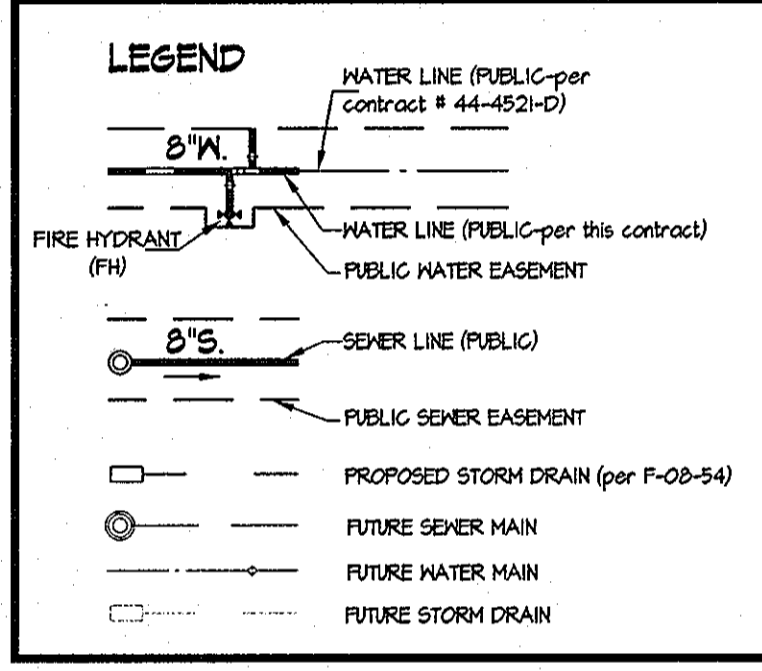


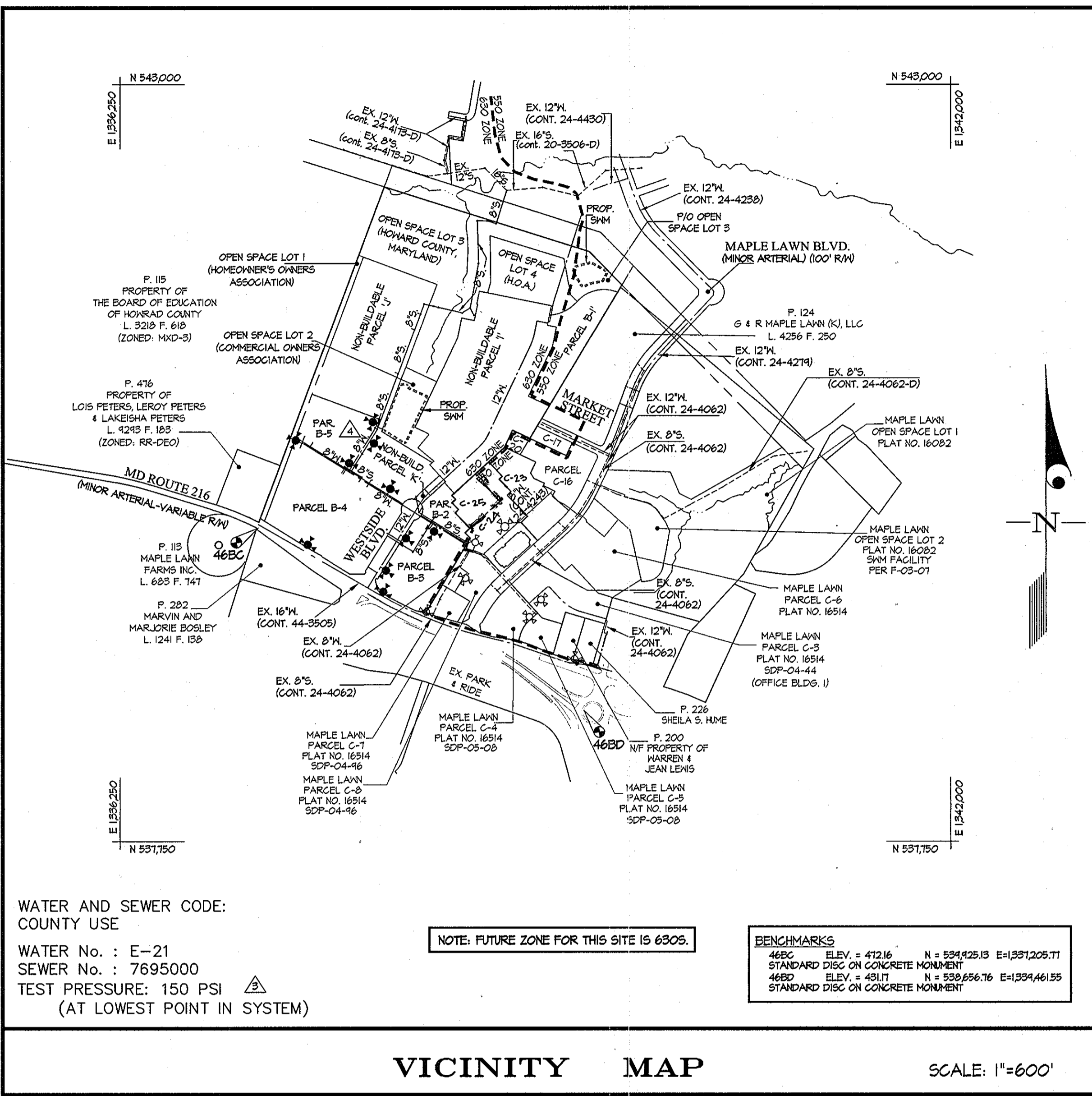
QUANTITIES					
ITEMS	QUANTITIES ESTIMATED	AS-BUILT			
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER	
6" WATER (to fire hydrant)	169 L.F.	140	D.I.P.		
8" WATER MAIN	1848 L.F.	2092	P.V.C.	Diamond	
12" WATER MAIN	430 L.F.	700	"	"	
2" WATER	74 L.F.	74	Copper		
8"x8" TEE	4 EA.	10	D.I.P.	Tyler Union	
12"x2" TEE	1 EA.	1	Stainless	Ford	
12" HIGH-DEFLECTION COUPLING	12 EA.	12	P.V.C.	Corbanteed	
8" HIGH-DEFLECTION COUPLING	20 EA.	24	"	"	
8"x8" T.S.&V. (DIV. VALVE)	2 EA.	1	D.I.P.	Kennedy	
8"x8" CROSS	2 EA.	2	"	Tyler Union	
12" 1/32 VB	3 EA.	3	"	"	
12"x8" CROSS	3 EA.	2	"	"	
12"x16" T.S.&V.	1 EA.	1	Stainless	"	
8" 1/8 HB.	1 EA.	1	D.I.P.	"	
8" 1/16 HB.	1 EA.	1	"	"	
8" 1/32 HB.	3 EA.	3	"	"	
2" METER VAULT	1 EA.	1	Precast	Ford	
8" VALVE	29 EA.	29	Precast	Kennedy	
12" VALVE	6 EA.	5	"	"	
8"x6" FHT & VALVE	7 EA.	5	"	"	
12"x6" FHT & VALVE	3 EA.	2	"	"	
FIRE HYDRANT	9 EA.	7	"	"	
12" 1/32 HB	1 EA.	1	D.I.P.	Tyler Union	
SEWER MANHOLE	28 EA.	27	Precast	Contractors Precast Corp	
8" SEWER MAIN P.V.C.	3799 L.F.	3702	P.V.C.	Diamond	
8" SEWER MAIN D.I.P.	182 L.F.	182	D.I.P.	"	
6" SEWER MAIN P.V.C.	278 L.F.	270	P.V.C.	"	
12" x 8" Tee		2			

Name of Utility Contractor: Cain & Co. SURVEY AND DRAFTING DIV. CHECKBOX: AS-BUILT DATE: \_\_\_\_\_

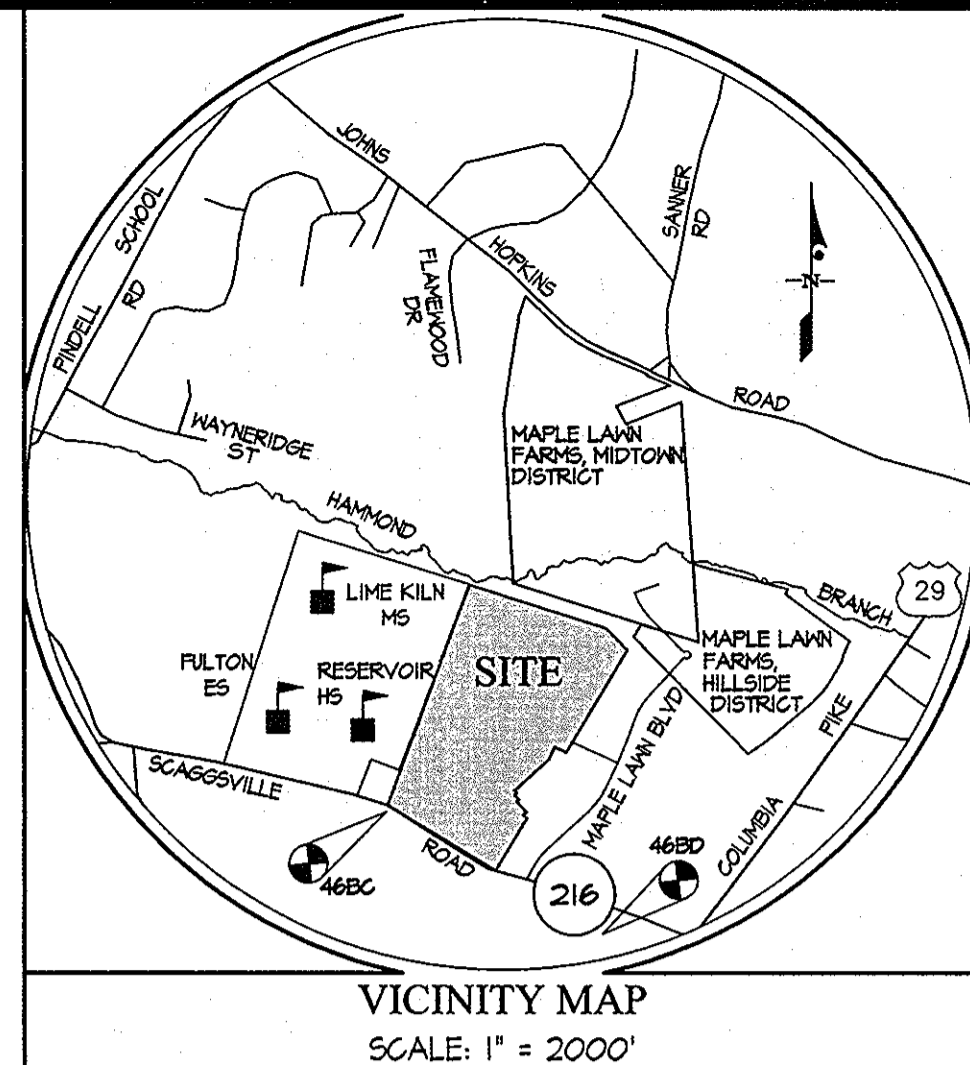


**SHEET INDEX**

- COVER SHEET
- WATER AND SEWER EXTENSION PLAN
- WATER AND SEWER EXTENSION PLAN
- WATER AND SEWER EXTENSION PLAN
- WATER AND SEWER PROFILES
- WATER AND SEWER PROFILES
- SEWER PROFILES



TYPE OF BUILDING	N/A
NUMBER OF UNITS	0
NUMBER OF S.H.C.'s	4
NUMBER OF W.H.C.'s	1
AREA OF COMMERCIAL LOT/PARCEL	40.43 AC.
SEWER SHED	LITTLE PATUXENT
PUMPING STATION	N/A



**GENERAL NOTES**

- PART I**
- APPROXIMATE LOCATIONS OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
  - TOPOGRAPHY INDICATED WAS TAKEN FROM AERIAL TOPOGRAPHY PREPARED DURING MARCH 1991 BY SDI.
  - HORIZONTAL AND VERTICAL SURVEY CONTROLS: THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM NAD '83/91 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS No. 466C AND No. 466D.
- ALL VERTICAL CONTROLS ARE BASED ON NAVD '83. VERTICAL CONTROLS PROVIDED ON DRAWINGS ARE STANDARD DISCS ON CONCRETE MONUMENTS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
  - CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONIES OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
  - FOR DETAILS NOT SHOWN ON THE DRAWING, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
  - WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL AT THE LOCATIONS OF THE TEST PITS. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
  - THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK ON THESE PLANS:
 

AT&T	1-800-252-1133
EGE (CONTRACTOR SERVICES)	410-850-4620
EGE (UNDER GROUND DAMAGE CONTROL)	410-685-1400
BUREAU OF UTILITIES	410-315-4900
COLONIAL PIPELINE CO.	410-745-1340
MISS UTILITY	1-800-251-TTTT
STATE HIGHWAY ADMINISTRATION	410-531-5533
VERIZON	1-800-743-0033 / 410-224-4210
  - TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION AREA STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
  - THE CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
  - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410)-315-1450 AT LEAST FIVE WORKING DAYS BEFORE OPEN CUTTING OR BORING/JACKING OF ANY COUNTY ROAD FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPM REQUIREMENTS PER SECTION 18.114(g) OF THE HOWARD COUNTY CODE.

**PART II - WATER**

- EXCEPT AS INDICATED ON THE PLANS, ALL PUBLIC WATER MAINS SHALL BE POLYVINYLCHLORIDE (PVC) PIPE MEETING THE REQUIREMENTS OF ANNA C400 DR18, PRESSURE CLASS 150 AND THE HOWARD COUNTY DESIGN MANUAL VOLUME IV-STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION AND ALL SUBSEQUENT AMENDMENTS THERETO.
- TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE NOTED ON PLANS OR IN SPECIFICATIONS.
- FOR SPRINKLER SYSTEM FOR ALL TOWN HOMES OR MULTI-FAMILY DWELLING UNITS SHOULD HAVE A MINIMUM OF 1' CONNECTION WITH A 3/4" METER.
- ALL DUCTILE IRON PIPE (DIP) TO BE USED ON THE PUBLIC WATER SYSTEM SHALL BE CLASS 54. DUCTILE IRON FITTINGS SHALL MEET THE REQUIREMENTS OF THE HOWARD COUNTY DESIGN MANUAL VOLUME IV-STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
- FIRE HYDRANTS ARE D.I.P. ONLY.
- VALVES ARE TO BE ATTACHED WITH IRON FITTINGS OR CONCRETE ANCHORS.
- THE DIMENSION RATIO FOR THE PVC MAIN SHALL BE DR 18.
- WATER MAIN CONSTRUCTION SHALL CONSIST OF PVC MAIN WITH EPOXY COATED DIP FITTINGS OR PVC MAIN WITH PVC FITTINGS.

**PART III - SEWER**

- ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- FORCE MAINS SHALL BE D.I.P. ONLY.
- MANHOLES SHOWN WITH THE 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVER, STANDARD DETAIL 65.52. WHERE WATERTIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THE CELLAR CANNOT BE SERVED.

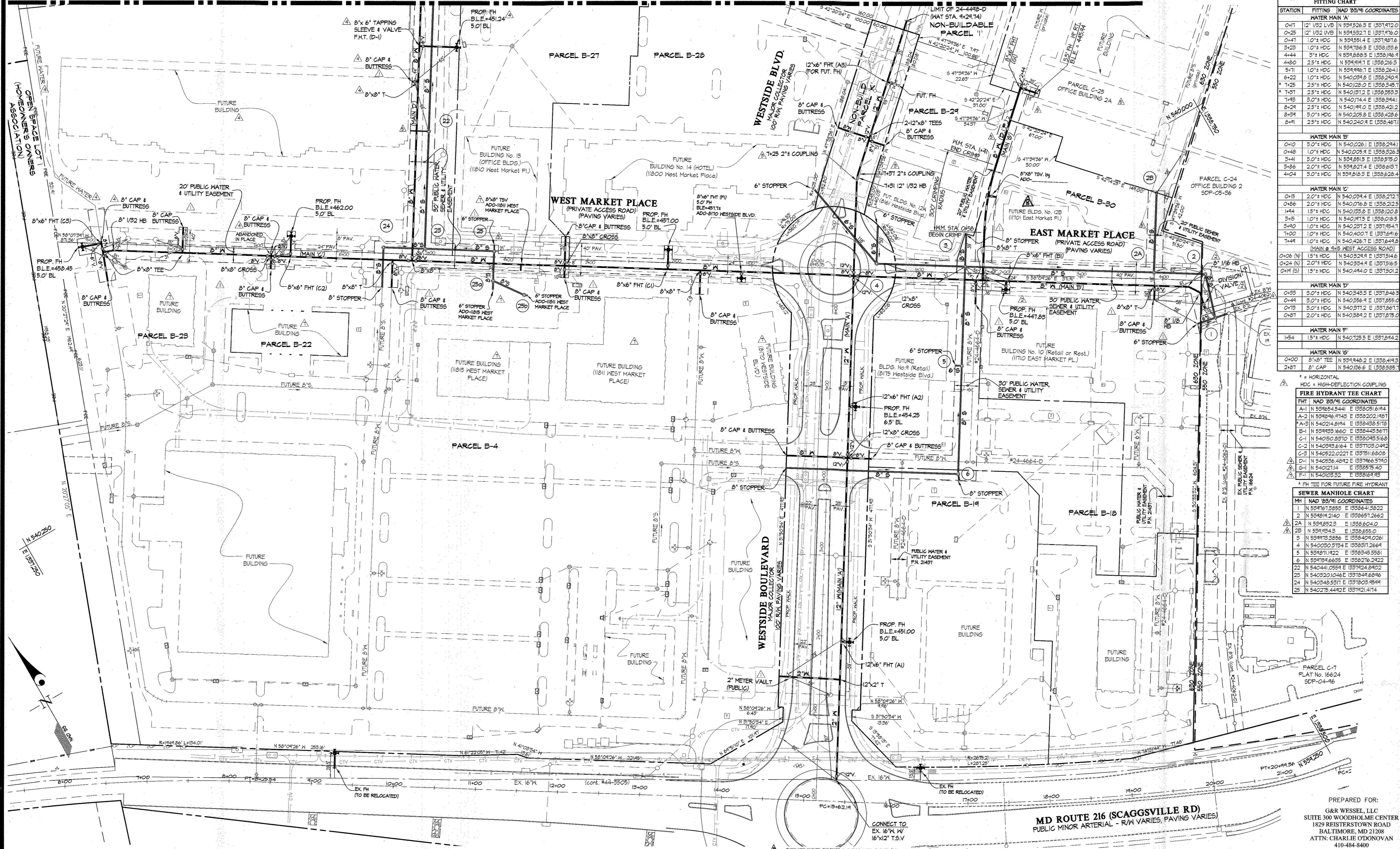
SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS & WITH ROAD DRAWINGS F-08-55; DRAWINGS FOR SEDIMENT & EROSION CONTROL.

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

APPROVED: *John K. Roberts* 6/17/09  
WARD S.C.D. DATE

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DATE: 6-19-09	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND DATE: 6-19-09	<b>GLW</b> 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 BALTE: 410-680-1820 DC/VA: 301-999-2524 FAX: 301-421-4186	DATE: MAY 2009 G.L.W. No. 06081 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 EXP. DATE: MAY 26, 2010	Add As-Built Info. Update quantities to reflect new waterline & sewer extension to lot 22 & lot 25 5/22/09 REMOVE 8" W. & FIRE HYDRANT (REPLACEMENT SHEET) 6/18/08 REV. QUANTITIES, GENERAL NOTES, SHEET INDEX & VICINITY MAP TO REFLECT MATERIAL CHANGE FOR WATER MAIN (REPLACEMENT SHEET) 5/2/08 REV. QUANTITIES TO REFLECT REV. CONN. TO EX. 8" W (CONT #24-4062-D) 4/3/08 REVISED QUANTITIES & INFORMATION BLOCK	(REPLACEMENT SHEET) COVER SHEET (THIS PLAN SUPERCEDES PLAN SIGNED ON 07/17/08) 600' SCALE MAP NO. 46 BLOCK NO. 4	<b>MAPLE LAWN FARMS</b> CONTRACT No. 24-4498-D WESTSIDE DISTRICT - AREA 1 PARCELS B-1 THROUGH B-5, OPEN SPACE LOTS 1 THROUGH 4 AND NON-BUILDABLE PARCELS 'I', 'J', & 'K' HOWARD COUNTY, MARYLAND ELECTION DISTRICT No. 5	SCALE AS SHOWN SHEET 1 OF 7
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I:\CAD\DRAWINGS\0609\CONTRACTS\24-4498-D\06081-16-05.dwg, PLOT: 5/27/2009 4:42 PM, DSN: 3/24/09 2:25/2009 2:36 PM, PLOTTED BY: Don Swerney



**FITTING CHART**

STATION	FITTING	NAD 83/91 COORDINATES
<b>WATER MAIN A'</b>		
0+17	12" 1/2 LVB	N 5394526.3 E 1331471.0
0+25	12" 1/2 LVB	N 5394527.1 E 1331476.2
0+41	10" HDC	N 5394551.4 E 1331487.8
3+23	10" HDC	N 5394786.5 E 1338195.6
4+44	3" HDC	N 5394888.5 E 1338196.9
4+80	2.5" HDC	N 5394914.1 E 1338216.3
5+11	10" HDC	N 5394967.1 E 1338264.1
6+22	10" HDC	N 5400288.8 E 1338290.4
* 7+25	2.5" HDC	N 540128.0 E 1338345.7
* 7+51	2.5" HDC	N 540187.2 E 1338353.3
7+83	3.0" HDC	N 540174.4 E 1338394.1
8+24	2.5" HDC	N 540194.0 E 1338421.2
8+39	3.0" HDC	N 540205.8 E 1338428.6
8+91	2.5" HDC	N 540240.4 E 1338467.1
<b>WATER MAIN B'</b>		
0+10	3.0" HDC	N 540026.1 E 1338244.1
0+48	10" HDC	N 540005.9 E 1338226.3
3+41	3.0" HDC	N 5394851.5 E 1338375.0
3+86	2.0" HDC	N 5394827.4 E 1338418.7
4+24	3.0" HDC	N 5394818.5 E 1338428.4
<b>WATER MAIN C'</b>		
0+15	2.0" HDC	N 540284.4 E 1338212.7
0+88	2.0" HDC	N 540076.8 E 1338212.5
1+94	1.5" HDC	N 540183.2 E 1338120.8
3+15	10" HDC	N 5401915.1 E 1338218.5
3+40	10" HDC	N 540237.2 E 1338184.7
7+00	10" HDC	N 540400.7 E 1337691.6
7+49	10" HDC	N 540426.7 E 1337691.6
<b>WATER MAIN D'</b>		
0+06 (N)	1.5" HDC	N 540528.4 E 1337514.6
0+24 (N)	2.0" HDC	N 540554.4 E 1337514.6
0+19 (S)	1.5" HDC	N 540494.0 E 1337510.2
0+58	3.0" HDC	N 540348.3 E 1337848.9
0+44	3.0" HDC	N 540356.4 E 1337855.0
0+78	3.0" HDC	N 540371.2 E 1337867.7
0+87	2.0" HDC	N 540384.2 E 1337875.0
<b>WATER MAIN E'</b>		
1+54	1.5" HDC	N 540125.5 E 1337894.2
<b>WATER MAIN F'</b>		
0+00	8" X 8" TEE	N 539446.2 E 1338418.5
2+87	8" CAP	N 540186.6 E 1338388.7

\* = HORIZONTAL

HDC = HIGH-DEFLECTION COUPLING

**FIRE HYDRANT TEE CHART**

FHT	NAD 83/91 COORDINATES
A-1	N 539464.5441 E 1338291.6194
A-2	N 539486.4748 E 1338202.1461
* A-3	N 540214.8194 E 1338438.5178
B-1	N 539423.1660 E 1338448.5671
G-1	N 540150.8370 E 1338043.5168
C-2	N 540383.6164 E 1337128.0482
C-3	N 540522.0227 E 1337111.6808
D-1	N 540586.4842 E 1337166.5790
G-1	N 540121.14 E 1338375.40
F-1	N 540103.32 E 1338164.48

\* FHT FOR FUTURE FIRE HYDRANT

**SEWER MANHOLE CHART**

M#	NAD 83/91 COORDINATES
1	N 539471.3855 E 1338641.5822
2	N 539481.2140 E 1338651.2662
2A	N 539485.3 E 1338624.0
2B	N 539484.3 E 1338655.0
3	N 539473.3856 E 1338404.0261
4	N 540030.3724 E 1338371.2664
5	N 539471.1922 E 1338345.5581
6	N 539474.6655 E 1338276.2422
22	N 540441.0584 E 1337124.8402
23	N 540320.1046 E 1337144.6846
24	N 540348.5317 E 1337103.8544
25	N 540275.4442 E 1337121.4714

PARCEL C-1 PLAT No. 16624 SDP-04-46

PREPARED FOR:

G&R WESSEL, LLC  
 SUITE 300 WOODHOLME CENTER  
 1829 REISTERSTOWN ROAD  
 BALTIMORE, MD 21208  
 ATTN: CHARLIE O'DONOVAN  
 410-484-8400

SCALE 1"=50'

SHEET 2 OF 7

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

*Paul Campbell Acting BC 8/23/2017*  
 CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF ZONING  
 PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND

*Chad Whelan*  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 200 - BURTONTOWNE OFFICE PARK  
 BURTONTOWNE, MARYLAND 20886  
 TEL: 301-421-4024 FAX: 301-889-2524

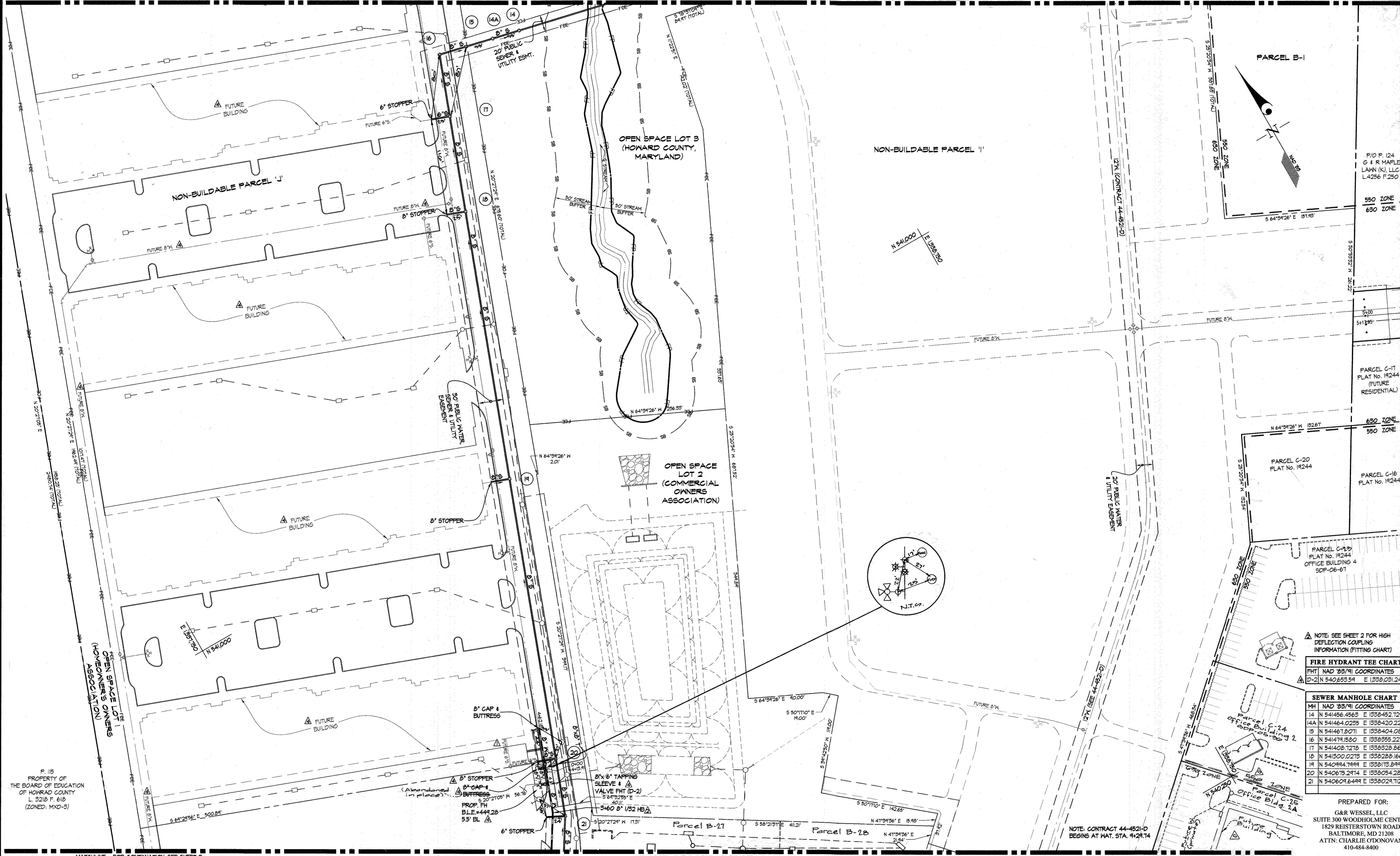
DATE MAY, 2009  
 G.L.W. No. 06081

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  
 EXP. DATE: MAY 26, 2018

NO.	REVISION	DATE
1	SHOW NEW FUTURE BUILDINGS & FUTURE IMPROVEMENTS (REPLACEMENT SHEET)	8/30/2017
2	SHOW NEW FUTURE BLDGS & NEW SEWER & NEW FIRE HYDRANT	12-29-2014
3	ADD AS-BUILT INFORMATION	8/30/2010
4	F-SEWER STUBS OFF OF MH-22 AND MH-25	8/20/09
5	ADDED WATERLINE 12" AND SCHED 40 24"-28" (REPLACEMENT SHEET)	5/22/09
6	WATER TEE REMOVED, FUTURE LAYOUT REVISED, 2 FIRE HYDRANTS ADDED (REPLACEMENT SHEET)	6/18/08
7	REPLACED DIMS IN TIE-IN, DIMS ON COUPLINGS DUE TO MATERIAL CHANGE, ADDED COORDINATE TABLE (REPLACEMENT SHEET)	5/2/08
8	REV. CONN. OF MAIN 'B' TO EX. 8" (CONTR. 24-4062-D), REV. BURY LINE INFO.	4/3/08
9	REV. ALL WATER CONN. TO 'B'; REV. WATER CONN. FOR IRRIGATION, REV. SD PER F-08-54, ADDED 8" TO MH-3 & 6'S TO MH-1	

(REPLACEMENT SHEET June-2017)  
**WATER AND SEWER EXTENSION PLAN**  
 (THIS PLAN SUPERCEDES PLAN SIGNED ON 07/17/08)

**MAPLE LAWN FARMS**  
 CONTRACT No. 24-4498-D  
 WESTSIDE DISTRICT - AREA 1  
 PARCELS B-1 THROUGH B-5, OPEN SPACE LOTS 1 THROUGH 4 AND NON-BUILDABLE PARCELS 'T', 'J', & 'K'  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT No. 5



P/O P. 124  
G & R MAPLE  
LAWN (K), LLC  
L4256 F.250

550 ZONE  
630 ZONE

PARCEL C-17  
PLAT No. 14244  
(FUTURE  
RESIDENTIAL)

630 ZONE  
550 ZONE

PARCEL C-20  
PLAT No. 14244

PARCEL C-16  
PLAT No. 14244

PARCEL C-13  
PLAT No. 14244  
OFFICE BUILDING 4  
SDP-06-61

NOTE: SEE SHEET 2 FOR HIGH DEFLECTION COUPLING INFORMATION (FITTING CHART)

**FIRE HYDRANT TEE CHART**

FHT NAD 83/91 COORDINATES

D-2	N 540655.59	E 1338031.24
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**SEWER MANHOLE CHART**

MH	NAD 83/91 COORDINATES
14	N 541456.4563 E 1338452.1290
14A	N 541464.0235 E 1338420.2284
15	N 541467.8071 E 1338404.0817
16	N 541479.1520 E 1338355.2274
17	N 541408.1278 E 1338328.5607
18	N 541500.0275 E 1338288.1668
19	N 540944.7494 E 1338175.8496
20	N 540675.2914 E 1338054.2885
21	N 540609.6499 E 1338029.1123

PREPARED FOR:  
G&R WESSEL, LLC  
SUITE 300 WOODHOLME CENTER  
1829 REISTERSTOWN ROAD  
BALTIMORE, MD 21208  
ATTN: CHARLIE ODOVANOVA  
410-484-9400

NOTE: CONTRACT 44-4521-D BEGINS AT MAT. STA. 9+29.74

P. 115  
PROPERTY OF  
THE BOARD OF EDUCATION  
OF HOWARD COUNTY  
L. 5218 F. 618  
(ZONED: MXD-3)

DEPARTMENT OF  
PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Steve C. Lee*  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF  
PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

*Chuck Edwards*  
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 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DES. DEV DRW. AML. CHK. DEV

DATE  
MAY 2009

G.L.W. No.  
06081

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  
EXP. DATE: MAY 26, 2010



BY	NO	REVISION	DATE
AW	1	Show new buildings improvements on Parcel B-21 thru B-27	8/11/17
AW	2	Add As-Built Info.	8/20/10
AW	3	Future 6" lines removed, added portions of C-19	8/10/09
AW	4	Water 'E' & 'T' removed, future layout revised, 2 fire hydrants added (REPLACEMENT SHEET)	5/22/09
AW	5	REPLACED CHAMPS W/ HORIZ. BENDS DUE TO MATERIAL CHANGE; ADDED NOTE; (REPLACEMENT SHEET)	6/18/08
AW	6	ADDED MH-26	4/3/08

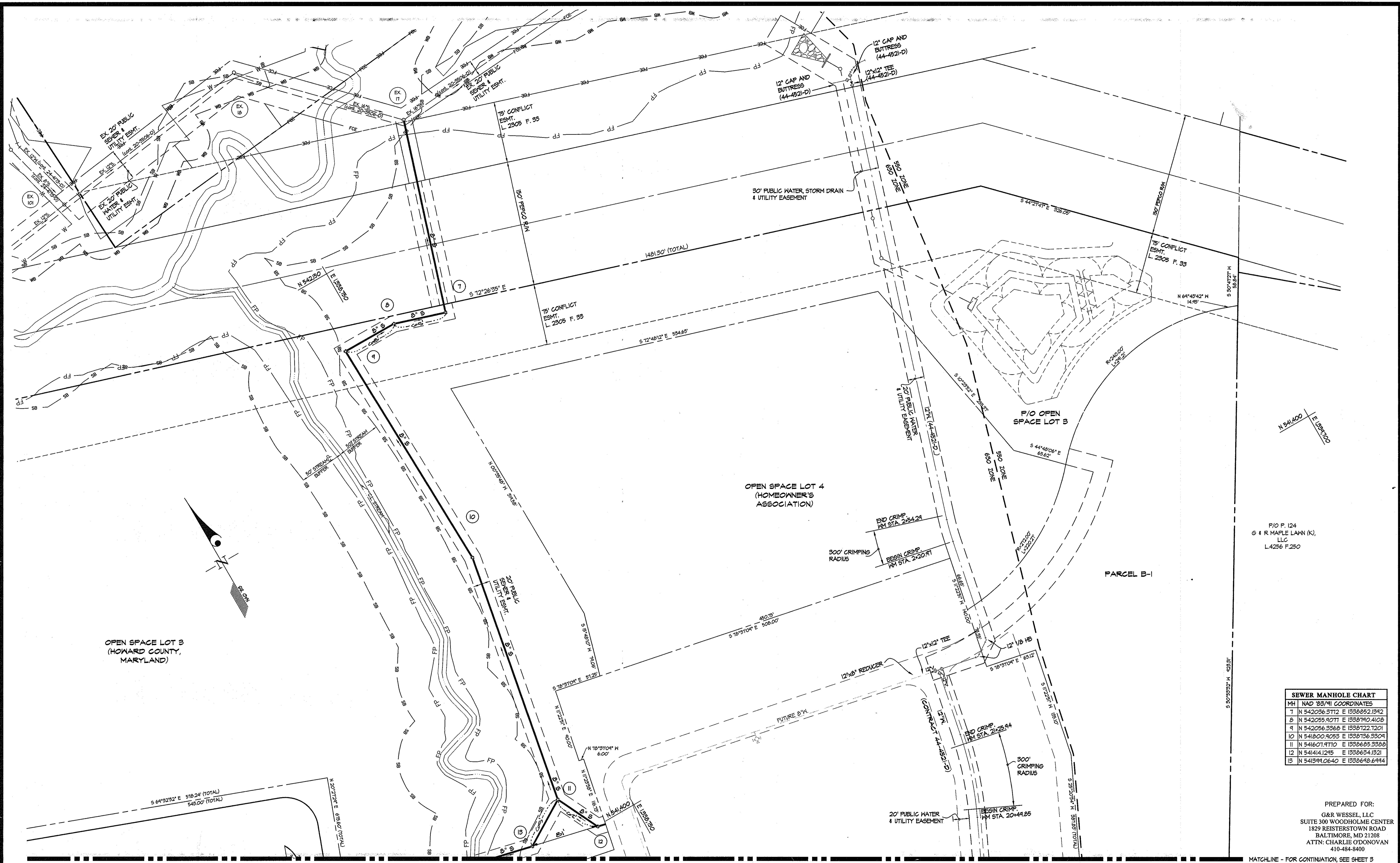
(REPLACEMENT SHEET)  
**WATER AND SEWER EXTENSION PLAN**  
(THIS PLAN SUPERCEDES PLAN SIGNED ON 07/17/08)

600' SCALE MAP NO. 46 BLOCK NO. 4

**MAPLE LAWN FARMS**  
CONTRACT No. 24-4498-D  
WESTSIDE DISTRICT - AREA 1  
PARCELS B-1 THROUGH B-5, OPEN SPACE LOTS 1 THROUGH 4 AND NON-BUILDABLE PARCELS 'T', 'J', & 'K'  
HOWARD COUNTY, MARYLAND  
ELECTION DISTRICT NO. 5

SCALE  
1"=50'

SHEET  
3 OF 7



OPEN SPACE LOT 3  
(HOWARD COUNTY,  
MARYLAND)

OPEN SPACE LOT 4  
(HOMEOWNER'S  
ASSOCIATION)

P/O OPEN  
SPACE LOT 3

P/O P. 124  
G & R MAPLE LAWN (K),  
LLC  
L.4256 F.250

SEWER MANHOLE CHART			
MH	NAD 83/91 COORDINATES		
7	N 542036.3712 E 1338852.1342		
8	N 542035.9071 E 1338790.4108		
9	N 542036.3368 E 1338722.1201		
10	N 541800.9053 E 1338736.3309		
11	N 541607.9710 E 1338685.3388		
12	N 541414.1245 E 1338634.1321		
13	N 541391.0640 E 1338648.6414		

PREPARED FOR:  
G&R WESSEL, LLC  
SUITE 300 WOODHOLME CENTER  
1829 REISTERSTOWN ROAD  
BALTIMORE, MD 21208  
ATTN: CHARLIE O'DONOVAN  
410-484-8400

MATCHLINE - FOR CONTINUATION, SEE SHEET 5

DEPARTMENT OF  
PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
  
S. J. O'Brien  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF  
PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND  
  
Charles Edwards  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**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 BAL: 410-880-1820 DC/VA: 301-988-2324 FAX: 301-421-4188  
L:\CADD\DRAWINGS\2007\06081\5\FINALS (2-4498-D)\060810502-04.dwg DES. DEV DRN. AML. CHK. DEV

DATE  
MAY  
2009  
  
G.L.W. No.  
06081

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  
EXP. DATE: MAY 26, 2008

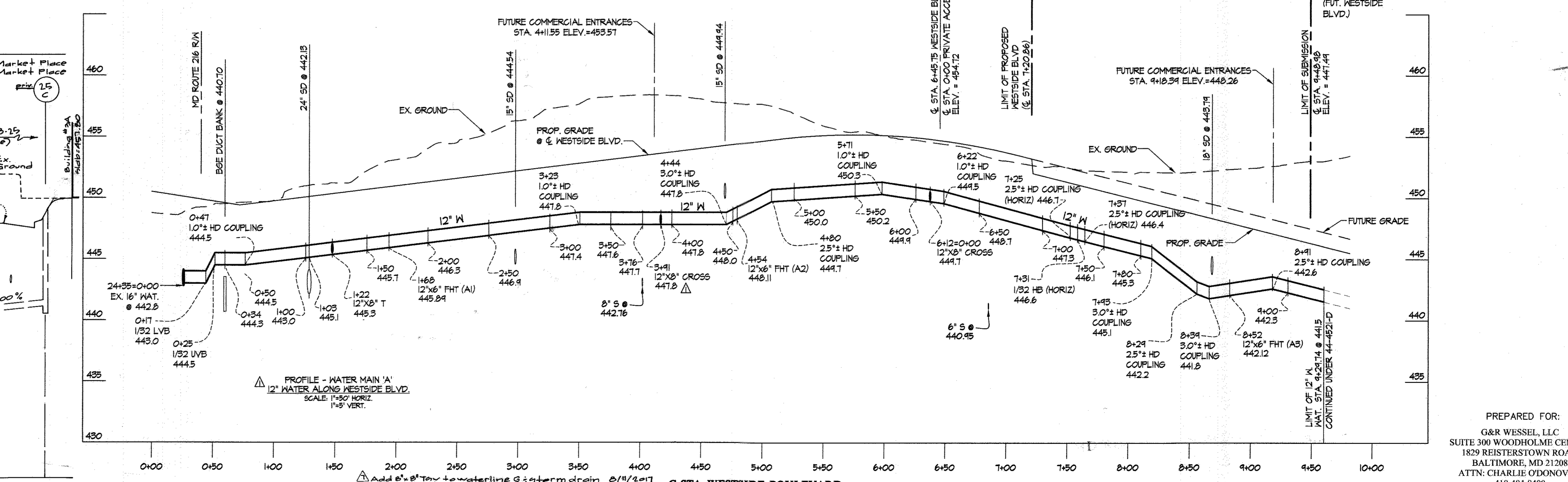
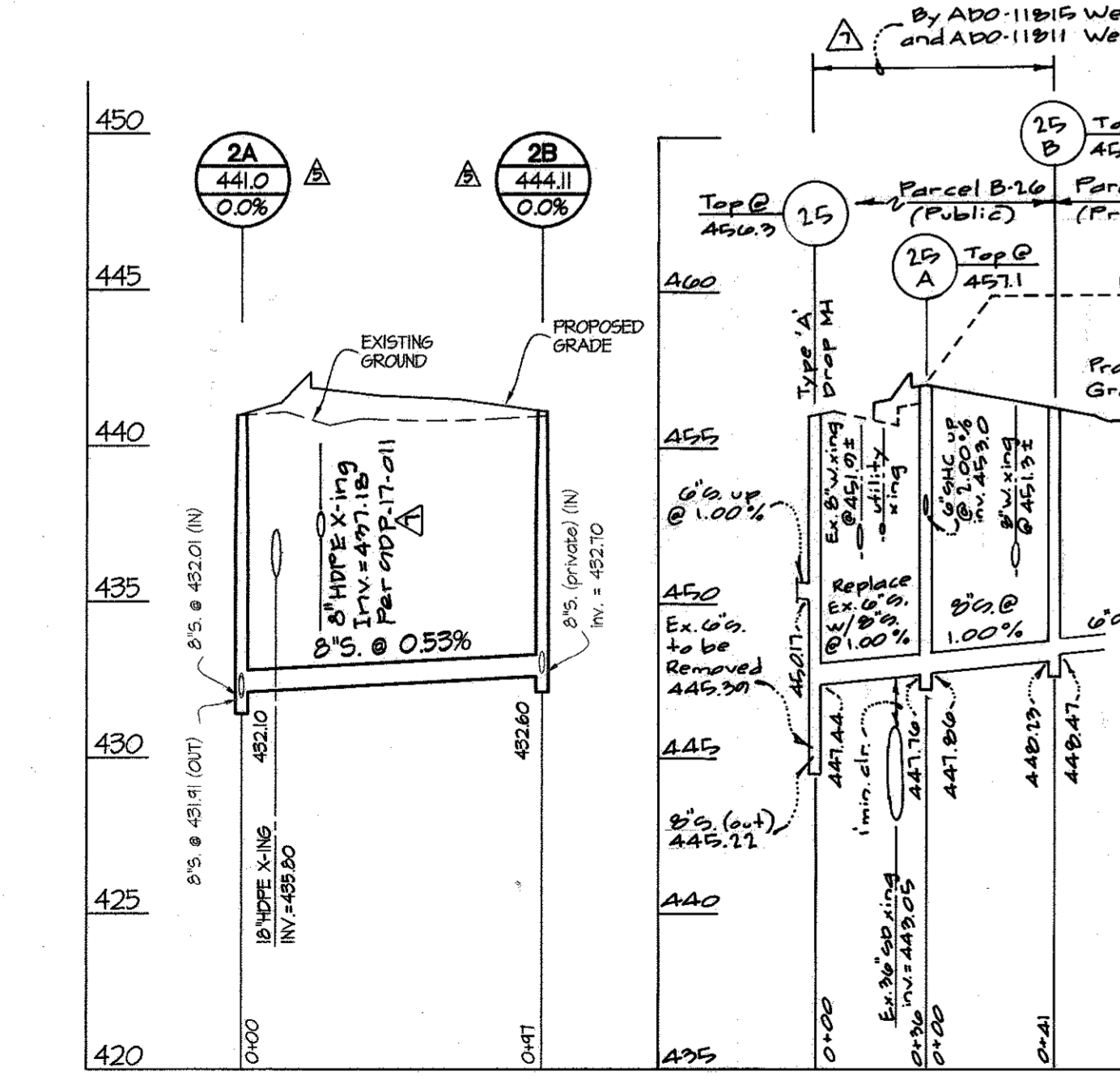
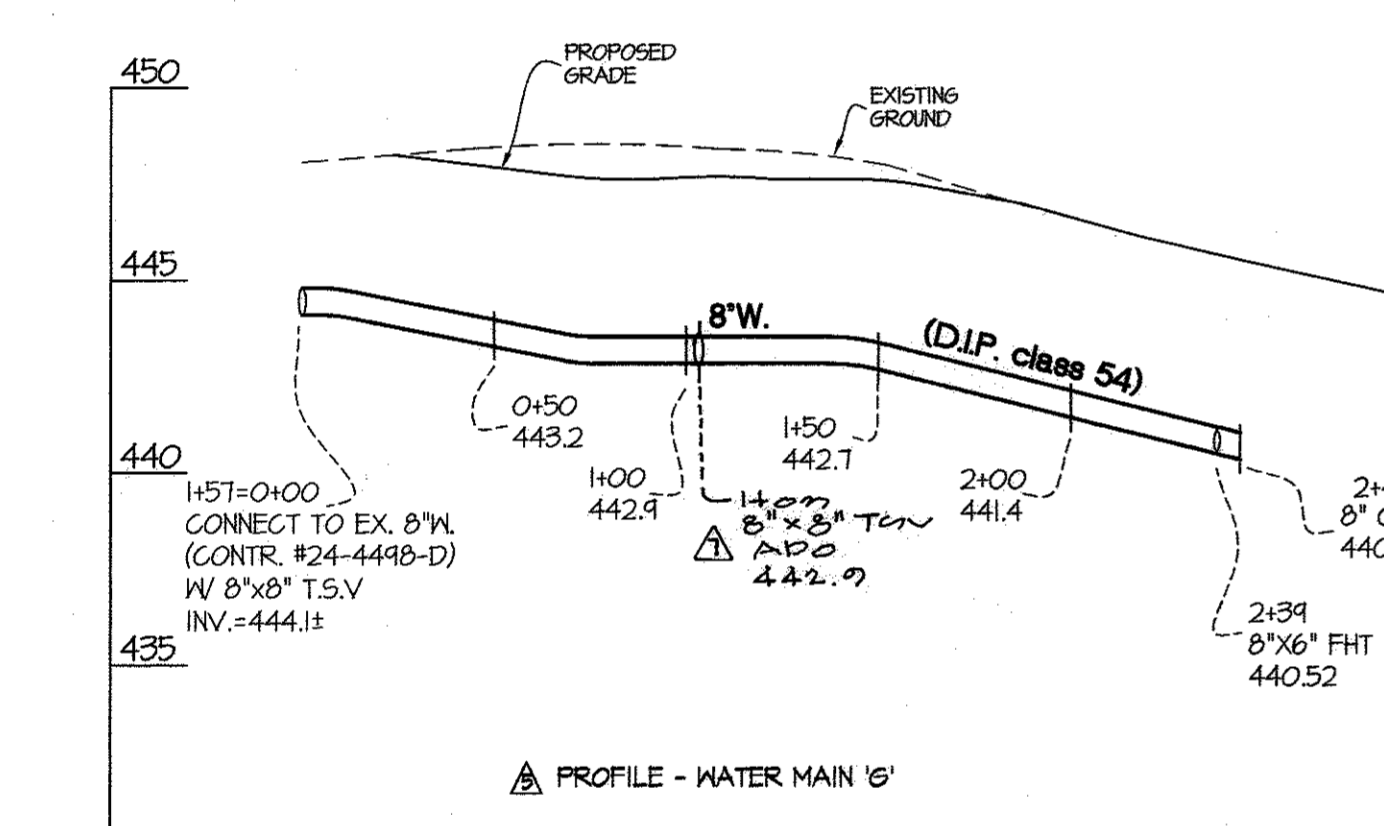
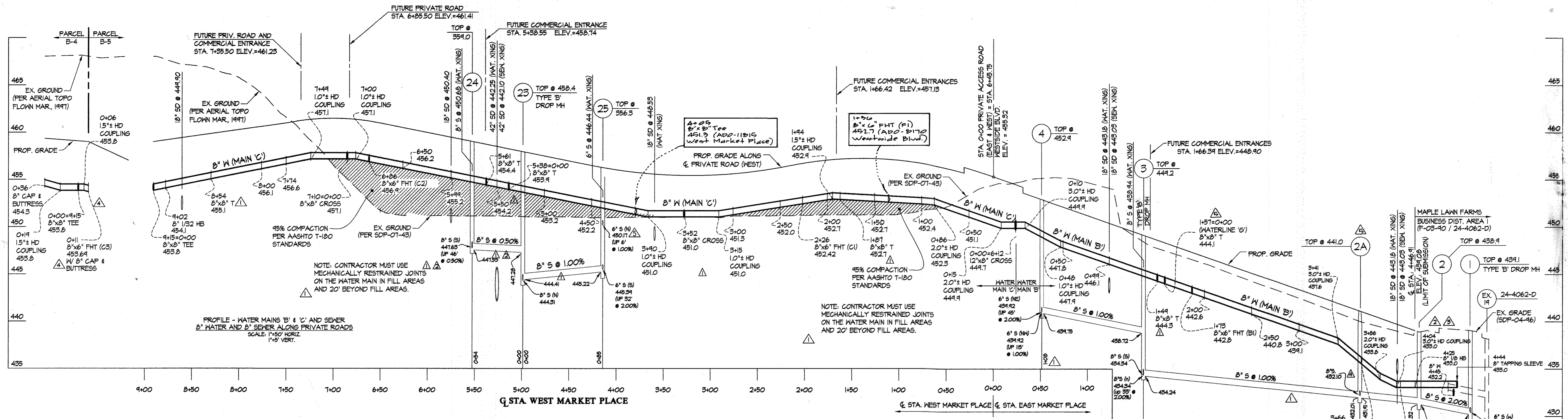


NO.	REVISION	DATE
1	Add As-Built Info.	8/20/10
2	WATER "E" REWORKED, FUTURE LAYOUT REVISED, 2 FIRE HYDRANTS ADDED.	5/22/09

(REPLACEMENT SHEET)  
**WATER AND SEWER EXTENSION PLAN**  
(THIS PLAN SUPERCEDES  
PLAN SIGNED ON 07/17/08)  
  
600' SCALE MAP NO. 46 BLOCK NO. 4

**MAPLE LAWN FARMS**  
CONTRACT No. 24-4498-D  
WESTSIDE DISTRICT - AREA 1  
PARCELS B-1 THROUGH B-5, OPEN SPACE LOTS 1  
THROUGH 4 AND NON-BUILDABLE PARCELS 'I', 'J', & 'K'  
HOWARD COUNTY, MARYLAND  
ELECTION DISTRICT No. 5

SCALE  
1"=50'  
  
SHEET  
4 OF 7



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Steve C. Green* 9/13/09  
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

*John J. ...* 9/23/09  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 230 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20866  
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4188

DES. DEV. DRN. AML. CHK. DEV.

DATE MAY, 2009  
G.L.W. No. 06081

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  
EXP. DATE: MAY 26, 2010

*Charles J. ...* 9-23-09

REVISION	DATE
ADD WATER MAIN 'G' AND SEWER RUN 24-26 PROFILES AND ADD 8\"/>	8/20/09
NOTE: REVISIONS APPROVED IN LETTER DATED 02/19/08 WERE NOT INCORPORATED.	
REMOVE 8\"/>	5/22/09
REPLACED CRIMPS WITH VERTICAL BENDS OR COUPLINGS DUE TO MATERIAL CHANGE, REVISED 8\"/>	6/18/08
REVERSE CONNECTION OF MAIN 'B' TO EX. 8\"/>	5/2/08
REV. 8\"/>	4/3/08

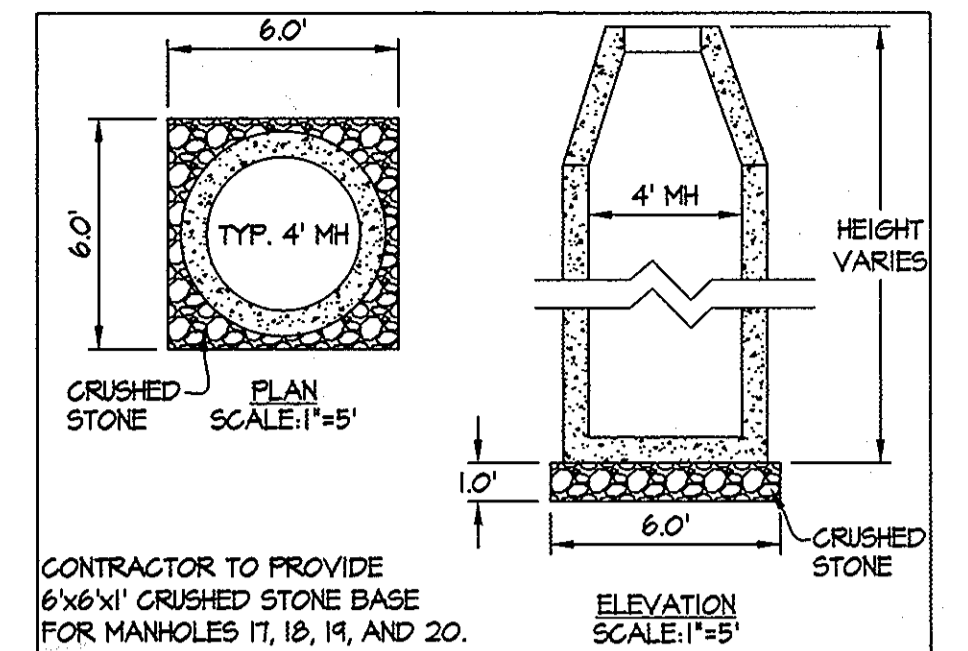
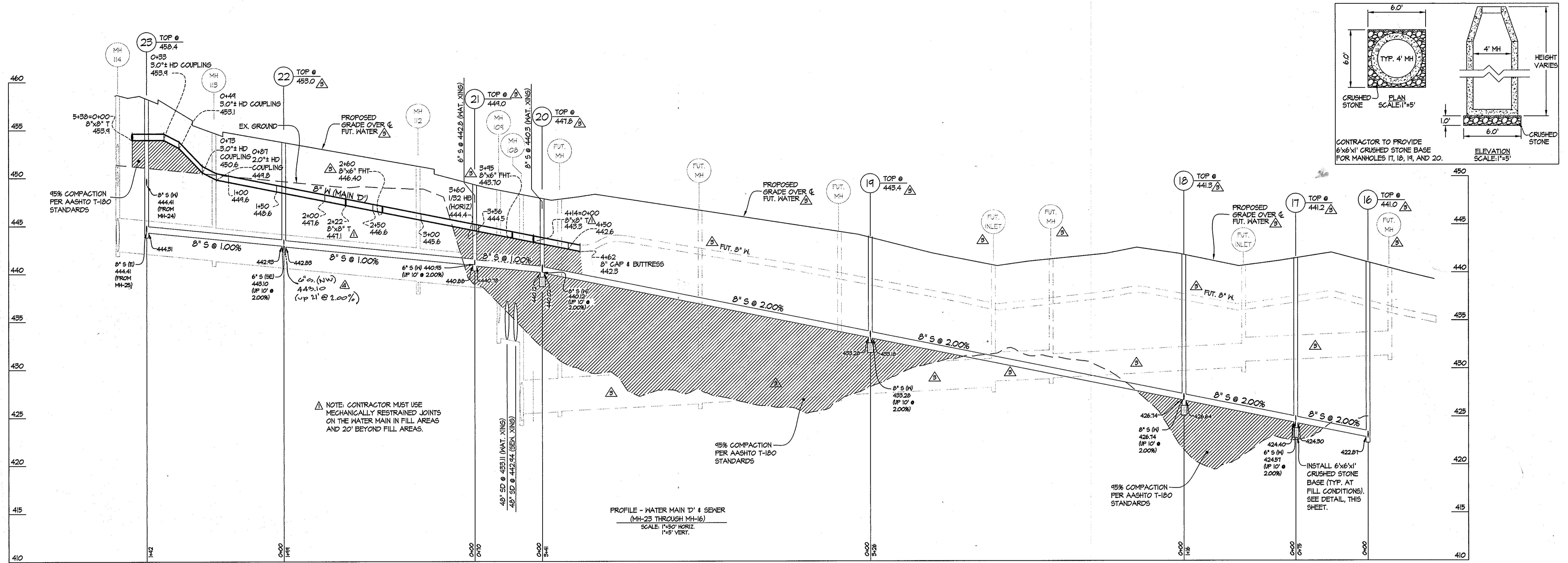
(REPLACEMENT SHEET)  
WATER AND SEWER PROFILES  
(THIS PLAN SUPERCEDES PLAN SIGNED ON 07/17/08)

600' SCALE MAP NO. 46 BLOCK NO. 4

**MAPLE LAWN FARMS**  
CONTRACT No. 24-4498-D  
WESTSIDE DISTRICT - AREA 1  
PARCELS B-1 THROUGH B-5 OPEN SPACE LOTS 1 THROUGH 4 AND NON-BUILDABLE PARCELS 'J', 'K' & 'K'  
HOWARD COUNTY, MARYLAND  
ELECTION DISTRICT No. 5

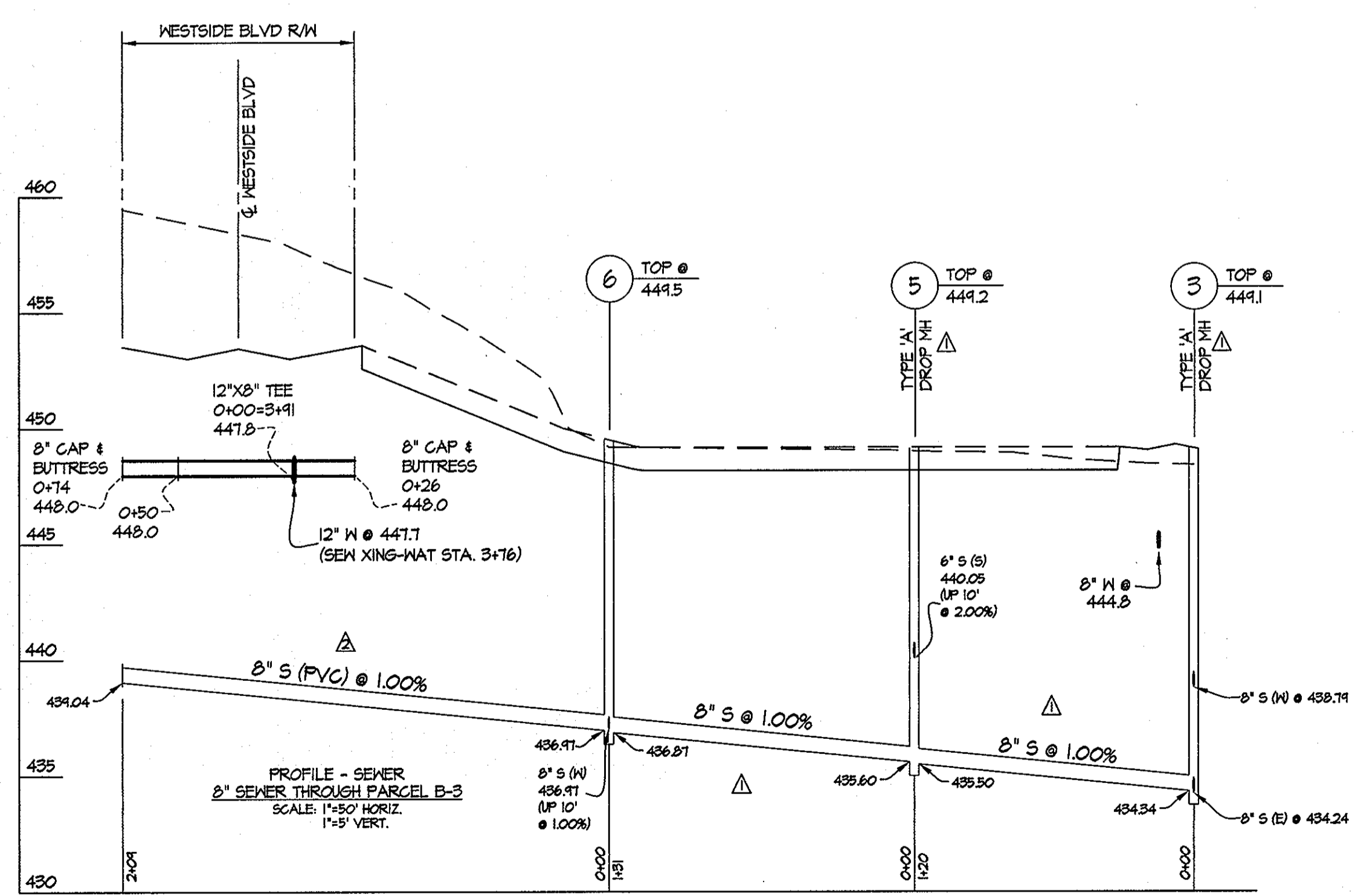
SCALE AS SHOWN  
SHEET 5 OF 7

PREPARED FOR:  
G&R WESSEL, LLC  
SUITE 300 WOODHOLME CENTER  
1829 REISTERSTOWN ROAD  
BALTIMORE, MD 21208  
ATTN: CHARLIE O'DONOVAN  
410-484-8400



NOTE: CONTRACTOR MUST USE MECHANICALLY RESTRAINED JOINTS ON THE WATER MAIN IN FILL AREAS AND 20' BEYOND FILL AREAS.

PROFILE - WATER MAIN & SEWER (MH-23 THROUGH MH-16)  
SCALE: 1"=50' HORIZ. 1"=5' VERT.



PREPARED FOR:  
G&R WESSEL, LLC  
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1829 REISTERSTOWN ROAD  
BALTIMORE, MD 21208  
ATTN: CHARLIE O'DONOVAN  
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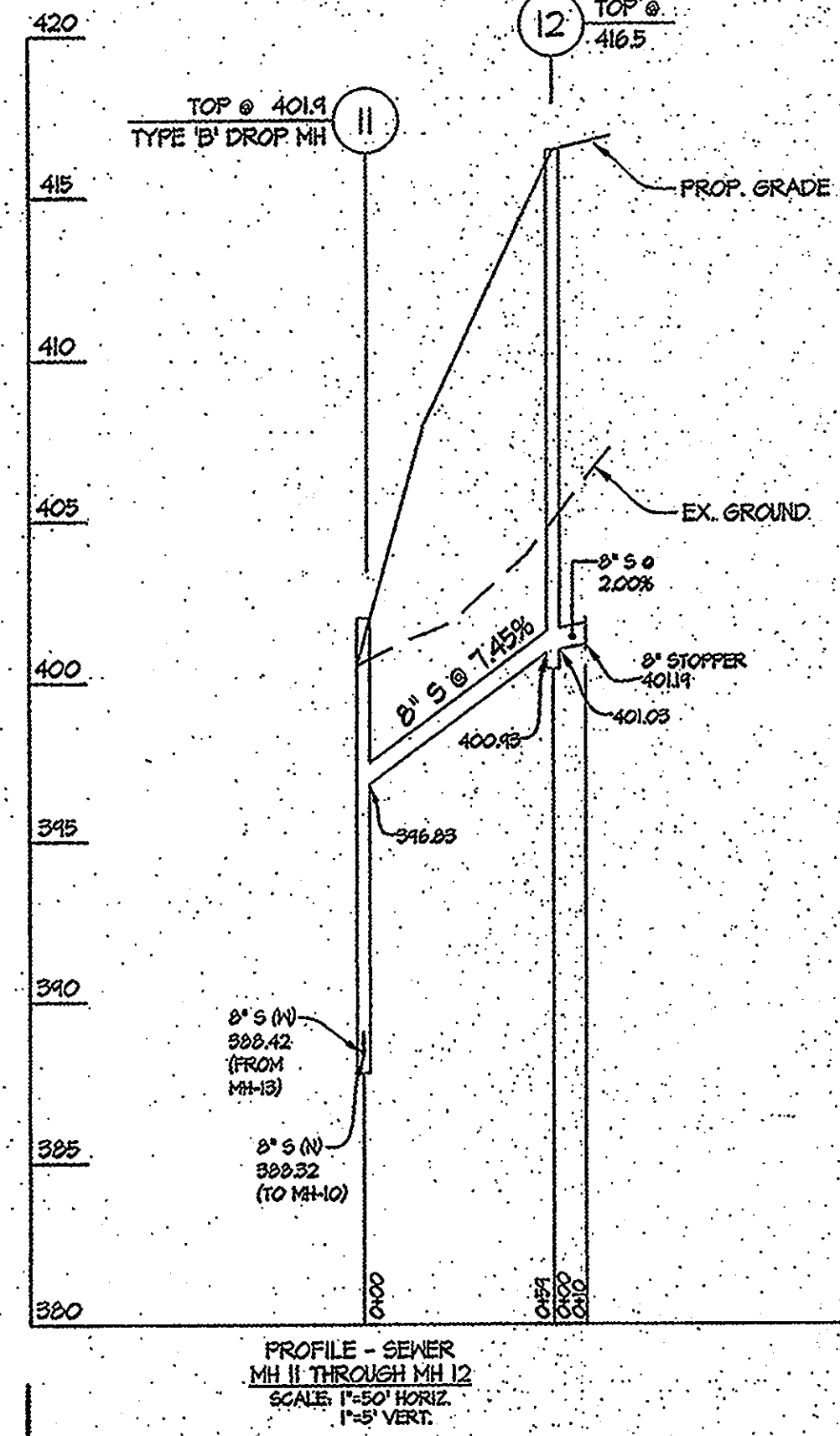
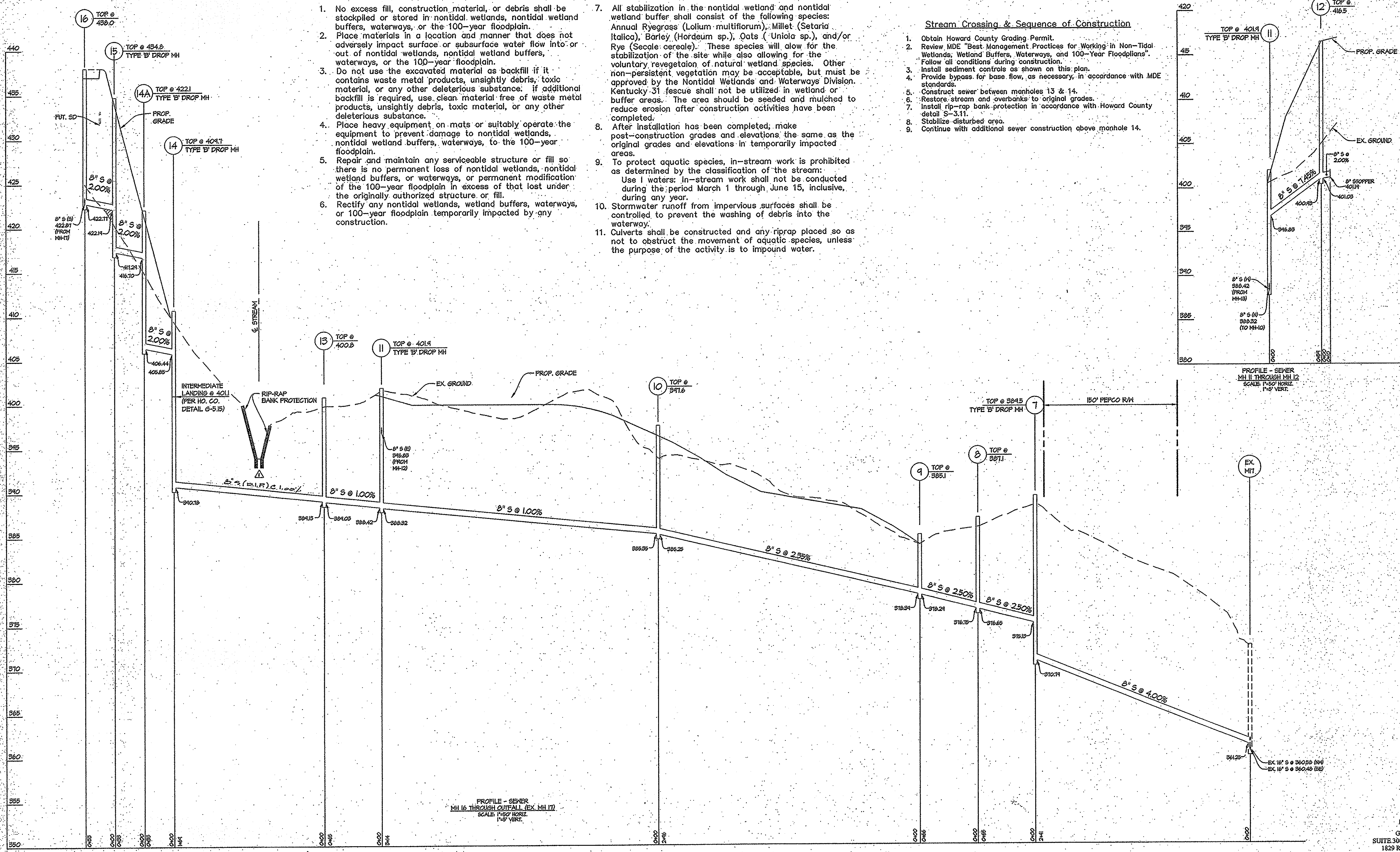
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Silda C. Green CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND Chad Edmondson CHIEF, DEVELOPMENT ENGINEERING DIVISION	<b>GLW</b> GUTSCHICK LITTLE & WEBER, P.A. CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS 3009 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK BURTONSVILLE, MARYLAND 20886 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186	DATE MAY 2009	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. 12375 EXP. DATE: MAY 26, 2010	REVISION APPROVED IN LETTER DATED 02/19/08 WER NOT INCORPORATED.	(REPLACEMENT SHEET) WATER AND SEWER PROFILES (THIS PLAN SUPERCEDES PLAN SIGNED ON 07/17/08)	<b>MAPLE LAWN FARMS</b> CONTRACT No. 24-4498-D WESTSIDE DISTRICT - AREA 1 PARCELS B-1 THROUGH B-5, OPEN SPACE LOTS 1 THROUGH 4 AND NON-BUILDABLE PARCELS T, 'J', & 'K' HOWARD COUNTY, MARYLAND ELECTION DISTRICT No. 5	SCALE AS SHOWN
			G.L.W. No. 06081					BY NO REVISION

BEST MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, AND 100-YEAR FLOODPLAINS

- No excess fill, construction material, or debris shall be stockpiled or stored in nontidal wetlands, nontidal wetland buffers, waterways, or the 100-year floodplain.
- Place materials in a location and manner that does not adversely impact surface or subsurface water flow into or out of nontidal wetlands, nontidal wetland buffers, waterways, or the 100-year floodplain.
- Do not use the excavated material as backfill if it contains waste metal products, unsightly debris, toxic material, or any other deleterious substance; if additional backfill is required, use clean material free of waste metal products, unsightly debris, toxic material, or any other deleterious substance.
- Place heavy equipment on mats or suitably operate the equipment to prevent damage to nontidal wetlands, nontidal wetland buffers, waterways, or the 100-year floodplain.
- Repair and maintain any serviceable structure or fill so there is no permanent loss of nontidal wetlands, nontidal wetland buffers, or waterways, or permanent modification of the 100-year floodplain in excess of that lost under the originally authorized structure or fill.
- Rectify any nontidal wetlands, wetland buffers, waterways, or 100-year floodplain temporarily impacted by any construction.
- All stabilization in the nontidal wetland and nontidal wetland buffer shall consist of the following species: Annual Ryegrass (*Lolium multiflorum*), Millet (*Setaria italica*), Barley (*Hordeum sp.*), Oats (*Uniola sp.*), and/or Rye (*Secale cereale*). These species will allow for the stabilization of the site while also allowing for the voluntary revegetation of natural wetland species. Other non-persistent vegetation may be acceptable, but must be approved by the Nontidal Wetlands and Waterways Division. Kentucky 31 fescue shall not be utilized in wetland or buffer areas. The area should be seeded and mulched to reduce erosion after construction activities have been completed.
- After installation has been completed, make post-construction grades and elevations the same as the original grades and elevations in temporarily impacted areas.
- To protect aquatic species, in-stream work is prohibited as determined by the classification of the stream:  
Use 1 waters: In-stream work shall not be conducted during the period March 1 through June 15, inclusive, during any year.
- Stormwater runoff from impervious surfaces shall be controlled to prevent the washing of debris into the waterway.
- Culverts shall be constructed and any riprap placed so as not to obstruct the movement of aquatic species, unless the purpose of the activity is to impound water.

Stream Crossing & Sequence of Construction

- Obtain Howard County Grading Permit.
- Review MDE "Best Management Practices for Working in Non-Tidal Wetlands, Wetland Buffers, Waterways, and 100-Year Floodplains". Follow all conditions during construction.
- Install sediment controls as shown on this plan.
- Provide bypass for base flow, as necessary, in accordance with MDE standards.
- Construct sewer between manholes 13 & 14.
- Restore stream and overbanks to original grades.
- Install rip-rap protection in accordance with Howard County detail S-3.11.
- Stabilize disturbed area.
- Continue with additional sewer construction above manhole 14.



PROFILE - SEWER MH 16 THROUGH OUTFALL (EX. MH 17) SCALE: 1"=50' HORIZ. 1"=5' VERT.

PREPARED FOR:  
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MAPLE LAWN FARMS  
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THROUGH 4 AND NON-BUILDABLE PARCELS 'I', 'J', & 'K'  
HOWARD COUNTY, MARYLAND  
ELECTION DISTRICT No. 5

SCALE AS SHOWN  
SHEET 7 OF 7

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

12-21-07

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

1/10/08

GLW GUTSCHICK LITTE & WEBER, P.A.  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
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BURTONTOWNE, MARYLAND 20866  
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-888-2524 FAX: 301-421-4188

DATE: DEC. 2007

G.L.W. No. 06081

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LICENSE NO. 12975  
EXP. DATE: MAY 26, 2008



BY	NO	REVISION	DATE
		revised material from MH 14 to MH 13 to BLP	4/2/08

SEWER PROFILES

600' SCALE MAP NO. 46 BLOCK NO. 4