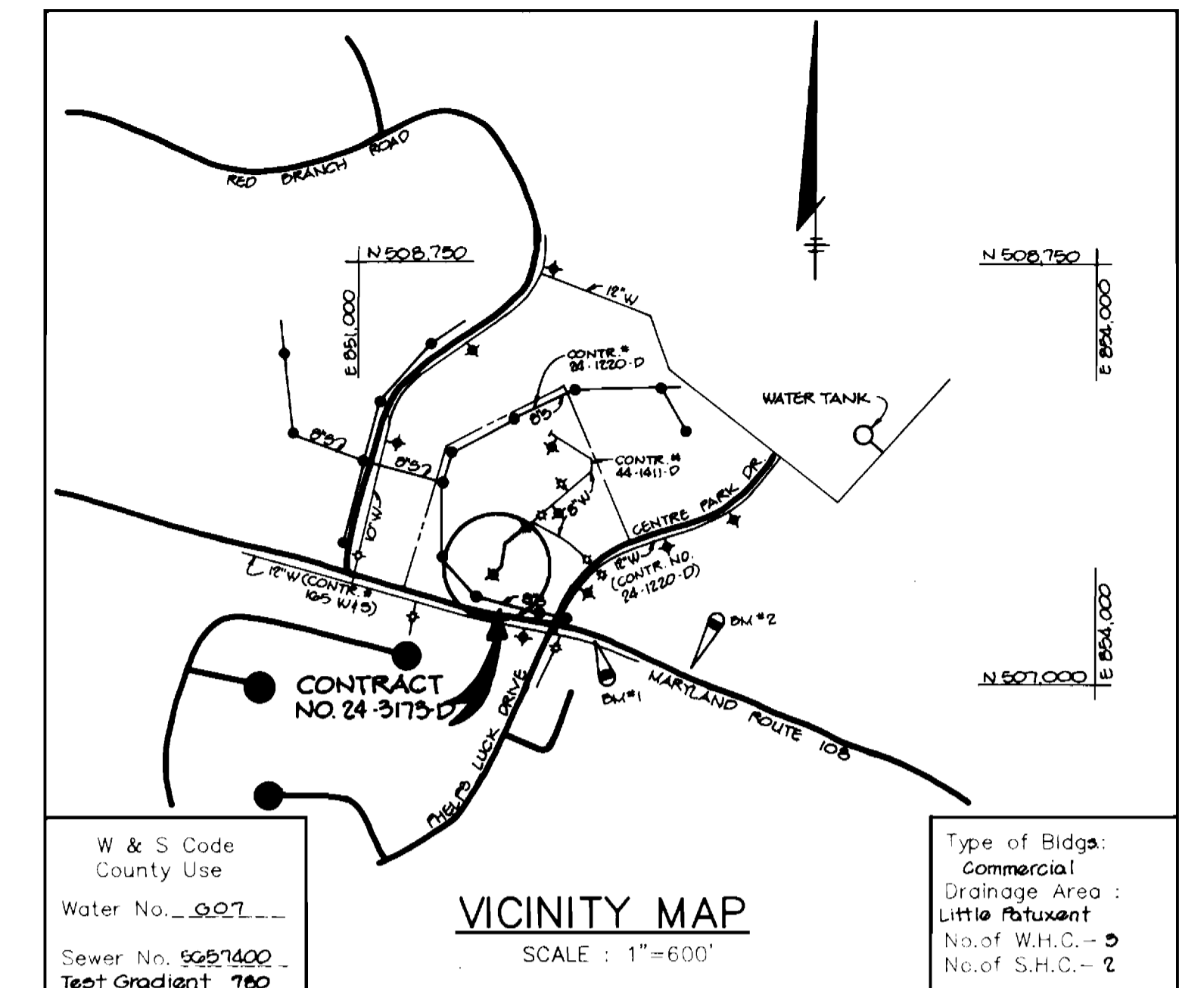


BENCH MARKS

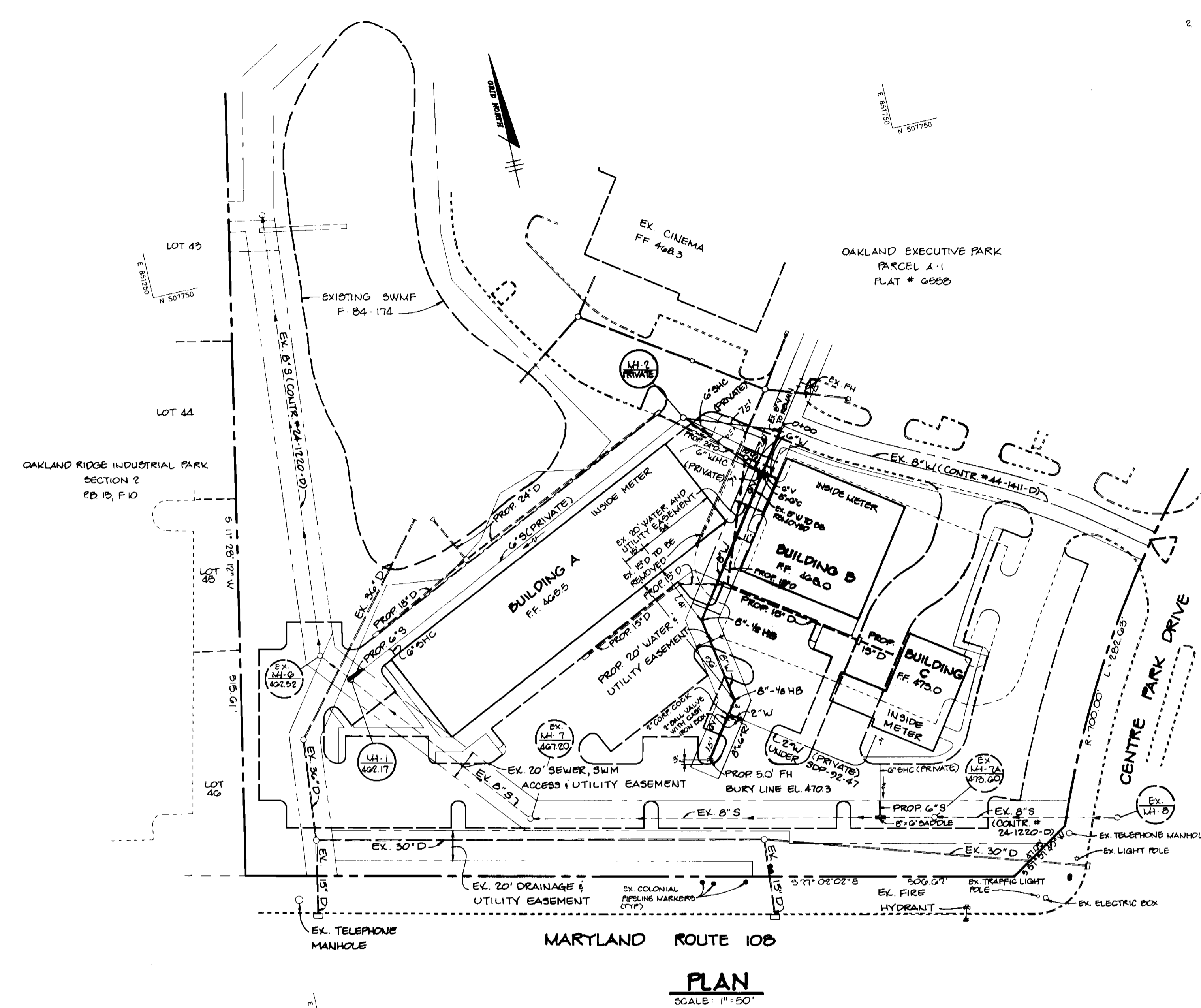
- B.M. # HO. CO. 2745010-R ELEV. 482.20
3/4" REBAR 0.1' BELOW SURFACE 3417' SOUTH OF CURB ON W.D. ROUTE 100 EAST OF E. OF HELPS LUCK DRIVE
- B.M. # HO. CO. 2745000 ELEV. 580.07
CONCRETE MONUMENT AT SURFACE 40' E. EAST OF NORTHWEST DRIVE OF HOWARD HIGH SCHOOL ON NORTH SIDE OF W.D. ROUTE 100



GENERAL NOTES

- 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.
- All horizontal controls are based on Maryland State Coordinates.
- All vertical controls are based on U.S.G.S. data.
- All pipe elevations shown are invert elevations.
- 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.
- For details not shown on the drawings, 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 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.
- 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	787-3068
Miss Utility	1-800-257-7777
Colonial Pipeline Co.	795-1390
Bureau of Utilities, Howard County Department of Public Works	313-4900
- Trees and 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.
- 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.
- All water mains to be D.I.P. Class 52 unless otherwise noted.
- Tops of all water mains to have a minimum of 3'-1/2" 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 the 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 **restressed** and buttressed with concrete in accordance with Standard Details. 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.
- All sewer mains shall be DIP, RCP, VDPX, CSPX, RCPD and P.V.C. unless otherwise noted.
- The contractor shall provide a joint in all sewer mains within 2'-0" of exterior manhole wall.
- 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 W.T. in plan and profile shall have watertight frame and covers; Standard Detail 05.52. Where watertight manhole frame and cover is 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 cellar cannot be served.



SEQUENCE OF WORK FOR REMOVAL OF 8" WATER LINE

- TURN OFF EXISTING LINE AT EXISTING 8" VALVE STATION 0+05.
- REMOVE EXISTING LINE FROM STATION 0+15 TO STATION 1+01.
- INSTALL VERTICAL BEND AT STATION 0+15 AND PROCEED WITH LINE AS SHOWN ON THESE PLANS.
- UPON ACCEPTANCE OF LINE BY HOWARD COUNTY BUREAU OF CONSTRUCTION AND INSPECTION AND HOWARD COUNTY BUREAU OF UTILITIES, TURN EXISTING 8" VALVE ON.
- SEE SHEET 2 FOR PROFILE OF WATER MAIN.

ITEMS	QUANTITIES ESTIMATED	AD-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
6" WATER	51 LF	53 LF		ATLANTIC
8" WATER	200 LF	225 LF		ATLANTIC
2" WATER	10 LF	10 LF		LAMBRIDGE-LEE
6" HYDRANT	1 EA.	1 EA.		MUELLER
2" CORPORATION COCK & VALVE	1 EA.	1 EA.		MUELLER
6" VALVE	3 EA.	3 EA.		MUELLER
8" x 6" CROSS	1 EA.	1 EA.		MUELLER
8" x 6" REDUCER	1 EA.	1 EA.		MUELLER
6" SEWER	20 LF	20 LF		J.M. MANUFACT
4" DIA. MANHOLE	11 V.F.	1		ATLANTIC

NAME OF UTILITY CONTRACTOR: _____

CHECKBOX _____

AD-BUILT DATE _____

SURVEY AND DRAFTING DIVISION _____

Sediment control measures for this contract will be implemented in accordance with Section 219 of the Specifications and as shown on SDP-22-47.

John K. Hester 3/14/92
HOWARD SOIL CONSERVATION DISTRICT

Review for Howard Soil Conservation District and meets technical requirements.
John W. Hester 3/14/92
HOWARD SOIL CONSERVATION SERVICE

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

HOWARD SOIL CONSERVATION DISTRICT _____ DATE _____

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert M. Beigner 3-4-92
DIRECTOR OF PUBLIC WORKS DATE

John W. Hester 3-13-92
CHIEF, BUREAU OF ENGINEERING DATE

John W. Hester 3-13-92
CHIEF, LAND DEVELOPMENT DATE

RIEMER MUEGGE & ASSOCIATES, INC.
A Land Planning, Engineering and Consulting Firm
8818 Centre Park Drive Suite 200 Columbia, Md. 21045
301-997-8900 FAX: 301-997-9282

Arthur E. Muegge #870
ARTHUR E. MUEGGE

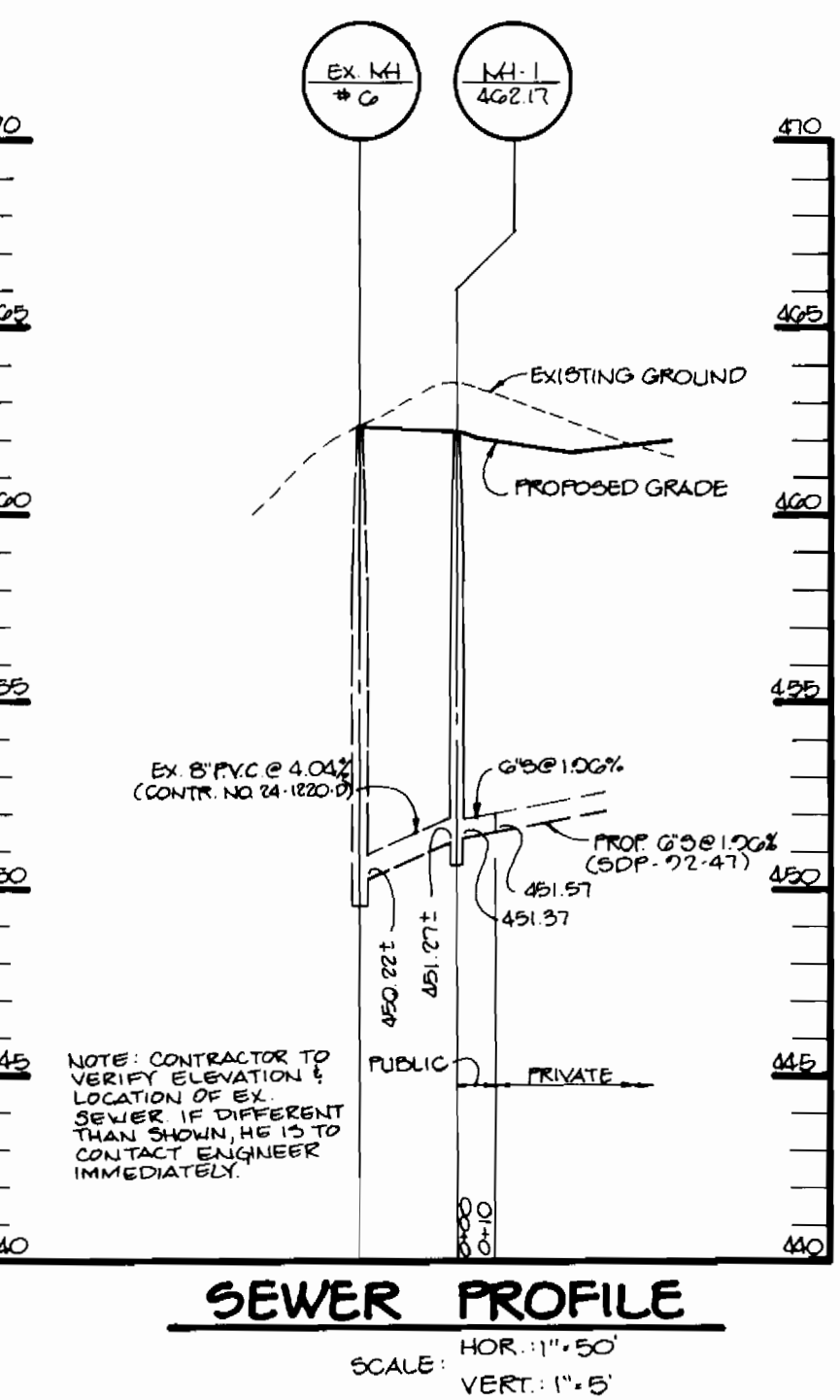
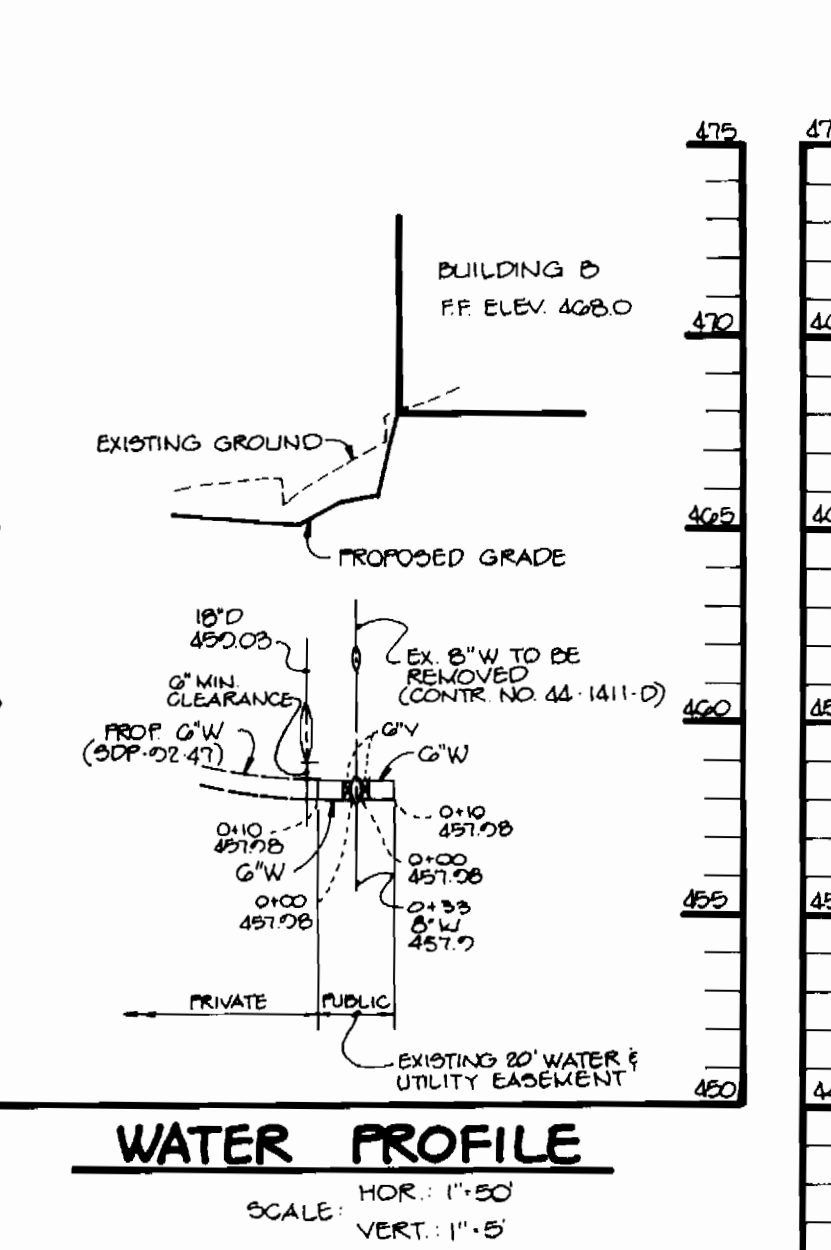
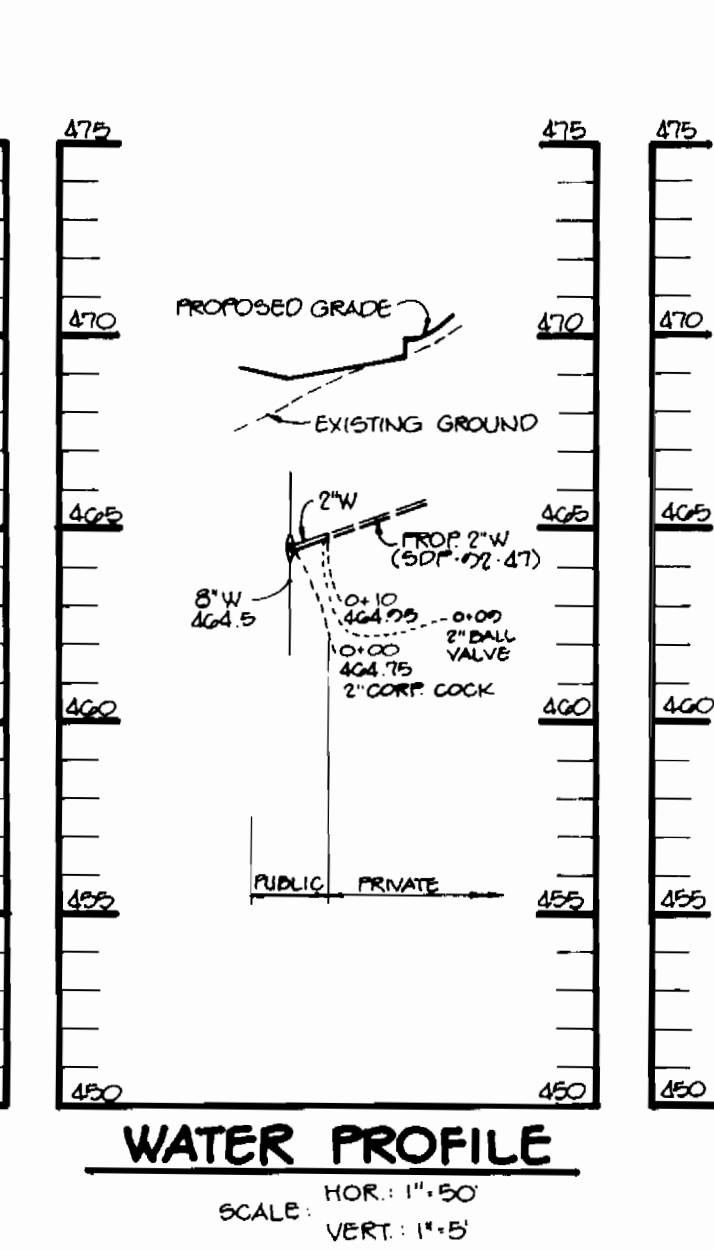
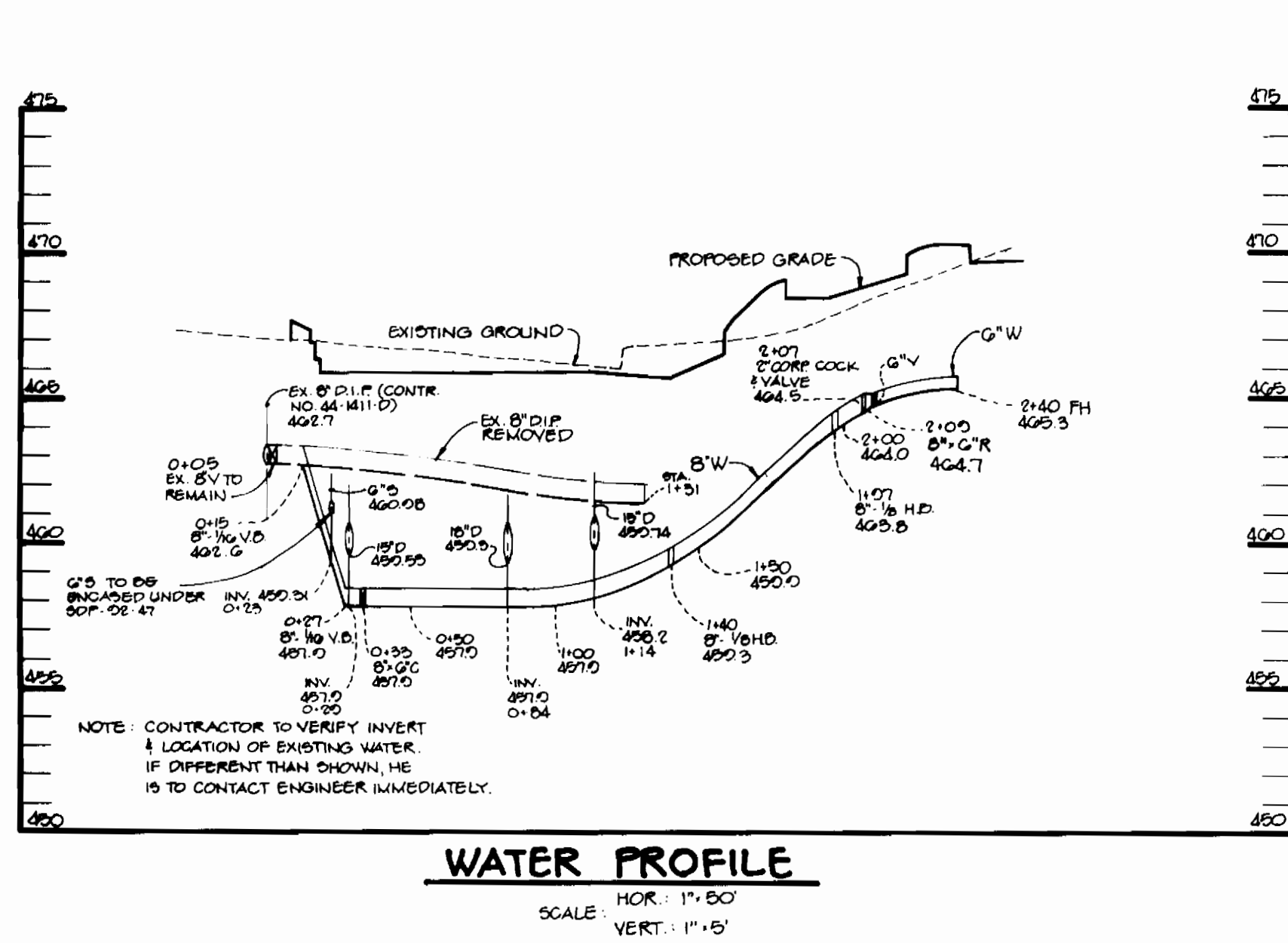
DES: CJR
DRN: MAD
CHK: JDP
DATE: 10-31-91

BY NO. _____ REVISION _____ DATE _____

600' SCALE MAP NO. 30 BLOCK NO. 18

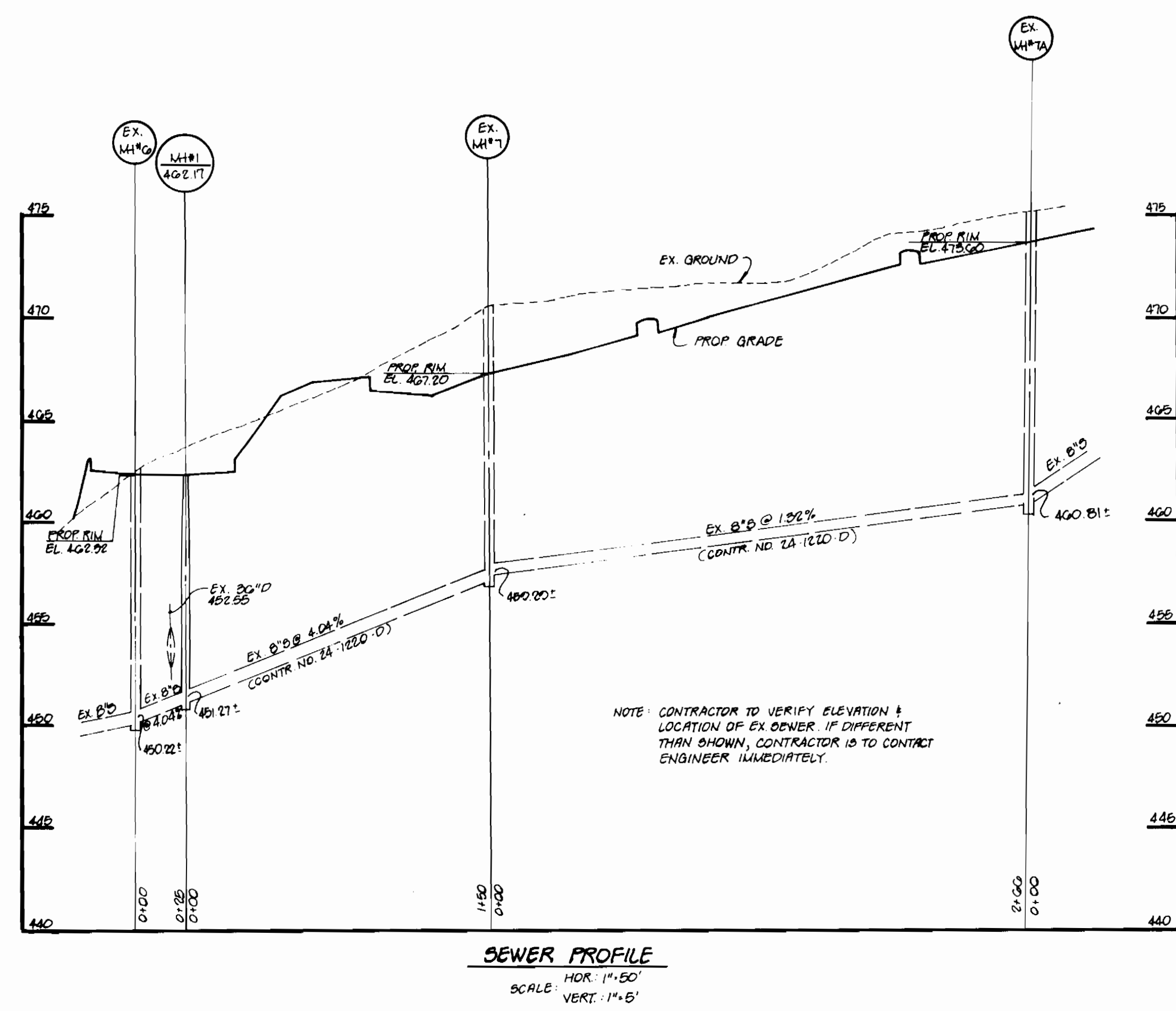
COLUMBIA PALACE OFFICE CENTER
2nd ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT NO. 24-3173-D

SCALE AS SHOWN
SHEET 1 OF 2



SEQUENCE OF WORK FOR REMOVAL OF 8" WATER LINE

1. TURN OFF EXISTING LINE AT EXISTING 8" VALVE STATION 0+05.
2. REMOVE EXISTING LINE FROM STATION 0+15 TO STATION 1+31.
3. INSTALL VERTICAL BEND AT STATION 0+15 AND PROCEED WITH LINE AS SHOWN ON THESE PLANS.
4. UPON ACCEPTANCE OF LINE BY HOWARD COUNTY BUREAU OF CONSTRUCTION AND INSPECTION AND HOWARD COUNTY BUREAU OF UTILITIES TURN EXISTING 8" VALVE ON.



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: Robert Beiner, 3-4-92
Chief, Bureau of Utilities

Chief, Bureau of Engineering: [Signature], 3-13-92
Chief, Bureau of Engineering

Chief, Land Development: [Signature], 3-13-92
Chief, Land Development

RIEMER MUEGGE & ASSOCIATES, INC.
A Land Planning, Engineering and Consulting Firm
8818 Centre Park Drive Suite 200 Columbia, Md. 21045
501-207-6000 Fax: 501-207-0282

ARTHUR E. MUEGGE 18707

DES: C.J.R.	
DRN: M.A.D.	
CHK: J.D.P.	
DATE: 10-31-91	
BY: NO.	REVISION
DATE	600' SCALE MAP NO. 50 BLOCK NO. 10

PROFILE SHEET

COLUMBIA PALACE OFFICE CENTER
2nd ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT NO. 24-3173-D

SCALE AS SHOWN
SHEET 2 OF 2