

WATER AND SEWER EXTENSION

COLUMBIA 100 OFFICE RESEARCH PARK

EXECUTIVE PARK DRIVE

CONTRACT NO. 24-3278-D

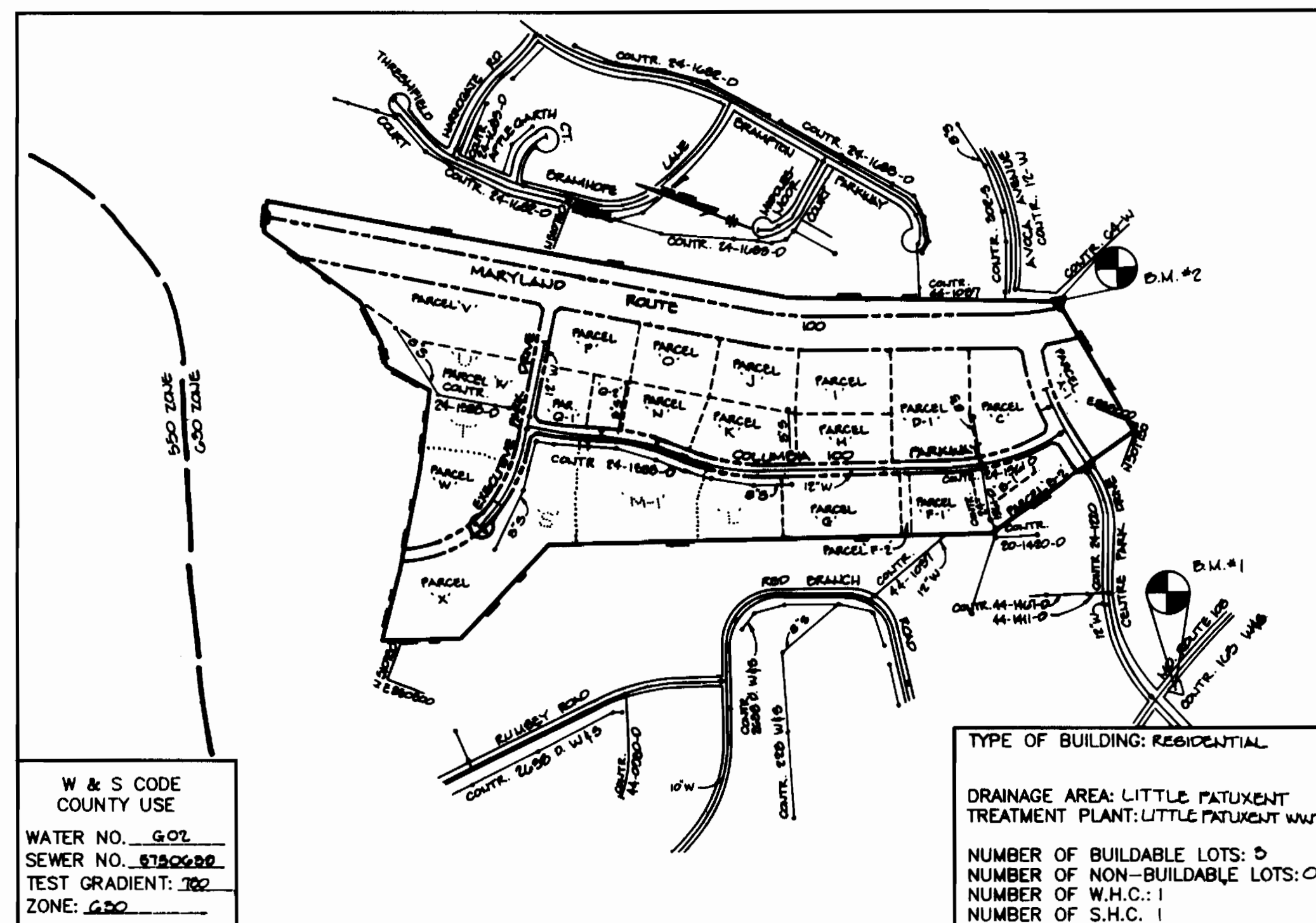
2nd ELECTION DISTRICT

GENERAL NOTES

1. Approximate location of existing mains are shown. The contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted supply. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer at the Contractor's expense.
2. All horizontal controls are based on Maryland State Coordinates.
3. All vertical controls are based on U.S.G.S. data.
4. All pipe elevations shown are invert elevations.
5. Clear all utilities by a minimum of 6". Clear all poles by 2'-0" minimum or tunnel as required. 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 bracing of additional poles or damages shall be deducted from money 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 drawings, and for materials and construction methods use Howard County Design Manual, Volume IV, Standard Specifications and Detail 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 at the location of the test pit. 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.
8. Contractor shall notify the following utility companies or agencies at least five working days before starting work shown on these plans:

State Highway Administration	531-5533
Baltimore Gas & Electric Co. Contractor Services	850-4620
Baltimore Gas & Electric Co. Underground Damage Control	787-9068
Miss Utility	1-800-257-7777
Colonial Pipeline Co.	785-1390
Bureau of Utilities, Howard County Department of Public Works	313-4500
9. Trees shrubs are to be protected from damage to maximum extent. Trees and shrubs located within the construction strip are not to be removed or damaged by the contractor.
10. Contractor shall remove trees, stumps and roots along line of excavation. Payment for such removal shall be included in the unit price bid for construction of the main.
11. All water mains to be D.I.P. Class 52 unless otherwise noted.
12. Tops of all water mains to have a minimum of 3'-1/2' cover unless otherwise noted.
13. Valves adjacent to tees shall be strapped to tees.
14. All fittings shall be buttressed or anchored with concrete in accordance with the Standard Details unless otherwise provided for on the drawings.
15. Fire hydrants shall be set to the bury line elevations shown on the drawings. All fire hydrants shall be strapped and buttressed with concrete in accordance with Standard Detail. Soil around the fire hydrant shall be compacted in accordance with Section 1000 and 1005 of the Standard Specifications.
16. The contractor shall not operate any water main valves on the existing water system.
17. All water house connections shall be for inside meter setting unless otherwise noted on plans or in specifications.
18. All sewer mains shall be DIP, RCP, VCPX, CSPX, RCCP AND P.V.C. unless otherwise noted.
19. The contractor shall provide a joint in all sewer mains within 2'-0" of exterior manholes noted.
20. All manholes shall be 4'-0" inside diameter unless otherwise noted.
21. Force mains shall be D.I.P. only.
22. Manholes shown with 12" and 16" walls are for brick manholes only.
23. Manholes designated W.T. in plan and profile shall have watertight frame and covers, Standard Detail G5.52. Where watertight manhole frame and cover is used, set top of frame 1'-0" above finished grade unless otherwise noted on the drawings.
24. House(s) with the symbol "C.N.S." indicates that cellar cannot be served.

QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
12" WATER MAIN	415 LF	408+ 12 IN	DIP CL 52	GRIFFIN PIPE PRODS
12" 5" TEE	1 EA	1 EA.	DIP	GRIFFIN PIPE PRODS
8" VALVE	1 EA	1 EA.	GATE VALVE	MUELLER CO.
6" VALVE	1 EA	1 EA.	GATE VALVE	MUELLER CO.
12" VALVE	1 EA	1 EA.	GATE VALVE	MUELLER CO.
12" PLUG / BUTTRESS	1 EA	1 EA.	DIP	GRIFFIN PIPE PRODS
8" WATER MAIN	10 LF	20 LF	DIP CL 52	GRIFFIN PIPE PRODS
SEWER MANHOLE	1 EA	1 EX. NH	PRECAST CONC	USED EX. (OK BY COUNTY)
8" SEWER MAIN	57 LF	37 LF	DIP CL 52	GRIFFIN PIPE PRODS
8" CAP	1 EA	1 EA.	DIP	GRIFFIN PIPE PRODS
6" WATER MAIN	10 LF	16 LF	DIP CL 52	GRIFFIN PIPE PRODS
FIRE HYDRANT	1 EA	1 EA	5.5" MUELLER	MUELLER CO.
12" X 8" TEE	1 EA	1 EA	DIP	GRIFFIN PIPE PRODS
NAME OF UTILITY CONTRACTOR: <u>KASCO CHESAPEAKE BUILDERS</u>				
CHECKBOX				
AS-BUILT DATE				
SURVEY AND DRAFTING DIVISION				



BENCHMARKS

- *1 3/4" REBAR 0.4' BELOW SURFACE, 34.7' SOUTH OF CURB ON MARYLAND ROUTE 100 ITS + EAST OF 6' Phelps Wick Drive HOWARD COUNTY CONTROL PT. 6743300-R. ELEV. 462.20
- *2 NAIL IN STONE AT PROPERTY CORNER, COLUMBIA 100 - OFFICE RESEARCH PARK. ELEV. 525.51

Sediment control measures for this contract will be implemented in accordance with Section 219 of the Specifications and as shown on F-29-111

John F. Robertson 8/31/93
HOWARD SOIL CONSERVATION DISTRICT

Review for Howard Soil Conservation District and needs technical requirements.

James M. Helm 8/31/93
U.S. SOIL CONSERVATION SERVICE

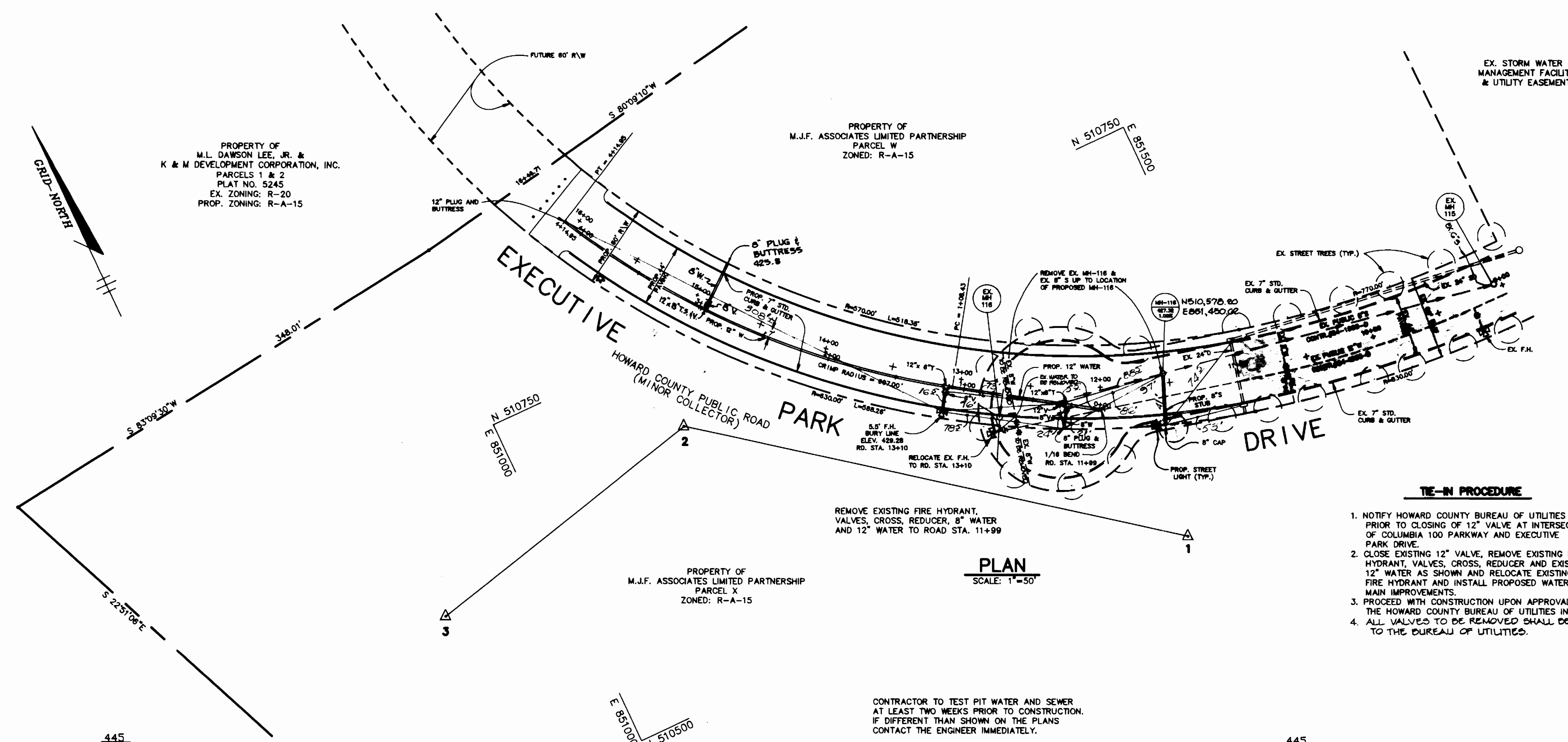
This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.

John F. Robertson 8/31/93
HOWARD SOIL CONSERVATION DISTRICT

<p style="text-align: center;">DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><u>James M. Helm</u> 8/26/93 DIRECTOR OF PUBLIC WORKS DATE</p> <p><u>John F. Robertson</u> 8-26-93 CHIEF, BUREAU OF UTILITIES DATE</p>	<p style="text-align: center;">RIEMER MUEGGE & ASSOCIATES, INC. Planners • Engineers • Surveyors 8818 Centre Park Drive • Suite 300 • Columbia, MD 21045 410-997-8600 FAX: 410-997-9282</p>	<p>JAYKANT D. PAREKH * 10146</p>	<p>DES: D.B.S.</p> <p>DRN: D.B.S.</p> <p>CHK: D.F.</p> <p>DATE: 6-17-93</p>	<p style="font-size: 2em;">TITLE SHEET</p>	<p style="text-align: center;">COLUMBIA 100 OFFICE RESEARCH PARK CONTRACT NO. 24-3278-D 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND</p>	<p>SCALE AS SHOWN</p> <p>SHEET 1 OF 2</p>
---	---	----------------------------------	---	--	---	---

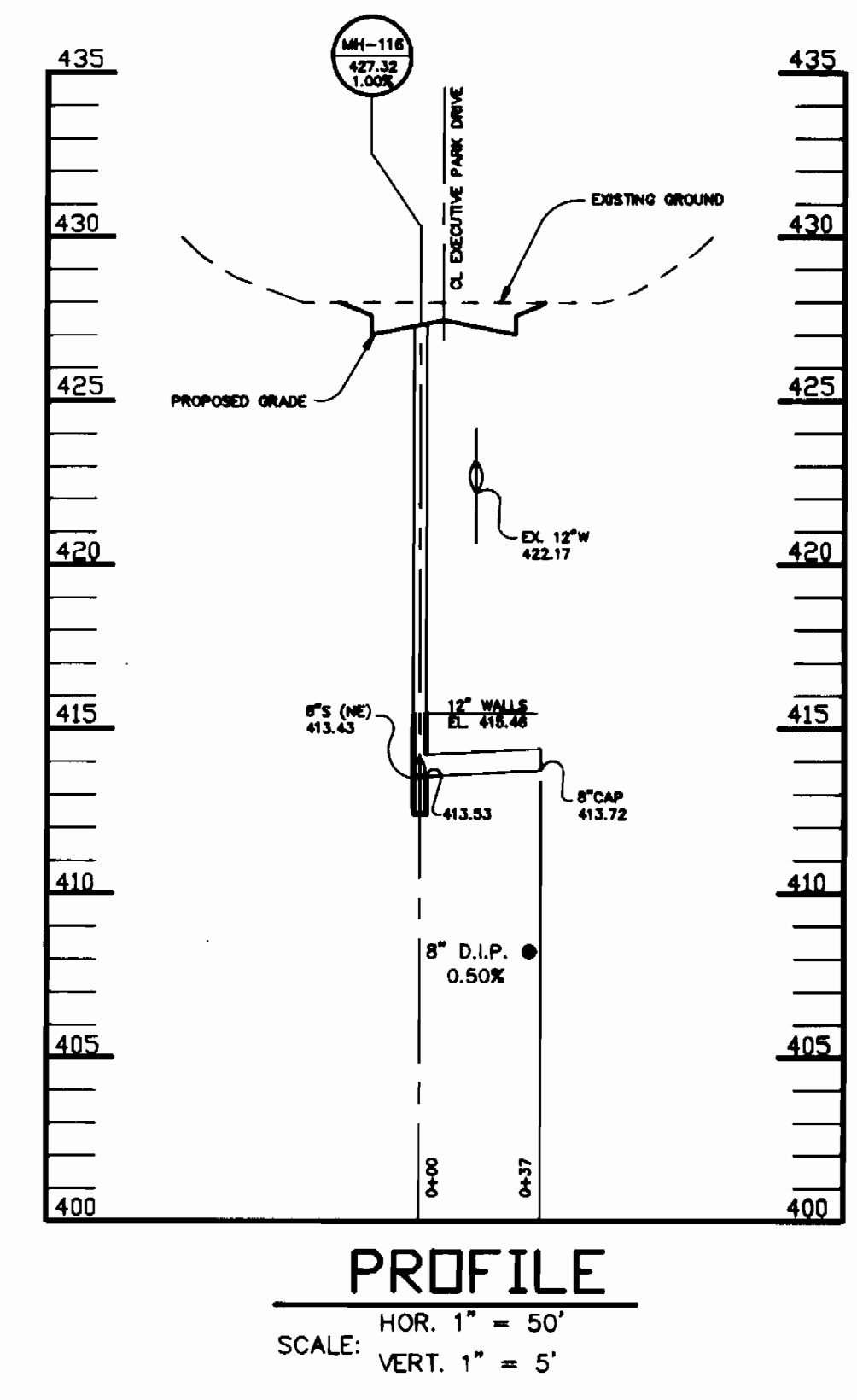
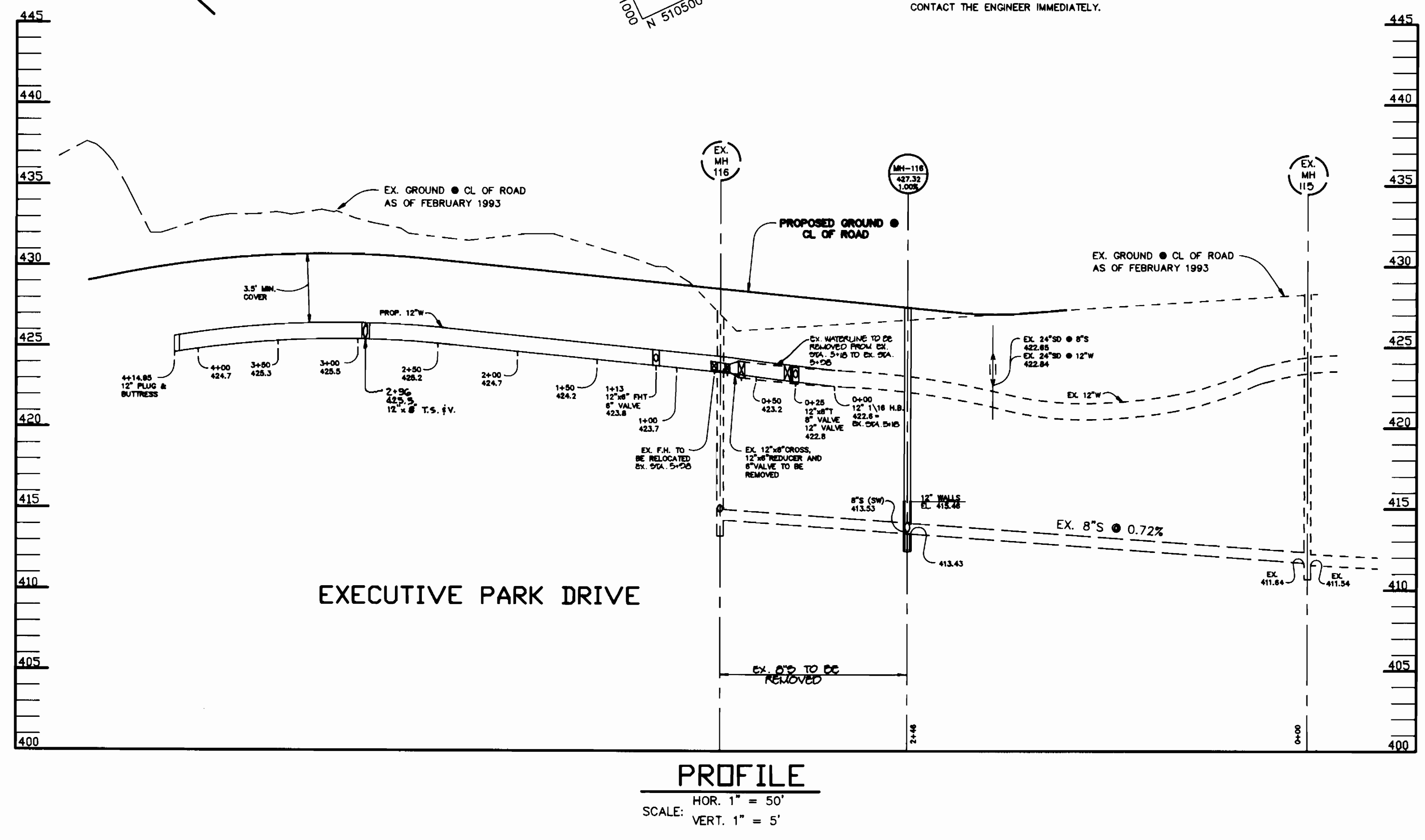
WIS 3278.D / 1

TRAVERSE COORDINATE LIST		
NO.	NORTH	EAST
1	510464.89	851417.21
2	510690.59	851123.28
3	510640.39	850910.45



- TIE-IN PROCEDURE**
1. NOTIFY HOWARD COUNTY BUREAU OF UTILITIES PRIOR TO CLOSING OF 12" VALVE AT INTERSECTION OF COLUMBIA 100 PARKWAY AND EXECUTIVE PARK DRIVE.
 2. CLOSE EXISTING 12" VALVE, REMOVE EXISTING FIRE HYDRANT, VALVES, CROSS, REDUCER AND EXISTING 12" WATER AS SHOWN AND RELOCATE EXISTING FIRE HYDRANT AND INSTALL PROPOSED WATER MAIN IMPROVEMENTS.
 3. PROCEED WITH CONSTRUCTION UPON APPROVAL OF THE HOWARD COUNTY BUREAU OF UTILITIES INSPECTOR.
 4. ALL VALVES TO BE REMOVED SHALL BE RETURNED TO THE BUREAU OF UTILITIES.

CONTRACTOR TO TEST PIT WATER AND SEWER AT LEAST TWO WEEKS PRIOR TO CONSTRUCTION. IF DIFFERENT THAN SHOWN ON THE PLANS CONTACT THE ENGINEER IMMEDIATELY.



W/S 3278.D 1/2

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DIRECTOR OF PUBLIC WORKS: <i>[Signature]</i> 9/26/93 CHIEF, BUREAU OF UTILITIES: <i>[Signature]</i> 9/26/93		RIEMER MUEGGE & ASSOCIATES, INC. 8618 Centre Park Drive • Suite 200 • Columbia, MD 21045 410-997-8900 FAX: 410-997-9282 CHIEF, BUREAU OF ENGINEERING: <i>[Signature]</i> 9/2/93 CHIEF, LAND DEVELOPMENT: <i>[Signature]</i> 9/1/93		STATE OF MARYLAND JAYKANT D. PAREKH #10146	DES: D.B.S. DRN: D.B.S. CHK: D.F. DATE: 6-17-93	PLAN AND PROFILE OF WATER AND SEWER MAINS REVISION: 8" BY 2" 8" 12" WATER TAPPED INTO 12" W/W 8" T.S.V. ADDED 8" PLUGGED & BUTTRESSED LINE. PLAN & PROFILE. 5/5/94 DATE: 6-17-93	COLUMBIA 100 OFFICE RESEARCH PARK CONTRACT NO. 24-3278-D 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET 2 OF 2
---	--	--	--	---	--	--	---	--------------------------------