

- 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. DATUM.
- 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.
- 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 - 531-5533
  - BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICES 561-2586
  - BALTIMORE GAS & ELECTRIC CO. - UNDER GROUND DAMAGE CONTROL - 234-5621
  - BALTIMORE GAS & ELECTRIC CO. TROUBLE SHOOTING - 298-9013
  - MISS UTILITY - 1-559-0100
  - COLONIAL PIPELINE CO. - 795-1390
  - BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 992-2366
- 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.
- ALL WATER MAINS TO BE D.I.P. 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 STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAIL G5.52 WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED SET TOP OF FRAME 0.5' ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- ALL SEWER MAINS SHALL BE C.S.P.X., R.C.S.P., V.C.P.X., A.C.P. CLASS 2400 OR 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.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G5.52 WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED SET TOP OF FRAME 0.5' ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR AN INSIDE METER SETTING, UNLESS OTHERWISE NOTED.
- ALL W.H.C'S SHALL BE 3/4" UNLESS OTHERWISE NOTED.
- ALL COPPER WATER HOUSE CONNECTIONS SHALL UTILIZE FLARED FITTINGS.
- ORIGINAL GROUND OVER WATER AND SEWER WAS TAKEN FROM AERIAL PHOTOGRAPHY PREPARED BY MAPS AND INC. AND VERIFIED BY FIELD SURVEY IN FEBRUARY 1984.
- STRAW BALE DIKE AND SILT FENCE ARE INTERCHANGEABLE.

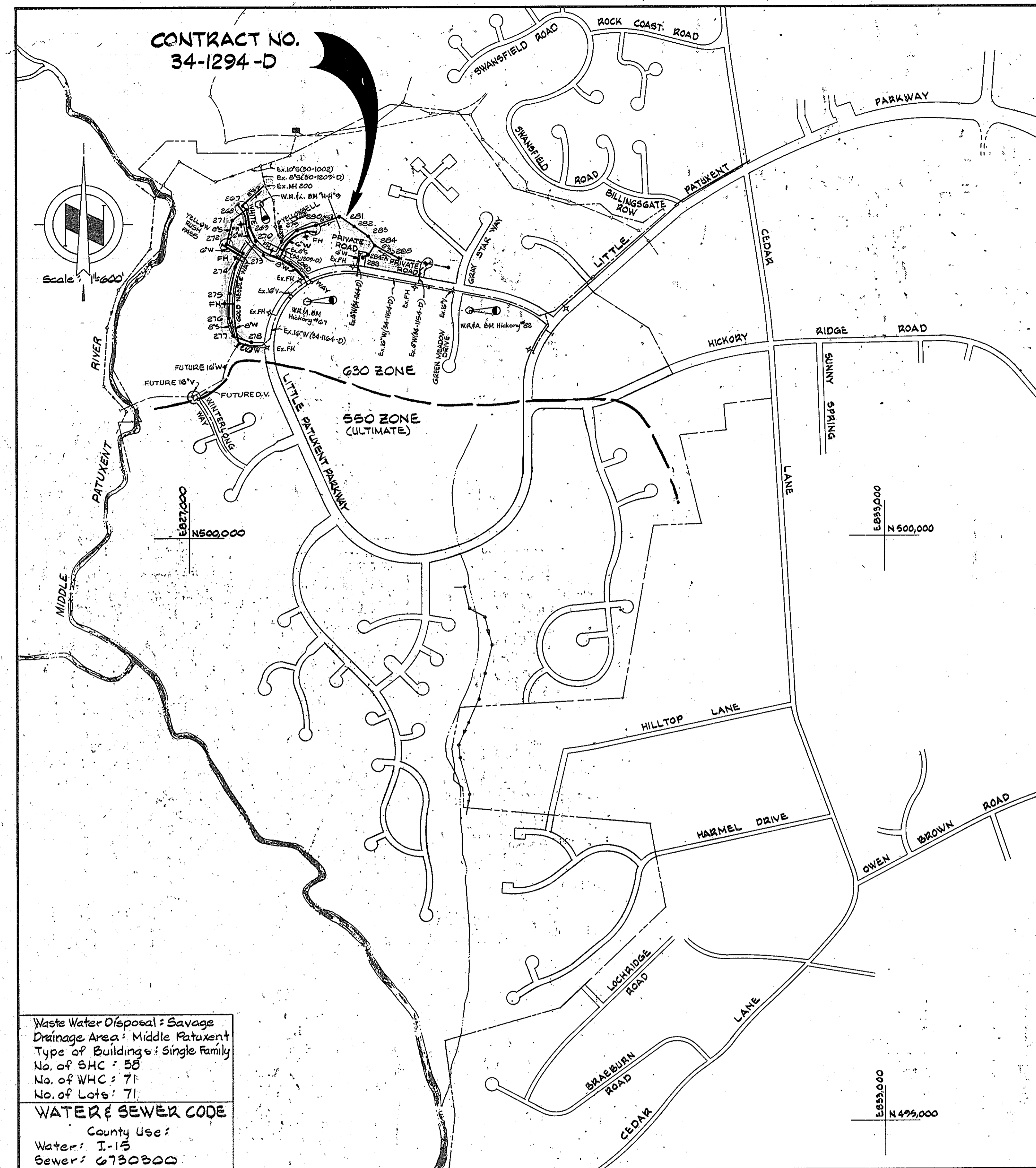
QUANTITIES			
ITEM	BID	AS-BUILT	MATERIAL/SUPPLIER
16" Water L.F.	280	284	D.I.P. Griffin Pipe Products Co.
8" Water L.F.	1550	1554	D.I.P. Griffin Pipe Products Co.
6" Water L.F.	1160	1190.5	D.I.P. Griffin Pipe Products Co.
8" Valve Ea.	2	2	Met. Gate Valve Belair Rd Supply Co.
6" Valve (Excluding F.H.) Ea.	3	3	Met. Gate Valve Belair Rd Supply Co.
1/2" Blow-off Ea.	3	3	K Copper Belair Rd Supply Co.
Fire Hydrants Ea.	5	5	Met. F.H. Belair Rd Supply Co.
8" S(D.I.P.) L.F.	350	348.75	D.I.P. Griffin Pipe Products Co.
8" Sewer L.F.	2860	2866.79	P.V.C. Belair Rd Supply Co.
Manholes Ea.	21	21	Precast-Terr Hill Conc.
1" W.H. Connections L.F.	430	374	K Copper Belair Rd Supply Co.
3/4" W.H. Connections L.F.	1600	1729	K Copper Belair Rd Supply Co.
6" S.H. Connections L.F.	1500	1426	P.V.C. Belair Rd Supply Co.
6" S.H.C. (D.I.P.) L.F.		20	D.I.P. Griffin Pipe Products Co.

CONSTRUCTION SEQUENCE

SEDIMENT CONTROL PROCEDURES

- OBTAIN SEDIMENT CONTROL PERMIT (ARTICLE 15.05-3)
- CONSTRUCT CONTINUOUS SEDIMENT BARRIER FOR ALL DISTURBED AREAS NOT PROTECTED BY SEDIMENT TRAPS.
- CLEAR, GRUB AND STRIP AS REQUIRED TO PROTECT STREAM FROM EROSION OF STORED TOP SOIL. SEPARATE TOP SOIL FROM SUBSOIL.
- CONSTRUCT PIPELINE.
- ALL EXCAVATED MATERIAL SHALL BE STOCKPILED ON HIGH SIDE OF TRENCH
- RESTORE EROSION CONTROL STRUCTURES DISTURBED BY SEWER CONSTRUCTION.
- STABILIZE DISTURBED AREAS AS CONSTRUCTION PROGRESSES WITH TEMPORARY SEEDING AND MULCHING (OR PERMANENT RESTORATION).
- COMPLETE PERMANENT RESTORATION.
- ALL SEDIMENT CONTROL DEVICES SHALL REMAIN IN SERVICE UNTIL REMOVAL IS APPROVED BY THE S.C.S. INSPECTOR.
- RESTORATION (TEMPORARY OR PERMANENT) OF AN AREA BETWEEN MANHOLES SHALL FOLLOW WITHIN ONE WEEK OF PIPELAYING IN THAT AREA.

Legend:  
 B = Length of Board  
 C = Cover over invert of pipe



Waste Water Disposal: Savage  
 Drainage Area: Middle Patuxent  
 Type of Building: Single Family  
 No. of S.H.C.: 58  
 No. of W.H.C.: 71  
 No. of Lots: 71

WATER & SEWER CODE  
 County Use:  
 Water: I-15  
 Sewer: 6730300

CONTRACT NO. 34-1294-D  
 VILLAGE OF HICKORY RIDGE  
 HOWARD COUNTY, MARYLAND  
 DEPARTMENT OF PUBLIC WORKS

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT  
 SIGNATURE: *[Signature]* DATE: 11-14-84  
 U.S. SOIL CONSERVATION SERVICE

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard County Conservation District.  
 APPROVED: *[Signature]* DATE: 11/14/84  
 HOWARD S.C.D.

Sediment Control Measures for this Contract will be implemented in accordance with Article 15 of the Standard Specifications, and Road Construction Plans F-85-06.

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Director of Public Works: *[Signature]* DATE: 11-16-84  
 Chief - Bureau of Engineering: *[Signature]* DATE: *[Signature]*  
 Chief - Bureau of Utilities: *[Signature]* DATE: *[Signature]*  
 Chief - Land Development Division: *[Signature]* DATE: *[Signature]*

WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS  
 2315 ST. PAUL ST. BALTIMORE, MARYLAND  
 REGISTERED PROFESSIONAL ENGINEER & LAND SURVEYOR

DES: S.J.					
DRN: J.R.K.					
CHK: R.B.N.					
DATE:	BY:	NO.	REVISION	DATE	

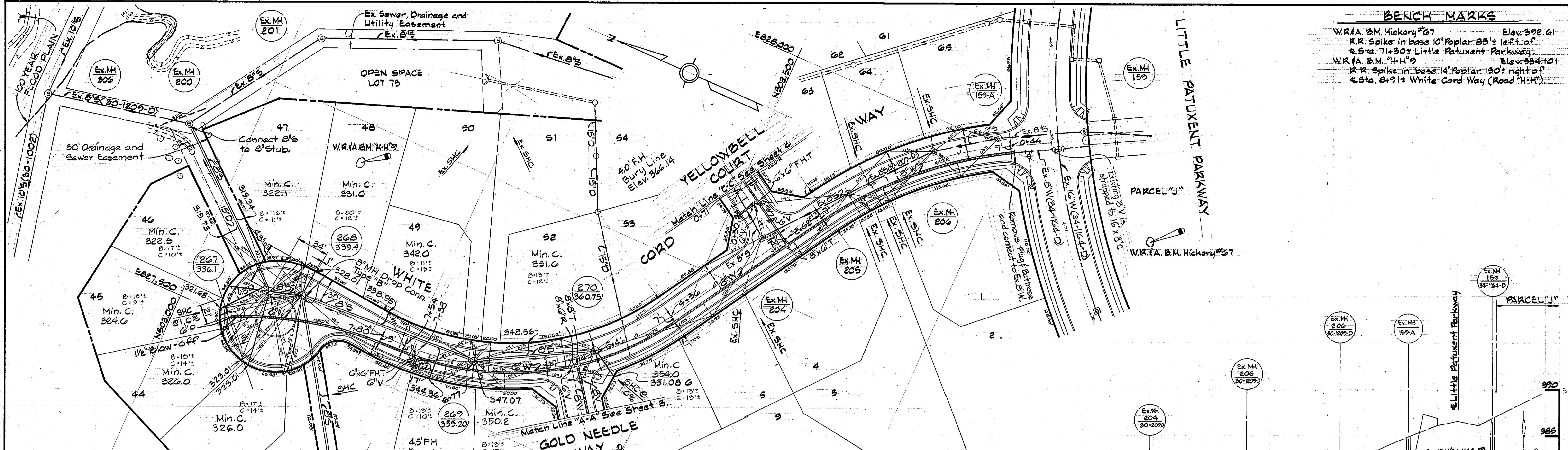
VICINITY MAP AND GENERAL NOTES  
 600 SCALE MAP NO. 35 BLOCK NO.

COLUMBIA VILLAGE OF HICKORY RIDGE SECTION 3 AREA 7 ELECTION DISTRICT NO. 5 CONTRACT NO. 34-1294-D

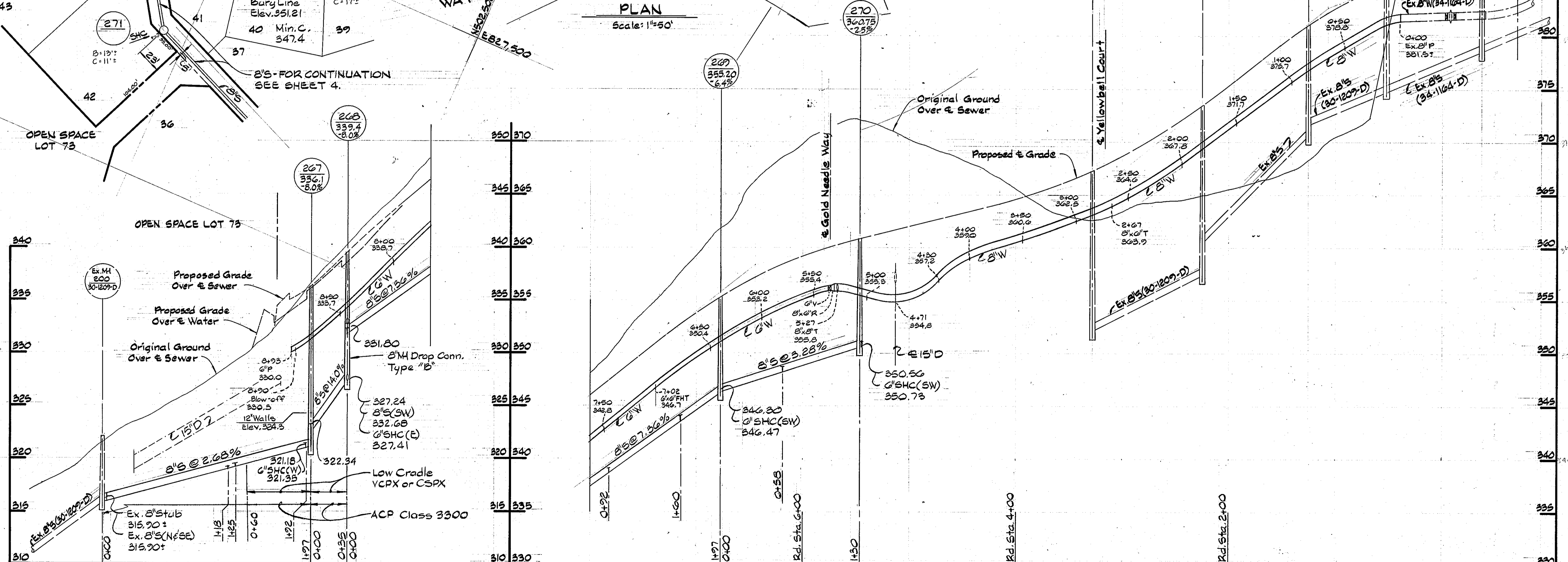
SHEET 1 OF 6

**BENCH MARKS**

- W.R.A. B.M. Hickory #67 Elev. 392.61
- R.R. Spike in base 10" Poplar 85' left of E. Sta. 71+30.2 Little Patuxent Parkway
- W.R.A. B.M. "H-H" #9 Elev. 334.101
- R.R. Spike in base 14" Poplar 130' right of E. Sta. 8+91.2 White Cord Way (Road "H-H")



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



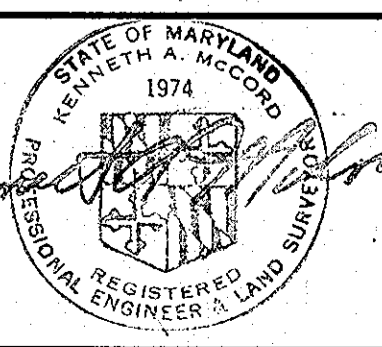
**PROFILE**  
Scale: H: 1"=50'  
V: 1"=5'

B = LENGTH OF BOARD  
C = COVER OVER INV. OF PIPE

**DEPARTMENT OF PUBLIC WORKS**  
HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* 11-16-84  
Chief - Bureau of Engineering: *[Signature]* 11-16-84  
Chief - Bureau of Utilities: *[Signature]* 11-15-84  
Chief - Land Development Division: *[Signature]*

**WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS**  
2315 ST. PAUL ST.  
BALTIMORE, MARYLAND



DES: S.J.			
DRN: J.R.K.			
CHK: R.B.N.			
DATE:	BY NO.	REVISION	DATE

**PLAN & PROFILE OF WATER & SEWER MAINS**

600' SCALE MAP NO. 35 BLOCK NO. 4

**COLUMBIA VILLAGE OF HICKORY RIDGE SECTION 3 AREA 7**  
ELECTION DISTRICT NO. 5  
CONTRACT NO. 34-1294-D

SCALE AS SHOWN  
SHEET 2 OF 6

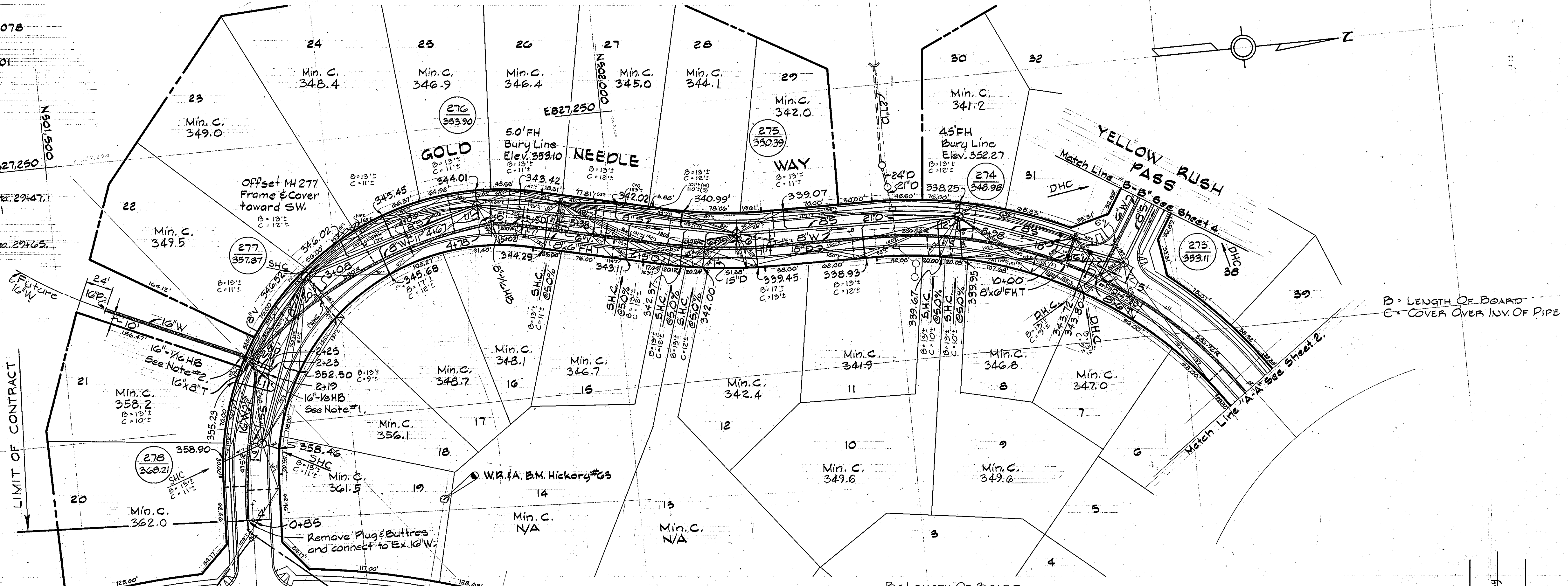
### BENCH MARKS

W.R. & B.M. Hickory #63 Elev. 333.078  
 R.R. Spike Base 10' Locust 115' Right of  
 & Sta. 75+00.7 Little Patuxent Parkway  
 W.R. & B.M. "H-H" #9 Elev. 334.101  
 R.R. Spike Base 14' Poplar 150' Right of  
 & Sta. 8+71.7 White Cord Way (Road "H-H").

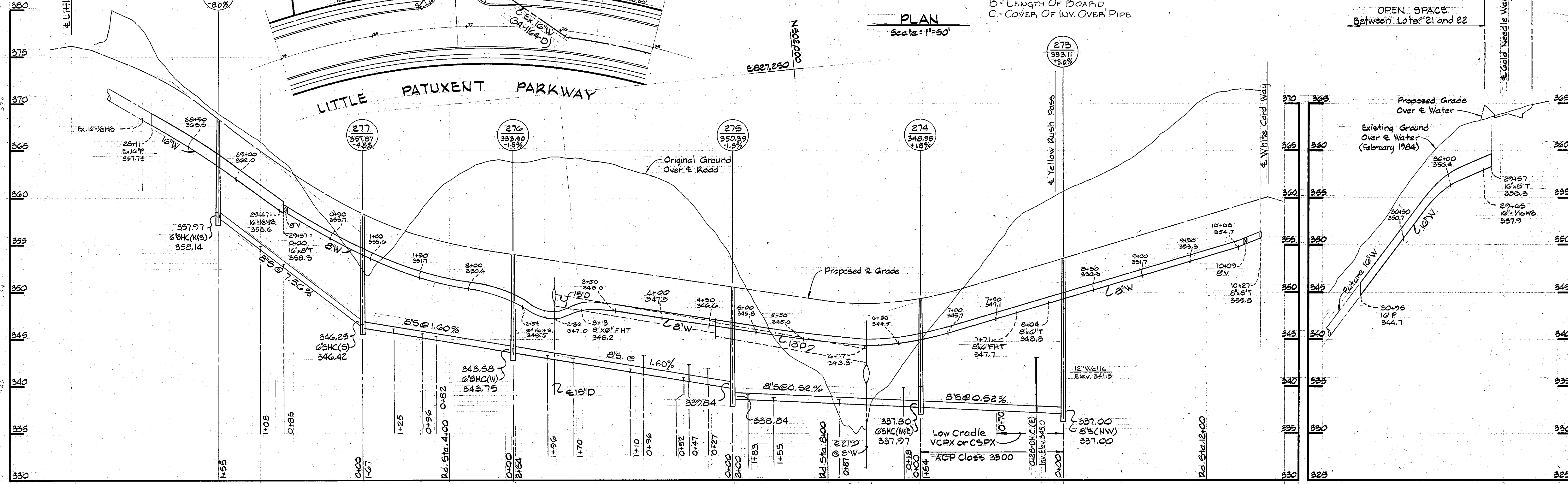
- NOTES:**
1. Special Buttress required for 10'-16" HB @ Water Sta. 29+47. Increase dimensions in Standard Detail W.2.1 to: A=4'-0", B=1'-0", C=1'-0".
  2. Special Buttress required for 10'-16" HB @ Water Sta. 29+65. Increase dimensions in Standard Detail W.2.1 to: A=2'-7", B=1'-4", C=1'-0".
  3. Buttresses for all 8-inch fittings shall be sized for 10-inch pipe. Buttresses for all 6-inch fittings shall be sized for 8-inch pipe.

**630 ZONE**

LIMIT OF CONTRACT

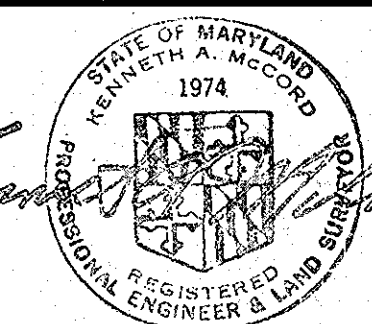


OPEN SPACE Between Lots #21 and 22



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

WHITMAN, REQUARDT  
AND ASSOCIATES  
ENGINEERS  
2315 ST. PAUL ST.  
BALTIMORE, MARYLAND

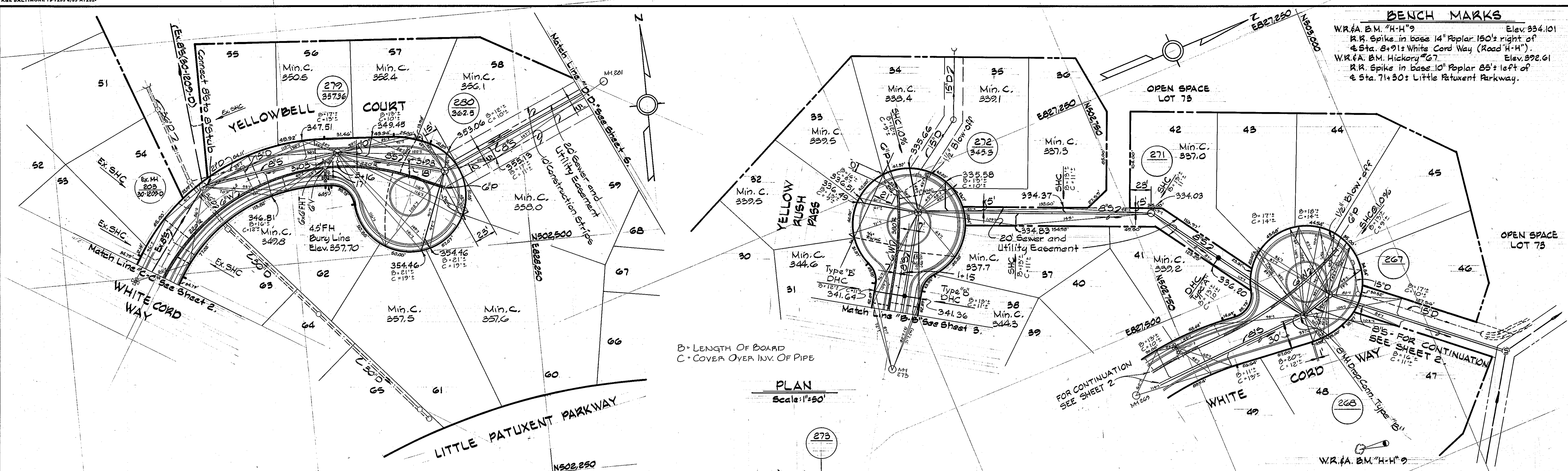


DES: S.J.	CHK: K.B.N.	DATE: 1-22-83
DRN: J.R.K.		
BY: NO.	REVISION	DATE

PLAN & PROFILE OF  
WATER & SEWER MAINS

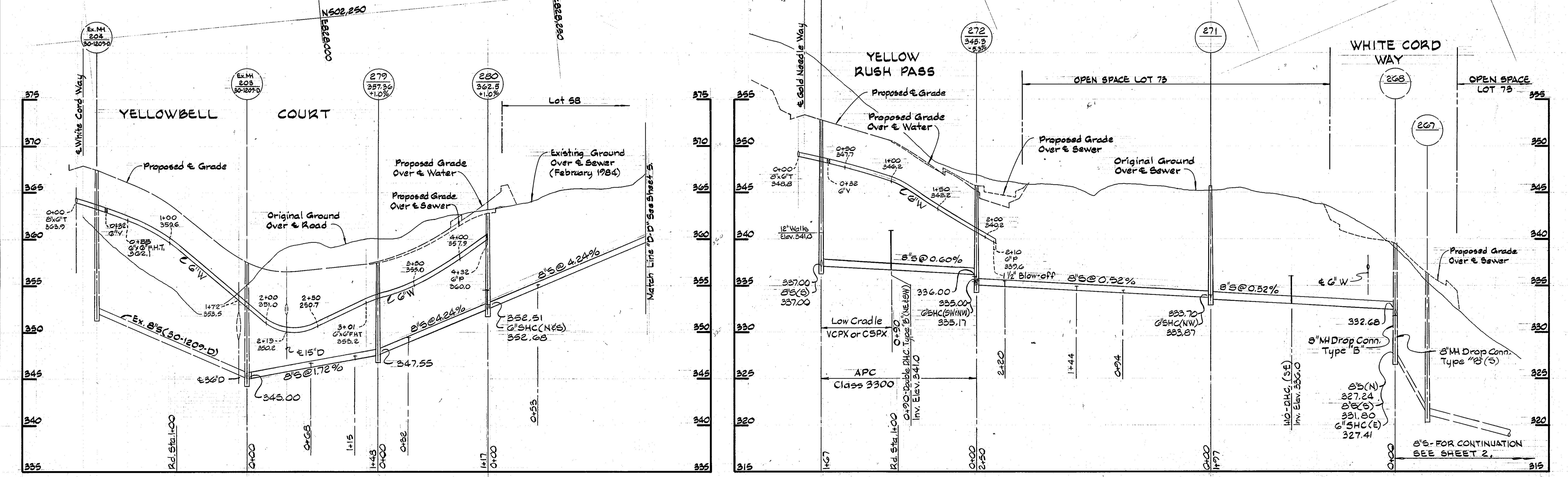
COLUMBIA  
VILLAGE OF HICKORY RIDGE  
SECTION 3 AREA 7  
ELECTION DISTRICT NO. 5  
CONTRACT NO. 34-1294-D

SCALE AS SHOWN  
SHEET 3 OF 6



**BENCH MARKS**

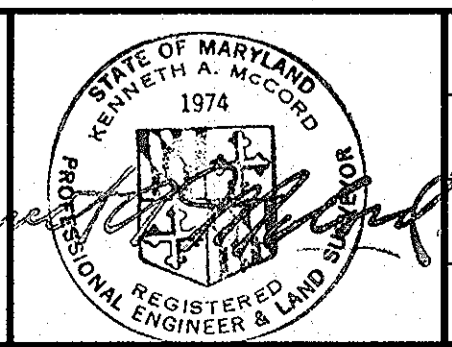
W.R. & A. B.M. "H-H" 9	Elev. 334.101
R.R. Spike in base 14" Poplar 150' right of Sta. 8+91: White Cord Way (Road "H-H")	
W.R. & A. B.M. Hickory "G" 7	Elev. 332.961
R.R. Spike in base 10" Poplar 85' left of Sta. 71+30: Little Patuxent Parkway	



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

WHITMAN, REQUARDT  
 AND ASSOCIATES  
 ENGINEERS  
 2315 ST. PAUL ST.  
 BALTIMORE, MARYLAND



DES: S.J.	C.R.H.	Added F.H.T. @ 0+55 on Profile, lowered @ W crossing between M's 268 and 271	1/2/85
DRN: J.R.K.			
CHK: A.B.N.			
DATE:	BY NO.	REVISION	DATE

PLAN & PROFILE OF  
 WATER & SEWER MAINS

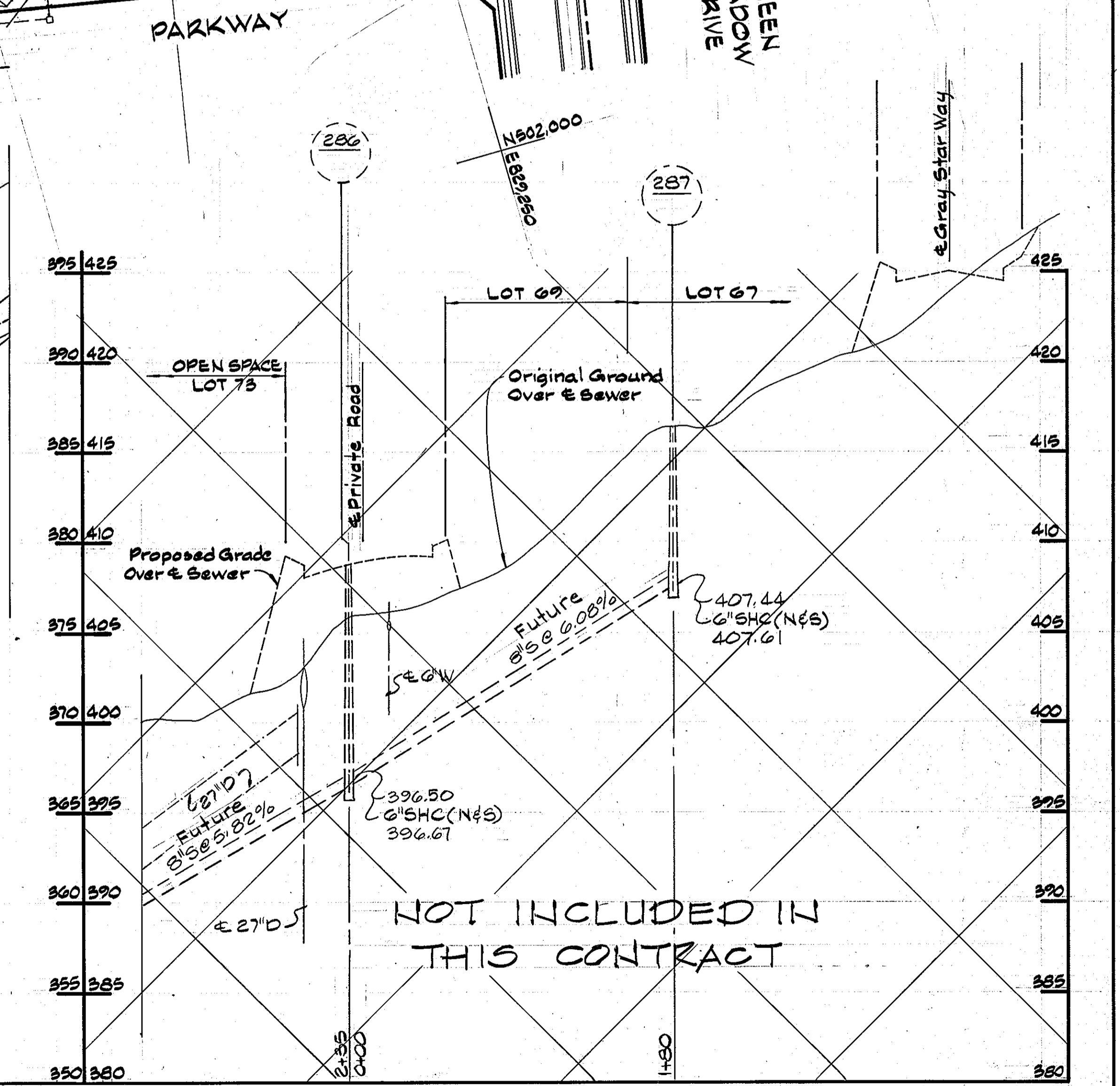
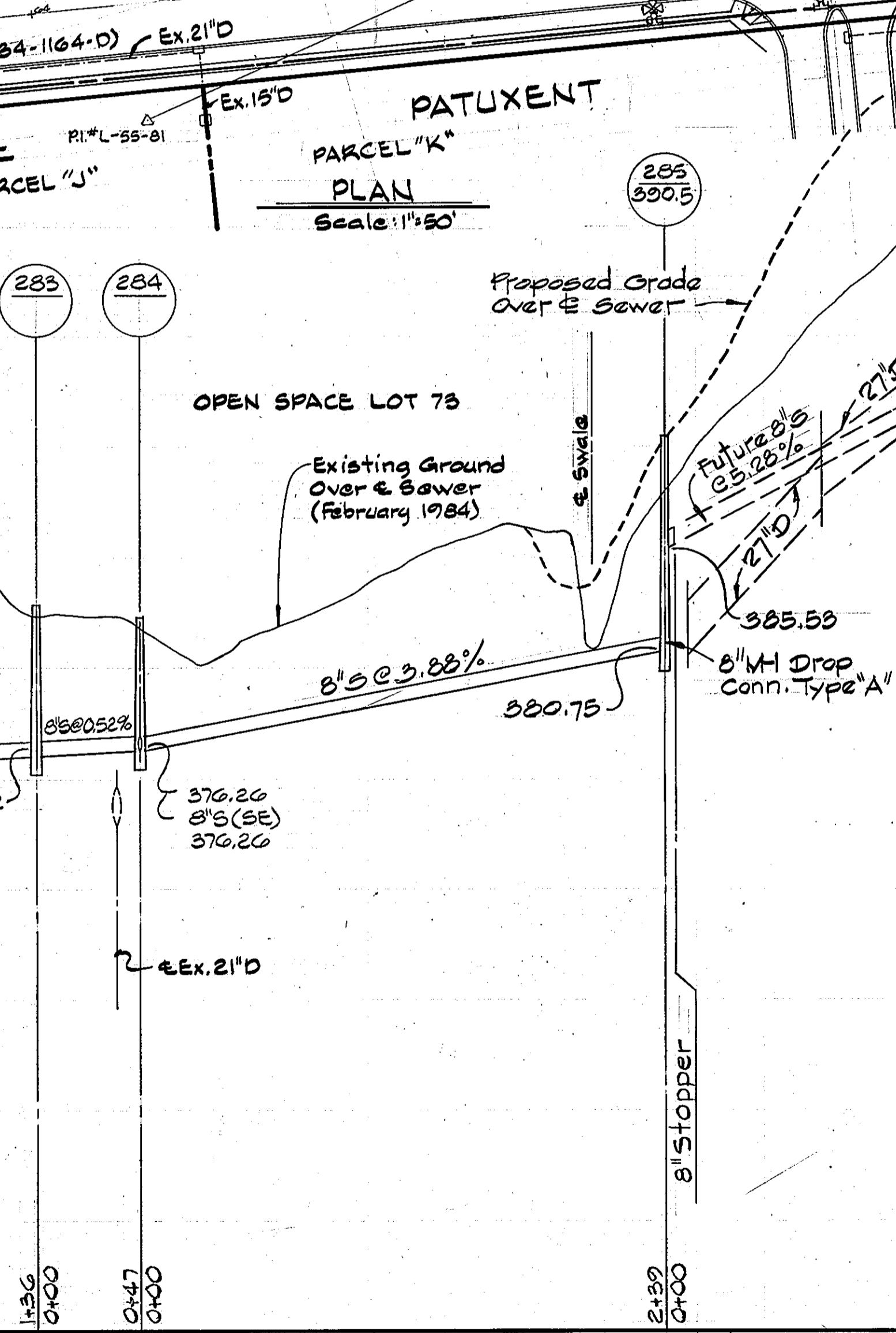
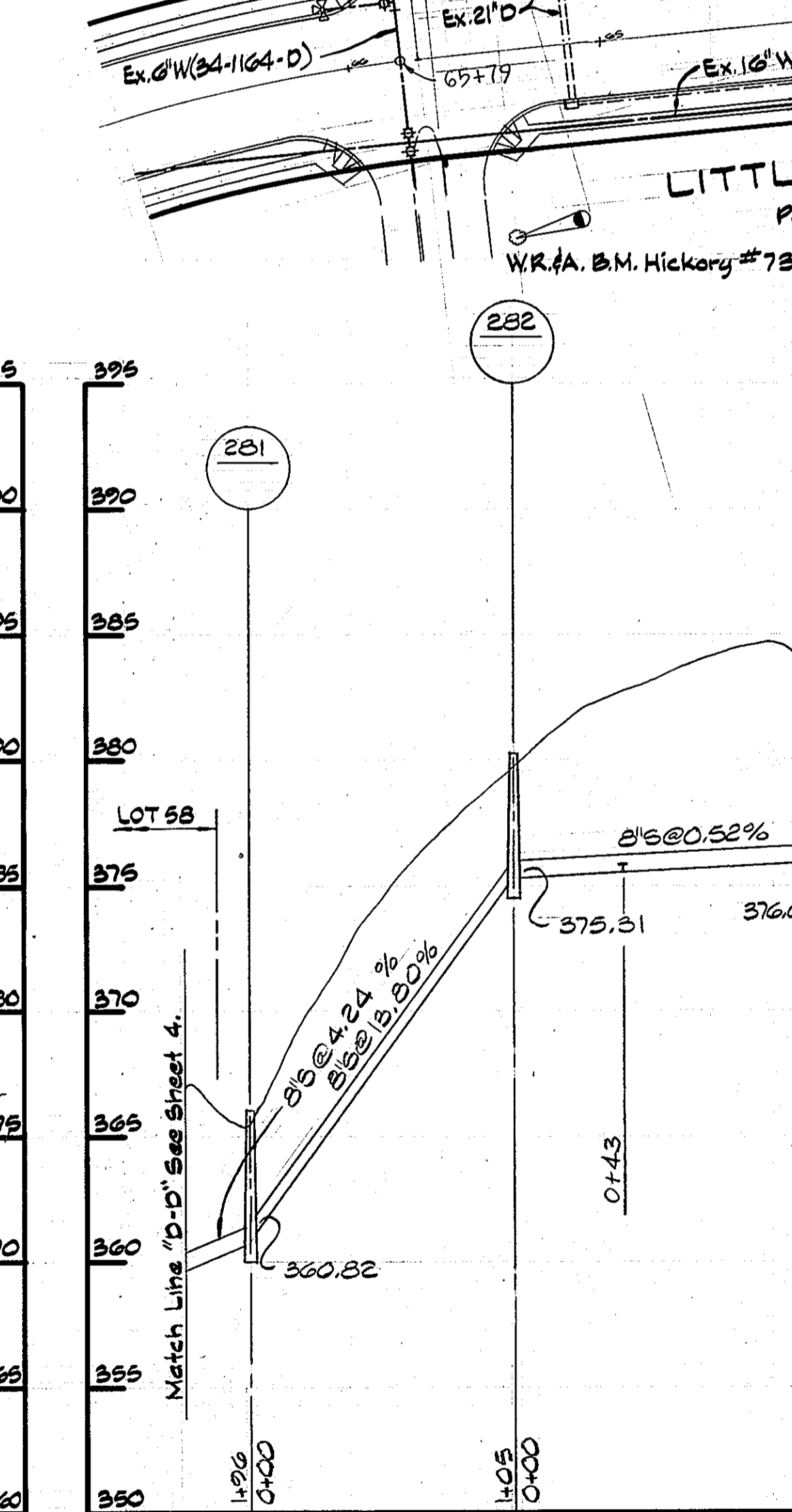
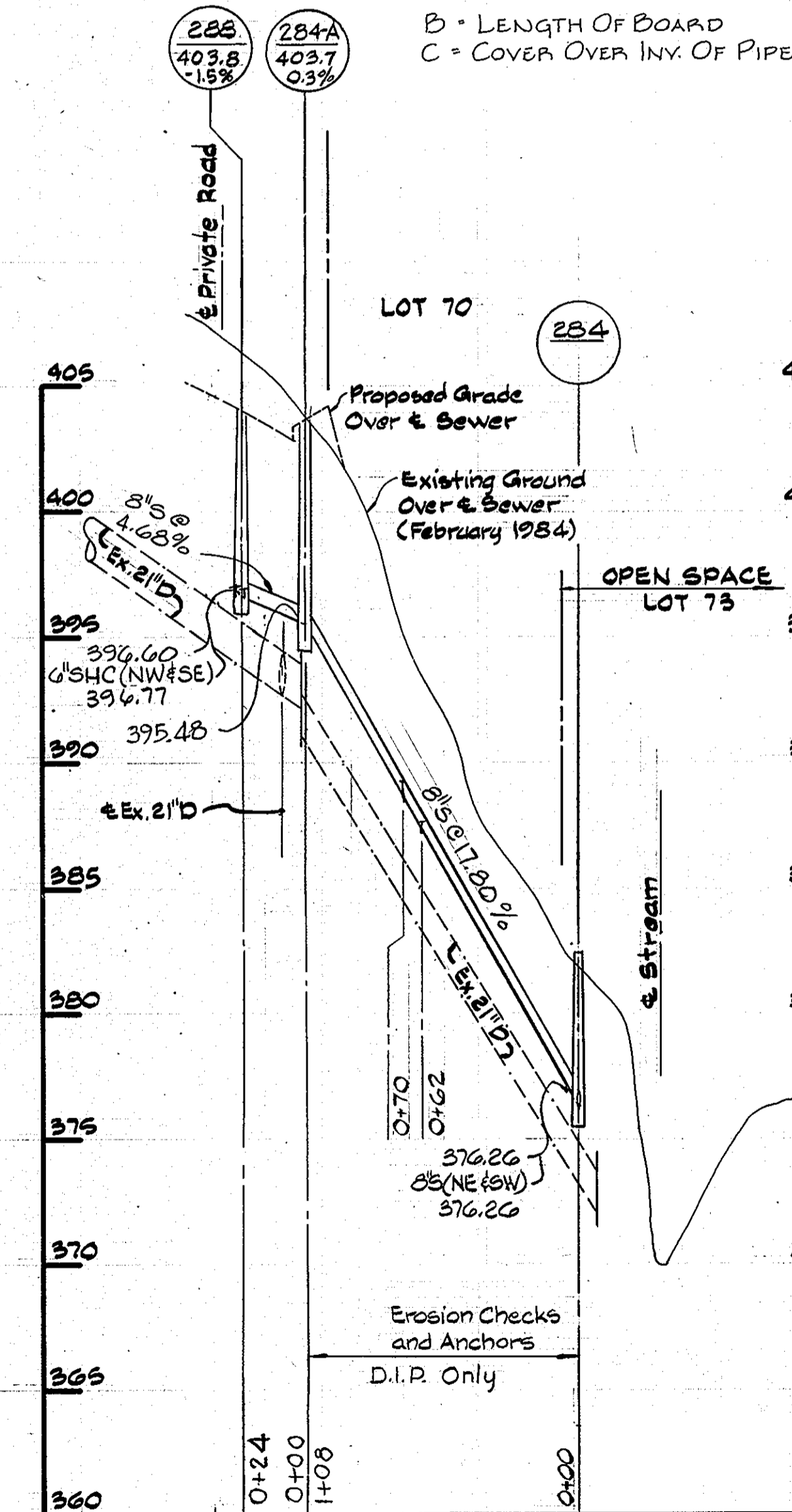
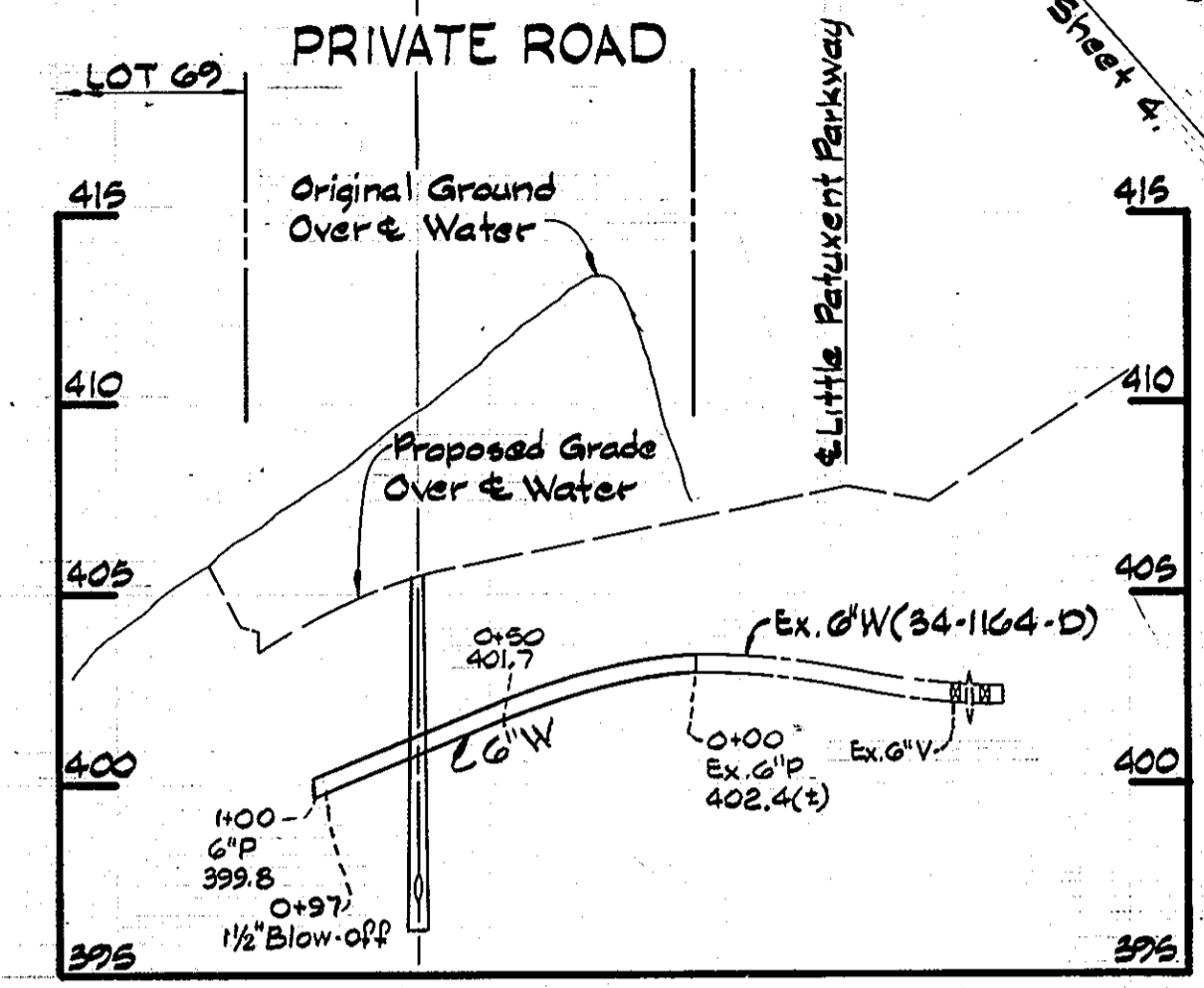
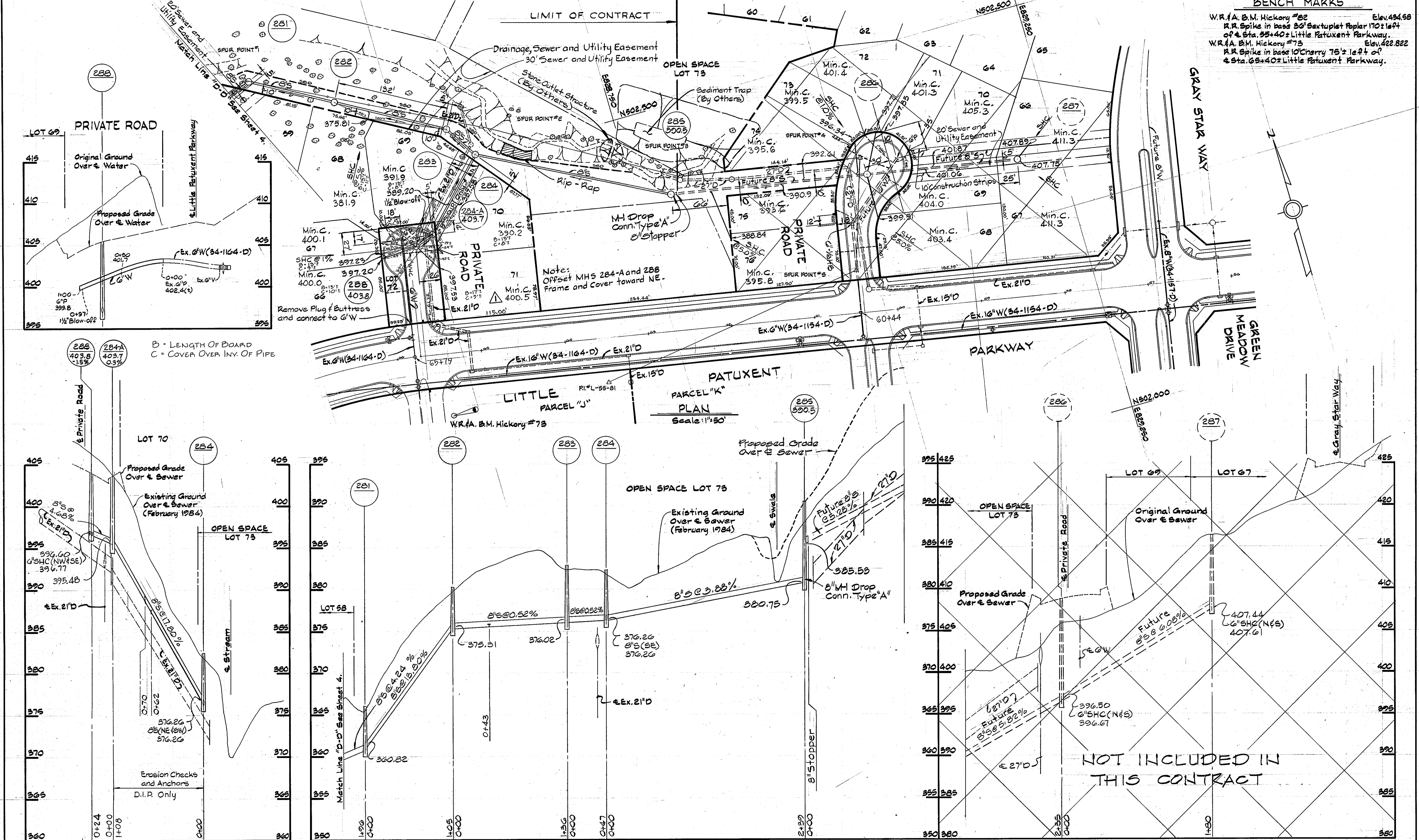
600' SCALE MAP NO. 35 BLOCK NO. 4

COLUMBIA  
 VILLAGE OF HICKORY RIDGE  
 SECTION 3 AREA 7  
 ELECTION DISTRICT NO. 5  
 CONTRACT NO. 34-1294-D

SCALE AS SHOWN  
 SHEET 4 OF 6

**BENCH MARKS**

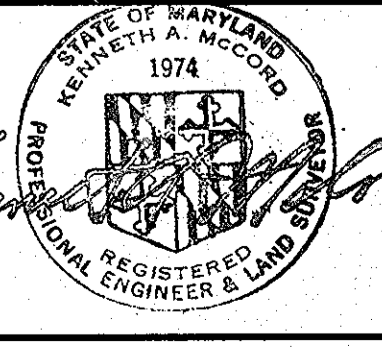
W.R. & B.M. Hickory #22 Elev. 424.58  
 R.R. Spike in base 30' Sextuplet Poplar 170'± left of Sta. 35+40 Little Patuxent Parkway. Elev. 422.822  
 W.R. & B.M. Hickory #73 Elev. 422.822  
 R.R. Spike in base 10' Cherry 75'± left of Sta. 65+40 Little Patuxent Parkway.



**PROFILES**  
 Scale: H: 1"=50'  
 V: 1"=5'

**DEPARTMENT OF PUBLIC WORKS**  
 HOWARD COUNTY, MARYLAND  
 Director of Public Works - DATE 11/16/84  
 Chief - Bureau of Engineering - DATE  
 Chief - Bureau of Utilities - DATE 1-15-84  
 Chief - Land Development Division - DATE

**WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS**  
 2315 ST. PAUL ST.  
 BALTIMORE, MARYLAND



DES: S.J.	C.Z.H.	Deleted Plan and Profile for Sewer between MH's 285 and 287, removed existing sediment basin	1/22/85
DRN: J.R.K.			
CHK: R.B.N.			
DATE:	J.W.D.	Revised Lot Lines	6/24/85
BY NO.		REVISION	DATE

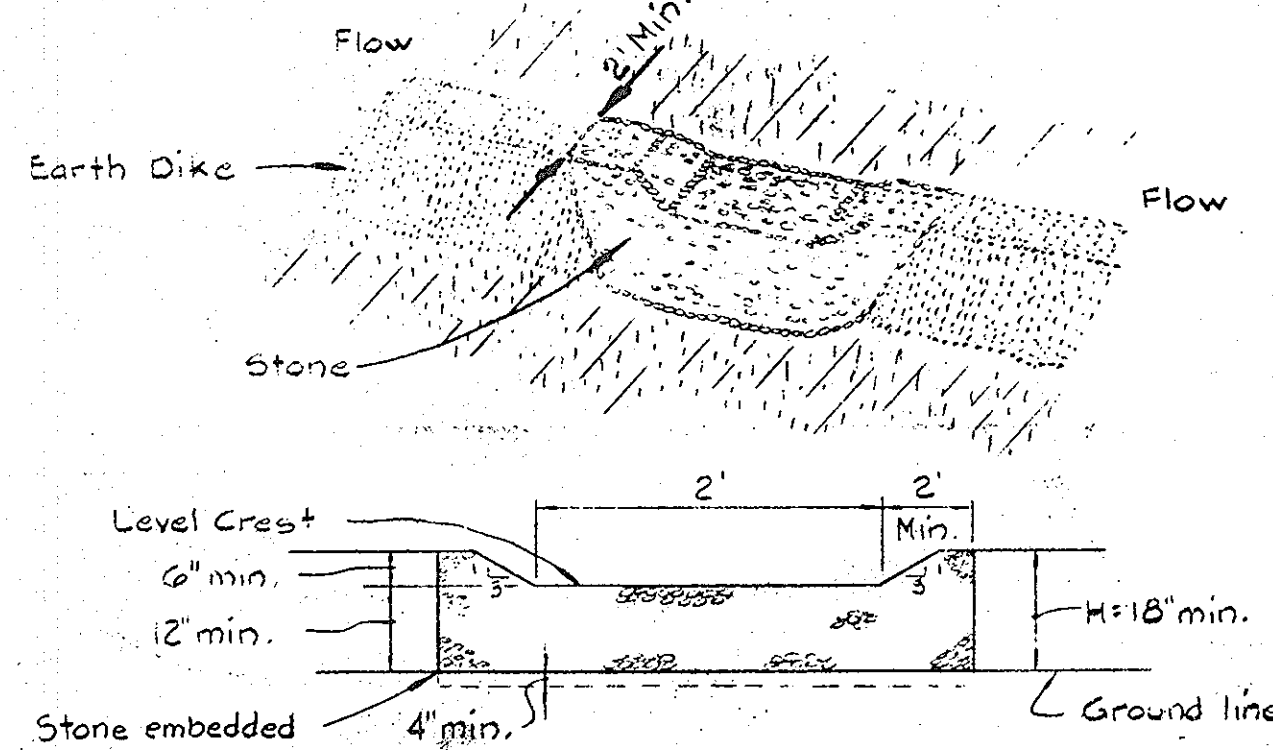
**PLAN & PROFILE OF WATER & SEWER MAINS**

**COLUMBIA VILLAGE OF HICKORY RIDGE**  
 SECTION 3 AREA 7  
 ELECTION DISTRICT NO. 5  
 CONTRACT NO. 34-1294-D

SCALE AS SHOWN  
 SHEET 5 OF 6

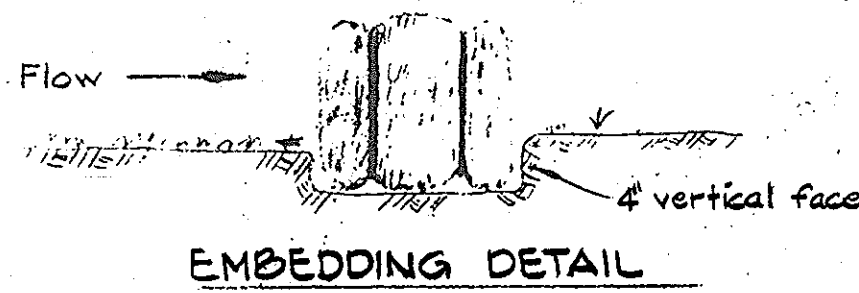
Standard Symbol — 800 —

Standard Symbol — 80 —

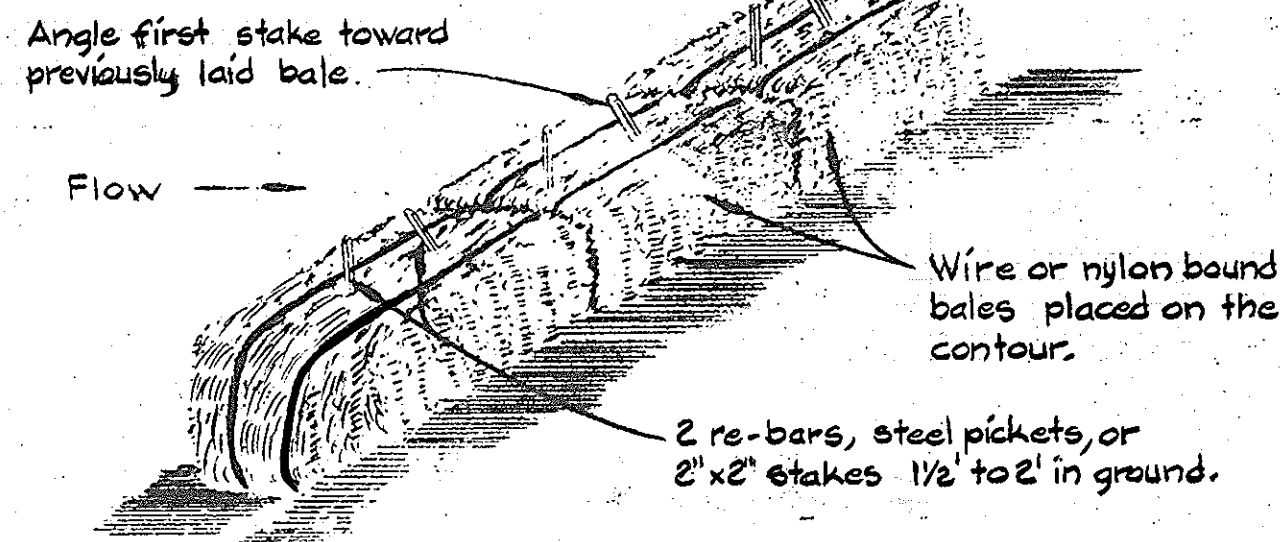


PROFILE

STONE OUTLET STRUCTURE

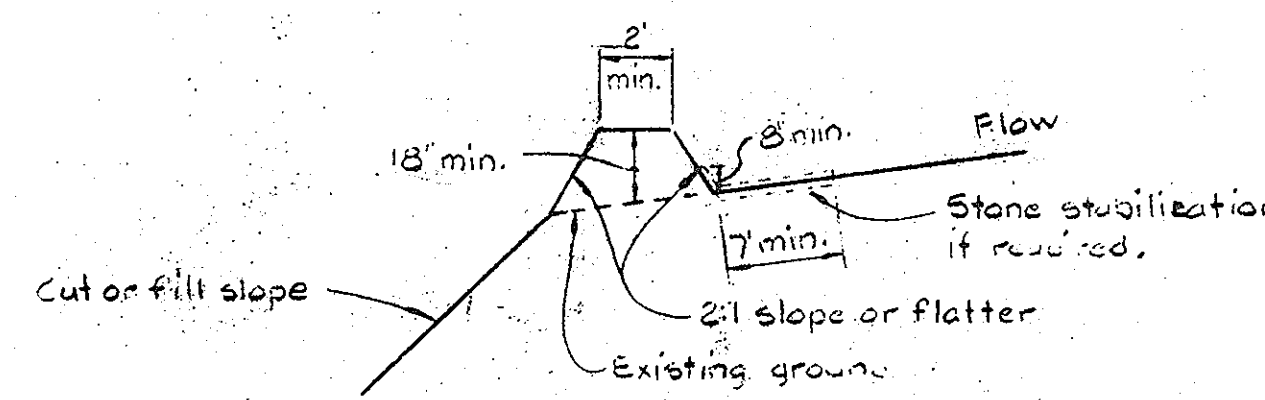


EMBEDDING DETAIL

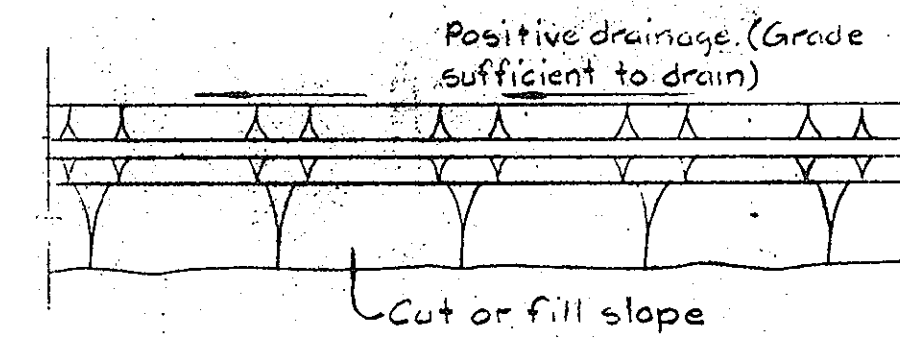


ANCHORING DETAIL

STRAW BALE DIKE

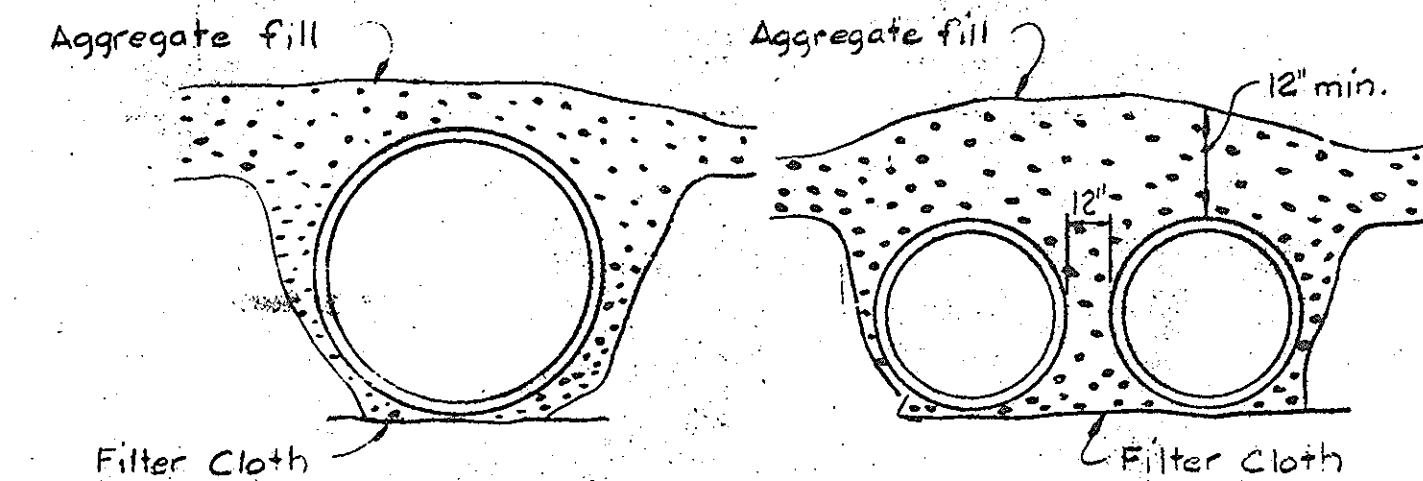
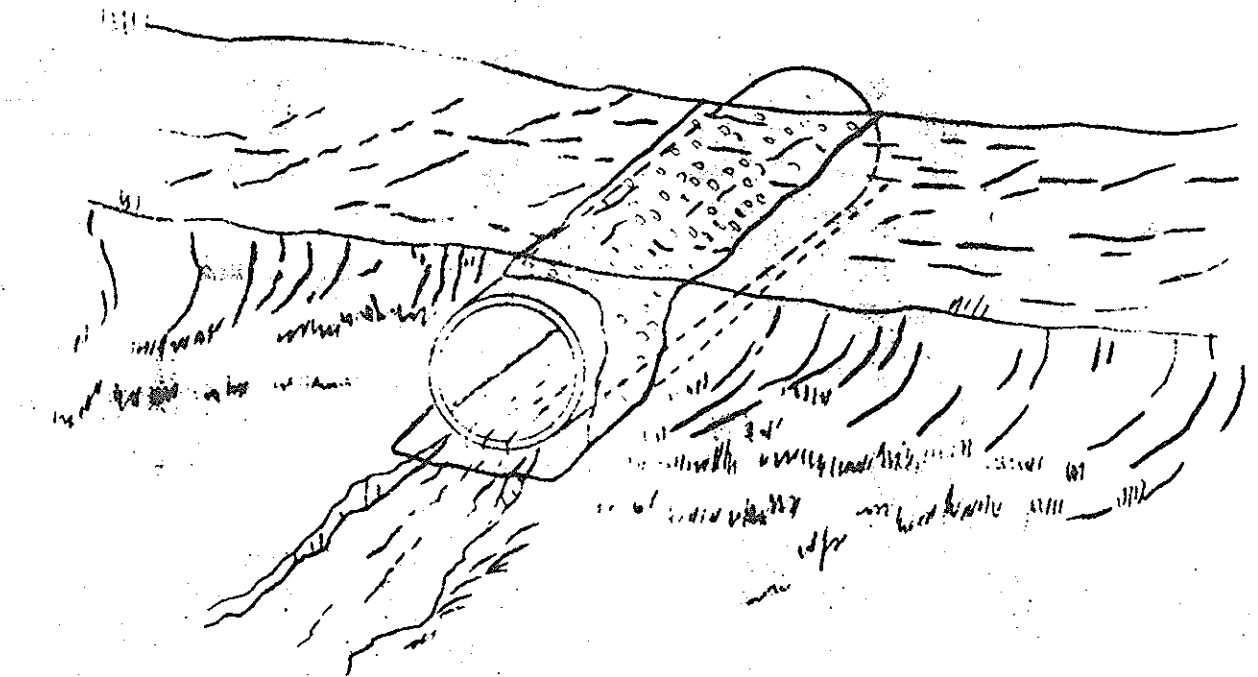


CROSS SECTION

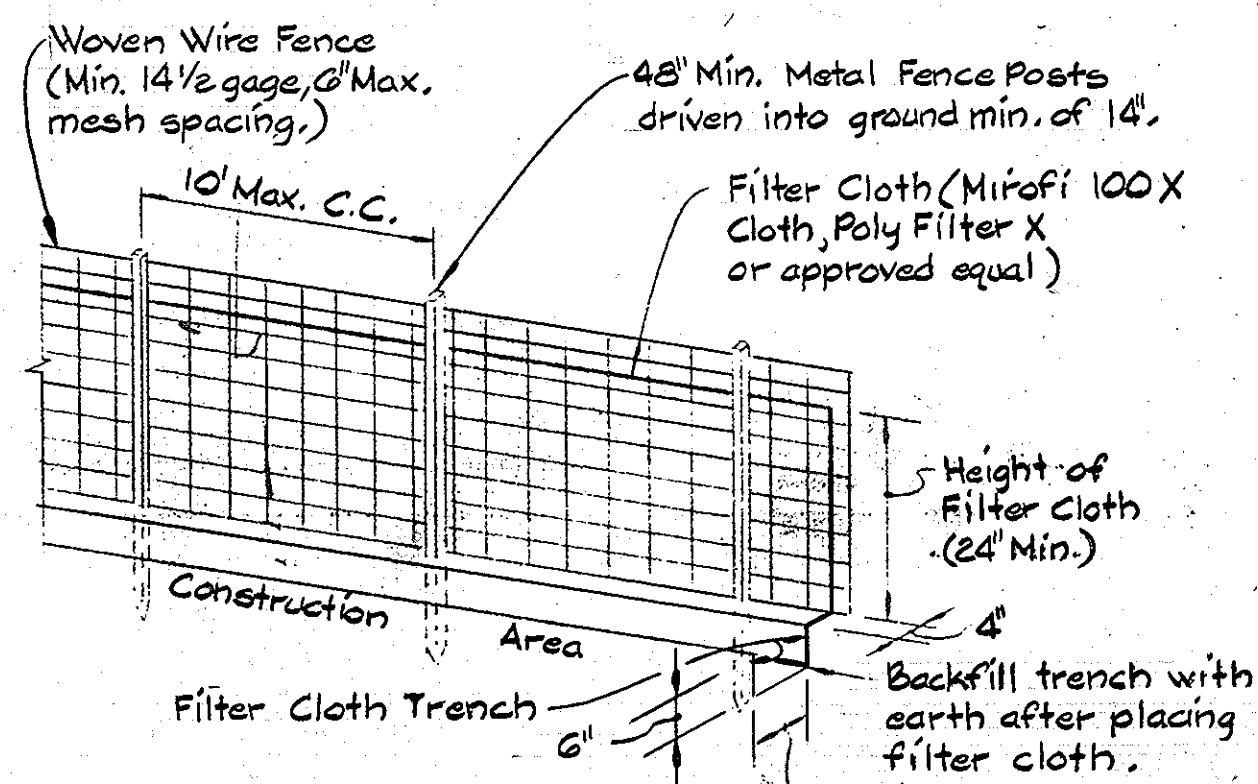


PLAN VIEW

DIVERSION DIKE



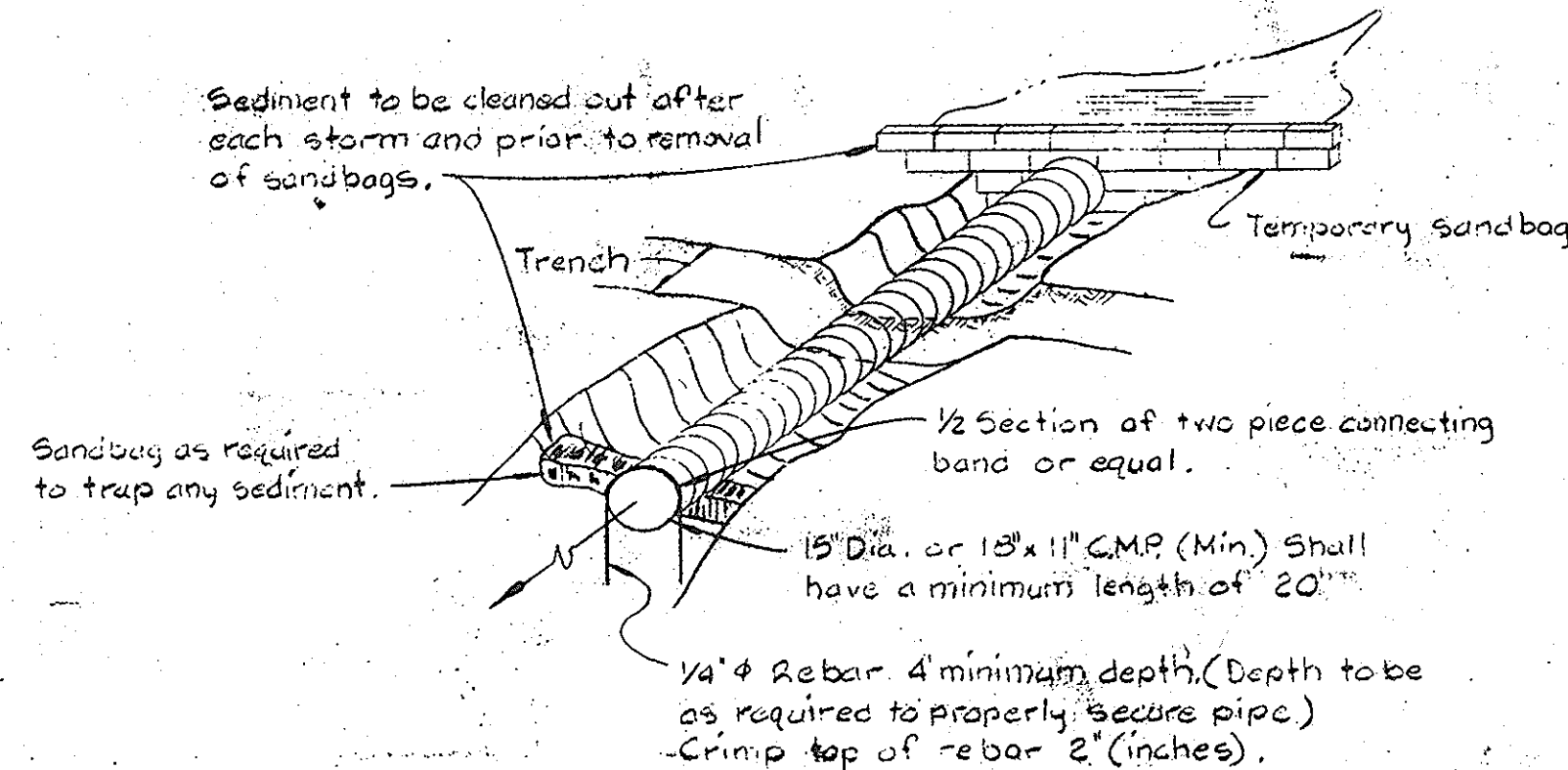
TEMPORARY ACCESS CULVERT



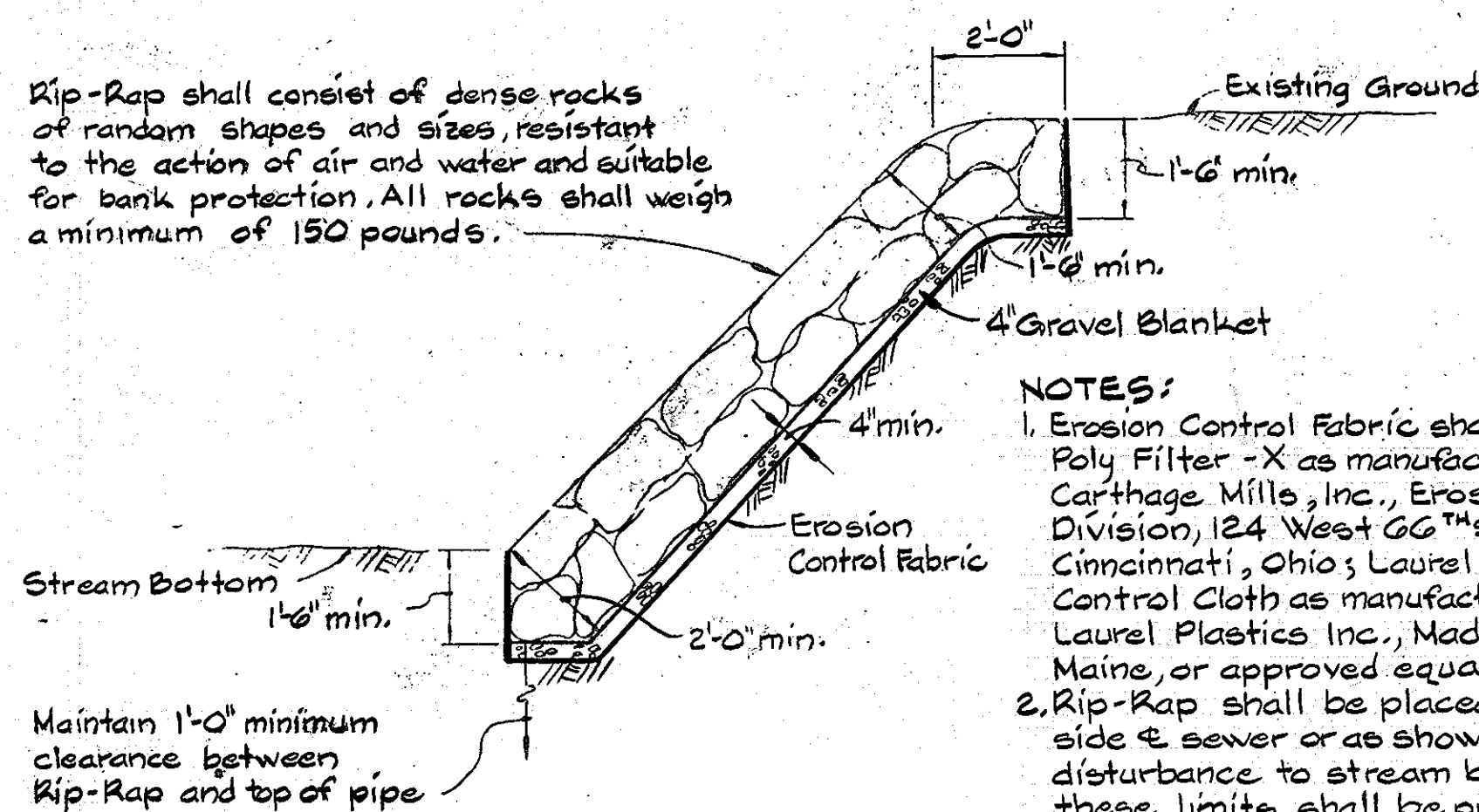
NOTES:

1. Woven wire fence to be fastened securely to fence posts by use of wire ties.
2. Filter cloth to be fastened securely to woven wire fence by use of wire ties spaced every 24" at top and mid section.

SILT FENCE DETAIL



SOIL CONSERVATION MEASURES AT SMALL STREAM CROSSING



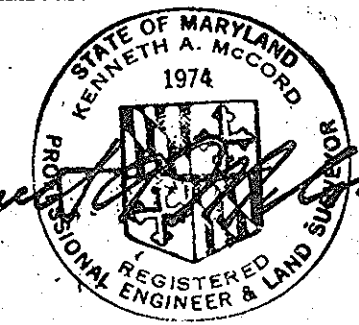
NOTES:

1. Erosion Control Fabric shall be Poly Filter - X as manufactured by Carthage Mills, Inc., Erosion Control Division, 124 West 66<sup>th</sup> Street, Cincinnati, Ohio; Laurel Erosion Control Cloth as manufactured by Laurel Plastics Inc., Madison, Maine, or approved equal.
2. Rip-Rap shall be placed 6' each side of sewer or as shown. Any disturbance to stream banks beyond these limits shall be protected with Rip-Rap at Contractors expense.

RIP-RAP DETAIL

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

WHITMAN, REQUARDT-  
AND ASSOCIATES  
ENGINEERS  
2315 ST. PAUL ST  
BALTIMORE, MARYLAND



DES: S.J.					
DRN: J.R.K.					
CHK: R.B.N.					
DATE:	BY:	NO.	REVISION	DATE	600' SCALE MAP NO. _____ BL'CK. NO. _____

SEDIMENT CONTROL DETAILS

COLUMBIA  
VILLAGE OF HICKORY RIDGE  
SECTION 3 AREA 7  
ELECTION DISTRICT NO. 5  
CONTRACT NO. 34-1294-D

SCALE  
AS  
SHOWN  
SHEET  
6 OF 6