

**CONTRACT NO. 24-3593-D**

**VICINITY MAP**  
SCALE: 1"=600'

**BENCHMARKS**

BM #1 HO. CO. SURVEY CONTROL STATION: 36AA  
N 562,804.84 E 1,344,906.24

BM #2 HO. CO. SURVEY CONTROL STATION: 36DA  
N 560,844.34 E 1,350,037.44

**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.C.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 to make 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 551-5939
- Baltimore Gas & Electric Co. Contractor Services 552-4620
- Baltimore Gas & Electric Co. Underground Damage Control 781-9068
- Miss Utility 1-800-281-7111
- Colonial Pipeline Co. 781-1340
- Bureau of Utilities, Howard County Department of Public Works 318-4400

9. 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.

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. Top of all water mains to have a minimum of 3-1/2' cover unless otherwise noted.

13. Valves adjacent to trees shall be strapped to trees.

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 restrained 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.

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 P.V.C. unless otherwise noted.

19. All manholes shall be 4'-0" inside diameter unless otherwise noted.

20. Force mains shall be D.I.P. only.

21. Manholes shown with 12" and 16" walls are for brick manholes only.

22. Manholes designated M.T. in plan and profile shall have watertight frame and covers, Standard Detail 65.52. Where watertight manhole frame and cover is used, set top of frame 1'-0" above finished grade unless otherwise noted on the drawings.

23. Manholes can be either brick or precast concrete structures.

24. Contractor is solely responsible for construction means, methods, techniques, sequences, procedures, and safety precautions and programs.

25. The fire hydrant shall be installed as per standard detail H.1.11.

26. Fire hydrants will be located 3' FROM BACK OF CURB unless otherwise noted.

27. For sprinkler systems, all two-tones or multi-family dwelling units should have a minimum of 1" connection with a 3/4" meter.

28. The contractor shall notify the Bureau of Highways, Howard County, at (410) 318-1450 at least five (5) working days before any open cut of any County road or boring/drilling operation in County roads for laying water/sewer mains or house connections. The approval of these drawings will constitute compliance with DPM requirements per Section 10.114(a) of the Howard County Code.

ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
8" WATER	1363 LF	1399.8'	CL 52 D.I.P. TYPON JOINT	ATLANTIC STATES U.S. FILTER
6" WATER	140 LF	140 ±	CL 52 D.I.P. TYPON JOINT	" "
1" WATER	10 LF		CENTURION FIRE HYDRANT	MUELLER CO. U.S. FILTER
6" VALVES	9 EA.	9	WELLS RATE VALVE	MUELLER CO. U.S. FILTER
8" VALVES	7 EA.	7	" "	" "
12" x 8" TAPPING SLEEVE VALVE	2 EA.	2	TAPP SLEEVE	MUELLER CO. U.S. FILTER
SEWER MANHOLES	1 EA.	1	PRECAST CONCRETE	ATLANTIC STATES
8"-1/8 HB	4 EA.	4	CL 52 M.J. DUCTILE IRON	UNION FOUNDRY U.S. FILTER
8"-1/32 VB	2 EA.	2	" "	" "
8"-1/16 HD	2 EA.	2	" "	" "
8" x 8"	10 EA.	10	" "	" "
4" WATER	10 LF	10	CL 52 D.I.P.	ATLANTIC STATES U.S. FILTER
4" VALVE	1 EA.	1	GATE VALVE	MUELLER CO. U.S. FILTER
8" x 4"	1 EA.	1	M.J. DUCTILE IRON	" "

Sediment control measures for this contract will be implemented in accordance with Section 219 of the specifications and as shown on SDP-97-67

Review for Howard Soil Conservation District and meets technical requirements.

*Cheryl Semmes* 2/2/97  
NATURAL RESOURCES CONSERVATION SERVICE DATE

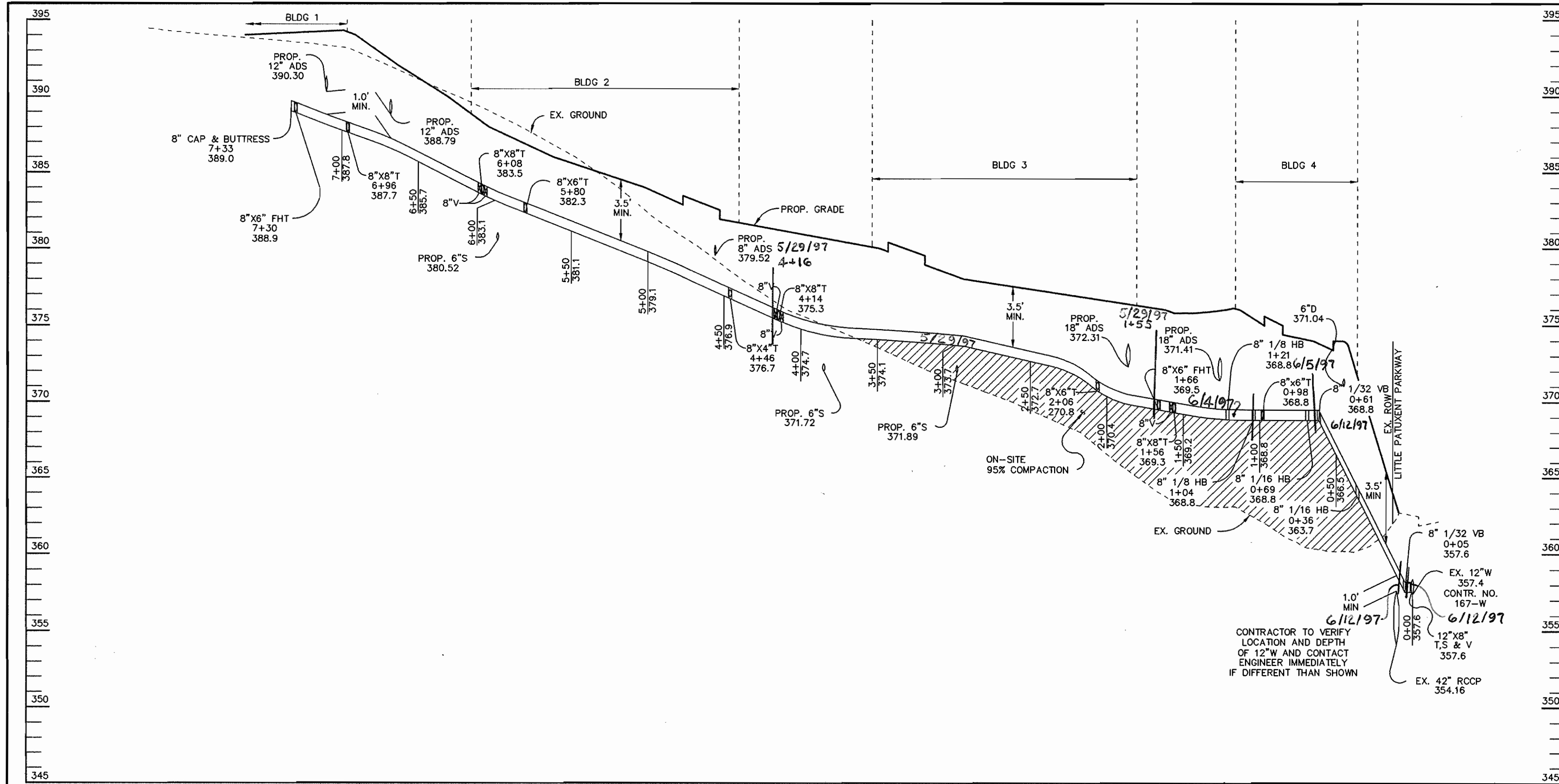
This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.

*John R. Blanton* 2/2/97  
HOWARD SOIL CONSERVATION DISTRICT DATE

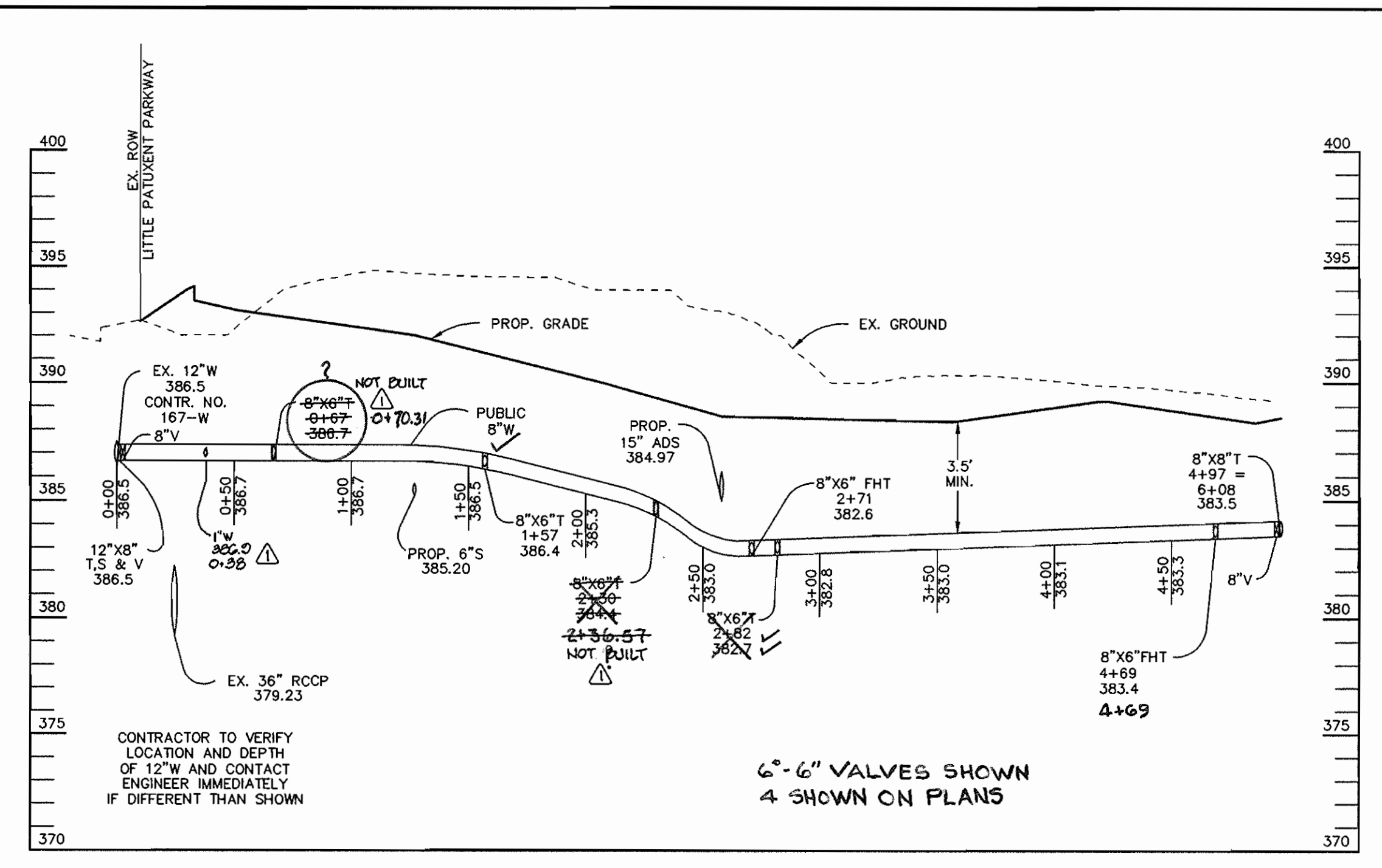
NOTE: BUILDINGS 8 THRU 17 ARE GARAGES. WATER AND SEWER SERVICE IS NOT REQUIRED.

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>John R. Blanton</i> 2-18-97 CHIEF, BUREAU OF UTILITIES DATE	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND <i>John R. Blanton</i> 2/2/97 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE	<b>RIEMER MUEGGE &amp; ASSOCIATES, INC.</b> ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING 8818 Centre Park Drive • Suite 200 • Columbia, MD 21045 410-997-8900 FAX: 410-997-9282 800/462900 TEL/DWG	DES: BLN DRN: BLN CHK: CJR DATE: 2-18-97 WAD:  ADDED 1" W AND HOSE BID 6-11-97 BY NO. REVISION	<b>WATER AND SEWER PLAN</b> 600' SCALE MAP NO. 36 BLOCK NO. 1	<b>TOWN CENTER, SECTION 2 AREA 9</b> PARCEL A 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT NO. 24-3593-D SCALE: 1"=50' SHEET 1 OF 2
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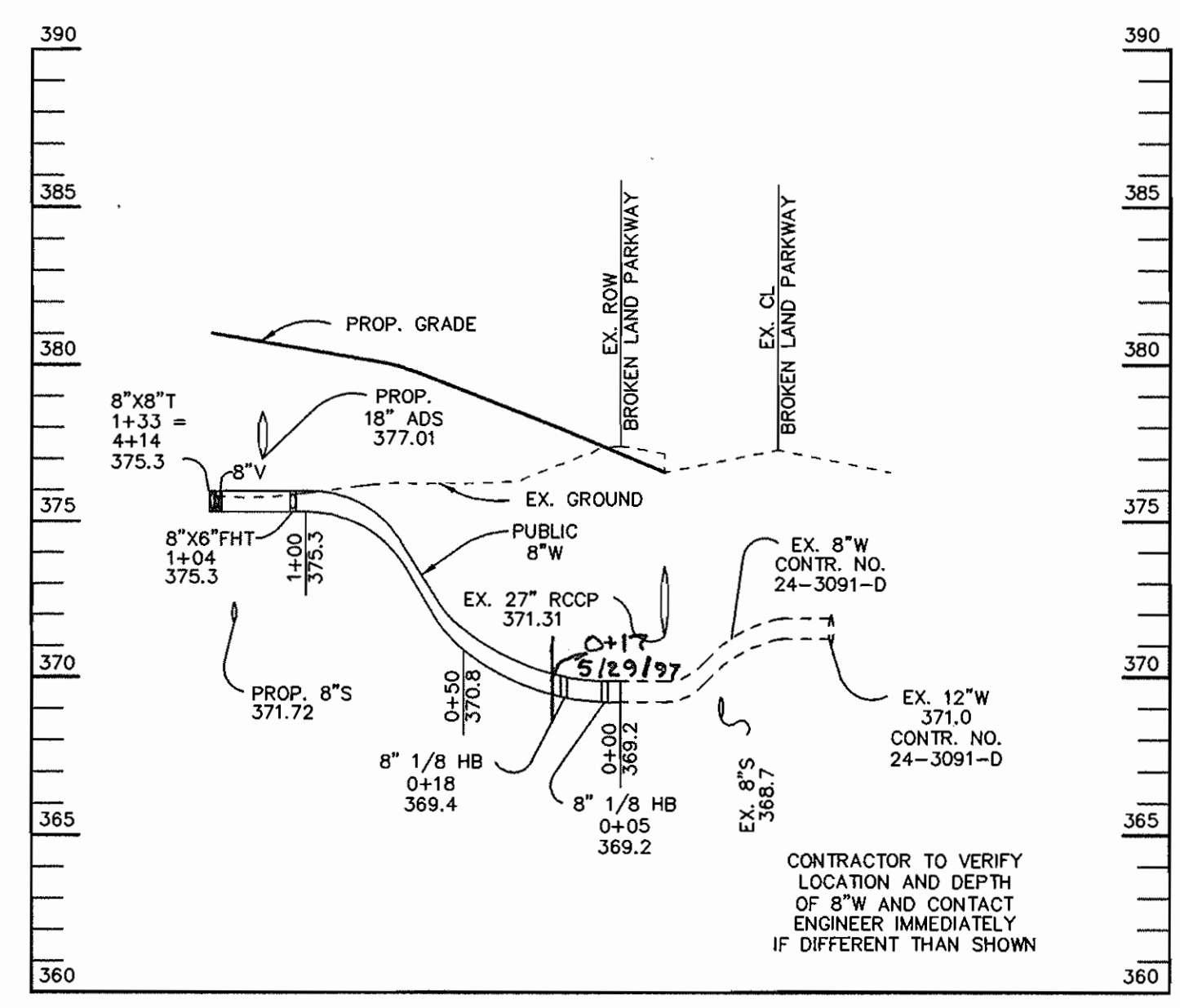




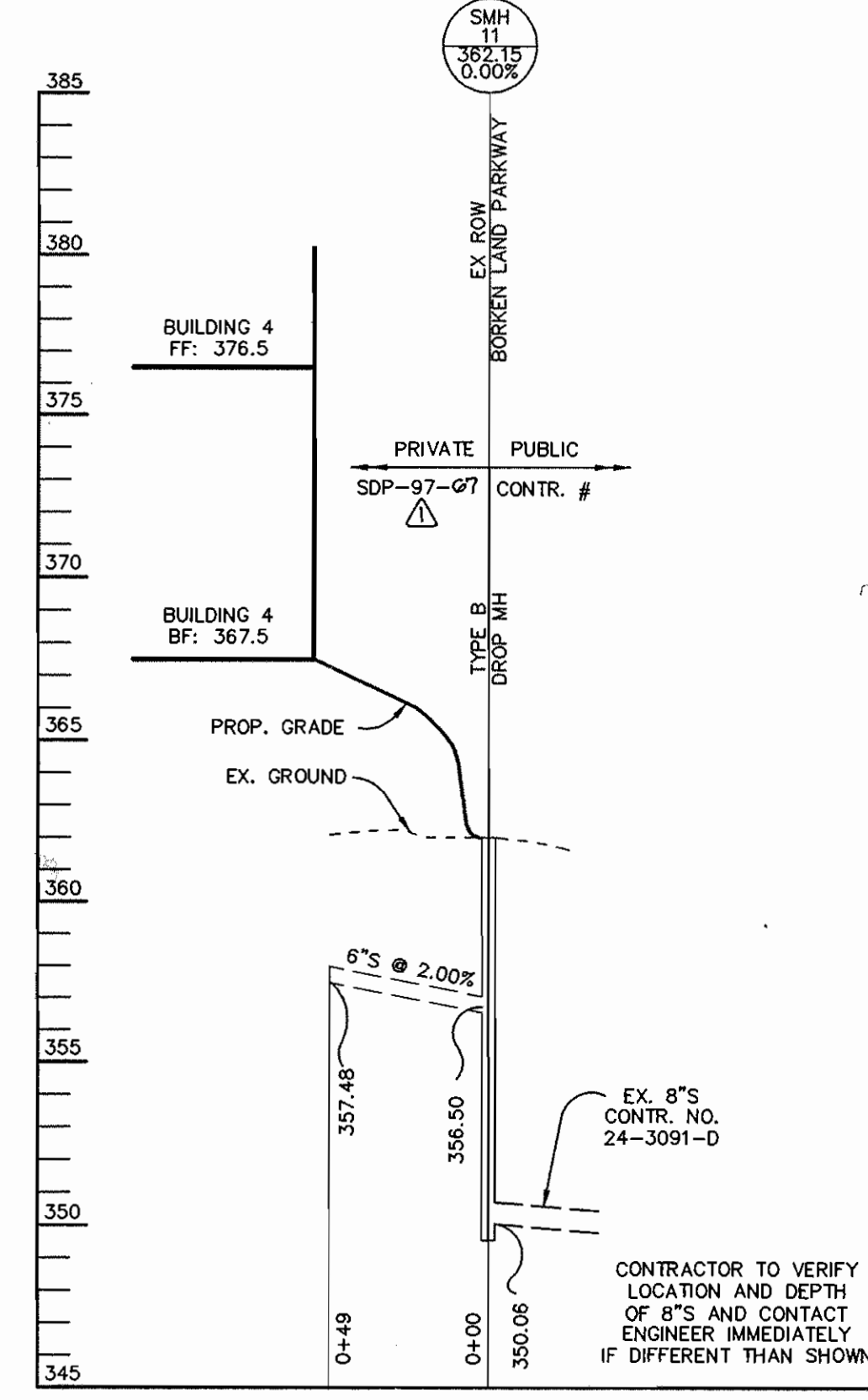
**PROFILE W-1**  
SCALE:  
HOR.-1"=50'  
VERT.-1"=5'



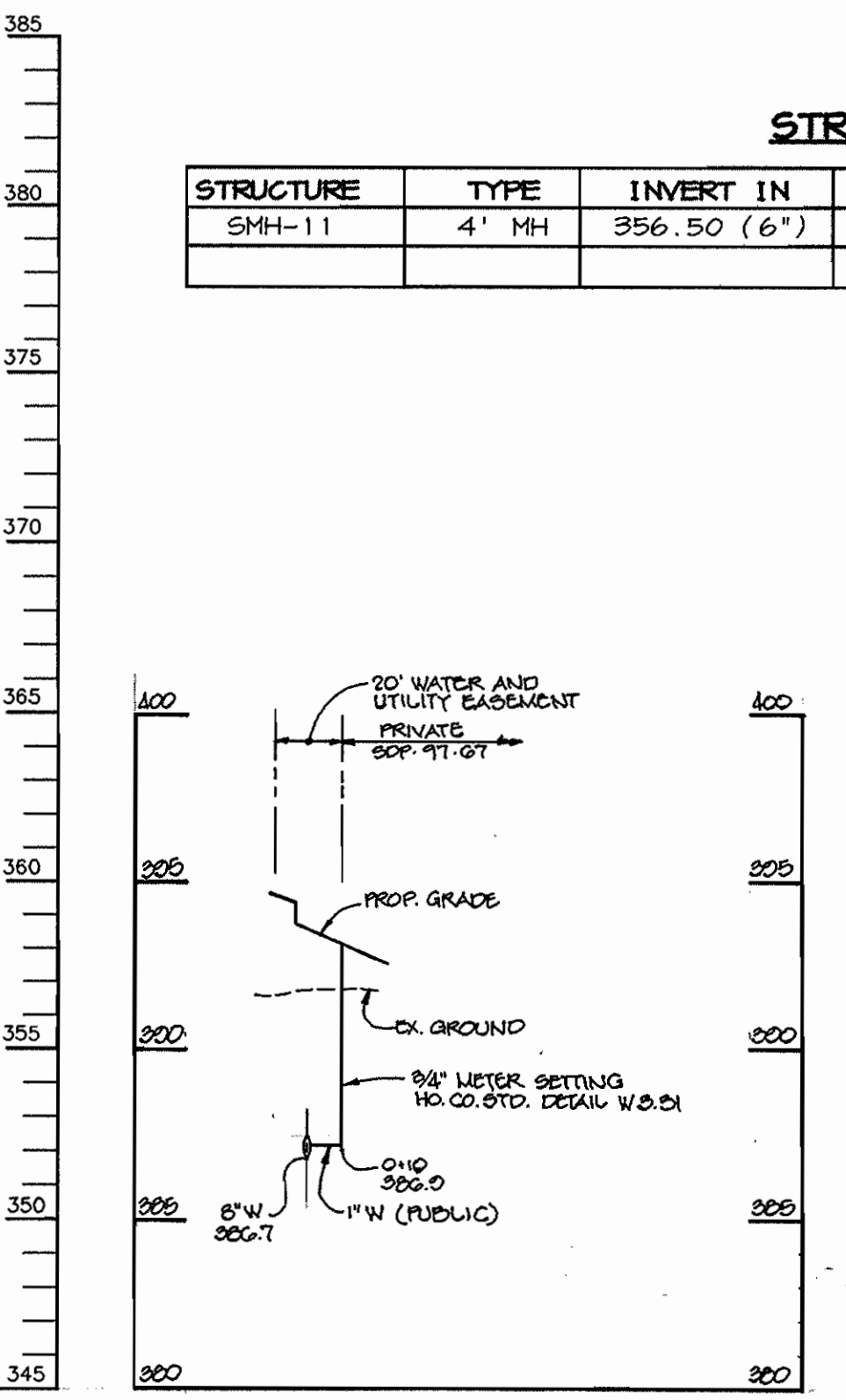
**PROFILE W-3**  
SCALE:  
HOR.-1"=50'  
VERT.-1"=5'



**PROFILE W-2**  
SCALE:  
HOR.-1"=50'  
VERT.-1"=5'



**PROFILE S-1**  
SCALE:  
HOR.-1"=50'  
VERT.-1"=5'



**1" WATER PROFILE**  
SCALE:  
HOR.-1"=50'  
VERT.-1"=5'

**STRUCTURE SCHEDULE**

STRUCTURE	TYPE	INVERT IN	INVERT OUT	HOGO DETAIL	LOCATION
SMH-11	4' MH	356.50 (6")	350.06 (8")	6 5.12	N 562842.41 E 1350028.70

AS-BUILT 7-9-97

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*Robert B. ...*  
CHIEF, BUREAU OF UTILITIES  
2-19-97  
DATE

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
*...*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
2/15/97  
DATE

**RIEMER MUEGGE & ASSOCIATES, INC.**  
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING  
8818 Centre Park Drive • Suite 200 • Columbia, MD 21045  
410-997-8900 FAX: 410-997-9282  
RMC/MSR2000 WSL.DWG

*J. ...*  
JAYKANT D. PAREKH # 19148

DES: BLW			
DRN: BLW			
CHK: CJR			
DATE: 2-10-97			
BY NO.		REVISION	DATE
		ADDED 1" WATER PROFILE, REV. PROFILE W-3 ADDED 8" W # TO SMH-11	0-11-98

**WATER AND SEWER PROFILES**  
600' SCALE MAP NO. 36 BLOCK NO. 1

**TOWN CENTER, SECTION 2 AREA 9**  
PARCEL A  
5th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CONTRACT NO. 24-3593-D  
SCALE:  
AS SHOWN  
SHEET  
2 OF 2