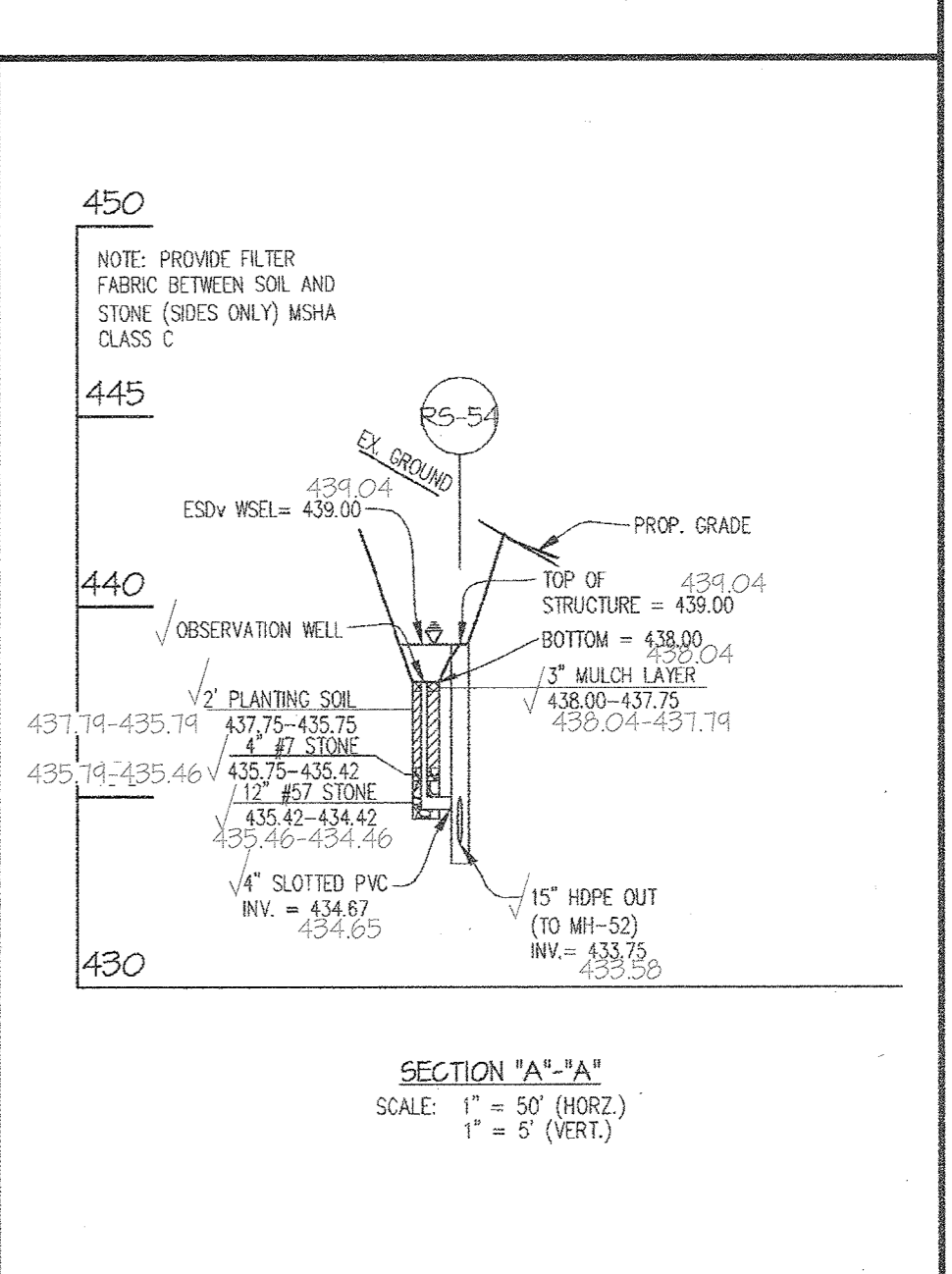
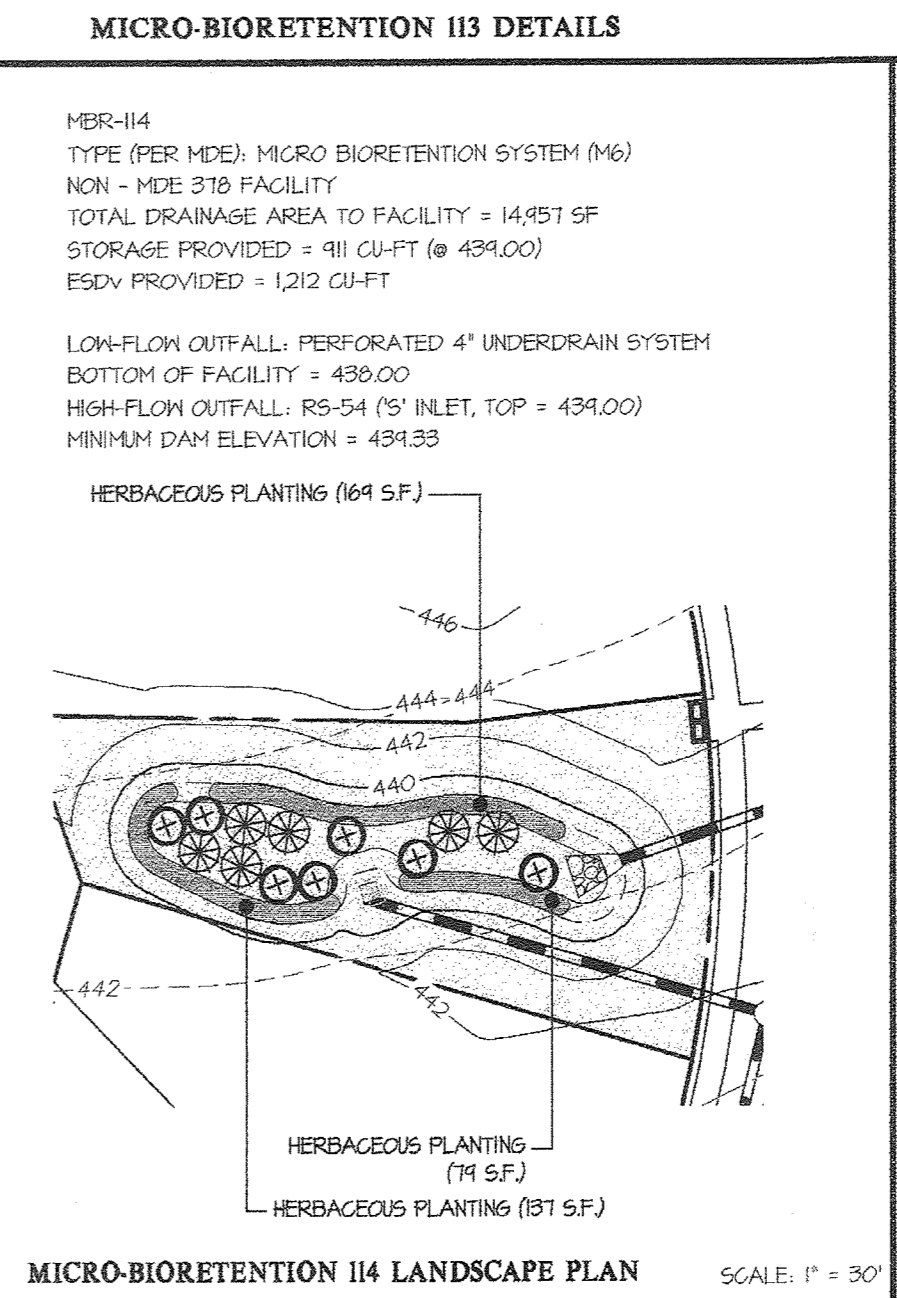
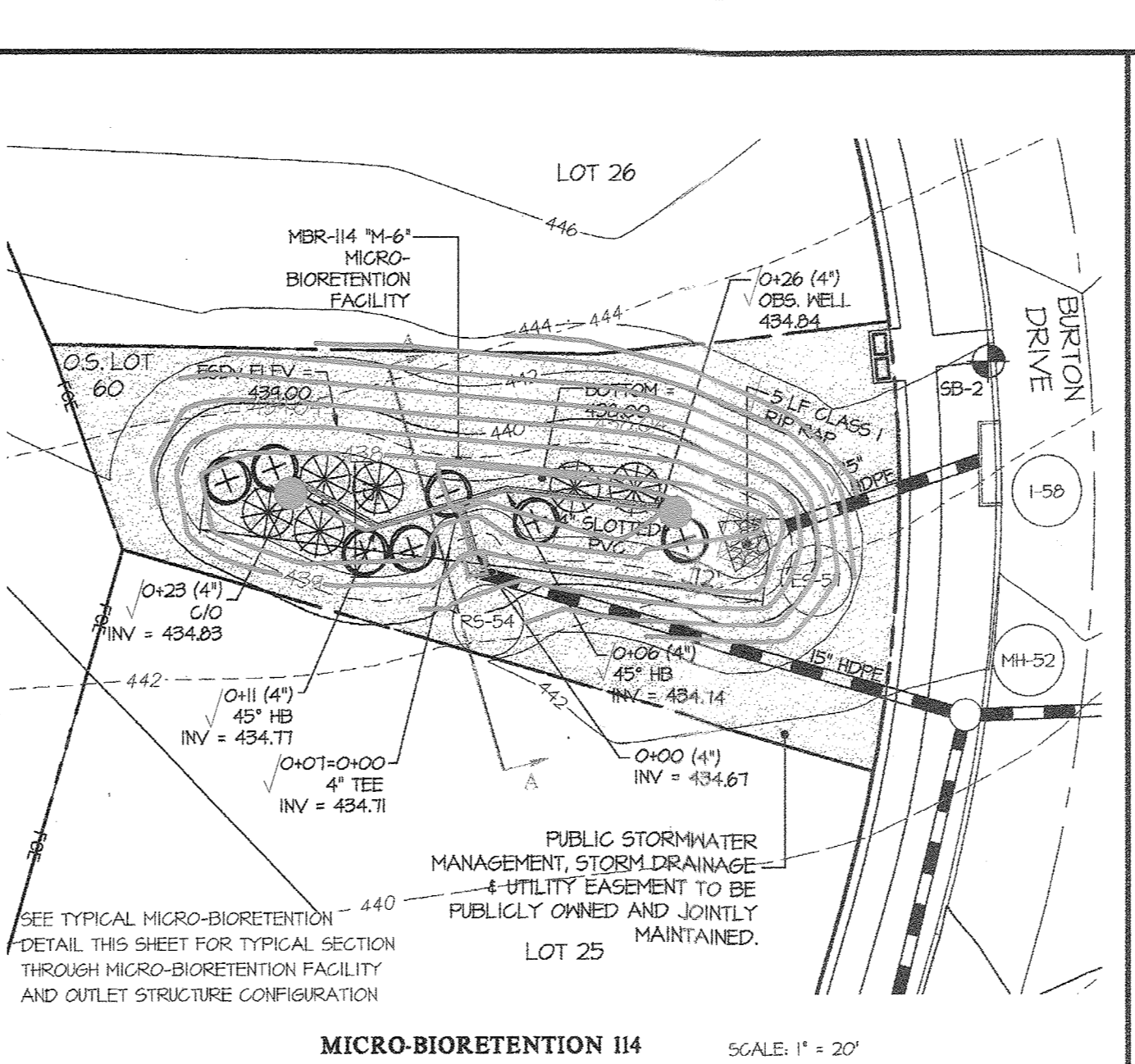
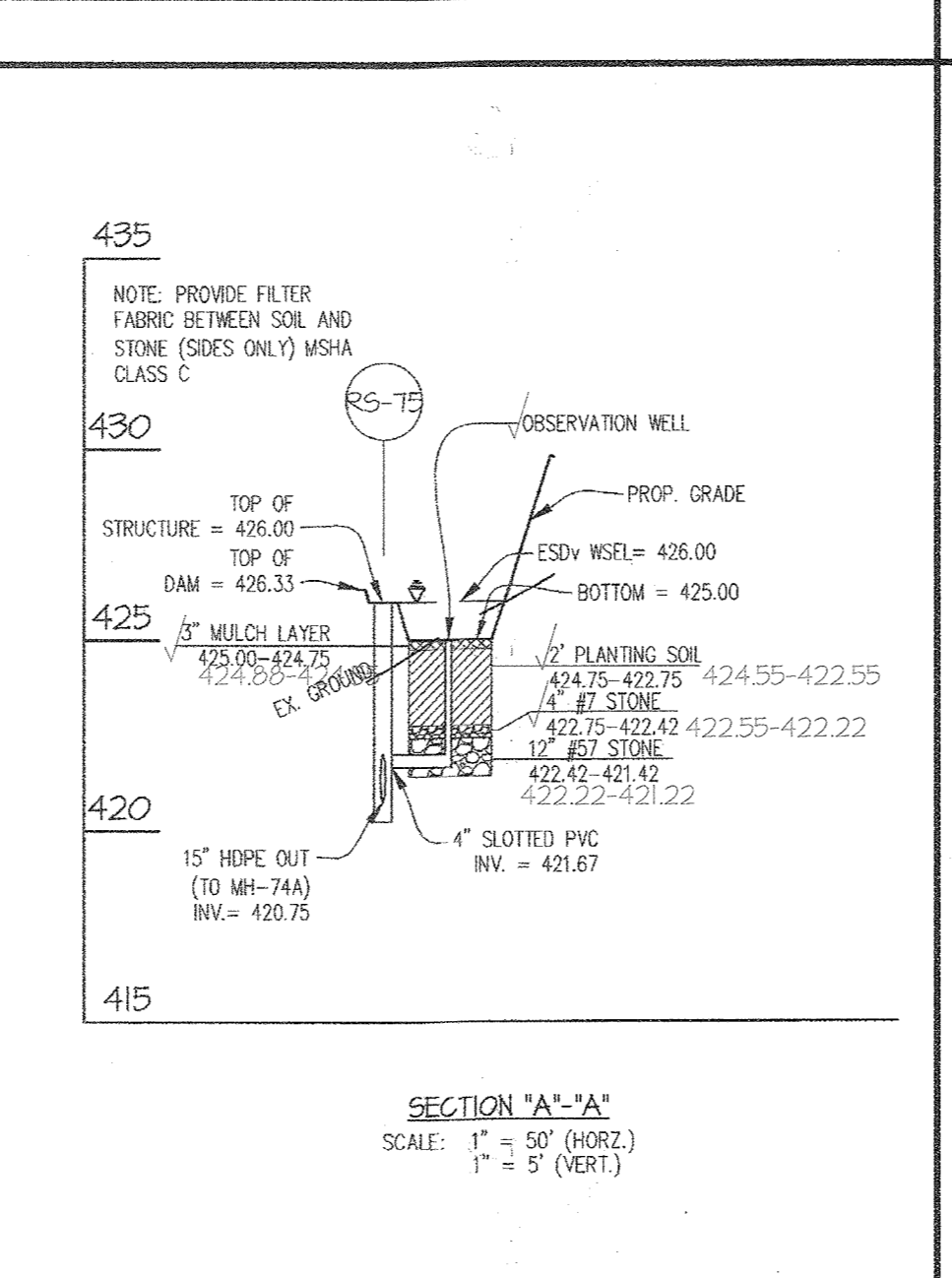
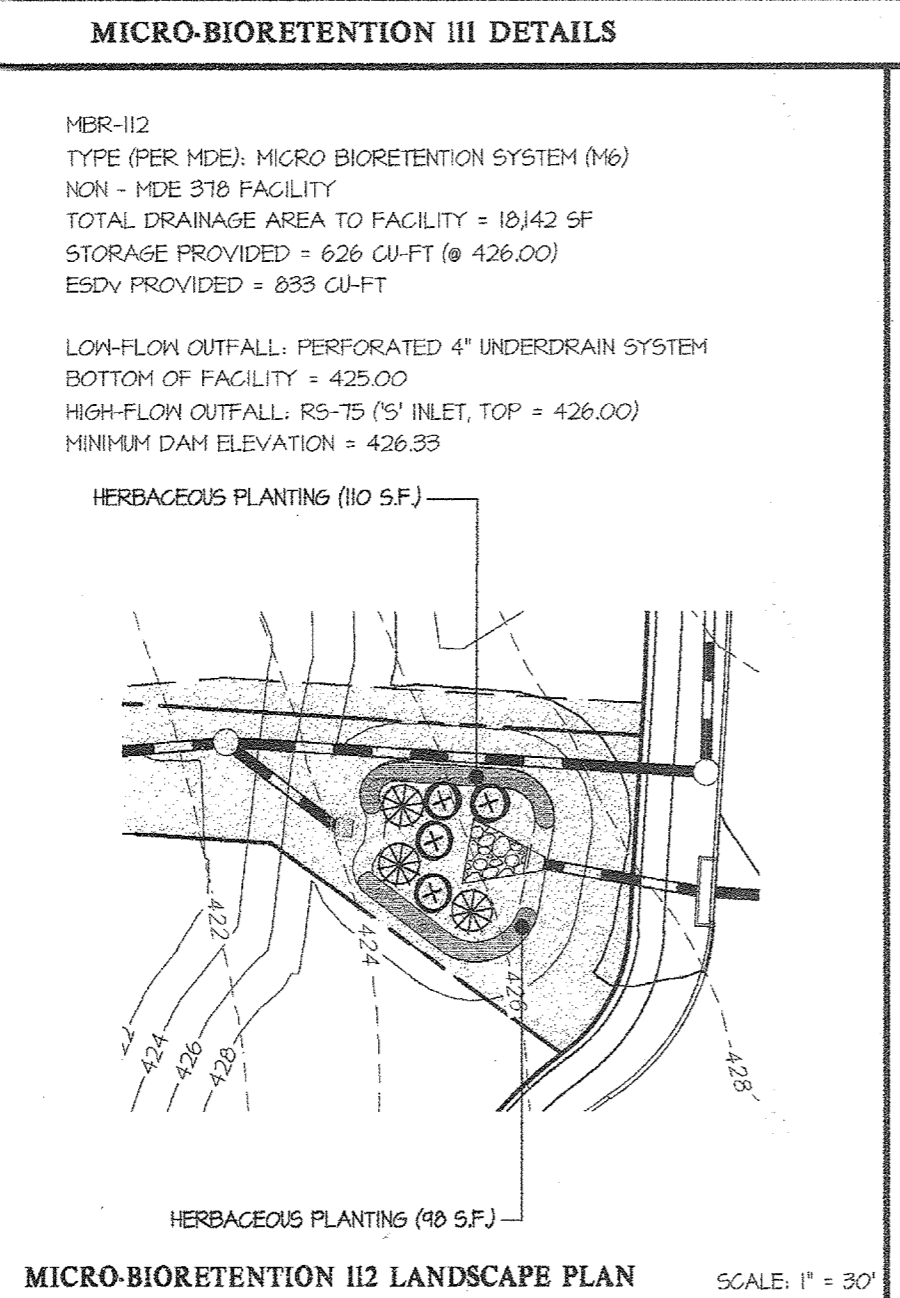
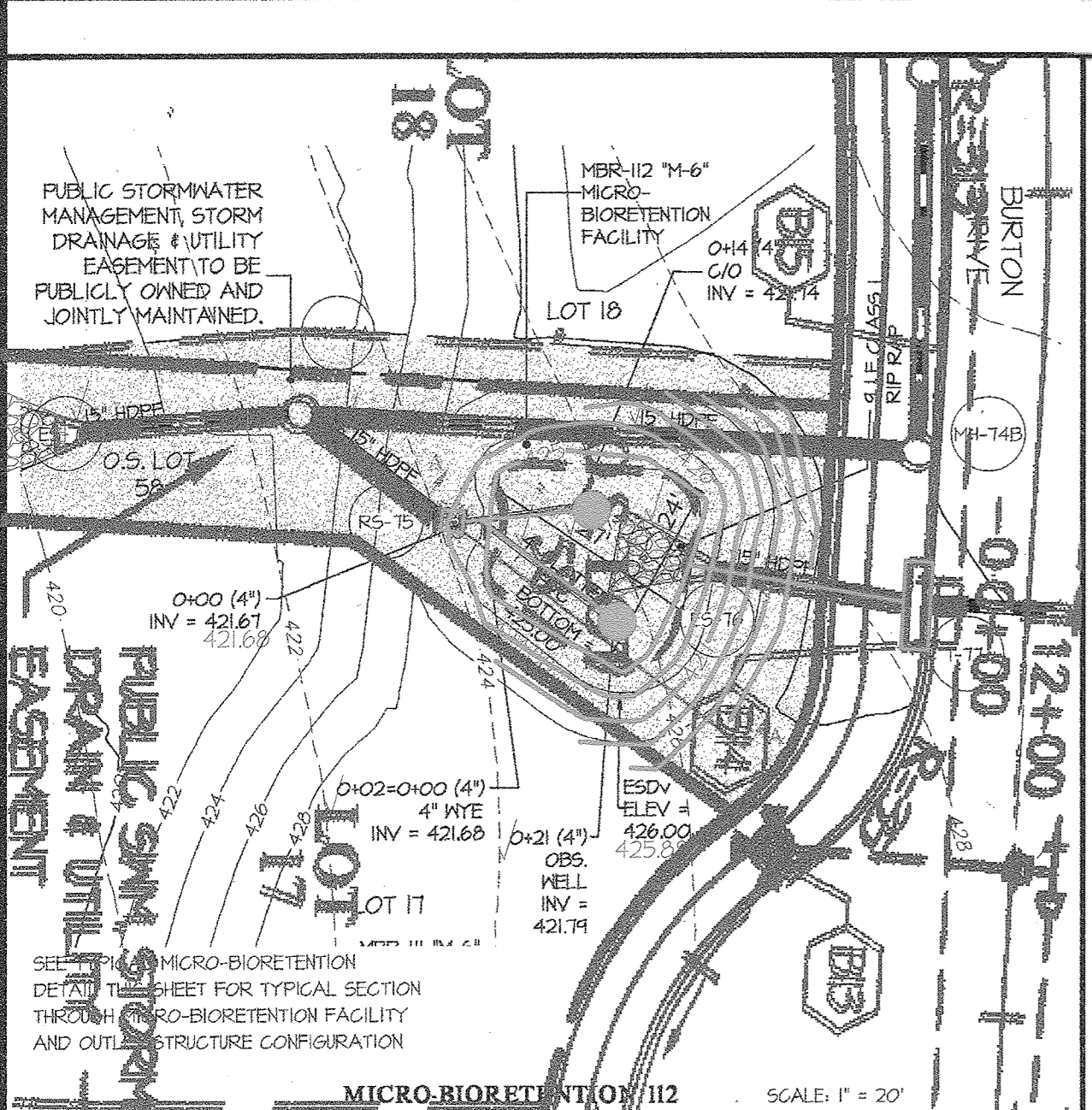
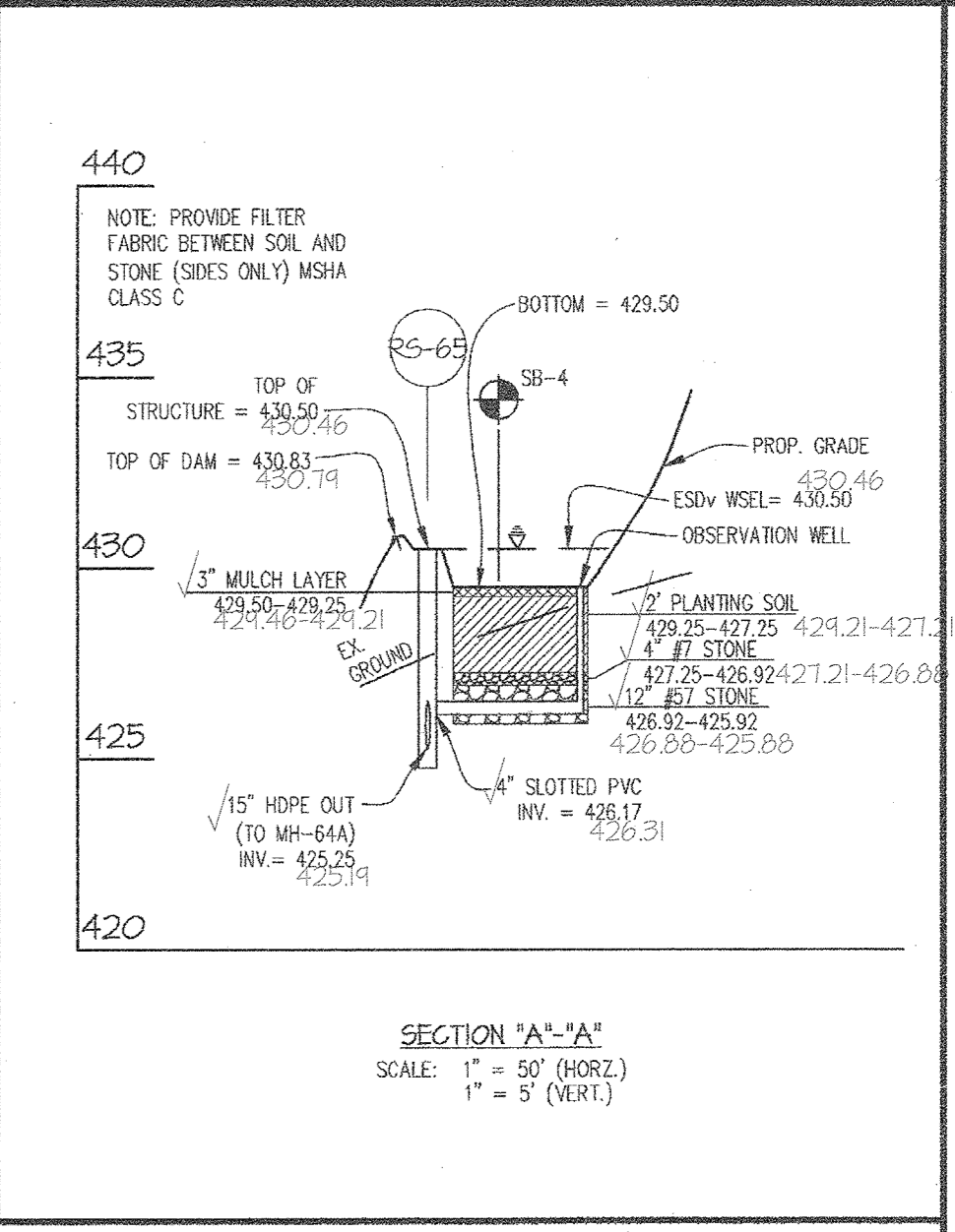
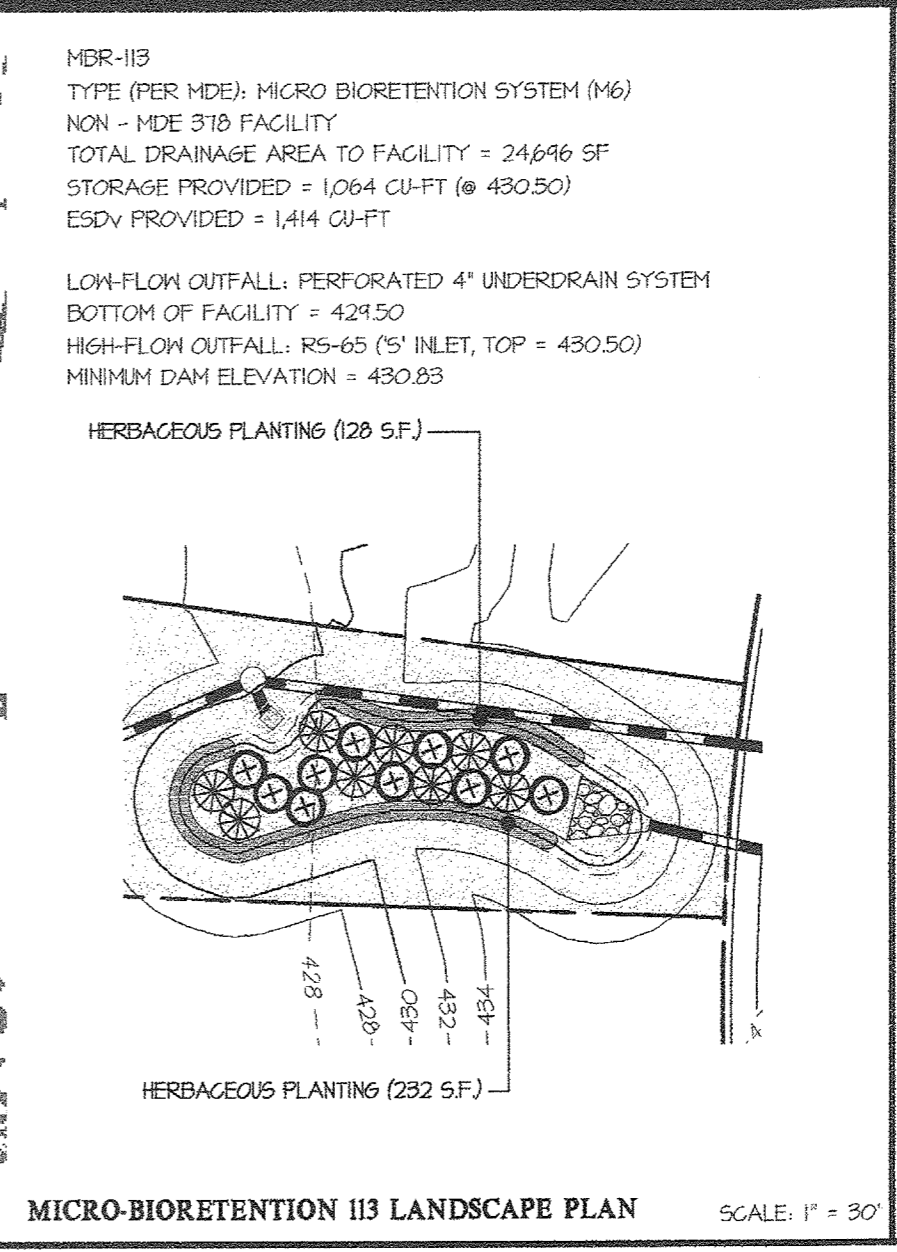
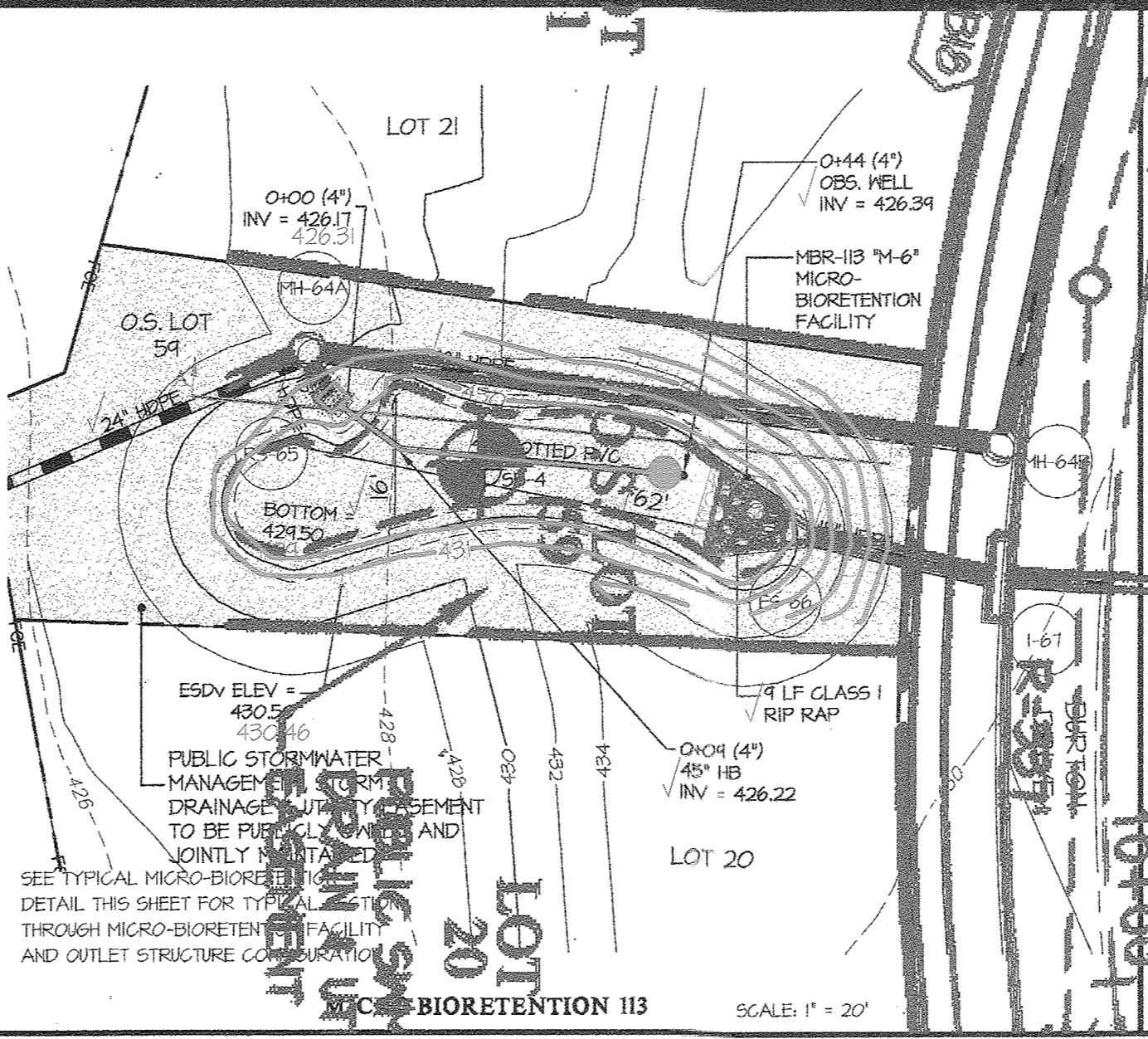
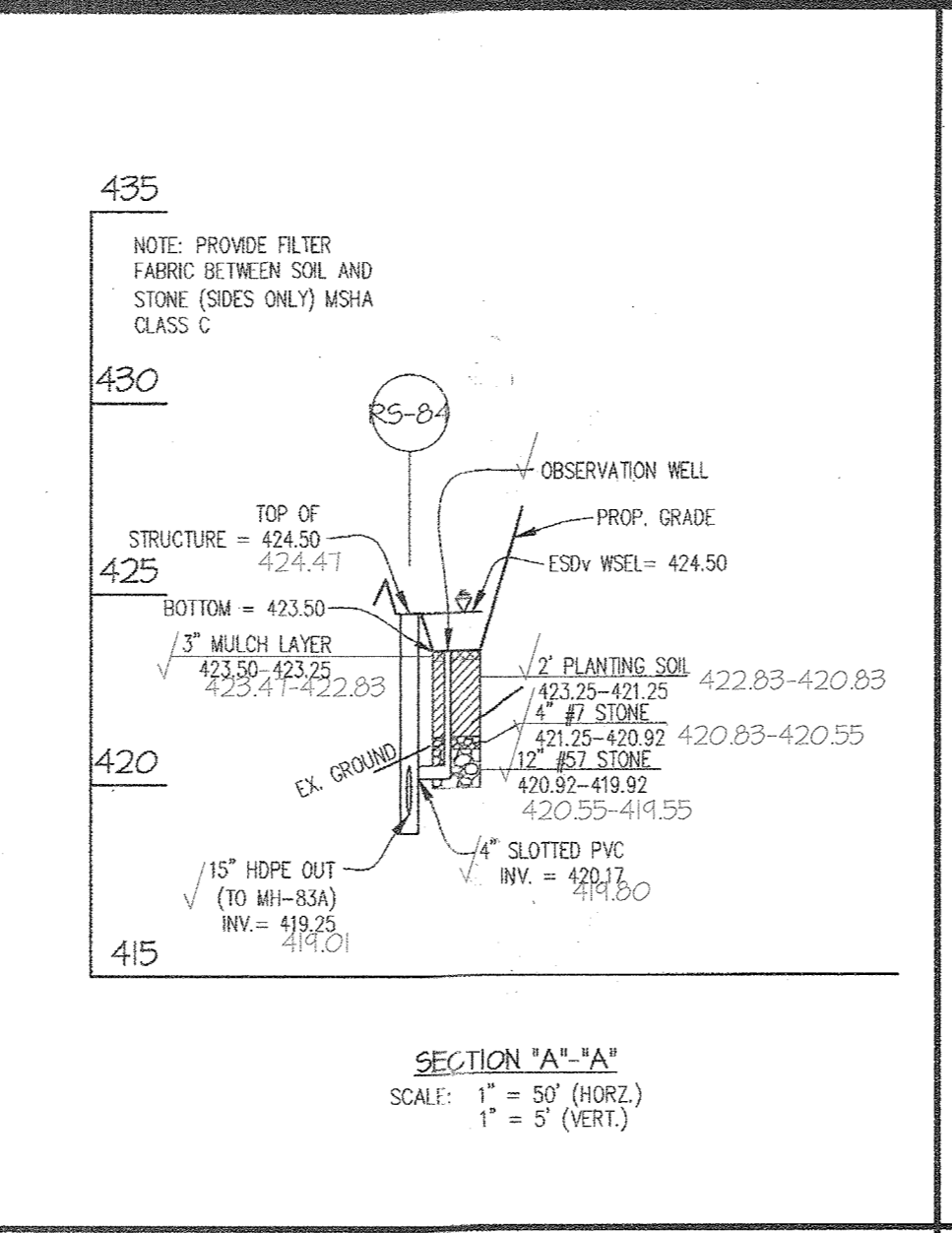
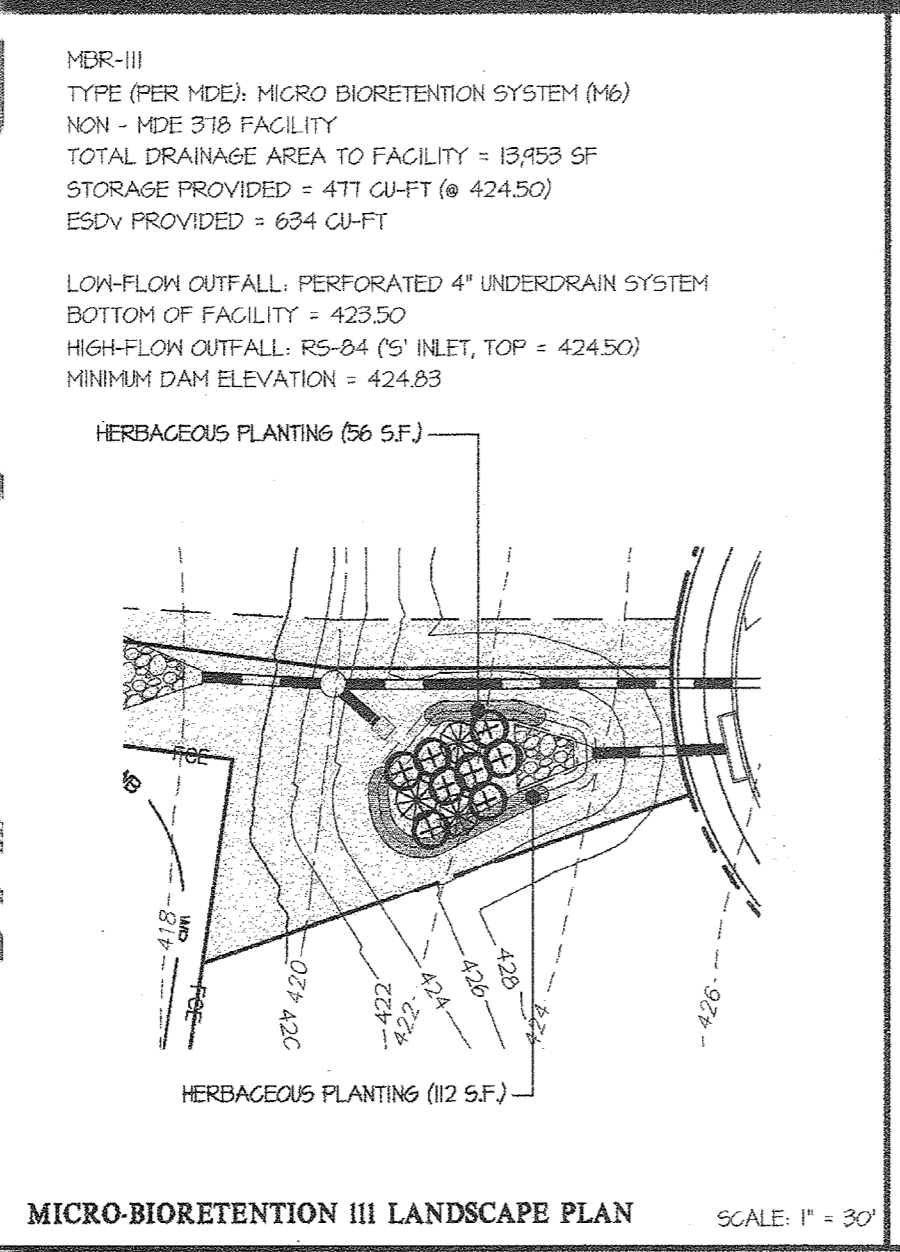
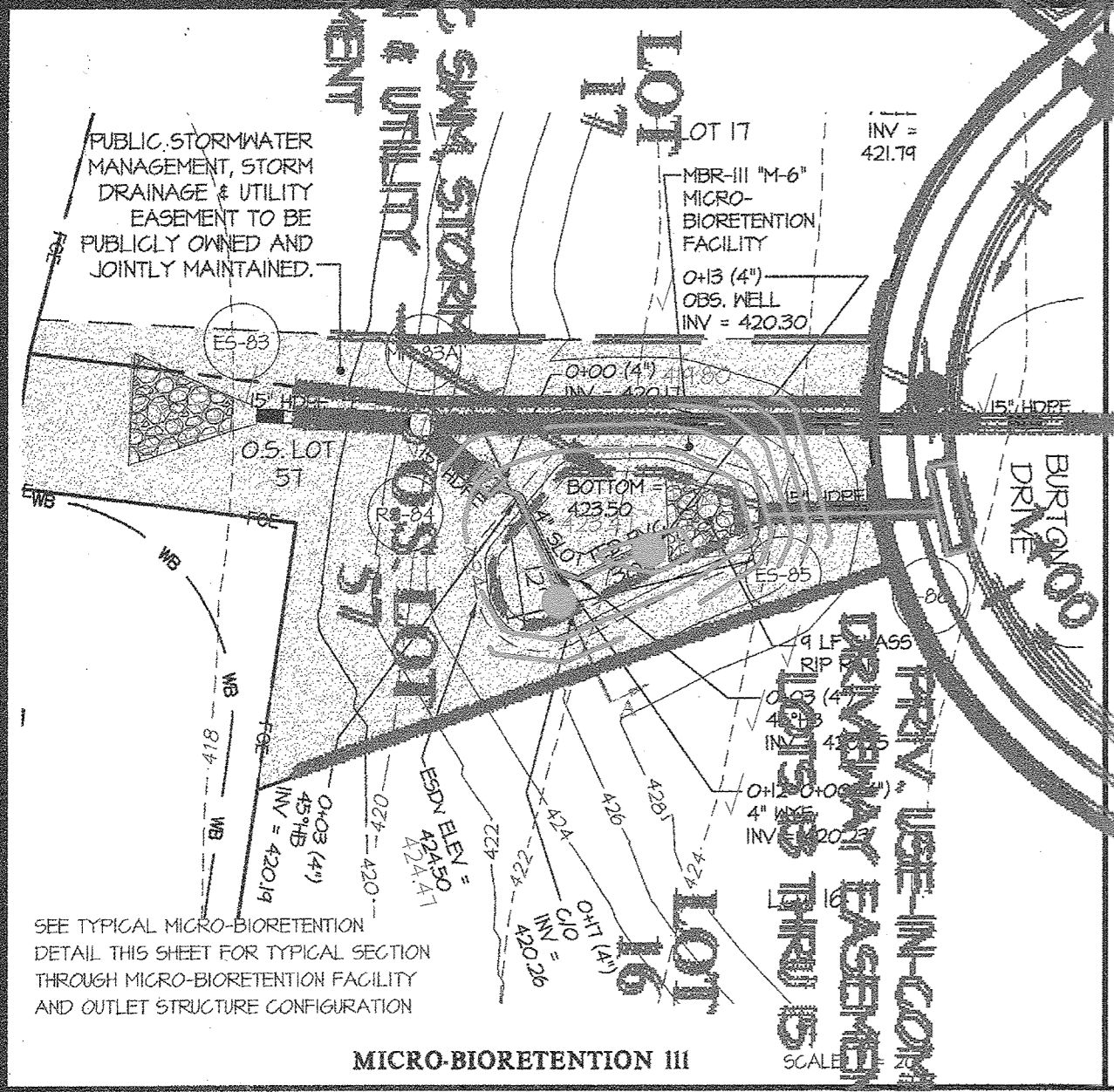
PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12915, EXPIRATION DATE: MAY 26, 2020.

**STORMWATER MANAGEMENT DETAILS**  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71 AND NON-BUILDABLE BULK PARCELS B & C**  
A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
ELECTION DISTRICT No. 2

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JAN 2020 JULY, 2016	23-6&12	39 OF 60

ASBUILTS  
ASHBUILTS





APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Chief, Bureau of Highways  
 Date: 7/27/2016

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Chief, Division of Land Development  
 Date: 8-24-16

Chief, Development Engineering Division  
 Date: 8-26-16

MICRO-BIORETENTION PLANT LIST				
SYMBOL	QTY.	NAMES (BOTANICAL / SCIENTIFIC)	SIZE	ROOT/COMMENTS
<b>SHRUBS *</b>				
[Symbol]	34	CORNUS SERICEA RUBY/ RUBY RED OSIER DOGWOOD	18"-24" SPR.	CONTAINER
[Symbol]	29	ITEA VIRGINICA HENRY'S GARNET/ VIRGINIA SWEETSPIRE	18"-24" SPR.	CONTAINER
<b>HERBACEOUS *</b>				
[Symbol]	1347 s.f.	CONTRACTOR TO CHOOSE HERBACEOUS PLANTING FROM: -HERMEROCALLIS 'STRAWBERRY CANDY' DAYLILY -HERMEROCALLIS 'JOAN SENIOR' DAYLILY -KALMIA ANGUSTIFOLIA/SHEEP LABEL -ELEOCHARIS OVATA/OBTUSILABRUM SPIKE RUSH	10" O.G.	CONTAINER

ASBUILT 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. 129475, Expiration Date: May 26, 2020.

1/28/2020  
 Date

Cap K. Gutschick  
 Professional Engineer  
 Maryland Reg. No. 129475

\* SEE SHEET 4 FOR SHRUB AND HERBACEOUS PLANTING DETAILS

GLWGUTSCHICK LITTLE & WEBER, P.A.  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BALT. 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DES. JRD	DRN. JRD	CHK. DEV	DATE	REVISION	BY	APP'R.

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN: CAMILLA CARROLL

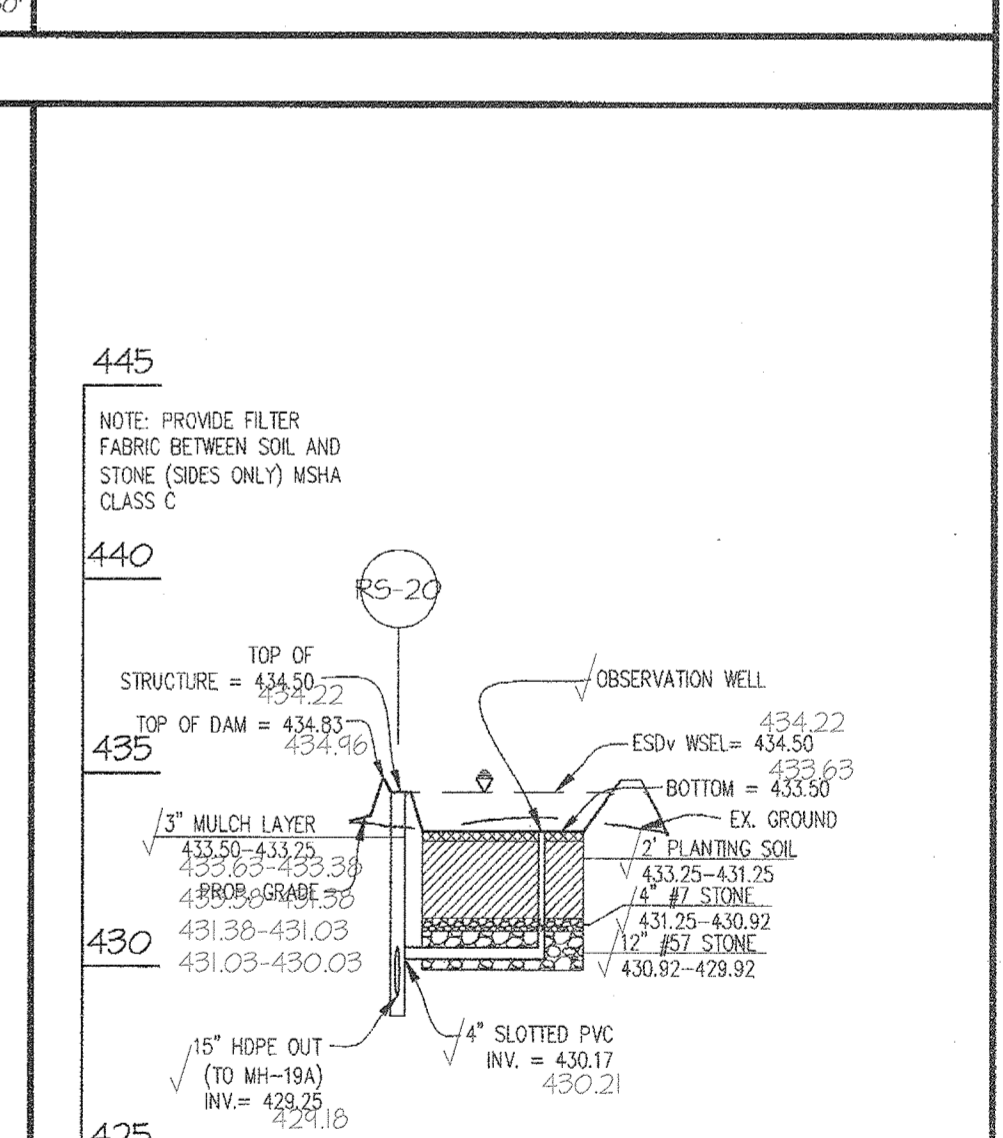
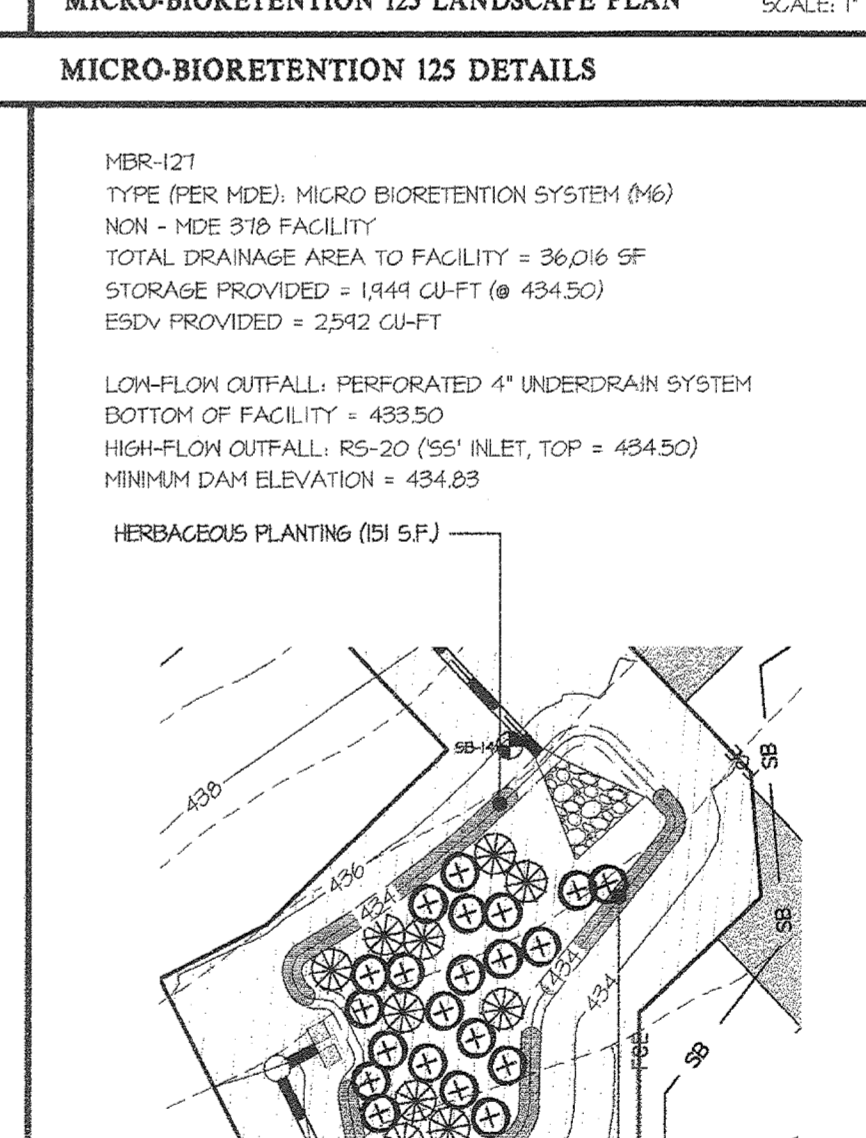
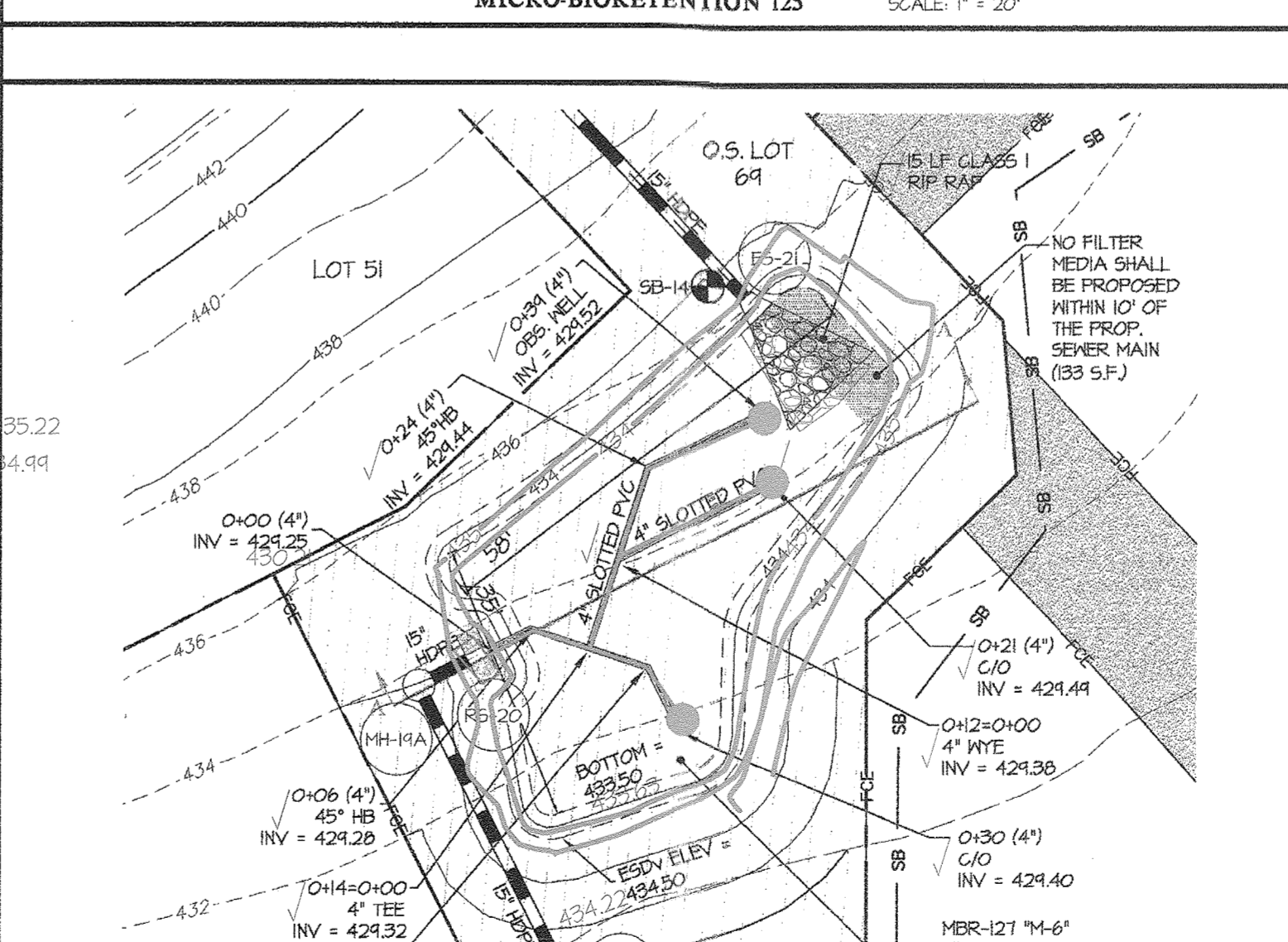
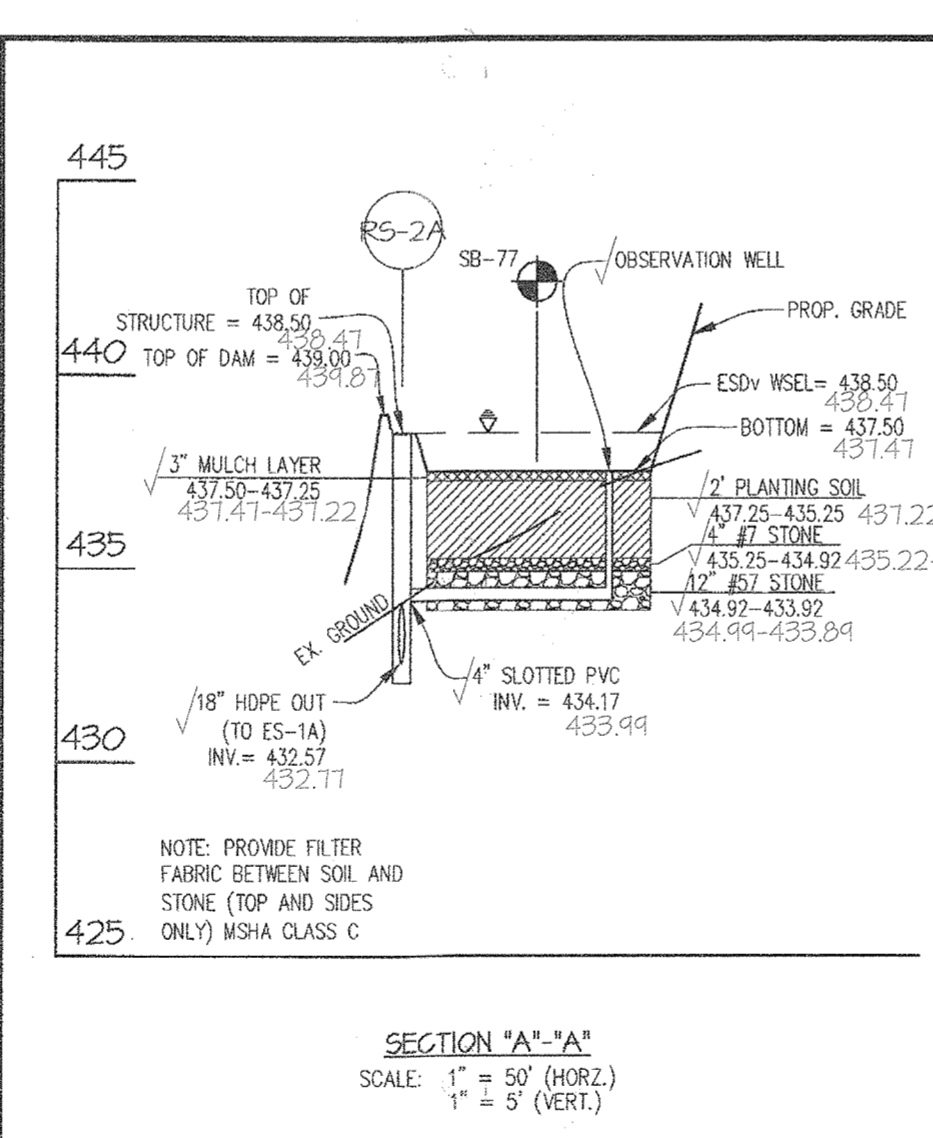
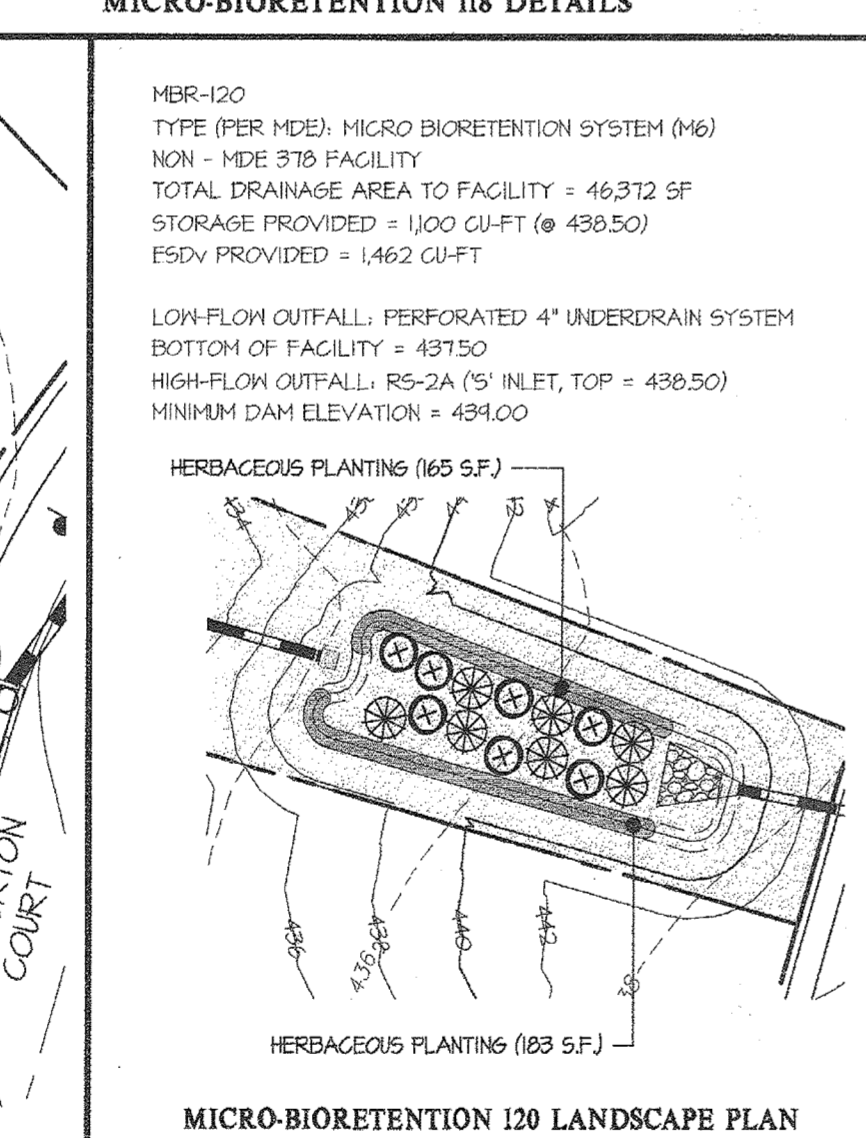
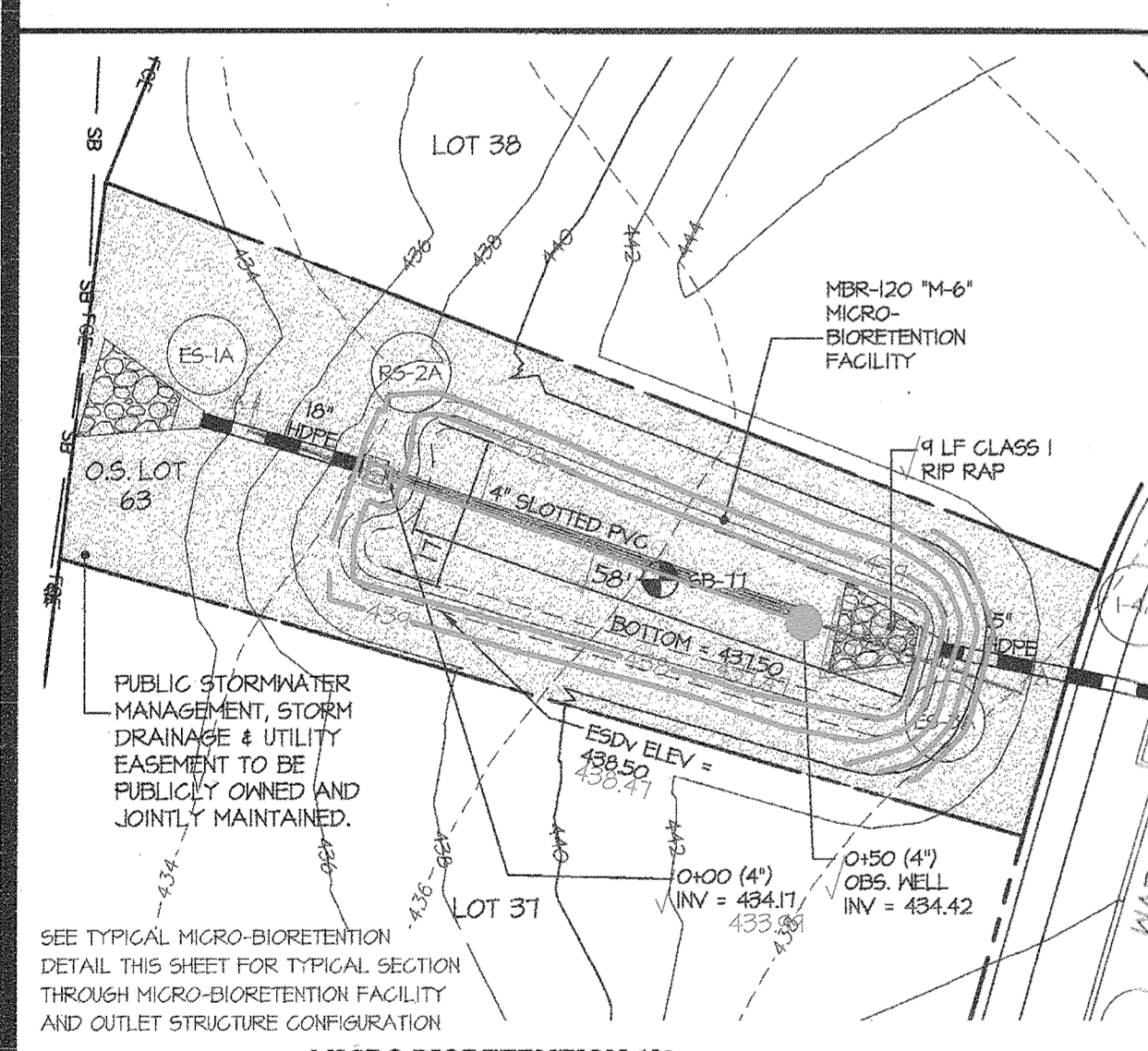
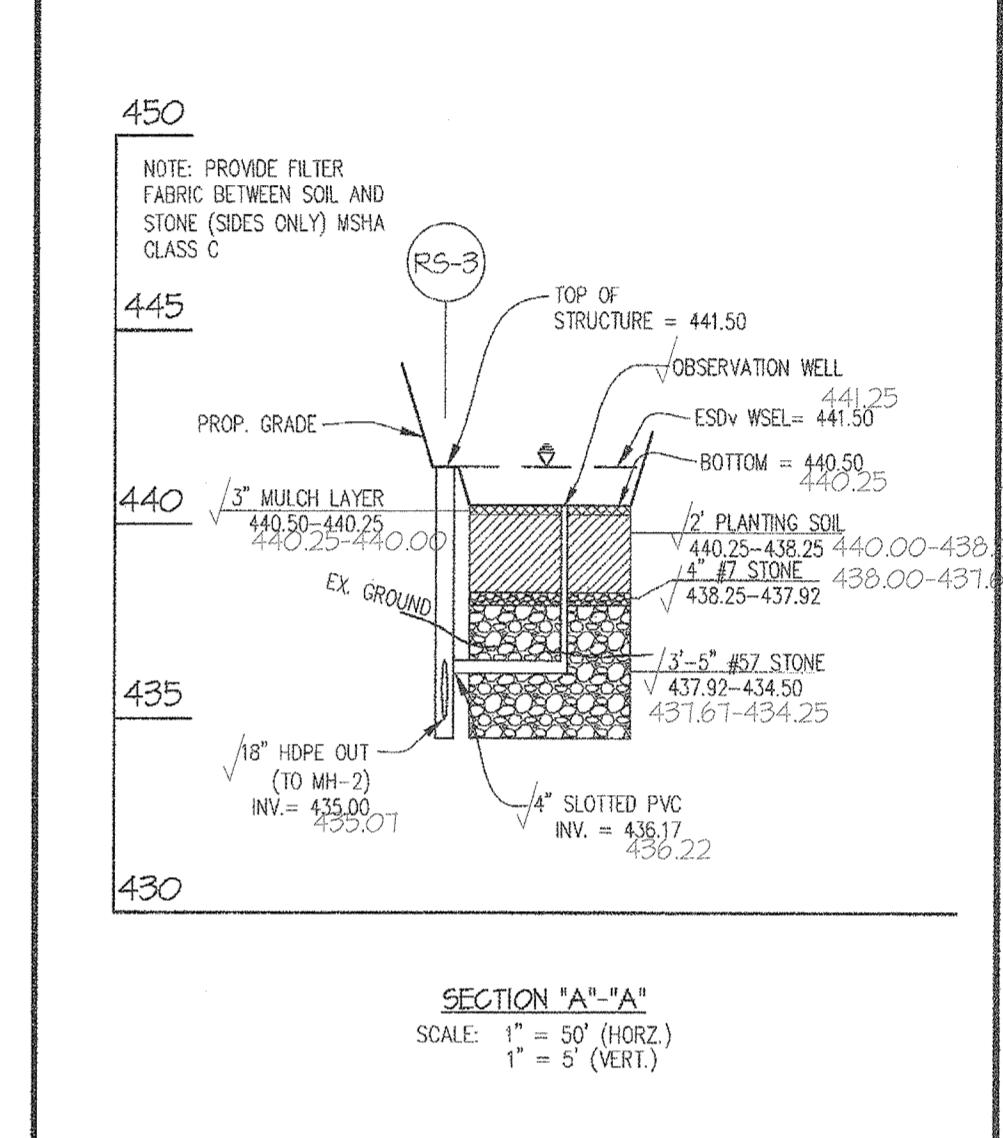
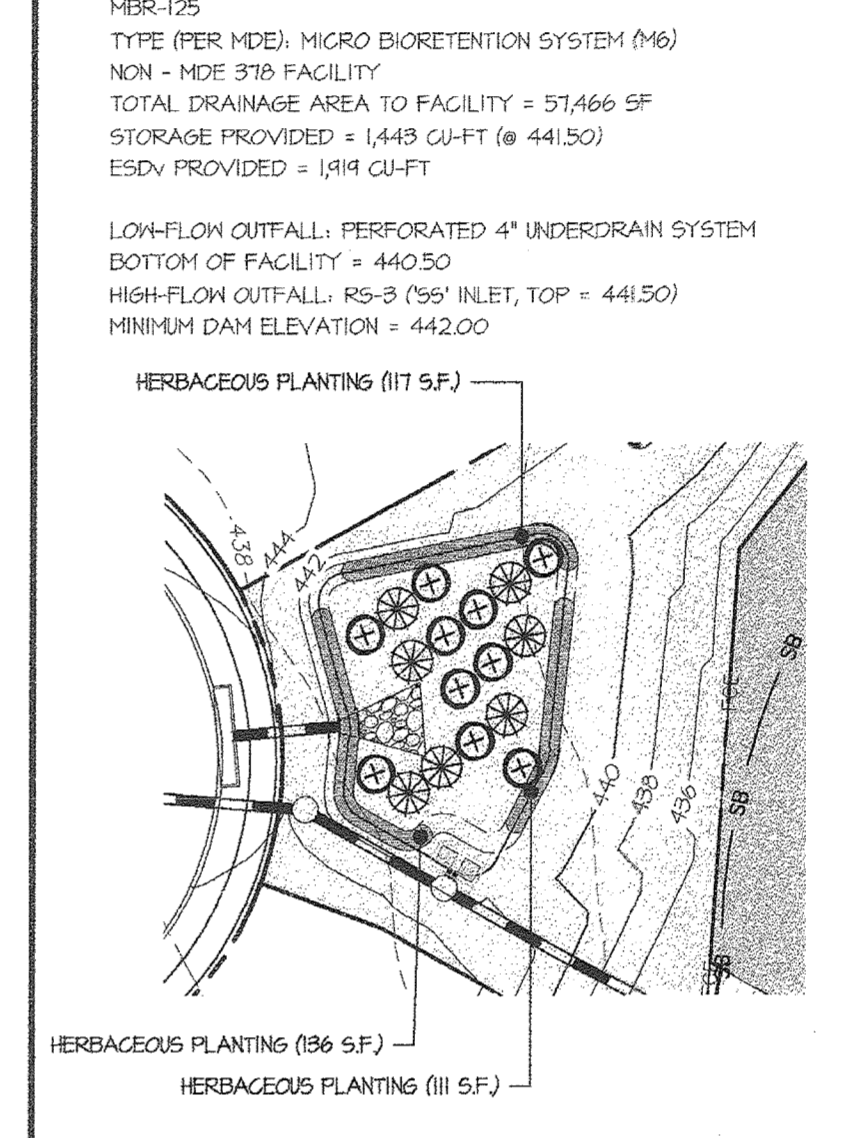
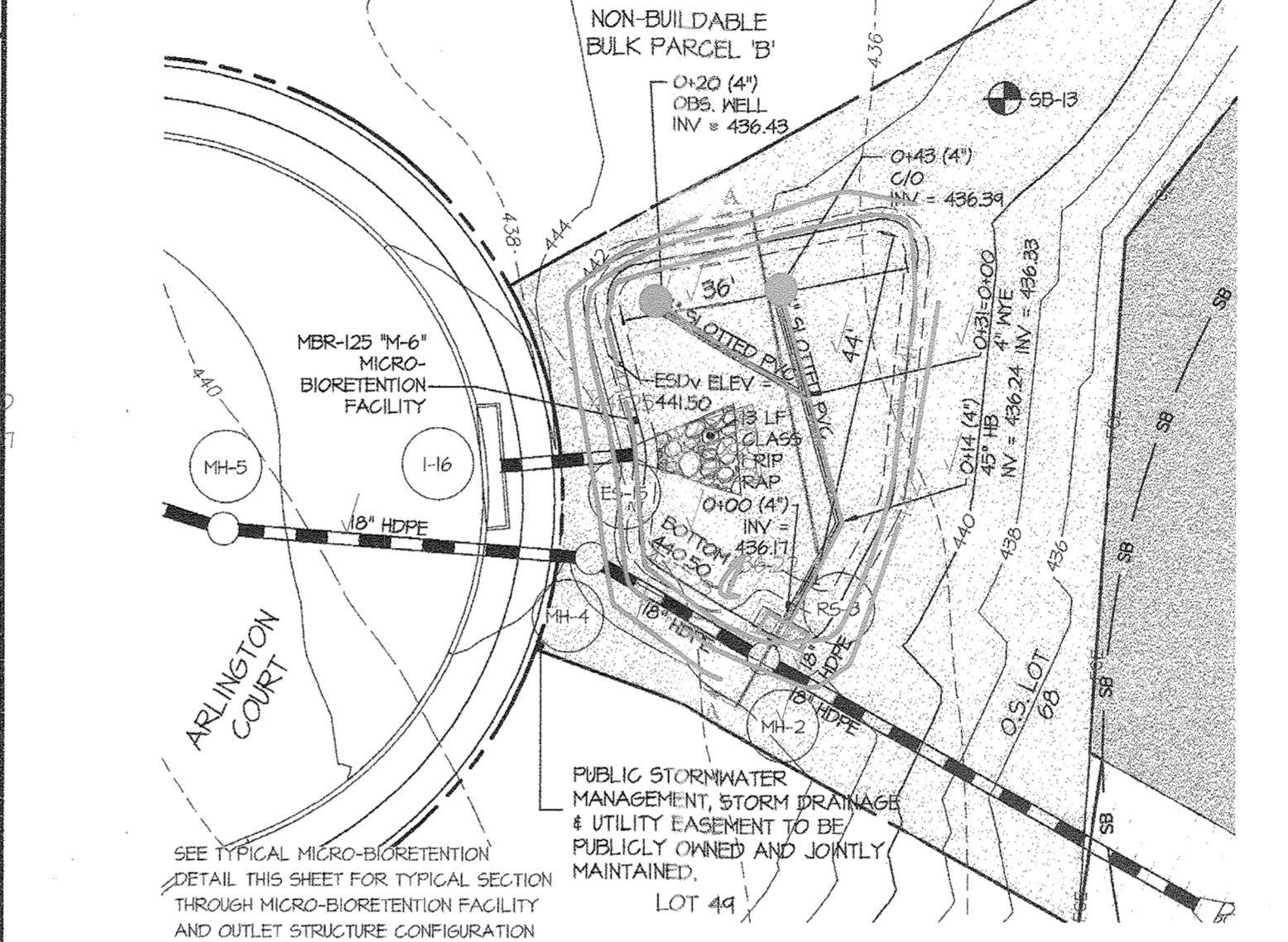
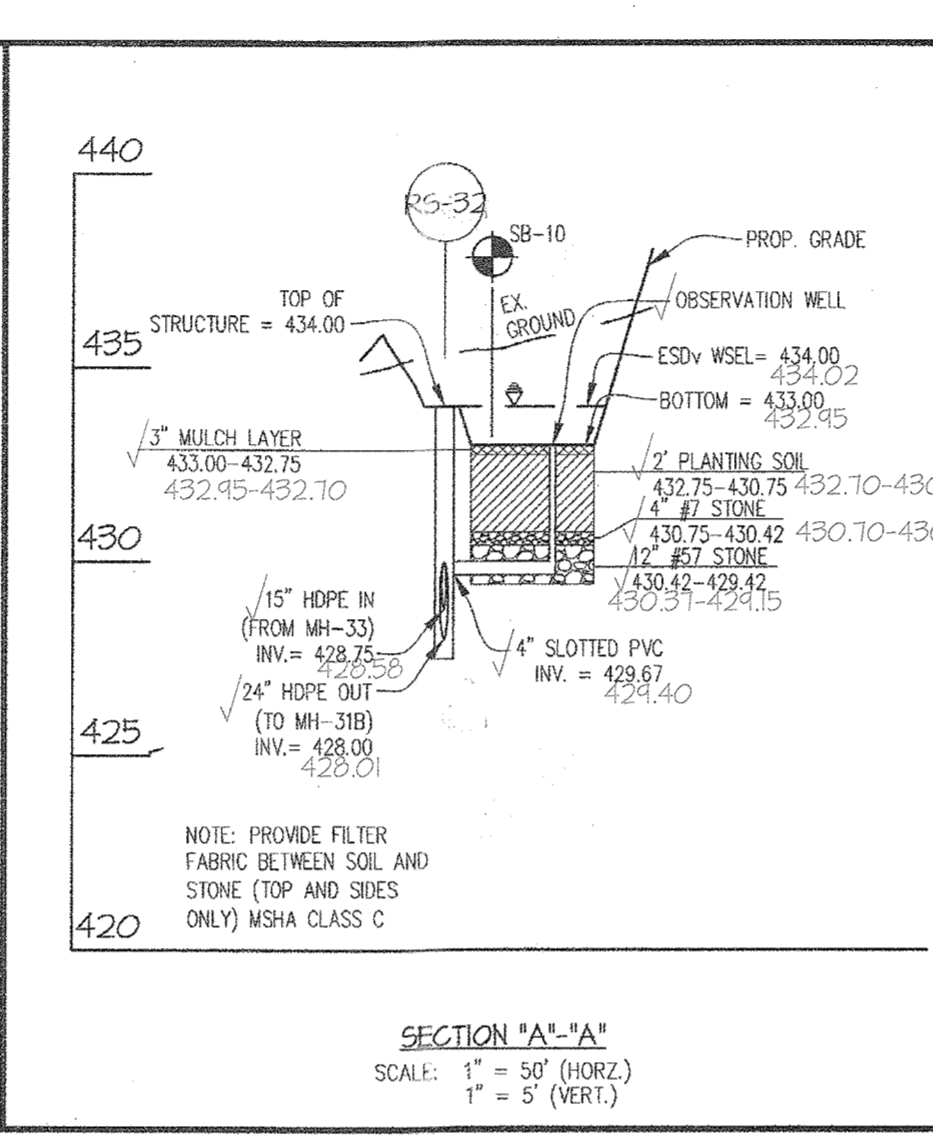
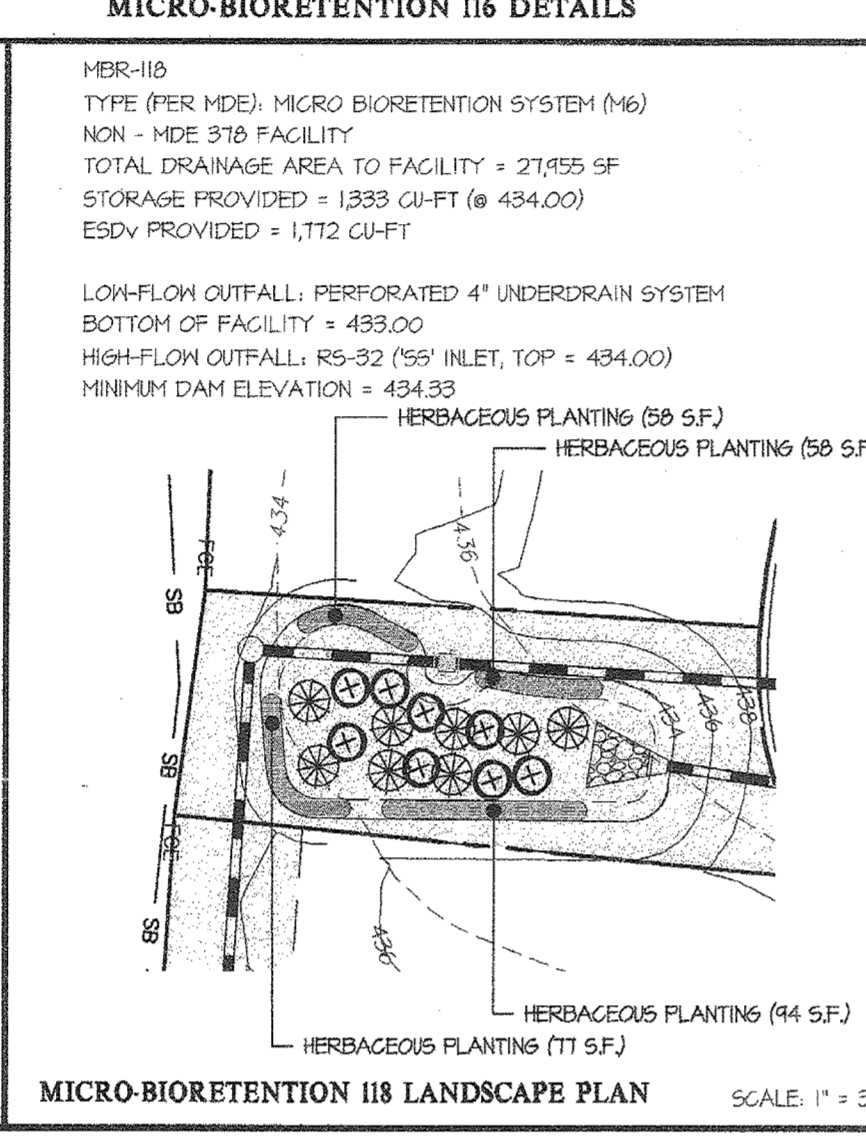
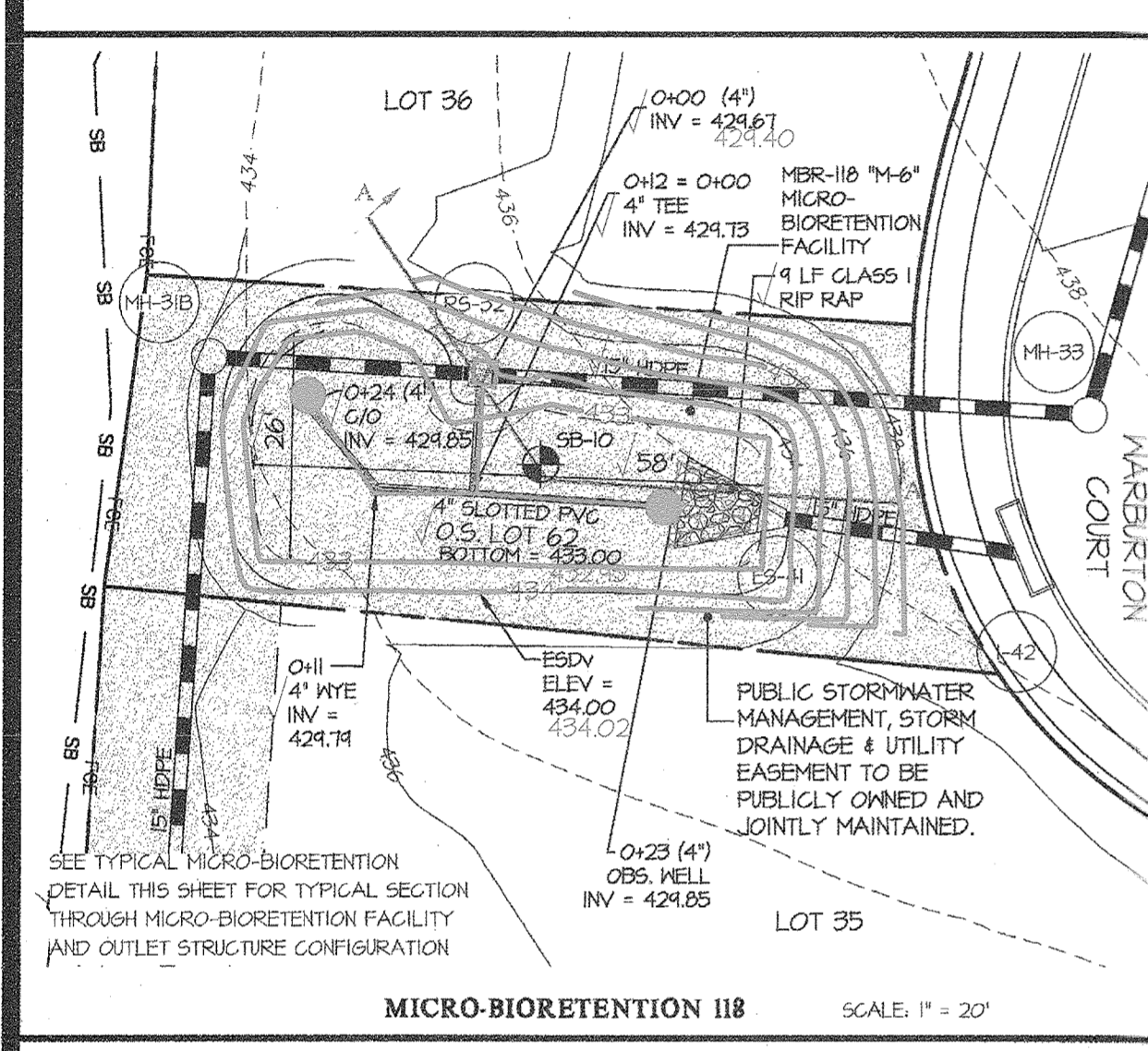
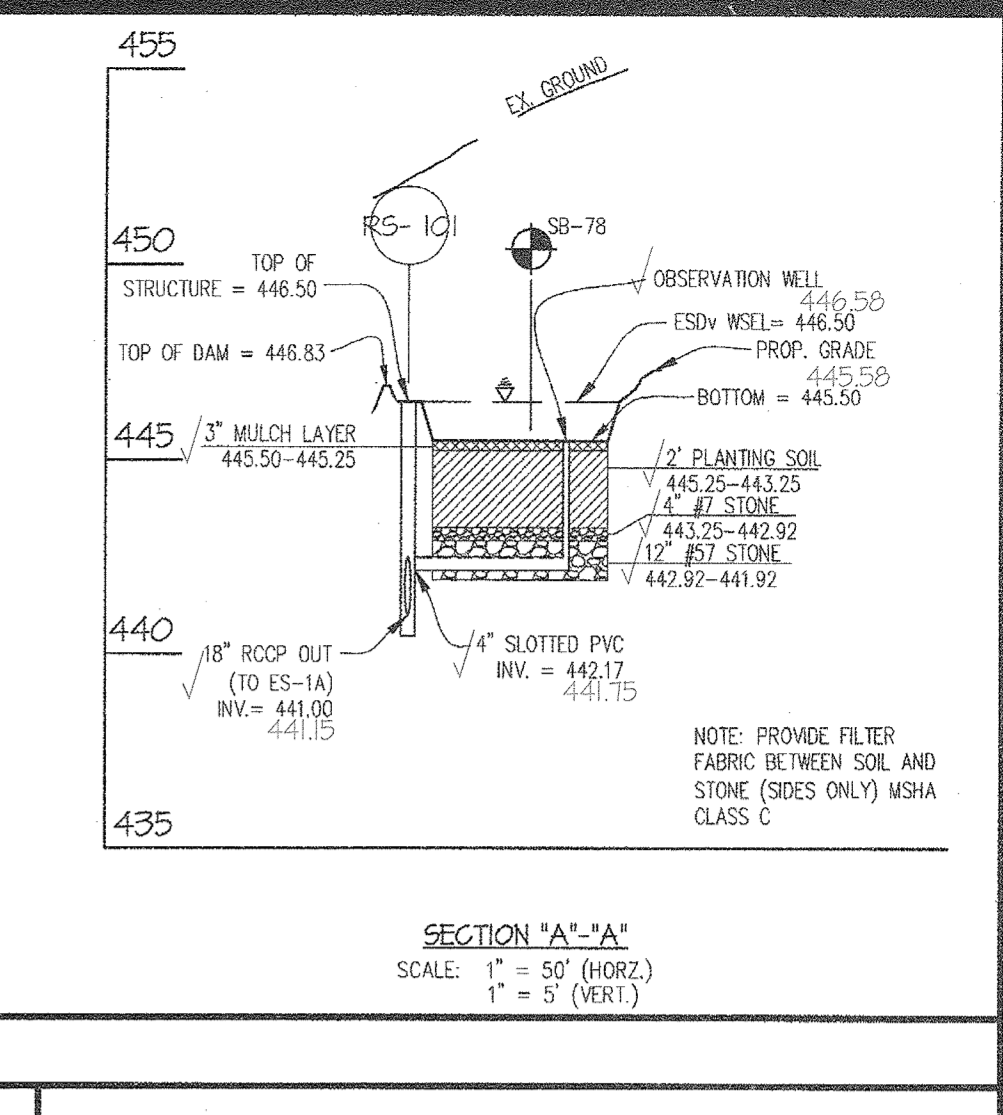
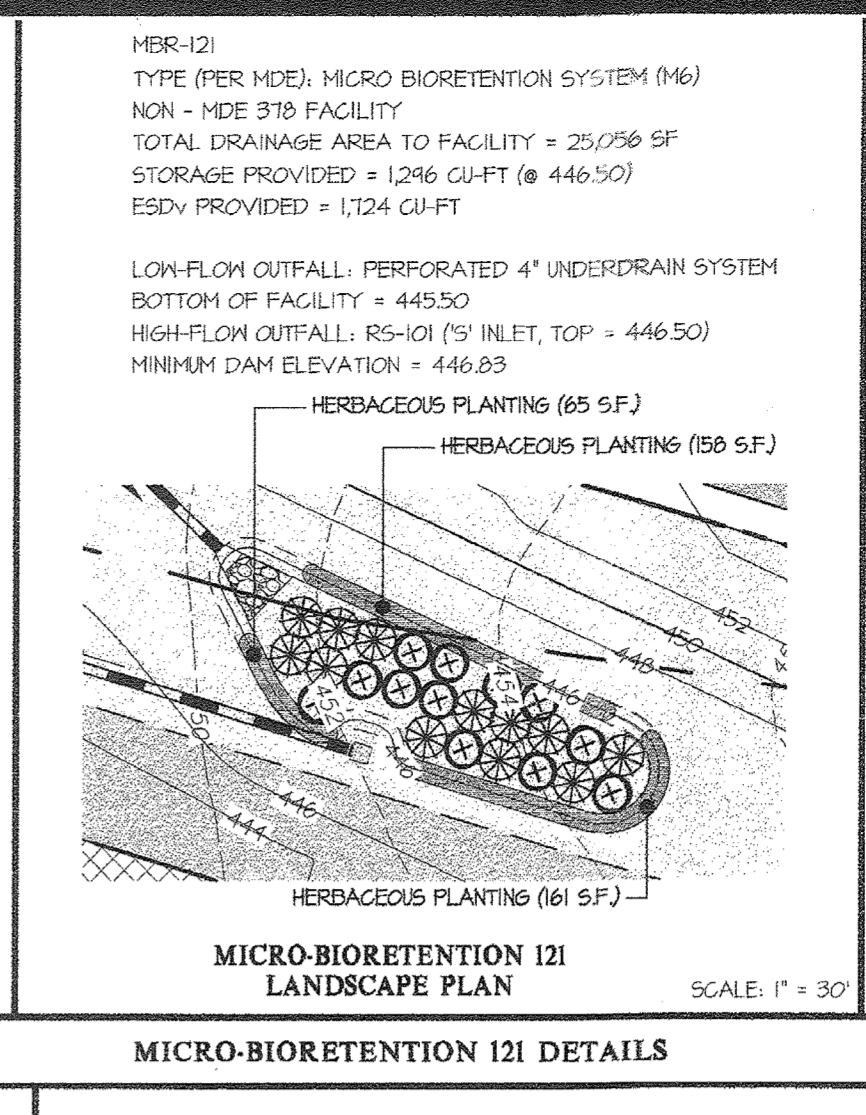
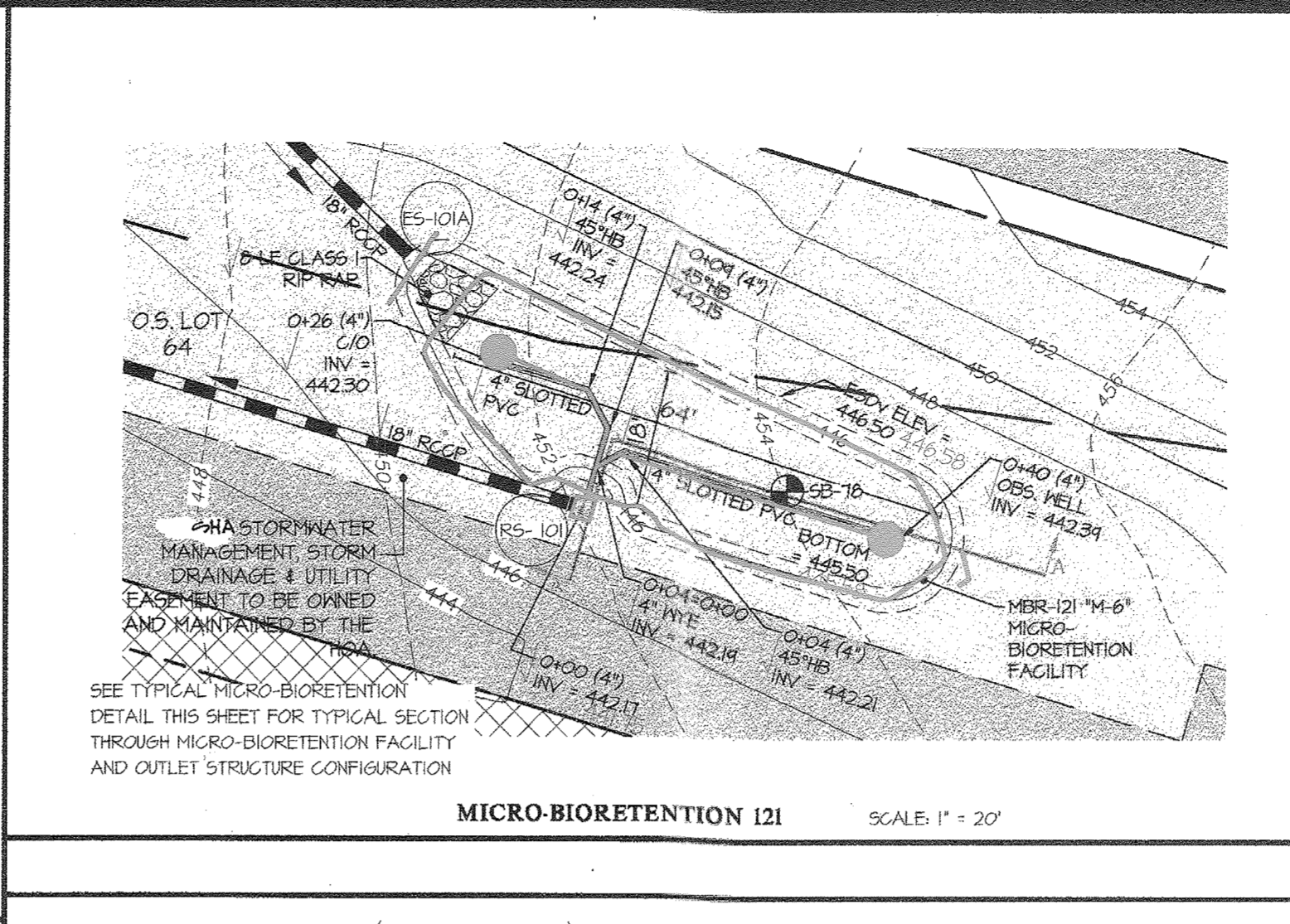
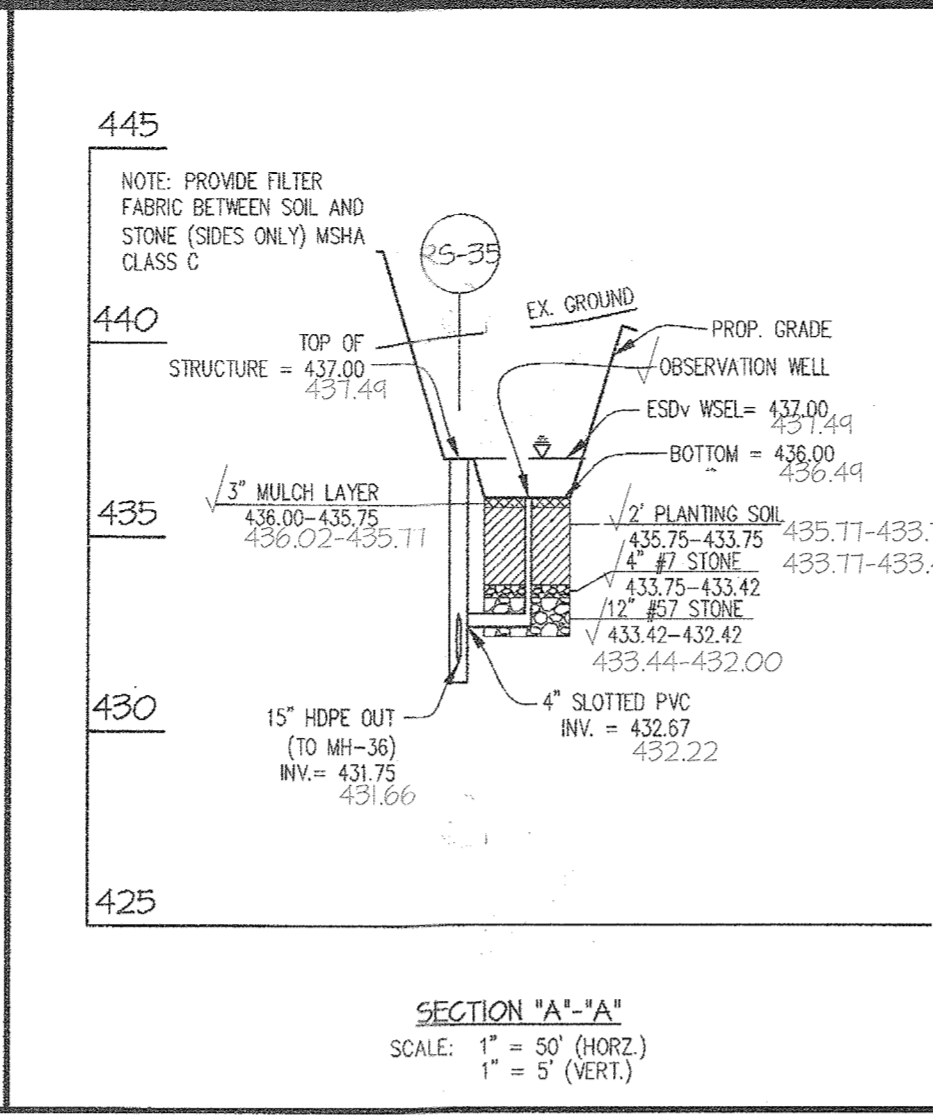
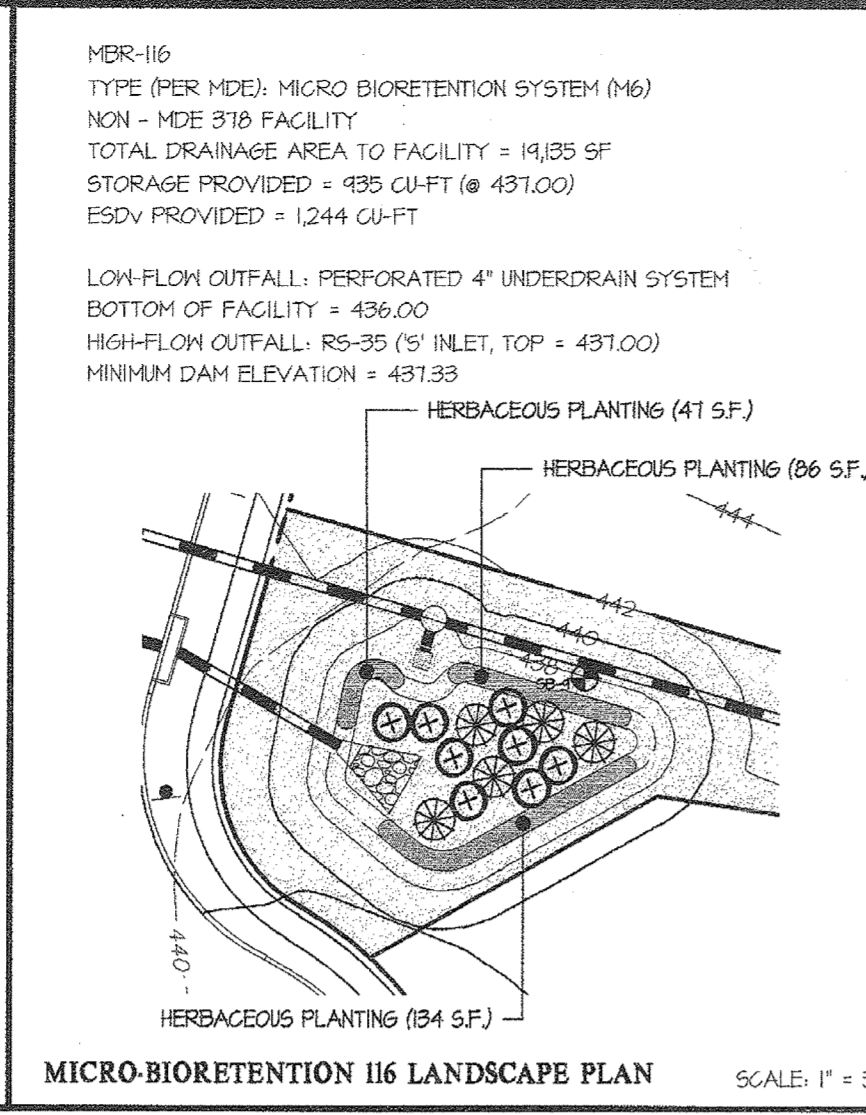
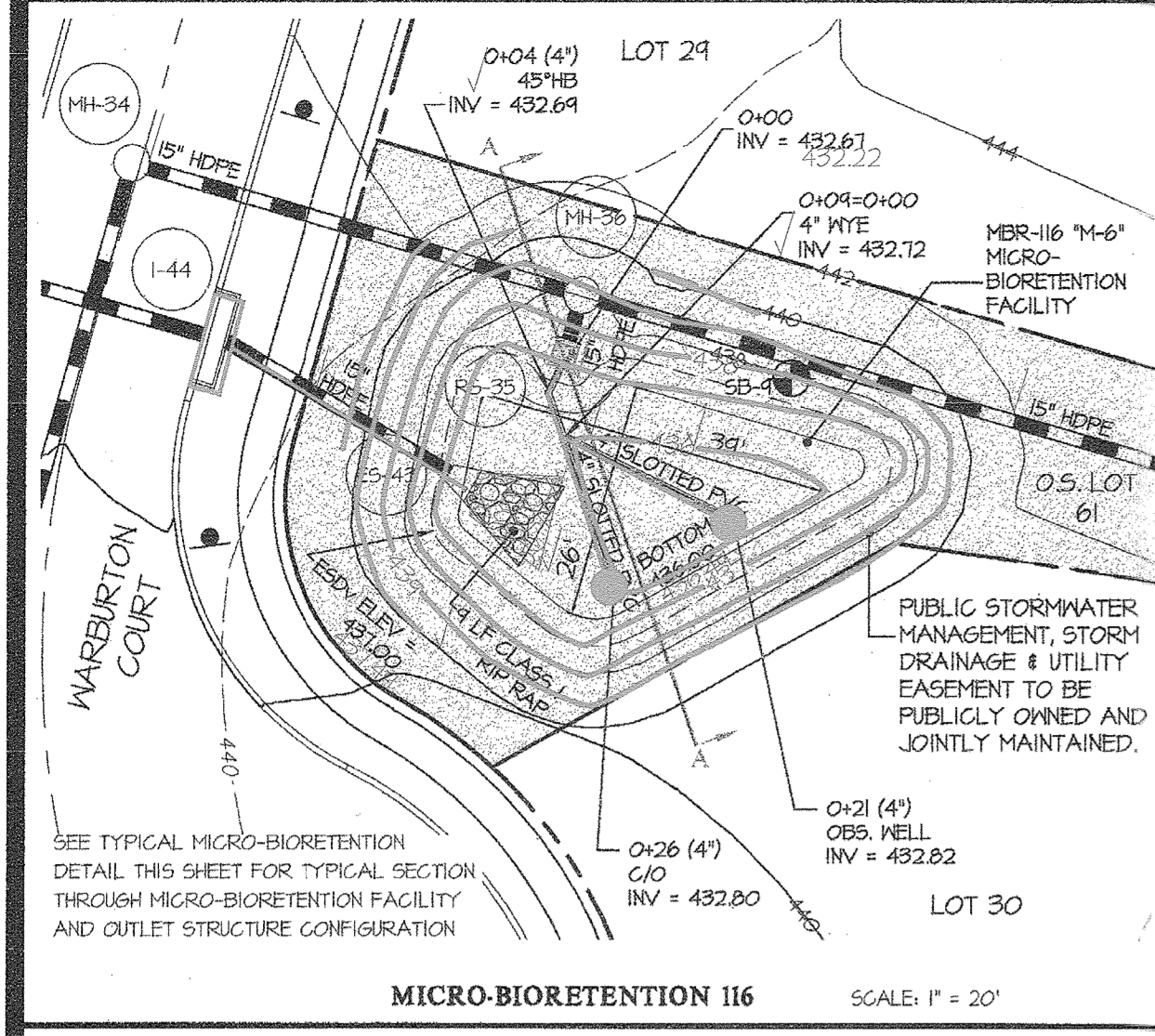
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7/14/16

ASBUILT'S  
 STORMWATER MANAGEMENT DETAILS  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY 2020	23-6&12	40 OF 60





APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 7/27/2016  
 Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*[Signature]* 8-29-16  
 Chief, Division of Land Development

*[Signature]* 8-26-16  
 Chief, Development Engineering Division

SYMBOL	QTY.	NAMES (BOTANICAL / SCIENTIFIC)	SIZE	ROOT/COMMENTS
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1-28-2020  
*[Signature]*  
 Professional Engineer  
 License No. 12915

SCALE: 1" = 20' FT.  
 1" = 30' FT.

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DATE	REVISION	BY	APP'R.

PREPARED FOR:  
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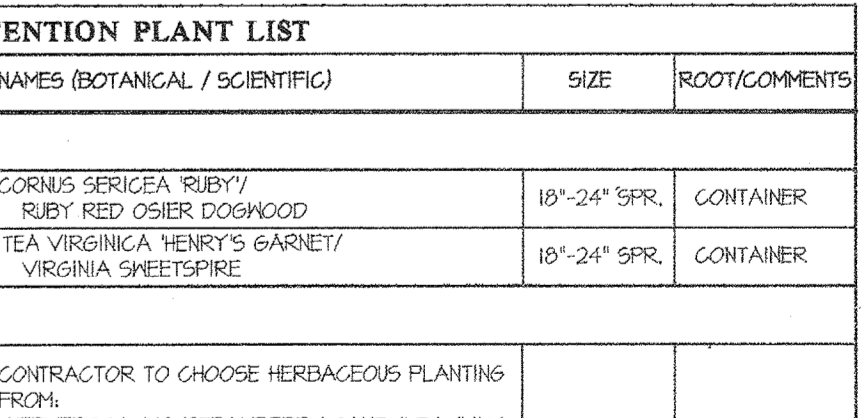
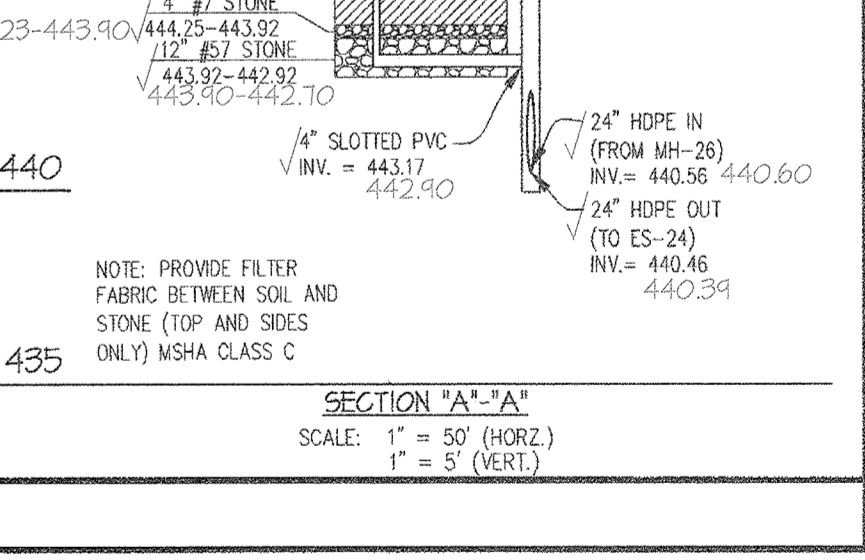
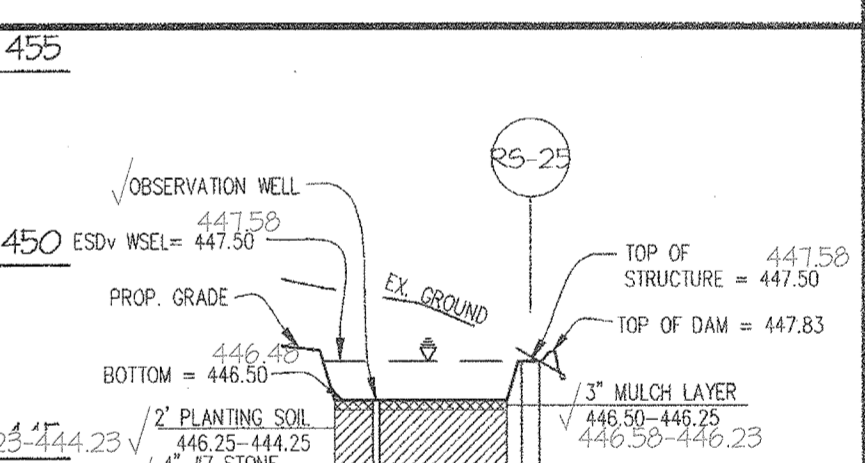
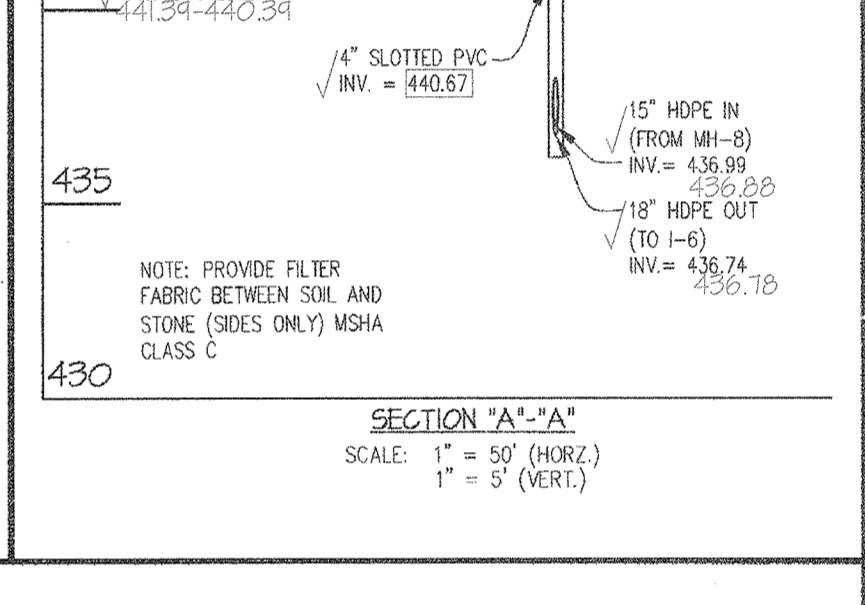
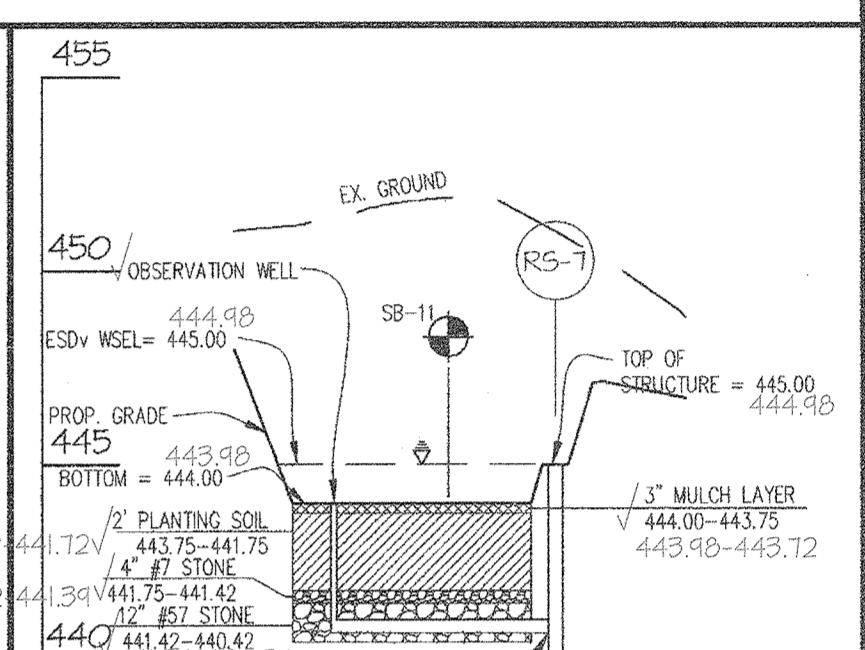
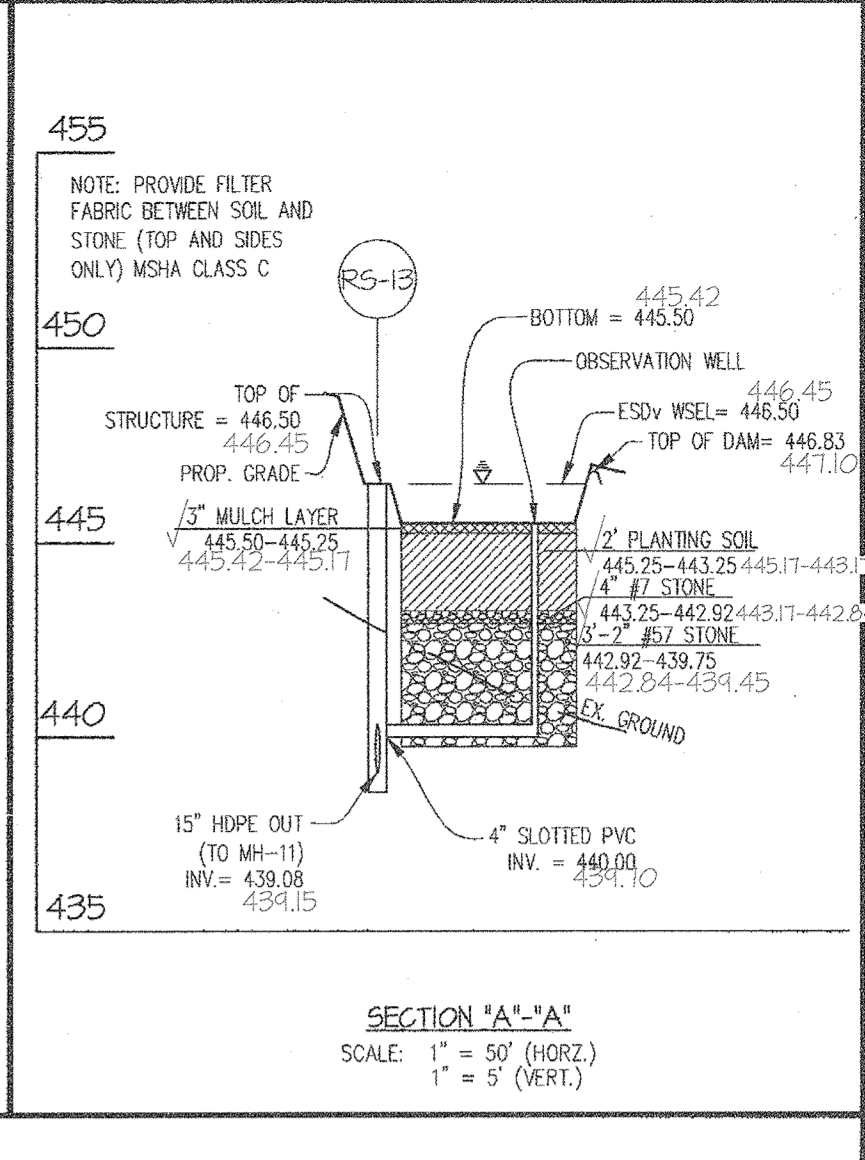
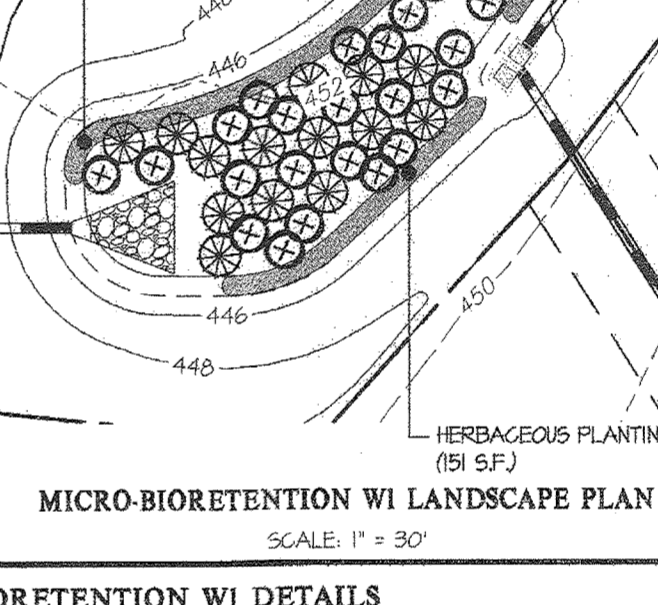
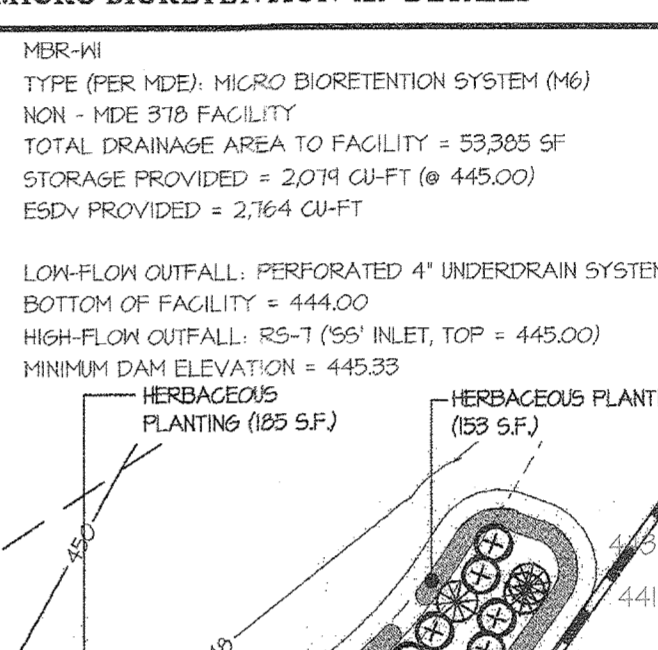
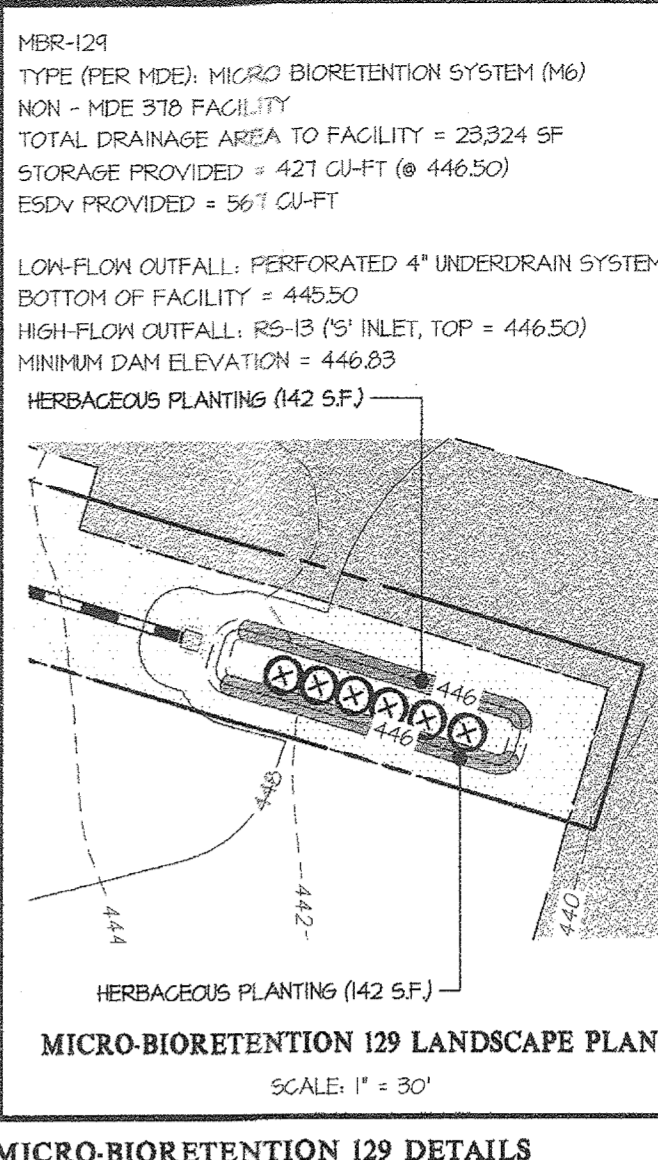
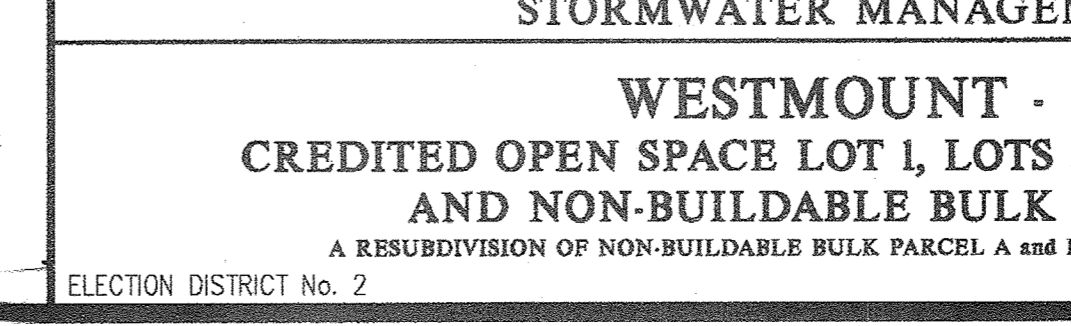
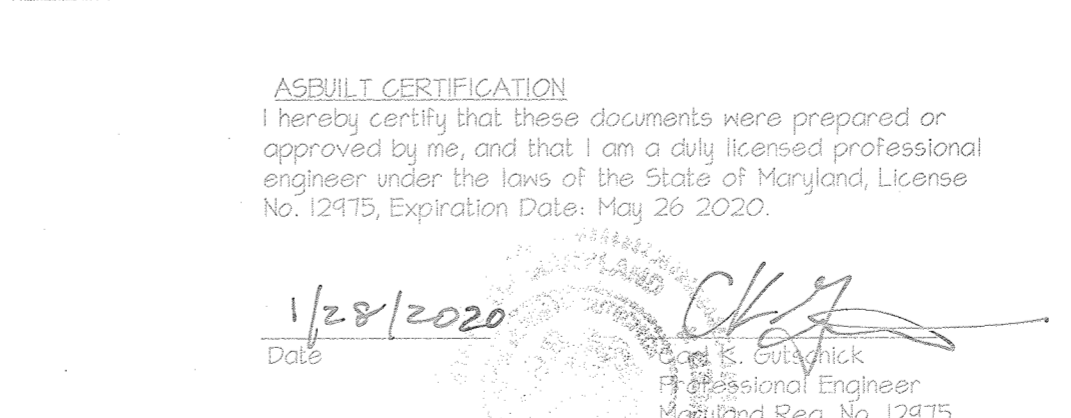
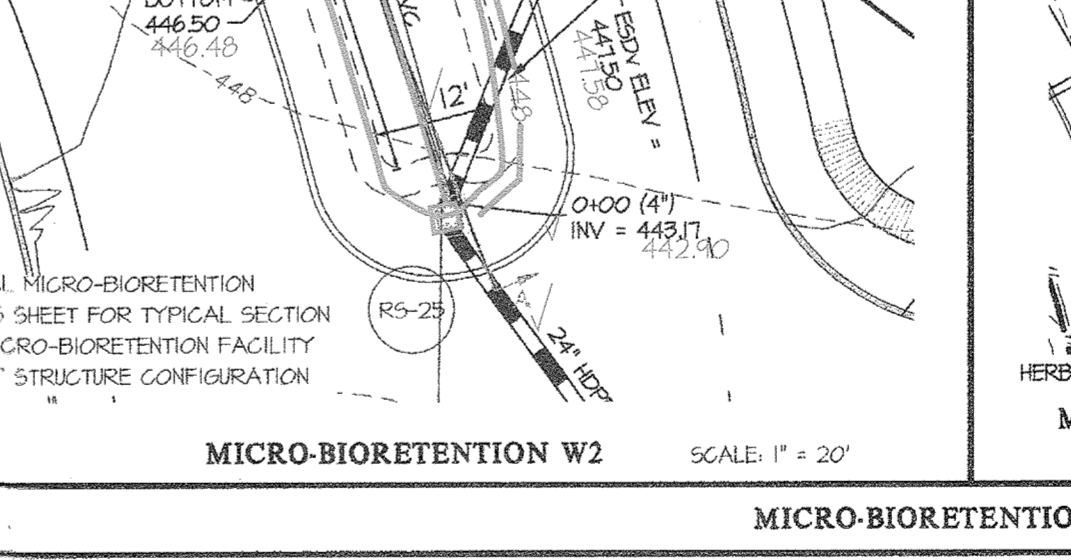
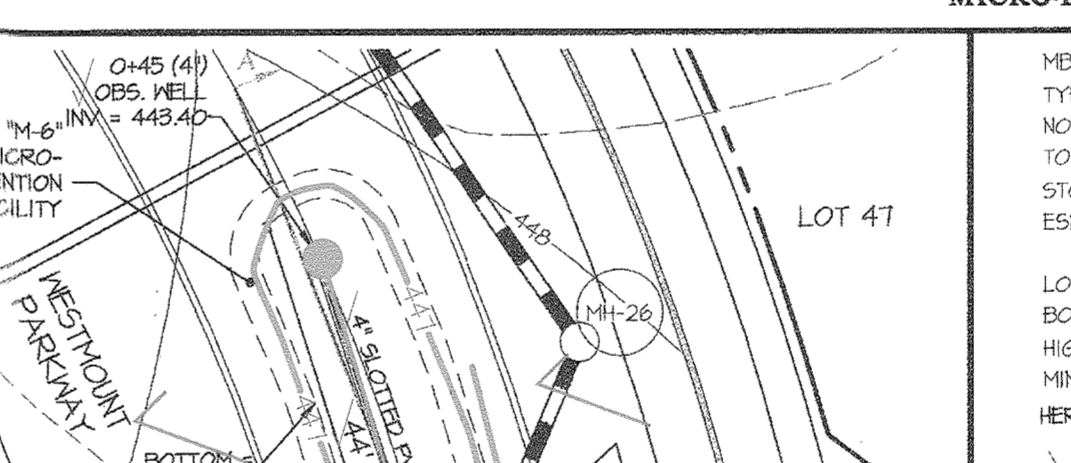
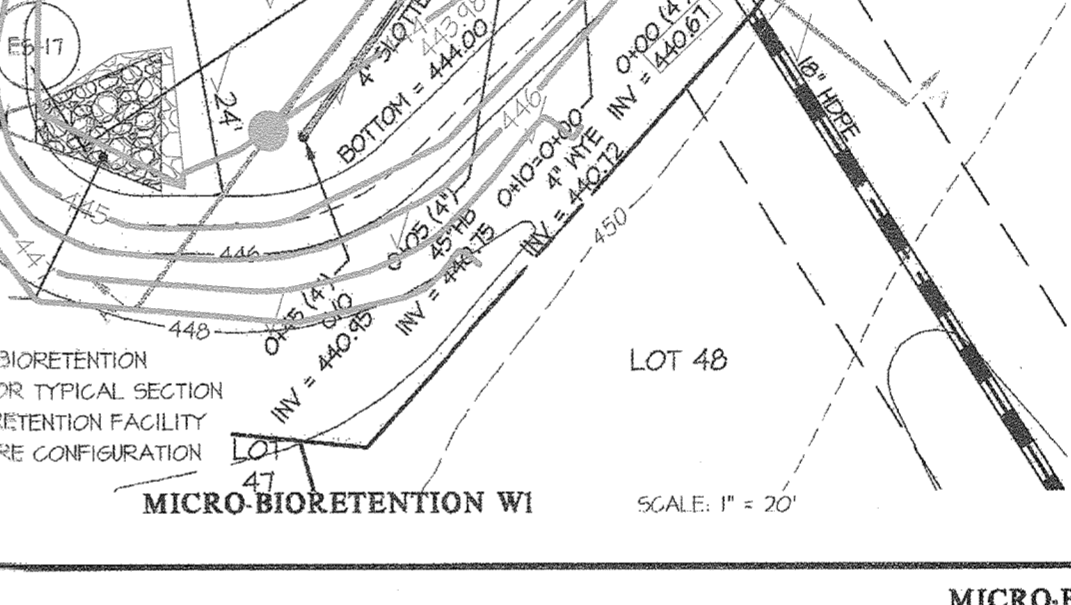
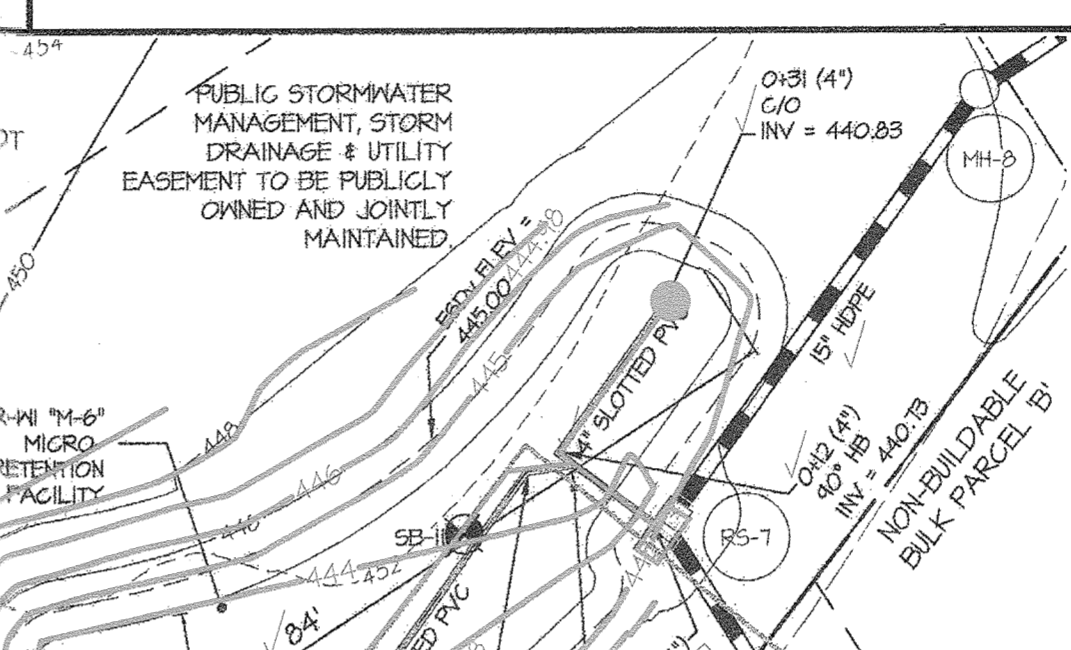
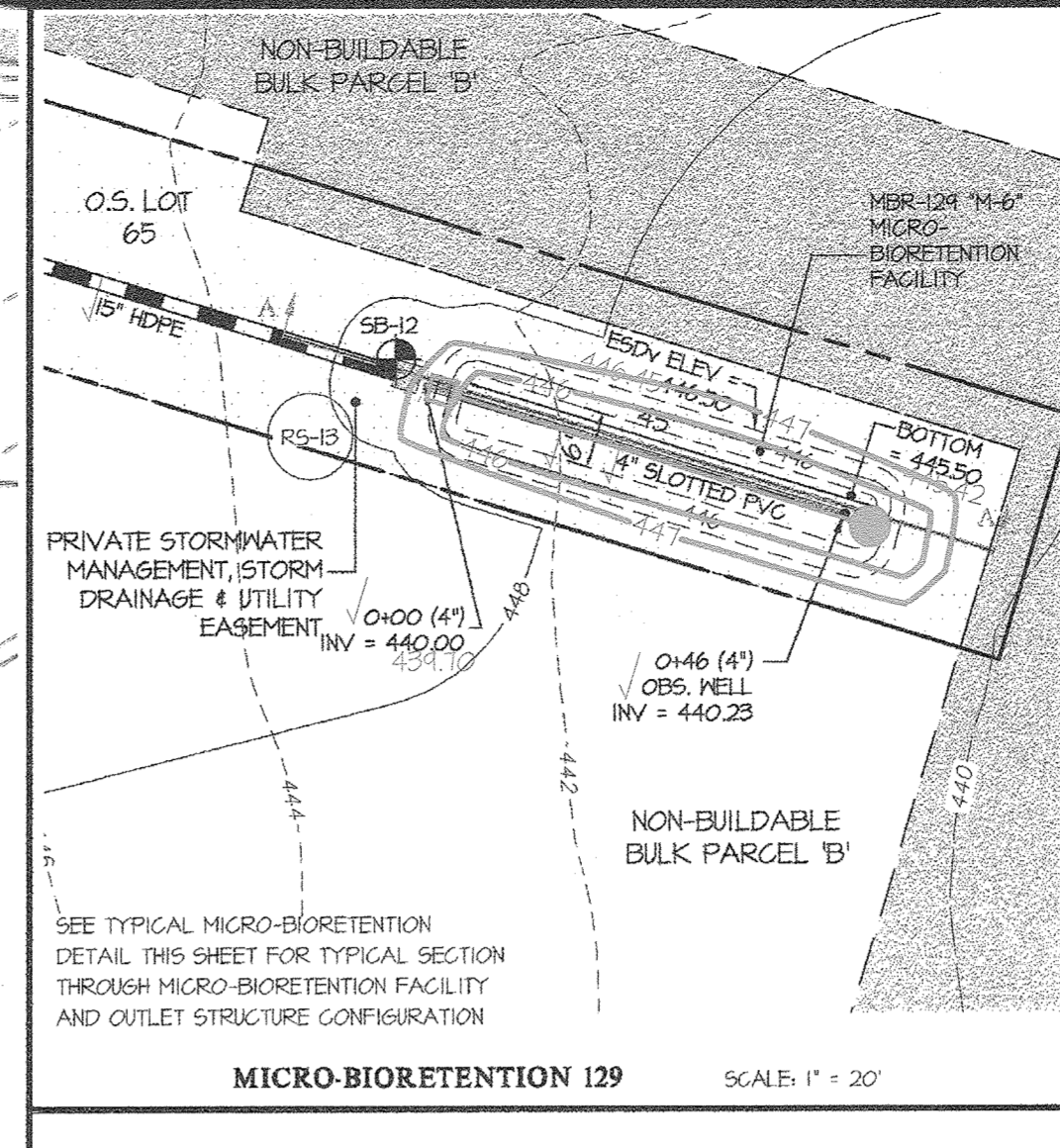
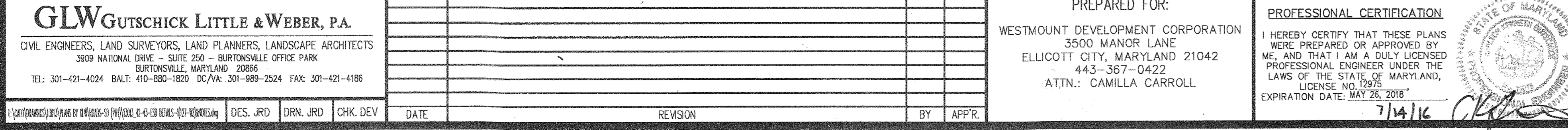
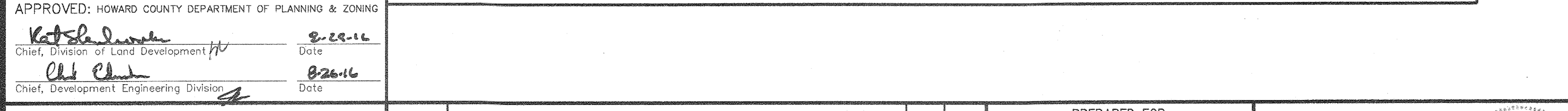
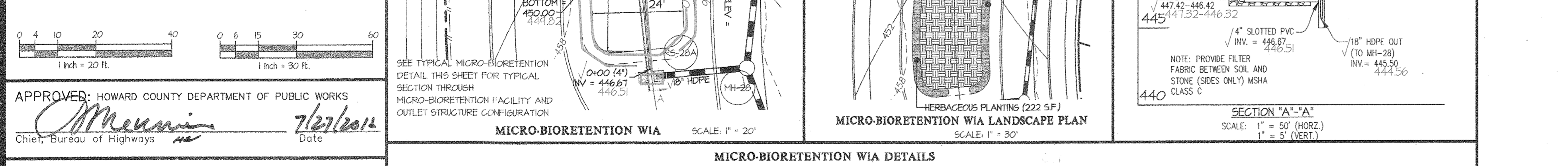
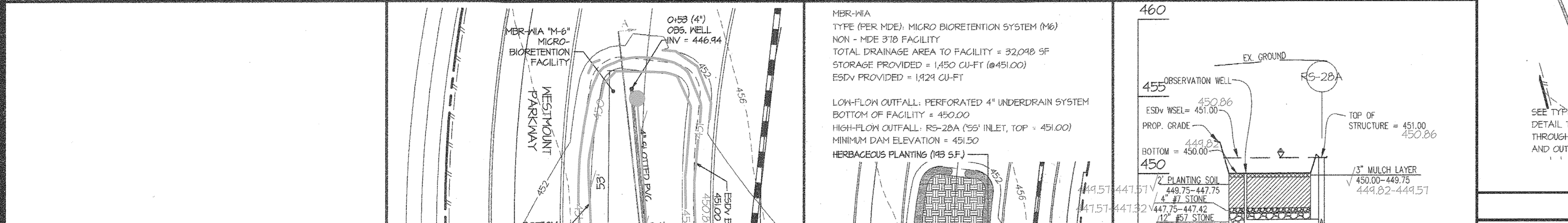
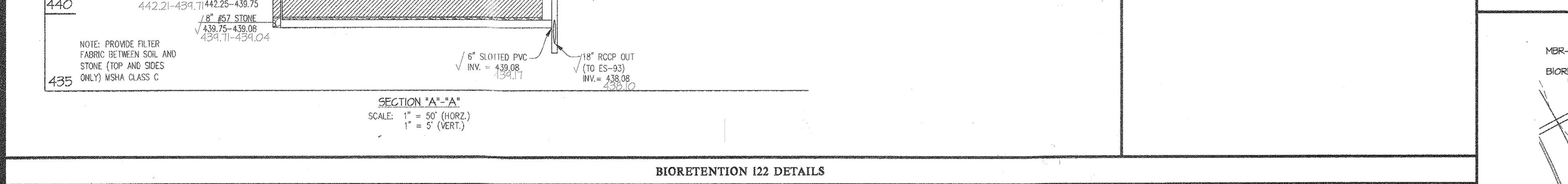
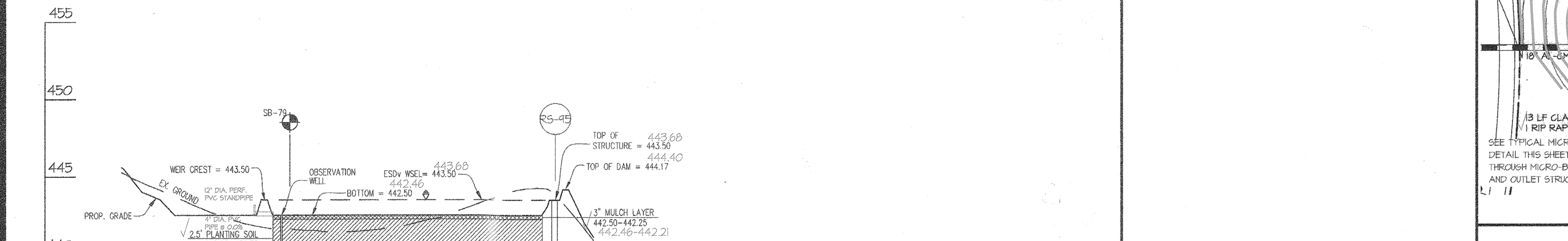
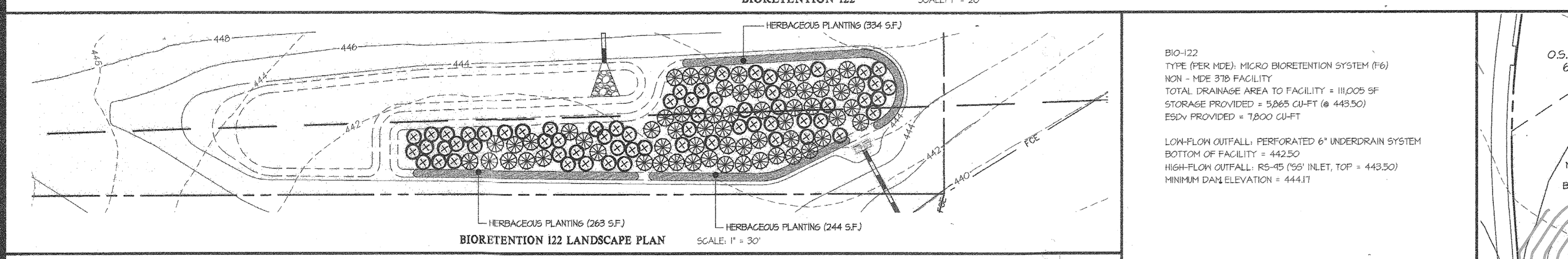
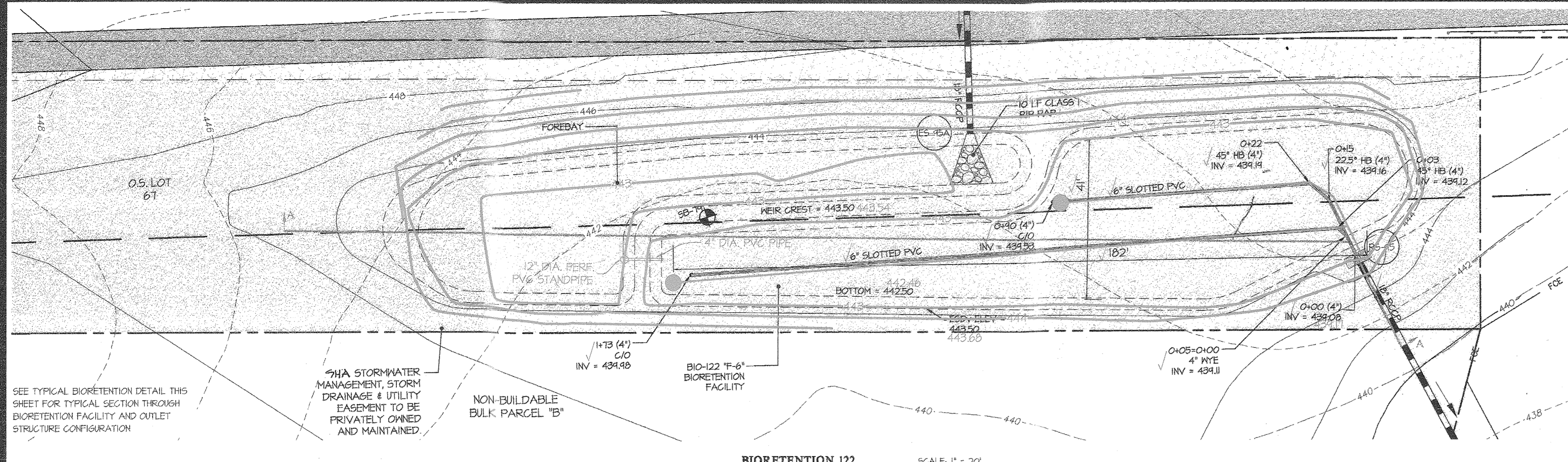
PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12915, EXPIRATION DATE: MAY 26, 2018

7/14/16  
*[Signature]*

STORMWATER MANAGEMENT DETAILS  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A AND REVISION TO CREDITED OPEN SPACE LOT 1  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT No. 2

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JAN. 2020 JULY, 2016	23-6&12	41 OF 60





APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Chief, Bureau of Highways  
 Date: 7/27/2016

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Chief, Division of Land Development  
 Date: 8-22-16

Chief, Development Engineering Division  
 Date: 8-26-16

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 FAX: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN: CAMILLA CARROLL

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS 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. 12975  
 EXPIRATION DATE: MAY 26, 2018  
 Date: 7/14/16

**ASBUILTS**  
 STORMWATER MANAGEMENT DETAILS  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A AND REVISION TO CREDITED OPEN SPACE LOT 1  
 ELECTION DISTRICT No. 2 HOWARD COUNTY, MARYLAND

SYMBOL	QTY.	NAMES (BOTANICAL / SCIENTIFIC)	SIZE	ROOT/COMMENTS
<b>SHRUBS *</b>				
⊗	44	CORNUS SERICEA 'RUBY'	10'-24" SFR.	CONTAINER
⊗	11	ITEA VIRGINICA 'HENRY'S GARNET' / VIRGINIA SHEETSPIRE	10'-24" SFR.	CONTAINER
<b>HERBACEOUS *</b>				
⊗	2341 S.F.	CONTRACTOR TO CHOOSE HERBACEOUS PLANTING FROM: -HERBERCALLIS 'STRAWBERRY CANDY' DAYLILY -HERBERCALLIS 'LEON SENNE' DAYLILY -KALMA ANASTROFOLIA/SHEEP LAUREL -ELEOCHARIS OVATA OBTUSA/BLUNT SPIKE RUSH	18" O.C.	CONTAINER
<b>GRASSES *</b>				
⊗	1753 S.F.	TRIPSACUM DACTYLOIDES/ EASTERN GAMAGRASS	2'-3'	

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JAN 2020 JULY, 2016	23-6&12	42 OF 60



**APPENDIX B.1.1 - SUPPLEMENTAL POND SPECIFICATIONS (NON-378)**

**SUPPLEMENTAL STORMWATER PONDS AND WETLAND SPECIFICATIONS (NON-378)**

THESE NOTES AND SPECIFICATIONS ARE IN ADDITION TO THE MD-378 SPECIFICATIONS. IF THERE IS ANY QUESTION AS TO THE APPLICABILITY, THE MD-378 SPECIFICATIONS SUPREME.

- IT IS PREFERRED TO USE THE SAME MATERIAL IN THE EMBANKMENT AS IS BEING INSTALLED FOR THE CORE TRENCH. IF THIS IS NOT POSSIBLE BECAUSE THE APPROPRIATE MATERIAL IS NOT AVAILABLE, A DAM CORE WITH A SHALL MAY BE USED. THE CROSS-SECTION OF THE STORMWATER FACILITY SHOULD SHOW THE LIMITS OF THE DAM CORE (UP TO 10-YEAR WATER SURFACE ELEVATION) AS WELL AS THE ACCEPTABLE MATERIALS FOR THE SHELL. THE SHAPE OF THE DAM CORE AND THE MATERIAL TO BE USED IN THE SHELL SHOULD BE PROVIDED BY THE GEOTECHNICAL ENGINEER.
- IF THE COMPACTION TESTS FOR THE SITE IMPROVEMENTS IS USING MODIFIED PROCTOR (AASHTO T-99), THEN TO MAINTAIN ON-SITE CONSISTENCY, THE MODIFIED PROCTOR MAY BE USED IN LIEU OF A STANDARD PROCTOR (ASTM D-1557). THE MINIMUM DENSITY USING THE MODIFIED PROCTOR TEST METHOD SHALL BE AT LEAST 92% OF THE MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT OF ±2% OF THE OPTIMUM. THE MINIMUM REQUIRED DENSITY USING THE STANDARD PROCTOR TEST METHOD SHALL BE AT LEAST 85% OF THE MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT OF ±2% OF THE OPTIMUM.
- FOR ALL STORMWATER MANAGEMENT FACILITIES, A GEOTECHNICAL ENGINEER OR THEIR REPRESENTATIVE MUST BE PRESENT TO VERIFY COMPACTION IN ACCORDANCE WITH THE SELECTED TEST METHOD. THIS INFORMATION NEEDS TO BE PROVIDED IN A REPORT TO THE DESIGN ENGINEER, SO THAT CERTIFICATION OF THE CONSTRUCTION OF THE FACILITY, IN ACCORDANCE WITH MD-378 SPECIFICATIONS, CAN BE MADE.
- A 4-INCH LAYER OF TOPSOIL SHALL BE PLACED ON ALL DISTURBED AREAS OF THE DAM EMBANKMENT, SEEDING, LIMING, FERTILIZING, MULCHING, ETC. SHALL BE IN ACCORDANCE WITH MARYLAND SOIL CONSERVATION SERVICE MD-342 OR THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, PERMANENT SEEDING, SECTION IN CHAPTER 20. THE PURPOSE OF THE TOPSOIL IS TO ESTABLISH A GOOD GROWTH OF GRASS, WHICH IS NOT ALWAYS POSSIBLE WITH SOME OF THE MATERIALS THAT MAY BE PLACED FOR THE EMBANKMENT FILL.
- GEOTEXTILE PLACED BENEATH RIP-RAP SHALL BE CLASS "C" GEOTEXTILE OR BETTER (SEE SECTION 24.0, MATERIAL SPECIFICATIONS, 1994 STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL (MDC, 1994). SOME ACCEPTABLE GEOTEXTILES THAT MEET THE CLASS "C" CRITERIA INCLUDE:

AMOCO 4552	CARTHAGE FX-705
GEDON N70	MIRAFI 180-N
WEBTEC N07	

THIS IS ONLY A PARTIAL LISTING OF AVAILABLE GEOTEXTILES BASED ON INFORMATION PROVIDED BY THE MANUFACTURERS OF THE 1997 SPECIFIER'S GUIDE DATED DECEMBER 1996. IT IS THE RESPONSIBILITY OF THE ENGINEER TO VERIFY THE ADEQUACY OF THE MATERIAL AS THERE ARE CHANGES IN THE MANUFACTURING PROCESS AND THE TYPE OF FABRIC USED, WHICH MAY AFFECT THE CONTINUED ACCEPTANCE.

- A RULE OF THUMB TO DETERMINE WHEN AN EXCAVATED POND MAY NEED TO BE CONSIDERED AN EMBANKMENT POND IS AS FOLLOWS:  
PROVIDE CALCULATION OF  $10W + 20FEET = L$ , WHERE W HEIGHT FROM FOND BOTTOM TO TOP OF DAM IF THE PROJECTION OF L DOWNSTREAM. DRAW A HORIZONTAL LINE FROM THE UPSTREAM TOE OF SLOPE (S BELOW EXISTING GROUND), THE POND CAN BE CONSIDERED AN EXCAVATED POND. IN ADDITION, THE EXISTING GROUND SLOPE, DOWNSTREAM OF THE TOE, MUST BE LESS THAN 10%.
- THE DESIGN ENGINEER AND GEOTECHNICAL ENGINEER SHOULD MAKE THE DETERMINATION THAT THE SETTLEMENT OF THE POND WILL NOT CAUSE EXCESSIVE JOINT EXTENSION. FOR FURTHER INFORMATION ON JOINT ANALYSIS, SEE NRCE PUBLICATION IR-18.
- FILL PLACEMENT SHALL NOT EXCEED A MAXIMUM 8-INCH. EACH LIFT SHALL BE CONTINUOUS FOR THE ENTIRE LENGTH OF THE EMBANKMENT.
- THE EMBANKMENT FILL SHALL NOT BE PLACED HIGHER THAN THE CENTERLINE OF THE PRINCIPAL SPILLWAY UNTIL AFTER THE PRINCIPAL SPILLWAY HAS BEEN INSTALLED. IF THE EMBANKMENT NEEDS TO BE EXCAVATED TO INSTALL THE PRINCIPAL SPILLWAY, THE SIDE SLOPE SHALL BE NO LESS THAN 2:1.
- THE SIDE SLOPES OF A CUT TO REPAIR A DAM, INSTALL A PRINCIPAL SPILLWAY FOR AN EXCAVATED POND, OR OTHER REPAIR WORK, SHALL BE NO LESS THAN 2:1.

**GENERAL NOTES**

**1. MATERIAL SPECIFICATIONS**

THE ALLOWABLE MATERIALS TO BE USED IN THESE MICRO-BIORETENTION PRACTICES ARE DETAILED IN TABLE B.4.1.

**2. PLANTING SOIL**

THE SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DUMPED WITHIN THE MICRO-BIORETENTION PRACTICE THAT MAY BE HARMFUL TO PLANT GROWTH OR PROVE AN OBSTACLE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BERMOIDA GRASS, QUACKGRASS, JOHNSON GRASS, OR OTHER NOXIOUS WEEDS AS SPECIFIED UNDER COMAR 15.08.01.05.

THE PLANTING SOIL SHALL BE TESTED AND SHALL MEET THE FOLLOWING CRITERIA:

SOIL COMPONENT - LOAMY SAND OR SANDY LOAM (USDA SOIL TEXTURAL CLASSIFICATION)  
ORGANIC CONTENT - MIN. 10% BY DRY WEIGHT (ASTM D 2974). IN GENERAL, THIS CAN BE MET WITH A MIXTURE OF LOAMY SAND (80-65%) AND COMPOST (35-40%) OR SANDY LOAM (30%), COMPOSED SAND (30%), AND COMPOST (40%).  
CLAY CONTENT - MEDIA SHALL HAVE A CLAY CONTENT OF LESS THAN 5%  
PH RANGE - SHOULD BE BETWEEN 5.5-7.0. AMENDMENTS (E.G. LIME, IRON SULFATE PLUS SULFUR) MAY BE MIXED INTO THE SOIL TO INCREASE OR DECREASE PH.

THERE SHALL BE AT LEAST ONE SOIL TEST PER PROJECT. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR PH, AND ADDITIONAL TESTS OF ORGANIC MATTER AND SOLUBLE SALTS. A TEXTURAL ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOPSOIL WAS EXCAVATED.

**3. COMPACTION**

IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF THE BIORETENTION PRACTICES AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF PRACTICES ARE EXCAVATED USING A LOADER, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURF TYPE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.

COMPACTION CAN BE ALLEVATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS A CHisel, FLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO RESTRUCTURE THE SOIL PROFILE THROUGHOUT THE 12 INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTION FROM HEAVY EQUIPMENT.

ROTTILL 2 TO 3 INCHES OF SAND INTO THE BASE OF THE BIORETENTION FACILITY BEFORE BACKFILLING THE OPTIONAL SAND LAYER. PUMP ANY PONDWATER BEFORE PREPARING (ROTTOLLING) BASE.

WHEN BACKFILLING THE TOPSOIL OVER THE SAND LAYER, FIRST PLACE 3 TO 4 INCHES OF TOPSOIL OVER THE SAND, THEN ROTTILL THE SAND/TOPSOIL TO CREATE A GRADATION ZONE. BACKFILL THE REMAINDER OF THE TOPSOIL TO FINAL GRADE.

WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12" TO 18". DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRADE BIORETENTION MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.

**4. PLANT MATERIAL**

SEE LANDSCAPE PLAN, THIS SDP SET.

**5. PLANT INSTALLATION**

MULCH SHOULD BE PLACED TO A UNIFORM THICKNESS OF 2" TO 3". SHREDDED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH. PINE MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHREDDED MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE.

ROOT STOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/8TH OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION.

TREES SHALL BE BRACED USING 2" BY 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL.

GRASSES AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLUGS SHALL BE PLANTED FOLLOWING THE NON-GRASS GROUND COVER PLANTING SPECIFICATIONS.

THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE BIORETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS, DEFEATS, OR AT A MINIMUM, IMPEDES THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH ARE USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.

**6. UNDERDRAINS**

UNDERDRAINS ARE TO BE PLACED ON A 3'-0" WIDE SECTION OF FILTER CLOTH PIPE IS PLACED NEXT, FOLLOWED BY THE GRAVEL BEDDING. THE ENDS OF UNDERDRAIN PIPES NOT TERMINATING IN AN OBSERVATION WELL SHALL BE CAPPED.

THE MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE OF 0.5% OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE MINIMUM PER EVERY 1000 SQUARE FEET OF SURFACE AREA).

**7. MISCELLANEOUS**

THE BIORETENTION FACILITY MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

**OPERATION AND MAINTENANCE SCHEDULE FOR RAINWATER HARVESTING (RAIN BARRELS) (M-1)**

- THE HOMEOWNER SHALL EMPTY BARRELS ON A MONTHLY BASIS AND CLEAN BARREL WITH A HOSE.
- THE HOMEOWNER SHALL VERIFY INTEGRITY OF LEAF SCREENS, GUTTERS, DOWNSPOUTS, SPIGOTS, AND MOSQUITO SCREENS, AND CLEAN AND REMOVE ANY DEBRIS.
- THE HOMEOWNER SHALL REPLACE DAMAGED COMPONENTS AS NEEDED.
- THE HOMEOWNER SHALL DISCONNECT THE BARREL PRIOR TO WINTER, OR ALLOW THE BARREL TO DRAIN BY BOTTOM SPIGOT DURING THE WINTER SEASON.

**OPERATION AND MAINTENANCE SCHEDULE FOR DRY WELLS (M-5)**

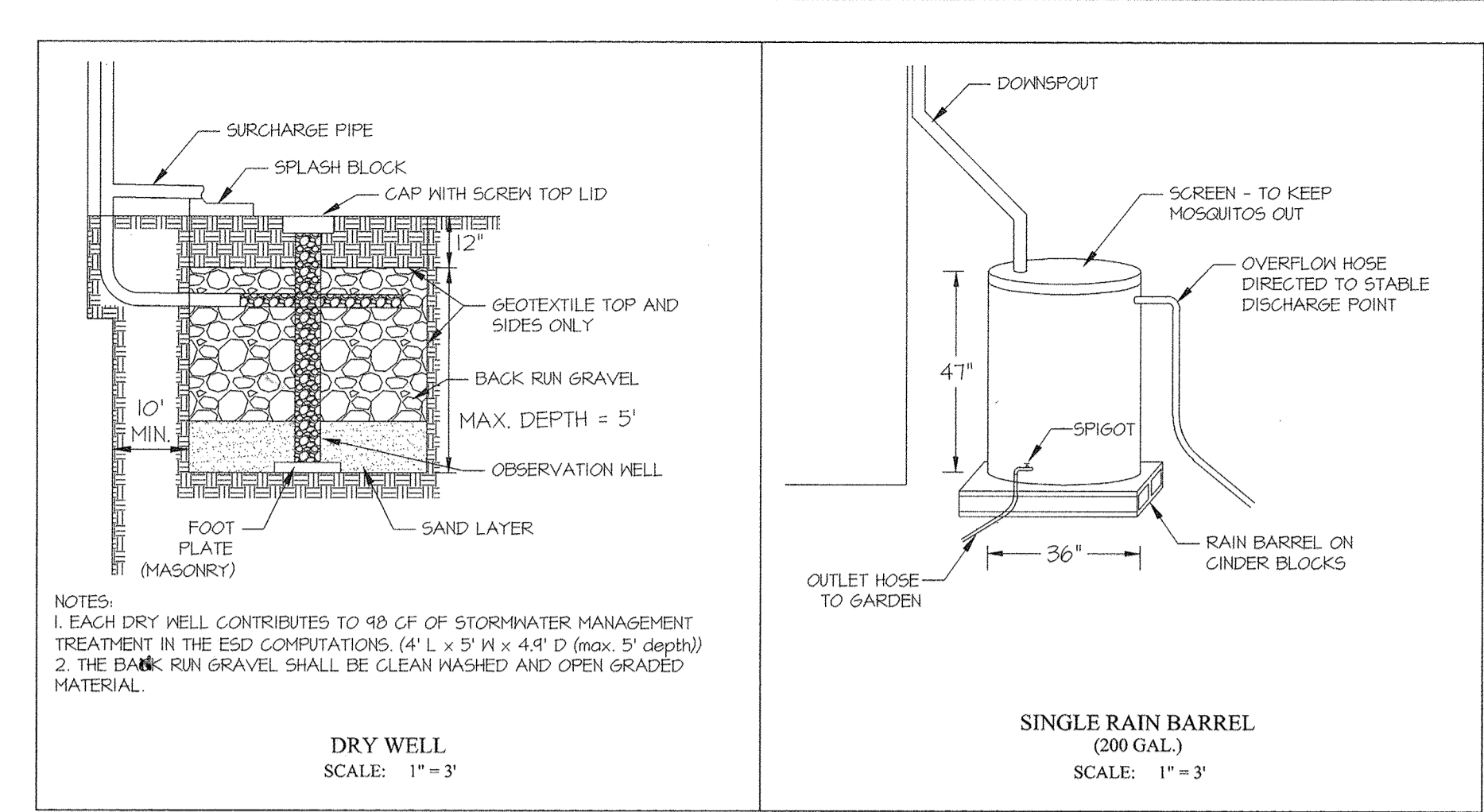
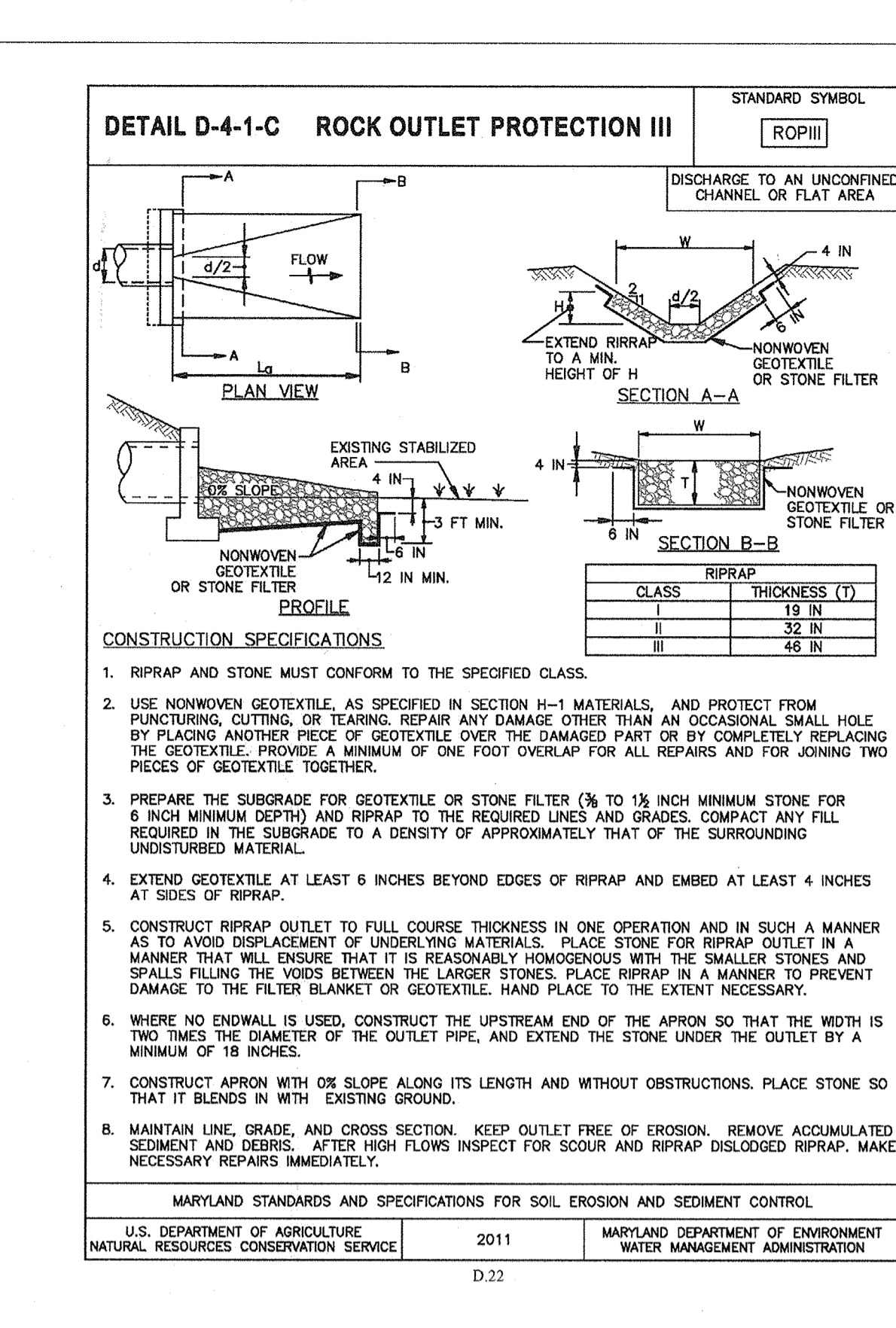
- THE HOMEOWNER SHALL INSPECT THE MONITORING WELLS AND STRUCTURES ON A QUARTERLY BASIS AND AFTER EVERY STORM EVENT.
- THE HOMEOWNER SHALL RECORD THE WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS OVER A PERIOD OF SEVERAL DAYS TO INSURE TRENCH DRAINAGE.
- THE HOMEOWNER SHALL MAINTAIN A LOG BOOK TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
- WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN A SEVENTY-TWO (72) HOUR TIME PERIOD, CORRECTIVE ACTION SHALL BE TAKEN.
- THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
- ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION FACILITY HAVE BEEN VERIFIED, THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.

**OPERATION AND MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6) AND BIORETENTION SHALE (M-8)**

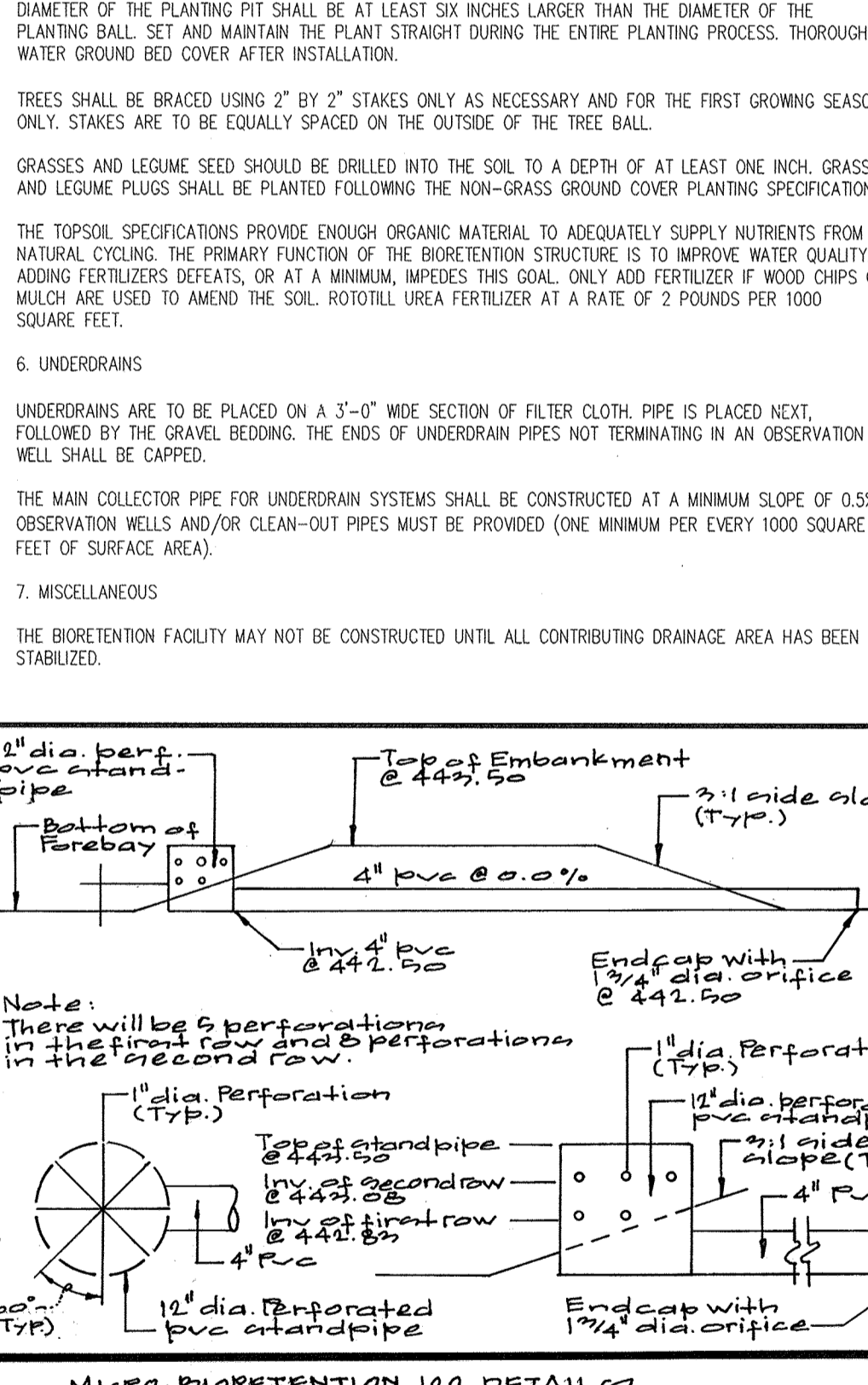
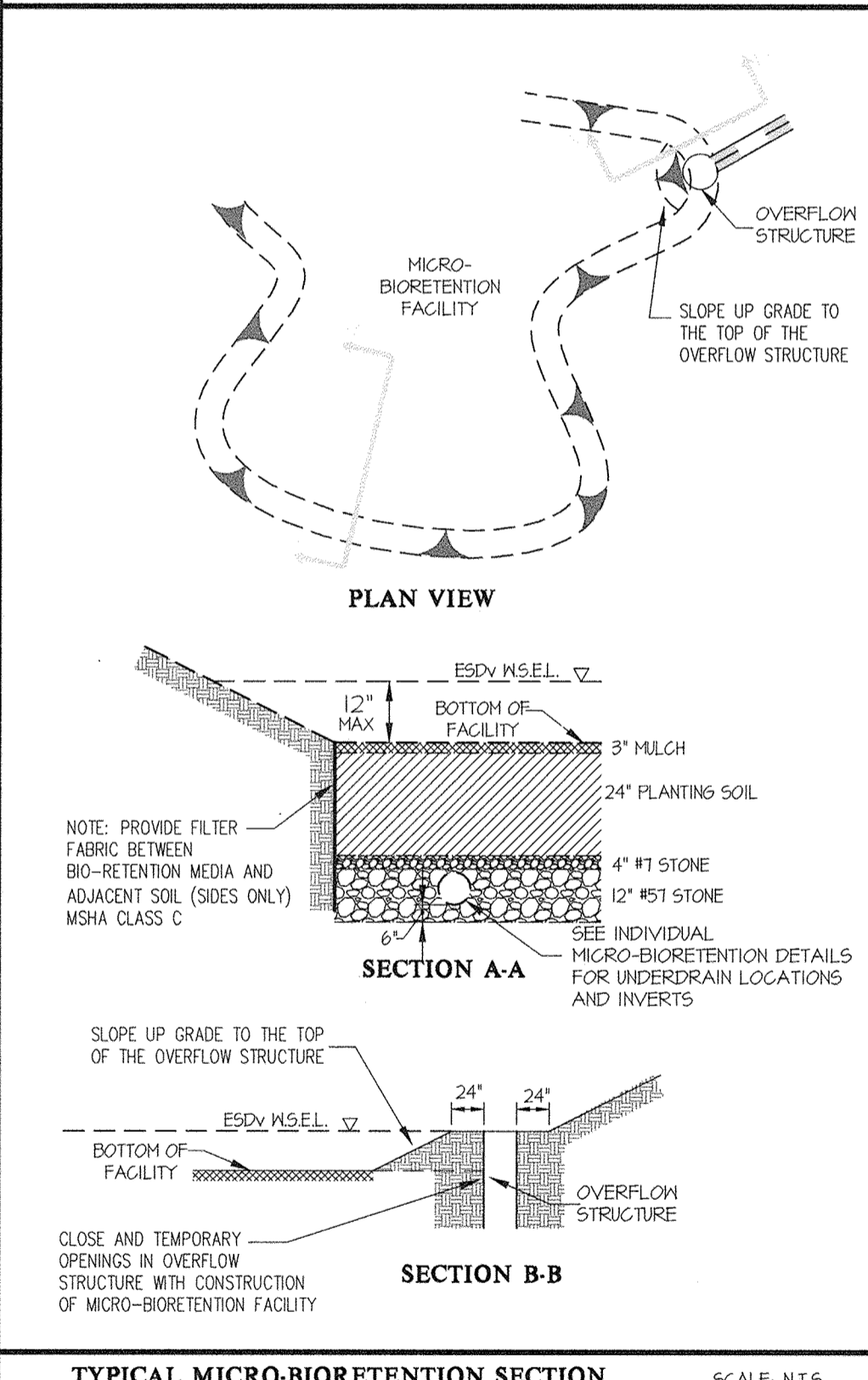
- THE HOA SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
- THE HOA SHALL PERFORM A PLANT INSPECTION IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES.
- THE HOA SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
- THE HOA SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.
- THE HOA SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE UNDERDRAINS WITHIN THE BIORETENTION LAYERS.
- HOWARD COUNTY SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL STORM DRAIN PIPES AND STRUCTURES WITHIN PUBLIC EASEMENTS. THE HOA SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL STORM DRAIN PIPES AND STRUCTURES WITHIN PRIVATE EASEMENTS.

**OPERATION AND MAINTENANCE SCHEDULE FOR DISCONNECTION OF ROOFTOP RUNOFF (N-1)**

- MAINTENANCE OF AREAS RECEIVING DISCONNECTED RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE OWNER SHALL ENSURE THE AREAS RECEIVING RUNOFF ARE PROTECTED FROM FUTURE COMPACTION OR DEVELOPMENT OF IMPERVIOUS AREA. IN COMMERCIAL AREAS, FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.



- STORMWATER MANAGEMENT GENERAL NOTES:**
- THE STORMWATER MANAGEMENT OBLIGATION WAS MET WITH ESD PRACTICES INCLUDING: ROOFTOP DISCONNECTS (N-1), SHEET FLOW TO CONSERVATION AREAS (N-3), RAINWATER HARVESTING (M-1), DRY WELLS (M-5), MICRO-BIORETENTION FACILITIES (M-6), AND SWALES (M-8).
  - WITH THE EXCEPTION OF THE MICRO-BIORETENTION FACILITIES THAT LIE WITHIN THE COUNTY ROAD RIGHT-OF-WAY, ALL ESD PRACTICES WILL BE OWNED AND MAINTAINED BY THE HOME OWNER'S ASSOCIATION.
  - ON LOT ESD PRACTICES SHALL BE SUBJECT TO RECORDED DOCUMENTS OUTLINING OWNERSHIP AND FUTURE MAINTENANCE. THE HOMEOWNER WILL BE RESPONSIBLE FOR THE MAINTENANCE OF ON LOT ESD DEVICES.
  - TO ELIMINATE ANY REDUCED SIGHT DISTANCE IN THE MICRO-BIORETENTION DEVICES WITHIN THE ISLANDS ALONG WESTMOUNT PARKWAY, GRASS WILL BE USED INSIDE THE BIOS INSTEAD OF SHRUBS, AND WITH TREES THAT ARE SMALL IN DIAMETER THAT WILL BE MAINTAINED AT A TRIMMED ELEVATION WHERE THERE WILL BE NO CONFLICT WITH SIGHT DISTANCE.
  - STORMWATER MANAGEMENT FOR THIS SITE IS PROVIDED IN ACCORDANCE WITH CHAPTER 5 OF THE MDC STORMWATER MANAGEMENT DESIGN MANUAL, VOLUMES 1 AND 2. THROUGHOUT THE SITE, MICRO-BIORETENTION (M6), DRY WELLS (M5), AND ROOFTOP DISCONNECT (N1) ARE UTILIZED. DEVICES ON INDIVIDUAL LOTS WILL BE OWNED AND MAINTAINED BY THE HOMEOWNER. DEVICES WITHIN COUNTY RIGHT OF WAY THAT TREAT ONLY RUNOFF FROM A COUNTY ROAD WILL BE OWNED BY HOWARD COUNTY AND JOINTLY MAINTAINED WITH THE HOA. HOWARD COUNTY WILL ONLY MAINTAIN THE INLET AND ASSOCIATED PIPING. THE HOA WILL BE REQUIRED TO MAINTAIN THE PLANTS, SOIL, MULCH, ETC. THE DEVICES ON OPEN SPACE LOTS 64 AND 67 WILL BE OWNED AND MAINTAINED BY THE HOA. THE DRAINAGE SWALE WITHIN THE PRIVATE EASEMENT ALONG THE REAR PROPERTY LINE OF LOTS 41 THROUGH 43, 44, AND 45 WILL BE THE RESPONSIBILITY OF THE HOA. ALL OF THE OTHER DEVICES WITHIN THE OPEN SPACE LOTS WILL BE OWNED BY HOWARD COUNTY AND JOINTLY MAINTAINED BY THE COUNTY AND THE HOME OWNER'S ASSOCIATION.



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 7/27/2016  
Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*[Signature]* 8-29-16  
Chief, Division of Land Development Date

*[Signature]* 8-26-16  
Chief, Development Engineering Division Date

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20866  
TEL: 301-421-4024 BALT: 410-880-1820 DC/OA: 301-989-2524 FAX: 301-421-4186

DES. JRD	DRN. JRD	CHK. DEV	11-19-18	Added outanpipe details	9+	DEV
			DATE	REVISION	BY	APP'R

PREPARED FOR:  
WESTMOUNT DEVELOPMENT CORPORATION  
3500 MANOR LANE  
ELLCOTT CITY, MARYLAND 21042  
443-367-0422  
ATTN: CAMILLA CARROLL

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE PLANS 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. 12975  
EXPIRATION DATE: MAY 26, 2018  
7/14/16

**SWM NOTES and DETAILS**

**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	43 OF 60

ELECTION DISTRICT No. 2



**FOREST NARRATIVE**

THE SITE IS CURRENTLY ZONED RE-D. IT IS LOCATED IN THE LITTLE PATUXENT RIVER (UPPER) WATERSHED. (DNR LISTING NUMBER: 213-110-5A). THE WESTERN AND CENTRAL PORTION OF THE SITE IS FORESTED AND CONTAINS ENVIRONMENTALLY SENSITIVE AREAS. THE EXISTING FOREST COVERS 21.22 ACRES ON THE 19.04 ACRE SITE, OF WHICH 8.06 ACRES ARE CREDITED ON THE NET TRACT AREA.

THE MAJORITY OF THE EXISTING FOREST IS LOCATED WITHIN ENVIRONMENTAL BUFFERS OR STEEP SLOPES. APPROXIMATELY THREE ACRES OF THE EXISTING FOREST WILL BE CLEARED, AND IT WILL BE REPLACED ON SITE AS REQUIRED. OPEN SPACE LOT 1; WILL BE DEDICATED TO HOWARD COUNTY PARKS AND RECREATION AND A QUARTER OF THE ENVIRONMENTAL AREAS ARE OUTSIDE OF THE PROPOSED FOREST CONSERVATION EASEMENT, PER HOWARD COUNTY PARKS AND RECREATION'S REQUEST. THERE IS A TEMPORARY EXCESS OF 3.20 ACRES IN REFORESTATION TO BE USED FOR THE NEXT PHASE.

- LEGEND**
- EXISTING STRUCTURE
  - PROPOSED BUILDINGS
  - EXISTING CONTOURS
  - PROPOSED CONTOURS
  - FOREST CONSERVATION SIGNS
  - SLOPES 15-25%
  - SLOPES 25% AND STEEPER
  - FCE FOREST CONSERVATION EASEMENT
  - TPF TREE PROTECTION FENCE
  - FIELD SURVEYED SPECIMEN, CHAMPION HISTORIC TREE WITH CRITICAL ROOT ZONE - TO BE SAVED
  - FIELD SURVEYED SPECIMEN, CHAMPION HISTORIC TREE WITH CRITICAL ROOT ZONE - PROPOSED FOR REMOVAL
  - SOIL DELINEATION
  - ERODABLE SOILS
  - FP FLOODPLAIN (17.16 Ac.) (FP)
  - WB WETLAND (4.96 Ac.)
  - WB WETLAND BUFFER (1.48 Ac.)
  - SB STREAM CENTERLINE
  - SB STREAM BUFFER (24.28 Ac.)
  - LOD LIMITS OF DISTURBANCE
  - FOREST STAND DELINEATION TREELINE
  - EXISTING SEWER EASEMENT
  - FOREST CLEARING (\*)
  - (CREDITED) REFORESTATION- PORTION ON N.T.A.
  - (CREDITED) REFORESTATION- PORTION IN 100-YR FP
  - (CREDITED) FOREST RETENTION- PORTION ON N.T.A.
  - (NON-CREDITED) FOREST RETENTION- PORTION IN 100-YR FP
  - FOREST CONSERVATION AREA (\*\*)

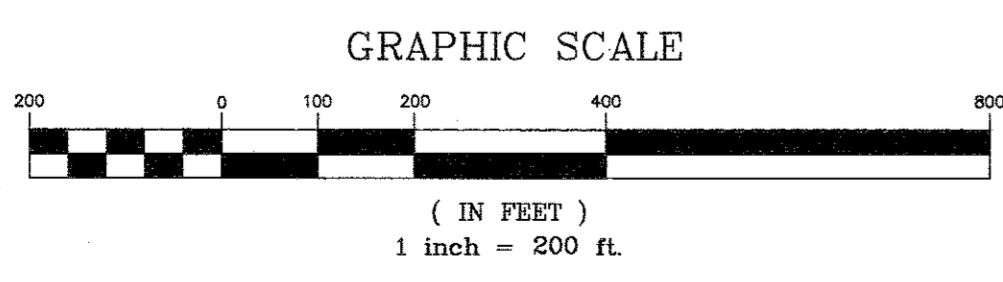
(N.T.A.) = NET TRACT AREA  
(FP) = FLOODPLAIN

FOR CLARITY THE PATTERNS AS INDICATED BELOW ARE NOT SHOWN ON THE SPECIFIED SHEETS, WHICH WOULD MAKE THE PLANS ILLEGIBLE.  
(\*) THESE PATTERNS & LINE-TYPES ARE ONLY SHOWN ON SHEET 45-44.  
(\*\*) THESE PATTERNS & LINE-TYPES ARE ONLY SHOWN ON SHEET 50.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*M. M...* 7/27/2016  
Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*K. S...* 8-29-16  
Chief, Division of Land Development Date

*C. E. C...* 8-26-16  
Chief, Development Engineering Division Date



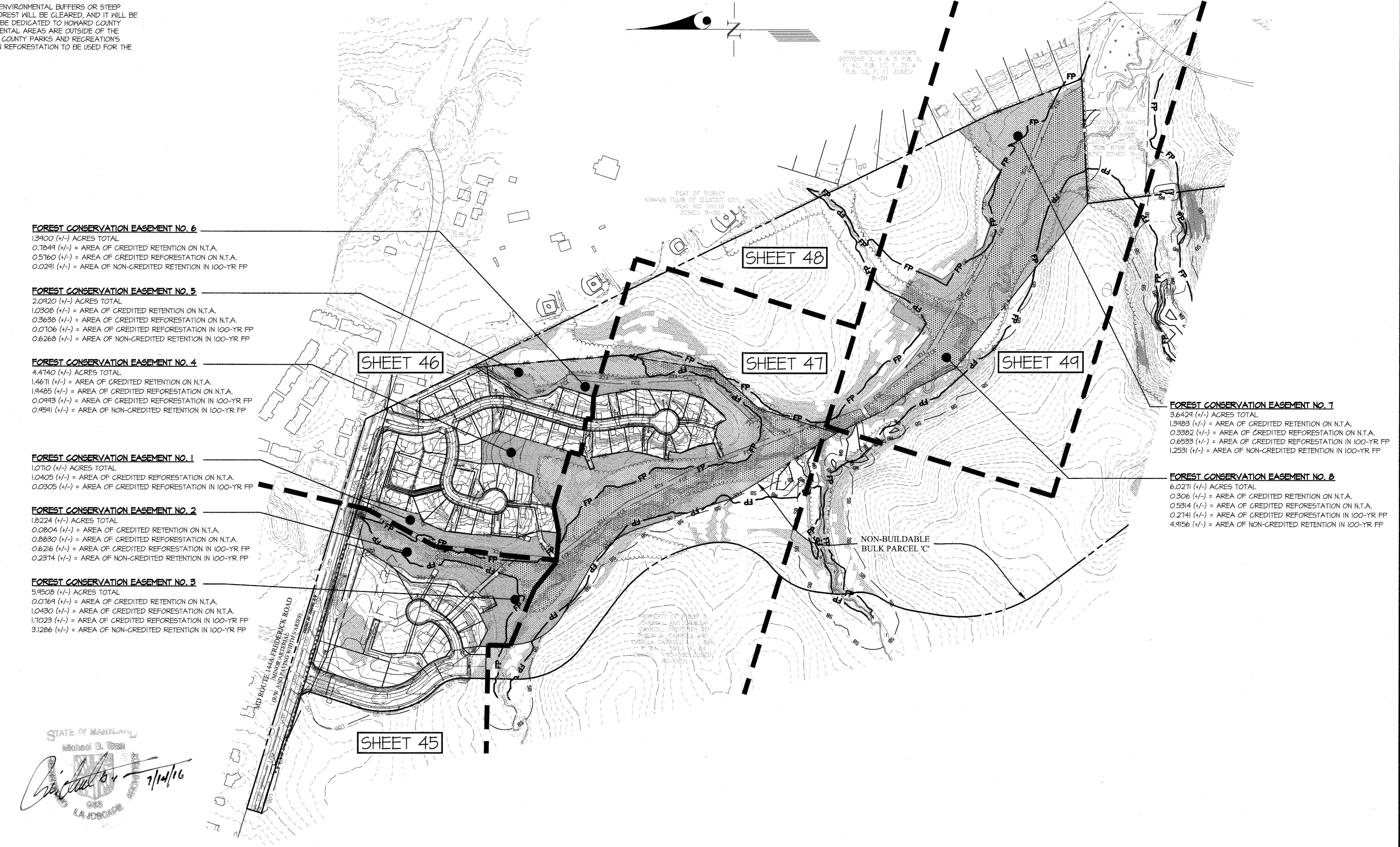
DATE	REVISION	BY	APP'R.

PREPARED FOR:  
WESTMOUNT DEVELOPMENT CORPORATION  
3500 MANOR LANE  
ELLCOTT CITY, MARYLAND 21042  
443-367-0422  
ATTN: CAMILLA CARROLL

**OVERALL FOREST CONSERVATION PLAN**

**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A AND REVISION TO CREDITED OPEN SPACE LOT 1  
ELECTION DISTRICT No. 2

SCALE	ZONING	G. L. W. FILE No.
1" = 200'	R-ED	13-013
DATE	TAX MAP - = GRID	SHEET
JULY, 2016	23-6&12	44 OF 60



- FOREST CONSERVATION EASEMENT NO. 6**  
13900 (+/-) ACRES TOTAL  
0.1849 (+/-) = AREA OF CREDITED RETENTION ON N.T.A.  
0.5160 (+/-) = AREA OF CREDITED REFORESTATION ON N.T.A.  
0.0291 (+/-) = AREA OF NON-CREDITED RETENTION IN 100-YR FP
- FOREST CONSERVATION EASEMENT NO. 5**  
2.0920 (+/-) ACRES TOTAL  
1.0308 (+/-) = AREA OF CREDITED RETENTION ON N.T.A.  
0.3638 (+/-) = AREA OF CREDITED REFORESTATION ON N.T.A.  
0.0106 (+/-) = AREA OF CREDITED REFORESTATION IN 100-YR FP  
0.6268 (+/-) = AREA OF NON-CREDITED RETENTION IN 100-YR FP
- FOREST CONSERVATION EASEMENT NO. 4**  
4.4140 (+/-) ACRES TOTAL  
1.4671 (+/-) = AREA OF CREDITED RETENTION ON N.T.A.  
1.9485 (+/-) = AREA OF CREDITED REFORESTATION ON N.T.A.  
0.0493 (+/-) = AREA OF CREDITED REFORESTATION IN 100-YR FP  
0.9591 (+/-) = AREA OF NON-CREDITED RETENTION IN 100-YR FP
- FOREST CONSERVATION EASEMENT NO. 1**  
1.0710 (+/-) ACRES TOTAL  
1.0405 (+/-) = AREA OF CREDITED REFORESTATION ON N.T.A.  
0.0305 (+/-) = AREA OF CREDITED REFORESTATION IN 100-YR FP
- FOREST CONSERVATION EASEMENT NO. 2**  
1.8224 (+/-) ACRES TOTAL  
0.0804 (+/-) = AREA OF CREDITED RETENTION ON N.T.A.  
0.8830 (+/-) = AREA OF CREDITED REFORESTATION ON N.T.A.  
0.6216 (+/-) = AREA OF CREDITED REFORESTATION IN 100-YR FP  
0.2374 (+/-) = AREA OF NON-CREDITED RETENTION IN 100-YR FP
- FOREST CONSERVATION EASEMENT NO. 3**  
5.9508 (+/-) ACRES TOTAL  
0.0164 (+/-) = AREA OF CREDITED RETENTION ON N.T.A.  
1.0430 (+/-) = AREA OF CREDITED REFORESTATION ON N.T.A.  
1.1023 (+/-) = AREA OF CREDITED REFORESTATION IN 100-YR FP  
3.1286 (+/-) = AREA OF NON-CREDITED RETENTION IN 100-YR FP

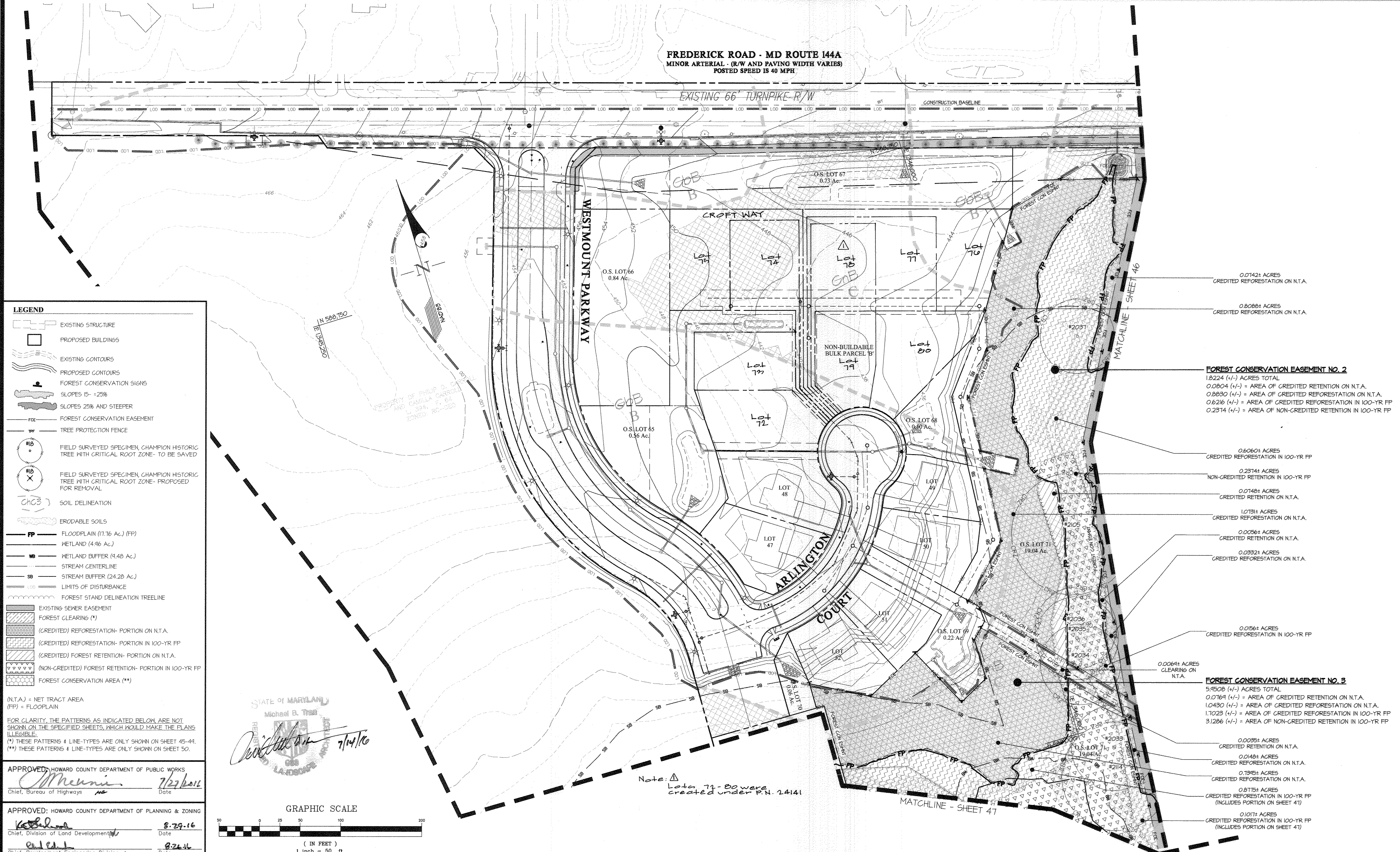
- FOREST CONSERVATION EASEMENT NO. 7**  
3.6429 (+/-) ACRES TOTAL  
1.3483 (+/-) = AREA OF CREDITED RETENTION ON N.T.A.  
0.3382 (+/-) = AREA OF CREDITED REFORESTATION ON N.T.A.  
0.6533 (+/-) = AREA OF CREDITED REFORESTATION IN 100-YR FP  
1.2531 (+/-) = AREA OF NON-CREDITED RETENTION IN 100-YR FP
- FOREST CONSERVATION EASEMENT NO. 8**  
6.0271 (+/-) ACRES TOTAL  
0.306 (+/-) = AREA OF CREDITED RETENTION ON N.T.A.  
0.5314 (+/-) = AREA OF CREDITED REFORESTATION ON N.T.A.  
0.2741 (+/-) = AREA OF CREDITED REFORESTATION IN 100-YR FP  
4.9156 (+/-) = AREA OF NON-CREDITED RETENTION IN 100-YR FP

STATE OF MARYLAND  
Michael S. Tran  
*[Signature]* 7/14/16  
LA JOBBONE



FREDERICK ROAD - MD ROUTE 144A  
 MINOR ARTERIAL - (R/W AND PAVING WIDTH VARIES)  
 POSTED SPEED IS 40 MPH

EXISTING 66' TURNPIKE R/W



**LEGEND**

- EXISTING STRUCTURE
- PROPOSED BUILDINGS
- EXISTING CONTOURS
- PROPOSED CONTOURS
- FOREST CONSERVATION SIGNS
- SLOPES 15-25%
- SLOPES 25% AND STEEPER
- FOREST CONSERVATION EASEMENT
- TREE PROTECTION FENCE
- FIELD SURVEYED SPECIMEN, CHAMPION HISTORIC TREE WITH CRITICAL ROOT ZONE - TO BE SAVED
- FIELD SURVEYED SPECIMEN, CHAMPION HISTORIC TREE WITH CRITICAL ROOT ZONE - PROPOSED FOR REMOVAL
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- ERODABLE SOILS
- FLOODPLAIN (17.16 Ac.) (FP)
- WETLAND (4.96 Ac.)
- WETLAND BUFFER (9.48 Ac.)
- STREAM CENTERLINE
- STREAM BUFFER (24.28 Ac.)
- LIMITS OF DISTURBANCE
- FOREST STAND DELINEATION TREELINE
- EXISTING SEWER EASEMENT
- FOREST CLEARING (\*)
- (CREDITED) REFORESTATION- PORTION ON N.T.A.
- (CREDITED) REFORESTATION- PORTION IN 100-YR FP
- (CREDITED) FOREST RETENTION- PORTION ON N.T.A.
- (NON-CREDITED) FOREST RETENTION- PORTION IN 100-YR FP
- FOREST CONSERVATION AREA (\*\*)

(N.T.A.) = NET TRACT AREA  
 (FP) = FLOODPLAIN

FOR CLARITY, THE PATTERNS AS INDICATED BELOW ARE NOT SHOWN ON THE SPECIFIED SHEETS, WHICH WOULD MAKE THE PLANS ILLEGIBLE.  
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 (\*\*) THESE PATTERNS & LINE-TYPES ARE ONLY SHOWN ON SHEET 50.

0.0742± ACRES CREDITED REFORESTATION ON N.T.A.

0.8088± ACRES CREDITED REFORESTATION ON N.T.A.

**FOREST CONSERVATION EASEMENT NO. 2**  
 18224 (+/-) ACRES TOTAL  
 0.0804 (+/-) = AREA OF CREDITED RETENTION ON N.T.A.  
 0.8830 (+/-) = AREA OF CREDITED REFORESTATION ON N.T.A.  
 0.8216 (+/-) = AREA OF CREDITED REFORESTATION IN 100-YR FP  
 0.2374 (+/-) = AREA OF NON-CREDITED RETENTION IN 100-YR FP

0.8060± ACRES CREDITED REFORESTATION IN 100-YR FP

0.2374± ACRES NON-CREDITED RETENTION IN 100-YR FP

0.0748± ACRES CREDITED RETENTION ON N.T.A.

1.0731± ACRES CREDITED REFORESTATION ON N.T.A.

0.0056± ACRES CREDITED RETENTION ON N.T.A.

0.0332± ACRES CREDITED REFORESTATION ON N.T.A.

0.0156± ACRES CREDITED REFORESTATION IN 100-YR FP

0.0064± ACRES CLEARING ON N.T.A.

**FOREST CONSERVATION EASEMENT NO. 3**  
 54908 (+/-) ACRES TOTAL  
 0.0769 (+/-) = AREA OF CREDITED RETENTION ON N.T.A.  
 1.0430 (+/-) = AREA OF CREDITED REFORESTATION ON N.T.A.  
 1.7023 (+/-) = AREA OF CREDITED REFORESTATION IN 100-YR FP  
 3.1286 (+/-) = AREA OF NON-CREDITED RETENTION IN 100-YR FP

0.0035± ACRES CREDITED RETENTION ON N.T.A.

0.0148± ACRES CREDITED REFORESTATION ON N.T.A.

0.1345± ACRES CREDITED REFORESTATION ON N.T.A.

0.8175± ACRES CREDITED REFORESTATION IN 100-YR FP (INCLUDES PORTION ON SHEET 47)

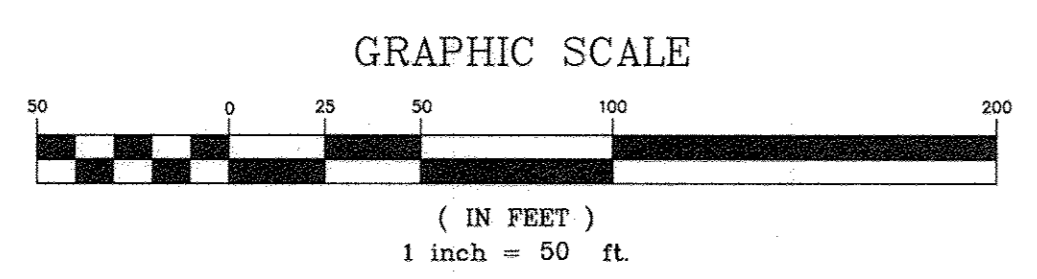
0.1071± ACRES CREDITED REFORESTATION IN 100-YR FP (INCLUDES PORTION ON SHEET 47)

STATE OF MARYLAND  
 Michael B. Train  
 LANDSCAPE ARCHITECT  
 7/14/16

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Chief, Bureau of Highways  
 Date: 7/27/2016

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Chief, Division of Land Development  
 Date: 8-29-16

Chief, Development Engineering Division  
 Date: 8-24-16



Note: Δ Lots 72-80 were created under P.N. 24141

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.
6.14.17	Revised Lot Lines & numbers	GLW	DEV.

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN.: CAMILLA CARROLL

**FOREST CONSERVATION PLAN**  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
 ELECTION DISTRICT No. 2

SCALE	ZONING	G. L. W. FILE NO.
1" = 100'	R-ED	13-013
DATE	TAX MAP -- = GRID	SHEET
JULY, 2016	23-6&12	45 OF 60



**FREDERICK ROAD - MD ROUTE 144A**  
 MINOR ARTERIAL - (R/W AND PAVING WIDTH VARIES)  
 POSTED SPEED LIMIT IS 40 MPH

**FOREST CONSERVATION EASEMENT NO. 1**  
 1.0710 (+/-) ACRES TOTAL  
 1.0405 (+/-) = AREA OF CREDITED REFORESTATION ON N.T.A.  
 0.0305 (+/-) = AREA OF CREDITED REFORESTATION IN 100-YR FP

1.0405± ACRES  
 CREDITED REFORESTATION ON N.T.A.

0.0271± ACRES  
 CREDITED REFORESTATION  
 IN 100-YR FP

0.0033± ACRES  
 CREDITED REFORESTATION IN 100-YR FP

0.0493± ACRES  
 CREDITED REFORESTATION IN 100-YR FP  
 (INCLUDES PORTION ON SHEET 41)

**FOREST CONSERVATION EASEMENT NO. 4**

4.4140 (+/-) ACRES TOTAL  
 1.4671 (+/-) = AREA OF CREDITED RETENTION ON N.T.A.  
 1.9485 (+/-) = AREA OF CREDITED REFORESTATION ON N.T.A.  
 0.0493 (+/-) = AREA OF CREDITED REFORESTATION IN 100-YR FP  
 0.9511 (+/-) = AREA OF NON-CREDITED RETENTION IN 100-YR FP

**FOREST CONSERVATION EASEMENT NO. 5**

2.0420 (+/-) ACRES TOTAL  
 1.0308 (+/-) = AREA OF CREDITED RETENTION ON N.T.A.  
 0.3638 (+/-) = AREA OF CREDITED REFORESTATION ON N.T.A.  
 0.0706 (+/-) = AREA OF CREDITED REFORESTATION IN 100-YR FP  
 0.6226 (+/-) = AREA OF NON-CREDITED RETENTION IN 100-YR FP

0.0454± ACRES  
 CREDITED RETENTION ON N.T.A.  
 (INCLUDES PORTION ON SHEET  
 46)

0.2006± ACRES  
 CREDITED REFORESTATION ON N.T.A.

**FOREST CONSERVATION EASEMENT NO. 6**

1.9100 (+/-) ACRES TOTAL  
 0.7848 (+/-) = AREA OF CREDITED RETENTION ON N.T.A.  
 0.5760 (+/-) = AREA OF CREDITED REFORESTATION ON N.T.A.  
 0.0291 (+/-) = AREA OF NON-CREDITED RETENTION IN 100-YR FP

1.1870± ACRES  
 CLEARING ON N.T.A.  
 (INCLUDES PORTION ON SHEET 41)

0.1854 ACRES  
 CREDITED REFORESTATION ON N.T.A.  
 (INCLUDES PORTION ON SHEET 41)

0.5646± ACRES  
 CREDITED REFORESTATION ON N.T.A.  
 (INCLUDES PORTION ON SHEET 41)  
 CREDITED OPEN SPACE LOT 1  
 36.00 AC.  
 (TO BE DEDICATED TO THE HOWARD COUNTY  
 DEPARTMENT OF RECREATION AND PARKS)

1.9485± ACRES  
 CREDITED REFORESTATION ON N.T.A.  
 (INCLUDES PORTION ON SHEET 41)

**LEGEND**

- EXISTING STRUCTURE
- PROPOSED BUILDINGS
- EXISTING CONTOURS
- PROPOSED CONTOURS
- FOREST CONSERVATION SIGNS
- SLOPES 15- +25%
- SLOPES 25% AND STEEPER
- FOREST CONSERVATION EASEMENT
- TREE PROTECTION FENCE
- FIELD SURVEYED SPECIMEN, CHAMPION HISTORIC TREE WITH CRITICAL ROOT ZONE- TO BE SAVED
- FIELD SURVEYED SPECIMEN, CHAMPION HISTORIC TREE WITH CRITICAL ROOT ZONE- PROPOSED FOR REMOVAL
- SOIL DELINEATION
- ERODABLE SOILS
- FLOODPLAIN (17.76 Ac.) (FP)
- WETLAND (4.96 Ac.)
- WETLAND BUFFER (1.40 Ac.)
- STREAM CENTERLINE
- STREAM BUFFER (24.28 Ac.)
- LIMITS OF DISTURBANCE
- FOREST STAND DELINEATION TREELINE
- EXISTING SEWER EASEMENT
- FOREST CLEARING (\*)
- (CREDITED) REFORESTATION- PORTION ON N.T.A.
- (CREDITED) REFORESTATION- PORTION IN 100-YR FP
- (CREDITED) FOREST RETENTION- PORTION ON N.T.A.
- (NON-CREDITED) FOREST RETENTION- PORTION IN 100-YR FP
- FOREST CONSERVATION AREA (\*\*)

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 (\*\*) THESE PATTERNS & LINE-TYPES ARE ONLY SHOWN ON SHEET 50.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Michael B. Tran* 7/27/16  
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Walt Salas* 8-29-16  
 Chief, Division of Land Development Date

*Chad Clark* 8-26-16  
 Chief, Development Engineering Division Date

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3809 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
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 TEL: 301-421-4024 BALT: 410-880-1820 DC/VAC: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.

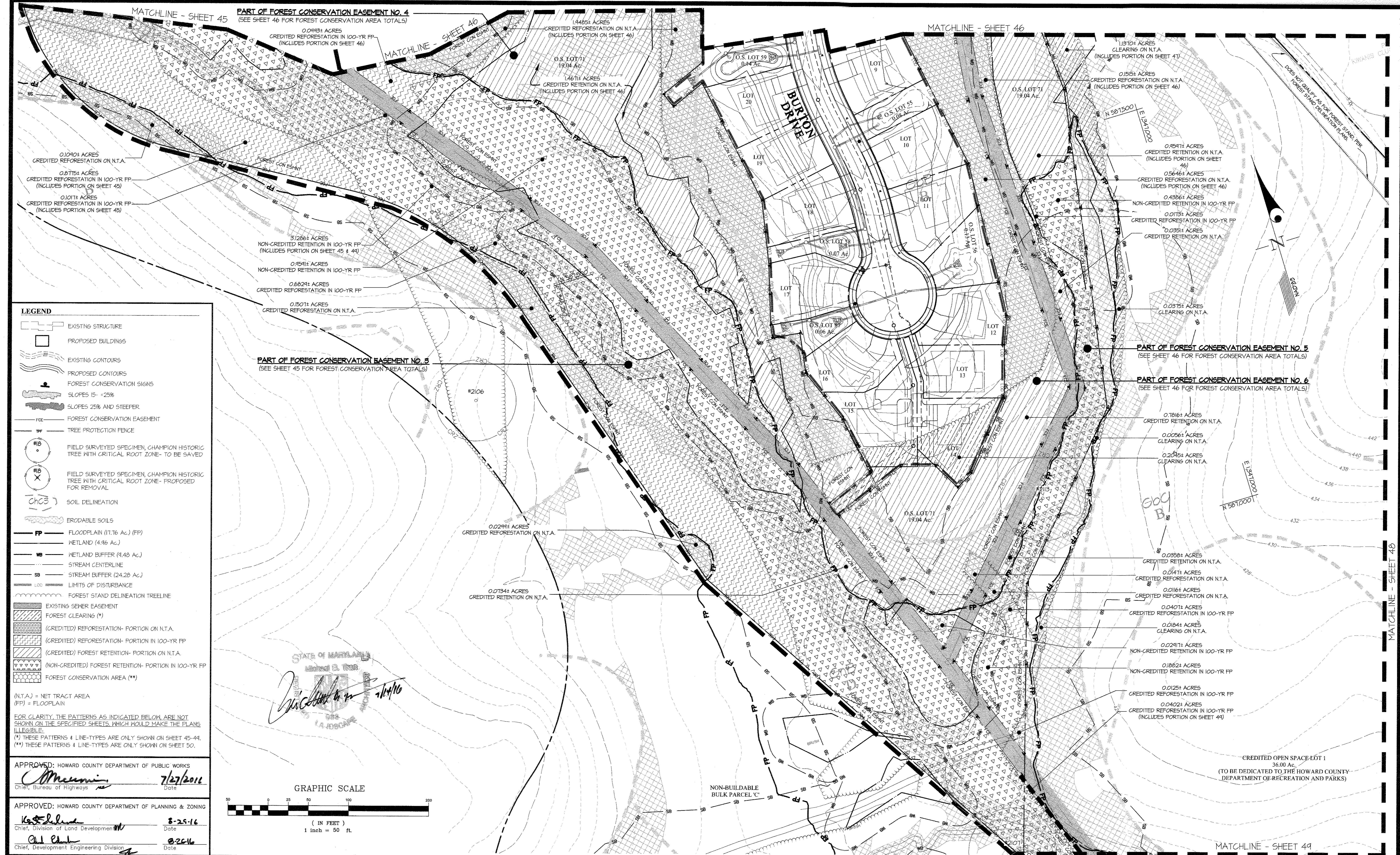
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 ATTN: CAMILLA CARROLL

**FOREST CONSERVATION PLAN**  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A AND REVISION TO CREDITED OPEN SPACE LOT 1  
 ELECTION DISTRICT No. 2 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1" = 100'	R-ED	13-013
DATE	TAX MAP -- GRID	SHEET
JULY, 2016	23-6&12	46 OF 60

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JULY, 2016	23-6&12	46 OF 60





**LEGEND**

- EXISTING STRUCTURE
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- SLOPES 15-25%
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- FCE - FOREST CONSERVATION EASEMENT
- TPF - TREE PROTECTION FENCE
- #10 ○ - FIELD SURVEYED SPECIMEN, CHAMPION HISTORIC TREE WITH CRITICAL ROOT ZONE - TO BE SAVED
- #10 X - FIELD SURVEYED SPECIMEN, CHAMPION HISTORIC TREE WITH CRITICAL ROOT ZONE - PROPOSED FOR REMOVAL
- ChC3 - SOIL DELINEATION
- ERODIBLE SOILS
- FP - FLOODPLAIN (17.16 Ac.) (FP)
- W - WETLAND (4.46 Ac.)
- WB - WETLAND BUFFER (1.48 Ac.)
- SC - STREAM CENTERLINE
- SB - STREAM BUFFER (24.28 Ac.)
- LOD - LIMITS OF DISTURBANCE
- FSD - FOREST STAND DELINEATION TREELINE
- SEE - EXISTING SEWER EASEMENT
- FC - FOREST CLEARING (\*)
- CR - (CREDITED) REFORESTATION - PORTION ON N.T.A.
- CR100 - (CREDITED) REFORESTATION - PORTION IN 100-YR FP
- CRN - (CREDITED) FOREST RETENTION - PORTION ON N.T.A.
- CRN100 - (NON-CREDITED) FOREST RETENTION - PORTION IN 100-YR FP
- FCA - FOREST CONSERVATION AREA (\*\*)

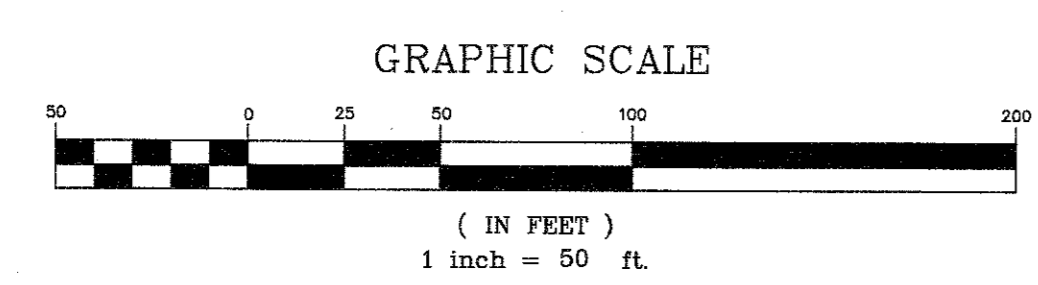
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APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
  
 Chief, Bureau of Highways  
 Date: 7/27/2016

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
  
 Chief, Division of Land Development  
 Date: 8-25-16

Chief, Development Engineering Division  
 Date: 8-25-16



**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20886  
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

NO.	DATE	REVISION	BY	APP.

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN: CAMILLA CARROLL

**FOREST CONSERVATION PLAN**  
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1" = 100'	R-ED	13-013
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**LEGEND**

- EXISTING STRUCTURE
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- SLOPES 15- 25%
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- ChC3 SOIL DELINEATION
- ERODIBLE SOILS
- FP FLOODPLAIN (17.16 Ac.) (FP)
- WETLAND (4.96 Ac.)
- WB WETLAND BUFFER (9.48 Ac.)
- STREAM CENTERLINE
- SB STREAM BUFFER (24.28 Ac.)
- LIMITS OF DISTURBANCE
- FOREST STAND DELINEATION TREELINE
- EXISTING SEWER EASEMENT
- FOREST CLEARING (\*)
- (CREDITED) REFORESTATION- PORTION ON N.T.A.
- (CREDITED) REFORESTATION- PORTION IN 100-YR FP
- (CREDITED) FOREST RETENTION- PORTION ON N.T.A.
- (NON-CREDITED) FOREST RETENTION- PORTION IN 100-YR FP
- FOREST CONSERVATION AREA (\*\*)

(N.T.A.) = NET TRACT AREA  
 (FP) = FLOODPLAIN

FOR CLARITY, THE PATTERNS AS INDICATED BELOW ARE NOT SHOWN ON THE SPECIFIED SHEETS, WHICH WOULD MAKE THE PLANS ILLEGIBLE.  
 (\*) THESE PATTERNS & LINE-TYPES ARE ONLY SHOWN ON SHEET 45-44.  
 (\*\*) THESE PATTERNS & LINE-TYPES ARE ONLY SHOWN ON SHEET 50.

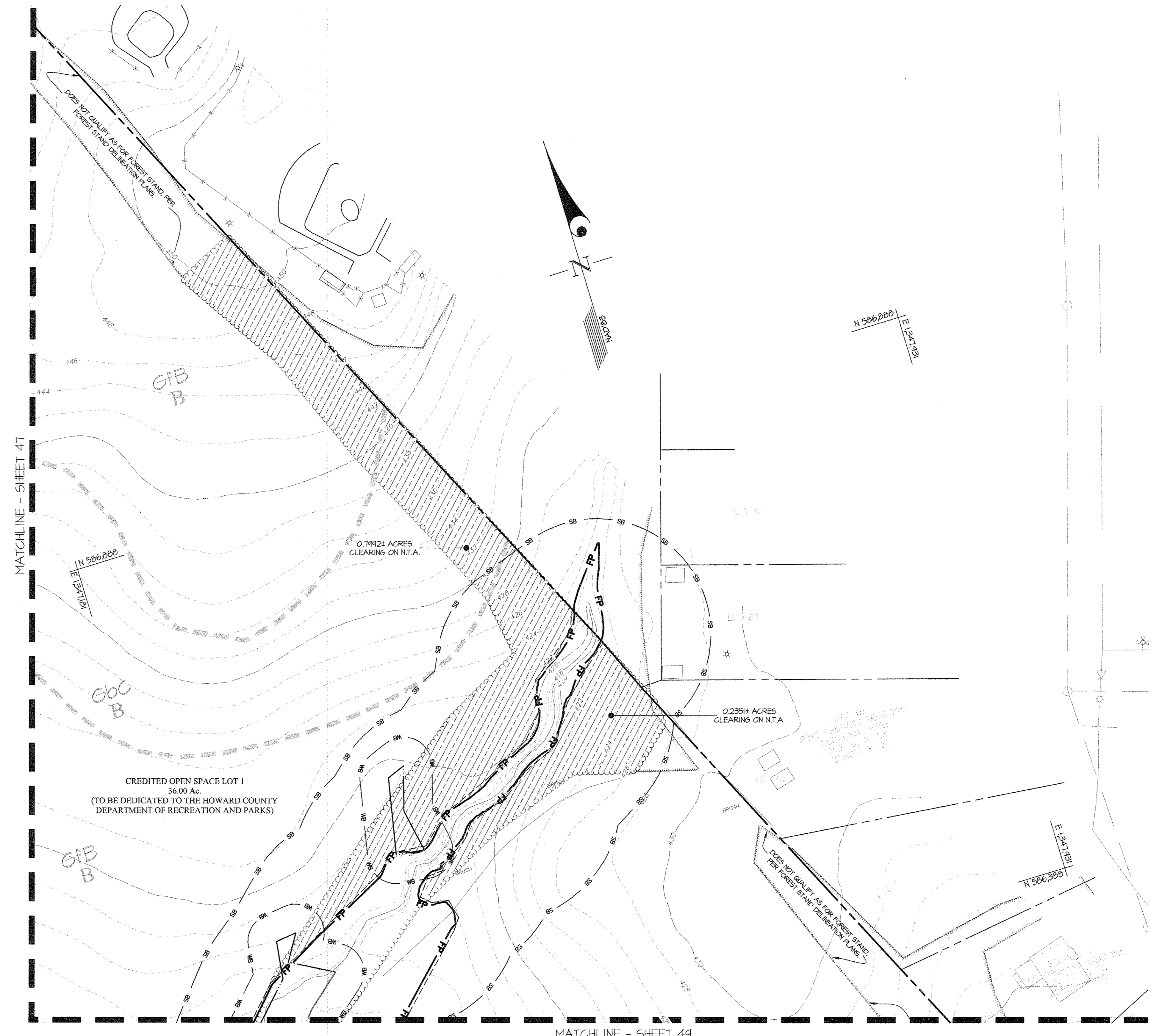
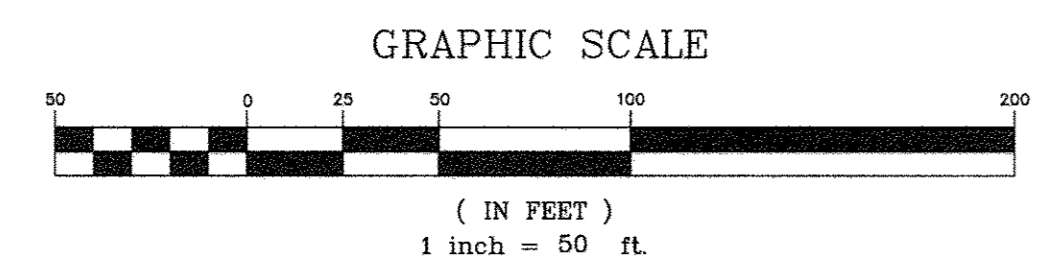
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
  
 Chief, Bureau of Highways  
 Date: 7/27/2016

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
  
 Chief, Division of Land Development  
 Date: 8-29-16

Chief, Development Engineering Division  
 Date: 8-26-16

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DES. KAB	DRN. KAB	CHK. MBT
DATE	REVISION	BY APP'R.




PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN.: CAMILLA CARROLL

**FOREST CONSERVATION PLAN**  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
 ELECTION DISTRICT No. 2  
 HOWARD COUNTY, MARYLAND

SCALE 1" = 100'	ZONING R-ED	G. L. W. FILE No. 13-013
DATE JULY, 2016	TAX MAP - = GRID 23-6&12	SHEET 48 OF 60



MATCHLINE - SHEET 47

MATCHLINE - SHEET 48

PART OF FOREST CONSERVATION EASEMENT NO. 3  
(SEE SHEET 45 FOR FOREST CONSERVATION AREA TOTALS)

CREDITED OPEN SPACE LOT 1  
36.00 AC.  
(TO BE DEDICATED TO THE HOWARD COUNTY  
DEPARTMENT OF RECREATION AND PARKS)

FOREST CONSERVATION EASEMENT NO. 1  
3,642.9 (+/-) ACRES TOTAL  
1,398.3 (+/-) = AREA OF CREDITED RETENTION ON N.T.A.  
0,338.2 (+/-) = AREA OF CREDITED REFORESTATION ON N.T.A.  
0,653.3 (+/-) = AREA OF CREDITED REFORESTATION IN 100-YR FP  
1,253.1 (+/-) = AREA OF NON-CREDITED RETENTION IN 100-YR FP

FOREST CONSERVATION EASEMENT NO. 2  
6,021 (+/-) ACRES TOTAL  
0,306 (+/-) = AREA OF CREDITED RETENTION ON N.T.A.  
0,581.4 (+/-) = AREA OF CREDITED REFORESTATION ON N.T.A.  
0,214 (+/-) = AREA OF CREDITED REFORESTATION IN 100-YR FP  
4,915.6 (+/-) = AREA OF NON-CREDITED RETENTION IN 100-YR FP

LEGEND

- EXISTING STRUCTURE
- PROPOSED BUILDINGS
- EXISTING CONTOURS
- PROPOSED CONTOURS
- FOREST CONSERVATION SIGNS
- SLOPES 15- +25%
- SLOPES 25% AND STEEPER
- FOREST CONSERVATION EASEMENT
- TREE PROTECTION FENCE
- FIELD SURVEYED SPECIMEN, CHAMPION HISTORIC TREE WITH CRITICAL ROOT ZONE- TO BE SAVED
- FIELD SURVEYED SPECIMEN, CHAMPION HISTORIC TREE WITH CRITICAL ROOT ZONE- PROPOSED FOR REMOVAL
- SOIL DELINEATION
- ERODABLE SOILS
- FLOODPLAIN (17.76 Ac.) (FP)
- METLAND (4.96 Ac.)
- METLAND BUFFER (1.48 Ac.)
- STREAM CENTERLINE
- STREAM BUFFER (24.28 Ac.)
- LIMITS OF DISTURBANCE
- FOREST STAND DELINEATION TREELINE
- EXISTING SEWER EASEMENT
- FOREST CLEARING (\*)
- (CREDITED) REFORESTATION- PORTION ON N.T.A.
- (CREDITED) REFORESTATION- PORTION IN 100-YR FP
- (CREDITED) FOREST RETENTION- PORTION ON N.T.A.
- (NON-CREDITED) FOREST RETENTION- PORTION IN 100-YR FP
- FOREST CONSERVATION AREA (\*\*)

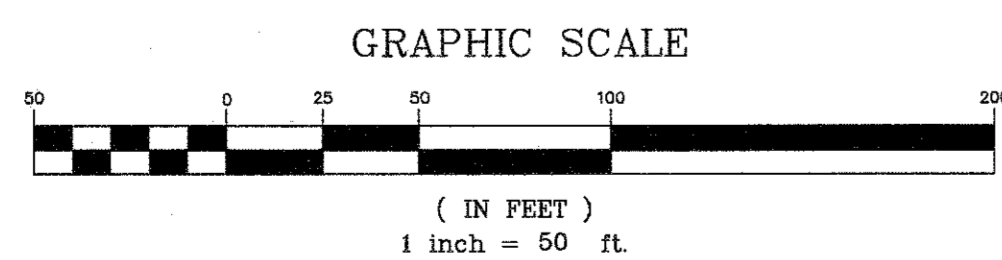
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*[Signature]* 7/27/2016  
Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*[Signature]* 8-29-16  
Chief, Division of Land Development

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FOREST CONSERVATION PLAN  
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ELECTION DISTRICT No. 2  
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1" = 100'	R-ED	13-013
DATE	TAX MAP -- GRID	SHEET
JULY, 2016	23-6&12	49 OF 60



**TREE PLANTING AND MAINTENANCE CALENDAR**

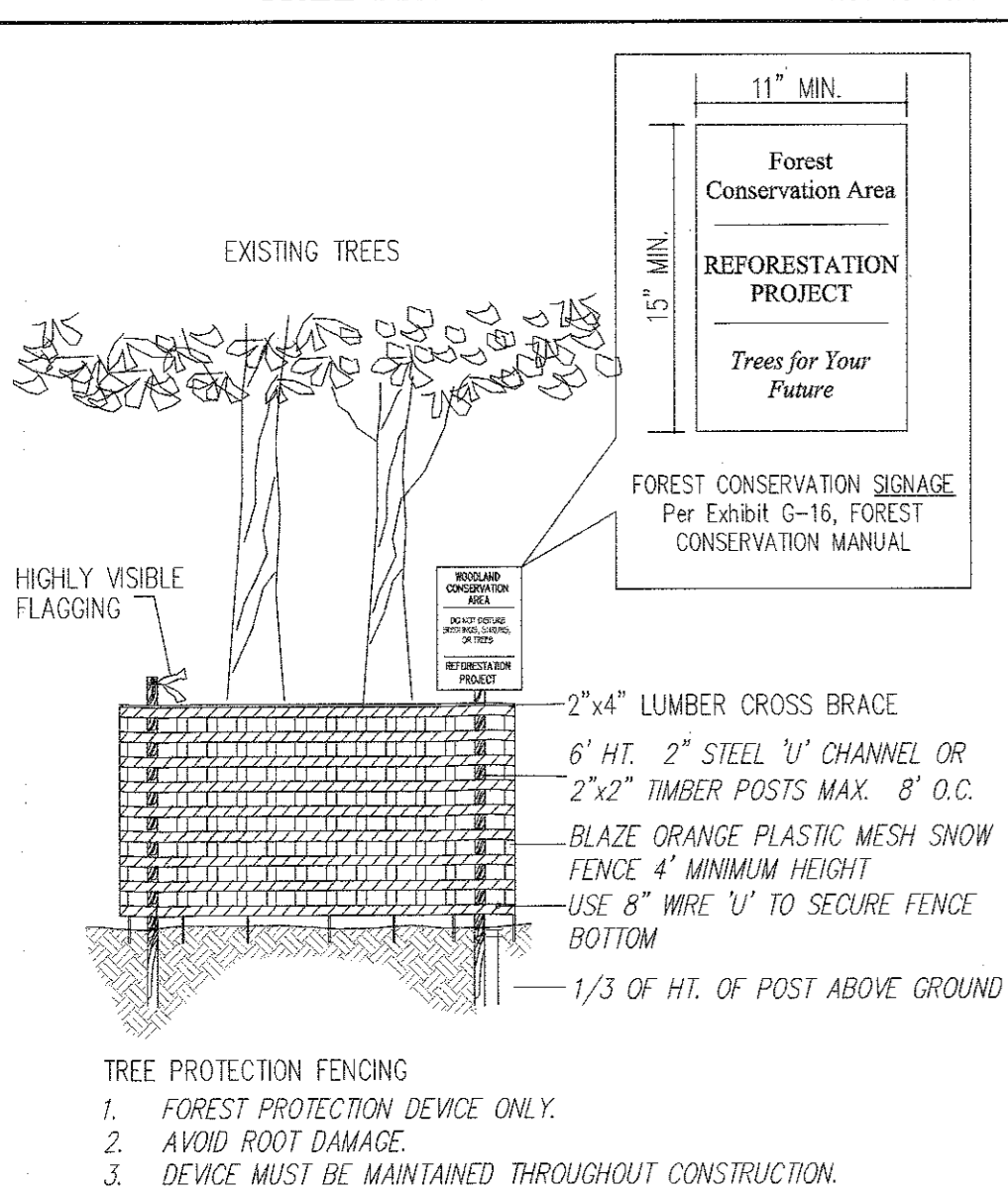
TASKS	MONTHS											
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
TRANSPLANT OF 2" DBH OR GREATER	[RECOMMENDED PERIODS]											
PLANTING SEEDLINGS, WHIPS	[RECOMMENDED PERIODS]											
MINIMUM MONITORING	*	*	*									
FERTILIZER + (IF NEEDED)	[RECOMMENDED PERIODS]											
WATER ++	[RECOMMENDED PERIODS]											
PRUNING	[RECOMMENDED PERIODS]											

KEY:  
 \* ACTIVITIES DURING THESE MONTHS ARE DEPENDANT UPON GROUND CONDITIONS  
 [RECOMMENDED] GREATLY RECOMMENDED  
 [RECOMMENDED] RECOMMENDED WITH ADDITIONAL CARE  
 [RECOMMENDED] RECOMMENDED  
 + DEPENDANT UPON SITE CONDITIONS  
 ++ DEPENDANT UPON SITE CONDITIONS; WEEKLY WATERING IS GREATLY RECOMMENDED FROM MAY THROUGH OCTOBER UNLESS WEEKLY RAINFALL EQUALS "1"

NOTE:  
 The planting and care of trees is most successful when coordinated with the local climatic conditions. This calendar summarizes some of the recommended time frames for basic reforestation and stress reduction activities.

SOURCE: adapted from the Maryland State FOREST CONSERVATION MANUAL

**TREE PROTECTION FENCE NOT TO SCALE**



TREE PROTECTION FENCING  
 1. FOREST PROTECTION DEVICE ONLY.  
 2. AVOID ROOT DAMAGE.  
 3. DEVICE MUST BE MAINTAINED THROUGHOUT CONSTRUCTION.

adapted from the Maryland State FOREST CONSERVATION MANUAL

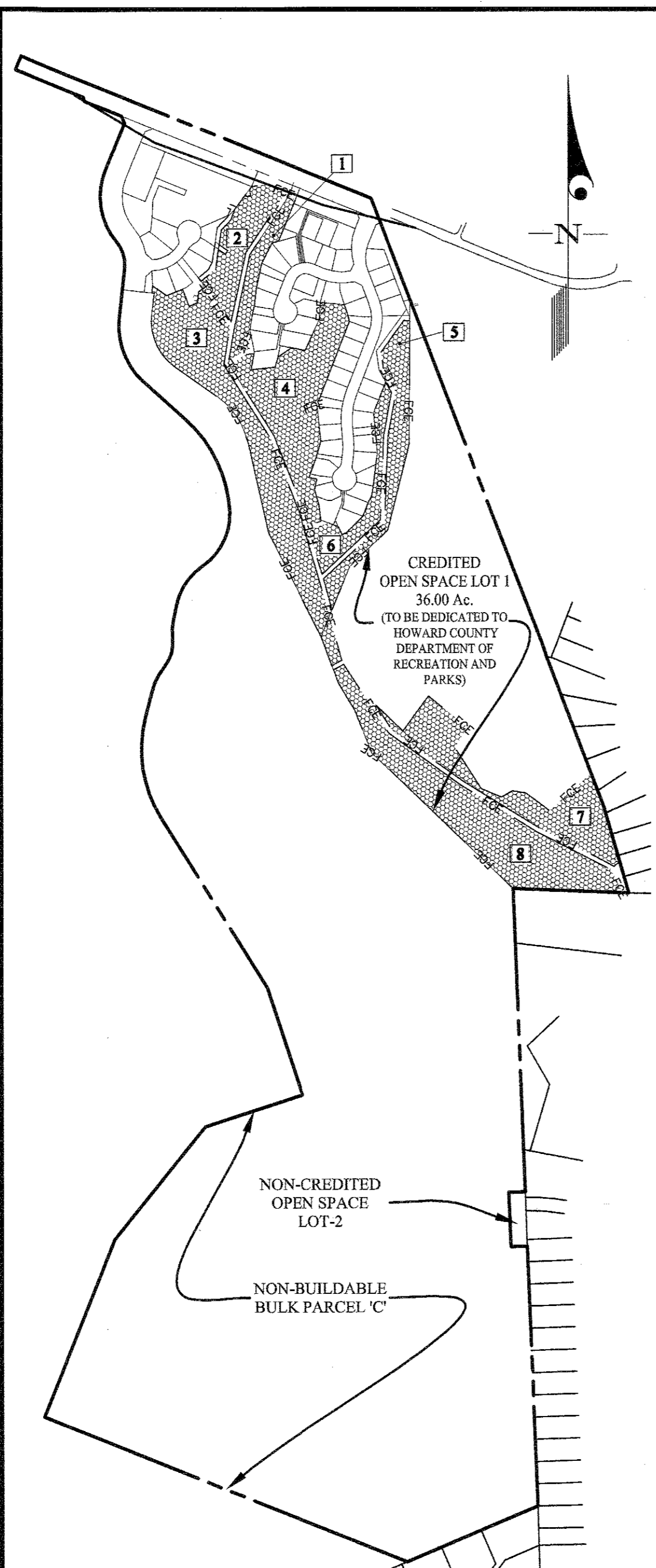
**NOTES:**

- THE TREE PROTECTION FENCING SHOWN ON THESE PLANS IS TEMPORARY AND SHALL REMAIN IN PLACE DURING CONSTRUCTION ACTIVITY, BUT THE FOREST CONSERVATION SIGNAGE IS PERMANENT AND SHALL REMAIN IN PLACE AROUND THE FOREST CONSERVATION EASEMENTS AFTER THE REMOVAL OF THE TREE PROTECTION FENCING.
- FOREST CONSERVATION SIGNAGE SHALL BE INSTALLED ALONG THE PERIMETER OF THE CONSERVATION EASEMENT AT 50' TO 100' APART AND AT ALL CORNERS WHERE THE EASEMENT CHANGES DIRECTION.
- ATTACHMENT OF SIGNS TO TREES IS PROHIBITED.

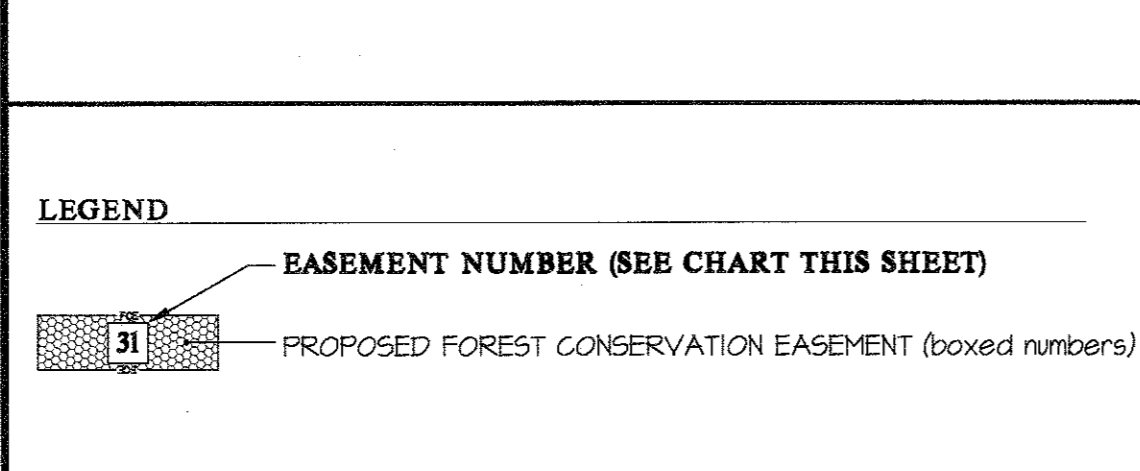
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 [Signature] 7/27/2016  
 Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 [Signature] 8-22-16  
 Chief, Division of Land Development

APPROVED: [Signature] 8-22-16  
 Chief, Development Engineering Division



FCR LOCATION DIAGRAM  
 SCALE: 1" = 500'



**MAPPED SOILS**

SYMBOLS	SOIL NAME	SLOPE	K-FACTOR	COMMENT
GbB	Gladstone Loam	3-8%	0.28	
GbC	Ladstone Loam	8-15%	0.28	
GbF	Gladstone-Urban Land Complex	0-8%	0.28	
GmB	Glenville Silt Loam	3-8%	0.28	Baile inclusions/5%
GmB	Glenville-Baile Silt Loams	0-8%	0.28	Baile inclusions/10%
GuB	Glenville-Urban Land Underbents Complex	25-45%	0.28	
Ha	Hatboro-Codorus Silt Loams	0-3%	0.43	Hydric
MaD	Manor Loam	15-25%	0.28	

**GENERAL NOTES:**

- THIS RETENTION PLAN IS PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF SUBTITLE 12 "FOREST CONSERVATION" OF THE HOWARD COUNTY CODE.
- IMPLEMENTATION OF THIS PLAN MUST BE PERFORMED BY A CONTRACTOR THAT IS KNOWLEDGEABLE AND EXPERIENCED IN AFFORESTATION/REFORESTATION TECHNIQUES AND PRACTICES.
- THE OWNER IS RESPONSIBLE FOR A 2-YEAR (MIN) POST-CONSTRUCTION MAINTENANCE PERIOD WHICH INVOLVES ACTIVITIES NECESSARY TO ENSURE SURVIVAL AND GROWTH OF THE CONSERVATION AREA. TWO INSPECTIONS PER YEAR BY A QUALIFIED PROFESSIONAL AT BEGINNING AND END OF THE GROWING SEASON, ARE RECOMMENDED IN ORDER TO TAKE REMEDIAL STEPS AS NECESSARY. IF, AFTER ONE YEAR, THE POSSIBILITY EXISTS THAT THE ORIGINAL PLANTING (IF APPLICABLE) WILL NOT MEET SURVIVAL RATE STANDARDS, THE APPLICANT MAY CHOOSE TO ESTABLISH REINFORCEMENT PLANTINGS.
- AT THE END OF THE POST-CONSTRUCTION MANAGEMENT AND PROTECTION PERIOD, THE COUNTY WILL INSPECT THE FOREST CONSERVATION EASEMENT AREAS FOR BOND RELEASE PRECEDING.
- THE DEVELOPER/BUILDER SHALL (IN WRITING) NOTIFY ALL HOME OWNERS IN THIS DEVELOPMENT OF THE EXISTENCE OF FOREST CONSERVATION AREAS AND THAT DISTURBANCE TO THE FOREST CONSERVATION AREAS OR THE REMOVAL OF FOREST CONSERVATION SIGNS IS PROHIBITED.
- WHERE APPLICABLE, REFORESTATION/AFFORESTATION TREE PLANTINGS SHOULD BE INSTALLED IN A CURVILINEAR PATTERN TO FACILITATE MAINTENANCE BUT AVOID A GRID APPEARANCE. EACH SPECIES OF TREE SHALL BE DISTRIBUTED EVENLY WITHIN EACH FOREST CONSERVATION EASEMENT AREA.
- THE REMOVAL OF INVASIVE SPECIES MAY BE REQUIRED IF THE INSPECTOR DETERMINES THAT THE EASEMENT IS DOMINATED BY INVASIVE SPECIES.
- PER GENERAL NOTE 26, SHOWN ON PLAT NUMBER 21406, "FOREST CONSERVATION FOR THIS PROJECT WILL BE TEMPORARILY DEFERRED PER MP-II-132. FOREST CONSERVATION WILL BE ADDRESSED FOR NON-BUILDABLE BULK PARCEL 'A' CREDITED OPEN SPACE LOT 1 AND NON-CREDITED OPEN SPACE LOT 2 UPON RESUBDIVISION OF NON-BUILDABLE BULK PARCEL 'A'; HOWEVER THE REMAINDER OF THE FOREST CONSERVATION OBLIGATION IS TO BE ADDRESSED WHEN NON-BUILDABLE BULK PARCEL 'C' IS FURTHER SUBDIVIDED.
- THE FOREST CONSERVATION OBLIGATION FOR NON-CREDITED OPEN SPACE LOT 2 MUST BE SATISFIED WITH THIS PLAN SUBMISSION. THEREFORE FOR THE PURPOSES OF FOREST CONSERVATION, THE GROSS SITE AREA WILL BE 74.03 ACRES.

**CONSTRUCTION PERIOD PROTECTION PROGRAM (At Final Plan Stage)**

- THE LIMIT OF FOREST RETENTION SHALL BE STAKED AND FLAGGED.
- A PRE-CONSTRUCTION MEETING AT THE SITE SHOULD BE HELD TO CONFIRM THE LIMITS OF CLEARING SPECIFIED. THE MEETING SHOULD INCLUDE THE OWNER OR THE OWNER'S REPRESENTATIVE, THE ON-SITE FOREMAN IN CHARGE OF LAND DISTURBANCE, THE ENVIRONMENTAL CONSULTANT AND THE APPROPRIATE HOWARD COUNTY INSPECTORS.
- FOREST PROTECTION DEVICES AND SIGNS (SEE DETAILS) SHALL BE INSTALLED PRIOR TO ANY CLEARING OR GRADING. THE PROTECTION DEVICES AND SIGNS SHALL BE MAINTAINED DURING THE ENTIRE CONSTRUCTION PERIOD. NONE OF THE DEVICES SHALL BE ANCHORED OR ATTACHED IN ANY WAY TO THE TREES TO BE SAVED.
- EQUIPMENT, VEHICLES AND BUILDING MATERIALS SHALL NOT BE WITHIN THE PROTECTED AREA. ACTIVITIES STRICTLY TO IMPLEMENT ANY REFORESTATION PLANTING AND MAINTENANCE (I.E. WATERING, FERTILIZING, THINNING, PRUNING, REMOVAL OF DEAD AND DISEASED TREES WHERE NECESSARY, ETC.) OF THE CONSERVATION AREA ARE PERMITTED. CLEARING FOR THE PURPOSE OF SODDING OR PLANTING GRASS IS NOT PERMITTED WITHIN THE FOREST CONSERVATION AREAS ONCE THEY'RE ESTABLISHED.
- AT THE END OF THE CONSTRUCTION PERIOD, REQUEST FOR A FOREST CONSERVATION INSPECTION FROM HOWARD COUNTY TO INITIATE THE 2-YEAR (MIN) POST-CONSTRUCTION MANAGEMENT AND PROTECTION PERIOD.

STATE OF MARYLAND  
 [Signature]  
 7/14/16

**SPECIMEN/SIGNIFICANT TREE LIST**

TAG #	COMMON NAME	SCIENTIFIC NAME	DBH*	VIGOR**	NOTES	TO BE REMOVED (TBR)
2033	Pin Oak	Quercus palustris	35	good		
2034	Northern Red Oak	Quercus rubra	33	good		
2035	Pin Oak	Quercus palustris	34	fair	poison ivy	
2036	Pin Oak	Quercus palustris	33.5	fair	dead tree leaning on	
2037	Green Ash	Fraxinus pennsylvanica	30.5	fair	poison ivy	
2105	Pin Oak	Quercus palustris	50	good		
2107	Pin Oak	Quercus palustris	36.5	fair	some dead branches	
2109	Pin Oak	Quercus palustris	35	poor	mostly dead	X
2110	Pin Oak	Quercus palustris	37	fair	mostly dead	X
2113	Pin Oak	Quercus palustris	35.5	good		
2114	Pin Oak	Quercus palustris	44.5	fair	some broken branches	
2115	American Elm	Liriodendron tulipifera	31.5	good		
2448	Pin Oak	Quercus palustris	32.5	fair	grape vines, some dead branches	
2449	Pin Oak	Quercus palustris	36.5	fair	grape vines, some dead branches	
2450	Pin Oak	Quercus palustris	38	good		
2451	Pin Oak	Quercus palustris	33	fair	poison ivy vines, canker @ 10'	
2452	Pin Oak	Quercus palustris	42	fair	son ivy vines, some dead branch	
2453	Pin Oak	Quercus palustris	31	good		
2454	White Oak	Quercus alba	39	fair	some dead branches	

**FOREST CONSERVATION PROGRAM SEQUENCE (At Final Plan Stage)**

- OBTAIN ALL NECESSARY PERMITS.
- STAKEOUT LIMITS OF DISTURBANCE.
- FIELD MEETING TO REVIEW AND VERIFY LIMIT OF DISTURBANCE FOR THE SITE GRADING AND CONSTRUCTION.
- INSTALL FOREST CONSERVATION SIGNS AND FOREST PROTECTION DEVICES (FENCES) ALONG THE PORTION OF THE LIMIT OF DISTURBANCE (THAT INVOLVES CLEARING AND/OR RETENTION OF TREES).
- COMMENCE SITE CONSTRUCTION.
- PREPARE SITE SOIL BY MULCHING AND REMOVAL OF TRASH AND WEEDS INCLUDING AN APPLICATION OF HERBICIDES TO CONTROL NOXIOUS WEEDS AND INVASIVE SPECIES.
- INSPECTION BY HOWARD COUNTY FOR THE RELEASE OF THE CONSTRUCTION PERIOD OBLIGATIONS, START OF POST-CONSTRUCTION MANAGEMENT PERIOD.
- POST-CONSTRUCTION MANAGEMENT FOR A PERIOD OF 2 YEARS (MIN).
- FINAL INSPECTION BY HOWARD COUNTY FOR THE RELEASE OF THE OWNER'S FOREST CONSERVATION OBLIGATIONS.

**FOREST CONSERVATION OBLIGATION & SURETY (At Final Plan Stage)**

THE FOREST CONSERVATION OBLIGATION FOR THIS DEVELOPMENT AS CALCULATED IN THE FOREST CONSERVATION WORKSHEET IS 5.15± ACRES OF FOREST RETENTION AND 6.96± ACRES OF REFORESTATION PLANTING FOR TOTAL OF 12.1± ACRES OF FOREST CONSERVATION EASEMENT TO BE RECORDED.

PROPOSED METHOD OF SATISFYING THE ABOVE FOREST CONSERVATION ON-SITE:  
 RECORD 8 (EIGHT) FOREST CONSERVATION EASEMENTS TOTALING 26.41± ACRES OF WHICH 10.16± ACRES ARE CREDITED AND THEY CONTAIN AND 6.12± ACRES OF CREDITED REFORESTATION PLANTING AND 3.44± ACRES OF REFORESTATION WITHIN THE FLOODPLAIN. THERE ARE 5.15± ACRES OF CREDITED RETENTION ON N.T.A. AND 11.16± ACRES OF NON-CREDITED RETENTION WITHIN THE FLOODPLAIN.

THE FOREST CONSERVATION SURETY POSTED WITH THE DEVELOPER AGREEMENT IS \$0.50/SF OF THE REFORESTATION PLANTING. THE SURETY FOR THE ON-SITE REFORESTATION WOULD BE:

REFORESTATION PLANTING PROVIDED: (6.96AC) (43560 SF/AC) (\$0.50/SF) = \$151,584.00

EXCESS FOREST CONSERVATION PROVIDED: (3.20AC) (43560 SF/AC) (\$0.50/SF) = \$69,696.00 (PROVIDED IN ADVANCE FOR FUTURE PHASES)

TOTAL SURETY: (6.96AC) \$151,584.00 + (3.20AC) \$69,696.00 = \$221,280.00

**FOREST CONSERVATION PLANTING QUANTITY SCHEDULE**

FOREST PLANTING LOCATION NO.	FCE-1	FCE-2	FCE-3	FCE-4	FCE-5	FCE-6	FCE-7	FCE-8	TOTAL
AREA TO BE PLANTED (IN AC.)	1.07	1.50	2.74	2.05	0.43	0.58	0.99	0.80	10.16
BASE QUANTITY OF 2" CAL. TREES REQUIRED (AT 100 TREES/AC.)	107	150	274	205	43	58	99	80	1,016
CREDIT FOR LANDSCAPE TREES TO BE PLANTED	0	0	0	0	0	0	0	0	0
REQUIRED QUANTITY OF 2" CAL. TREES TO BE PLANTED	107	150	274	205	43	58	99	80	1,016

**FOREST CONSERVATION PLANT LIST**

PLANT NAME (BOTANICAL/COMMON)	FOREST PLANTING AREA								TOTAL
	FCE-1	FCE-2	FCE-3	FCE-4	FCE-5	FCE-6	FCE-7	FCE-8	
ACER RUBRUM/ RED MAPLE	16	31	28	40	10	10	9	16	160
CERCIS CANADENSIS/ EASTERN REDBUD	16	28	0	30	3	10	10	0	41
LIRIODENDRON TULIPIFERA/ TULIP TREE	0	0	30	0	0	0	0	4	34
PLATANUS OCCIDENTALIS/ AMERICAN SYCAMORE (PLANTREE)	5	0	36	45	0	8	25	20	134
QUERCUS BICOLOR/ SWAMP WHITE OAK	16	30	60	45	10	10	15	10	196
QUERCUS PALUSTRIS/ PIN OAK	21	35	60	45	10	10	25	20	232
QUERCUS RUBRA/ RED OAK	21	26	60	0	10	10	15	10	158
TOTAL	107	150	274	205	43	58	99	80	1,016

NOTE:  
 1. THE QUANTITY SHOWN ABOVE IS FOR PLANTING WITH 2" CAL. TREES AT 20' x 20' SPACING.

**FOREST CONSERVATION - TRACKING CHART**

PHASE	RETENTION / AFFORESTATION / REFORESTATION SUMMARY TABLE FOR WESTMOUNT										
	GROSS SITE AREA (Ac.)	FLOODPLAIN AREA (Ac.)	NET TRACT AREA (Ac.)	EX. FOREST ON NET TRACT (Ac.)	FOREST CLEARED ON NET TRACT (Ac.)	FOREST RETAINED (Ac.)	EXCESS RETENTION (Ac.)	PLANTING REQUIRED (Ac.)	PLANTING PROVIDED (Ac.)	EXCESS FOREST CONSERVATION (Planting & Retention)	COMMENTS
1	79.04	17.76	61.28	8.06	2.91	5.15	0.00	6.96	10.16	3.20	F-15-087 (FCE 1 thru 8) F-16-061
2											F-16-048 (FCE 9 thru 14)
Running Total	79.04	17.76	61.28	8.06	2.91	5.15	0.00	6.96	10.16	3.20	

**FOREST CONSERVATION NOTES and DETAILS**

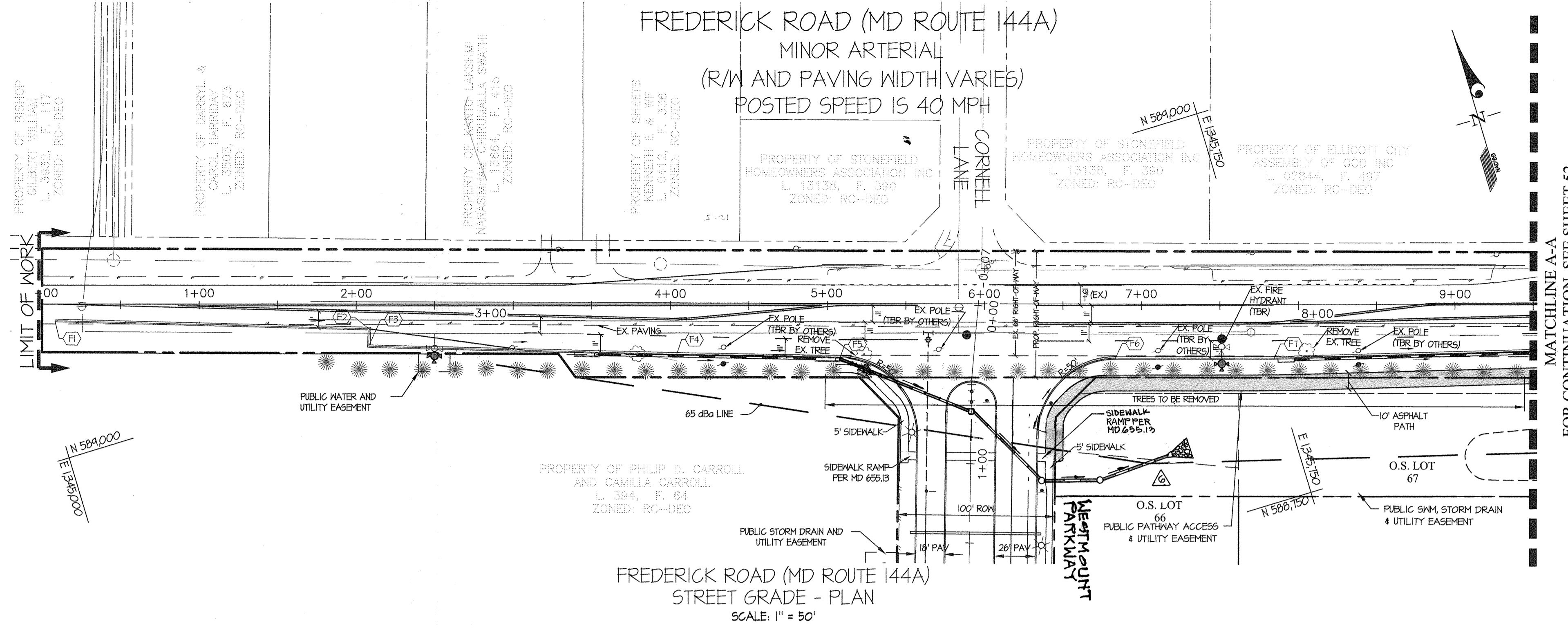
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 HOWARD COUNTY, MARYLAND

SCALE: 1" = 100'  
 ZONING: R-ED  
 G. L. W. FILE NO.: 13-013  
 DATE: JULY, 2016  
 TAX MAP -- GRID: 23-6&12  
 SHEET: 50 OF 60



LEGEND	
366	EXISTING CONTOUR
300	PROPOSED CONTOUR
---	LIMIT OF ULTIMATE FOREST
EX. S.S.	EXISTING SANITARY SEWER
P.S.	PROPOSED SANITARY SEWER
EX. W.L.	EXISTING WATERLINE
P.W.L.	PROPOSED WATERLINE
EX. F.H.	EXISTING FIRE HYDRANT
P.F.H.	PROPOSED FIRE HYDRANT
EX. S.D.	EXISTING STORM DRAIN
P.S.D.	PROPOSED STORM DRAIN
---	EXISTING TREE
---	MICRO BIO-RETENTION FACILITY (M-B)
---	EXISTING POLE
---	PROPOSED UTILITY POLE
---	EXISTING MANHOLE
---	EXISTING FIRE HYDRANT
---	EXISTING SIGN
(T.B.R.)	TO BE RELOCATED
---	ASPHALT HIKER/BIKER PATH
---	EXISTING CURB AND GUTTER
---	EXISTING EDGE OF PAVEMENT
---	PROPOSED CURB AND GUTTER
---	100 YEAR FLOODPLAIN
---	FOREST CONSERVATION EASEMENT
---	PROPOSED (LED-100) LIGHT
---	SOIL BORING LOCATION
---	PROPERTY CORNER IDENTIFICATION
---	PROPOSED HIB SIGNAL
---	PROPOSED ROADWAY PAVEMENT
---	EXISTING PAVEMENT TO BE MILLED AND OVERLAID
---	EXISTING PAVEMENT PATCHING FOR PROP. PIPE TRENCH

PT. NO.	STATION	OFFSET	ELEV.	ASBUILT
(F1)	0+08.13	10.22' RT	474.10	
(F2)	2+08.30	15.00' RT	471.24	
(F3)	2+08.04	26.00' RT	471.07	
(F4)	4+04.15	30.74' RT	465.85	
(F5)	5+08.28	32.52' RT	461.21	
(F6)	6+83.50	33.25' RT	452.48	
(F7)	7+84.65	33.07' RT	450.15	

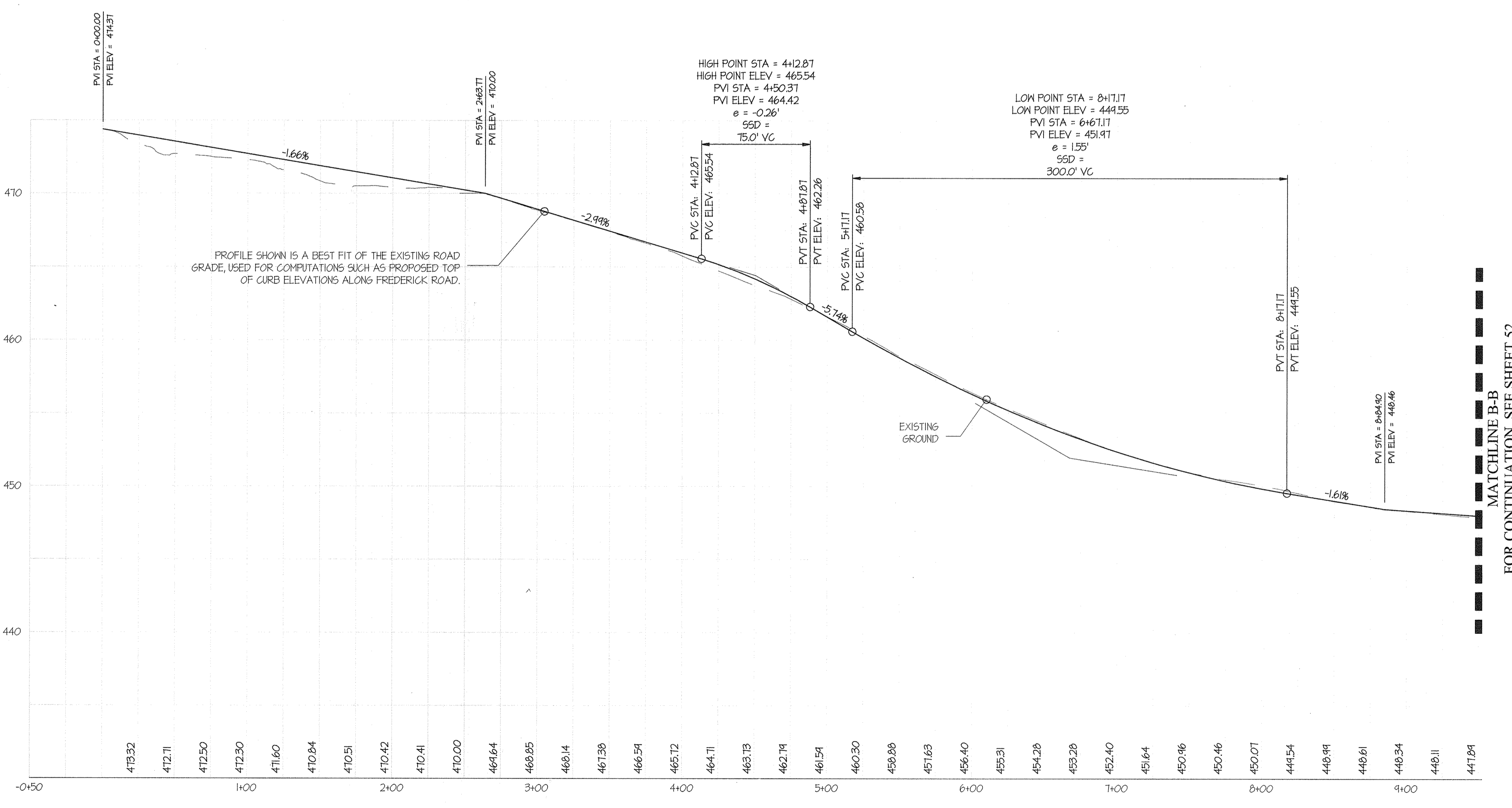


NOTES:  
 1. SEE SHEET 54 FOR SHA PAVING SPECIFICATIONS.  
 2. SEE SHEET 55 FOR STRUCTURE LABELS, PIPE LENGTHS, AND MATERIAL IDENTIFICATION FOR EXISTING AND PROPOSED STORM DRAIN.  
 3. SEE SHEETS 6-4 FOR REQUIREMENTS AND NOTES OF LANDSCAPING WITHIN SHA RIGHT-OF-WAY.

- THE FOLLOWING STANDARDS ARE REQUIRED FOR THIS PROJECT:
- A. MD 655.11 - SIDEWALK RAMPS - PERPENDICULAR
  - B. MD 655.40 - DETECTABLE WARNING STRIPS
  - C. MD 620.02 - STANDARD TYPE 'A' COMBINATION CURB & GUTTER
  - D. MD 578.01 - REPAIRING PAVEMENT OPENING FOR UTILITY TRENCHES
  - E. MD 655.13 - SIDEWALK RAMPS COMBINATION
  - F. MD 605.23 - TRAFFIC BARRIER 'W' BEAM POST, OFFSET BRACKET & SPLICE
  - G. MD 605.26 - TRAFFIC BARRIER 'W' BEAM - POST PLACEMENT DETAILS FOR SPANNING 12'-2" TO 18'-5" OPENINGS
  - H. MD 605.10 - TYPE K TRAFFIC BARRIER END TREATMENT - OPTION ANCHORAGE
  - I. MD 384.01 - STANDARD MANHOLE
  - J. MD 374.63 - COG-15 INLET
  - K. MD 374.51 - COG-10 INLET
  - L. MD 374.51 - COG-15 INLET
  - M. MD 374.01 - 'S' INLET
  - N. MD 374.03 - DOUBLE 'S' INLET
  - O. MD 368.01 - CONCRETE END SECTION
  - P. MD 812.01 - WOOD POST MODIFICATIONS FOR BREAKAWAY FEATURE
  - Q. MD 812.04 - WOOD SIGN SUPPORTS - POST SIZES AND SPACING
  - R. MD 104.02-10 - FLAGGING OPERATION LED EQUAL / LESS THAN 40 MPH
  - S. MD 104.02-04 - LANE SHIFT RIGHT OR LEFT SIDE / 2 LANE, 2 WAY EQUAL / LESS THAN 40 MPH

FOR ALL STANDARDS REFERRED TO ON THE PLANS, THE CONTRACTOR MUST GO TO THE BOOK OF STANDARDS, WHICH WILL HAVE THE MOST CURRENT VERSION. THE BOOK OF STANDARDS CAN BE ACCESSED AT:  
<http://apps.roads.maryland.gov/BusinessWithSHA/StdSpecs/StdManualStdPub/publicationsonline/ohd/bookstd/index.asp>

ALL ITEMS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT VERSION OF THE REFERENCE STANDARD AT THE TIME OF CONSTRUCTION.



FREDERICK ROAD (MD ROUTE 144A)  
 STREET GRADE - PROFILE  
 SCALE: HOR. 1" = 50'  
 VER. 1" = 5'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 7/27/2016  
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*[Signature]* 8-29-16  
 Chief, Division of Land Development Date  
*[Signature]* 8-26-16  
 Chief, Development Engineering Division Date

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.
7-28-19	Revised storm drain	JD	DEV.
8-14-17	Relocated I-77	JD	DEV.

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN.: CAMILLA CARROLL

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS 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. 12719  
 EXPIRATION DATE: MAY 26, 2018  
 7/14/16 *[Signature]*

ROAD CONSTRUCTION PLAN - FREDERICK ROAD  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT No. 2

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	51 OF 60



**TOP OF CURB ELEVATION TABLE FOR FREDERICK ROAD**

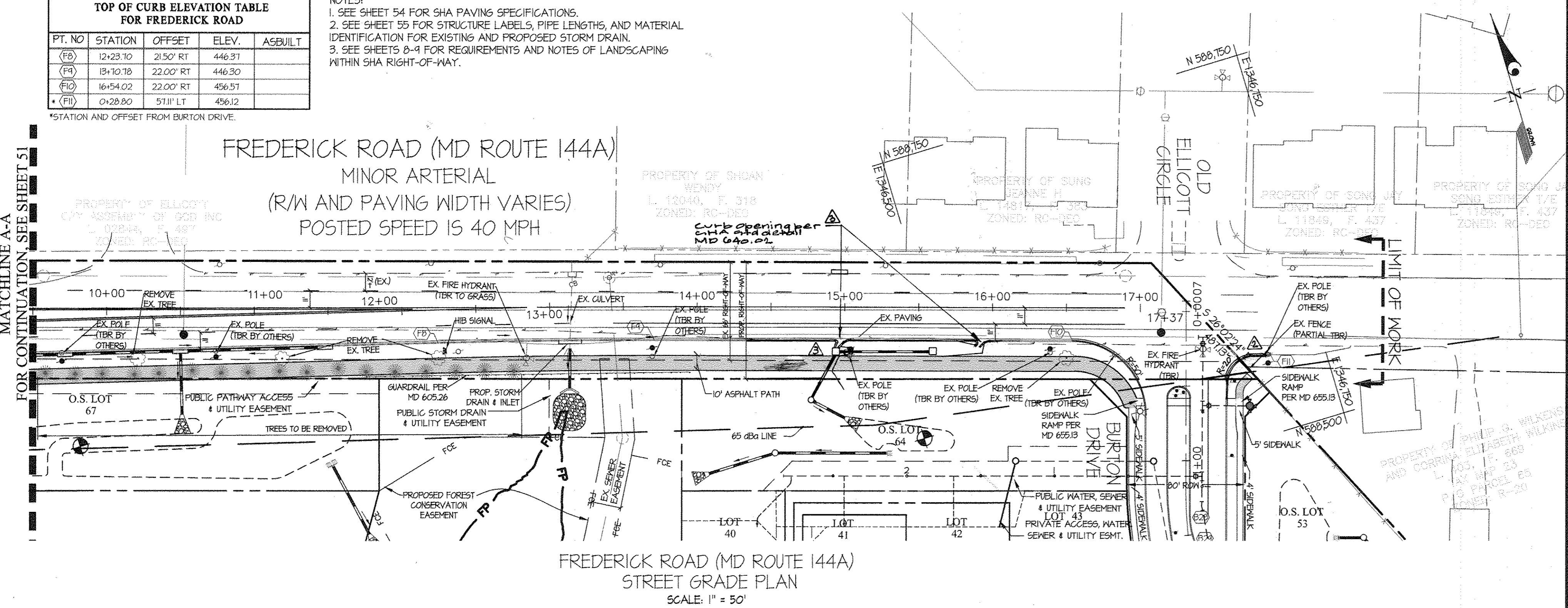
PT. NO	STATION	OFFSET	ELEV.	ASBUILT
(B)	12+23.10	21.50' RT	446.31	
(F)	13+10.16	22.00' RT	446.30	
(F)	16+54.02	22.00' RT	456.51	
(F)	0+28.80	51.11' LT	456.52	

NOTES:  
 1. SEE SHEET 54 FOR SHA PAVING SPECIFICATIONS.  
 2. SEE SHEET 55 FOR STRUCTURE LABELS, PIPE LENGTHS, AND MATERIAL IDENTIFICATION FOR EXISTING AND PROPOSED STORM DRAIN.  
 3. SEE SHEETS 8-14 FOR REQUIREMENTS AND NOTES OF LANDSCAPING WITHIN SHA RIGHT-OF-WAY.

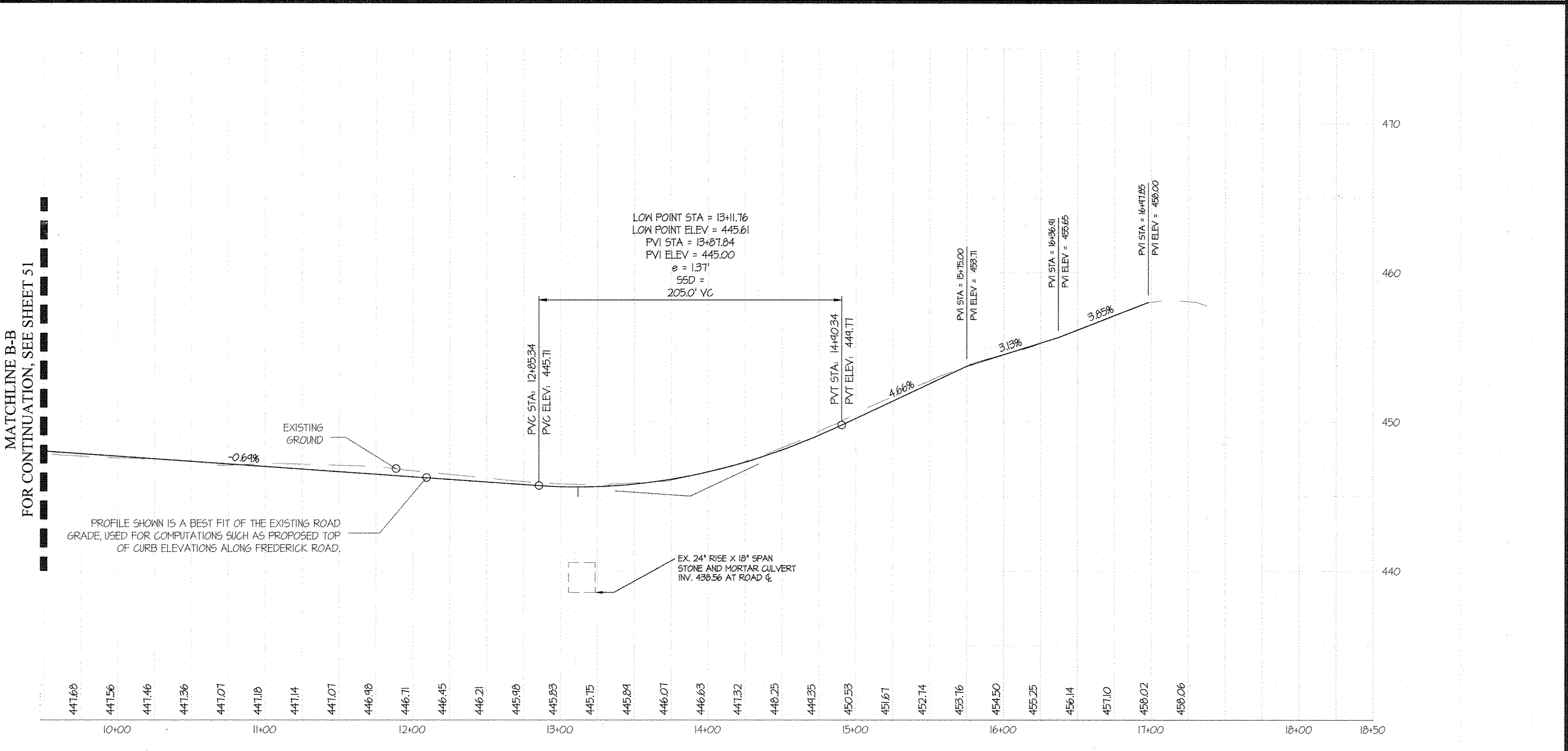
MATCHLINE A-A FOR CONTINUATION, SEE SHEET 51

MATCHLINE B-B FOR CONTINUATION, SEE SHEET 51

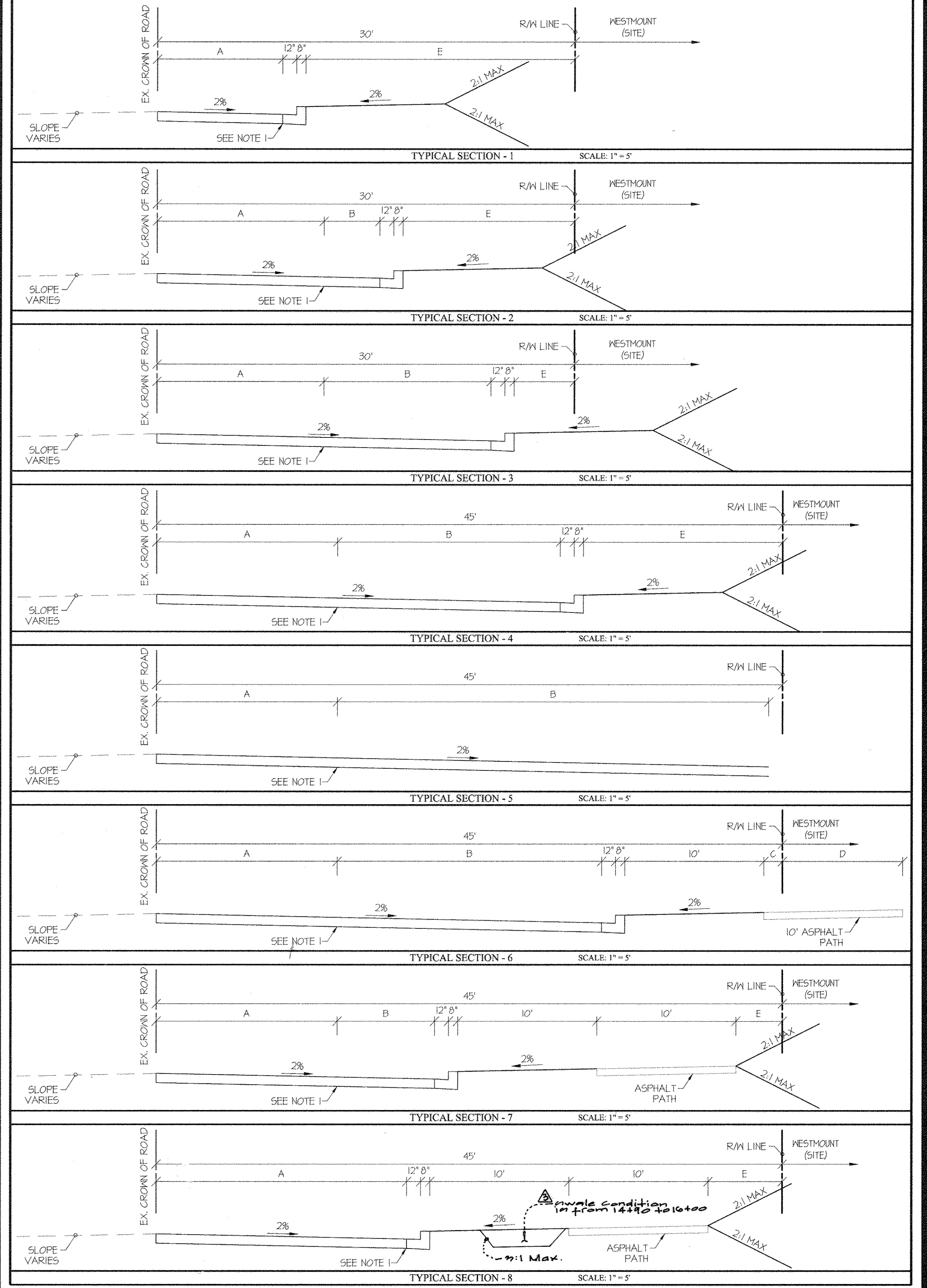
**FREDERICK ROAD (MD ROUTE 144A)**  
 MINOR ARTERIAL  
 (R/W AND PAVING WIDTH VARIES)  
 POSTED SPEED IS 40 MPH



**FREDERICK ROAD (MD ROUTE 144A)**  
 STREET GRADE PLAN  
 SCALE: 1" = 50'



**FREDERICK ROAD (MD ROUTE 144A)**  
 STREET GRADE PROFILE  
 SCALE: HOR 1" = 50'  
 VER. 1" = 5'



**FREDERICK ROAD - ROAD INFORMATION**

SECTION	STATION	CLASSIFICATION	A	B	C	D	E	R/W WIDTH
1	0+00 TO 1+50	MINOR ARTERIAL	VARIES (9'-12')	-	-	-	VARIES (9'-4" TO 15'-10")	30'
2	1+50 TO 2+10	MINOR ARTERIAL	VARIES (9'-12')	4'	-	-	VARIES (13'-4" TO 12'-4')	30'
3	2+10 TO 3+30	MINOR ARTERIAL	12'	12'-15'	-	-	VARIES (4'-4" TO 1'-4')	30'
4	3+30 TO 5+00	MINOR ARTERIAL	13'	16'-18'	-	-	VARIES (14'-4" TO 12'-4')	45'
5	5+00 TO 6+85	MINOR ARTERIAL	VARIES (13'-14')	VARIES (32'-30')	-	-	-	45'
6	6+85 TO 10+80	MINOR ARTERIAL	13'	11'	VARIES (1'-4" TO 10')	VARIES (8'-0" TO 0')	-	45'
7	10+80 TO 14+20	MINOR ARTERIAL	13'	VARIES (4'-10')	-	-	VARIES (10'-4" TO 0')	45'
8	14+20 TO 16+85	MINOR ARTERIAL	18'	-	-	-	5'-4"	45'

A - LIMITS OF MILLING  
 B - LIMITS OF NEW PAVING  
 C - WIDTH OF PATH WITHIN SHA RIGHT-OF-WAY  
 D - WIDTH OF PATH OUTSIDE OF SHA RIGHT-OF-WAY  
 E - BALANCE OF THE RIGHT-OF-WAY WIDTH

NOTES:  
 1. CONTRACTOR TO SAW CUT EXISTING EDGE OF PAVEMENT.  
 2. SEE SHEET 54 FOR PAVING SECTIONS.  
 3. ALL SECTIONS ARE DRAWN LOOKING UPSTATION (TO THE EAST).

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Chief, Bureau of Highways  
 Date: 7/27/2016

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Chief, Division of Land Development  
 Date: 8-29-16

Chief, Development Engineering Division  
 Date: 8-26-16

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.
2-20-16	Revised storm drain	JD	DEW
1-27-16	Revised curb radius	JD	DEW

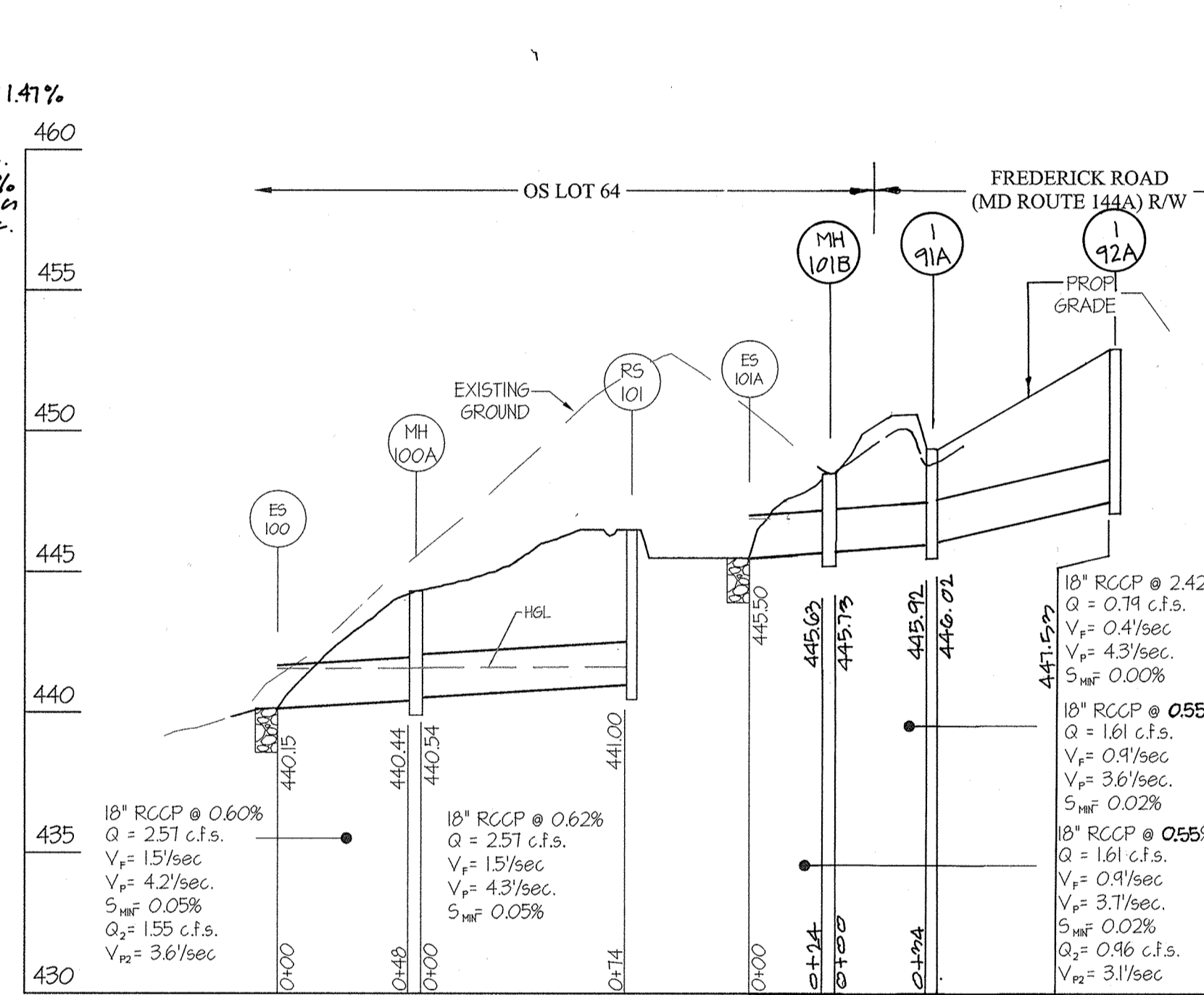
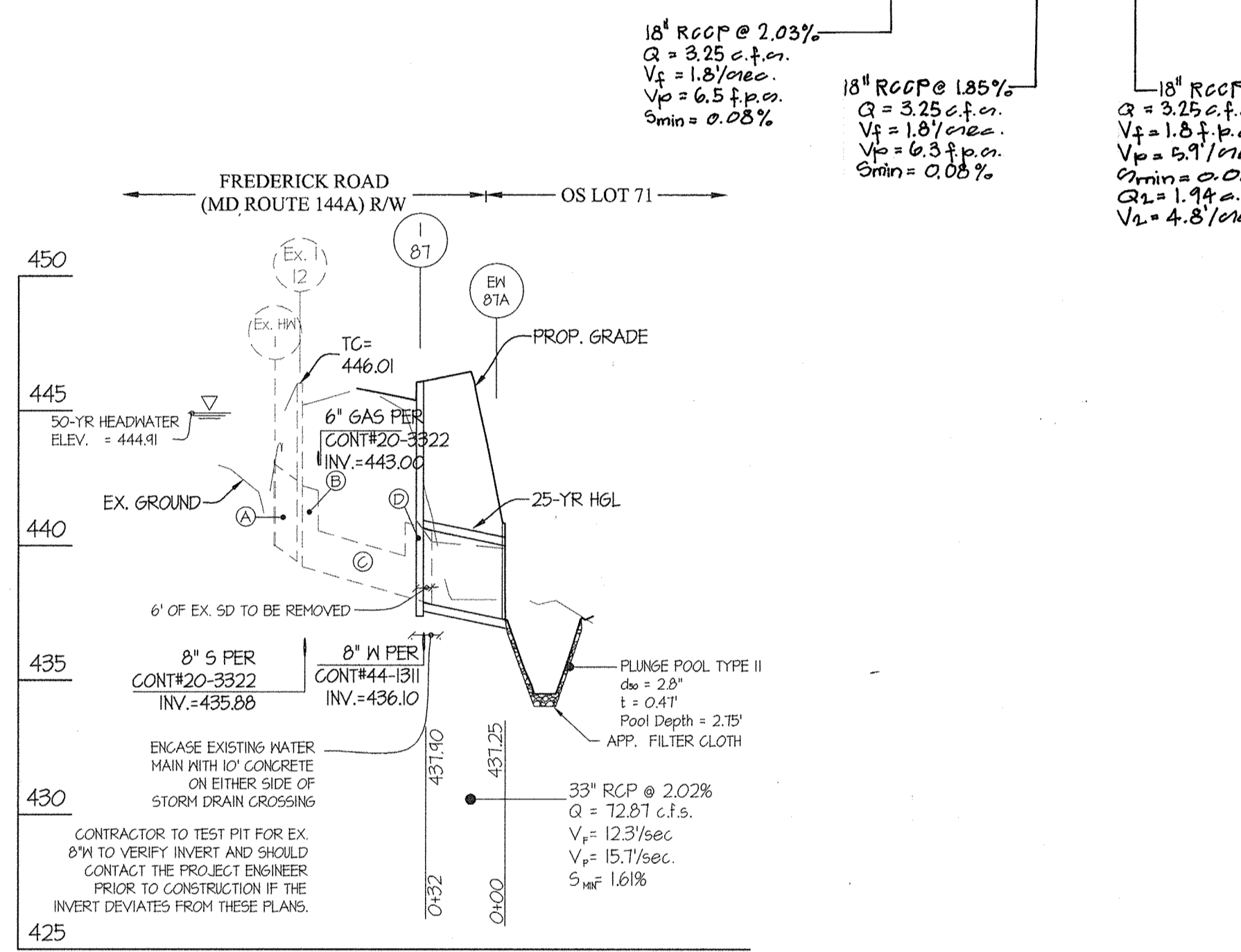
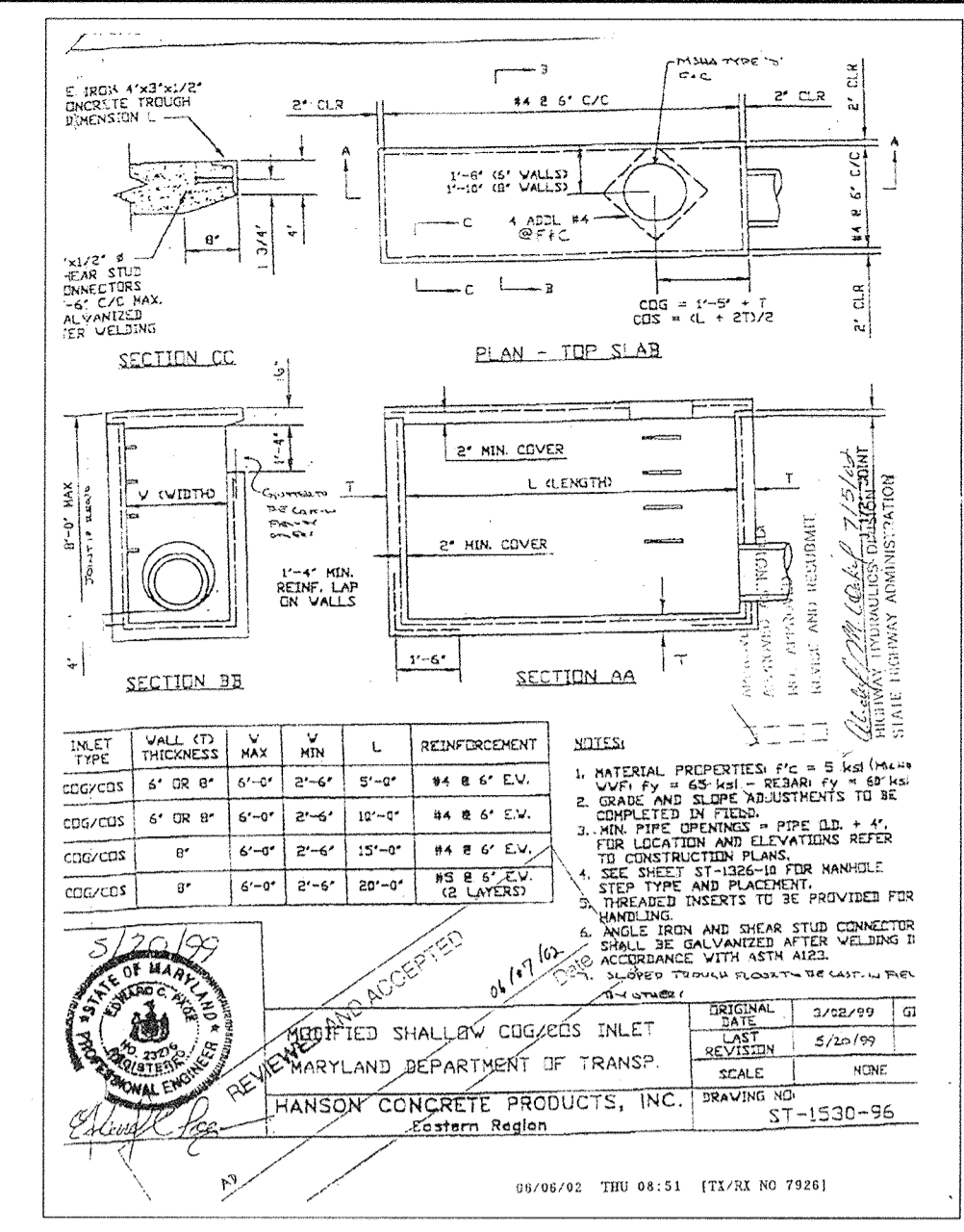
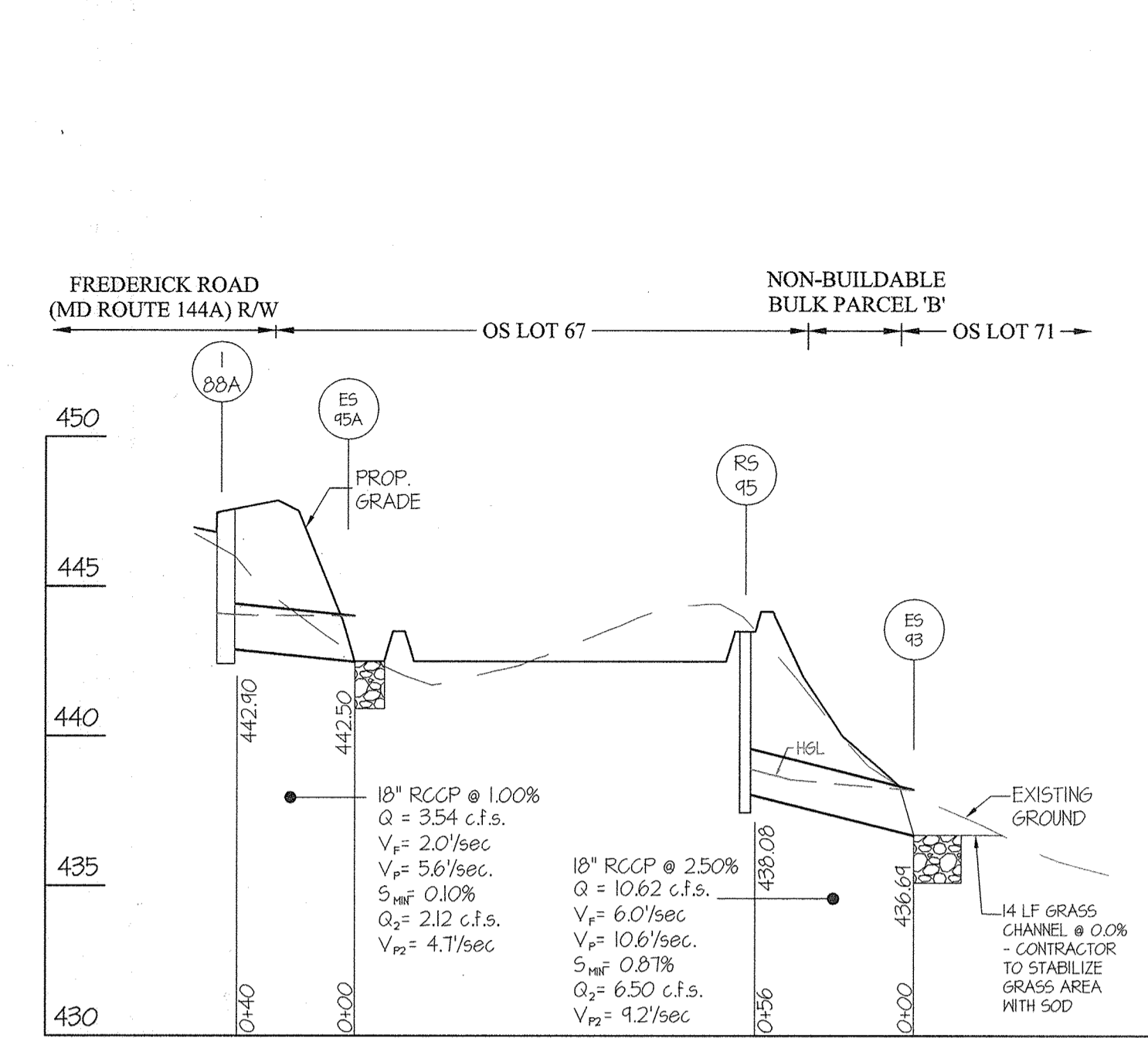
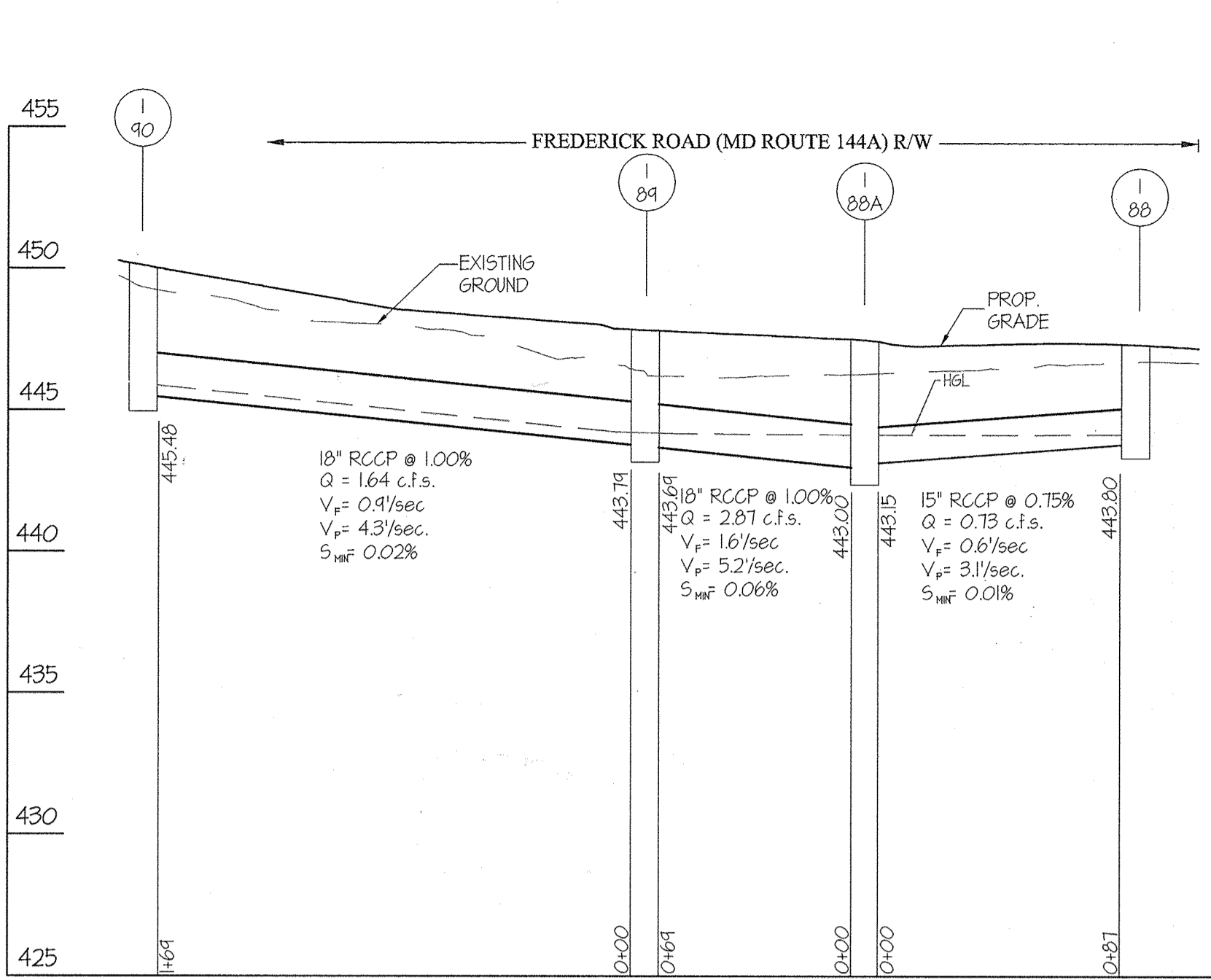
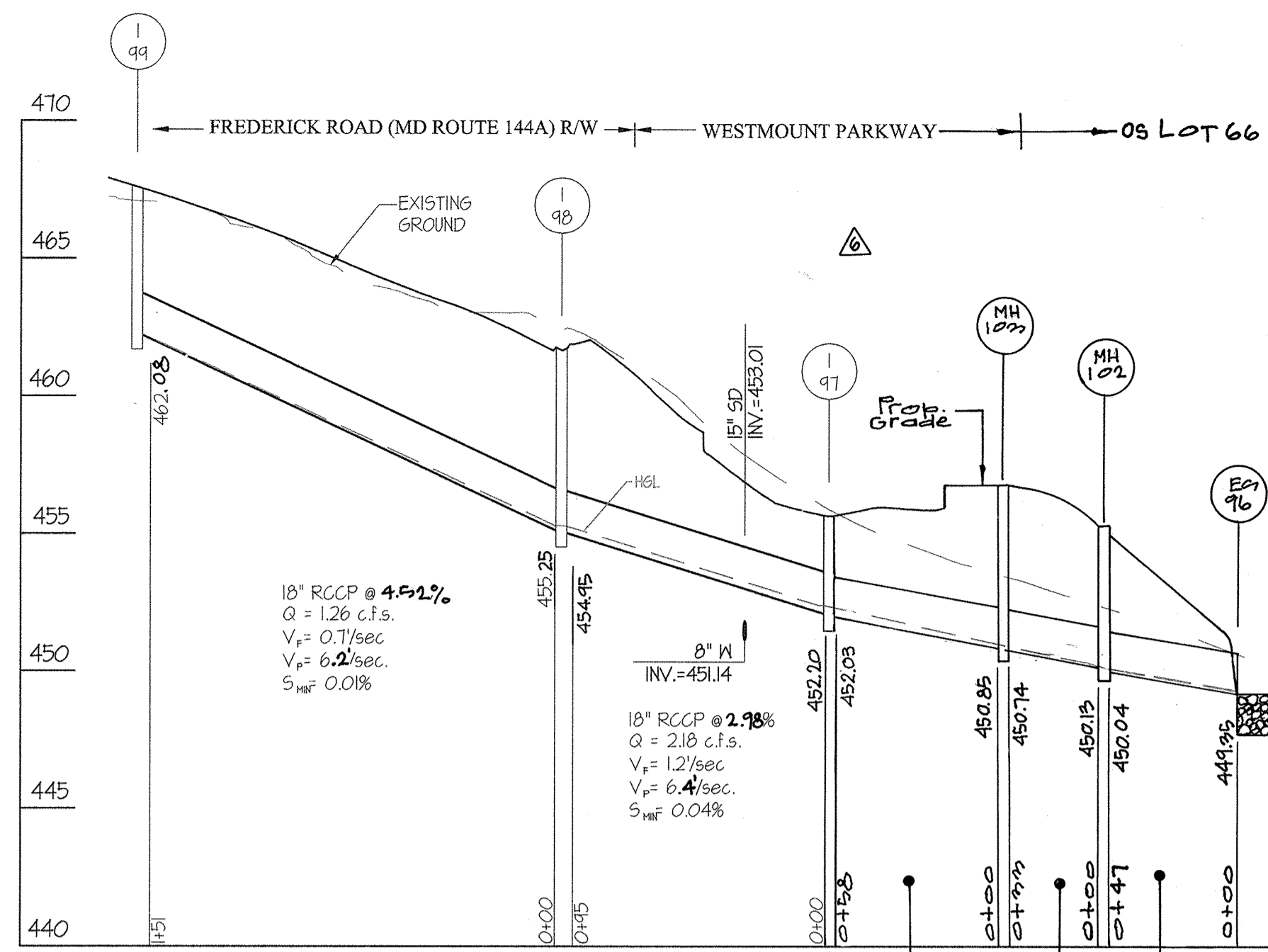
PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN: CAMILLA CARROLL

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS 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. 12975  
 EXPIRATION DATE: MAY 26, 2018  
 7/14/16

**ROAD CONSTRUCTION PLAN - FREDERICK ROAD**  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
 AND NON-BUILDABLE BULK PARCELS B & C  
 A SUBDIVISION OF NON-BUILDABLE BULK PARCELS B AND REVISION TO CREDITED OPEN SPACE LOT 1  
 13013\_51-56-144A ROAD PLANS.dwg  
 ELECTION DISTRICT No. 2

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	52 OF 60





PIPE SCHEDULE

SIZE	TYPE	QUANTITY (L.F.)	REMARKS
15"	RCCP CLASS IV	87	
18"	RCCP CLASS IV	949	
33"	RCCP CLASS IV	32	

RIP RAP INFORMATION

END SECTION	CLASS	LENGTH	D <sub>50</sub>	THICKNESS
ES-93	CLASS I	16'	6"	19"
ES-95A	CLASS I	10'	4.2"	19"
ES-96	CLASS I	12'	4.8"	19"
ES-100	CLASS I	8'	4.5"	19"
ES-101A	CLASS I	8'	3.6"	19"

STRUCTURE SCHEDULE

TYPE	WIDTH (INSIDE)	TOP ELEVATION						STD. DETAIL	LOCATIONS	REMARKS
		PROPOSED		AS-BUILT		INVERT				
		UPPER	LOWER	UPPER	LOWER	UPPER	LOWER			
I-87	COG-15 INLET	2'-6"	---	445.84	---	431.99	431.92	MD 374.63	N 508,648 E 1346,263	
I-88	COG-10 INLET	2'-6"	446.90	446.83	---	---	443.80	MD 374.51	N 508,742 E 1346,103	
I-88A	COG-10 INLET	2'-6"	441.50	441.46	---	---	443.15	MD 374.51	N 508,768 E 1346,008	
I-89	COG-10 INLET	2'-6"	448.01	447.94	---	---	443.79	MD 374.51	N 508,789 E 1345,933	
I-90	COG-15 INLET	2'-6"	450.11	449.90	---	---	445.48	MD 374.51	N 508,836 E 1345,760	
I-91A	S-INLET	2'-7.5"	---	---	---	---	446.02	MD 379.01	N 508,309 E 1346,492	
I-92A	S-INLET	2'-7.5"	---	452.95	---	---	447.53	MD 379.01	N 508,820 E 1346,945	
I-97	S-INLET	2'-7.5"	---	455.41	---	---	452.20	MD 379.01	N 508,862 E 1345,558	
I-98	COG-15 INLET	2'-6"	462.03	461.21	---	---	455.25	MD 374.51	N 508,921 E 1345,480	
I-99	COG-15 INLET	2'-6"	467.83	467.34	---	---	462.08	MD 374.51	N 508,964 E 1345,334	
RS-95	DOUBLE 'S' RISER	2'-15"	---	443.50	---	---	438.08	MD 379.03	N 508,665 E 1346,084	
RS-101	'S' RISER	2'-15"	---	446.50	---	---	441.00	MD 379.01	N 508,563 E 1346,448	
MH-102	STANDARD MANHOLE	4'-0"	---	454.69	---	450.13	450.04	MD 384.01	N 508,796 E 1345,623	
MH-100A	STANDARD MANHOLE	4'-0"	---	444.32	---	440.54	440.44	MD 380.01	N 508,585 E 1346,374	
MH-101B	STANDARD MANHOLE	4'-0"	---	448.29	---	445.75	445.67	MD 380.01	N 508,612 E 1346,407	
MH-103	STANDARD MANHOLE	4'-0"	---	456.64	---	450.85	450.74	MD 384.01	N 508,807 E 1345,588	
EW-87A	ENDWALL	2'-9"	440.83	---	---	---	437.25	MD 358.01	N 508,668 E 1346,253	
ES-93	END SECTION	1'-6"	438.19	---	---	---	436.69		N 508,610 E 1346,046	
ES-95A	END SECTION	1'-6"	444.00	---	---	---	442.50		N 508,723 E 1345,996	
ES-96	END SECTION	1'-6"	450.25	---	---	---	449.95		N 508,804 E 1345,674	
ES-100	END SECTION	1'-6"	441.65	---	---	---	440.15		N 508,585 E 1346,324	
ES-101A	END SECTION	1'-6"	447.00	---	---	---	445.50		N 508,592 E 1346,428	

FREDERICK ROAD (MD ROUTE 144A) STA. 13+14 EX. CULVERT PROFILE

EX SECTION	TYPE	LENGTH
A	36" R.C.P.	8 LF
B	36" R.C.P.	6 LF
C	24"x18" BRICK 1. MORTAR CULVERT	32 LF
D	33" C.M.P.	10 LF

NOTE: EXISTING SECTIONS ARE TO REMAIN.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Chief, Bureau of Highways  
 Date: 7/27/2016

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Chief, Division of Land Development  
 Date: 8-29-16

Chief, Development Engineering Division  
 Date: 8-26-16

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
7-28-16	Revised storm drain	JK	Dev.
7-28-16	Revised storm drain	JK	Dev.
8-14-16	Relocated I-97	JK	Dev.

PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN.: CAMILLA CARROLL

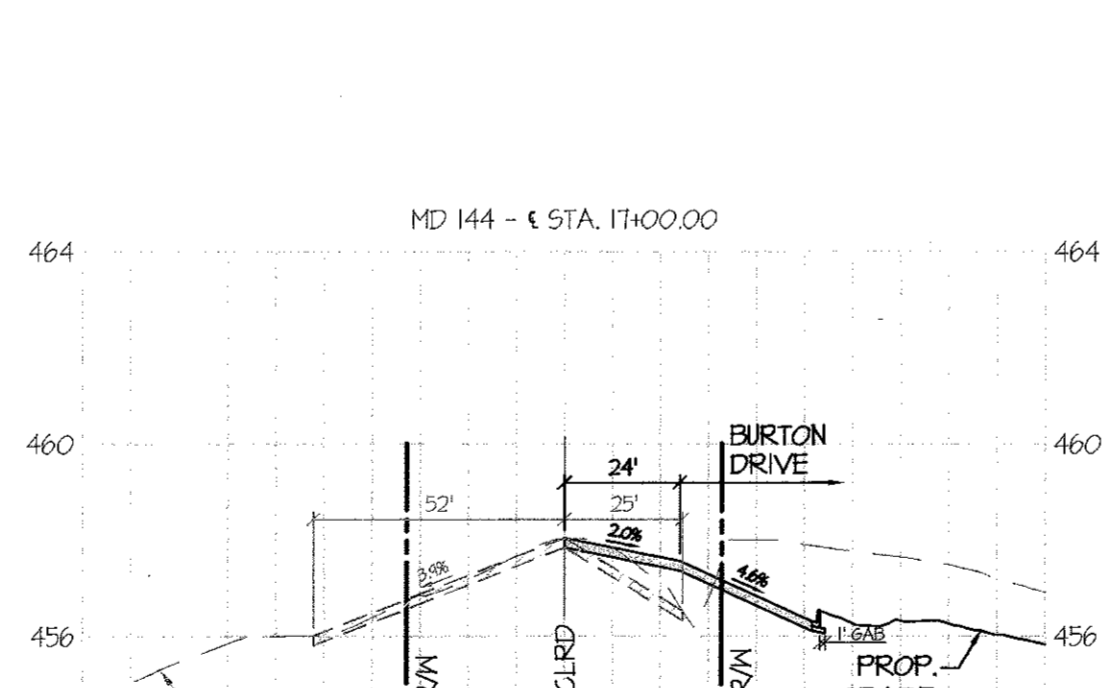
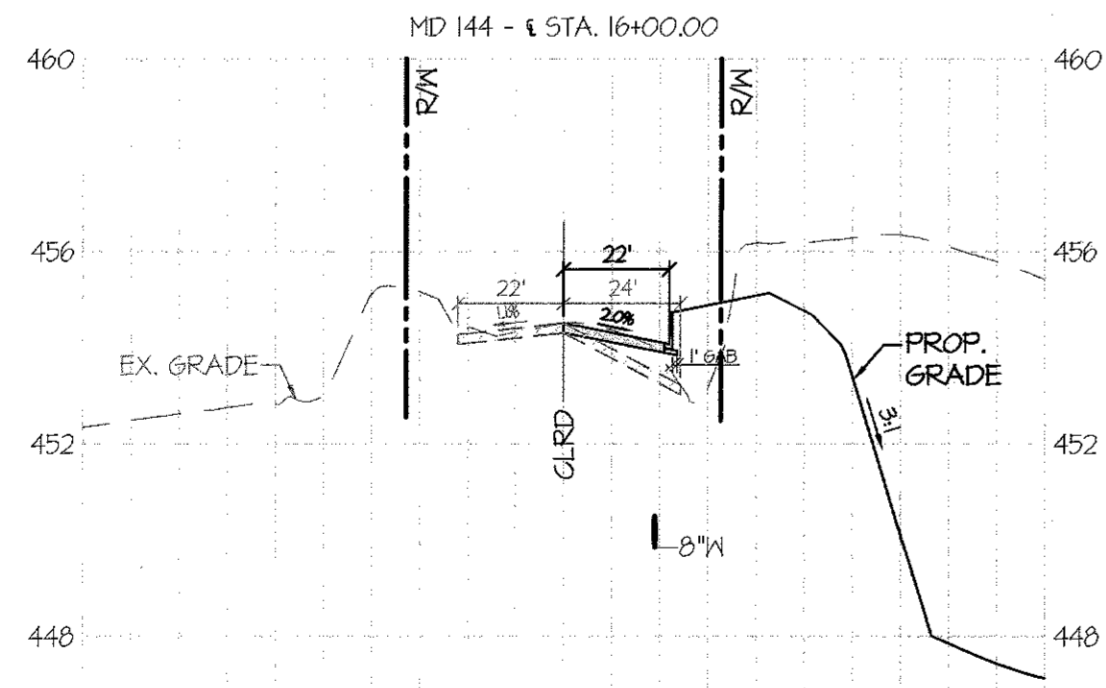
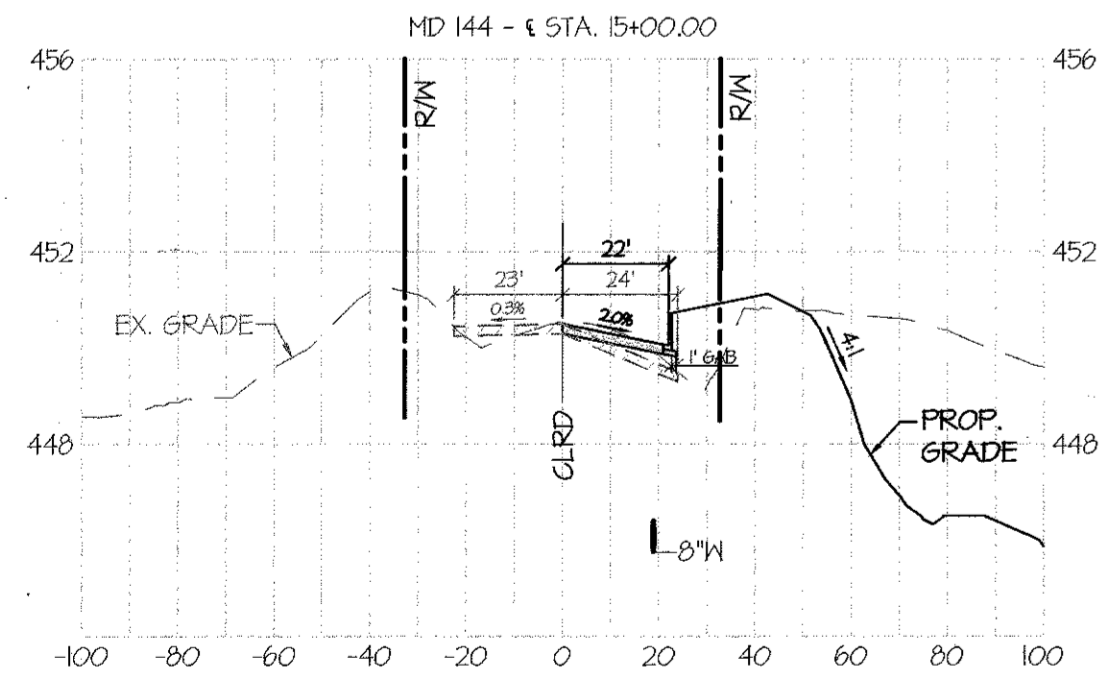
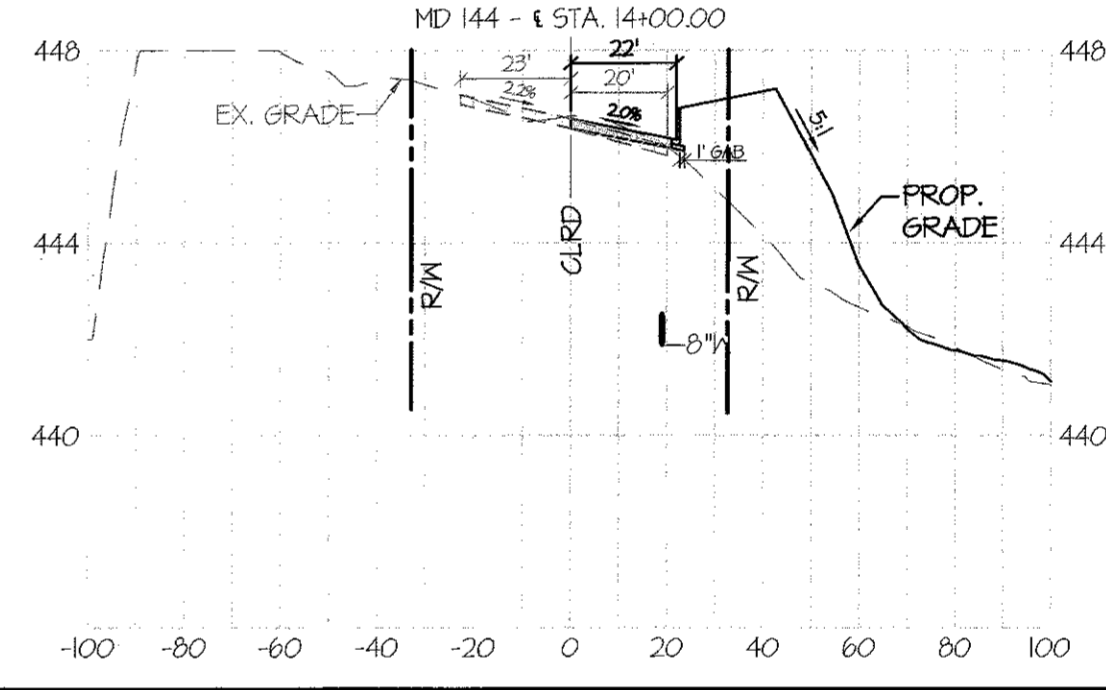
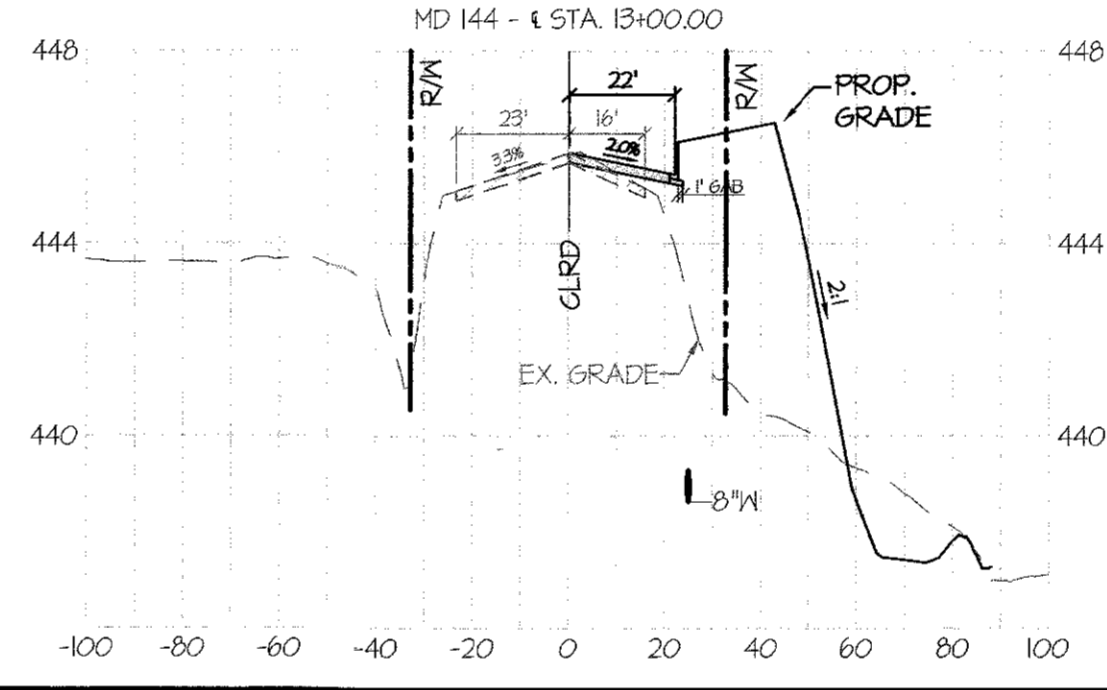
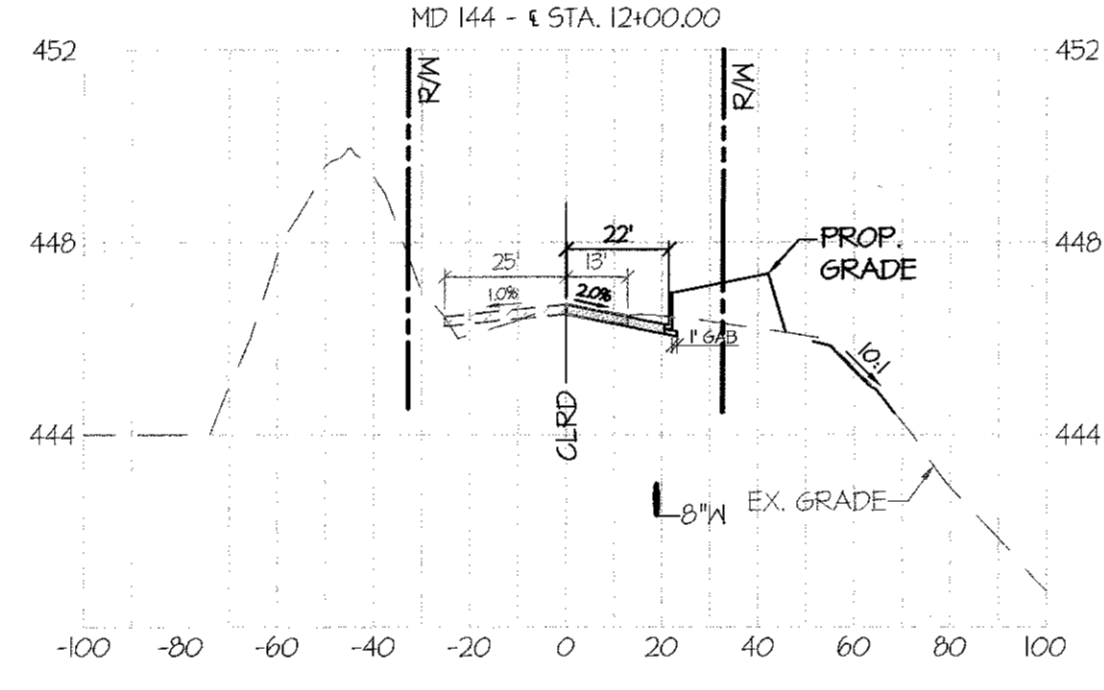
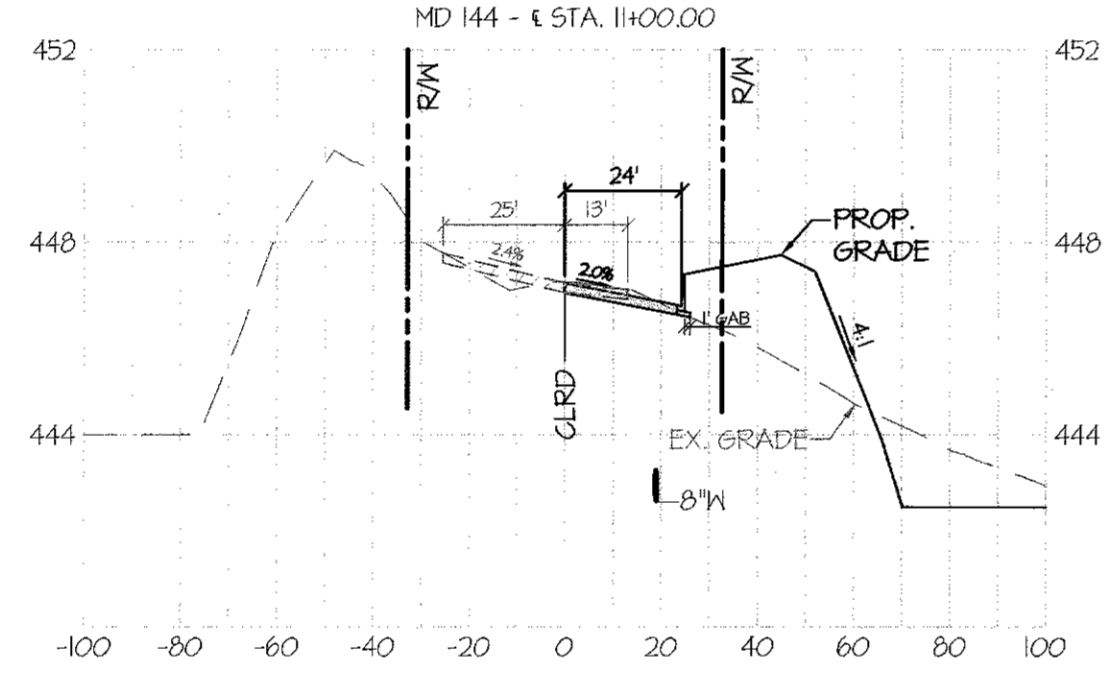
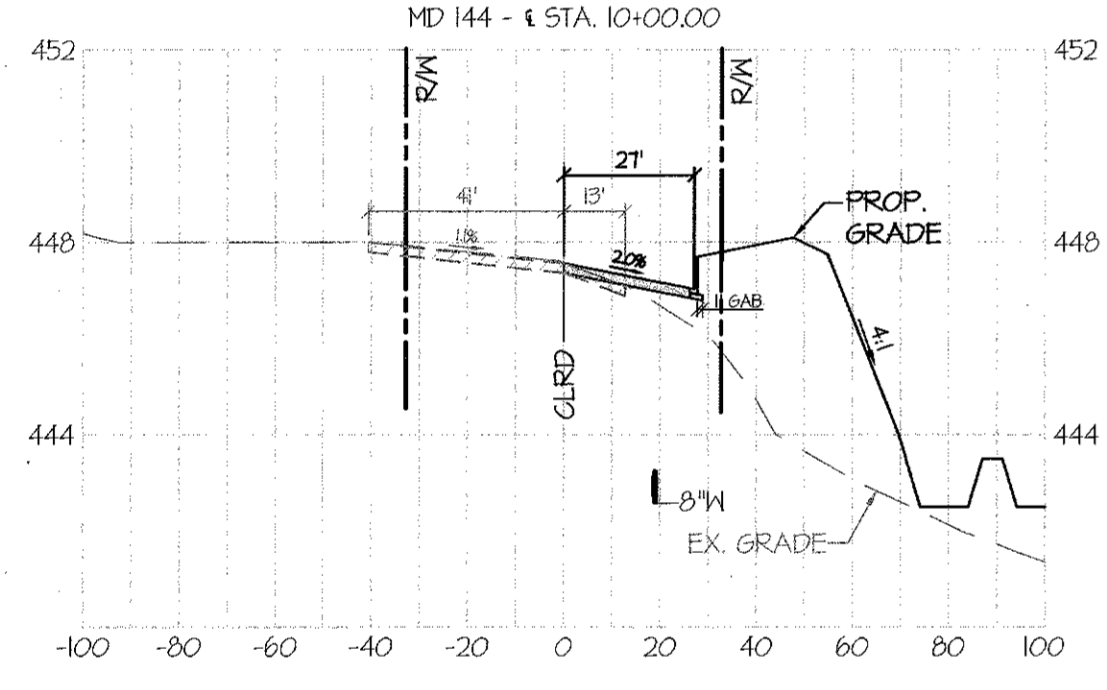
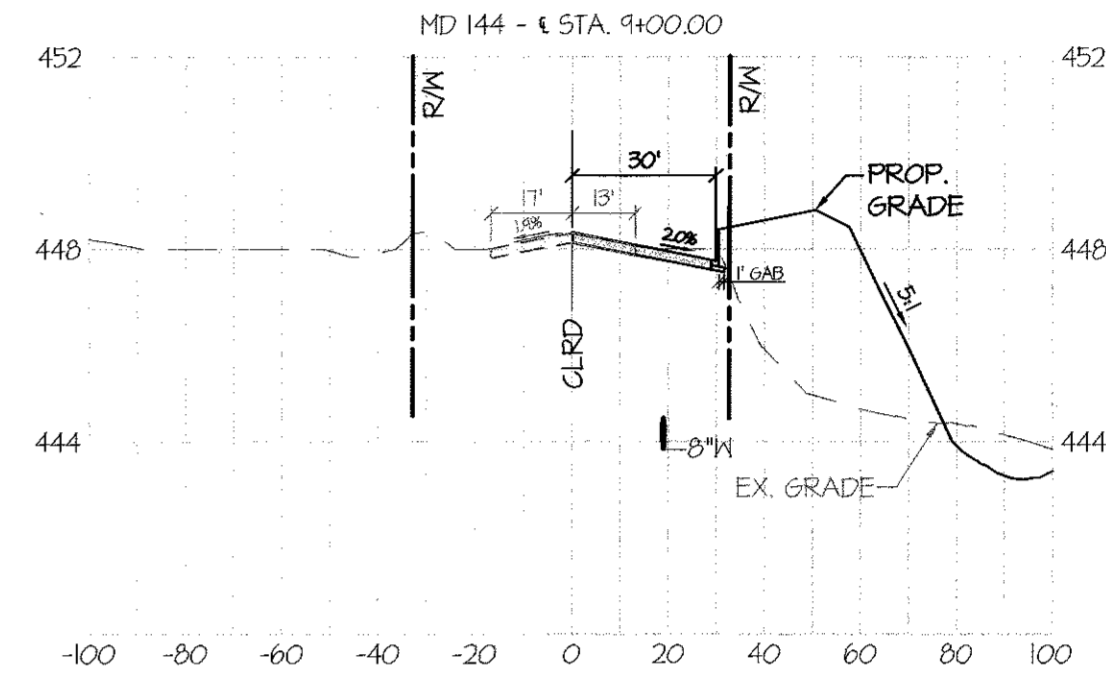
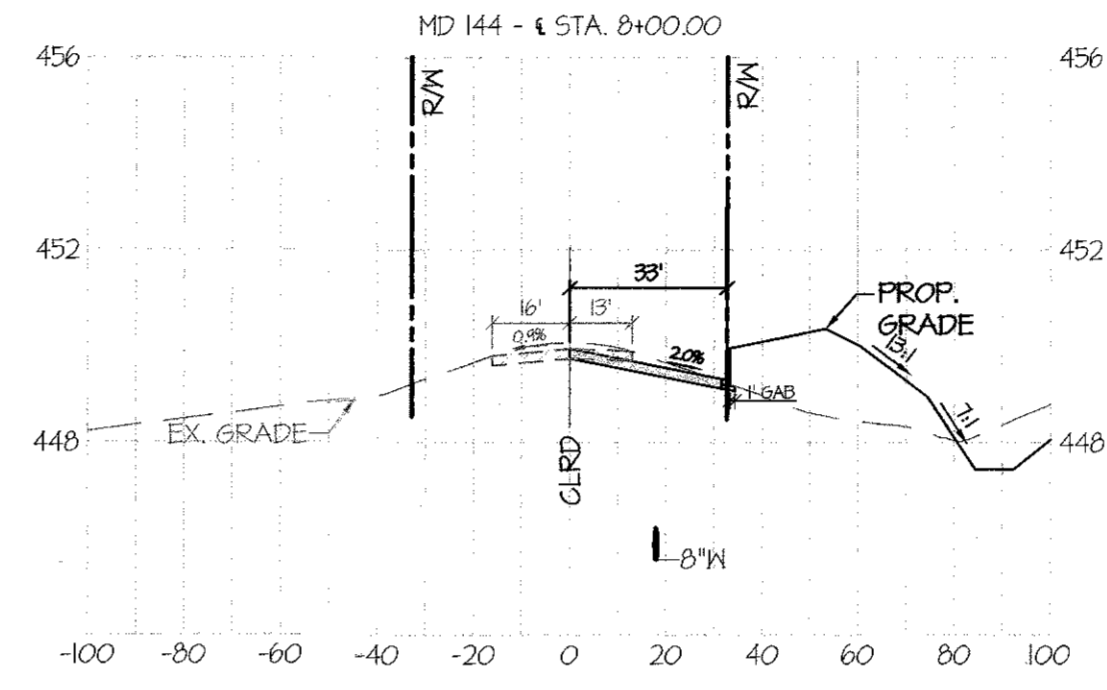
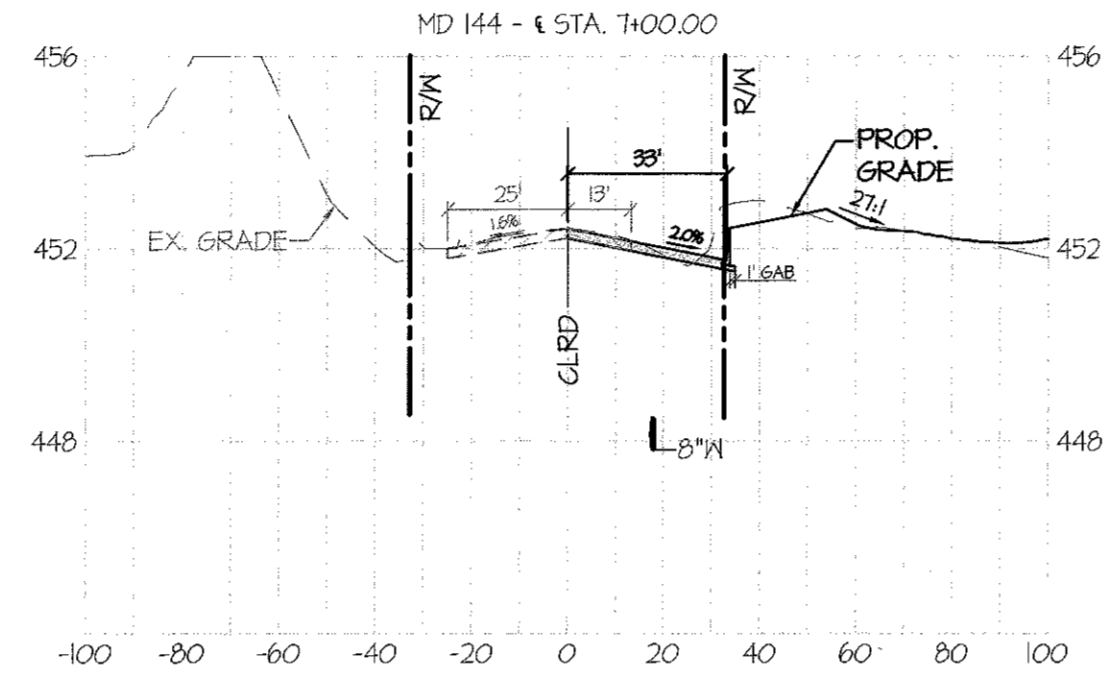
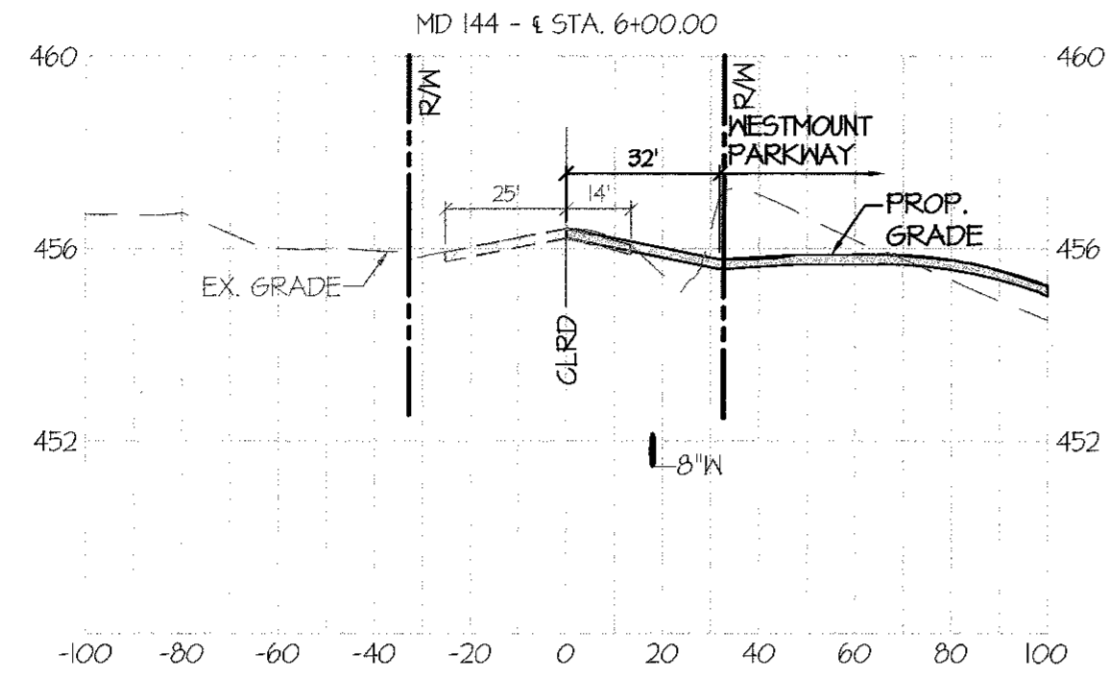
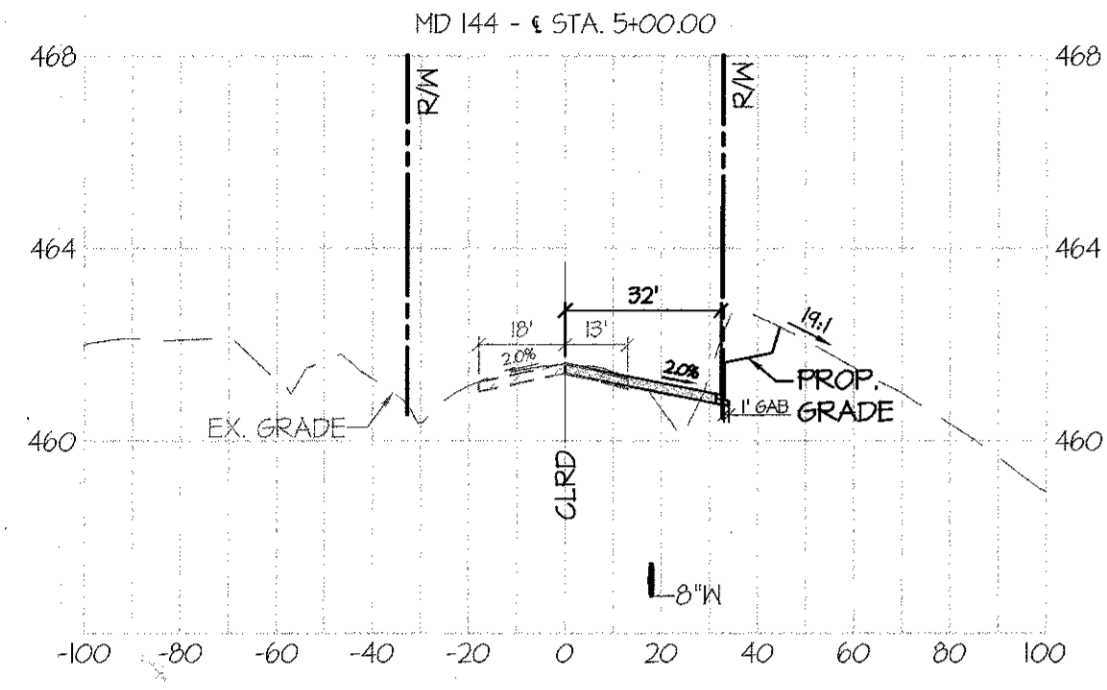
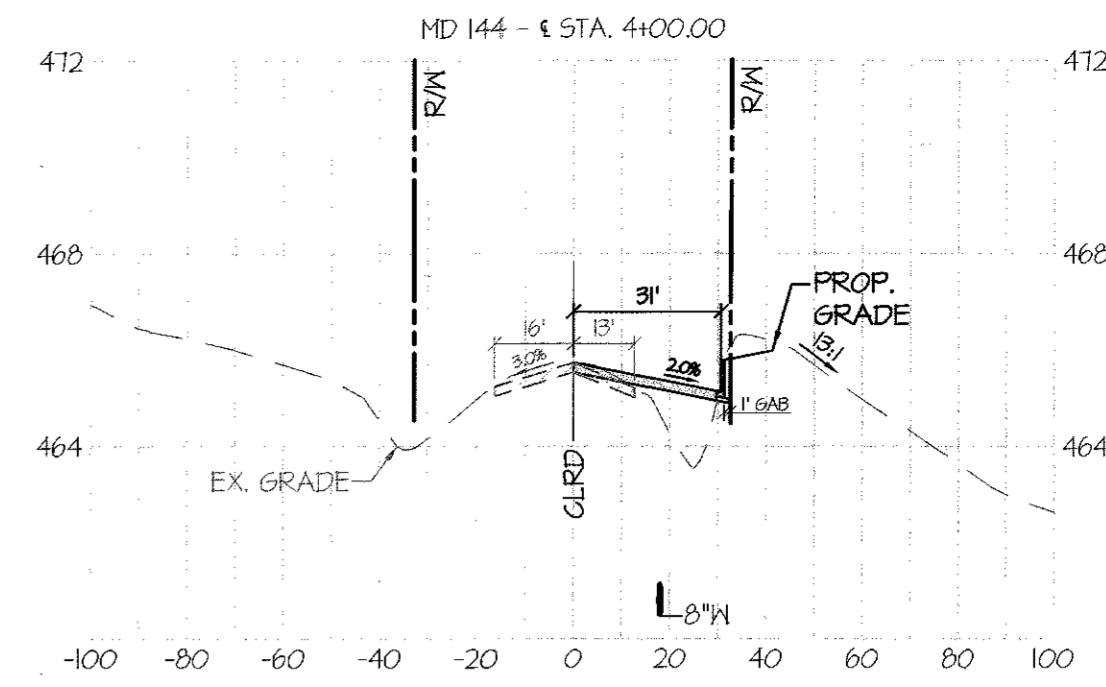
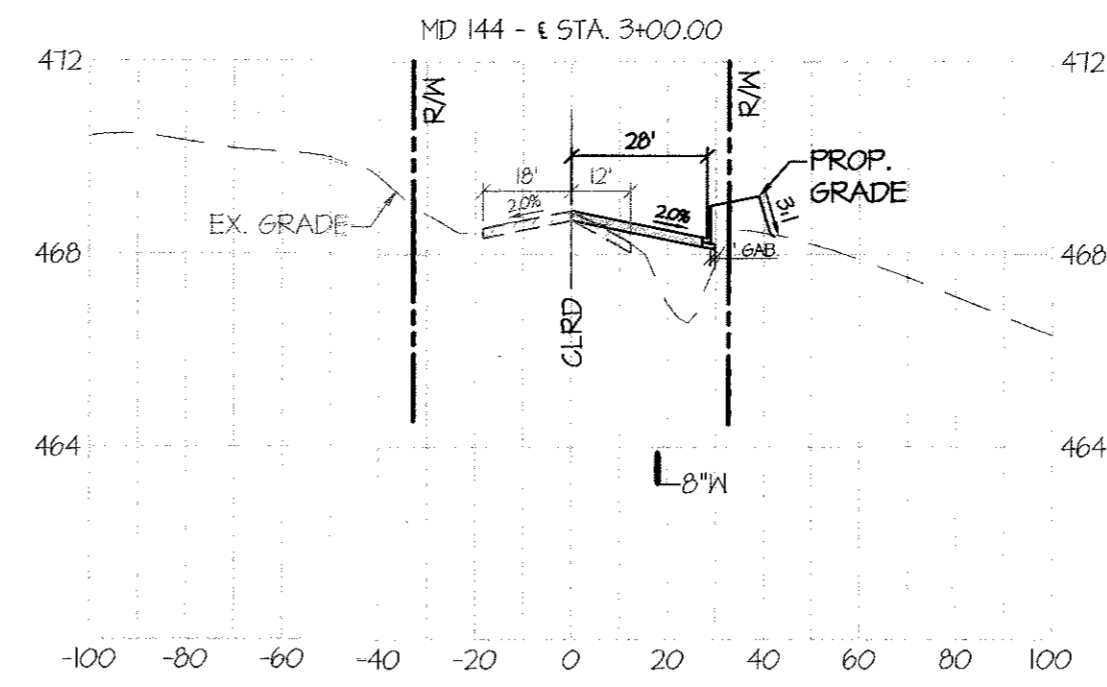
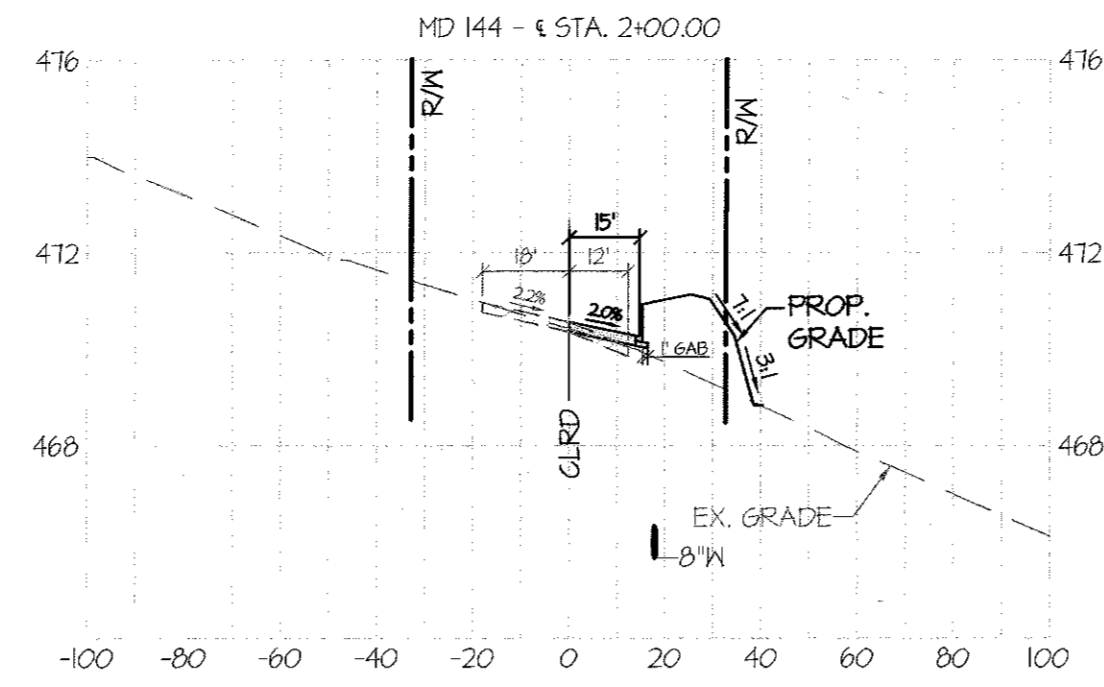
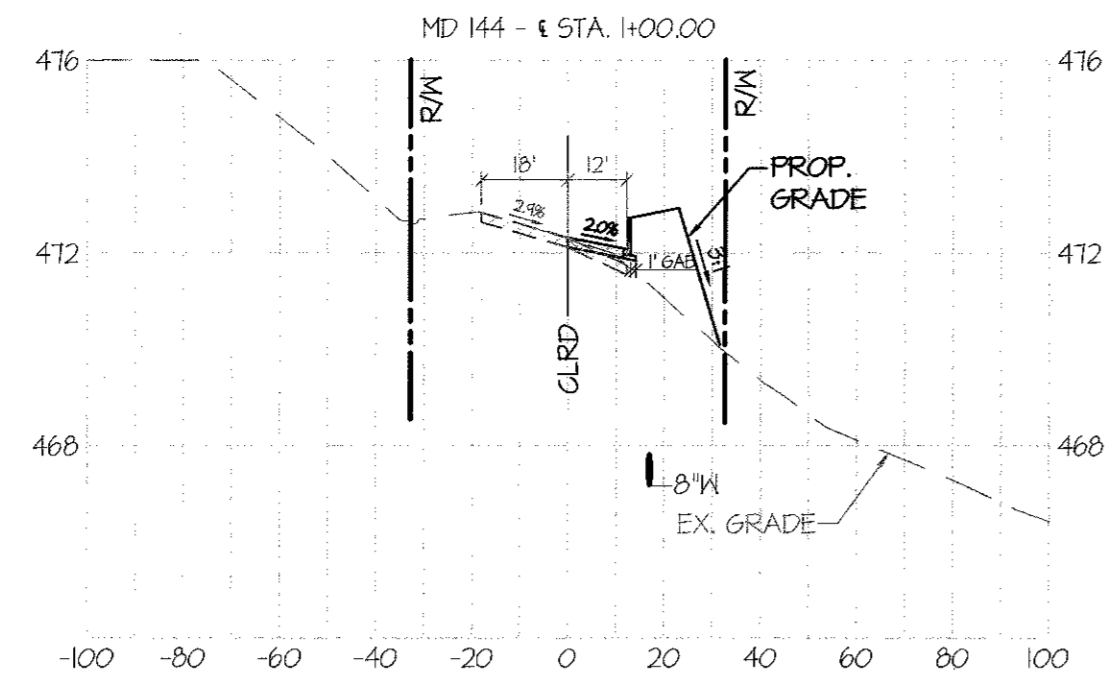
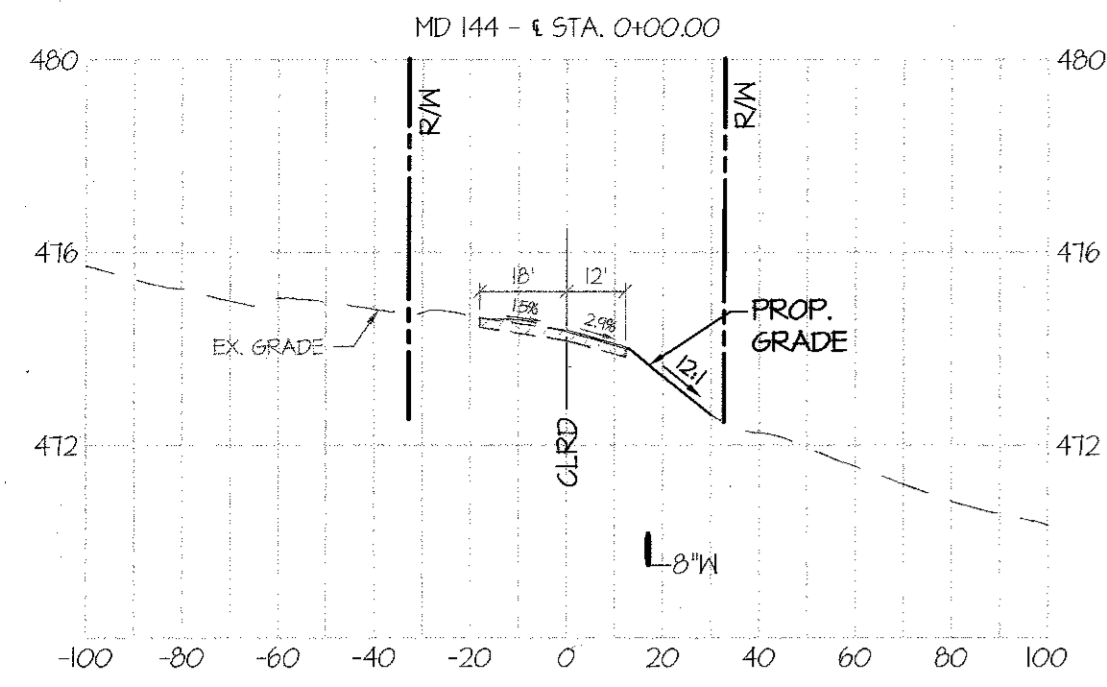
PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12975  
 EXPIRATION DATE: MAY 28, 2018  
 7/14/16 CKL

STORM DRAIN PROFILES - FREDERICK ROAD  
 WESTMOUNT - PHASE 1  
 CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71  
 AND NON-BUILDABLE BULK PARCELS B & C  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A AND REVISION TO CREDITED OPEN SPACE LOT 1  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT No. 2

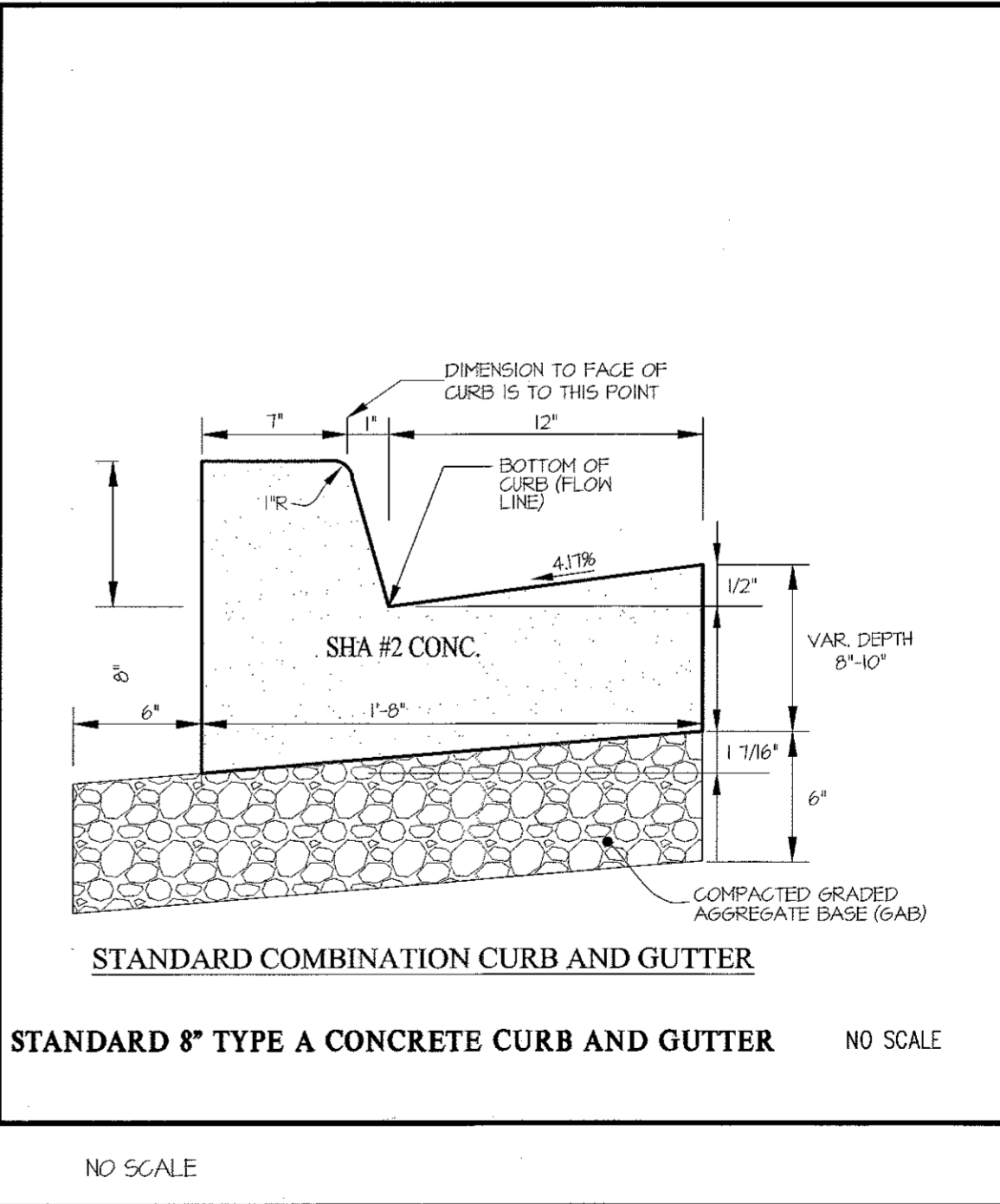
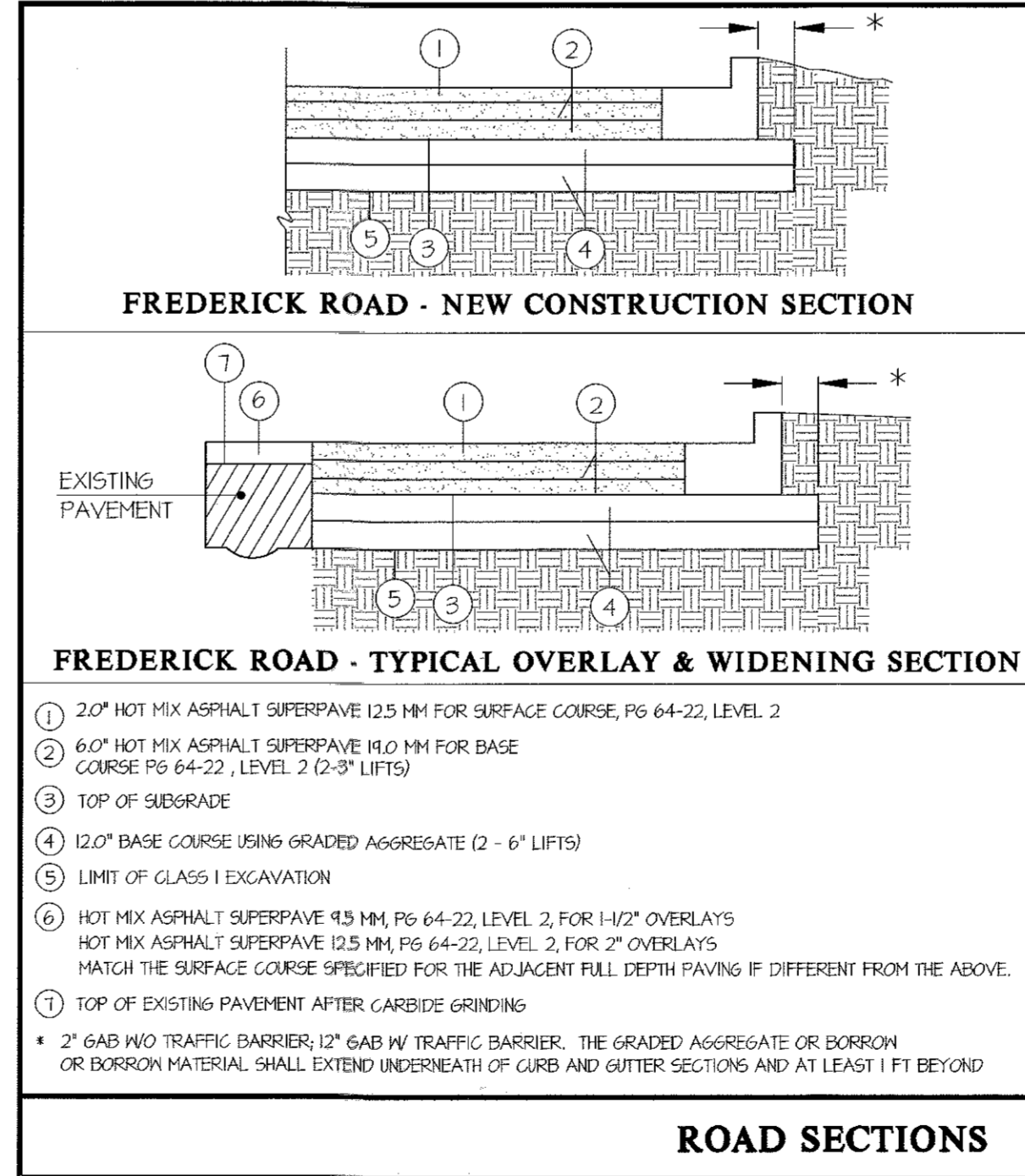
SCALE	ZONING	G. L. W. FILE NO.
1"=50' (H) 1"=5' (V)	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	53 OF 60

SHA TRACKING NO. 14APH018XX F 15-087





NOTE:  
THE SHAPED PAVEMENT SHOWN IN EACH CROSS SECTION IS TO BE CONSTRUCTED USING THE  
FREDERICK ROAD - TYPICAL OVERLAY AND WIDENING SECTION FOUND ON THIS SHEET.



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 7/27/2016  
Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*[Signature]* 8-29-16  
Chief, Division of Land Development Date

*[Signature]* 8-26-16  
Chief, Development Engineering Division Date

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK  
BURTNSVILLE, MARYLAND 20866  
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DES. JRD	DRN. JRD	CHK. DEV	DATE	REVISION	BY	APPR.

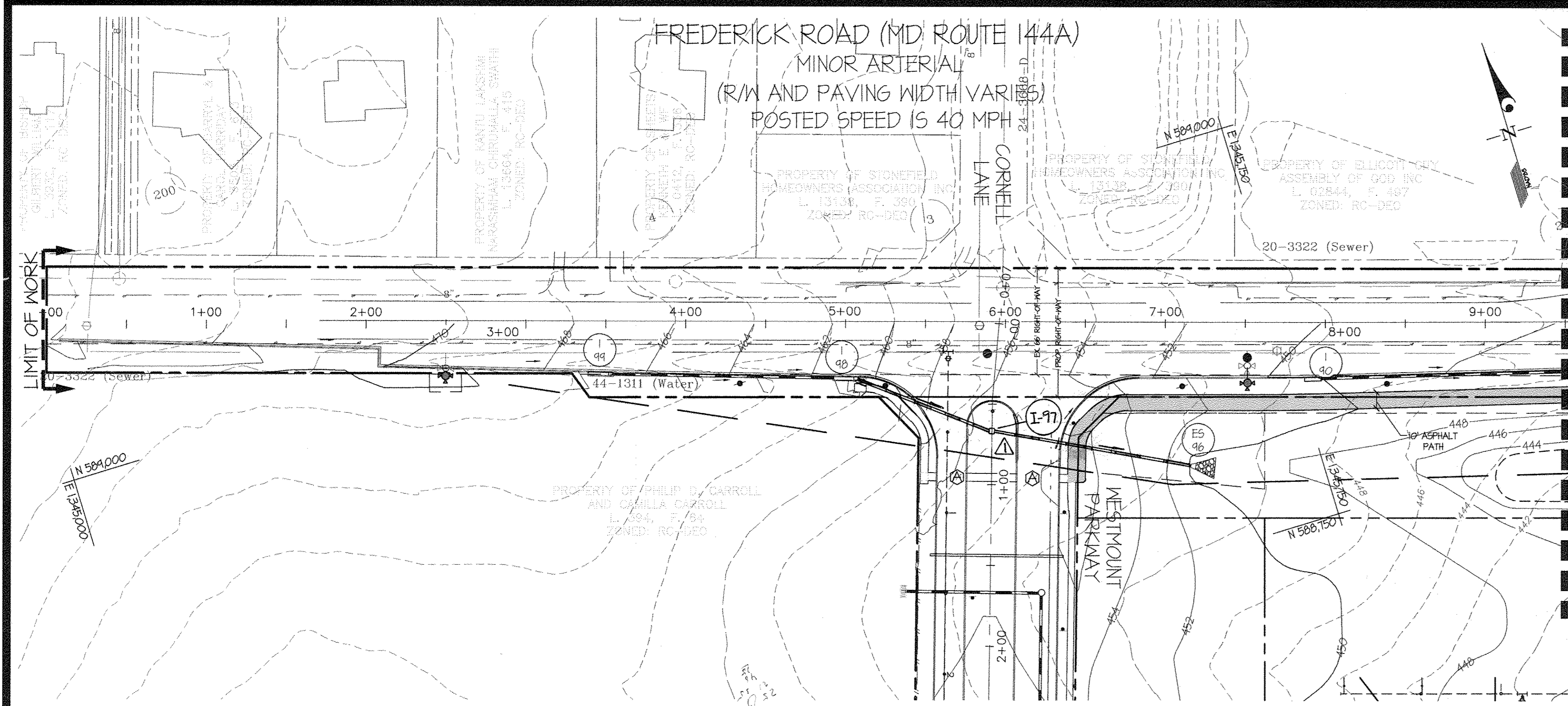
PREPARED FOR:  
WESTMOUNT DEVELOPMENT CORPORATION  
3500 MANOR LANE  
ELLICOTT CITY, MARYLAND 21042  
443-367-0422  
ATTN: CAMILLA CARROLL

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE PLANS  
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. 12975  
EXPIRATION DATE: MAY 28, 2018  
7/14/16 *[Signature]*

ROAD DETAILS - FREDERICK ROAD  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
HOWARD COUNTY, MARYLAND  
ELECTION DISTRICT No. 2

SCALE 1"=40' (H) 1"=4' (V)	ZONING R-ED	G. L. W. FILE No. 13-013
DATE JULY, 2016	TAX MAP - GRID 23-6&12	SHEET 54 OF 60

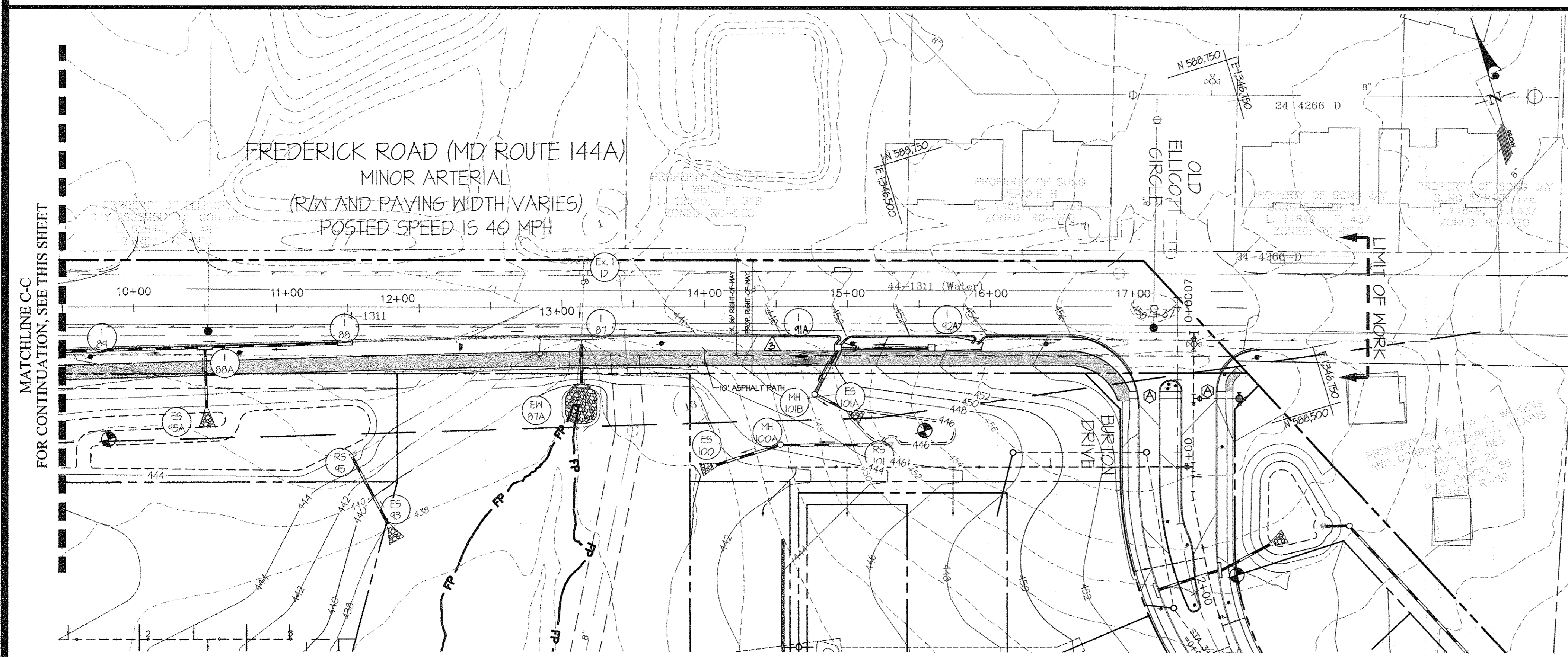




MATCHLINE C-C  
FOR CONTINUATION, SEE THIS SHEET

FROM NO.	TO NO.	DIA (IN) & TYPE OF PIPE	L (FT)
I-94	I-40	18" RCCP	151
I-40	I-41	18" RCCP	95
I-41	E5-46	18" RCCP	127
E5-46	R5-45	---	---
I-40	I-84	18" RCCP	164
I-84	I-88A	18" RCCP	64
I-88	I-88A	18" RCCP	81
I-88A	E5-45A	18" RCCP	40
E5-45A	R5-45	---	---
R5-45	E5-43	18" RCCP	56
I-42	I-41	18" RCCP	118
I-41	MH-101B	18" RCCP	30
MH-101B	E5-101A	18" RCCP	40
E5-101A	R5-101	---	---
R5-101	MH-100A	18" RCCP	74
MH-100A	E5-100	18" RCCP	48
I-81	E4-81A	36" RCCP	32

- NOTES:
- ⊗ INDICATES PROPOSED CROSSWALK 60" WIDTH, MAX. 2% CROSS-SLOPE IN ANY DIRECTION
  - SEE SHEETS 25-26 FOR SEDIMENT CONTROL DEVICES REQUIRED TO PERFORM THE CONSTRUCTION FOR FREDERICK ROAD (MD ROUTE 144A).
  - ALL RCCP SHALL BE CLASS IV.



MATCHLINE C-C  
FOR CONTINUATION, SEE THIS SHEET

LIMIT OF WORK

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
  
 Chief, Bureau of Highways  
 Date: 7/27/16

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
  
 Chief, Division of Land Development  
 Date: 8-29-16  
  
 Chief, Development Engineering Division  
 Date: 8-26-16

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

NO.	DATE	REVISION	BY	APPR.
2-16-16		Revised storm drain	JD	DEV.
6-14-17		Replaced I-97	JD	DEV.

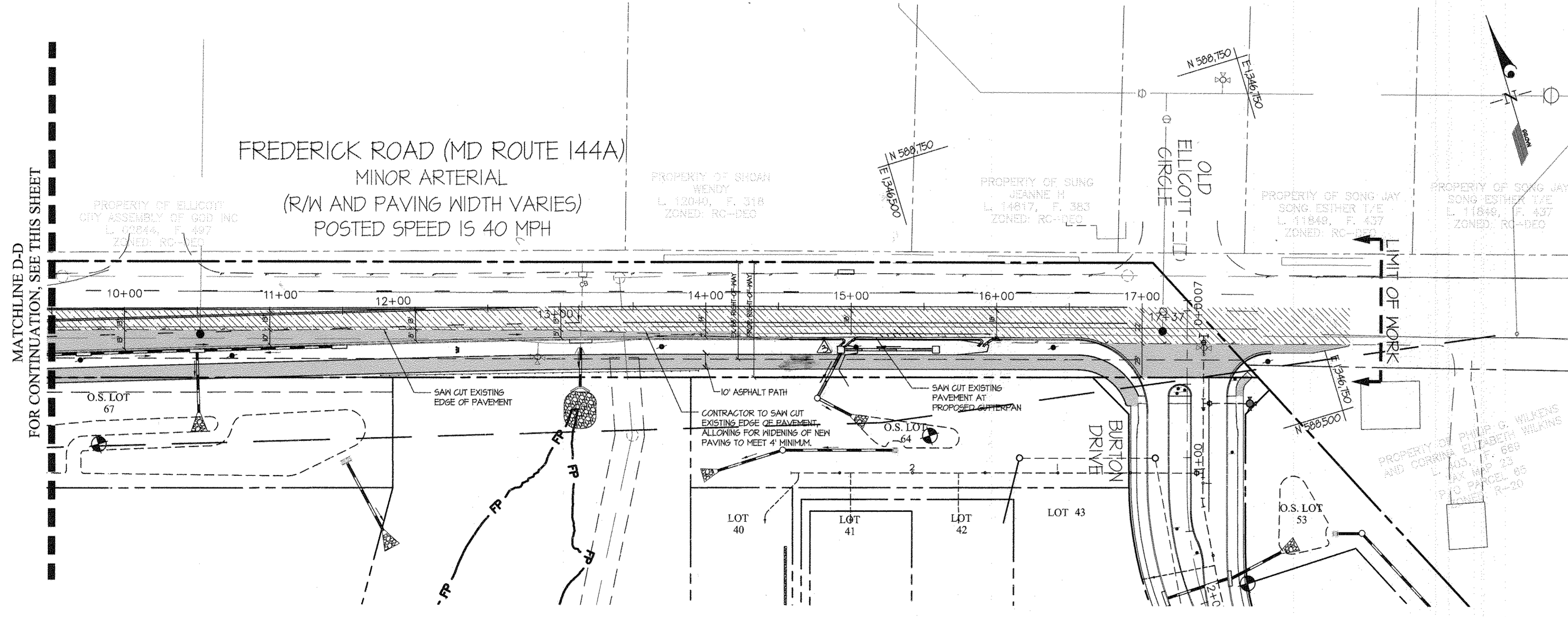
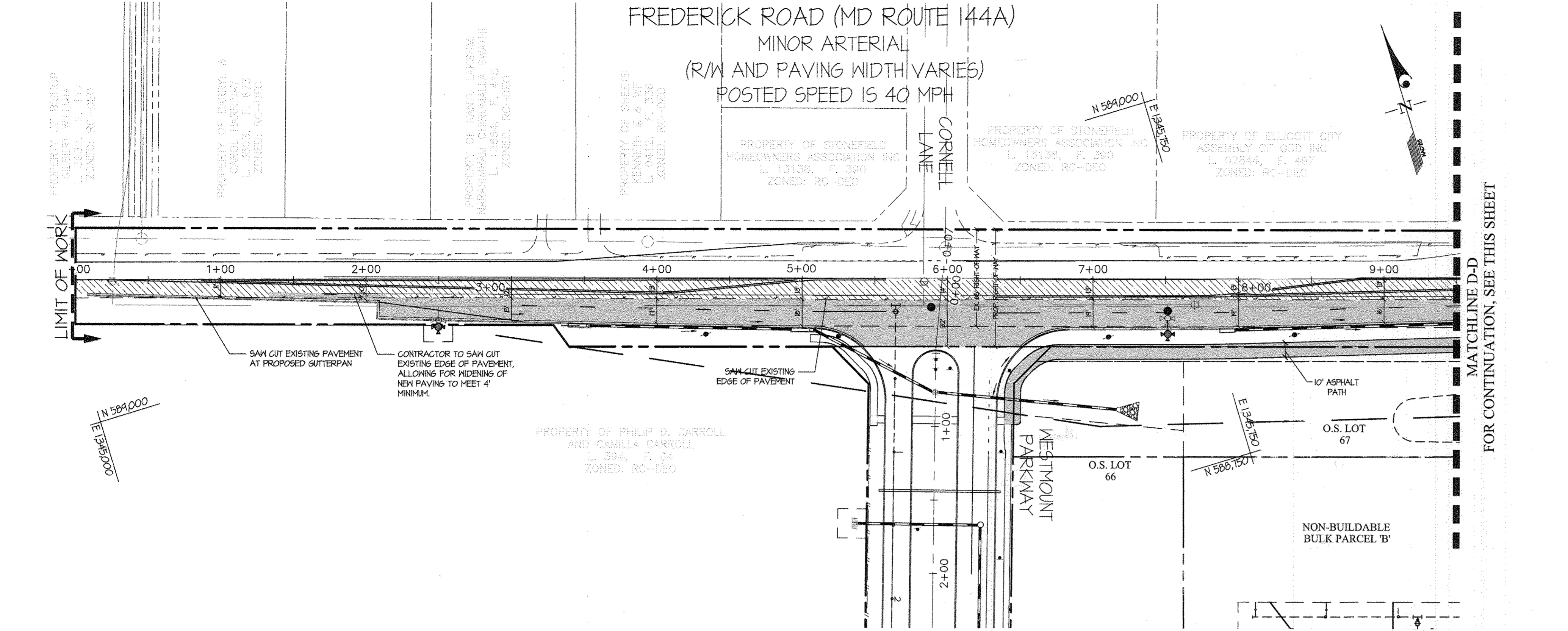
PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN.: CAMILLA CARROLL

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS 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. 12975  
 EXPIRATION DATE: MAY 26, 2018  
 7/14/16

GRADING PLAN - FREDERICK ROAD  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT No. 2

SCALE	ZONING	G. L. W. FILE NO.
1"=50'	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	55 OF 60





APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 7/27/2016  
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*[Signature]* 8-29-16  
 Chief, Division of Land Development Date  
*[Signature]* 8-26-16  
 Chief, Development Engineering Division Date

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BALT. 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4188

DATE	REVISION	BY	APP'R.
7-26-16	Revised storm drain	gt	DEV.

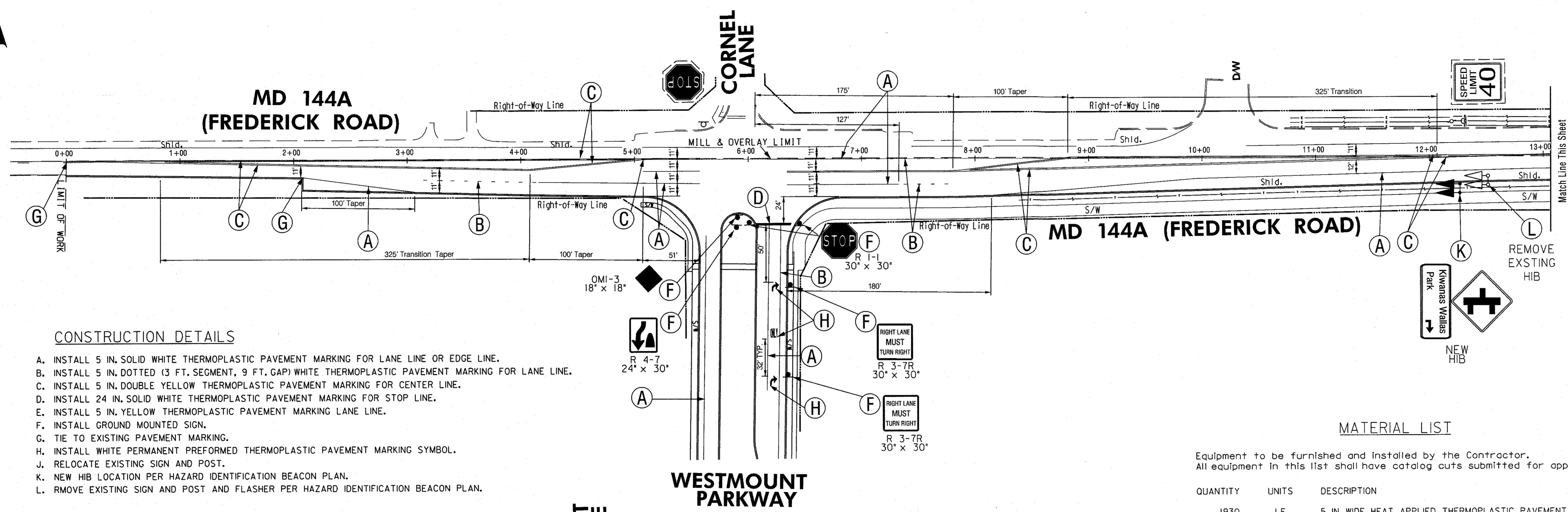
PREPARED FOR:  
 WESTMOUNT DEVELOPMENT CORPORATION  
 3500 MANOR LANE  
 ELLICOTT CITY, MARYLAND 21042  
 443-367-0422  
 ATTN: CAMILLA CARROLL

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS 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. 12975  
 EXPIRATION DATE: MAY 28, 2018  
 7/14/16 *[Signature]*

MILING AND PAVING PLAN - FREDERICK ROAD  
**WESTMOUNT - PHASE 1**  
**CREDITED OPEN SPACE LOT 1, LOTS 3-52, OPEN SPACE LOTS 53-71**  
**AND NON-BUILDABLE BULK PARCELS B & C**  
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL A and REVISION TO CREDITED OPEN SPACE LOT 1  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT No. 2

SCALE	ZONING	G. L. W. FILE NO.
1"=50'	R-ED	13-013
DATE	TAX MAP - GRID	SHEET
JULY, 2016	23-6&12	56 OF 60





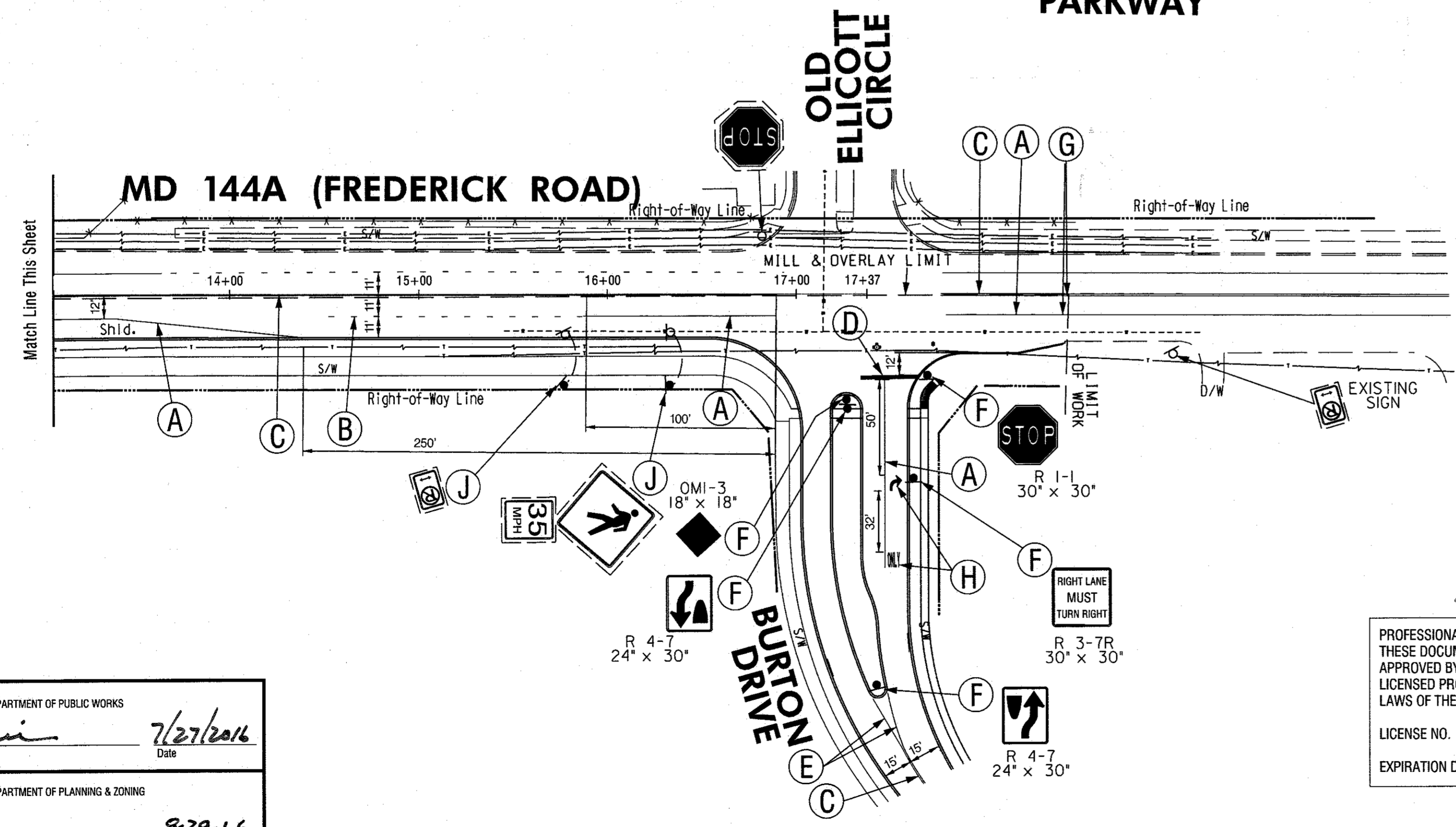
**CONSTRUCTION DETAILS**

- A. INSTALL 5 IN. SOLID WHITE THERMOPLASTIC PAVEMENT MARKING FOR LANE LINE OR EDGE LINE.
- B. INSTALL 5 IN. DOTTED (3 FT. SEGMENT, 9 FT. GAP) WHITE THERMOPLASTIC PAVEMENT MARKING FOR LANE LINE.
- C. INSTALL 5 IN. DOUBLE YELLOW THERMOPLASTIC PAVEMENT MARKING FOR CENTER LINE.
- D. INSTALL 24 IN. SOLID WHITE THERMOPLASTIC PAVEMENT MARKING FOR STOP LINE.
- E. INSTALL 5 IN. YELLOW THERMOPLASTIC PAVEMENT MARKING LANE LINE.
- F. INSTALL GROUND MOUNTED SIGN.
- G. TIE TO EXISTING PAVEMENT MARKING.
- H. INSTALL WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING SYMBOL.
- J. RELOCATE EXISTING SIGN AND POST.
- K. NEW HIB LOCATION PER HAZARD IDENTIFICATION BEACON PLAN.
- L. REMOVE EXISTING SIGN AND POST AND FLASHER PER HAZARD IDENTIFICATION BEACON PLAN.

**MATERIAL LIST**

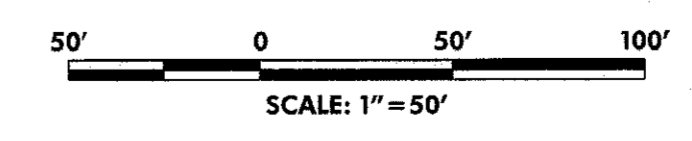
Equipment to be furnished and installed by the Contractor. All equipment in this list shall have catalog cuts submitted for approval prior to installation.

QUANTITY	UNITS	DESCRIPTION
1930	LF	5 IN. WIDE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING - WHITE.
5650	LF	5 IN. WIDE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING - YELLOW.
50	LF	24 IN. WIDE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING - WHITE.
3	EA	HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING SYMBOL (RIGHT ARROW) - WHITE.
2	EA	HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING SYMBOL (ONLY) - WHITE.
3	EA	30 IN. X 30 IN. R1-1 SIGN FOR GROUND MOUNTING.
3	EA	30 IN. X 30 IN. R3-7 SIGN FOR GROUND MOUNTING.
3	EA	24 IN. X 30 IN. R4-7 SIGN FOR GROUND MOUNTING.
2	EA	18 IN. X 18 IN. OM-1(1) SIGN FOR GROUND MOUNTING.
150	LF	4 IN. X 4 IN. WOOD SIGN SUPPORT.
2	EA	RELOCATE GROUND MOUNTED SIGN AND POST.



**LEGEND**

- EXISTING GEOMETRICS
- PROPOSED GEOMETRICS
- d EXISTING SIGN/PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- MILL & OVERLAY LIMIT



PROFESSIONAL CERTIFICATION. I 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. 33316  
 EXPIRATION DATE 7/13/18

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 7/27/2016  
 Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*[Signature]* 8-29-16  
 Chief, Division of Land Development

APPROVED: *[Signature]* 8-26-16  
 Chief, Development Engineering Division

MD AMD Tracking No.: 14APH018XX

**PAVEMENT MARKING AND SIGNING PLAN**  
 MD 144A (FREDERICK ROAD)  
 WESTMOUNT SUBDIVISION

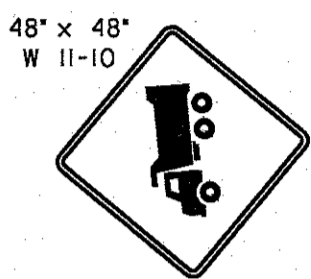
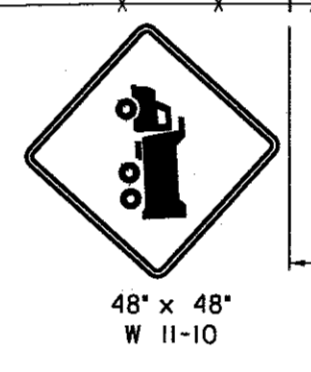
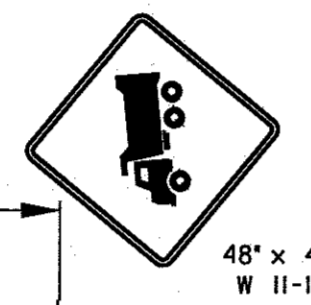
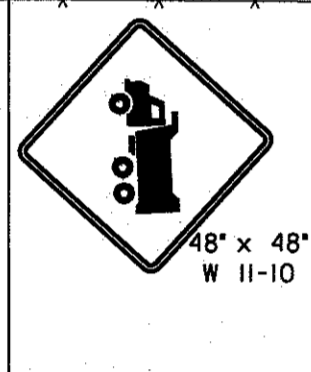
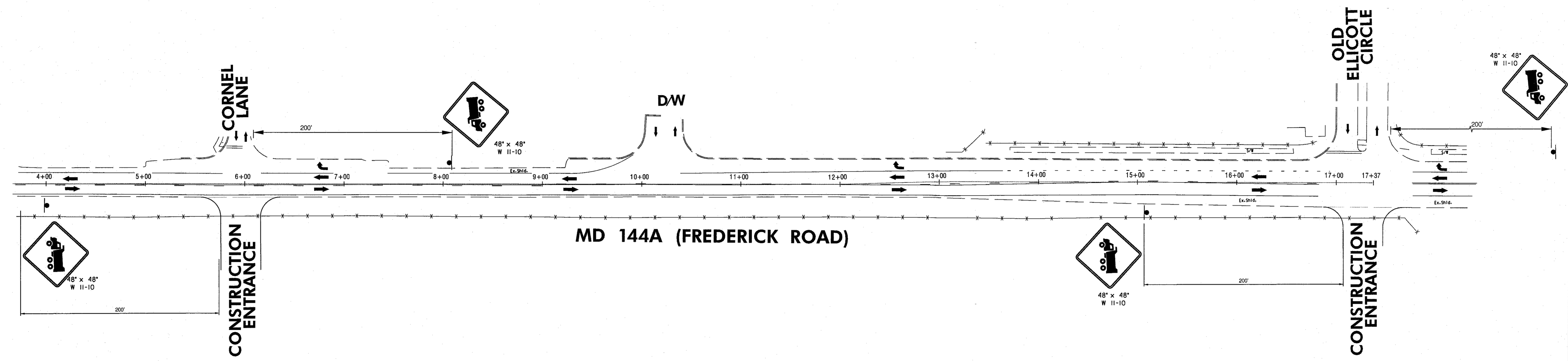
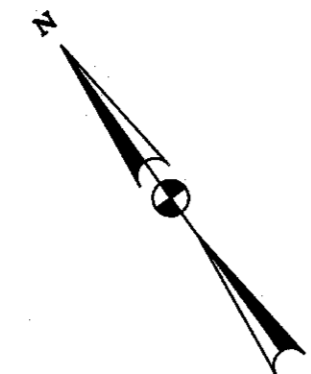
SCALE: 1" = 50'  
 DATE: JULY 14, 2016  
 DESIGNED BY: FRANK HOECKEL  
 CHECKED BY: JOHN DIRNDORFER  
 JOB NO.: 2014-0133  
 LOCATION: HOWARD COUNTY  
 DRAWING: 57 OF 60

**The Traffic Group, Inc.**  
 Suite H  
 9900 Franklin Square Drive  
 Baltimore, Maryland 21236  
 410-931-6600  
 1-800-583-8411  
 Fax 410-931-6601  
 "Merging Innovation and Excellence"®

PLOTTED: Thursday, July 14, 2016 AT 08:32 PM  
 FILE: F:\2014\2014-0133\_Westmount\DES\YEDD\PM - MD144- WESTMOUNT.dgn



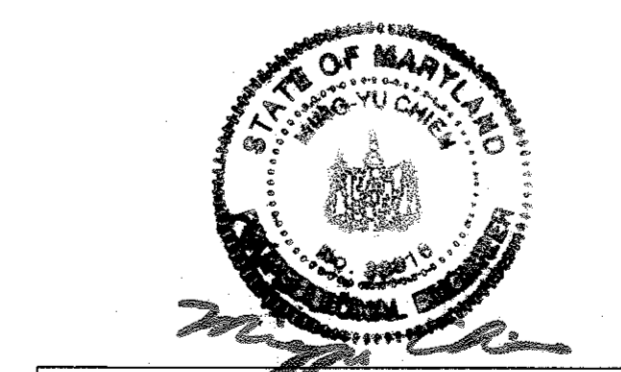
**Drop Off Policy**  
 Contractor to maintain less than 2.5 in. of drop-off during periods of non-construction. Use appropriate standard. See General Note No. 14 (MD 104.00-14).



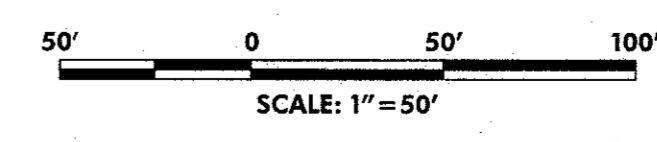
- KEY**
- ← Direction of Traffic
  - Temp. Traffic Sign
  - Existing Geometrics
  - Proposed Geometrics
  - Construction entrance

**SEQUENCE OF OPERATION**

1. CONTRACTOR SHALL CONSULT THE MD-SHA BOOK OF STANDARDS FOR THE CURRENT TYPICALS FOR IMPLEMENTING TEMPORARY TRAFFIC CONTROL.
2. INSTALL ADVANCE WARNING SIGNS FOR TRUCK CONSTRUCTION ENTRANCES. TRAFFIC CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL SUCH TIME THAT IT IS DETERMINED THEY ARE NO LONGER NEEDED.



PROFESSIONAL CERTIFICATION. I 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. 33316  
 EXPIRATION DATE 7/13/18



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 7/27/2016  
 Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*[Signature]* 8-29-16  
 Chief, Division of Land Development

APPROVED: *[Signature]* 8-26-16  
 Chief, Development Engineering Division

MD AMD Tracking No.: 14APH0018XX

**MAINTENANCE OF TRAFFIC PLAN  
 TRUCK CONSTRUCTION ENTRANCE INTO SITE  
 MD 144A (FREDERICK ROAD)  
 WESTMOUNT SUBDIVISION**

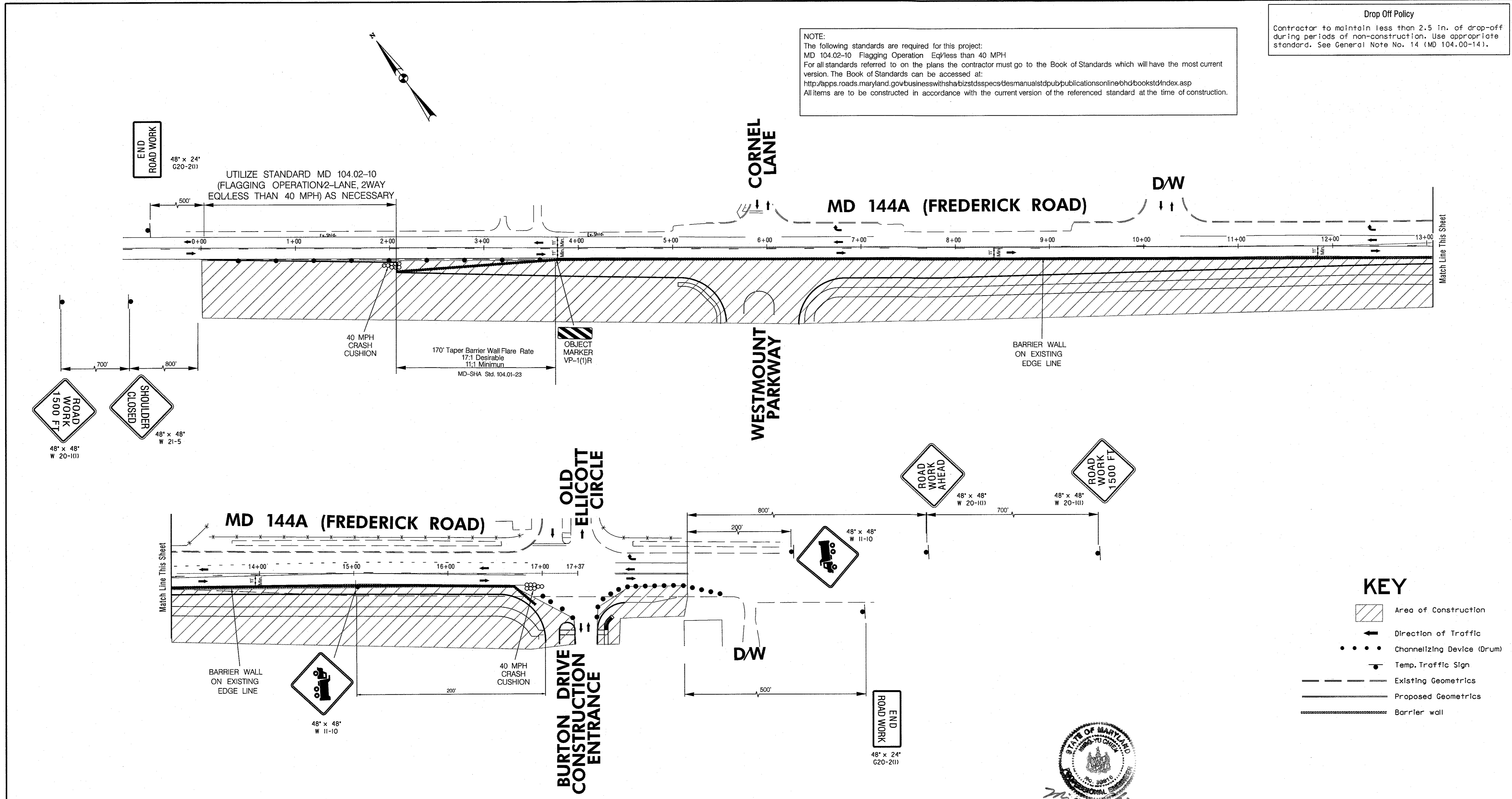
SCALE:	1" = 50'	 <b>The Traffic Group, Inc.</b> Suite H 9900 Franklin Square Drive Baltimore, Maryland 21236 410-931-6600 1-800-583-8411 Fax 410-931-6601 "Merging Innovation and Excellence"®
DATE:	JULY 14, 2016	
DESIGNED BY:	FRANK HOECKEL	
CHECKED BY:	JOHN DIRNDORFER	
JOB NO.:	2014-0133	
LOCATION:	HOWARD COUNTY	
DRAWING:	58 OF 60	

BY: jstorck



**Drop Off Policy**  
 Contractor to maintain less than 2.5 in. of drop-off during periods of non-construction. Use appropriate standard. See General Note No. 14 (MD 104.00-14).

**NOTE:**  
 The following standards are required for this project:  
 MD 104.02-10 Flagging Operation Eq/less than 40 MPH  
 For all standards referred to on the plans the contractor must go to the Book of Standards which will have the most current version. The Book of Standards can be accessed at:  
<http://apps.roads.maryland.gov/businesswithshabizstdspecsdesmanualstdpub/publicationsonline/bhd/books/index.asp>  
 All items are to be constructed in accordance with the current version of the referenced standard at the time of construction.



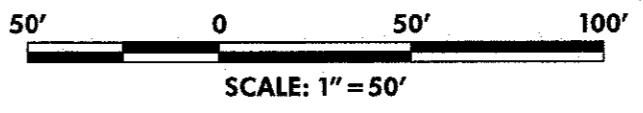
**KEY**

- Area of Construction
- Direction of Traffic
- Channelizing Device (Drum)
- Temp. Traffic Sign
- Existing Geometrics
- Proposed Geometrics
- Barrier wall

- SEQUENCE OF OPERATION**
1. CONTRACTOR SHALL CONSULT THE MD-SHA BOOK OF STANDARDS FOR THE CURRENT TYPICALS FOR IMPLEMENTING TEMPORARY TRAFFIC CONTROL.
  2. INSTALL ADVANCE WARNING SIGNS (40 MPH), TRAFFIC CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL SUCH TIME THAT IT IS DETERMINED THEY ARE NO LONGER NEEDED.
  3. CONSTRUCT CURB AND GUTTER, AND SIDEWALK ON THE EASTBOUND DIRECTION (SOUTH SIDE) OF MD 144.



PROFESSIONAL CERTIFICATION. I 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. 33316  
 EXPIRATION DATE 7/13/18



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*J. McNeill* 7/27/2016  
 Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*K. D. ...* 8-29-16  
 Chief, Division of Land Development

*...* 8-26-16  
 Chief, Development Engineering Division

MD AMD Tracking No.: 14APH018XX

**MAINTENANCE OF TRAFFIC PLAN**  
**MD 144A (FREDERICK ROAD)**  
**WESTMOUNT SUBDIVISION**

SCALE:	1" = 50'
DATE:	JULY 14, 2016
DESIGNED BY:	FRANK HOECKEL
CHECKED BY:	JOHN DIRNDORFER
JOB NO.:	2014-0133
LOCATION:	HOWARD COUNTY
DRAWING:	59 OF 60


**The Traffic Group, Inc.**  
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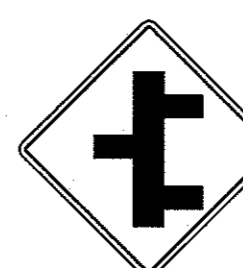
**CONSTRUCTION DETAILS**

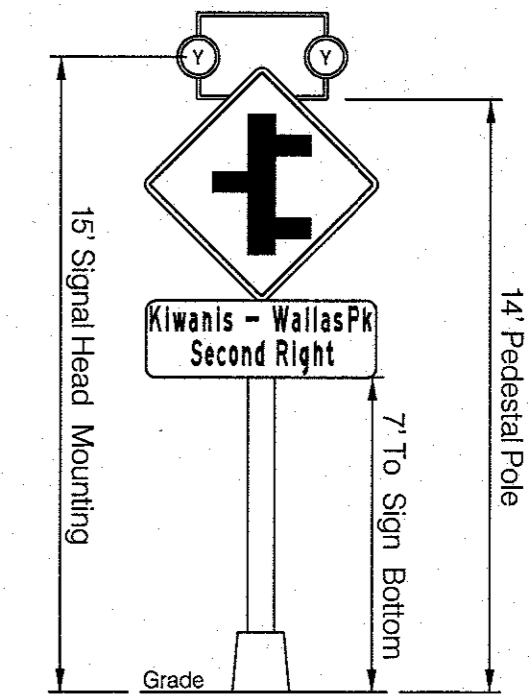
- A. INSTALL METER SERVICE PEDESTAL FOR AN UNDERGROUND ELECTRICAL SERVICE.
- B. INSTALL 14 FT. STEEL PEDESTAL POLE WITH A TRANSFORMER BREAKAWAY BASE FOR HIB WITH FLASHER SIGNALS SIGN, NEMA SIZE "5" POLE MOUNTED CABINET WITH FLASHER CONTROLLER AND CONCRETE PAD. (NOTE: TWO 2 IN. PVC SCH 80 CONDUIT BENDS).
- C. INSTALL HANDHOLE.
- D. INSTALL 2 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
- E. INSTALL 2 IN. CONDUIT STUBBED OUT TO EXISTING UTILITY POLE FOR PHONE SERVICE BY VERIZON - TRENCHED.
- F. INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT WITH A PULL STRING STUBBED OUT TO BASE OF EXISTING UTILITY POLE FOR ELECTRICAL SERVICE - TRENCHED.
- G. INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT WITH A PULL STRING - BORED.
- H. USE EXISTING UTILITY POLE FOR ELECTRICAL SERVICE.
- J. USE EXISTING UTILITY POLE FOR TELEPHONE SERVICE.
- K. REMOVE EXISTING HANDHOLE.
- L. REMOVE EXISTING HIB. REMOVE EXISTING BASE 12 IN. BELOW GRADE.
- M. CAP AND ABANDON EXISTING CONDUIT.

**PROPOSED SIGNALS**

1, 2  
  
 12"  
 L.E.D.

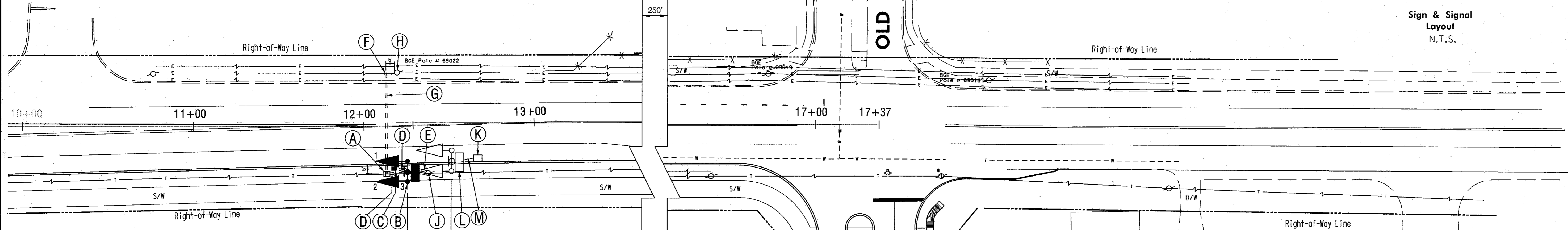
**PROPOSED SIGN**

3  
  
 W21(1)  
 48"x48"  
 Kiwanis - WallasPk  
 Second Right  
 D3-2(1) (MOD)  
 24"x 72"



**Sign & Signal Layout**  
N.T.S.

**ASSEMBLY OF GOD CHURCH**



**MD 144A (FREDERICK ROAD)**

**PROJECT DESCRIPTION**

**GENERAL**  
 THIS PROJECT INVOLVES THE REMOVAL OF THE EXISTING HIB SIGNAL AND THE INSTALLATION OF A NEW HIB SIGNAL APPROXIMATELY 26 FEET TO THE WEST OF THE EXISTING HIB ALONG MD 144A IN HOWARD COUNTY. MD144A IS CONSIDERED TO RUN IN AN EAST/WEST DIRECTION.

**INTERSECTION OPERATION**  
 THE HIB WITH FLASHER CONTROLLER IS HOUSED IN A POLE MOUNTED FLASHER CABINET. THE HIB WILL OPERATE (FLASH) 7 DAYS A WEEK 24 HOURS A DAY.

**CONTACT LIST**

THE CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:  
 MR. JOHN CONCANNON, ASSISTANT DISTRICT ENGINEER - TRAFFIC  
 PHONE: (301) 624-8140  
 MR. JOHN HUGHROWSKI, ASSISTANT DISTRICT ENGINEER - CONSTRUCTION  
 PHONE: (301) 624-8200  
 MS. SUE PALMER, ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
 PHONE: (301) 624-8105  
 MS. ANDREA ABEND, UTILITY ENGINEER  
 PHONE: (301) 624-8115  
 MS. CORREN JOHNSON, CHIEF, TRAFFIC OPERATIONS DIVISION  
 PHONE: (410) 787-7630  
 MS. KELLY CALDWELL-HARPER, ASST. DIV. CHIEF, TRAFFIC OPERATIONS DIVISION  
 PHONE: (410) 787-7625  
 MR. EDWARD RODENHIZER, MANAGER, SIGNAL OPERATIONS  
 PHONE: (410) 787-7652

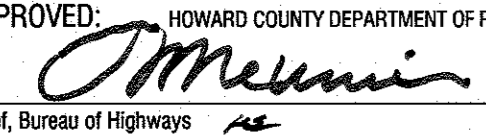
THE POWER COMPANY REPRESENTATIVE IS:  
 BALTIMORE GAS & ELECTRIC  
 1008 NORTH FRONT STREET  
 BALTIMORE, MD 21202  
 800-233-1854  
 WMS#

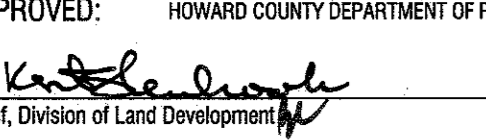
**EQUIPMENT LIST**


A. EQUIPMENT TO BE SUPPLIED BY THE MARYLAND STATE HIGHWAY ADMINISTRATION.  
 NONE.

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

QUANTITY	UNITS	DESCRIPTION
LUMP SUM	LS	MAINTENANCE OF TRAFFIC
LUMP SUM	LS	MOBILIZATION
1	CY	TEST PIT EXCAVATION
1	EA	14 FT. STEEL PEDESTAL POLE WITH TRANSFORMER BREAKAWAY BASE
1	EA	12 IN. 1-SECTION LED SIGNAL HEAD - POLE MOUNT
1	EA	STANDARD S.H.A. POLE MOUNTED FLASHER CABINET WITH FLASHER CONTROLLER [Note: CONTROLLER AND CABINET SHALL BE PURCHASED FROM ECONOLITE AND DELIVERED TO THE S.H.A. SIGNAL SHOP FOR WIRING AND TESTING. CONTACT MR. ED RODENHIZER AT (410) 787-7650]
1	EA	48 IN. X 48 IN. WARNING SIGN - POLE
1	EA	24 IN. X 72 IN. D3-2(1) (MOD) SIGN - POLE
1	EA	HANDHOLE
10	LF	1-CONDUCTOR CABLE (NO. 8 AWG)
40	LF	5-CONDUCTOR CABLE (NO. 14 A.W.G.)
30	LF	BARE COPPER GROUND WIRE (NO. 6 AWG)
40	LF	2 IN. PVC CONDUIT [SCHEDULE 80] - TRENCHED
10	LF	4 IN. PVC CONDUIT [SCHEDULE 80] - TRENCHED
60	LF	4 IN. PVC CONDUIT [SCHEDULE 80] - BORED
.7	CY	CONCRETE FOUNDATION FOR TRAFFIC SIGNAL EQUIPMENT
3	EA	GROUND ROD - 3/4 IN. X 10 FT. LENGTH
1	EA	EMBEDDED ELECTRICAL SERVICE PEDESTAL (100 AMPS)
1	EA	REMOVE EXISTING HIB AND ALL ATTACHED EQUIPMENT
1	EA	REMOVE AND DISPOSE OF EXISTING CONCRETE FOUNDATION 12 INCHES BELOW GRADE
LUMP SUM	LS	THIRD PARTY CONCRETE TESTING

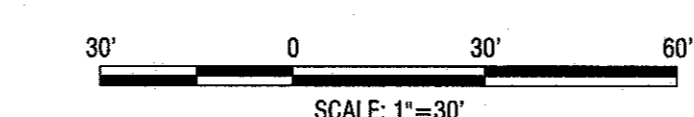
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 7/27/2016  
 Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 8/24/16  
 Chief, Division of Land Development

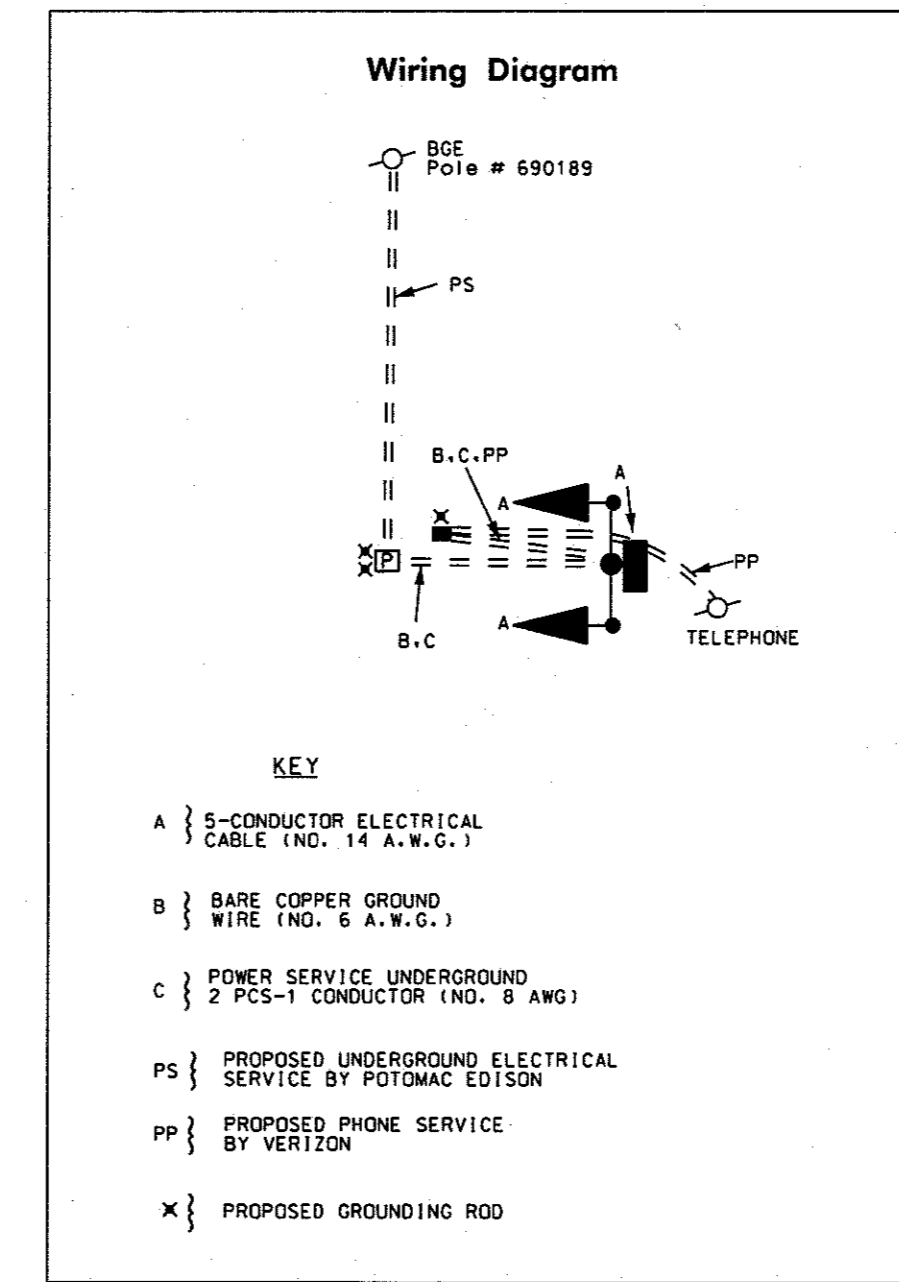
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 8-26-16  
 Chief, Development Engineering Division

**GENERAL NOTES**

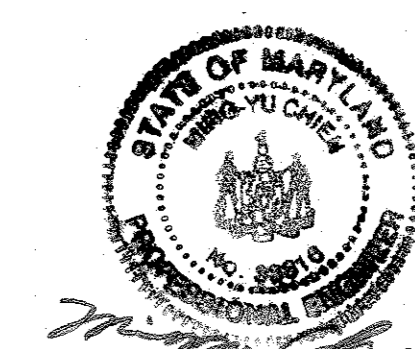
- THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET LOCATION PRIOR TO INSTALLATION.
- PAVEMENT MARKINGS DETAILED ARE PROPOSED AND ARE TO BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH MD-SHA STANDARDS. ALL OTHER PAVEMENT MARKINGS ARE TO BE CONSIDERED AS EXISTING.
- GEOMETRICS SHALL BE CONFIRMED PRIOR TO THE INSTALLATION OF SIGNAL EQUIPMENT. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS. HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS. TO MEET CLEARANCES AS SPECIFIED IN MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
- ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC AND ARE NOT TO BE CONSIDERED COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL EQUIPMENT WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE PROJECT ENGINEER IMMEDIATELY.
- ALL UNUSED CABLE SHALL BE REMOVED.



THESE PLANS ARE APPROVED FOR CONSTRUCTION FOR A PERIOD OF 1 YEAR FROM THE DATE OF APPROVAL. SHOULD CONSTRUCTION NOT BEGIN WITHIN THIS TIME FRAME THESE PLANS SHALL BE NULL AND VOID WITHOUT A REVIEW FROM THE TRAFFIC ENGINEERING DESIGN DIVISION.



- KEY**
- A } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
  - B } BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
  - C } POWER SERVICE UNDERGROUND 2 PCS-1 CONDUCTOR (NO. 6 AWG)
  - PS } PROPOSED UNDERGROUND ELECTRICAL SERVICE BY POTOMAC EDISON
  - PP } PROPOSED PHONE SERVICE BY VERIZON
  - X } PROPOSED GROUNDING ROD



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.: 32316 EXPIRATION DATE: 7/12/18

MD-AMD Tracking No.: 14APH0018XX

**SHA** STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION

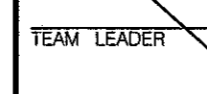
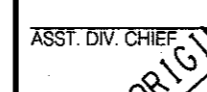
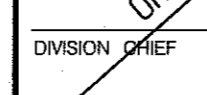

MD 144A (FREDERICK RD) AT KIWANIS-WALLAS PARK WESTMOUNT SUBDIVISION

**HAZARD IDENTIFICATION BEACON PLAN**

SCALE: 1" = 30' DATE: 10/20/01 CONTRACT NO. H0669A51H0669B51

DESIGNED BY: N/A COUNTY: HOWARD  
 DRAWN BY: N/A LOGMILE:  
 CHECKED BY: N/A TMS NO.: N/A  
 F.A.P. NO.: N/A TOD NO.: N/A

TS NO. TS NO. DRAWING: SG - 01 OF 01 SHEET NO. 60 OF 60

APPROVALS	REVISIONS
 TEAM LEADER  ASST. DIV. CHIEF  DIVISION CHIEF  OFFICE DIRECTOR	1 Relocate existing HIB SHA No. BW996M82 TMS# JULY 14, 2016 ITG

**The Traffic Group, Inc.**  
 Suite H  
 9900 Franklin Square Drive  
 Baltimore, Maryland 21236  
 410-931-6600  
 1-800-583-8411  
 Fax 410-931-6601  
 "Merging Innovation and Excellence"