

NOTE:
Elevations shown on each lot indicates the minimum basement floor elevation for said lot that can be gravity served by 8" sanitary line to be constructed under this contract.

BENCH MARKS
1. B.M. Howard Co. Mon. 3041002 El. 424.570
concrete monument as shown on plan.
2. B.M. Howard Co. Mon. 3041003-El. 417.165
concrete monument as shown on plan.

W&S CODE COUNTY USE		WASTE WATER DISPOSAL: LPWQHC	
SEWER No. 574.0300		Type of Building	S.F.D
WATER No. F15		No. of S.H.C.	21
		No. of W.H.C.	21

VICINITY MAP
SCALE: 1" = 600'

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 owner for the 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. 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 utilities or agencies at least five working days before starting work shown on these plans.

State Highway Administration	531-5536
Baltimore Gas & Electric Co. - Contractor Services	561-2585
Baltimore Gas & Electric Co. - Underground Damage Control	234-5621
Baltimore Gas & Electric Co. - Troubleshooting	238-2013
Miss Utility	1-552-0100
Colonial Pipeline Co.	725-1300
Bureau of Utilities, Howard County Department of Public Works.	292-7366
- Trees to be protected from damage to maximum extent. Trees 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 as directed by the Engineer. Payment for such removal shall be included in the unit price bid for excavation and backfill.
- Place regulation "Men Working" and warning signs as required to comply with Maryland State Highway Administration Manual of Traffic Control for Highway Construction and Maintenance Operations.
- All water mains to be D.I.P. unless otherwise noted.
- Top of all water mains to have a minimum 3 1/2" cover unless otherwise noted.
- Valves adjacent to tees shall be strapped to tees.
- Block all fittings with concrete.
- Bury line elevations on fire hydrants shall be set to the elevations shown on the drawings. All fire hydrants shall be strapped and buttressed with concrete in accordance with standard details. Soil around the fire hydrant to be compacted in accordance with section 1003 & 1008 of the General Requirements for Water and Sewer.
- All water house connections shall be for an inside meter setting.
- The contractor shall not operate any water main valves on the existing system.
- For all copper water house connections utilize flared type fittings only.
- All sewer mains shall be CSPX, VCPX, P.V.C. or ACP Class 2400 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.
- Manholes shown with 12" and 16" walls are brick manholes only.
- Manholes designed W.T. in plan and profile shall have watertight frame and covers, Standard Detail G5-52 Volume IV. Where watertight manhole frame and cover is used, set top of frame 1'-6" above finished grade.
- Houses with the symbol "C.N.S." indicates the cellar can not be served.
- All water house connections shall have a minimum vertical clearance of 12" above all sanitary sewer crossings.
- All sanitary sewer house connections shall have a minimum vertical clearance of 12" below all water main crossings.
- Profile stations shall be adjusted as necessary to conform to plan dimensions.
- No pipes shall be laid until lines of excavation have been brought to subgrade.

PROPERTY OF
DEPARTMENT OF
PARKS & RECREATION
888/76

PLAN
SCALE: 1" = 50'

ITEM	QUANTITIES		MATERIAL SUPPLIER
	ESTIMATED	AS BUILT	
1/2" Drain for water main	1	1	BELAIR RD SUPPLY CO
3/4" W.H.C.	165 LF	314 LF	BELAIR RD SUPPLY CO
1" W.H.C.	202 LF	230 LF	BELAIR RD SUPPLY CO
6" Sewer	672 LF	641 LF	BELAIR RD SUPPLY CO
Fire Hydrants	2	2	BELAIR RD SUPPLY CO
8" Sewer	274 LF	242 LF	BELAIR RD SUPPLY CO
Manholes	52 VF	51 VF	ATLANTIC PRECAST
6" Water	508 LF	501 LF	GRIFFIN PIPE PROD.
6" Valves (excl. F.H. V's)	2	2	BELAIR RD SUPPLY CO
8" Water	412 LF	416 LF	GRIFFIN PIPE PROD.

Sediment control measures for this contract will be implemented in accordance with Article 15 of the Specifications and as shown F-86-50

Howard Soil Conservation District:
Reviewed for Howard Soil Conservation District and meets technical requirements.

US Soil Conservation Service _____ Date _____

This plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District

Stephen E. Miller _____ 1/17/86
Howard Soil Conservation District

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works _____ DATE _____

Chief, Bureau of Engineering _____ DATE _____

Chief, Bureau of Utilities _____ DATE _____

Chief, Land Development Division _____ DATE _____

THE RIEMER GROUP, INC.
3105 HEALTH PARK DRIVE
ELLICOTT CITY, MARYLAND 21043

Arthur E. Muegge _____
ARTHUR E. MUEGGE

DES: LJD			
DRN: JCU			
CHK:			
DATE:			
BY	NO.	REVISION	DATE

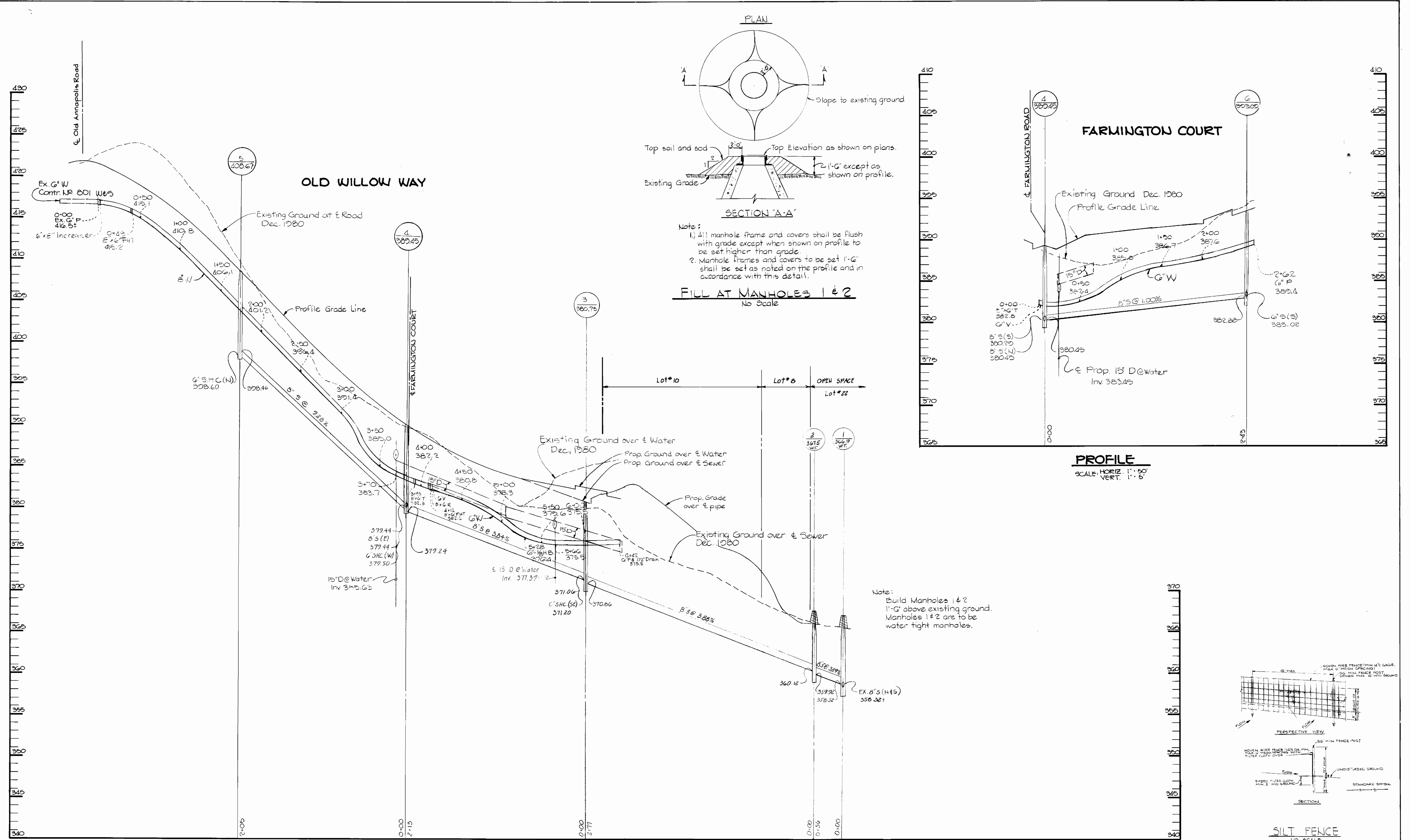
PLAN OF
WATER AND SEWER MAINS

600' SCALE MAP NO. 24130 BLOCK NO. _____

THE WILLOWS - SECTION 1, AREA 1
ELECTION DISTRICT ELLICOTT CITY NO. 2
CONTRACT NO. 24-0948-D

SCALE AS SHOWN

SHEET 1 OF 2



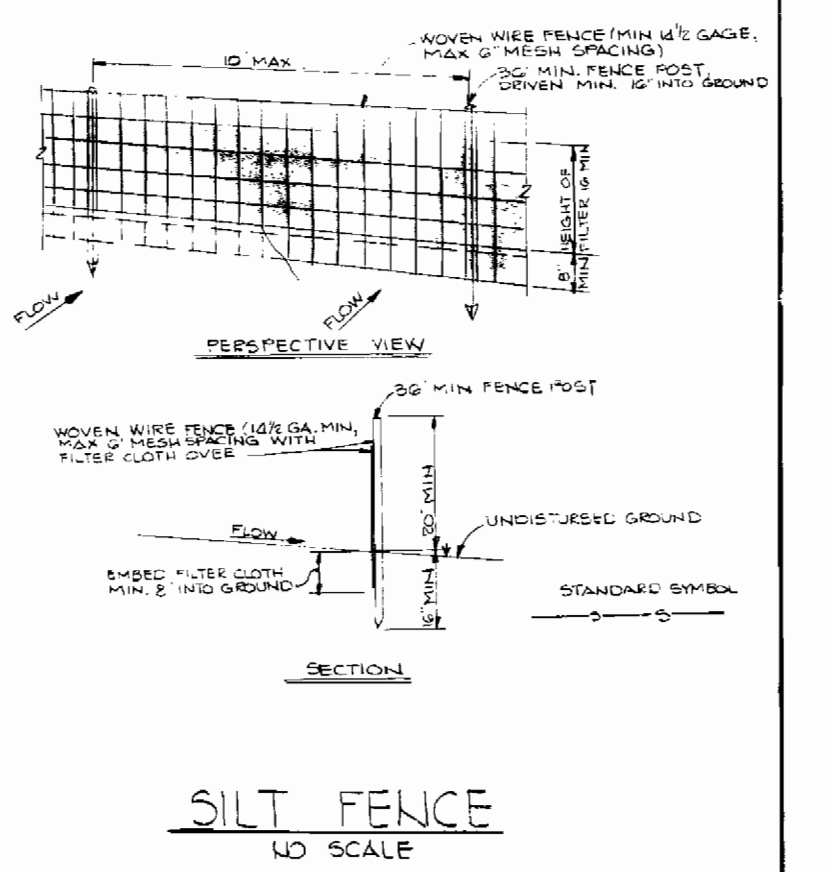
FILL AT MANHOLES 1 & 2
No Scale

Note:
1) All manhole frame and covers shall be flush with grade except when shown on profile to be set higher than grade.
2) Manhole frames and covers to be set 1'-6" shall be set as noted on the profile and in accordance with this detail.

Note:
Build Manholes 1 & 2 1'-6" above existing ground. Manholes 1 & 2 are to be water tight manholes.

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

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



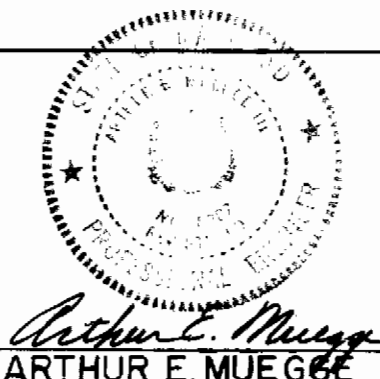
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works
1-21-86

Chief, Bureau of Utilities

THE RIEMER GROUP INC.
3105 HEALTH PARK DRIVE.
ELLCOTT CITY, MARYLAND 21043

Chief, Land Development Division
1-23-86



DES: L.J.D.					
DRN: J.C.J.					
CHK:					
DATE:	BY:	NO.	REVISION	DATE	

PROFILES OF
WATER AND SEWER MAINS

600' SCALE MAP NO. 24-330 BLOCK NO.

THE WILLOWS - SECTION I, AREA I
ELECTION DISTRICT ELLICOTT CITY NO. 2
CONTRACT NO. 24-0948-D

SCALE AS SHOWN
SHEET 2 OF 2