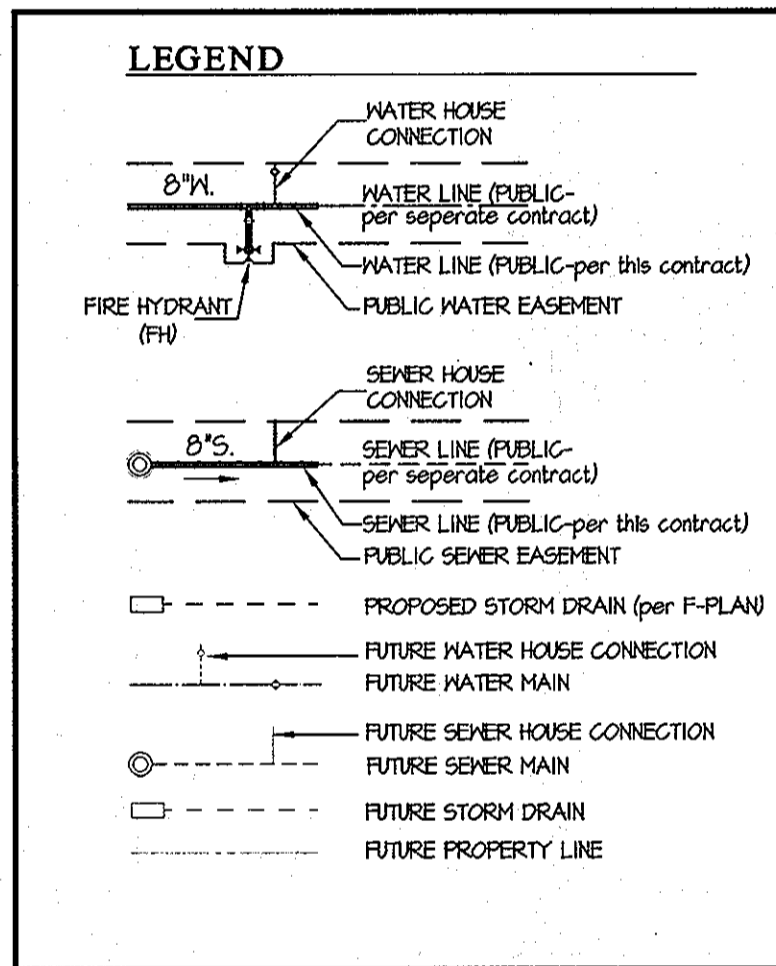
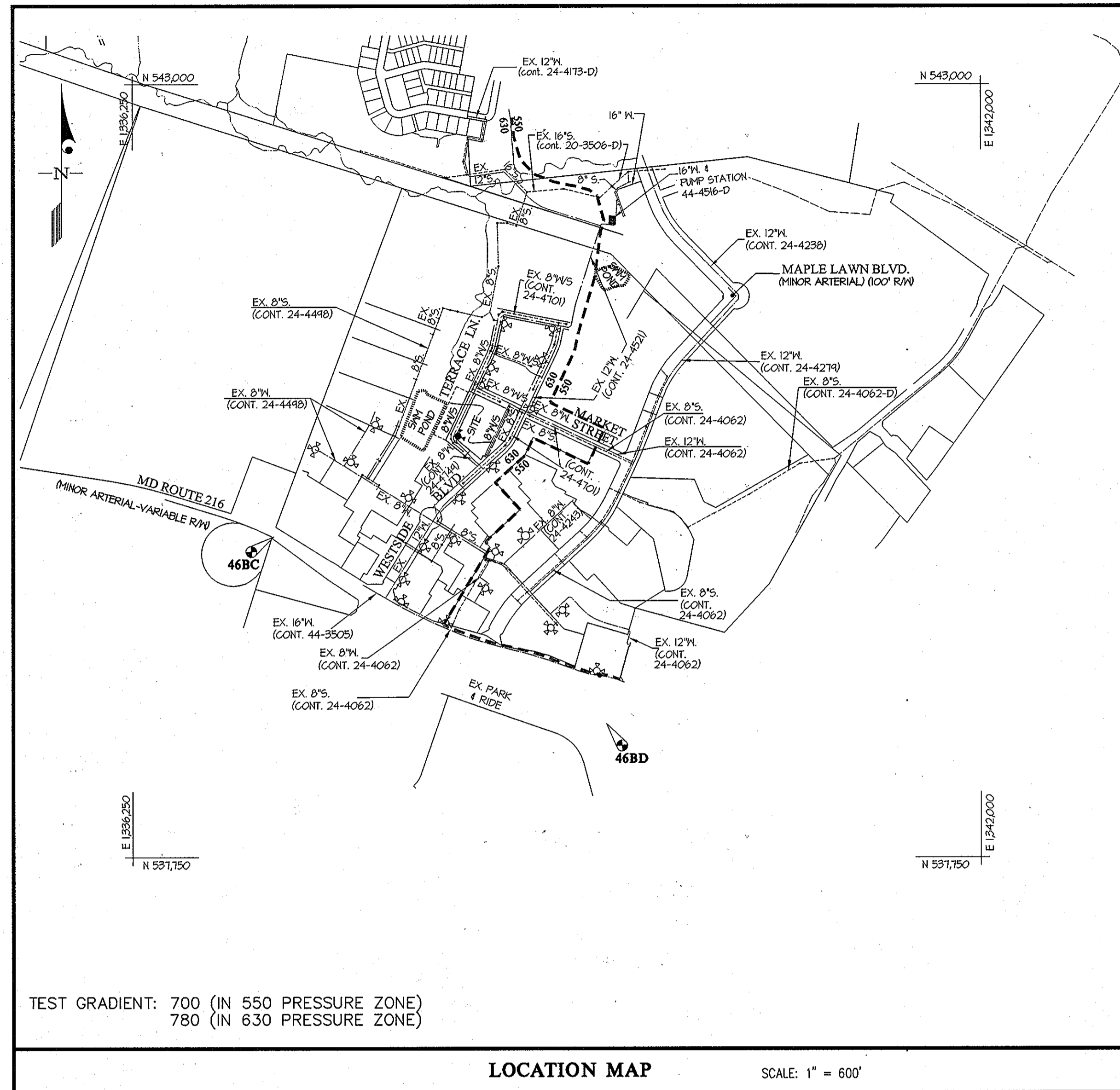


QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
8" WATER MAIN (DIP)	700 L.F.			
8" 1/8" HB	1 EA.			
8" 1/8" HB	1 EA.			
8"x6" FH TEE	1 EA.			
1 1/2" MHC	614 L.F.			
8" SEWER MAIN (PVC)	750 L.F.			
MANHOLES	4 EA.			
TYPE 'A' DROP MANHOLE	1 EA.			
4" SHC	822 L.F.			
NAME OF UTILITY CONTRACTOR:				
SURVEY AND DRAFTING DIV.		CHECKBOX: AS-BUILT DATE:		



SHEET INDEX

1. WATER and SEWER TITLE SHEET
2. WATER and SEWER PLAN and CHARTS
3. WATER and SEWER PROFILE, CHARTS and DETAILS



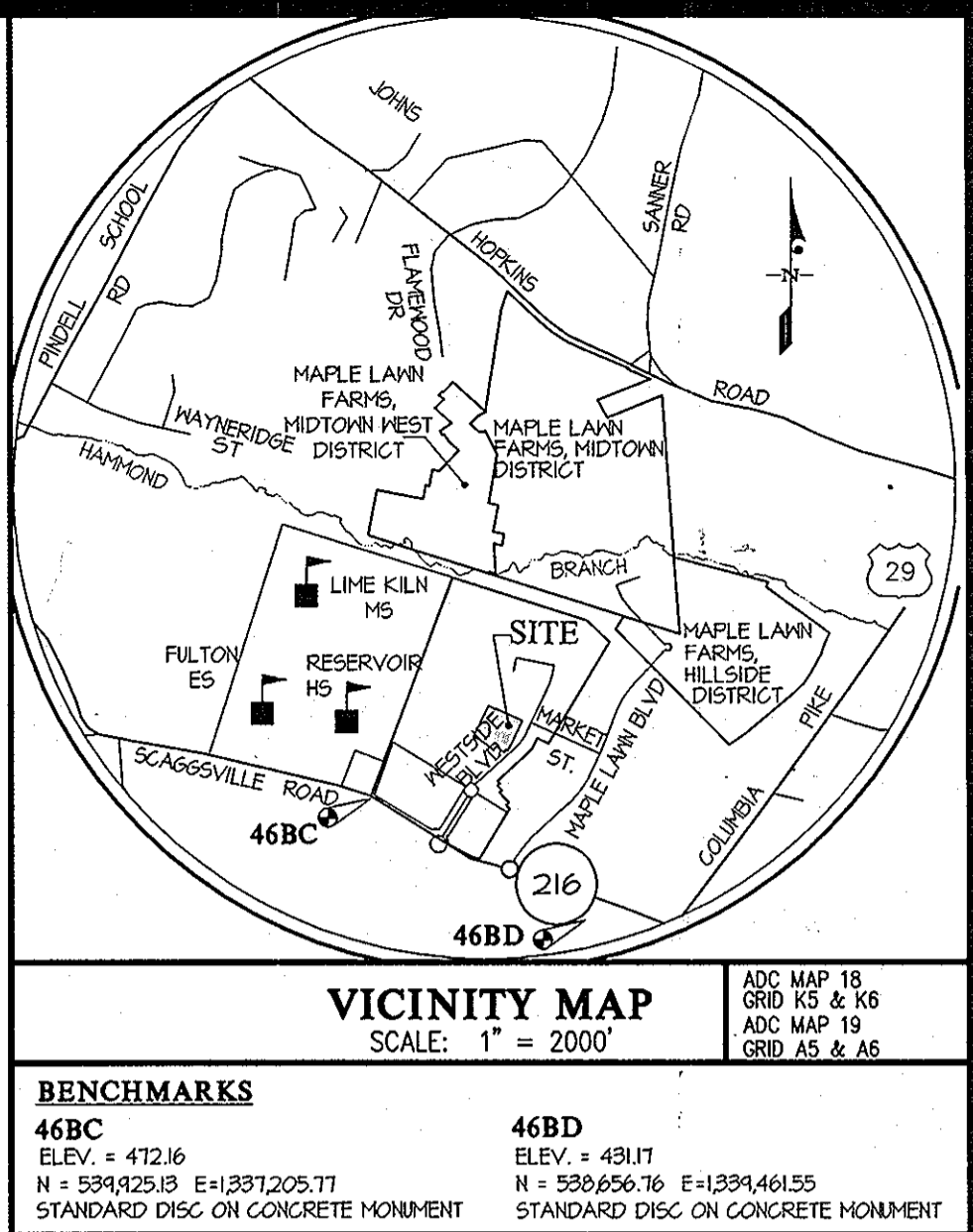
TYPE OF BUILDING	RESIDENTIAL
NUMBER OF UNITS	53
NUMBER OF S.H.C.'s	34 (30 SINGLE, 1 DOUBLE)
NUMBER OF W.H.C.'s	33 (26 SINGLE, 1 DOUBLE)
AREA OF COMMERCIAL LOT/PARCEL	0.0 AC.
SEWER SHED	LITTLE PATUXENT
PUMPING STATION	N/A

NOTE: CONNECTIONS FOR LOTS 124, 156, AND 118 THRU LOTS 128 WERE CONSTRUCTED UNDER CONT. #24-4701-D

GENERAL NOTES

- Part I**
1. 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.
 2. Topographic field surveys were performed on March, 1991 by SDI and then updated by grade checks performed by Gutschick, Little & Weber, PA and based on F 14-015. The boundary information is based upon a field survey prepared by Gutschick, Little & Weber, PA on or about June, 2001.
 3. Horizontal and Vertical Survey Controls: The coordinates shown on the drawings are based on Maryland State Reference System NAD 83/11 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.
 4. All pipe elevations shown are invert elevations unless otherwise noted.
 5. 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.
 6. 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.
 7. Where test pits have been made on existing utilities, they are noted by the symbol Φ at the locations of the test pits. A note or notes containing the results of the test pits 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.
 8. The contractor shall notify the following utility companies or agencies of at least five working days before starting work shown on these plans:

AT&T	1-800-252-1133
BSE (Construction Services)	410-637-8718
BSE (Emergency)	410-685-0123
Bureau of Utilities	410-313-4400
Colonial Pipeline Co.	410-785-1940
Miss Utility	1-800-251-7111
State Highway Administration	410-531-5533
Verizon	1-800-743-0033
 9. 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.
 10. 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.
 11. 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 DPW requirements per Section 18.14(a) of the Howard County Code.
- Part II WATER**
1. All water mains shall be D.I.P. Class 54 unless otherwise noted.
 2. Tops of all water mains shall have a minimum of 3'-6" of cover unless otherwise noted.
 3. Valves adjacent to tees shall be strapped to tees.
 4. All fittings shall be bolted or anchored with concrete in accordance with Standard Details unless otherwise provided for on the drawings.
 5. 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.
 6. The contractor shall not operate any water main valves on the existing water system.
 7. Tracer wires and continuity test stations shall be installed on all DIP and PVC water mains in accordance with the Howard County Design Manual.
 8. For PVC water mains, all records for the Quality Control and Qualification Test Requirements noted in Section 51 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.
 9. 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 harnesses. 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.
 10. 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 hone the spigot into the bell of PVC pipe.
 11. 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 #57 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 (pex) Blue Brute DR18 or equal.
 12. 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**
1. All sewer mains shall be D.I.P. or PVC, unless otherwise noted.
 2. All manholes shall be 4'-0" inside diameter unless otherwise noted.
 3. Force mains shall be D.I.P. only.
 4. Manholes shown with 12" and 16" walls are for brick manholes only.
 5. Manholes designated M.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.
 6. House(s) with the symbol "C.N.S." indicates that the cellar cannot be served.



CONTRACT No. 24-4780-D
MAPLE LAWN FARMS
WESTSIDE DISTRICT - AREA 4
LOTS 118 thru 170 and COMMON OPEN SPACE LOT 171

HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 319 OF THE SPECIFICATIONS AND WITH THE ROAD DRAWINGS F 14-015 FOR SEDIMENT AND EROSION CONTROL.

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

APPROVED: *John R. Roberts* 2/11/14
HOWARD S.C.D. Date

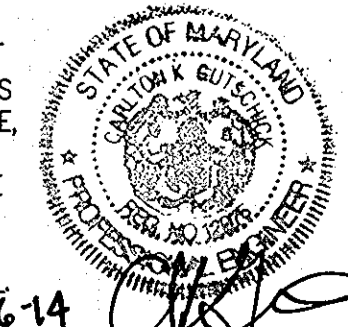
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Edith C. Coan 1/31/14
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
Chief E. E. E. 2-27-14
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 20886
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE JAN. 2014
G.L.W. No. 12002

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, 2014
L-6-14



BY	NO	REVISION	DATE

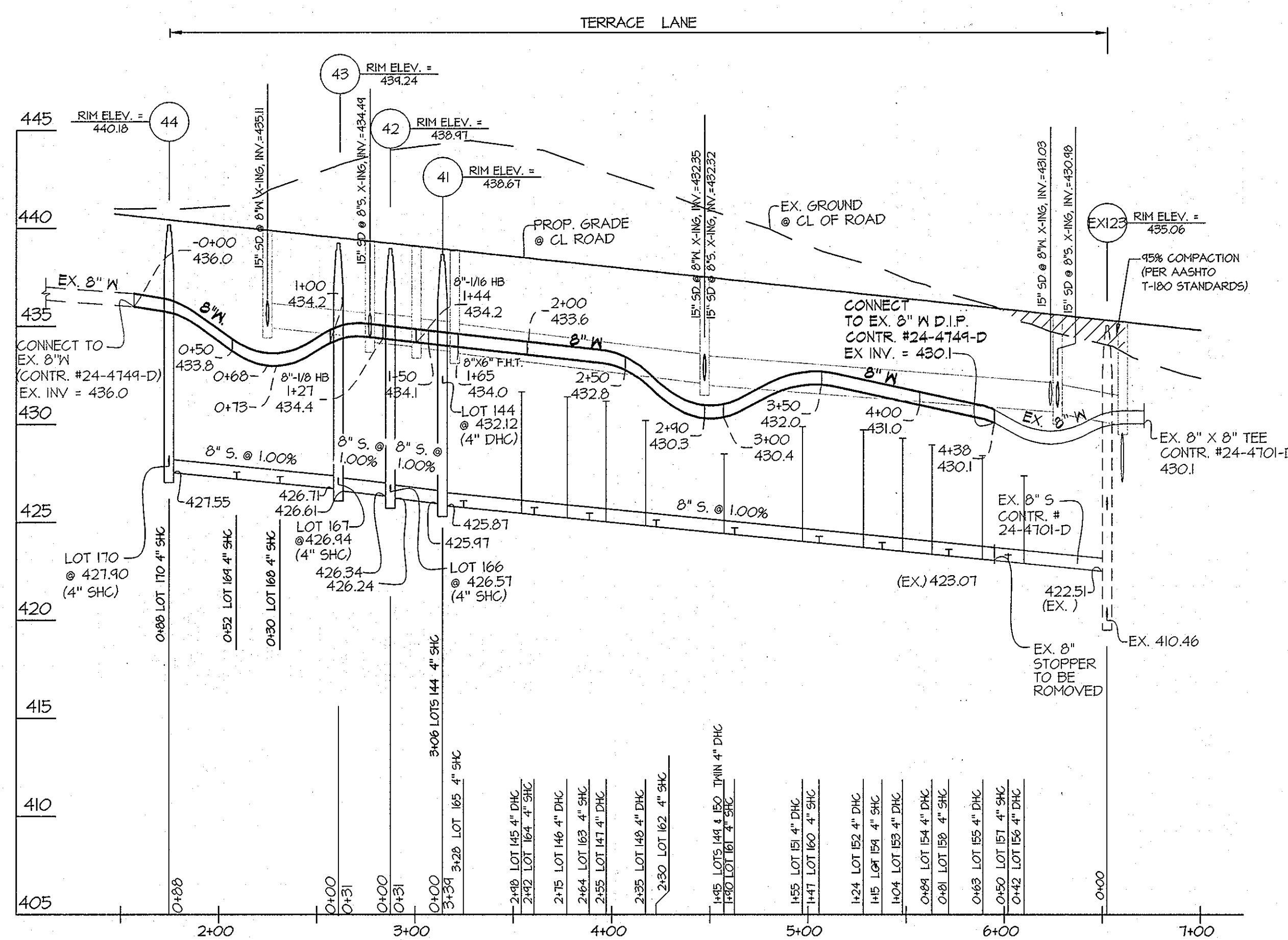
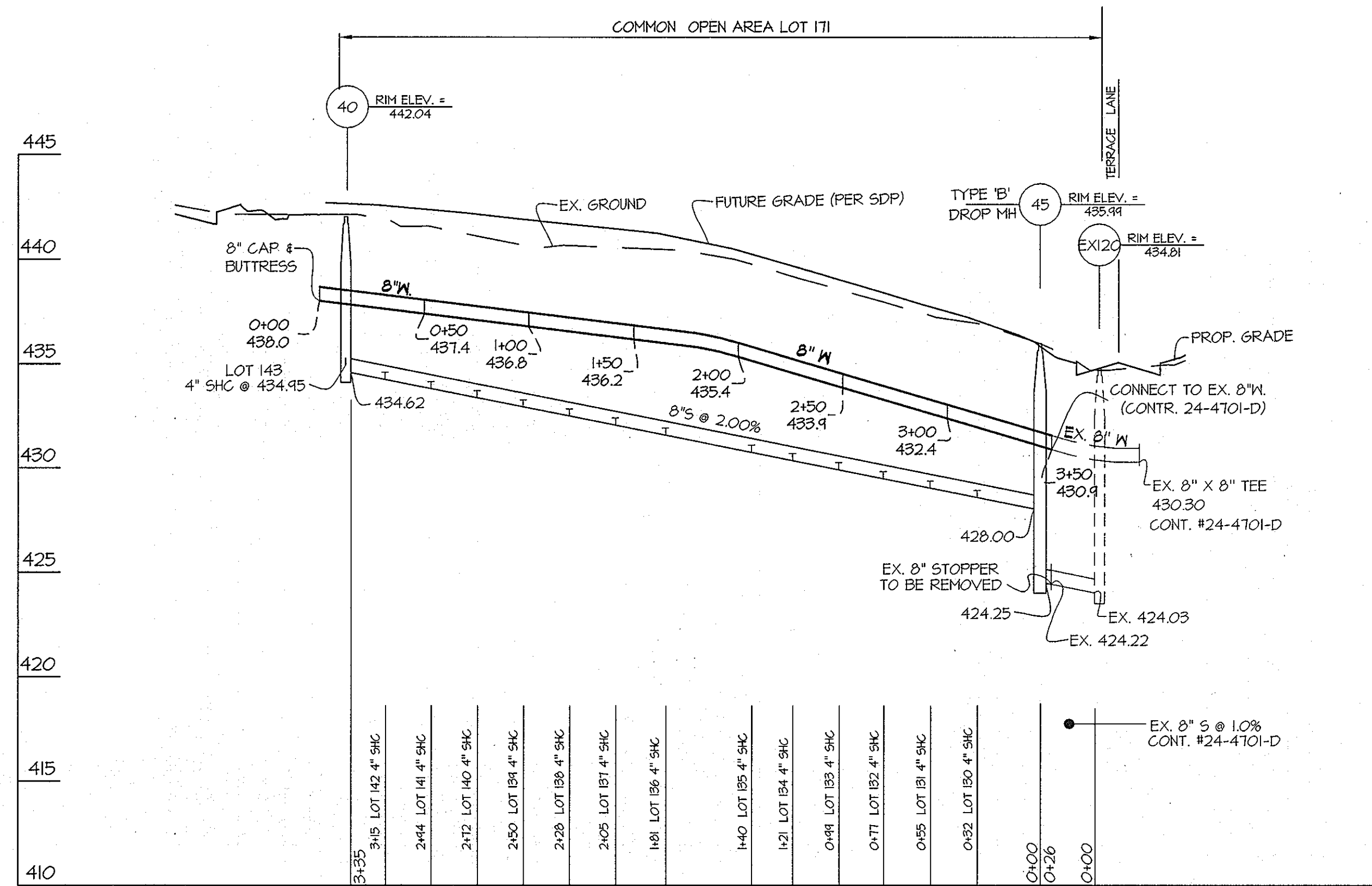
FINAL WATER and SEWER
TITLE SHEET
600' SCALE MAP NO. 46 BLOCK NO. 4

MAPLE LAWN FARMS
CONTRACT No. 24-4780-D
WESTSIDE DISTRICT - AREA 4
LOTS 118 THRU 170 and COMMON OPEN AREA LOT 171
HOWARD COUNTY, MARYLAND
ELECTION DISTRICT NO. 5

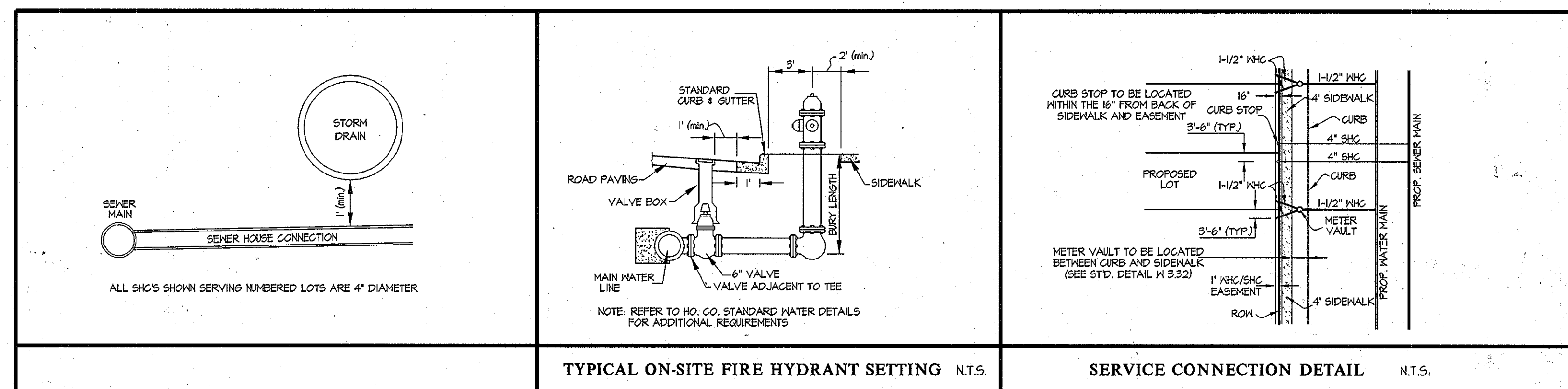
SCALE AS SHOWN
SHEET 1 OF 3

PREPARED FOR:
MAPLE LAWN FARMS I, LLC
SUITE 300 WOODHOLMES CENTER
1829 REISTERSTOWN ROAD
BALTIMORE, MD 21208
ATTN.: MARK BENNETT
410-484-8400

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
129	WESTSIDE BLVD.				
130	WESTSIDE BLVD.				
131	WESTSIDE BLVD.				
132	WESTSIDE BLVD.				
133	WESTSIDE BLVD.				
134	WESTSIDE BLVD.				
135	WESTSIDE BLVD.				
136	WESTSIDE BLVD.				
137	WESTSIDE BLVD.				
138	WESTSIDE BLVD.				
139	WESTSIDE BLVD.				
140	WESTSIDE BLVD.				
141	WESTSIDE BLVD.				
142	WESTSIDE BLVD.				
143	WESTSIDE BLVD.				
144	TERRACE LANE				
145	TERRACE LANE				
146	TERRACE LANE				
147	TERRACE LANE				
148	TERRACE LANE				
149	TERRACE LANE				
150	TERRACE LANE				
151	TERRACE LANE				
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165	TERRACE LANE				
166	TERRACE LANE				
167	TERRACE LANE				
168	TERRACE LANE				
169	TERRACE LANE				
170	TERRACE LANE				



SCALE: 1" = 50' HORIZ.
1" = 5' VERT.



TYPICAL ON-SITE FIRE HYDRANT SETTING N.T.S.

SERVICE CONNECTION DETAIL N.T.S.

PREPARED FOR:
MAPLE LAWN FARMS I, LLC
SUITE 300 WOODHOLME CENTER
1829 REISTERSTOWN ROAD
BALTIMORE, MD 21208
ATTN: MARK BENNETT
410-484-8400

DEPARTMENT OF
PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF
PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

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DATE
JAN.
2014

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, 2014



G.L.W. No.

12002

BY NO

REVISION

DATE

600' SCALE MAP NO. 46 BLOCK NO. 4

MAPLE LAWN FARMS
CONTRACT No. 24-4780-D
WESTSIDE DISTRICT - AREA 4
LOTS 118 THRU 170 AND COMMON OPEN
AREA LOT 171

HOWARD COUNTY, MARYLAND
ELECTION DISTRICT No. 5

SCALE
AS SHOWN

SHEET
3 OF 3