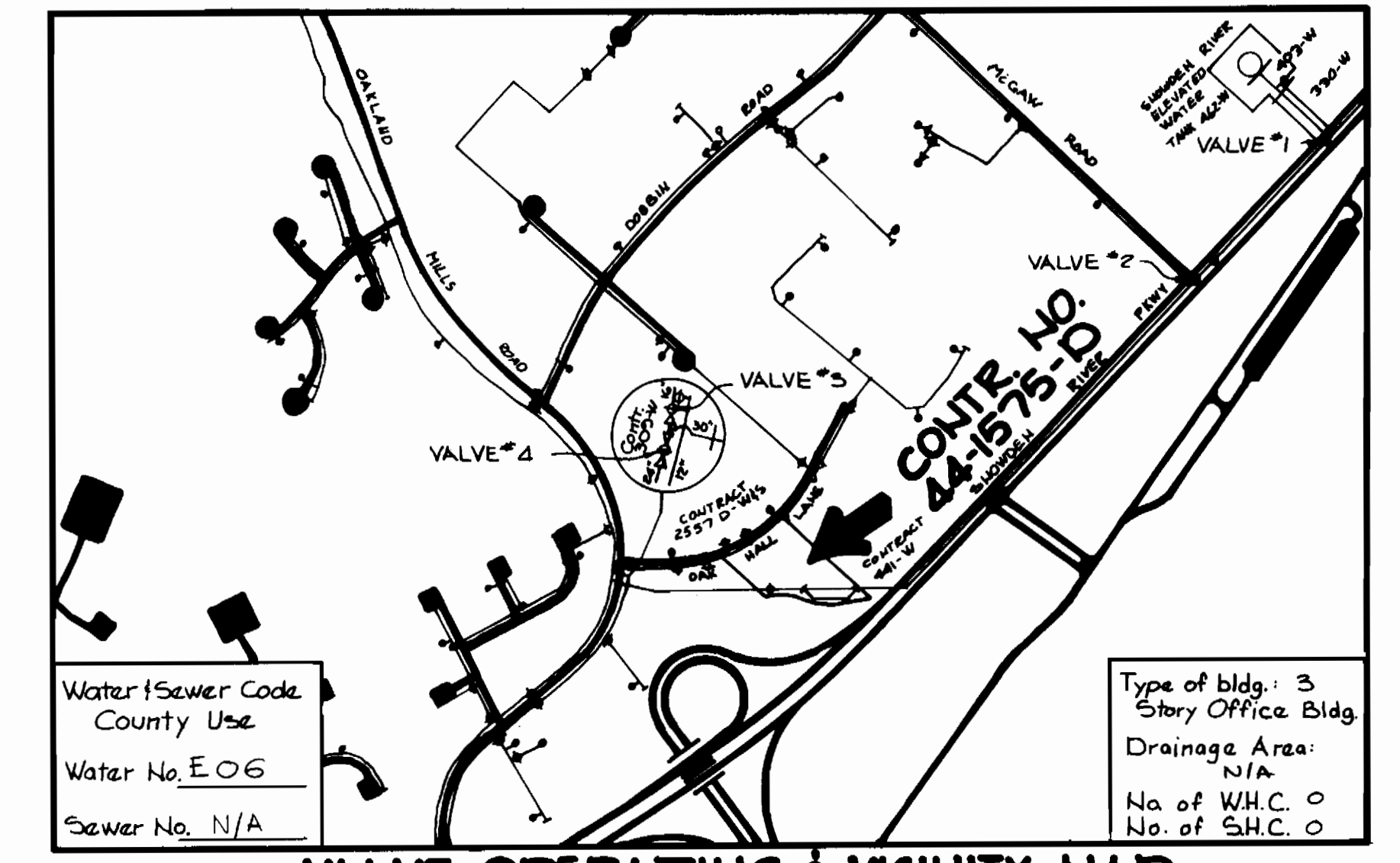


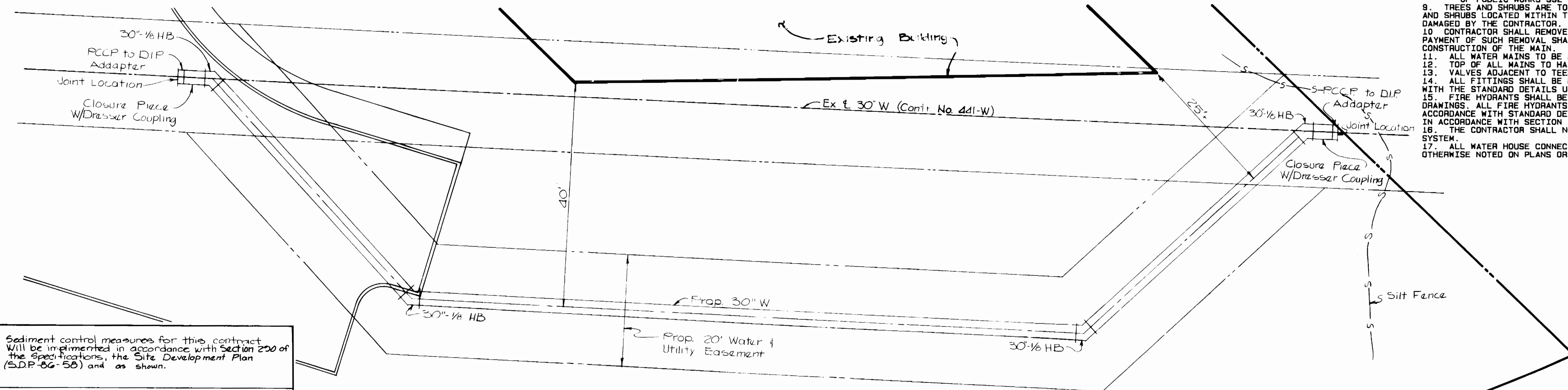
**PLAN**  
SCALE: 1"=50'



**VALVE OPERATING & VICINITY MAP**  
SCALE: 1"=600'

**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. PIPE ELEVATIONS ARE INVERT ELEVATIONS.
5. CLEAR ALL UTILITIES BY A MINIMUM OF 8'.
6. 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.
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 IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
8. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:  
 STATE HIGHWAY ADMINISTRATION 531-5533  
 BALTIMORE GAS AND ELECTRIC CO., CONTRACTOR SERVICES 581-2585  
 BALTIMORE GAS AND ELECTRIC CO., UNDERGROUND DAMAGE CONTROL 234-5821  
 BALTIMORE GAS AND ELECTRIC CO., TROUBLE SHOOTING 298-9013  
 MISS UTILITY 1-800-257-7777  
 COLONIAL PIPELINE CO. 795-1390  
 BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS 992-2388
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 OF 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 MAINS TO HAVE A MINIMUM OF 3' ± 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 DETAILS. SOIL AROUND THE FIRE HYDRANT TO BE COMPACTED IN ACCORDANCE WITH SECTION 1003 OF THE STANDARD SPECIFICATIONS.
16. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM.
17. ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON PLANS OR IN SPECIFICATIONS.



**PLAN**  
SCALE: 1"=10'

Quantities			
Item	Estimated	As Built	Material Supplier
30" RCP to DIP Adapter	2 Ea.	2 Ea.	PRICE BROS. CO.
30" DIP Class 52	239 LF	244 LF	CL 52 DIP/US. PIPE

Sediment control measures for this contract will be implemented in accordance with Section 220 of the Specifications, the Site Development Plan (SDP-86-58) and as shown.

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

*John M. Valan* 10-28-86  
Date  
U.S. Soil Conservation Service  
This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.

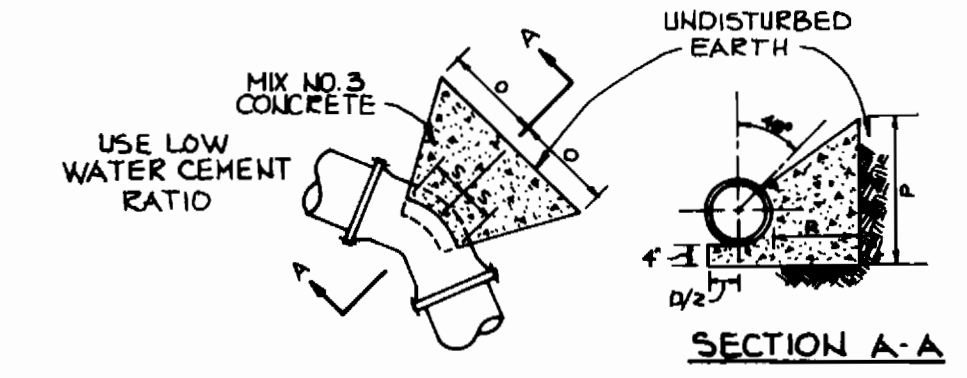
*Stephen L. Fulk* 10/28/86  
Date  
Howard Soil Conservation District

Note: Pipe Installed as Shown

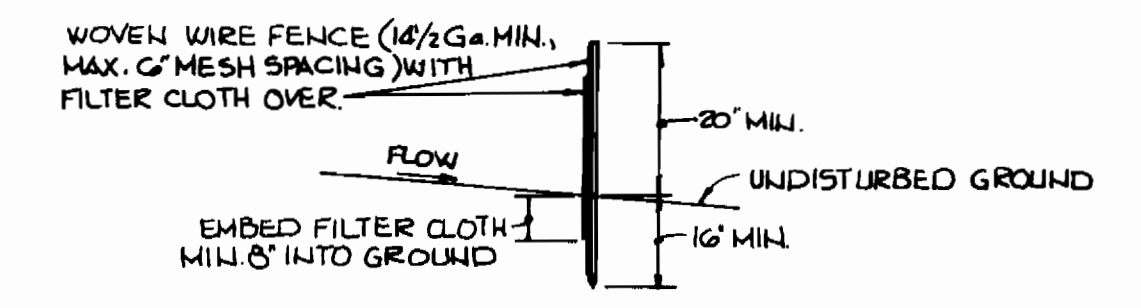
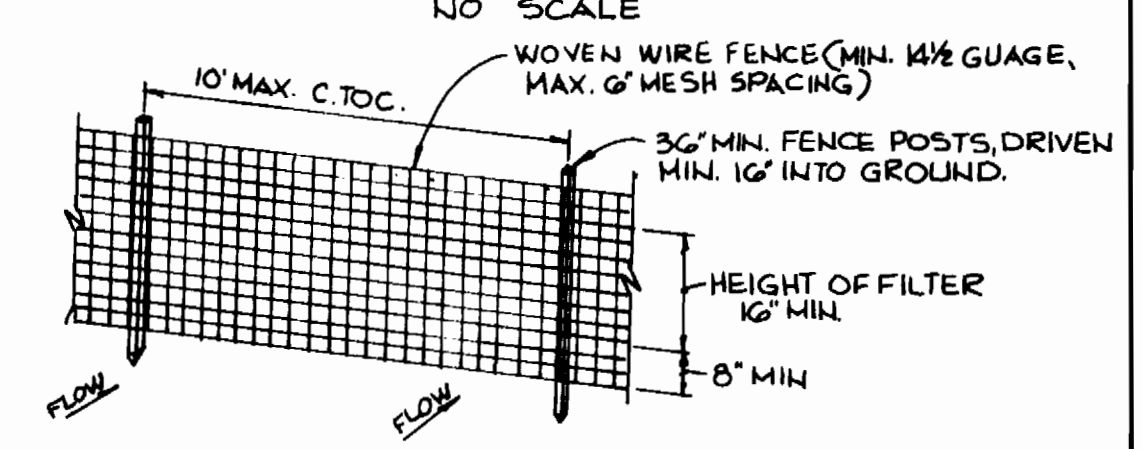
<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>John F. New</i> 10-28-86 DIRECTOR OF PUBLIC WORKS DATE</p> <p><i>Robert J. Quinn</i> 10-24-86 CHIEF, BUREAU OF UTILITIES</p>	<p>THE RIEMER GROUP INC. 3105 NORTH RIDGE ROAD ELLICOTT CITY, MARYLAND</p> <p><i>Arthur E. Muegge III</i> PROF. ENGINEER</p>	<p>DES: JKB</p> <p>DRN: EDM</p> <p>CHK:</p> <p>DATE:</p>	<p>AS-BUILT PLAN AND PROFILE OF A WATER MAIN</p>	<p>30" WATER MAIN RELOCATION SIELING INDUSTRIAL CENTER PARCEL-Q 6TH ELECTION DISTRICT HOWARD COUNTY MARYLAND CONTRACT NO. - 44-1575-D</p>	<p>SCALE AS SHOWN</p> <p>SHEET 1 OF 2</p>
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DIA.	O	P	E	S
30"	6'-2"	5'-0"	3'-10"	1'-2"

NOTE: BUTRESS DIMENSIONS ARE BASED ON A STATIC WATER PRESSURE OF 150 PSF AND A MINIMUM SOIL BEARING PRESSURE OF 2000 PSF. USE TYPE III CEMENT IN CONCRETE MIX TO OBTAIN HIGH EARLY STRENGTH.



**BUTRESS FOR 1/8 BEND**  
NO SCALE



**CONSTRUCTION NOTES FOR FABRICATED SILT FENCE**

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
  2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24\"/>
  - 3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
  - 4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN 'BULGES' DEVELOP IN THE SILT FENCE.
- POST: STEEL EITHER T OR U TYPE OR 2\"/>

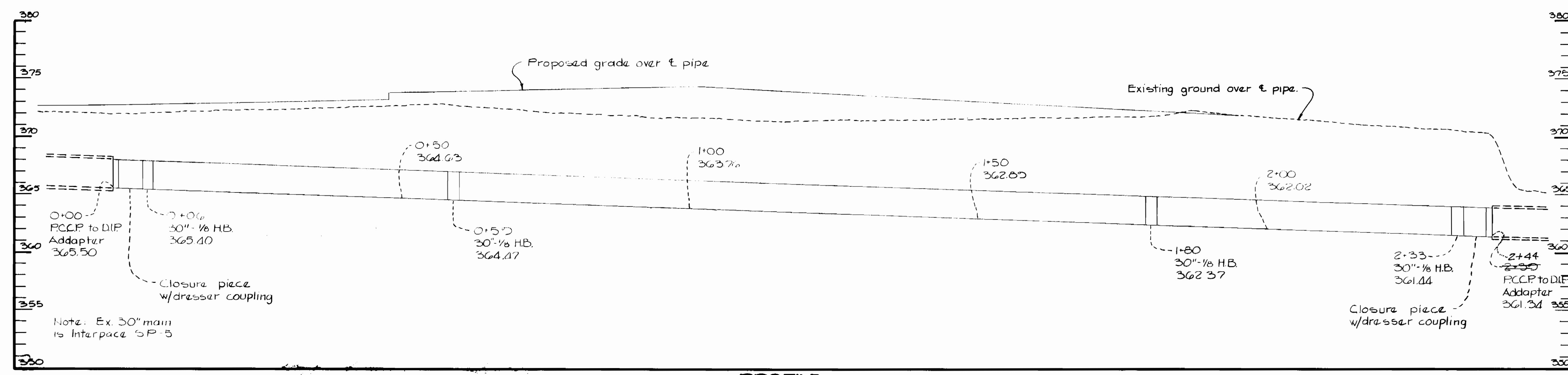
FENCE: WOVEN WIRE, 1/4 GA., 6\"/>

FILTER CLOTH: FILTER X, MIRAF 100X, STABILINKA 1140N OR EQUAL.

PREFABRICATED UNIT: GEOPAB, ENVIROFENCE, OR APPROVED EQUAL.

**SILT FENCE**  
NO SCALE  
**SEQUENCE OF OPERATIONS**

1. Notify Bureau of Utilities 48 hrs. in advance of construction activities.
2. Excavate and install 30\"/>
- 3. THE REMAINDER OF THIS SEQUENCE SHALL BE PERFORMED BETWEEN 8:00 PM and 6:00 AM WITH TWO CREWS AND BUREAU OF UTILITIES PERSONEL PRESENT.
- 4. Shutdown existing 30\"/>
- 5. Release pressure from 30\"/>
- 6. Remove a portion of the existing main at each end of the project to allow for installation of the 1/8 horizontal bends and buttresses and install bends and buttresses.
- 7. Bulkhead both ends of the existing main that is to be abandoned with brick.
- 8. After concrete for buttresses has set for 6 hrs, cap ends of D.I.P. and test in accordance with the Howard County Design Manual with the exception that the test time shall be 1 hr.
- 9. After testing and chlorination, connect D.I.P. to existing main with P.C.C.P. to D.I.P. adapter and 'dresser' coupling closure pieces.
- 10. Return pressure to the main by opening valves 2-1 in that order.



**PROFILE**  
HOR. 1\"/>

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND 10-24-86 DIRECTOR OF PUBLIC WORKS 10-24-86 CHIEF, BUREAU OF UTILITIES	THE RIEMER GROUP, INC. 3105 NORTH RIDGE ROAD ELLICOTT CITY, MARYLAND ARTHUR E. MUEGGE III	DES: J.K.B.				AS-BUILT PROFILE OF A WATER MAIN 600' SCALE MAP NO. 42 BLOCK NO.	30" WATER MAIN RELOCATION SIELING INDUSTRIAL CENTER PARCEL - Q 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT NO. - 44-1575-D	SCALE AS SHOWN SHEET 2 OF 2
		DRN: E.D.M.						
		CHK:						
		DATE: 10-22-86	BY: NO.	REVISION	DATE			