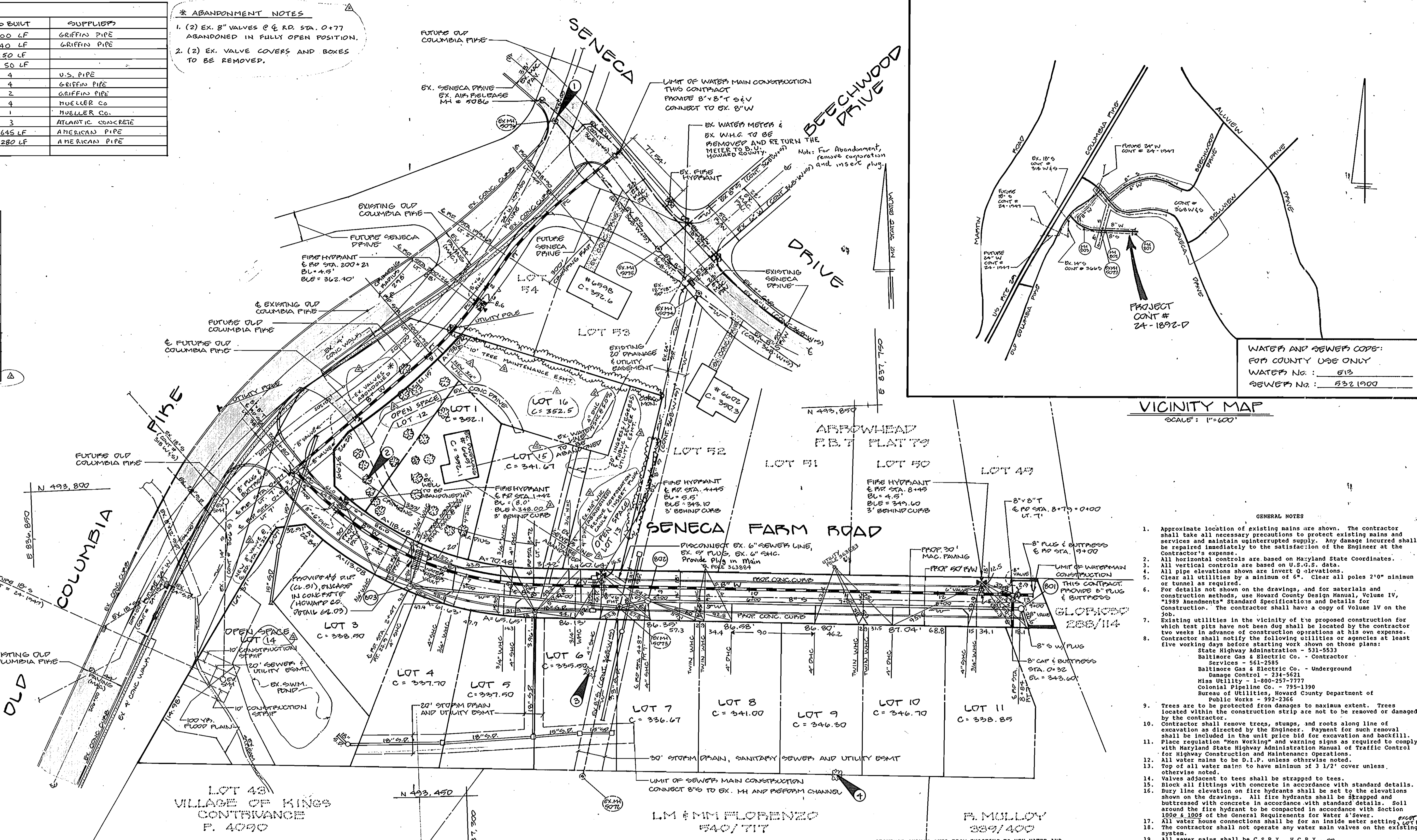


QUANTITIES			
ITEM	ESTM.	AS BUILT	SUPPLIER
8" WATERMAIN	1300 LF	1300 LF	GRIFFIN PIPE
6" WATERMAIN	40 LF	40 LF	GRIFFIN PIPE
3/4" W/C	260 LF	250 LF	
1" W/C	90 LF	50 LF	
PIPE HYDRANT	4	4	U.S. PIPE
8" TEE W/ VALVE	4	4	GRIFFIN PIPE
8" x 8" TEE	2	2	GRIFFIN PIPE
8" VALVE	4	4	MUELLER CO.
8" x 8" T & V	1	1	MUELLER CO.
MANHOLES	3	3	ATLANTIC CONCRETE
8" SANITARY SEWER	645 LF	645 LF	AMERICAN PIPE
1" SHC	447 LF	280 LF	AMERICAN PIPE

\* ABANDONMENT NOTES  
 1. (2) EX. 8" VALVES @ E. RD. STA. 0+77 ABANDONED IN FULLY OPEN POSITION.  
 2. (2) EX. VALVE COVERS AND BOXES TO BE REMOVED.

INVERT OF SEWER HOUSE CONNECTIONS AT PROPERTY LINE			
STATION	LOT NO.	INVERT	
MH 801 TO MH 802			
0+65 LT	11	335.85	
1+25 LT (P.H.C.)	10	343.40	
2+17 LT (P.H.C.)	9	343.00	
3+08 LT (P.H.C.)	8	337.70	
@ MH 802 LT	7	333.37	
EX. MH 803 TO MH 803			
0+19 LT	6	333.03	
1+04 LT	5	333.75	
1+15 LT (P.H.C.)	4	338.37	
1+79 LT	4	334.40	
@ MH 803 PT (RC) (SHC @ 4.5%)		346.00	
@ MH 803 LT		334.51	
0+85 RT (P.H.C.) (SHC @ 5.0%)		345.60	



WATER AND SEWER CODES:  
 FOR COUNTY USE ONLY  
 WATER No.: 613  
 SEWER No.: 832.1900

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.C.S. data.
  - All pipe elevations shown are invert elevations.
  - Clear all utilities by a minimum of 5'. Clear all poles 2'0" minimum or tunnel as required.
  - For details not shown on the drawings, and for materials and construction methods, use Howard County Design Manual, Volume IV, "1989 Amendments" Standard Specifications and Details for Construction. The contractor shall have a copy of Volume IV on the job.
  - Existing utilities in the vicinity of the proposed construction 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 those plans:  
 State Highway Administration - 531-5533  
 Baltimore Gas & Electric Co. - Contractor Services - 561-2585  
 Baltimore Gas & Electric Co. - Underground Damage Control - 234-5623  
 Miss Utility - 1-800-257-7777  
 Colonial Pipeline Co. - 795-1390  
 Bureau of Utilities, Howard County Department of Public Works - 992-2366
  - Trees are to be protected from damages 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 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 minimum of 3 1/2" cover unless otherwise noted.
  - Valves adjacent to trees shall be strapped to trees.
  - Block all fittings with concrete in accordance with standard details.
  - All manholes shall be 4'-0" inside diameter, unless otherwise noted. Manholes shown with 12" and 16" walls are brick manholes only.
  - 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.
  - All water house connections shall be for an inside meter setting.
  - The contractor shall not operate any water main valves on the existing system.
  - All sewer mains shall be C.S.P.X., V.C.P.X., or PVC 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.
  - 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.
  - NEW 8" VALVES @ E. RD. STA. 1+32 TO BE INSTALLED WITH "MEGALUG" MECHANICAL JOINT RETAINING GLANDS.

SEDIMENT CONTROL MEASURES FROM THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SEWERAGE AND WASTE WATER ACT AS SHOWN ON F-89-184  
*John A. Blanton* 5/9/90  
 HOWARD COUNTY SOIL CONSERVATION DISTRICT REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS  
*John A. Blanton* 5/9/90  
 DEPT. OF SOIL CONSERVATION SERVICE DATE  
 THIS PLAN IS APPROVED FOR SOIL EROSION & SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.  
*John A. Blanton* 5/9/90  
 HOWARD COUNTY SOIL CONSERVATION DISTRICT

NOTE: PLUMBERS SHALL NOTIFY THE HOWARD COUNTY DEPT. OF PUBLIC WORKS PRIOR TO COMMENCING WORK, IN ORDER TO COORDINATE CONNECTION OF NEW SERVICES AND DISCONNECTING AND REMOVING EXISTING SERVICES.

APPROVED CORPORATION CHECK NOTE.  
 ABANDONMENT OF (2) EX. 8" VALVES @ E. RD. STA. 0+77  
 APPOSED ABANDONMENT AND EX. CHANGED LENGTH OF FH @ BLE @ E. RD. STA. 1+42



TYPE OF BLDG.: SINGLE FAMILY HOME  
 NO. OF LOTS: 11  
 NO. OF WATER HOUSE CONN.: 11  
 NO. OF SEWER HOUSE CONN.: 11  
 DRAINAGE AREA: LITTLE PATUXENT

BENCH MARKS

BM #1	ELEV: 328.87
"X" CHISELED ON PIM OF MH # 9076	
BM #2	ELEV: 329.56
CUT NAIL IN 10" LOCUST TREE	
BM #3	ELEV: 335.87
CUT NAIL IN 12" CEDAR TREE	
BM #4	ELEV: 348.46
CUT NAIL IN TWIN 14" LOCUST TREE	

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
*James P. ...* 5/11/90  
 DIRECTOR OF PUBLIC WORKS DATE  
*Robert M. ...* 5/11/90  
 CHIEF, BUREAU OF UTILITIES DATE  
*Richard ...* 5/11/90  
 CHIEF, LAND DEVELOPMENT DIV. DATE

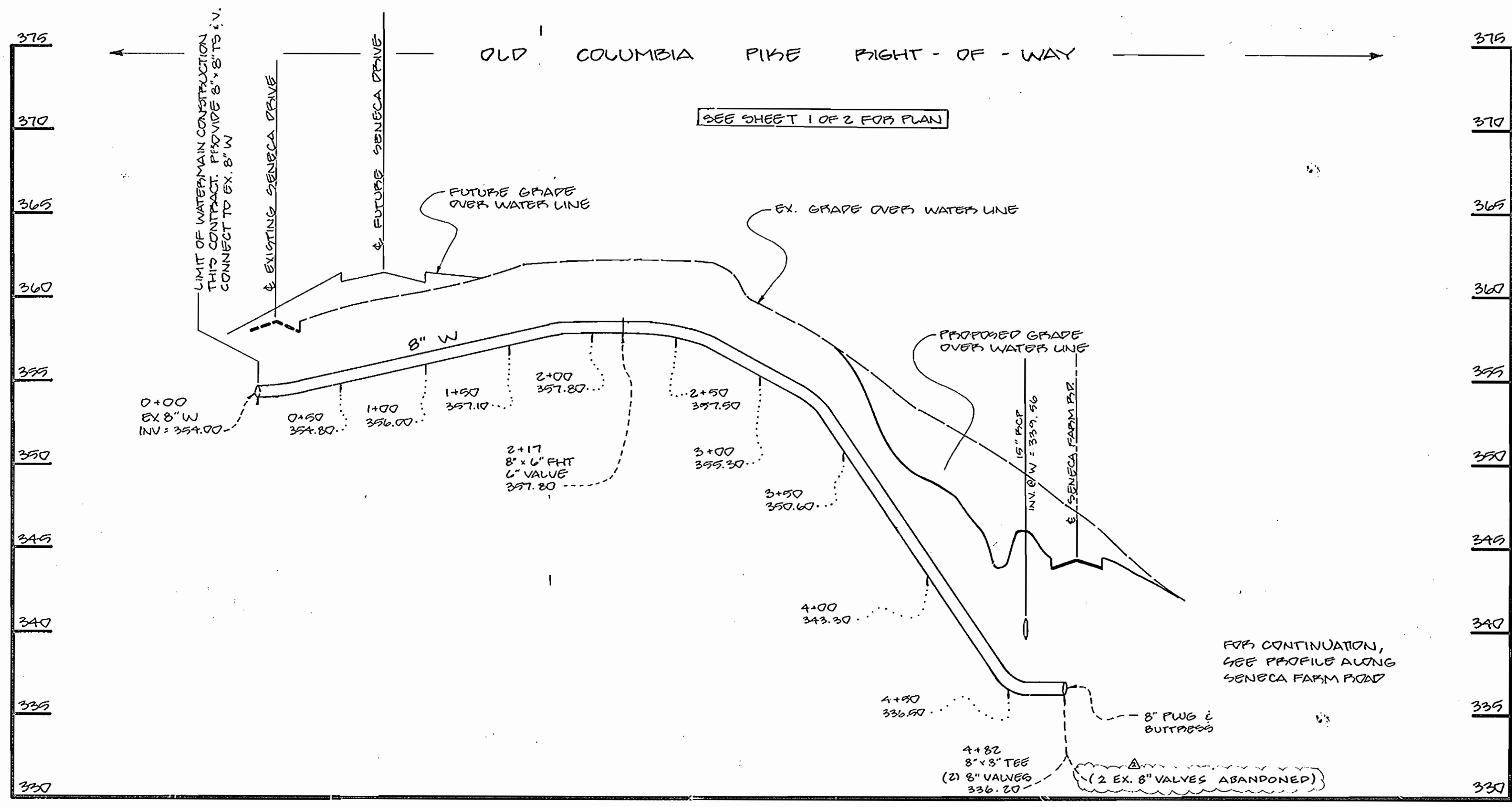
DEVELOPMENT CONSULTANTS  
 GROUP, INC.  
 17904 GEORGIA AVE.  
 OLNEY, MD. 20832  
 301-924-4570

ENGINEER'S SEAL

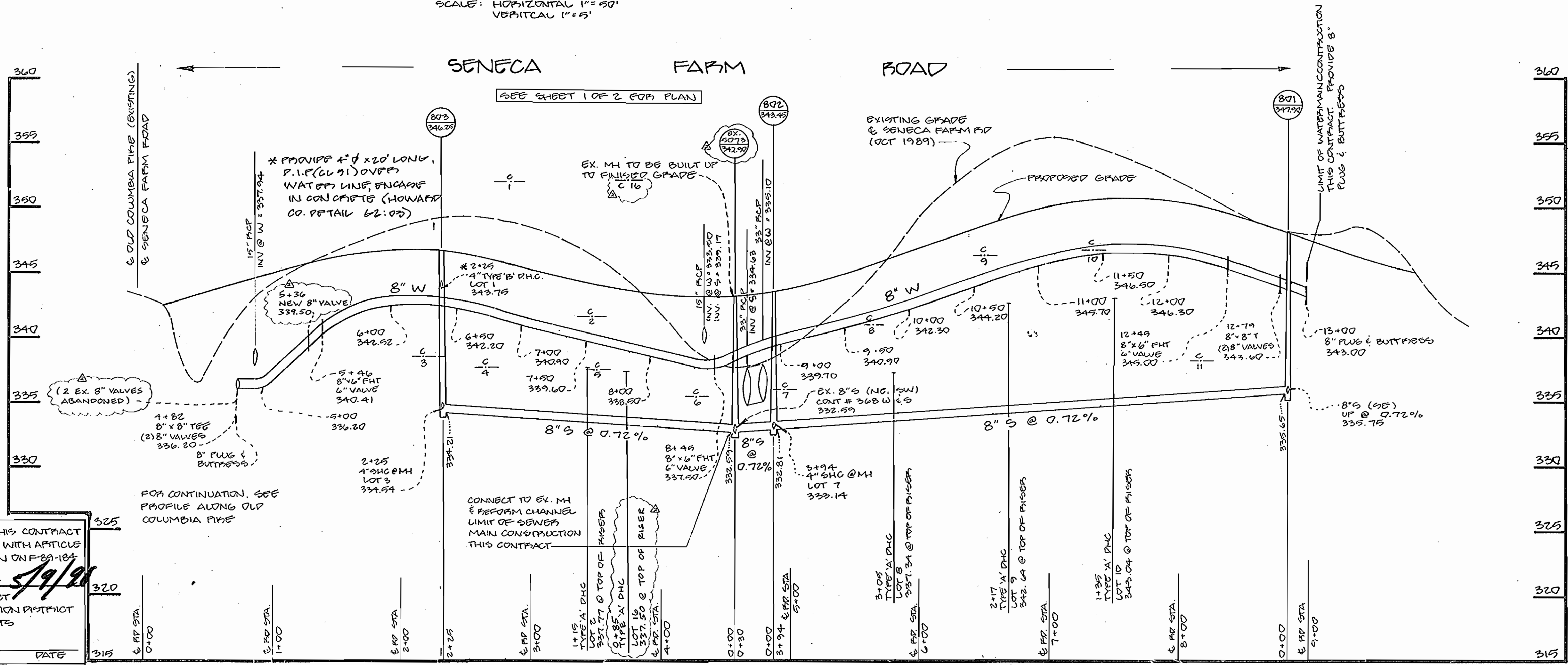
DES: LSM CHANGED OPEN SPACE LOT 12 TO BUILDING LOT 16 4/25/91  
 CHANGED BUILDING LOT 2 TO 15  
 DRN: ACH 1 ADDED 2 1/2" W/C, 4" P.H.C., 20" INGRESS/EGRESS (PUBLIC SEWER) UTILITY ESMT. FOR LOT 16 (ABANDON EX. 2 1/2" W/C) 7/6/90  
 CHK: ONCARD IN CONCRETE, AND EXCEPT FOR LOT 1  
 DATE: 1 ADDED TO GENERAL NOTES IT IS 12  
 ADDED NEW W/C @ SHC TO QUANTITIES, ADDED LOT 16 SHC (CHANGED LOT 2 TO 15 ON INVERT SHEET SCHEDULE)

PLAN OF  
 WATER AND SEWER  
 CONTRACT 24-1892-D  
 600 SCALE MAP NO. 36 BLOCK NO.

LOTS 1-16  
 SENECA FARMS  
 GUILFORD (6TH) ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 TAX MAP: 30 P.L.CEL: 60  
 SCALE 1"=50'  
 SHEET 1 of 2



**PROFILE**  
SCALE: HORIZONTAL 1"=50'  
VERTICAL 1"=5'



**PROFILE**  
SCALE: HORIZONTAL 1"=50'  
VERTICAL 1"=5'

SEDIMENT CONTROL MEASURES FROM THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH ARTICLES 15 OF THE SPECIFICATIONS AND AS SHOWN ON 29-104  
*John L. Roberts* 5/9/90  
HOWARD SOIL CONSERVATION DISTRICT  
REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

U.S. SOIL CONSERVATION SERVICE DATE

THIS PLAN IS APPROVED FOR SOIL EROSION & SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT  
*John L. Roberts* 5/9/90  
HOWARD SOIL CONSERVATION DISTRICT DATE



5/9/90

CONTRACT # 24-1892-D  
SENECA FARMS  
WATER & SEWERS MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

**DEPARTMENT OF PUBLIC WORKS**  
HOWARD COUNTY, MARYLAND  
Director of Public Works: *John L. Roberts* DATE: 5/11/90  
Chief, Bureau of Engineering: *Richard J. ...* DATE: 5/11/90  
Chief, Bureau of Utilities: *Robert ...* DATE: 5/7/90  
Chief, Land Development Div.: *Donald ...* DATE: 5/11/90

**DEVELOPMENT CONSULTANTS GROUP, INC.**  
17904 GEORGIA AVE.  
OLNEY, MD. 20832  
301-924-4570

ENGINEER'S SEAL

DES:	ACH	1	@ STA. 2+25, APPROX TO LOT 1 D.H.C. PROVIDE	7/0/90
DRN:			4" X 20' LONG R.I.P. (C.V. 91) OVER WATER	
CHK:			LINE, ENCASE IN CONCRETE, AND	
			CHANGED SIZE OF FHT TO 6" X 6" RSTA.	
DATE:	LSM	12+45	ADDED TYPE 'A' D.H.C. FOR LOT 10, CHANGED ELEV. TOP OF	6/25/91
			EX. MH 2023 TO 342.70	
BY:	NO.		REVISION	DATE

**PROFILES OF WATER AND SEWERS**  
CONTRACT 24-1892-D  
600 SCALE MAP NO. 36 BLOCK NO.

LOTS 1-16  
**SENECA FARMS**  
GUILFORD (6TH) ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
TAX MAP: 30 PARCEL: 60

SCALE AS SHOWN  
SHEET 2 of 2