

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. ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS.
5. CLEAR ALL UTILITIES BY A MINIMUM OF 6".
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 850-4620
 - BALTIMORE GAS AND ELECTRIC CO. UNDERGROUND DAMAGE CONTROL 859-9004
 - BALTIMORE GAS AND ELECTRIC CO. TROUBLE SHOOTING 298-9001
 - MISS UTILITY 1-559-0100
 - COLONIAL PIPELINE CO. 795-1390
 - BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS 992-2366
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' 1" 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.
18. 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.
19. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITH 2'-0" OF EXTERIOR MANHOLE WALL.
20. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
21. FORCE MAINS SHALL BE D.I.P. ONLY.
22. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
23. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAMES AND COVERS. STANDARD DETAIL 65-52. WHERE WATERTIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
24. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THE CELLAR CAN NOT BE SERVED.

WATER AND SEWER MAIN EXTENSIONS

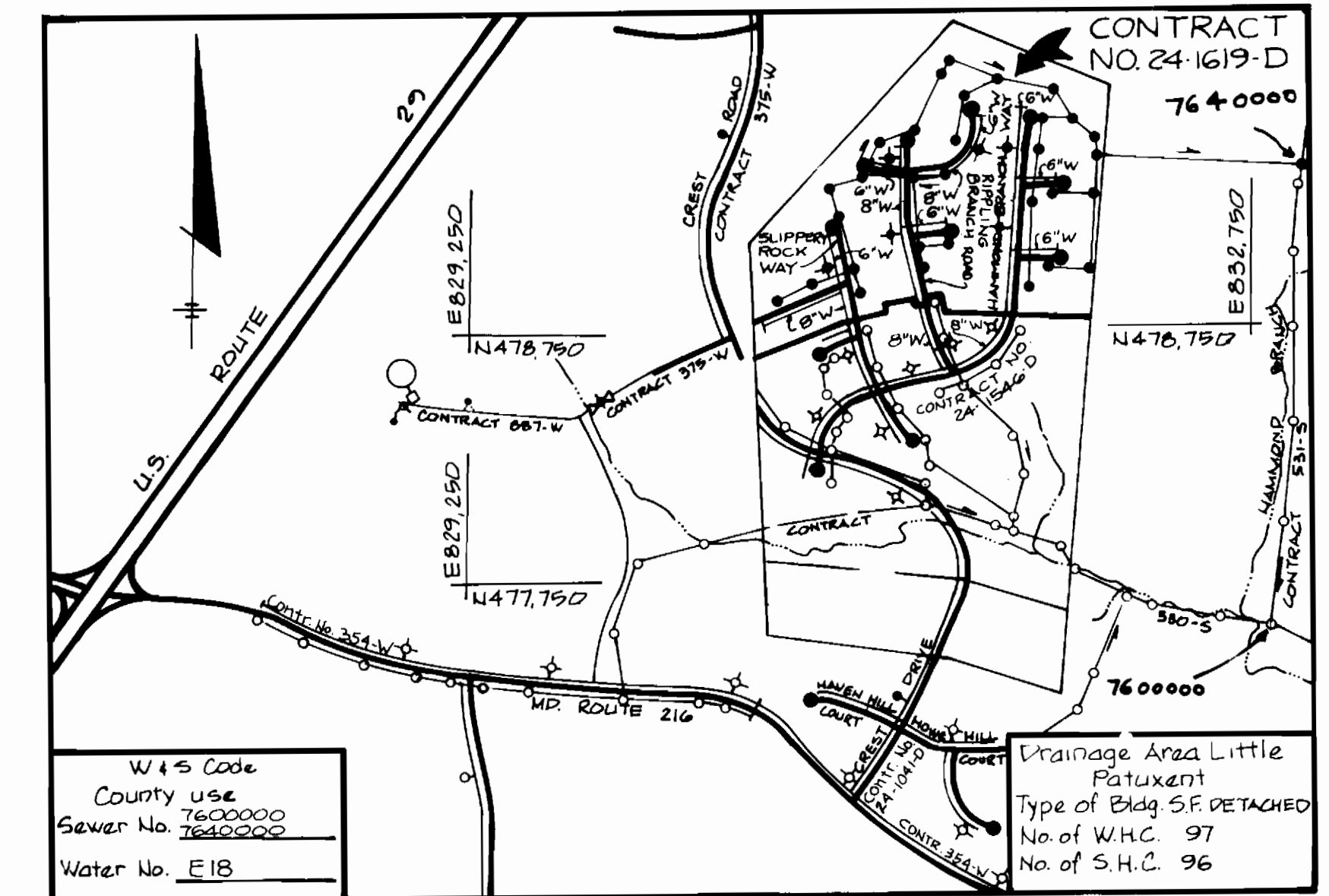
HAMMOND HILLS

SECTION 2, AREA 2

CONTRACT No. 24-1619-D

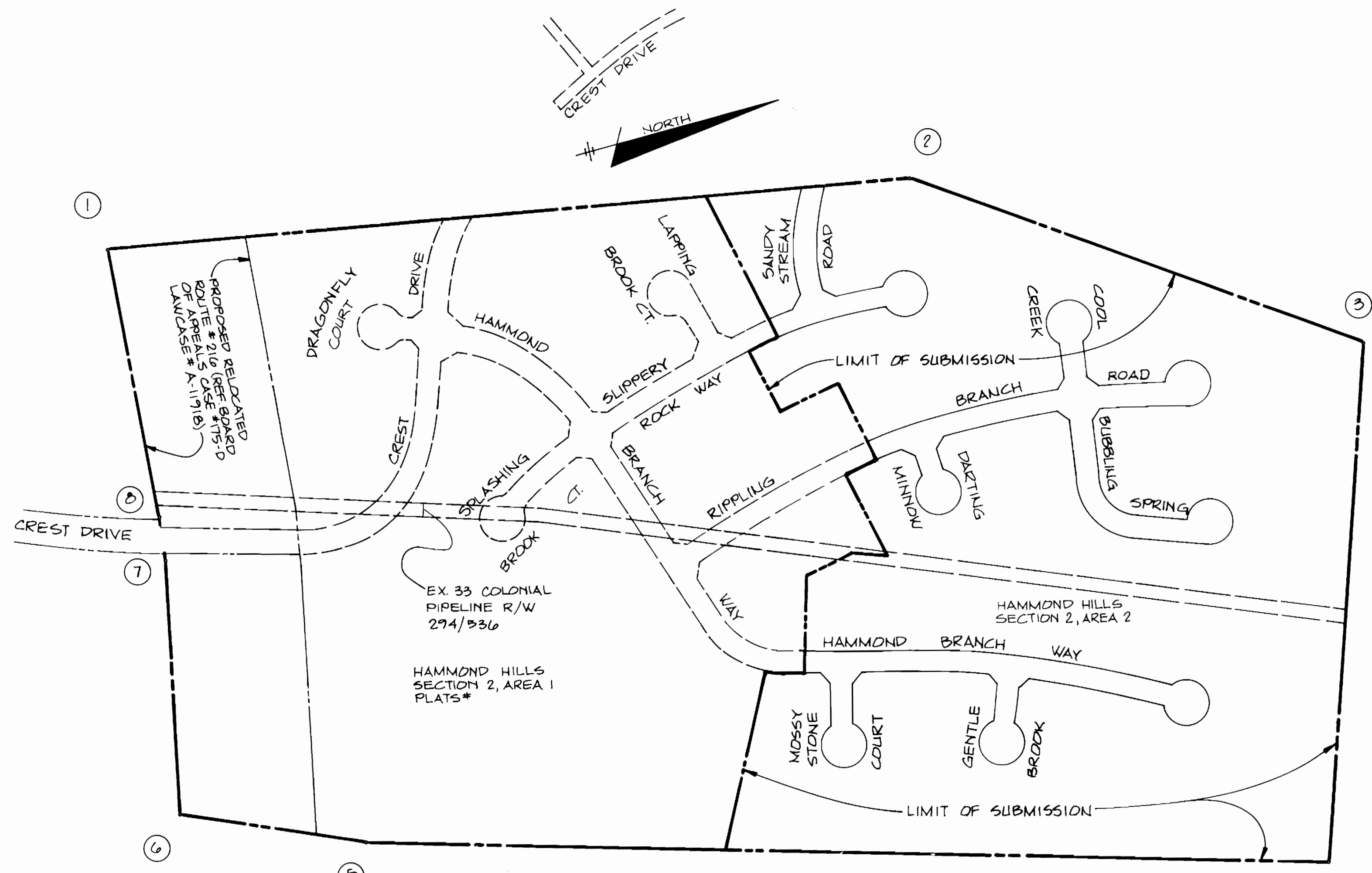
6TH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



BENCHMARKS

- BM #1 Elev. 384.51
Nail in base of 10" dead tree
30' south of Crest Drive
- BM #2 Elev. 374.37
Nail in base of 16" pine tree
500' southeast of Hammond Branch Way.



QUANTITIES			
Item	Estimated	Asbuilt	Material/Supplier
8" Sewer	6480 LF		
6" Sewer	2583 LF		
6" Standpipe	38 VF		
Manholes	303 VF		A
8" Water	2579 LF		
6" Water	1576 LF		
Fire Hydrants	7		
8" Valves	6		
6" Valves (Excl. FH)	7		
1" W.H.C.	738 LF		
3/4" W.H.C.	1411 LF		
3" Blowoff for Water	7		

Sediment Control measures for this contract will be implemented in accordance with section 219 of the specification and shown on F-86-176

Howard Soil Conservation District:
Reviewed for Howard Soil Conservation District and meets technical requirements.
Deanna M. Nelson 9-16-87 Date
U.S. Soil Conservation Service
This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.
Stephen A. [Signature] 9/16/87 Date
Howard Soil Conservation District

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert M. Brimmer 9-23-87 DATE
DIRECTOR OF PUBLIC WORKS

Arthur E. Muegge 9-24-87 DATE
CHIEF, BUREAU OF ENGINEERING

[Signature] DATE
CHIEF, LAND DEVELOPMENT DIVISION

THE RIEMER GROUP, INC.
3105 NORTH RIDGE ROAD
ELLICOTT CITY, MARYLAND 21043

Arthur E. Muegge 9-27-87 DATE
ARTHUR E. MUEGGE #8707

DES: L.J.D.					
DRN: J.A.B.					
CHK: L.J.D.					
J.C.R.	Δ	CHANGED 8" & 6" WATER QUANTITIES IN BLOCK	11-6-87		
DATE: 8-5-87	BY: NO.	REVISION	DATE		

TITLE SHEET

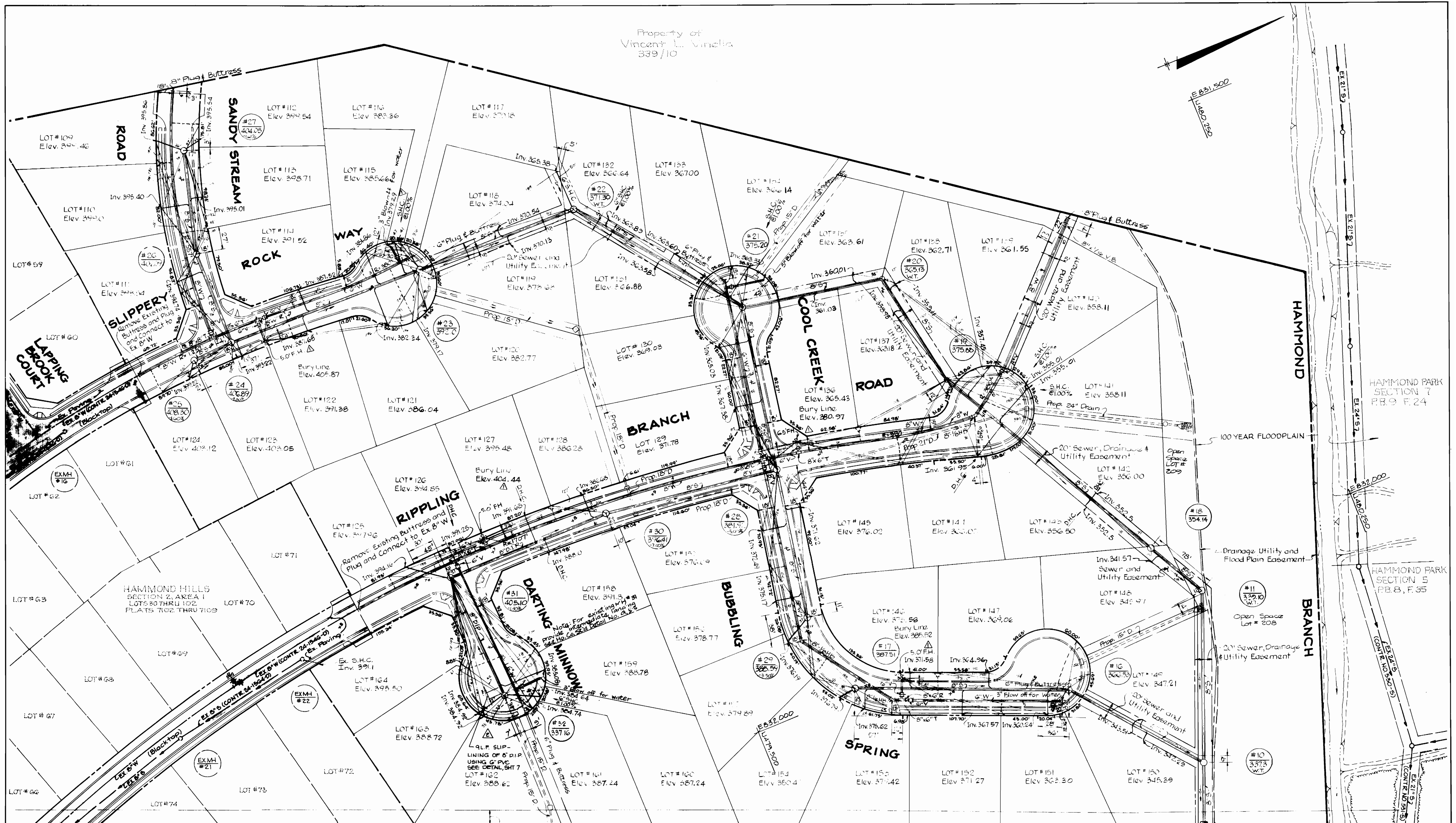
600' SCALE MAP NO. 46 BLOCK NO. _____

HAMMOND HILLS
SECTION 2, AREA 2
ELECTION DISTRICT NO. 6
CONTRACT NO. 24-1619-D

SCALE AS SHOWN

SHEET 1 OF 7

Property of
Vincent L. Vindola
339/10



Existing 10' Right of Way
for Colonial Pipeline (L 294, F 890)

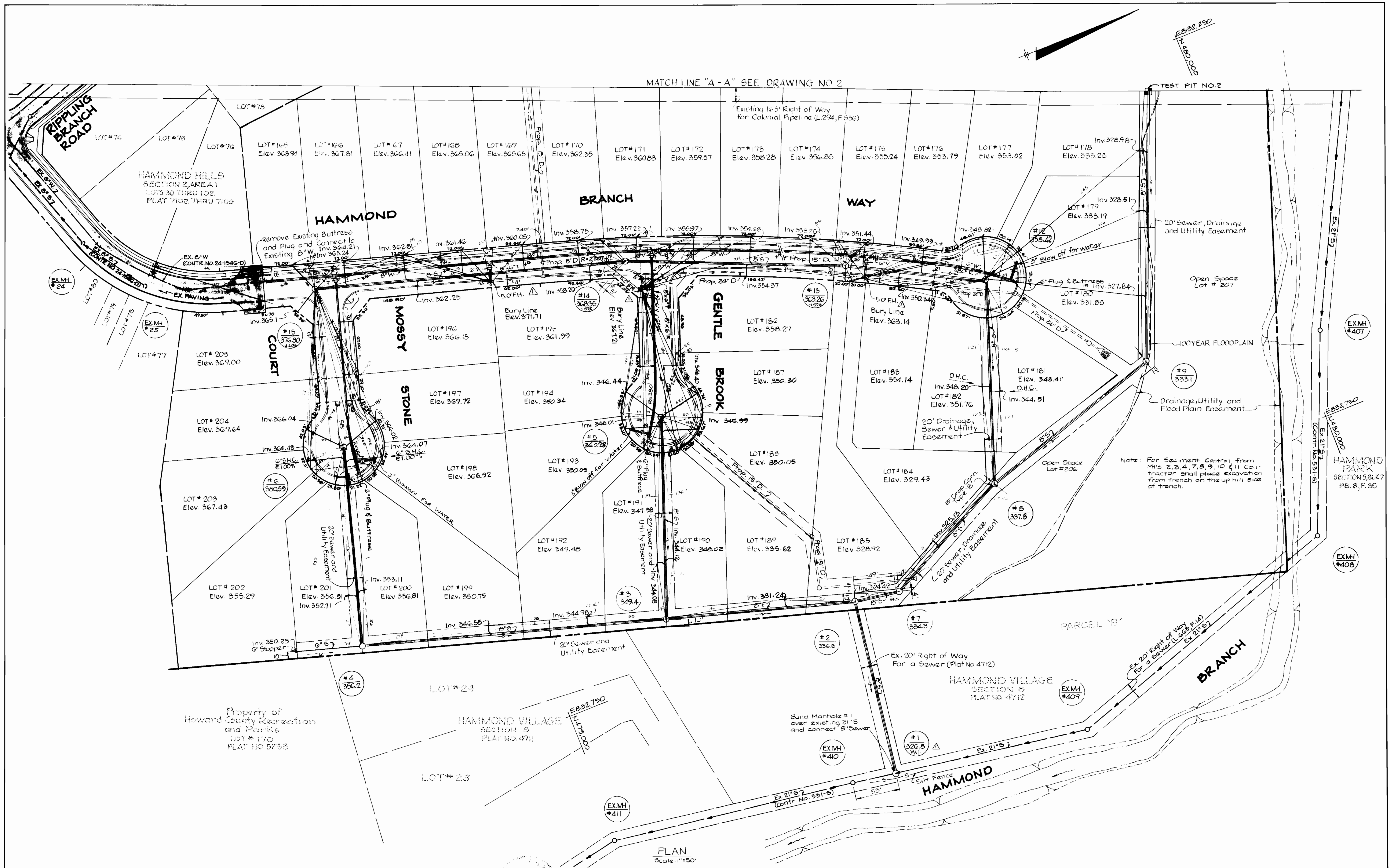
MATCH LINE "A-A" SEE DRAWING NO. 2

TEST PIT NO. 2

PLAN
Scale: 1"=50'

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DIRECTOR OF PUBLIC WORKS: Robert M. Bauman DATE: 9-23-87 CHIEF, BUREAU OF UTILITIES		THE RIEMER GROUP, INC. 3105 NORTH RIDGE ROAD ELLICOTT CITY, MARYLAND 21043 Arthur E. Muegge #6707		DES: L.J.D. DRN: J.A.B. CHK: L.J.D. DATE: 8-5-87		PLAN OF WATER AND SEWER MAINS 600' SCALE MAP NO. 46 BLOCK NO.		HAMMOND HILLS SECTION 2, AREA 1 ELECTION DISTRICT NO. 6 CONTRACT NO. 24-1619-D		SCALE AS SHOWN SHEET 2 OF 7	
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SEPTEMBER 9, 1987



MATCH LINE "A-A" SEE DRAWING NO. 2

E832.250
U430.000

TEST PIT NO. 2

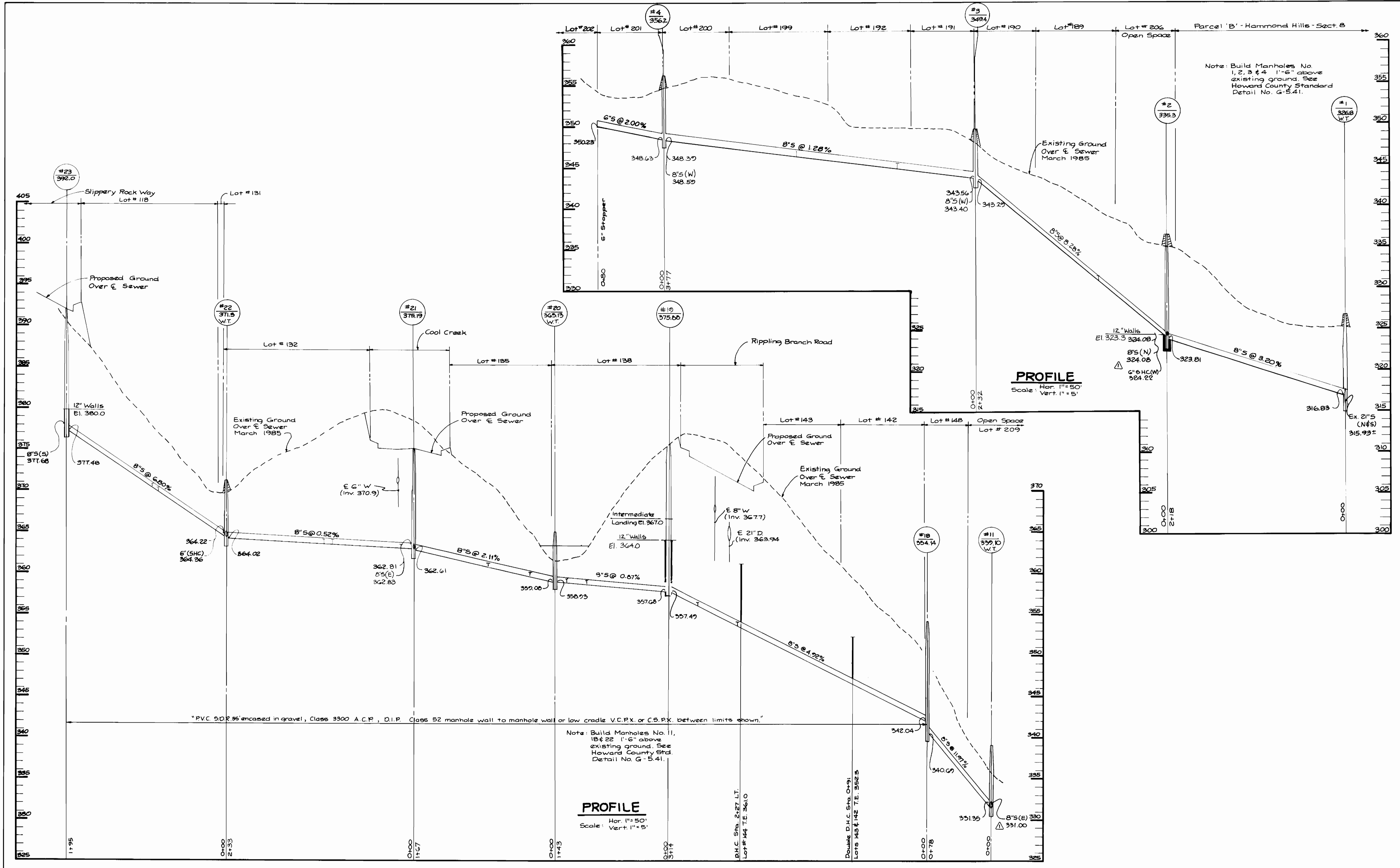
PLAN
Scale: 1"=50'

Note: For Sediment Control from M's 2, 3, 4, 7, 8, 9, 10 & 11 Contractor shall place excavation from trench on the up hill side of trench.

HAMMOND PARK SECTION 5, BLOCK 7 P.B. 8, F. 85

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: <i>Samuel A. Lewis</i> 9/23/87 Chief, Bureau of Utilities: <i>Ruth Benner</i> 9-23-87		THE RIEMER GROUP, INC. 3105 NORTH RIDGE ROAD ELLICOTT CITY, MARYLAND 21043 Chief, Land Development Division: <i>Arthur E. Muegge</i> 9-24-87		DES: L.J.D. DRN: J.A.B. CHK: L.J.D. DATE: 8-5-87		PLAN OF WATER AND SEWER MAINS 600' SCALE MAP NO. 46 BLOCK NO.		HAMMOND HILLS SECTION 2, AREA 2 ELECTION DISTRICT NO. 6 CONTRACT NO. 24-1619-D		SCALE AS SHOWN SHEET 3 OF 7
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SEPTEMBER 9, 1987



Note: Build Manholes No. 1, 2, 3 & 4 1'-6" above existing ground. See Howard County Standard Detail No. G-5.41.

PROFILE
 Hor. 1" = 50'
 Scale: Vert. 1" = 5'

PROFILE
 Hor. 1" = 50'
 Scale: Vert. 1" = 5'

Note: Build Manholes No. 11, 18 & 22 1'-6" above existing ground. See Howard County Std. Detail No. G-5.41.

*PVC SDR 35 encased in gravel, Class 3300 A.C.P., D.I.P. Class 52 manhole wall to manhole wall or low cradle V.C.P.X. or C.S.P.X. between limits shown.

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Director of Public Works
 DATE: 9/24/87

Chief, Bureau of Engineering
 DATE: 9-24-87

Chief, Bureau of Utilities
 DATE: 9-23-87

Chief, Land Development Division
 DATE: 9-24-87

THE RIEMER GROUP, INC.
 3105 NORTH RIDGE ROAD
 ELLICOTT CITY, MARYLAND 21043

ARTHUR E. MUEGGE #19707

DES: L.J.D.	
DRN: J.A.B.	
CHK: L.J.D.	
DATE: 8-5-87	
J.C.R.	REVISED INVERTS AT MANHOLES NO. 2 & 11
BY: NO.	REVISION
DATE: 11-6-87	

PROFILES OF SEWER MAINS

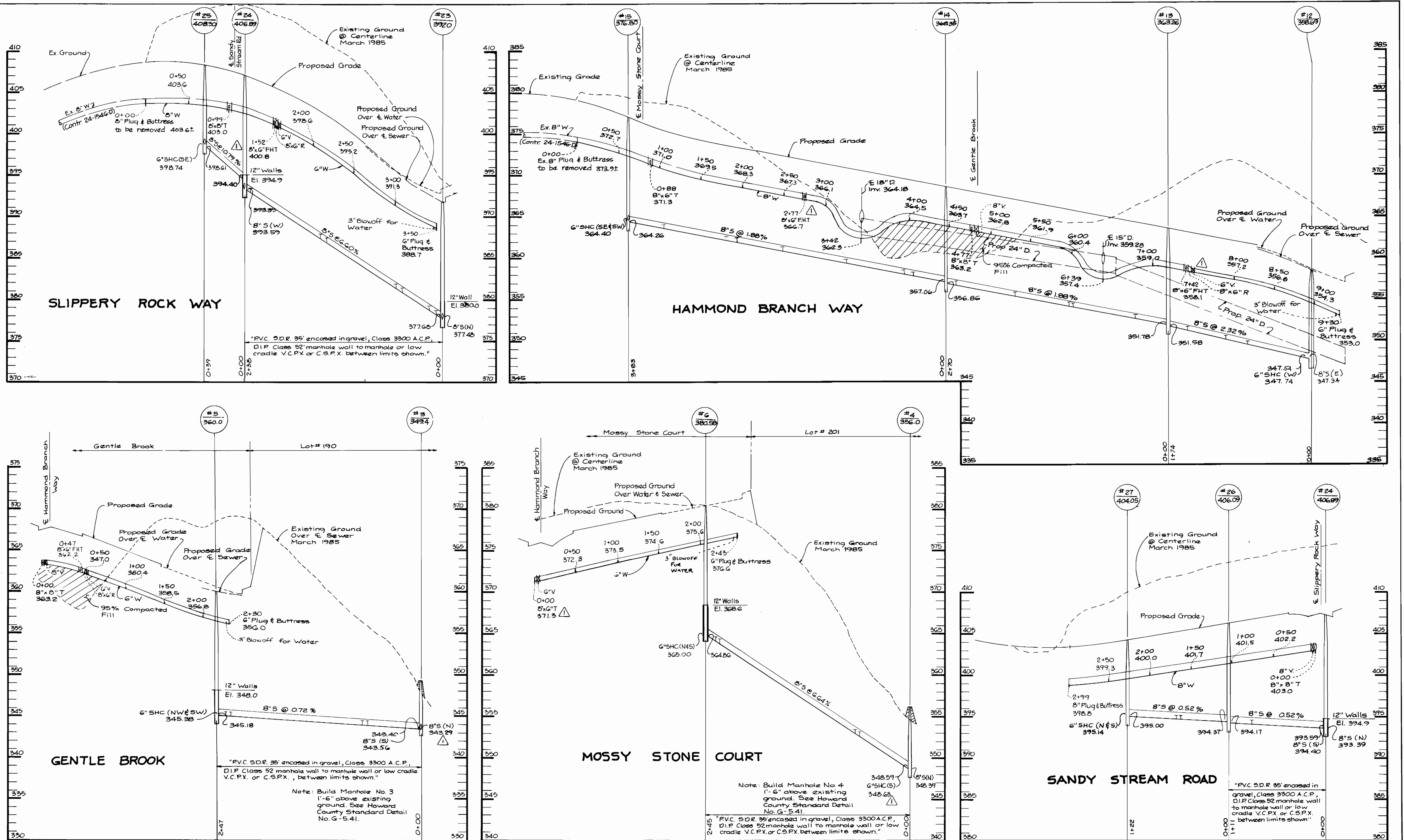
600' SCALE MAP NO. _____ BLOCK NO. _____

HAMMOND HILLS
 SECTION 2, AREA 2
 ELECTION DISTRICT NO. 6
 CONTRACT NO. 24-1619-D

SCALE AS SHOWN

SHEET 4 OF 7

SEPTEMBER 9, 1987



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

[Signature] 9/24/87
 DIRECTOR OF PUBLIC WORKS DATE

[Signature] 9-27-87
 CHIEF, BUREAU OF UTILITIES DATE

[Signature] 9/24/87
 CHIEF, BUREAU OF ENGINEERING DATE

[Signature] 9/24/87
 CHIEF, LAND DEVELOPMENT DIVISION DATE

THE RIEMER GROUP, INC.
 3105 NORTH RIDGE ROAD
 ELLICOTT CITY, MARYLAND 21043

[Signature]
 ARTHUR E. MUEGGEL #8707

DES: L.J.D.				
DRN: J.A.B.				
CHK: L.J.D.				
J.C.R.	REMOVED FH LOCATIONS IN HAMMOND BRANCH WAY, CHANGED INVERTS TO 1'6" AND CHANGED SLOPE BETWEEN MH# 24125	11-6-87		
DATE: 8-5-87	BY: NO.	REVISION	DATE	

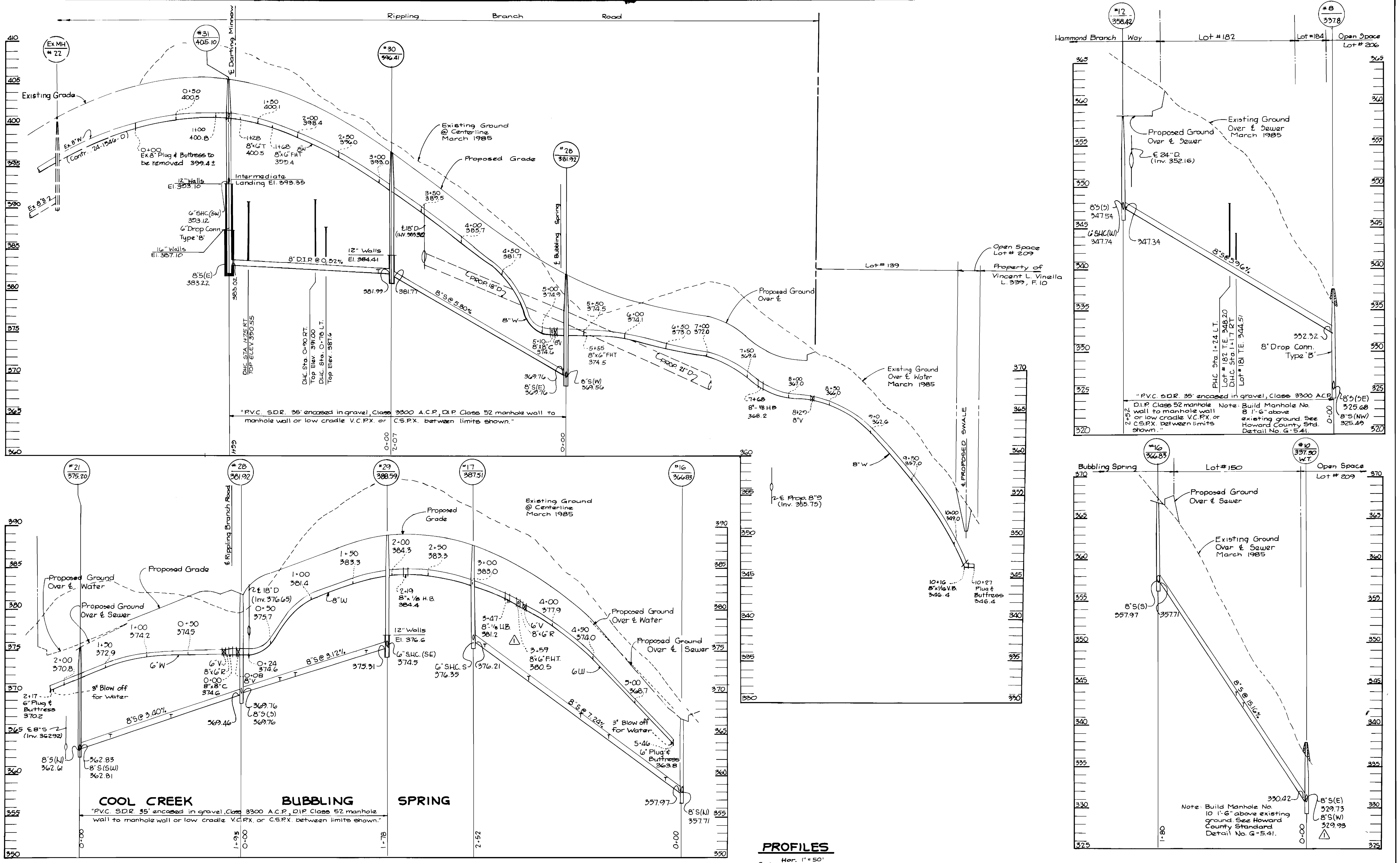
PROFILES OF WATER AND SEWER MAINS

600' SCALE MAP NO. _____ BLOCK NO. _____

HAMMOND HILLS
 SECTION 2, AREA 2
 ELECTION DISTRICT NO. 6
 CONTRACT NO. 24-1619-D

SCALE AS SHOWN

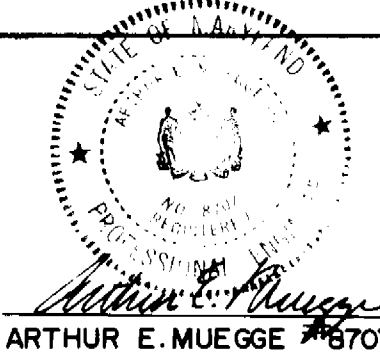
SHEET 5 OF 7



PROFILES
 Hor. 1" = 50'
 Scale: Vert. 1" = 5'

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

THE RIEMER GROUP, INC.
 3105 NORTH RIDGE ROAD
 ELLICOTT CITY, MARYLAND 21043



DES: L. J. D.			
DRN: J. A. B.			
CHK: L. J. D.			
J.C.R.	REMOVED FH LOCATIONS IN BUBBLING SPRING AND CHANGED INVERT @ LH #10	11-6-87	
DATE: 8-5-87	BY NO.	REVISION	DATE

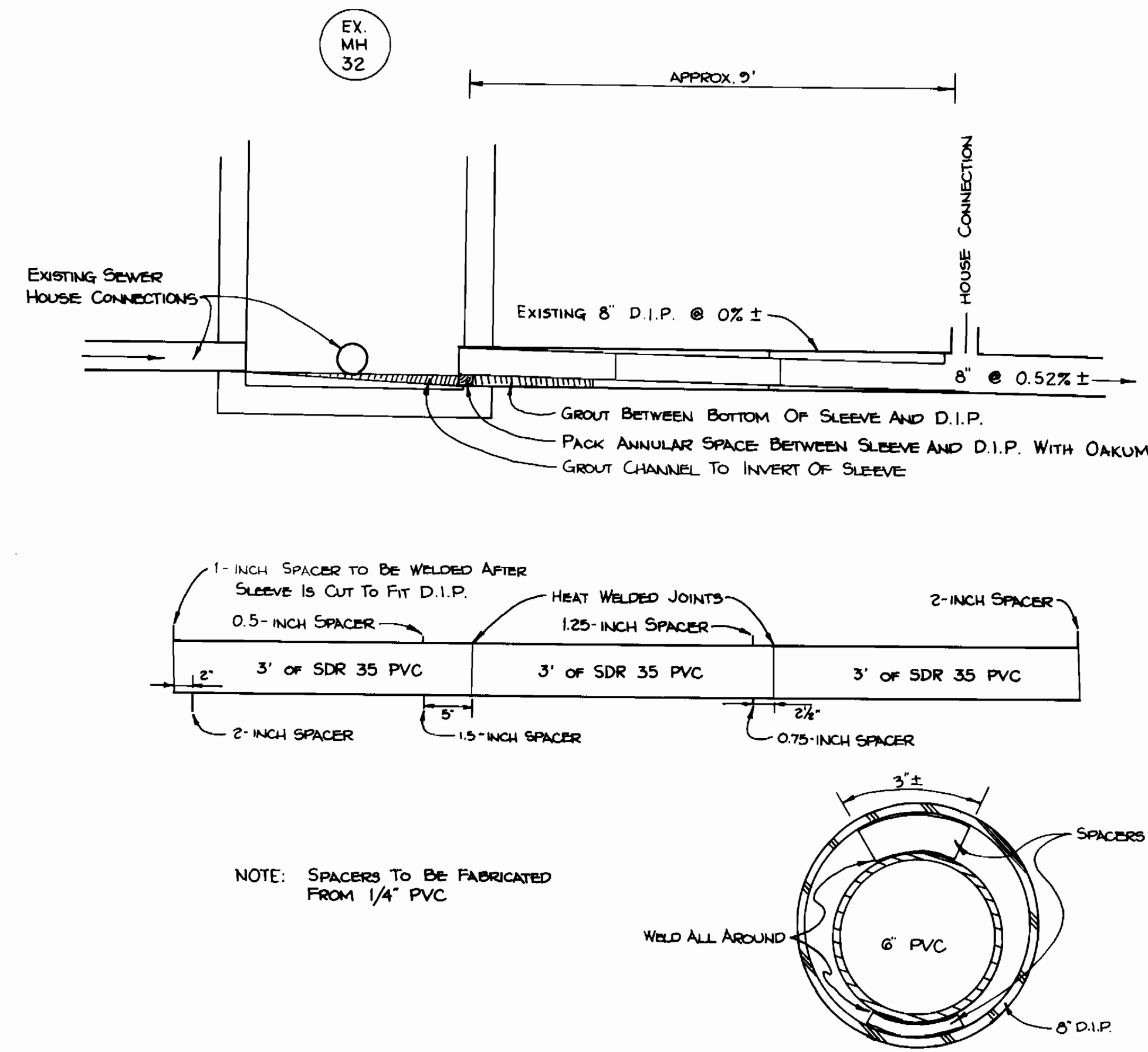
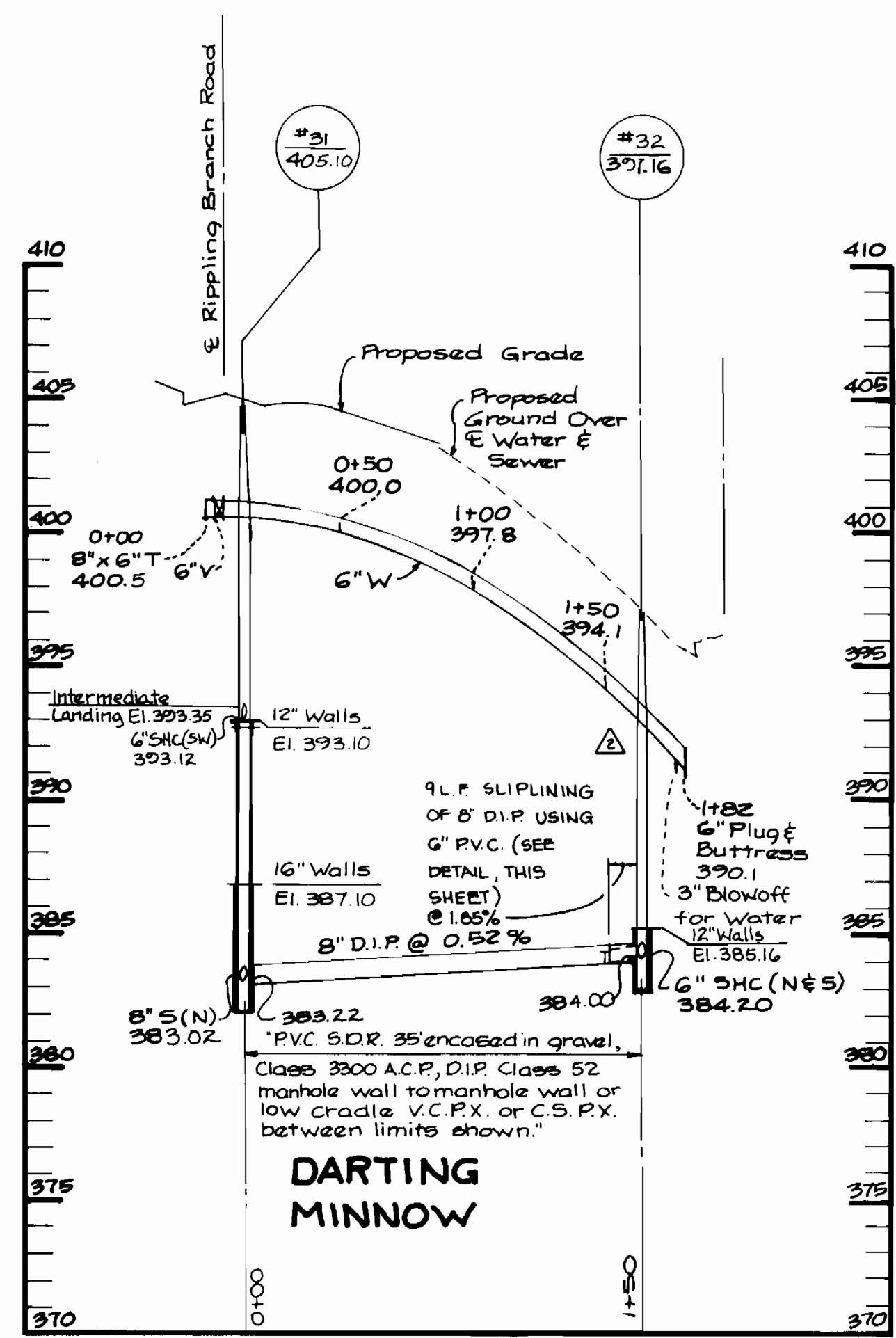
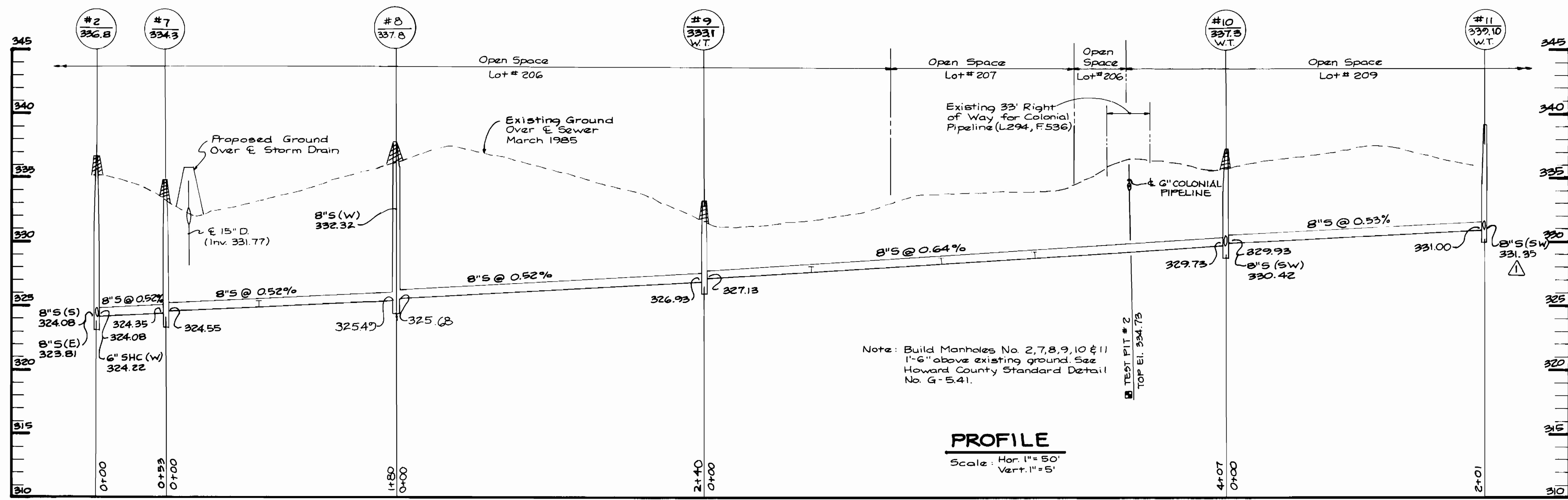
PROFILES OF WATER AND SEWER MAINS

HAMMOND HILLS
 SECTION 2, AREA 2
 ELECTION DISTRICT NO. 6
 CONTRACT NO. 24-1619-D

SCALE AS SHOWN
 SHEET 6 OF 7

SEPTEMBER 9, 1987

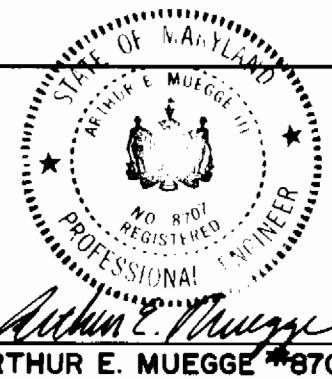
BRUNING 44-132 691 50



SLIPLINING DETAILS
NO SCALE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

THE RIEMER GROUP, INC.
3105 NORTH RIDGE ROAD
ELLCOTT CITY, MARYLAND 21043



DES: L.J.D.			
DRN: J.A.B.			
CHK: L.J.D.	J.A.B.	PROVIDE 9 L.F. SLIPLINING OF 8\"/>	
DATE: 8-5-87	J.C.R.	REVISED INVERT AT MH # 11	11-6-87
BY: NO.	NO.	REVISION	DATE

PROFILES OF WATER
AND SEWER MAINS

HAMMOND HILLS
SECTION 2, AREA 2
ELECTION DISTRICT NO. 6
CONTRACT NO. 24-1619-D

SCALE
AS
SHOWN

SHEET
7 OF 7

SEPTEMBER 9, 1987