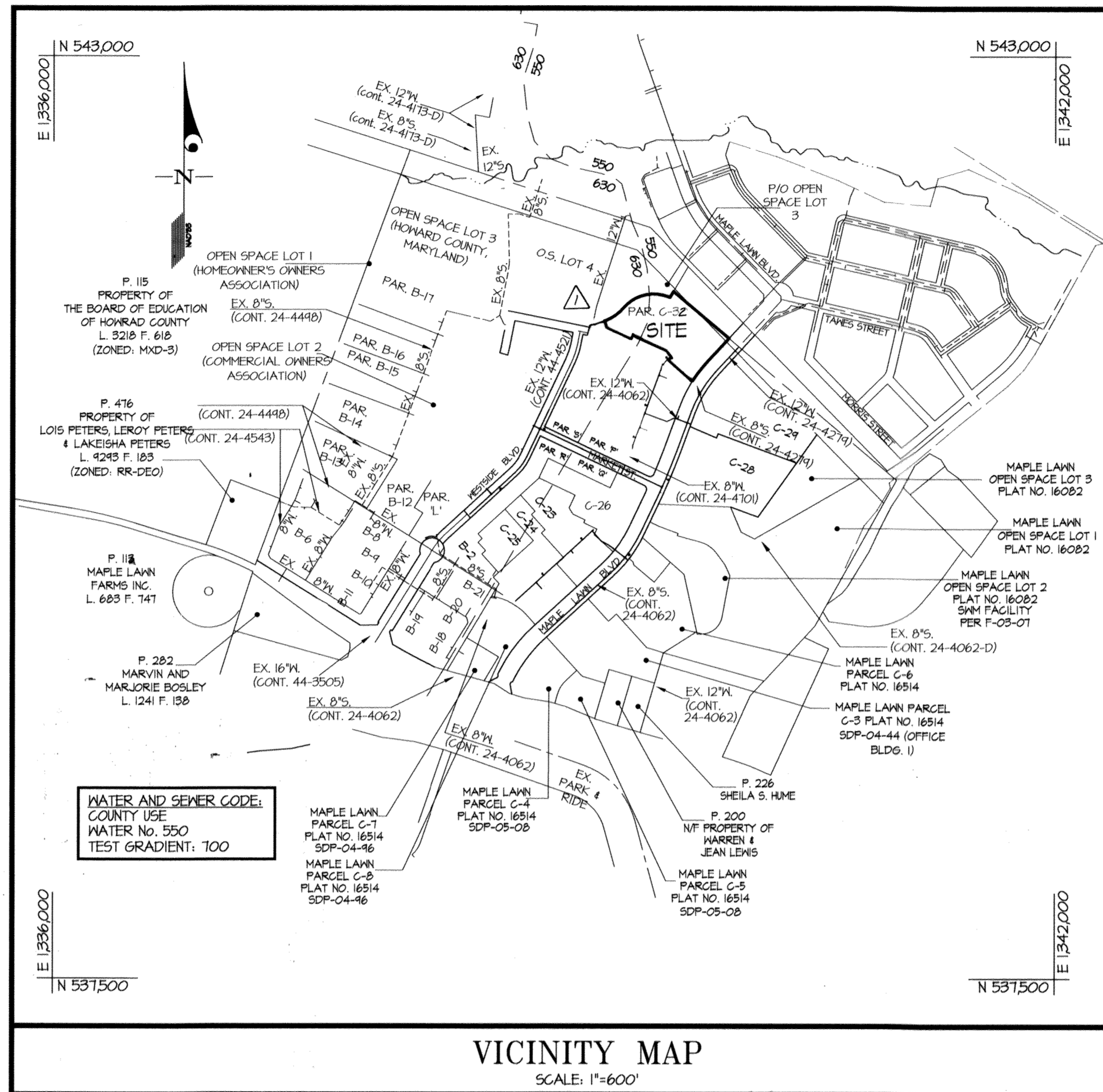


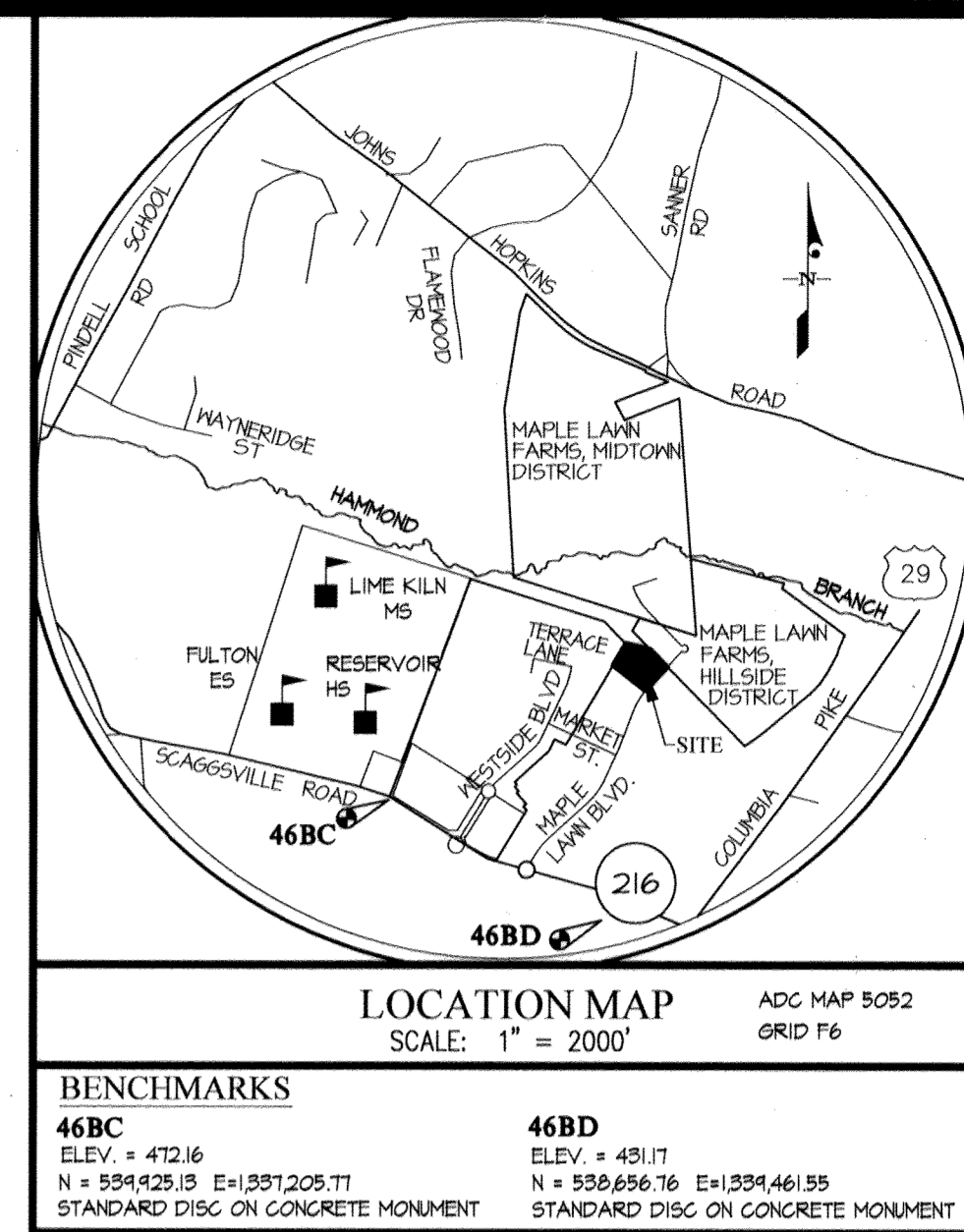
QUANTITIES					
ITEMS	MATERIAL	QUANTITIES ESTIMATED	AS-BUILT		
			QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
8" WATER MAIN	D.I.P. (cl. 54)	806 LF.	585	TJ	GRIFFIN PIPE
6" WATER MAIN	D.I.P. (cl. 54)	47 LF.	26	TJ	GRIFFIN PIPE
8" V.B.	D.I.	2 EA.	2 EA.	MJ	SIGMA
8" V.	D.I.	3 EA.	3 EA.	MJ	SIGMA
8"x8" T.	D.I.	4 EA.	3 EA.	MJ	SIGMA
8" V.	D.I.	4 EA.	4 EA.	GATE	KENNEDY
8"x6" F.H.T.	D.I.	3 EA.	2 EA.	MJ	SIGMA
8" CAP	D.I.	4 EA.	3 EA.	MJ	SIGMA
FIRE HYDRANT		2 EA.	2 EA.	C 502	KENNEDY
8" WATER MAIN	D.I.P. (cl. 54)	220 L.F.			AMERICAN CAST IRON PIPE COMPANY
6" WATER MAIN	D.I.P. (cl. 54)	17 L.F.			AMERICAN CAST IRON PIPE COMPANY
6" V		1 EA.		MJ	MUELLER COMPANY
FIRE HYDRANT		1 EA.		MJ	MUELLER COMPANY
8" SLEEVE	D.I.	3 EA.		MJ	TYLER UNION
8"x6" F.H.T.	D.I.	1 EA.		MJ	TYLER UNION
6" V.B.	D.I.	2 EA.		MJ	TYLER UNION
8" V		1 EA.		MJ	MUELLER COMPANY
8" TAPPING SLEEVE	S.S.	1 EA.			SMITH BLAIR

NAME OF UTILITY CONTRACTOR: GRAY & SON/CCS, Inc.

SURVEY AND DRAFTING DIV. CHECKBOX: AS-BUILT DATE: 7/27/16



VICINITY MAP SCALE: 1"=600'

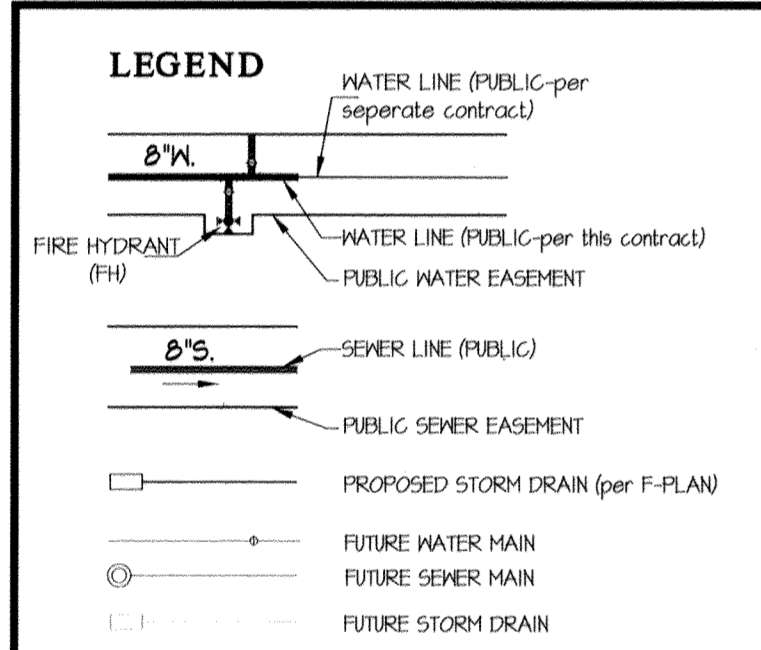


LOCATION MAP SCALE: 1" = 200' BENCHMARKS 46BC ELEV. = 472.16 N = 554925.15 E = 1591205.71 STANDARD DISC ON CONCRETE MONUMENT 46BD ELEV. = 451.17 N = 555656.76 E = 1594461.55 STANDARD DISC ON CONCRETE MONUMENT

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 AIR surveys were performed on DECEMBER, 2008 by MCKENZIE SNYDER.
  - Horizontal and Vertical Survey Controls: The coordinates shown on the drawings are based on Maryland State Reference System NAD '83/94 as projected by Howard County Geodetic Control Stations No. 412C, and No. 412E. 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 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 (circle with cross) 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 (Construction Services).....	410-637-8113
BGE (Emergency).....	410-685-0123
Bureau of Utilities.....	410-313-4900
Colonial Pipeline Co.....	410-745-1940
Miss Utility.....	1-800-251-TTTT
State Highway Administration.....	410-531-5533
Verizon.....	1-800-743-0033
  - 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 brise connections. The approval of these drawings will constitute compliance with DPM requirements per Section 1B.14(a) of the Howard County Code.
- Part II WATER**
- All water mains shall be D.I.P. Class 54 unless otherwise noted.
  - Sprinkler systems for residential dwelling units shall have water house connections and water meters that are sized in accordance with the design of sprinkler systems. Sprinkler systems for single residential dwellings shall have a minimum of 1/2" inch service connection with a 1" outside meter setting.
  - 10psi of all water mains shall have a minimum of 3'-6" of cover unless otherwise noted.
  - Valves adjacent to trees shall be strapped to trees.
  - 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 wires and continuity test stations shall be installed on all D.I.P. and PVC water mains in accordance with the Howard County Design Manual.
  - For PVC water mains, all records for the Quality Control and Qualification Test Requirements noted in Section 5.1 of the ANWA Standard C400 for PVC pressure pipe shall be submitted with the pipe material certifications or shop drawings prior to approval of the material for use. The test records shall be for the pipe to be installed under this contract. All PVC pipe shall contain markings to allow cross referencing of the pipe supplied to the test records received.
  - Unless otherwise noted on the plans or in the specifications sacrificial anodes shall be installed on all valves and metallic fittings used with PVC water mains in accordance with Volume IV, Standard Specifications and Details for Construction, Seventeen (17) pound Magnesium anodes shall be installed on all valves and ductile iron fittings including restraints and hammers. Twelve (12) pound Zinc anodes shall be installed on all stainless steel fittings and saddles used with PVC mains. All "tees" used with PVC mains shall be ductile iron.
  - Proper Assembly of Gasketed PVC Pipe Joints: The manufacturer's insertion line of gasketed PVC pipe joints indicates the maximum depth of insertion of the spigot into the bell. After assembly of the joint, the insertion line shall remain visible. Dual insertion lines on gasketed PVC pipe indicate the maximum and minimum depth of insertion of the spigot into the bell. The contractor shall not over insert or over hammer the spigot into the bell of PVC pipe.
  - All changes in horizontal or vertical direction of PVC water pipe shall be made with standard bends, 5-degree sweeps or high deflection (HD) couplings. No bending of the pipe or deflecting of PVC pipe joints is permitted, where high deflection couplings or 5-degree sweeps are permitted, the contractor shall provide one full pipe length (20-foot long) on either side of the high deflection coupling or 5-degree sweep. The contractor shall use a vibratory plate compactor or other approved means to thoroughly compact the #5T stone on both sides of the high deflection coupling or 5-degree sweep, taking care not to use compaction equipment directly over the fitting.
  - PVC high deflection couplings shall be limited to a total deflection of 3-degrees (1 1/2-degree on either end of the coupling), shall be rated for a minimum 200 psi meeting the requirements of ANWA C400, shall have a minimum lay length of 4-inches and shall have center stops. PVC High deflection couplings shall be CertainTeed PVC High Deflection (HD) Stop Couplings or equal. Five degree sweeps shall be bell by spigot, rated for a minimum 225 psi, DR18 meeting the requirements of ANWA C400 and shall be Multi Fittings (Ipe) Blue Brute DR18 or equal.
  - When PVC high deflection couplings or PVC 5-degree sweeps are used to facilitate changes in horizontal or vertical alignments of ANWA C-400 PVC pipelines, the contractor shall install devices for the prevention of over-insertion of the PVC pipe spigots or plain ends into the push on bell joint on both sides of the high deflection couplings and 5 degree sweeps. Bell stops shall be placed at the proper insertion line for the fitting. The bell stop shall be manufactured of ductile iron and incorporate an expansion retention spring to allow for pipe expansion and contraction. The bell stops shall be Series 5000 Mega-Stop, as manufactured by EBAA Iron, Inc. or approved equal.
- 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 12" and 16" walls are for brick manholes only.
  - Manholes designated H.T. in plan and profile shall have watertight frame and cover. Standard Detail 6552. 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 that the cellar cannot be served.



**SHEET INDEX**

1 - COVER SHEET
2 - WATER PLAN & PROFILES

TYPE OF BUILDING	OFFICE BUILDING WITH RETAIL
NUMBER OF UNITS	1
NUMBER OF S.H.C.'s	0
NUMBER OF W.H.C.'s	1
AREA OF COMMERCIAL LOT/PARCEL	5.40 ACRES
SEWER SHED	LITTLE PATUXENT
PUMPING STATION	LITTLE PATUXENT WWTP

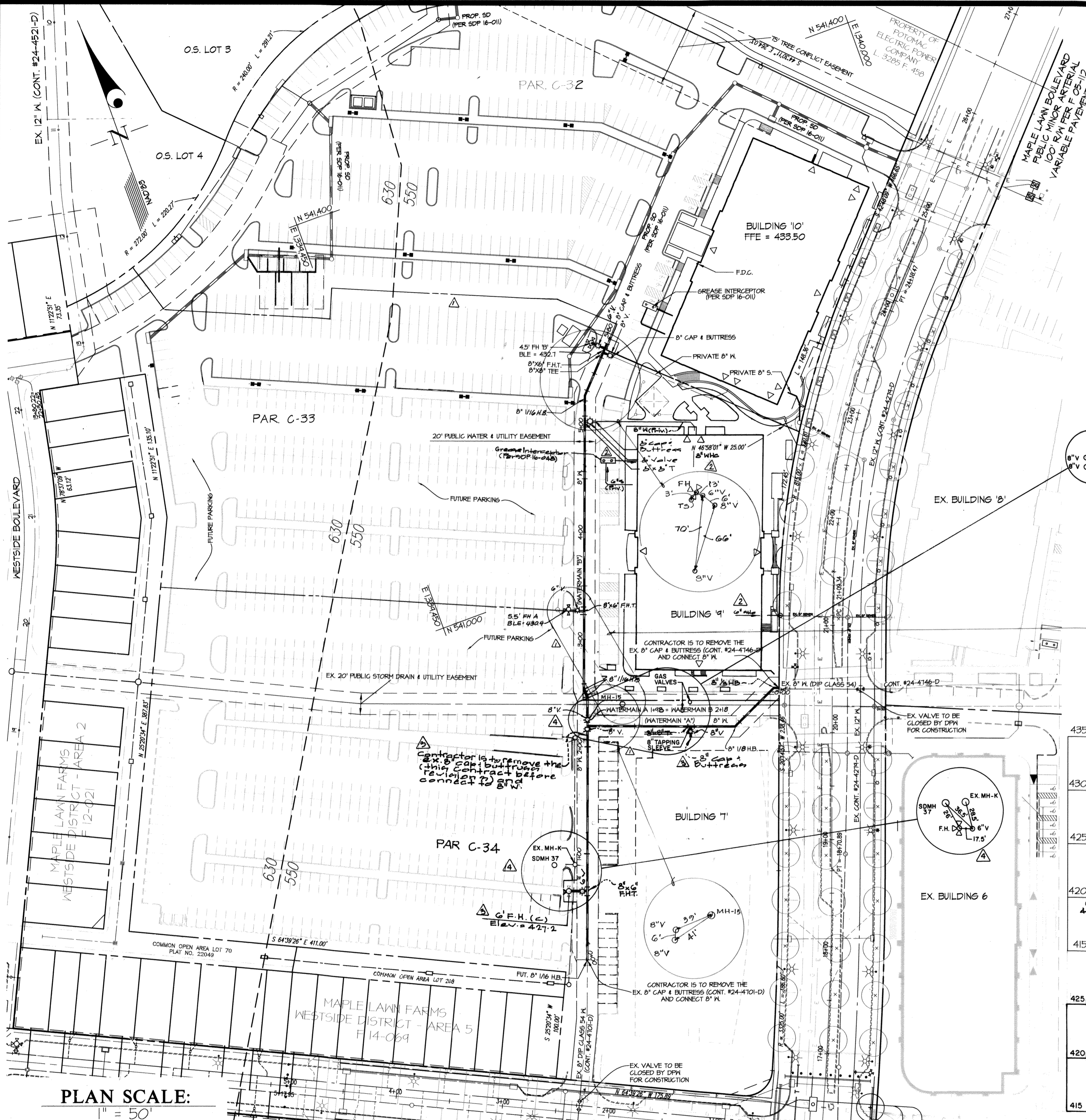
CONTRACT No. 44-4950-D  
 MAPLE LAWN FARMS  
 BUSINESS DISTRICT - AREA 2  
 PARCEL 'C-32' (OFFICE BUILDING No. 10)  
 PLAT Nos. thru  
 HOWARD COUNTY, MARYLAND  
 DEPARTMENT OF PUBLIC WORKS

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SDP 16-011, SECTION 308 OF THE SPECIFICATIONS AT SITE DEVELOPMENT PLAN STAGE (SDP-16-011).

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 APPROVED: *John L. Blawie* 1/12/16  
 HOWARD S.C.D. DATE

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>Steve C. Green</i> 1/12/16 CHIEF, BUREAU OF UTILITIES DATE	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND <i>Phil Colburn</i> 2-3-16 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 20886 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-899-2524 FAX: 301-421-4188	DATE DEC., 2015 G.L.W. No. 15043 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, 2015	REVISIONS AKJ 1/1/2016 3/1/2016 WRA 3/2021	REVISOR BY NO DATE	REVISION DATE	600' SCALE MAP NO. 46 BLOCK NO. 3&4	OWNER: MAPLE LAWN CC STATUTORY TRUST C/O GREENEBAUM AND ROSE 1829 REISTERSTOWN ROAD, SUITE 300 BALTIMORE, MARYLAND 21208 ATTN: MARK BENNET 410-484-8400	DEVELOPER: ST. JOHN PROPERTIES 2560 LORD BALTIMORE DRIVE BALTIMORE, MARYLAND 21244 ATTN: ANDREW ROUD 410-788-0100	SCALE AS SHOWN SHEET 1 OF 2
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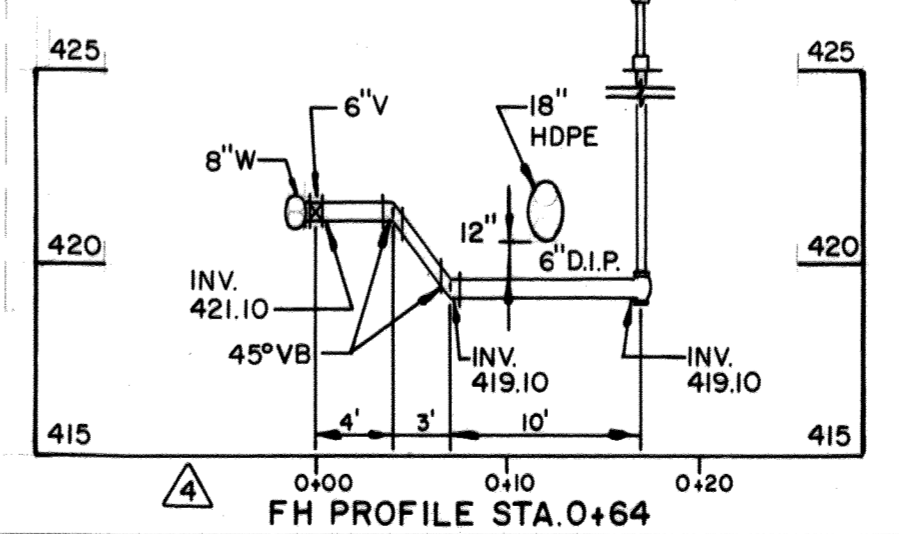
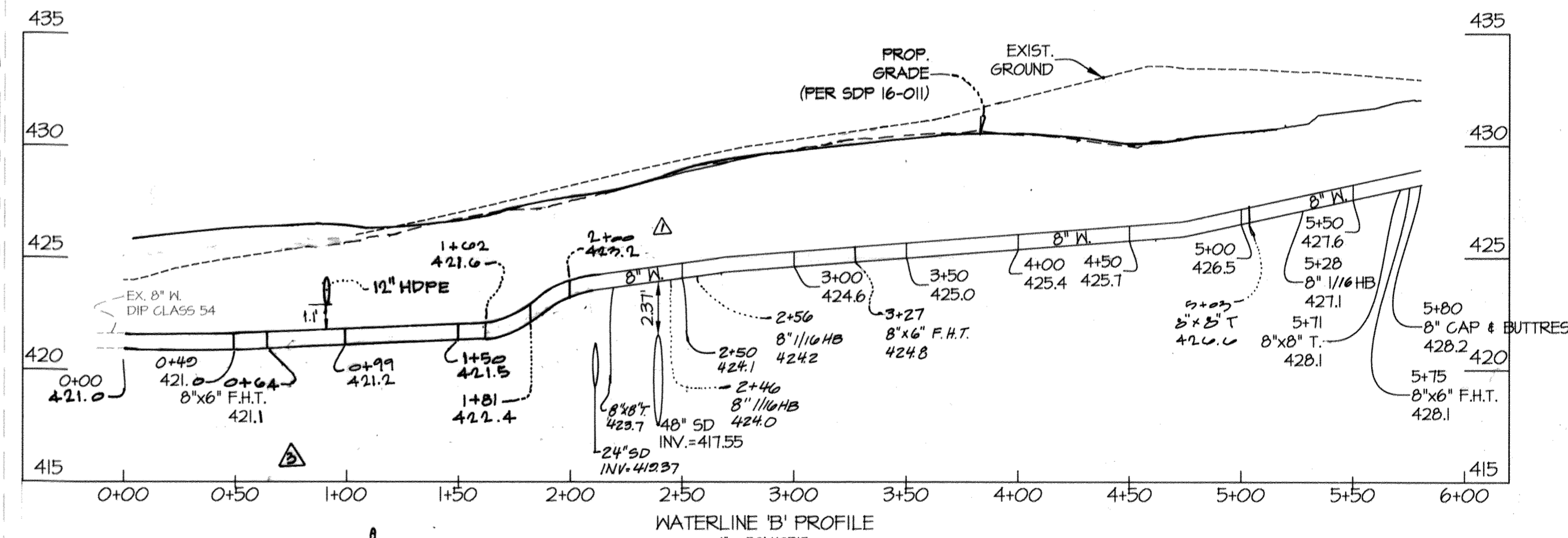
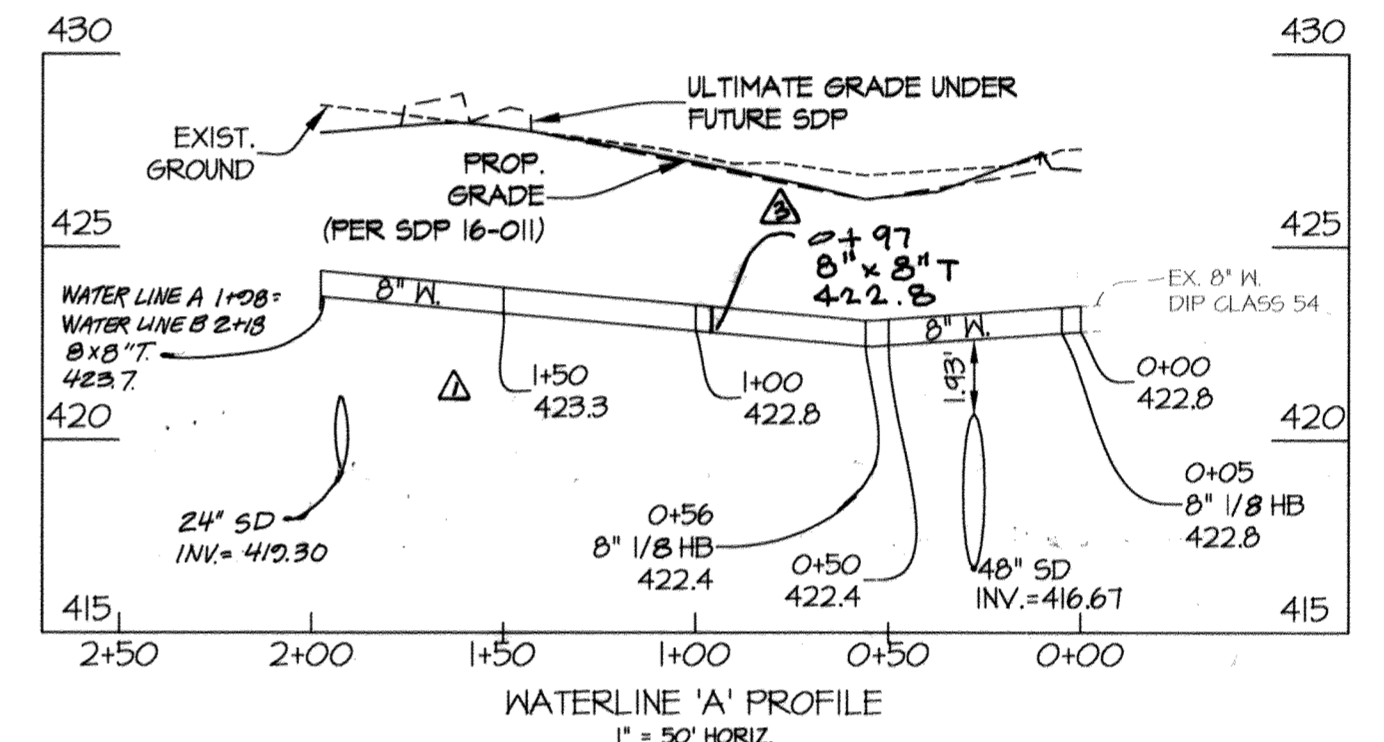


NOTE: HOWARD COUNTY IS NOT RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF HARDSCAPE OR LANDSCAPE MATERIAL IF THE PUBLIC MAIN NEEDS TO BE MAINTAINED

FITTING CHART			
STATION	FITTING	NAD '83/'91 COORDINATES	
WATER MAIN 'A'			
0+05	8" 1/8 H.B.	N 540841.51	E 1334712.57
0+56	8" 1/8 H.B.	N 540820.16	E 1334675.24
1+48	8" x 8" T.	N 540864.26	E 1334542.48
WATER MAIN 'B'			
2+04	8" CAP & BUTTRESS	N 540854.88	E 1334539.00
2+14	8" V.	N 540864.53	E 1334540.75
2+19	8" x 8" T.	N 540864.26	E 1334542.48
2+24	8" V.	N 540873.96	E 1334544.21
3+27	8" x 6" F.H.T.	N 540972.70	E 1334570.96
5+23	8" x 8" T.	N 541134.11	E 1334714.07
5+28	8" 1/8 H.B.	N 541158.47	E 1334649.30
5+71	8" x 8" T.	N 541190.33	E 1334679.10
5+75	8" x 6" F.H.T.	N 541193.25	E 1334681.84
5+80	8" CAP & BUTTRESS	N 541196.40	E 1334685.25
2+46	8" 1/8 H.B.	N 540863.37	E 1334566.82
2+56	8" 1/8 H.B.	N 540908.82	E 1334555.27

FITTING CHART			
STATION	FITTING	NAD '83/'91 COORDINATES	
WATER MAIN 'A'			
1+04	8" TAPPING SLEEVE	N 540820.88	E 1334670.02
WATER MAIN 'B'			
0+64	8" x 6" F.H.T.	N 540729.07	E 1334492.16

FIRE HYDRANT INFORMATION	
FH	LOCATION
(A)	N 540976.43 E 1334567.13
(B)	N 541202.58 E 1334671.86
(C)	N 540729.22 E 1334476.21



**AS-BUILT**

PLAN SCALE:  
1" = 50'

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

**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: 410-860-1820 DC/VA: 301-988-2524 FAX: 301-421-4186

DATE  
DEC., 2015

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 28, 2016

BY	NO	REVISION	DATE
JKJ	1	MOVED FH & WM, ADDED AND REVISED HDPE, REVISED PARCEL LINES, ADDED EXISTING STORM DRAIN	11/1/2010
3+	2	REVISED PROPERTY FROM BUILDING #1, ADDED LOCATION OF THE 18" HDPE, 4" GREASE INTERCEPTOR, REVISED BUILDING FOOTPRINT & PERIMETER WALLING, 1" REV. BASEMENT, REV. WATER TO BE NEW BRASS 1" V. 8" TAPPING VALVE & 2" HDPE BUTTRESS LOCATIONS, ADDED FH 8" 1/8 H.B.	11-20-10
WRA	3	ADDED FH PROFILE, REMOVE 8" TAPPING SLEEVE, ADDED WATER VALVE STAKEOUT, REVISE FITTING CHART.	3/2021

PLAN SHEET

**MAPLE LAWN FARMS**  
CONTRACT No. 44-4950-D  
BUSINESS DISTRICT - AREA 2  
PARCEL 'C'-3 (OFFICE BUILDING No.10)  
PLAT Nos. thru  
HOWARD COUNTY, MARYLAND  
ELECTION DISTRICT No. 5

SCALE  
AS SHOWN  
SHEET  
2 OF 2