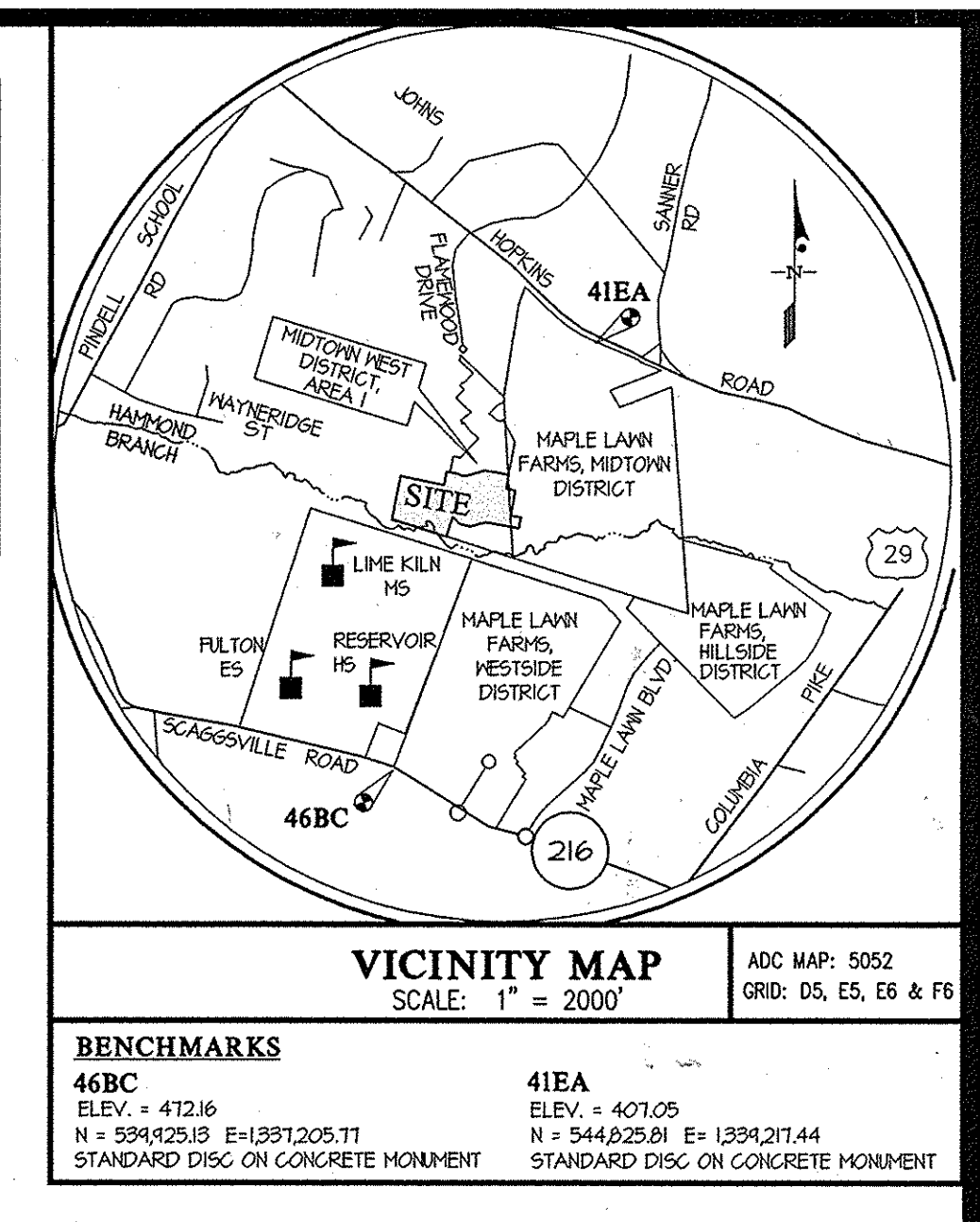
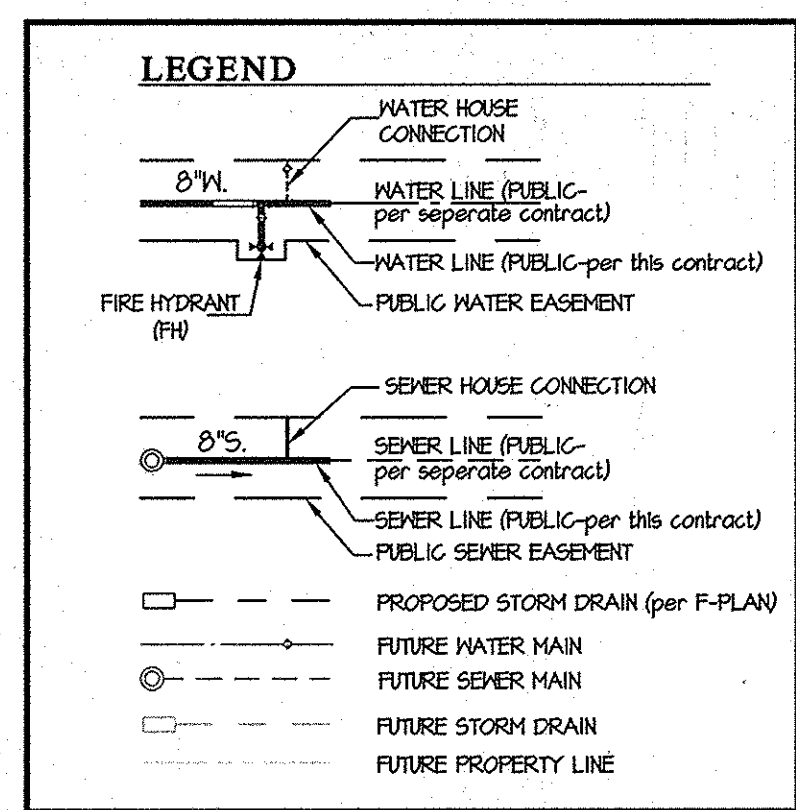


ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
12" D.I.P. WATER MAIN	1495 L.F.	2097 L.F.	CL 54	ATLANTIC STATES
8" D.I.P. WATER MAIN	561 L.F.	563 L.F.	CL 54	ATLANTIC STATES
6" D.I.P. WATER MAIN	341 L.F.	359 L.F.	CL 54	ATLANTIC STATES
1 1/2" W.H.C.	888 L.F.	1104 L.F.	TYPE K	MUELLER INDUSTRIES
12" VALVE		2	GATE	AMERICAN FLOW
12"x6" TEE	1 EA.	1 EA.	M.J	TYLER/UNION
12"x6" TEE	1 EA.	1 EA.	M.J	TYLER/UNION
12"x6" FHT	3 EA.	2 EA.	M.J	TYLER/UNION
12" 1/8" HB	2 EA.	2 EA.	M.J	TYLER/UNION
12" 1/8" HB	8 EA.	6 EA.	M.J	TYLER/UNION
8" VALVE		1 EA.	GATE	AMERICAN FLOW
8"x6" TEE	1 EA.	1 EA.	M.J	TYLER/UNION
8" 1/8" HB	1 EA.	1 EA.	M.J	TYLER/UNION
8"x6" FHT	1 EA.	2 EA.	M.J	TYLER/UNION
6" VALVE		6 EA.	GATE	AMERICAN FLOW
8" SEWER MAIN D.I.P.		854 L.F.	CLASS 54 DIP	ATLANTIC STATES
8" SEWER MAIN	2250 L.F.	2116 L.F.	PVC	NORTH AMERICAN
SEWER MANHOLES	19 EA.	20 EA.	PRE-CAST	ATLANTIC CONCRETE
FIRE HYDRANTS	4 EA.	4 EA.	CENTURION	MUELLER INDUSTRIES

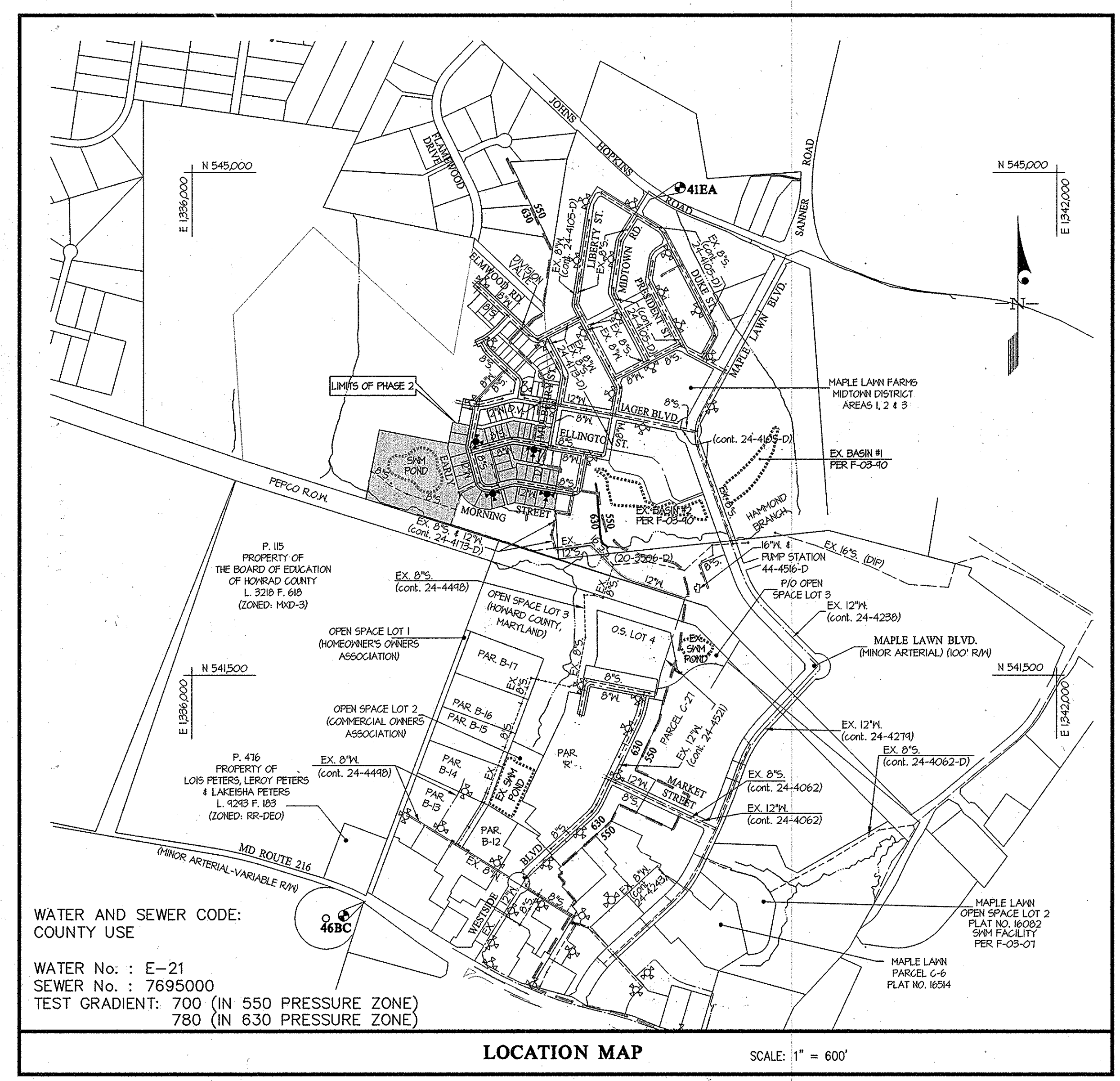
TYPE OF BUILDING	RESIDENTIAL
NUMBER OF UNITS	34
NUMBER OF S.H.C.'s	34
NUMBER OF W.H.C.'s	34 (34 SINGLE)
SEWER SHED	LITTLE PATUXENT
PUMPING STATION	N/A



SURVEY AND CHECKBOX:
DRAFTING DIV. AS-BUILT DATE: 11-13-12



1 - WATER & SEWER TITLE SHEET
2 - WATER & SEWER PLAN
3 - WATER & SEWER PROFILE
4 - WATER & SEWER PROFILES
5 - WATER & SEWER PROFILES



- 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.
 - TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED DURING MARCH 1991 BY SDI.
 - HORIZONTAL AND VERTICAL SURVEY CONTROL:
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. 46BC AND NO. 41EA.
ALL VERTICAL CONTROLS ARE BASED ON NAVD '88. VERTICAL CONTROLS PROVIDED ON THE 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 THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY 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 (M) 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 SHOWN ON THESE PLANS:
AT&T..... 1-800-252-1133
BGE (CONTRACTOR SERVICES)..... 410-631-8713
BGE (EMERGENCY)..... 410-605-0123
BUREAU OF UTILITIES..... 410-313-4400
COLONIAL PIPELINE CO..... 410-745-1340
MISS UTILITY..... 1-800-257-TTTT
STATE HIGHWAY ADMINISTRATION..... 410-531-5533
VERIZON..... 1-800-745-0033 / 410-224-4210
 - TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION 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)-313-7450 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 10.14(A) OF THE HOWARD COUNTY CODE.
- PART II WATER
- ALL WATER MAINS SHALL BE D.I.P. CLASS 54 UNLESS OTHERWISE NOTED.
 - 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 INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND SECTION 1005 OF THE STANDARD SPECIFICATIONS.
 - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
 - TRACER WIRE AND CONTINUITY TEST STATIONS SHALL BE INSTALLED ON ALL DIP WATER MAINS IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL.
- PART III
- 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 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
 - MANHOLES DESIGNATED "RT" 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'-0" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 - HOUSE(S) WITH THE SYMBOL (CN) INDICATES THAT THE CELLAR CANNOT BE SERVED.

WATER AND SEWER CODE:
COUNTY USE

WATER No. : E-21
SEWER No. : 7695000
TEST GRADIENT: 700 (IN 550 PRESSURE ZONE)
780 (IN 630 PRESSURE ZONE)

CONTRACT No. 24-4702-D MAPLE LAWN FARMS MIDTOWN WEST DISTRICT - AREA 1 (PHASE II) HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE SPECIFICATIONS AND WITH ROAD DRAWINGS F 12-30 FOR SEDIMENT AND EROSION CONTROL.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT.

John K. Robertson 3/15/12
SIGNATURE DATE

U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE

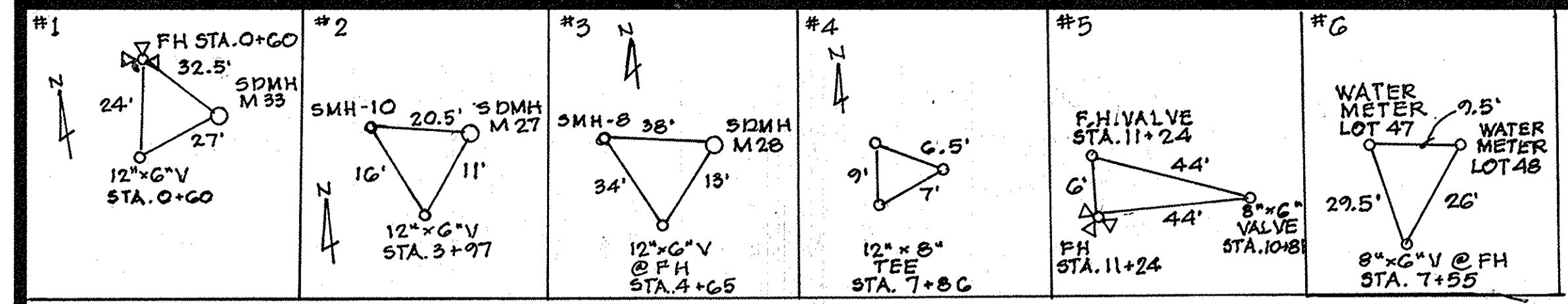
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

APPROVED: *[Signature]*
Date: _____

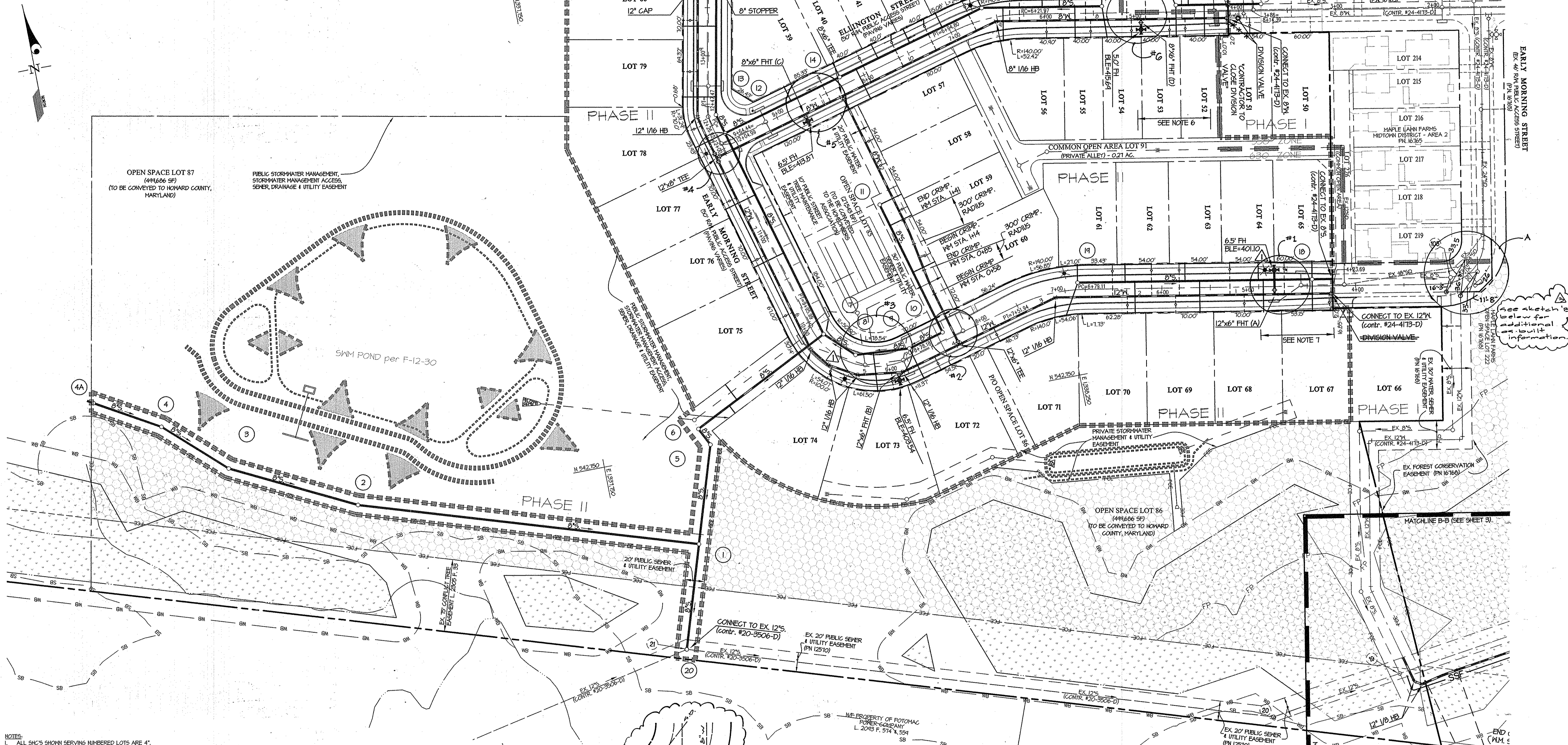
HOWARD S.C.D. Date

PREPARED FOR:
GREENBAUM DEVELOPMENT, INC.
SUITE 300 WOODOLME CENTER
1829 REISTERSTOWN ROAD
BALTIMORE, MD 21208
ATTN: MARK BENNETT
410-484-8400

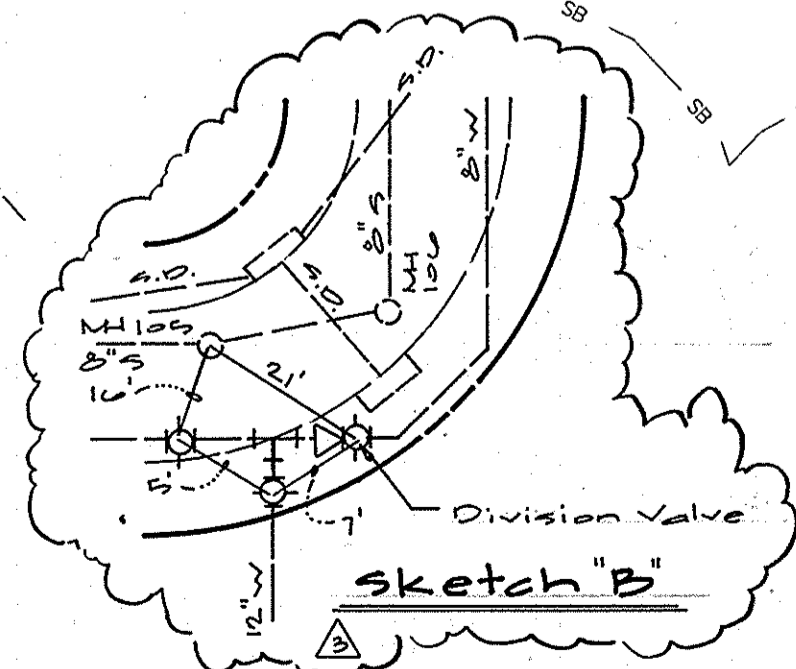
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND 2/17/12	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND 3/15/12	GLW GUTSCHICK LITTLE & WEBER, P.A. CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE - SUITE 250 - BURTONVILLE OFFICE PARK BURTONVILLE, MARYLAND 20866 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186	DATE JANUARY, 2012	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, 2012	LEM BY NO BY NO	"QUANTITIES" TABLE REVISION	DATE 12-14-12	600' SCALE MAP NO. 41 BLOCK NO. 15 & 21	MAPLE LAWN FARMS CONTRACT No. 24-4702-D MIDTOWN WEST DISTRICT - AREA 1 (PHASE II) LOTS 39 thru 49, 52 thru 65, 67 thru 80 and OPEN SPACE LOTS 85 and thru 87 HOWARD COUNTY, MARYLAND ELECTION DISTRICT No. 5	SCALE AS SHOWN SHEET 1 OF 6
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PARCEL 114 (RESIDUE) MAPLE LAWN FARMS, INC. L. 1056 F. 570 (PARCEL 2)



- NOTES:
- ALL SHCS SHOWN SERVING NUMBERED LOTS ARE 4".
 - ALL MANHOLES WILL BE STANDARD 4'-0" (S 512).
 - OUTSIDE METERS WILL BE PER HOWARD COUNTY DETAIL H 332 FOR THIN CONNECTIONS AND DETAIL H 328 FOR SINGLE CONNECTIONS.
 - ALL SHCS SHOWN SERVING NUMBERED LOTS ARE 1 1/2" WITH A 1" METER, OUTSIDE SETTING.
 - EXISTING VALVE TO BE CLOSED BY DPH FOR CONSTRUCTION.
 - CONTRACTOR TO TRANSITION FROM 24" PAVING WIDTH TO 28" PAVING WIDTH FROM & STA. 4+20.54 TO & STA. 4+45.54.
 - CONTRACTOR TO TRANSITION FROM 28" PAVING WIDTH TO 26" PAVING WIDTH FROM & STA. 6+79.11 TO & STA. 1+60.03



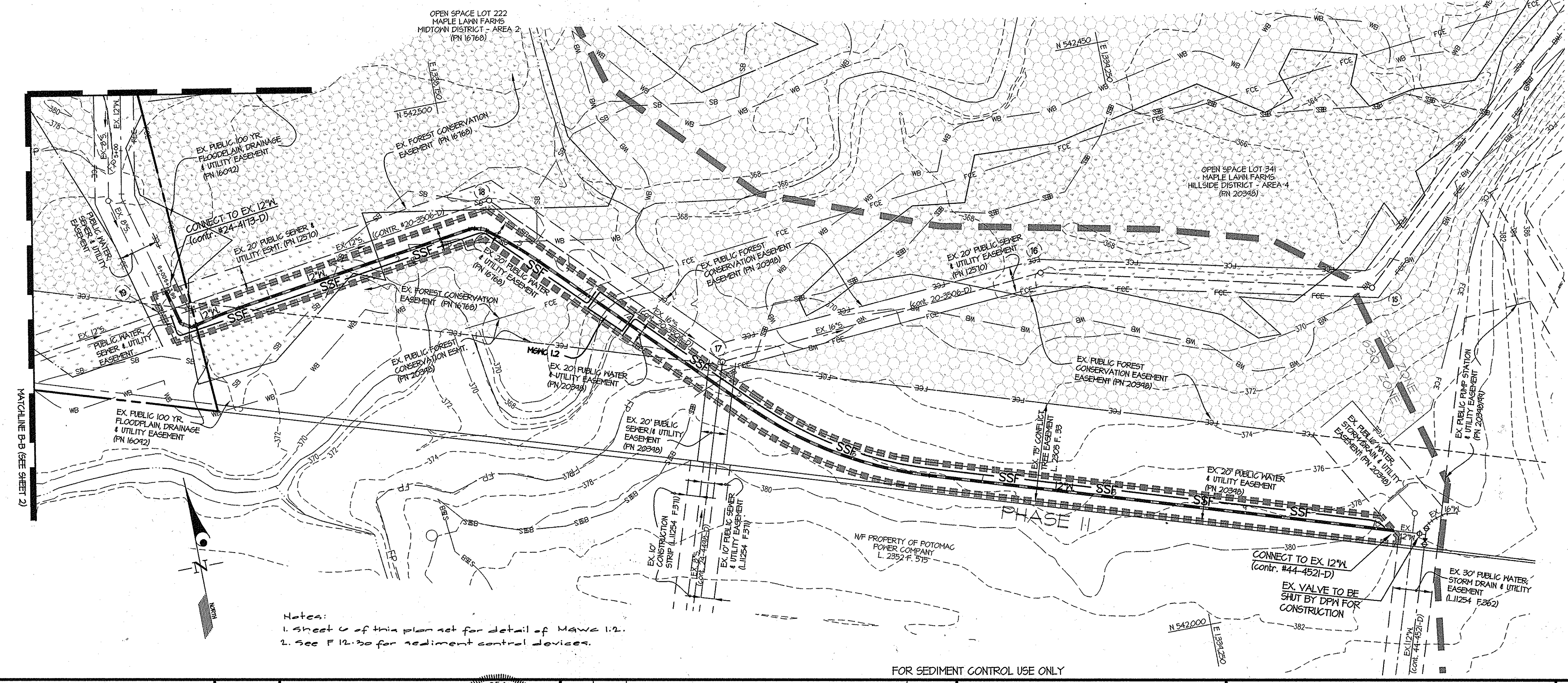
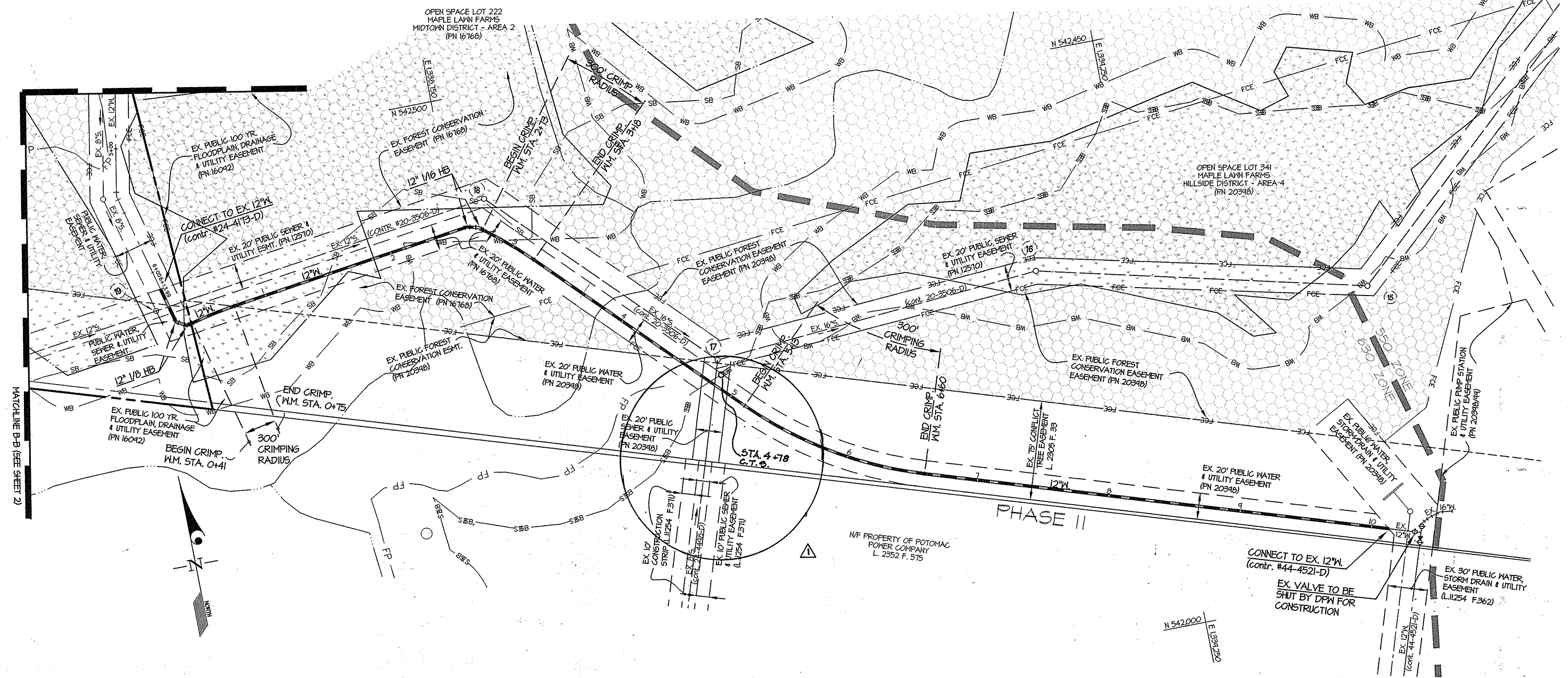
PREPARED FOR:
GREENBAUM DEVELOPMENT, INC.
SUITE 300 WOODHOLME CENTER
1829 REISTERSTOWN ROAD
BALTIMORE, MD 21208
ATTN: MARK BENNETT
410-484-8400

<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>Silvia C...</i> 2/13/12 CHIEF, BUREAU OF UTILITIES DATE</p>	<p>DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND</p> <p><i>...</i> 3/13/12 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE</p>	<p>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: 410-380-1820 DC/VA: 301-989-2524 FAX: 301-421-4186</p>	<p>DATE: JANUARY, 2012 G.L.W. No. 09001</p>	<p>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, 2012</p> <p><i>[Signature]</i></p>	<table border="1"> <thead> <tr> <th>BY</th> <th>NO</th> <th>REVISION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>GLW</td> <td>1</td> <td>Added sketch 'B' to provide as-built information for division valve</td> <td>01-27-12</td> </tr> <tr> <td>LEM</td> <td>2</td> <td>Added #1 thru #6 & 4</td> <td>12-18-12</td> </tr> <tr> <td>W&S</td> <td>3</td> <td>ex location of mts, etc, met & street lights</td> <td>01/02/12</td> </tr> </tbody> </table>	BY	NO	REVISION	DATE	GLW	1	Added sketch 'B' to provide as-built information for division valve	01-27-12	LEM	2	Added #1 thru #6 & 4	12-18-12	W&S	3	ex location of mts, etc, met & street lights	01/02/12	<p>WATER & SEWER PLAN 600' SCALE MAP NO. 41 BLOCK NO. 15 & 21</p>	<p>MAPLE LAWN FARMS CONTRACT No. 24-4702-D MIDTOWN WEST DISTRICT - AREA 1 (PHASE II) LOTS 39 thru 49, 52 thru 65, 67 thru 80 AND OPEN SPACE LOTS 85 and thru 87 HOWARD COUNTY, MARYLAND ELECTION DISTRICT No. 5</p>	<p>SCALE: 1"=50' SHEET: 2 OF 6</p>
BY	NO	REVISION	DATE																					
GLW	1	Added sketch 'B' to provide as-built information for division valve	01-27-12																					
LEM	2	Added #1 thru #6 & 4	12-18-12																					
W&S	3	ex location of mts, etc, met & street lights	01/02/12																					

MINIMUM CELLAR ELEVATIONS (M.C.E.)							
LOT	INV. @ MAIN/MH	INV. @ R/W	M.C.E.	LOT	INV. @ MAIN/MH	INV. @ R/W	M.C.E.
34	348.43	344.46	403.50	63*	340.46	341.32	344.16
40	---	400.35	404.43	64*	340.40	340.75	343.15
41	400.25	400.76	404.44	65*	340.04	340.51	343.43
42	400.76	401.28	405.32				
43	401.17	401.70	405.74	67*	---	340.65	349.83
44	---	402.41	406.53	68*	340.26	340.26	344.03
45*	402.52	402.86	405.82	69*	340.85	341.25	344.51
46	402.74	403.25	406.28	70*	341.34	341.84	345.27
47	---	403.91	408.03	71*	---	342.43	345.71
48	---	404.34	408.50	72*	---	340.88	344.20
49	403.77	404.32	408.36	73*	384.95	340.51	343.16
				74	386.21	386.50	343.69
				75	386.31	386.60	343.78
52*	403.65	404.28	407.26	76*	342.91	343.41	346.00
53*	---	404.50	407.48	77	345.21	346.14	400.76
54*	---	403.95	406.43	78	---	---	---
55*	402.44	403.44	406.32	79	348.80	344.64	404.26
56*	402.01	403.51	408.44	80	401.43	402.03	406.65
57*	341.42	400.41	403.24				
58	---	345.01	341.13				
59	343.62	344.27	347.41				
60*	342.23	342.63	345.44				
61	---	342.41	346.21				
62*	341.41	341.75	344.54				

* DENOTES SH'S WHICH NEED TO BE RUN AT 1.0%. ALL OTHER SH'S TO BE RUN AT 2.0%

SEWER MANHOLE INFORMATION			
MH	LOCATION	MH	LOCATION
1	N 542,653.20 E 1,331,830.81	14	N 543,100.07 E 1,338,065.53
2	N 542,160.10 E 1,331,442.94	15	N 543,142.54 E 1,338,222.86
3	N 542,834.45 E 1,331,833.45	16	N 543,120.70 E 1,338,344.45
4	N 542,915.75 E 1,331,245.11	17	N 543,107.22 E 1,338,420.11
5	N 542,151.82 E 1,331,862.00	18	N 542,801.54 E 1,338,504.16
6	N 542,770.13 E 1,331,852.97	19	N 542,844.31 E 1,338,265.43
7	N 542,841.47 E 1,331,948.55		
8	N 542,814.54 E 1,338,026.84		
9	N 542,810.51 E 1,338,082.67		
10	N 542,820.43 E 1,338,114.35		
11	N 542,862.56 E 1,338,080.44		
12	N 543,065.63 E 1,331,438.10		
13	N 543,086.14 E 1,331,432.55		



FITTING INFORMATION		
W.M. STATION	FITTING	LOCATION
EARLY MORNING STREET		
2+86	12" 1/8" HB	N 542,833.50 E 1,338,240.82
3+41	12" 1/8" TEE	N 542,804.70 E 1,338,133.46
4+62	12" 1/8" HB	N 542,781.74 E 1,338,071.21
5+08	12" 1/8" HB	N 542,743.71 E 1,338,025.06
5+40	12" 1/8" HB	N 542,804.76 E 1,331,941.13
5+65	12" 1/8" HB	N 542,828.86 E 1,331,982.41
7+86	12" 1/8" TEE	N 543,042.34 E 1,331,424.72
8+32	12" 1/8" HB	N 543,081.60 E 1,331,913.46
ELLINGTON STREET		
4+04	8" 1/8" HB	N 543,026.14 E 1,338,235.02
10+80	8" 1/8" TEE	N 543,080.16 E 1,338,064.70
12+25	12" 1/8" TEE	N 543,042.34 E 1,331,424.72

FITTING INFORMATION		
W.M. STATION	FITTING	LOCATION
WATERLINE 'A'		
0+27	12" 1/8" HB	N 542,372.64 E 1,338,528.72
0+36	12" 1/8" HB	N 542,368.28 E 1,338,536.17
2+61	12" 1/8" HB	N 542,401.36 E 1,338,758.64
2+70	12" 1/8" HB	N 542,344.11 E 1,338,767.06

FIRE HYDRANT TEE INFORMATION	
FHT	LOCATION
(A)	N 542,783.64 E 1,338,463.24
(B)	N 542,788.22 E 1,338,067.45
(C)	N 543,061.43 E 1,338,024.57
(D)	N 543,044.84 E 1,338,381.46

PREPARED FOR:
 GREENBAUM DEVELOPMENT, INC.
 SUITE 300 WOODHOLME CENTER
 1829 REISTERSTOWN ROAD
 BALTIMORE, MD 21208
 ATTN: MARK BENNETT
 410-484-8400

Notes:
 1. Sheet C of this plan set for detail of Manhole 12.
 2. See P 12-30 for sediment control devices.

FOR SEDIMENT CONTROL USE ONLY

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Chief, Bureau of Utilities
 Date: 2/17/12

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND
 Chief, Development Engineering Division
 Date: 2/17/12

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 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-6186

DATE: JANUARY, 2012
 G.L.W. No.: 09001

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, 2012

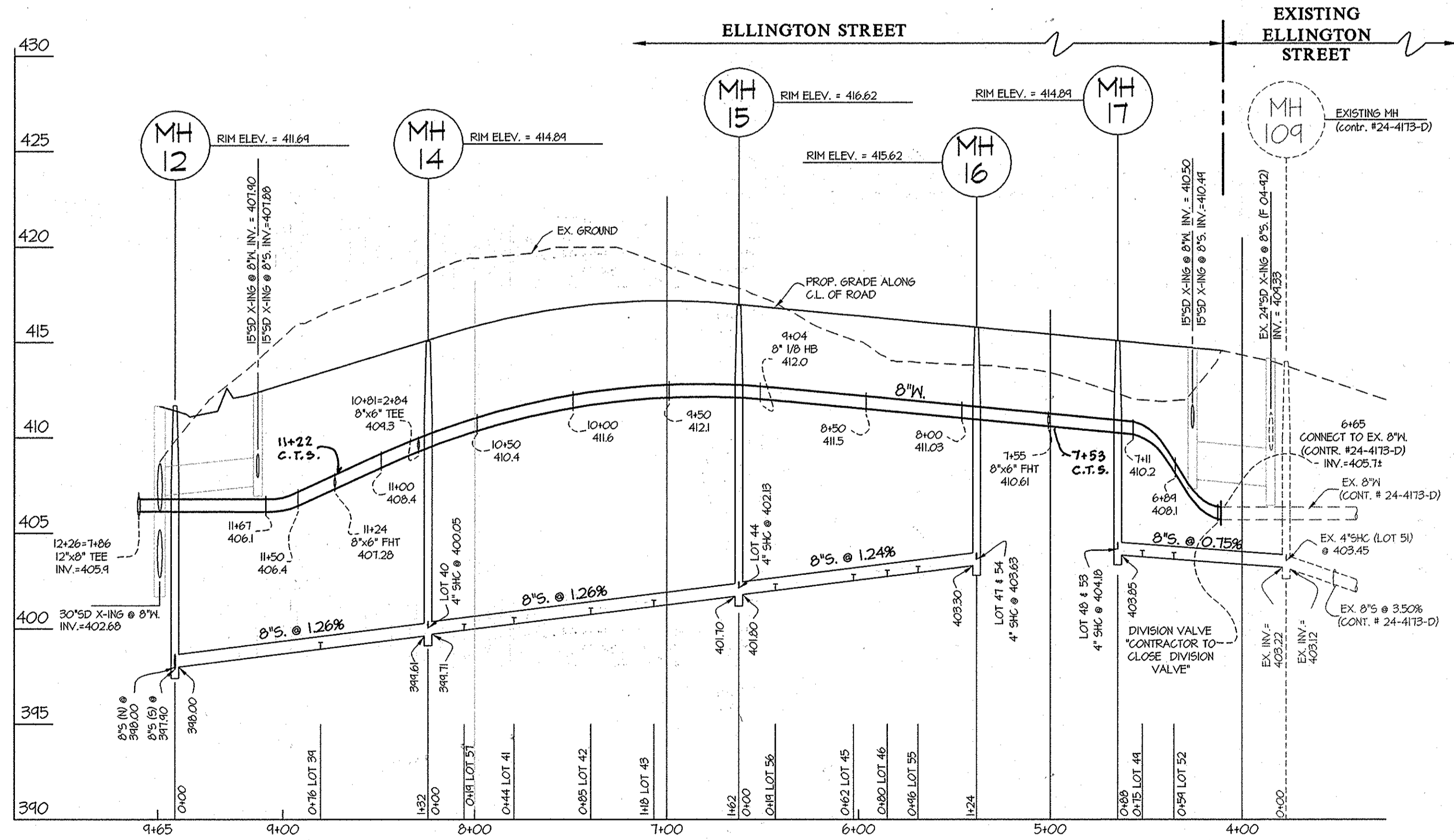
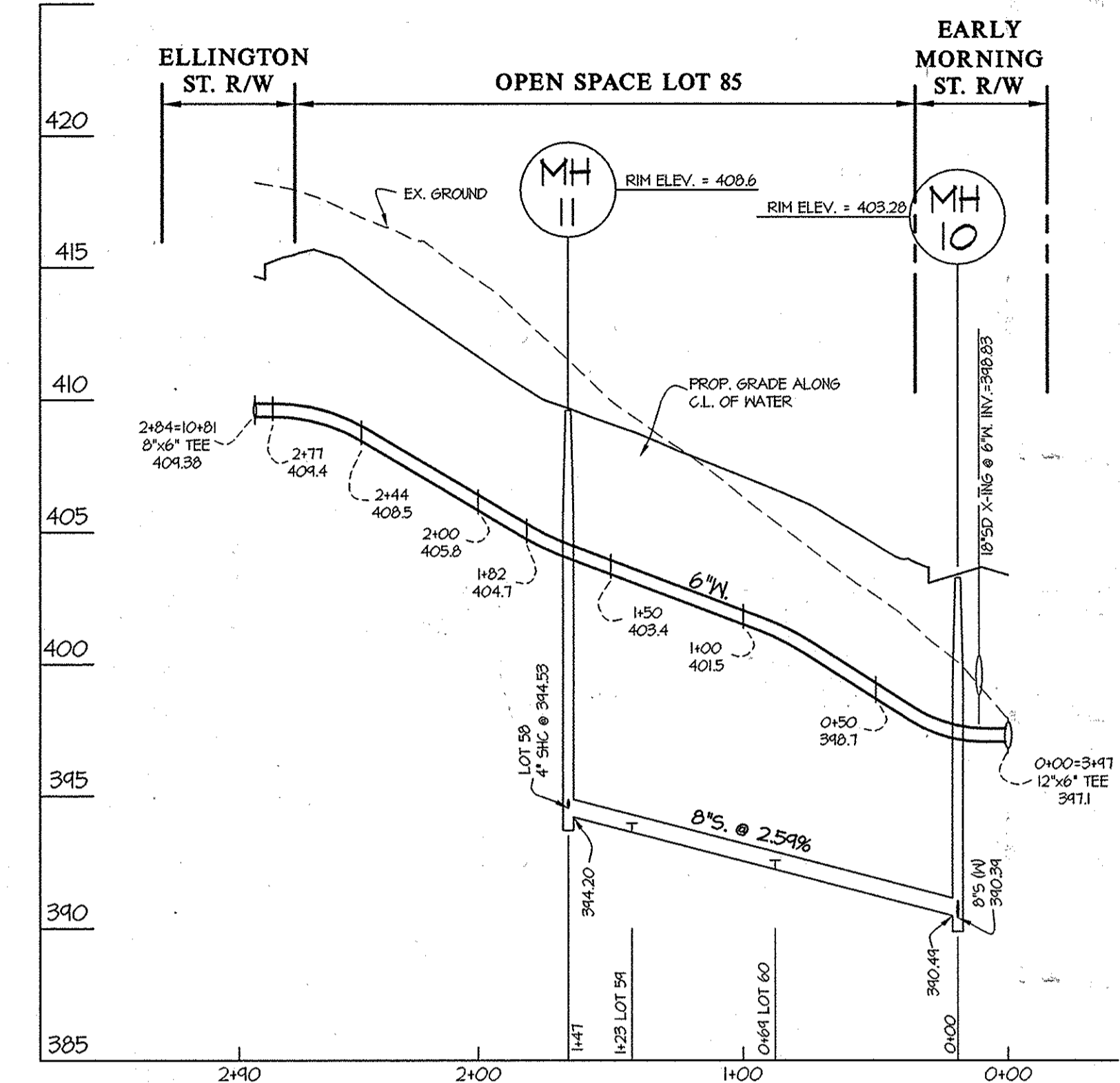
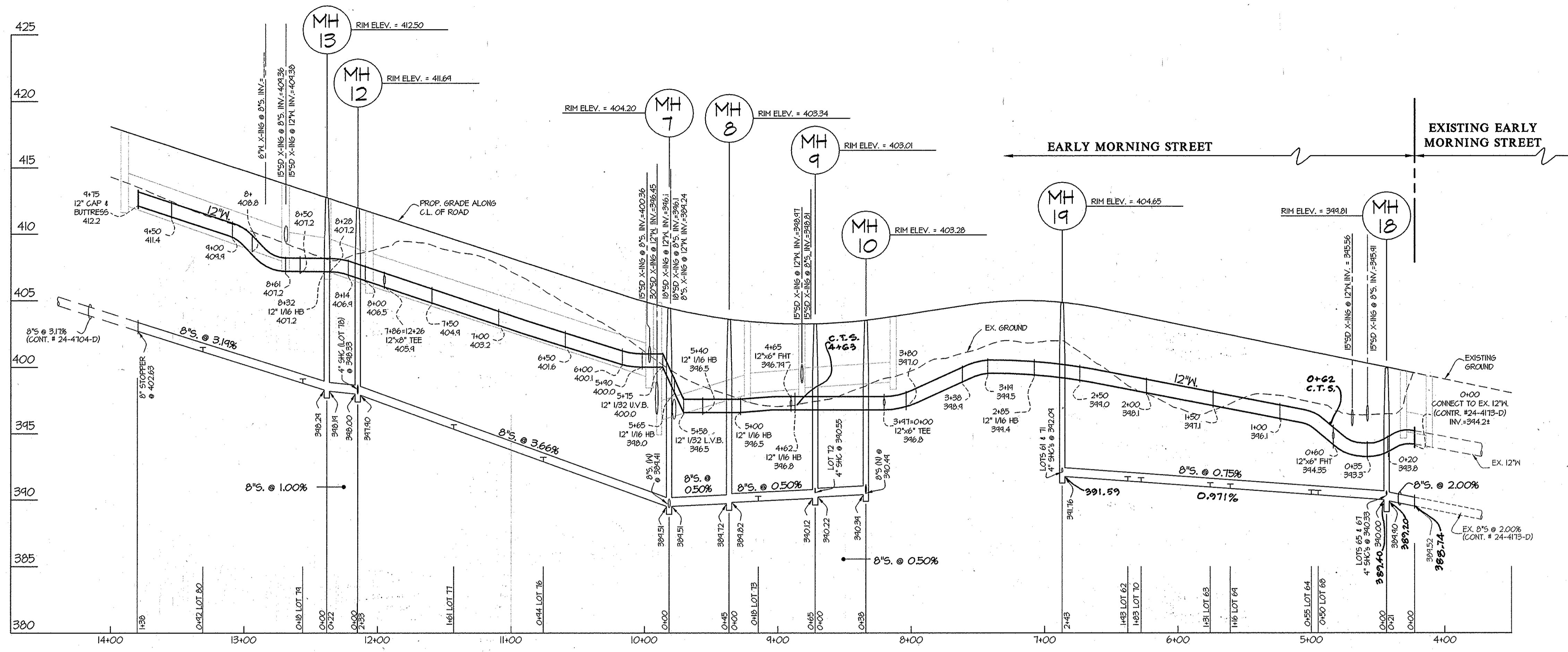


LEM	NO	ADDED CT'S	REVISION	DATE

WATER & SEWER PLAN
 600' SCALE MAP NO. 41 BLOCK NO. 15 & 21

MAPLE LAWN FARMS
 CONTRACT No. 24-4702-D
 MDTOWN WEST DISTRICT - AREA 1 (PHASE II)
 LOTS 39 thru 49, 52 thru 65, 67 thru 80
 and OPEN SPACE LOTS 85 and thru 87
 HOWARD COUNTY, MARYLAND
 ELECTION DISTRICT No. 5

SCALE: 1"=50'
 SHEET: 3 OF 6



PREPARED FOR:
 GREENBAUM DEVELOPMENT, INC.
 SUITE 300 WOODHOLME CENTER
 1829 REISTERSTOWN ROAD
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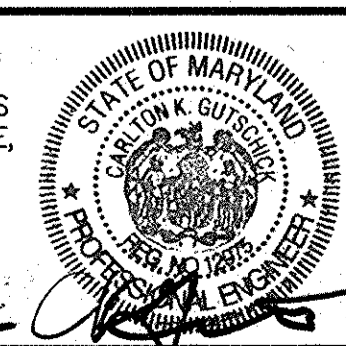
DEPARTMENT OF
 PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Chief, Bureau of Utilities
 Date: 3/13/12

DEPARTMENT OF
 PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND
 Chief, Development Engineering Division
 Date: 3/13/12

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: 301-589-2524 FAX: 301-421-4186

DATE
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 G.L.W. No.
 09001

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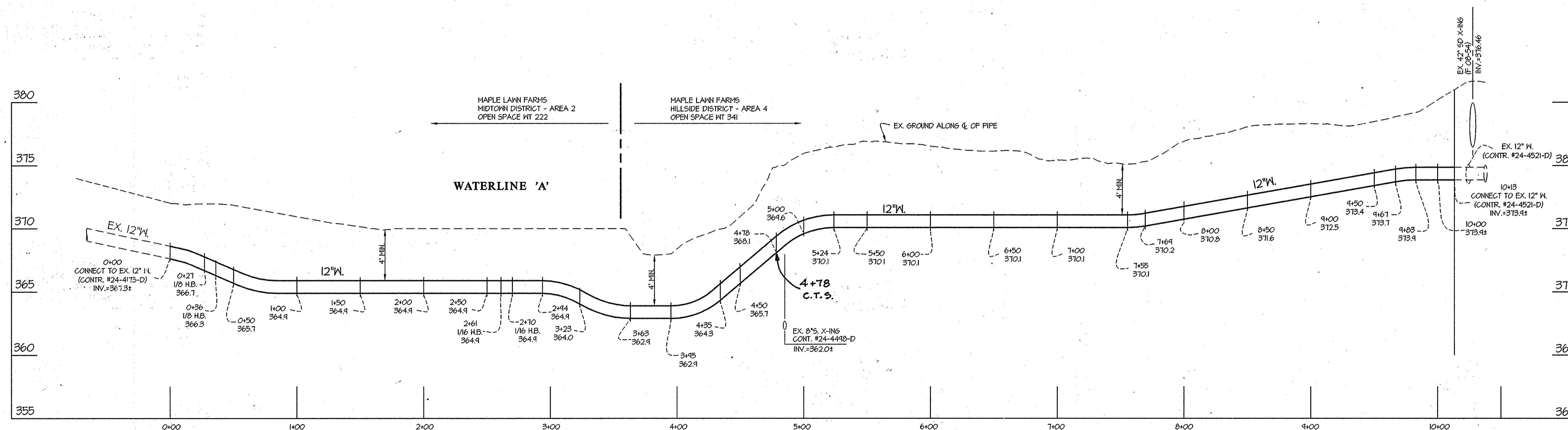
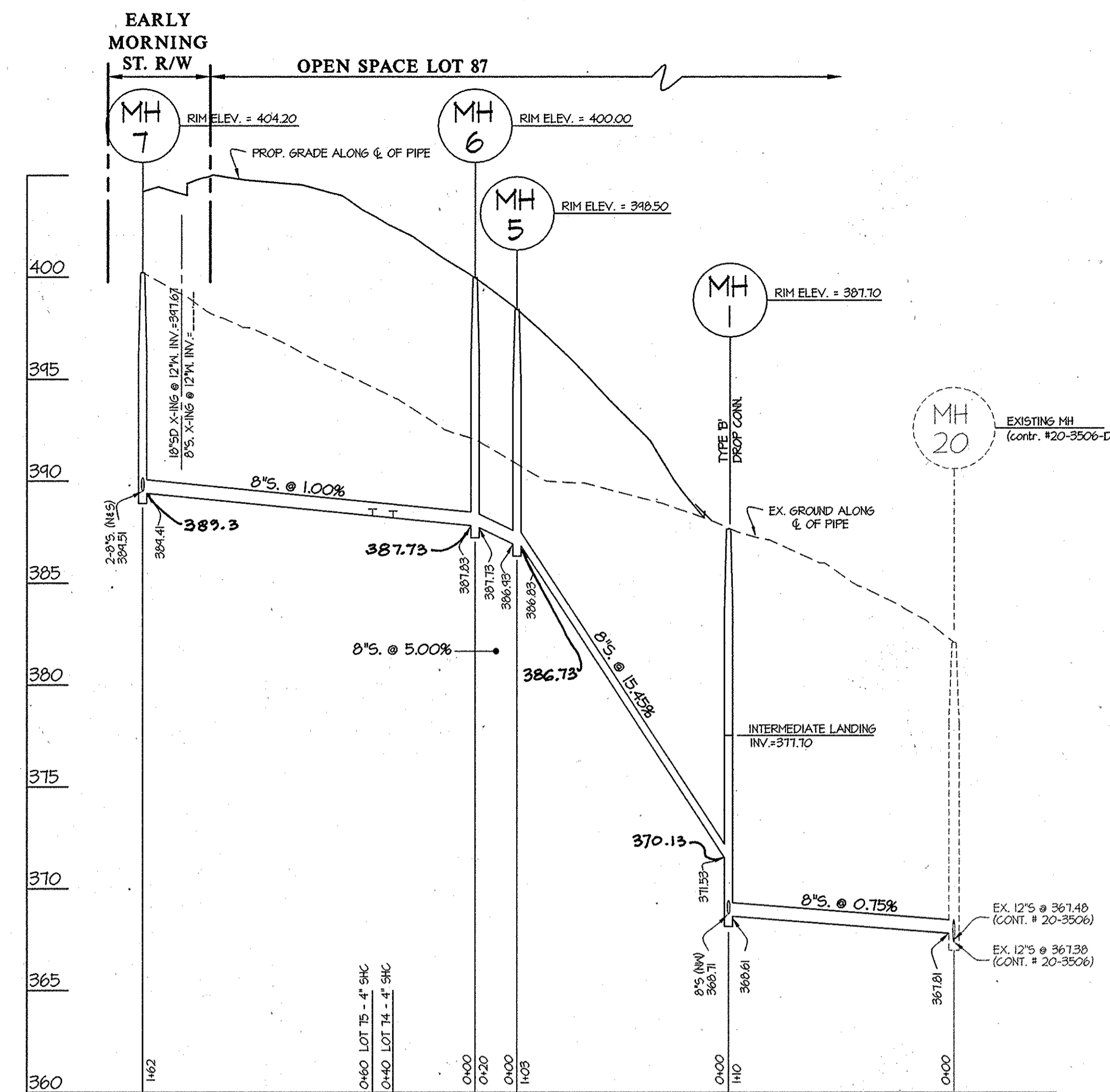
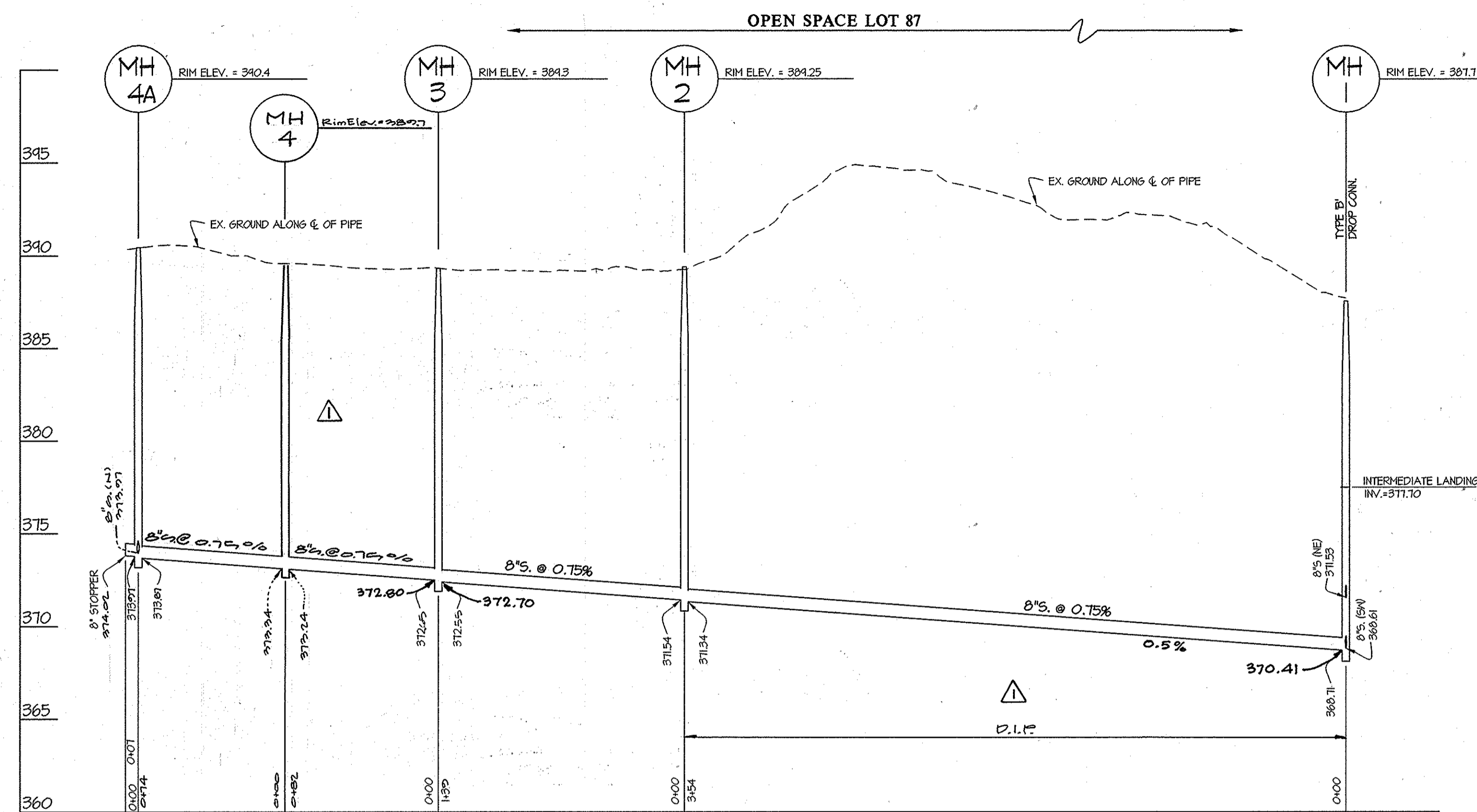


BY	NO	REVISION	DATE
LEM	1	Added "AS BUILT" information	12-18-12

WATER & SEWER PROFILES
 600' SCALE MAP NO. 41
 BLOCK NO. 15 & 21

MAPLE LAWN FARMS
 CONTRACT No. 24-4702-D
 MIDDLETOWN WEST DISTRICT - AREA I (PHASE II)
 LOTS 39 thru 49, 52 thru 65, 67 thru 80
 and OPEN SPACE LOTS 85 and thru 87
 HOWARD COUNTY, MARYLAND
 ELECTION DISTRICT No. 5

SCALE
 1"=50' HORZ.
 1"=5' VERT.
 SHEET
 4 OF 6



PREPARED FOR:
 GREENEBAUM DEVELOPMENT, INC.
 SUITE 300 WOODHOLME CENTER
 1829 REISTERSTOWN ROAD
 BALTIMORE, MD 21208
 ATTN: MARK BENNETT
 410-484-8400

DEPARTMENT OF
 PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Chief, Bureau of Utilities
 Date: 2/13/12

DEPARTMENT OF
 PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND
 Chief, Development Engineering Division
 Date: 2/13/12

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: 301-989-2524 FAX: 301-421-4186

DATE
 JANUARY, 2012
 G.L.W. No.
 09001

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, 2012



LEM	Added bottom of slab elevations "AS BUILT"	12-18-12
W-2	Add MH 4, re-attach to MH 4A indicate R/W limits	2/10/2012
BY	NO	
REVISION		
DATE		

WATER & SEWER PROFILES
 600' SCALE MAP NO. 41 BLOCK NO. 15 & 21

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AS-BUILT INFORMATION					
LOT	ADDRESS	WATER HOUSE CONNECTION AS BUILT		SEWER HOUSE CONNECTION AS BUILT	
		LOCATION DIM. 1	LOCATION DIM. 2	LOCATION DIM. 1	LOCATION DIM. 2
39	ELLINGTON STREET	59' TO LOT 57 SHC	47' TO LOT 40 WHC	37.5' TO LOT 39 WHC	28.5' TO LOT 27 WHC
40		18.5' TO LOT 41 SHC	43.5' TO LOT 57 SHC	20.5' TO LOT 39 WHC	28' TO LOT 40
41		18' TO LOT 42 SHC	22.5' TO LOT 41 SHC	22.5' TO LOT 41 WHC	55.5' TO LOT 57 SHC
42		14' TO LOT 43 SHC	26' TO LOT 42 SHC	26' TO LOT 42 WHC	36.5' TO LOT 43 SHC
43		16.5' TO LOT 44 SHC	32' TO LOT 43 SHC	32' TO LOT 43 WHC	13.5' TO LOT 42 WHC
44		10.5' TO LOT 45 WHC	36' TO LOT 44 SHC	36' TO LOT 44 WHC	16.5' TO LOT 43 WHC
45		25' TO LOT 45 SHC	10.5' TO LOT 44 WHC	28' TO LOT 45 WHC	17.5' TO LOT 46 SHC
46		18.5' TO LOT 47 SHC	30' TO LOT 46 SHC	30' TO LOT 46 WHC	19' TO LOT 47 SHC
47		29.5' TO LOT 47 SHC	10' TO LOT 46 WHC	48' TO LOT 55 WHC	56' TO LOT 54 WHC
48		33.5' TO LOT 48 SHC	37' TO LOT 47 SHC	37' TO LOT 48 WHC	58' TO LOT 54 WHC
49		12' TO LOT 49 SHC	15.5' TO LOT 48 SHC	15.5' TO LOT 48 WHC	12' TO LOT 49 WHC
52		31.5' TO LOT 52 SHC	14' TO LOT 53 SHC	14' TO LOT 52 WHC	31.5' TO LOT 53 WHC
53		11' TO LOT 53 SHC	37.5' TO LOT 52 SHC	37.5' TO LOT 52 WHC	11' TO LOT 53 WHC
54		44' TO LOT 54 WHC	36' TO LOT 47 WHC	21.5' TO LOT 54 WHC	20' TO LOT 55 WHC
55		44' TO LOT 54 WHC	35' TO LOT 46 WHC	17' TO LOT 55 WHC	30' TO LOT 56 WHC
56		44' TO LOT 46 SHC	44' TO LOT 45 SHC	47' TO LOT 45 WHC	32' TO LOT 43 WHC
57		44' TO LOT 57 SHC	28' TO LOT 58 WHC	43.5' TO LOT 40 WHC	44.5' TO LOT 51 WHC
58		36' TO LOT 58 SHC	28' TO LOT 57 WHC	10' TO LOT 59 WHC	25.5' TO LOT 59 SHC
59		16' TO LOT 58 SHC	13.5' TO LOT 59 SHC	60.5' TO LOT 58 WHC	13.5' TO LOT 59 WHC
60	EARLY MORNING ST.	12.5' TO LOT 60 SHC	43.5' TO LOT 59 SHC	12.5' TO LOT 60 WHC	9.5' TO LOT 71 WHC
61		15' TO LOT 62 SHC	38.5' TO LOT 70 WHC	67.5' TO LOT 70 WHC	36.5' TO LOT 61 WHC
62		44' TO LOT 70 WHC	34.5' TO LOT 63 SHC	15' TO LOT 61 WHC	34.5' TO LOT 62 WHC
63		11' TO LOT 63 SHC	49' TO LOT 63 SHC	45.5' TO LOT 69 WHC	11' TO LOT 63 WHC
64		31' TO LOT 64 SHC	37.5' TO LOT 68 WHC	46.5' TO LOT 68 WHC	52.5' TO LOT 68 SHC
65		59' TO LOT 68 WHC	31.5' TO LOT 65 SHC	18.5' TO LOT 54 WHC	31.5' TO LOT 65 WHC
67	EARLY MORNING ST.	16.5' TO LOT 67 SHC	28' TO 5MH-18	28' TO 5MH-18	16.5' TO LOT 67 WHC
68		23' TO LOT 68 SHC	45.5' TO LOT 69 SHC	52.5' TO LOT 64 SHC	23' TO LOT 68 WHC
69		27' TO LOT 69 SHC	43.5' TO LOT 70 SHC	45.5' TO LOT 68 WHC	49' TO LOT 63 WHC
70		42.5' TO LOT 62 SHC	66' TO LOT 71 SHC	11.5' TO LOT 70 WHC	43.5' TO LOT 69 WHC
71		73' TO LOT 71 SHC	87' TO LOT 72 SHC	39' TO 5MH-19	66' TO LOT 70 WHC
72		22' TO LOT 72 SHC	68' TO LOT 73 SHC	67.5' TO LOT 71 WHC	87' TO LOT 71 WHC
73		16' TO LOT 73 SHC	64.5' TO LOT 74 WHC	55.5' TO LOT 74 WHC	68' TO LOT 72 WHC
74		64.5' TO LOT 73 WHC	55.5' TO LOT 73 SHC	30' TO LOT 75 SHC	43' TO 5MH-5
75		14' TO LOT 74 WHC	60.5' TO LOT 76 SHC	30' TO LOT 74 SHC	54' TO 5MH-5
76		11' TO LOT 76 SHC	63' TO LOT 77 SHC	11' TO LOT 76 WHC	60.5' TO LOT 75 WHC
77		11' TO LOT 77 SHC	65.5' TO LOT 78 SHC	11' TO LOT 77 WHC	63' TO LOT 76 WHC
78		20' TO LOT 78 SHC	36' TO LOT 79 SHC	20' TO LOT 78 WHC	65.5' TO LOT 77 WHC
79		26' TO LOT 79 SHC	49' TO LOT 80 SHC	26' TO LOT 79 WHC	36' TO LOT 78 WHC
80		12.5' TO LOT 80 SHC	54' TO LOT 79 WHC	12.5' TO LOT 80 WHC	49' TO LOT 79 WHC

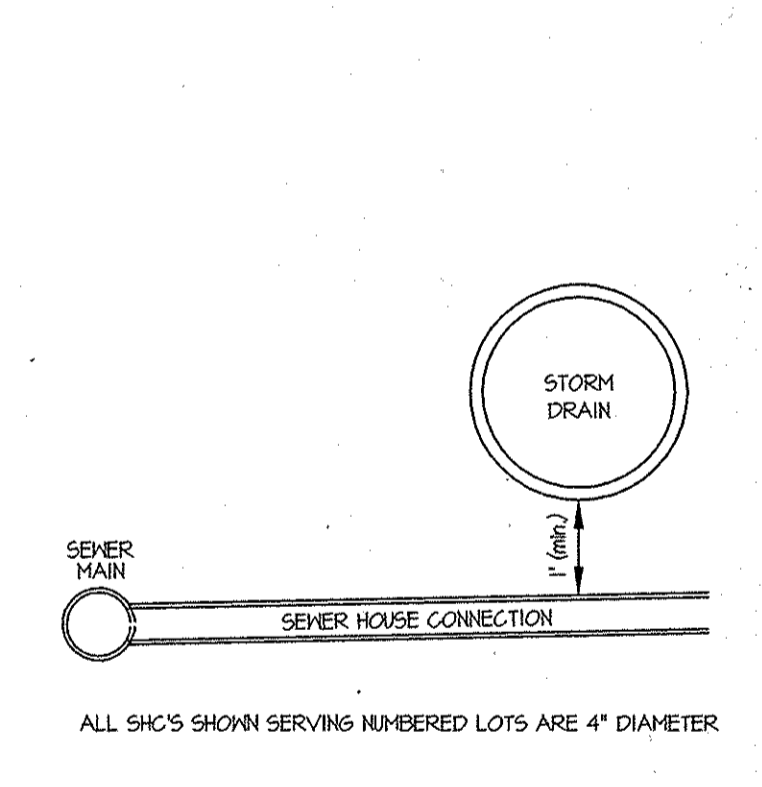
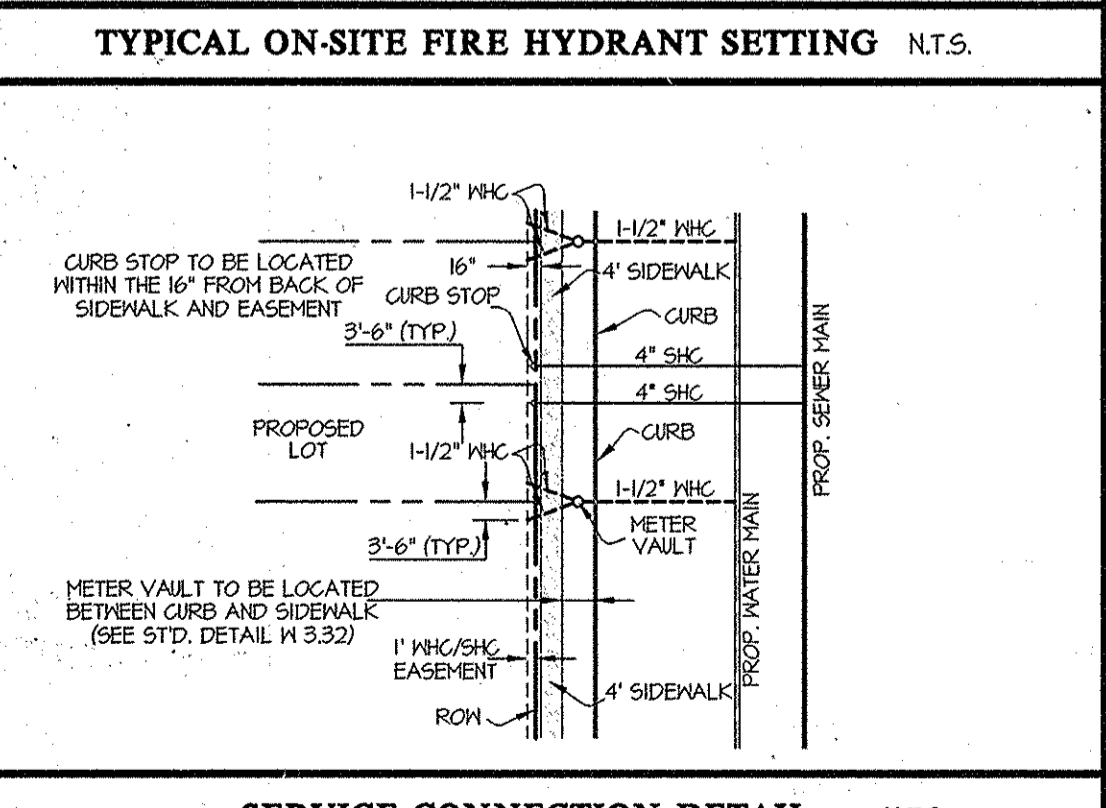
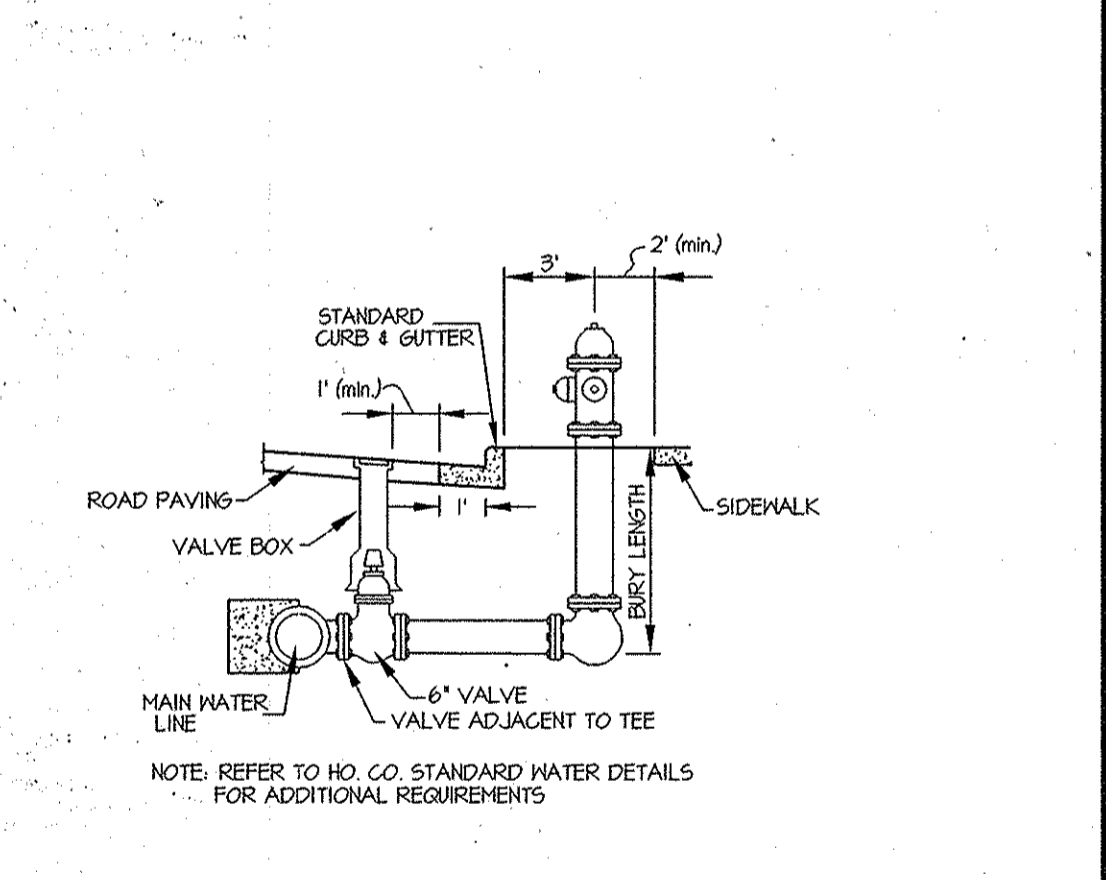
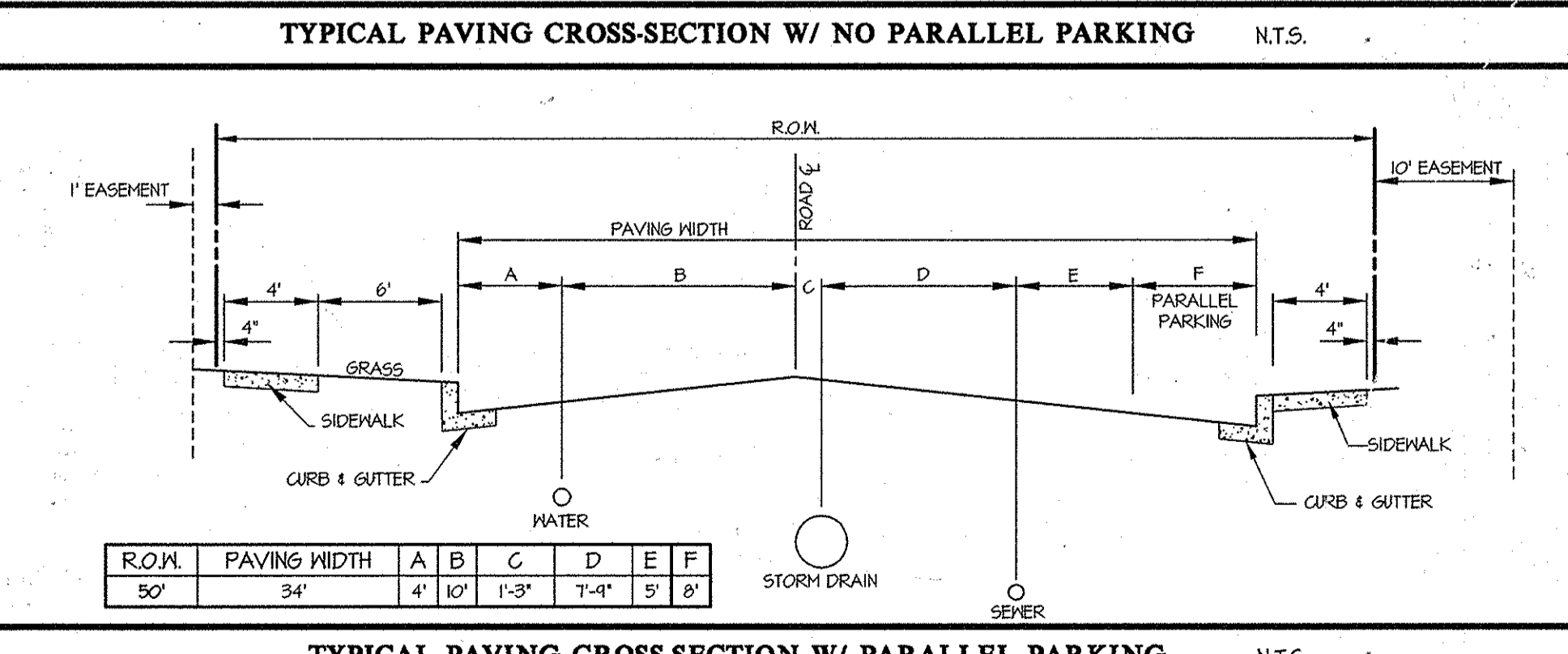
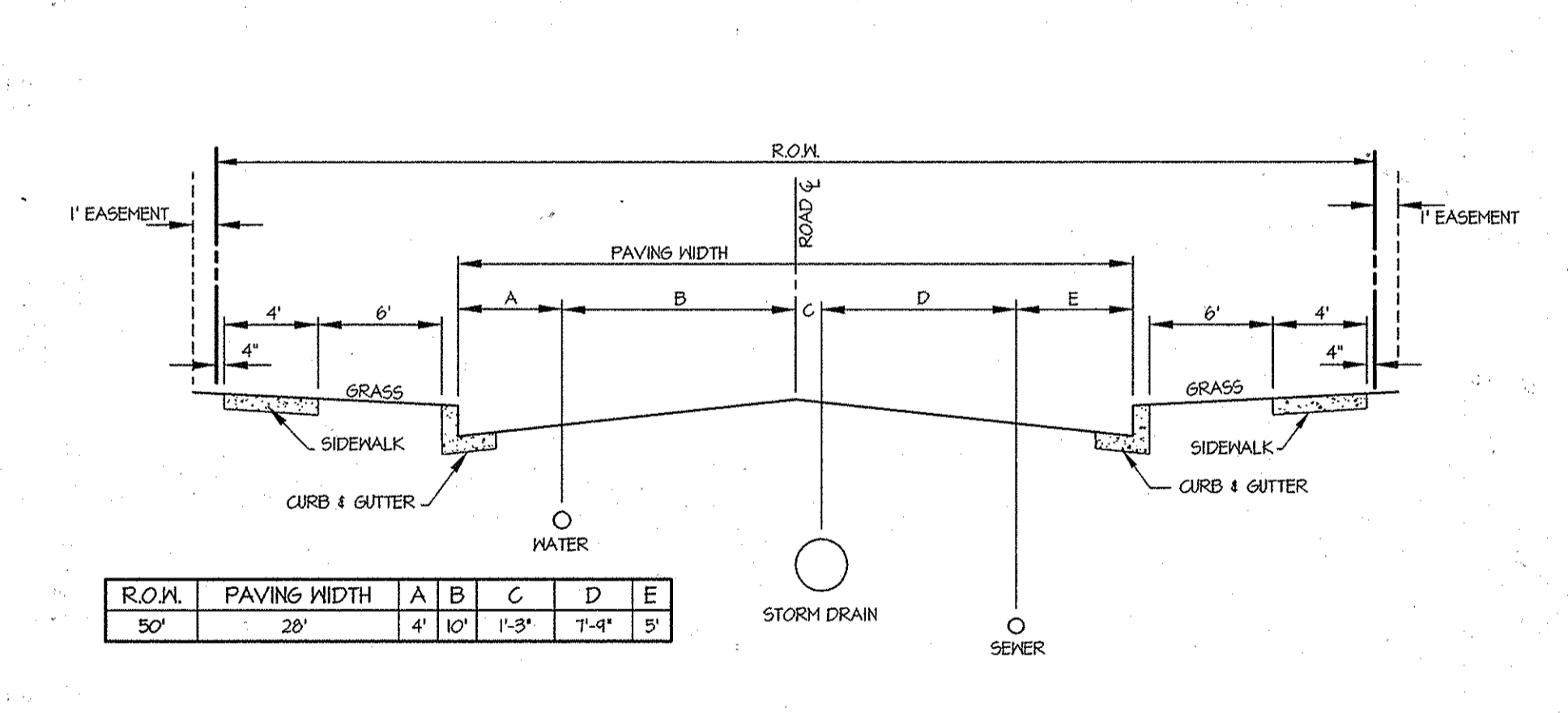
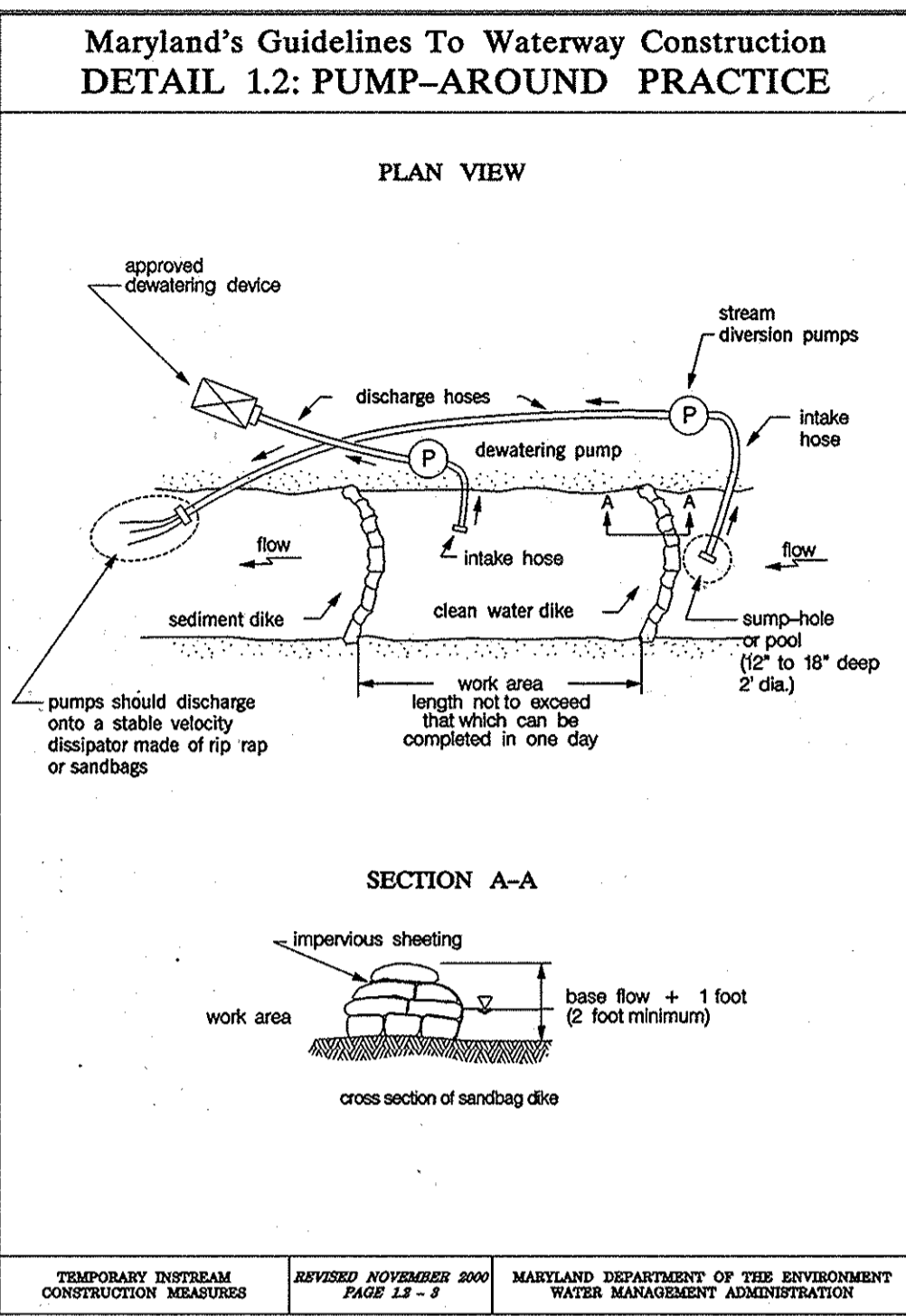


MGWC 1.2: PUMP-AROUND PRACTICE

DESCRIPTION
The work should consist of installing a temporary pump around and supporting measures to divert flow around in-stream construction sites.

IMPLEMENTATION SEQUENCE
Sediment control measures, pump-around practices, and associated channel and bank construction should be completed in the following sequence (refer to Detail 1.2):

1. Construction activities including the installation of erosion and sediment control measures should not begin until all necessary easements and/or right-of-ways have been acquired. All existing utilities should be marked in the field prior to construction. The contractor is responsible for any damage to existing utilities that may result from construction and should repair the damage to his/her own expense to the owner's or utility company's satisfaction.
2. The contractor should notify the Maryland Department of the Environment or WMA sediment control inspector, the county project manager, and the engineer to review final disturbance, erosion and sediment control requirements, and the sequence of construction. The contractor should state on all limits of disturbance prior to the pre-construction meeting so they may be reviewed. The participants will also designate the contractor's staging area and flag all trees within the limits of disturbance which will be removed for construction access. Trees should not be removed within the limits of disturbance without approval from the WMA or local authority.
3. Construction should not begin until all sediment and erosion control measures have been installed and approved by the engineer and the sediment control inspector. The contractor should stay within the limits of the disturbance as shown on the plans and minimize disturbance within the work area whenever possible.
4. Upon installation of all sediment control measures and approval by the sediment control inspector and the local environmental protection and resource management inspection and enforcement division, the contractor should begin work at the upstream section and proceed downstream beginning with the establishment of stabilized construction entrances. In some cases, work may begin downstream if appropriate. The sequence of construction must be followed unless the contractor gets written approval for deviations from the WMA or local authority. The contractor should only begin work in an area which can be completed by the end of the day including grading adjacent to the channel. At the end of each work day, the work area must be stabilized and the pump around removed from the channel. Work should not be conducted in the channel during rain events.
5. Sandbag dikes should be situated at the upstream and downstream ends of the work area as shown on the plans, and stream flow should be pumped around the work area. The pump should discharge onto a stable velocity dissipater made of riprap or sandbags.
6. Water from the work area should be pumped to a sediment filtering measure such as a dewatering basin, sediment bag, or other approved source. The measure should be located such that the water drains back into the channel below the downstream sandbag dike.
7. Traversing a channel reach with equipment within the work area where no work is proposed should be avoided. If equipment has to traverse such a reach for access to another area, then timber mats or similar measures should be used to minimize disturbance to the channel. Temporary stream crossings should be used only when necessary and only where noted on the plans or specified. (See Section 4, Stream Crossings, Maryland Guidelines to Waterway Construction).
8. All stream restoration measures should be installed as indicated by the plans and all banks graded in accordance with the grading plans and typical cross-sections. All grading must be stabilized at the end of each day with seed and mulch or seed and matting as specified on the plans.
9. After an area is completed and stabilized, the clean water dike should be removed. After the first sediment flush, a new clean water dike should be established upstream from the old sediment dike. Finally, upon establishment of a new sediment dike below the old one, the old sediment dike should be removed.
10. A pump around must be installed on any tributary or storm drain outfall which contributes baseflow to the work area. This should be accomplished by locating a sandbag dike at the downstream end of the tributary or storm drain outfall and pumping the stream flow around the work area. This water should discharge onto the same velocity dissipater used for the main stem pump around.
11. If a tributary is to be restored, construction should take place on the tributary before work on the main stem reaches the tributary confluence. Construction in the tributary, including pump around practices, should follow the same sequence as for the main stem of the river or stream. When construction on the tributary is completed, work on the main stem should resume. Water from the tributary should continue to be pumped around the work area in the main stem.
12. The contractor is responsible for providing access to and maintaining all erosion and sediment control devices until the sediment control inspector approves their removal.
13. After construction, all disturbed areas should be regraded and revegetated as per the planting plan.



NOTES:

1. ALL SHC'S SHOWN SERVING NUMBERED LOTS ARE 4".
2. ALL MANHOLES WILL BE STANDARD 4'-0" (6-512).
3. OUTSIDE METERS WILL BE PER HOWARD COUNTY DETAIL N 3.32 FOR TWIN CONNECTIONS AND DETAIL N 3.28 FOR SINGLE CONNECTIONS.
4. ALL SHC'S SHOWN SERVING NUMBERED LOTS ARE 1 1/2" WITH A 1" METER, OUTSIDE SETTING.
5. EXISTING VALVE TO BE CLOSED BY DPM FOR CONSTRUCTION.

PREPARED FOR:
GREENBAUM DEVELOPMENT, INC.
SUITE 300 WOODHOLME CENTER
1829 REISTERSTOWN ROAD
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ATTN: MARK BENNETT
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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Silvia C. Lamm
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

Mark Bennett
CHIEF, DEVELOPMENT ENGINEERING DIVISION

3/13/12

GLW GUTSCHICK LITTLE & WEBER, P.A.
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3309 NATIONAL DRIVE - SUITE 250 - BURTONTOWN OFFICE PARK
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DATE: JANUARY, 2012
G.L.W. No.: 09001

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, 2012

Mark Bennett

LEM	BY	NO	REVISION	DATE
			Added "AS BUILT" information	12-18-12

WATER & SEWER NOTES & DETAILS

600' SCALE MAP NO. 41 BLOCK NO. 15 & 21

MAPLE LAWN FARMS
CONTRACT No. 24-4702-D
MIDTOWN WEST DISTRICT - AREA 1 (PHASE II)
LOTS 39 thru 49, 52 thru 65, 67 thru 80
and OPEN SPACE LOTS 85 and thru 87

HOWARD COUNTY, MARYLAND
ELECTION DISTRICT No. 5

SCALE AS SHOWN

SHEET 6 OF 6