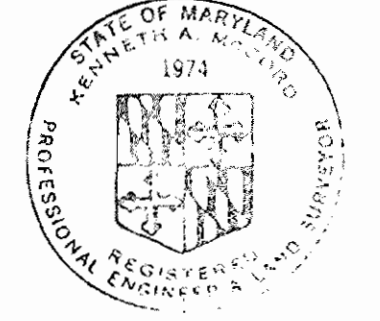


PROJECT NO. S-4-6072
OUTFALL AND COLLECTOR SEWER MAINS
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS

QUANTITIES			
ITEM	BID	AS-BUILT	MATERIAL SUPPLIER
8" Sewer	7,590.4	5,475.7	ACP/CERTAIN-TEED

AS-BUILT
Diary FB# 6195
Stakeout FB# 6195

NOTE: Drawing Nos. 5, 6, 7 & 8 are not included in this contract.



Kenneth A. M. Wood

Project No. S-4-6072
Contract No. 547-S

WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>P. J. Reppert</i> 11-24-76 DIRECTOR OF PUBLIC WORKS - DATE	CONTRACT NO. 547-S <i>W. O. G. Gilbert</i> 11-22-76 CHIEF BUREAU OF ENGINEERING - DATE	LOCATION MAP	ELECTION DISTRICT ELKRIDGE NO. 1	DRAWING NO. 1 OF 10	SCALE 1" = 600'
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W. O. G. G. 01-2

Sheet 1 of 6

APRIL 18, 1978
February 26, 1980

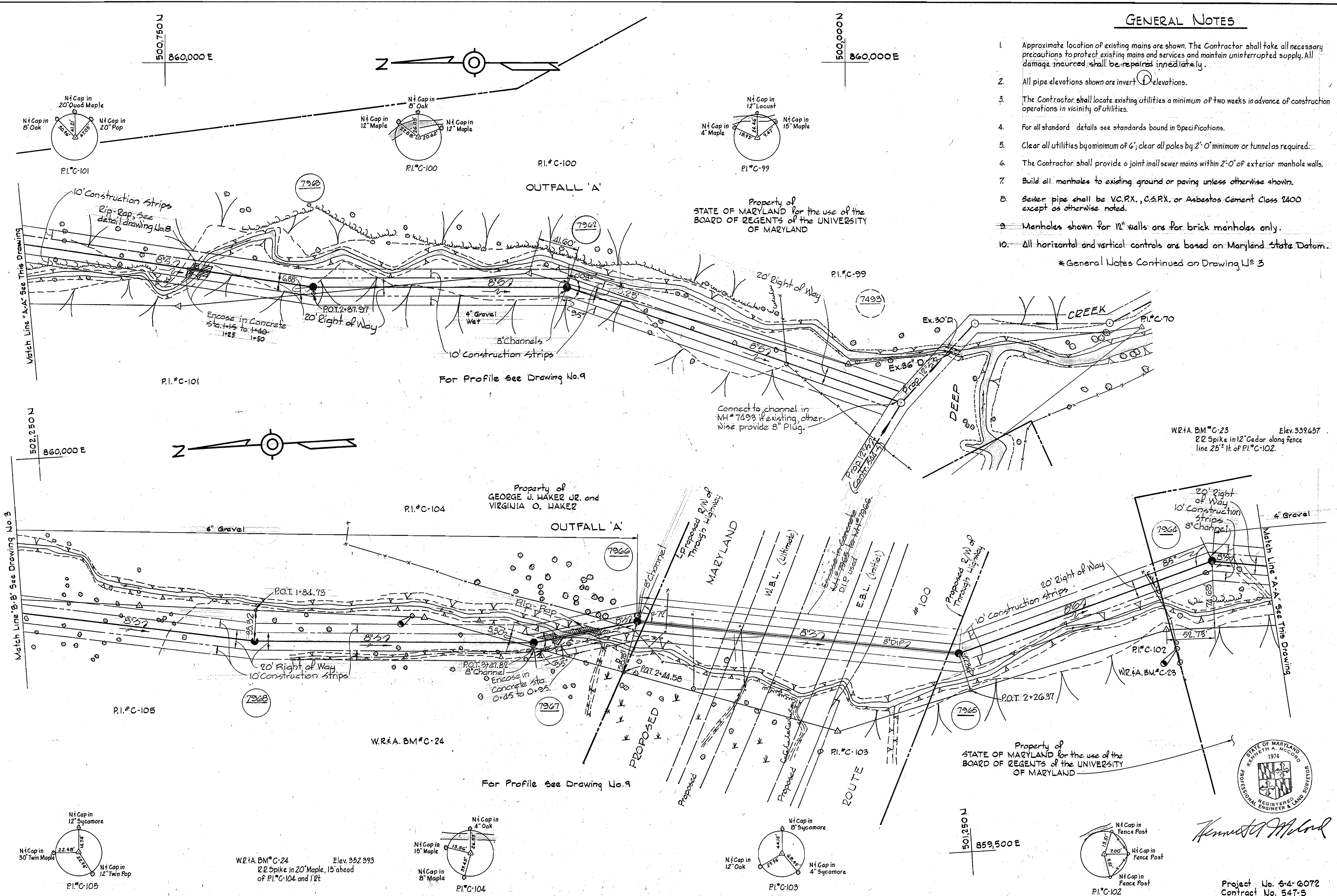
AS BUILT

WS 547-S/1

BRUNING 44 510 14778

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. All damage incurred shall be repaired immediately.
 2. All pipe elevations shown are invert elevations.
 3. The Contractor shall locate existing utilities a minimum of two weeks in advance of construction operations in vicinity of utilities.
 4. For all standard details see standards bound in Specifications.
 5. Clear all utilities by a minimum of 6'; clear all poles by 2'-0" minimum or tunnels as required.
 6. The Contractor shall provide a joint in all sewer mains within 2'-0" of exterior manhole walls.
 7. Build all manholes to existing ground or paving unless otherwise shown.
 8. Sewer pipe shall be V.C.P.X., C.A.P.X. or Asbestos Cement Class 2400 except as otherwise noted.
 9. Manholes shown for 12" walls are for brick manholes only.
 10. All horizontal and vertical controls are based on Maryland State Datum.
- *General Notes Continued on Drawing U-3

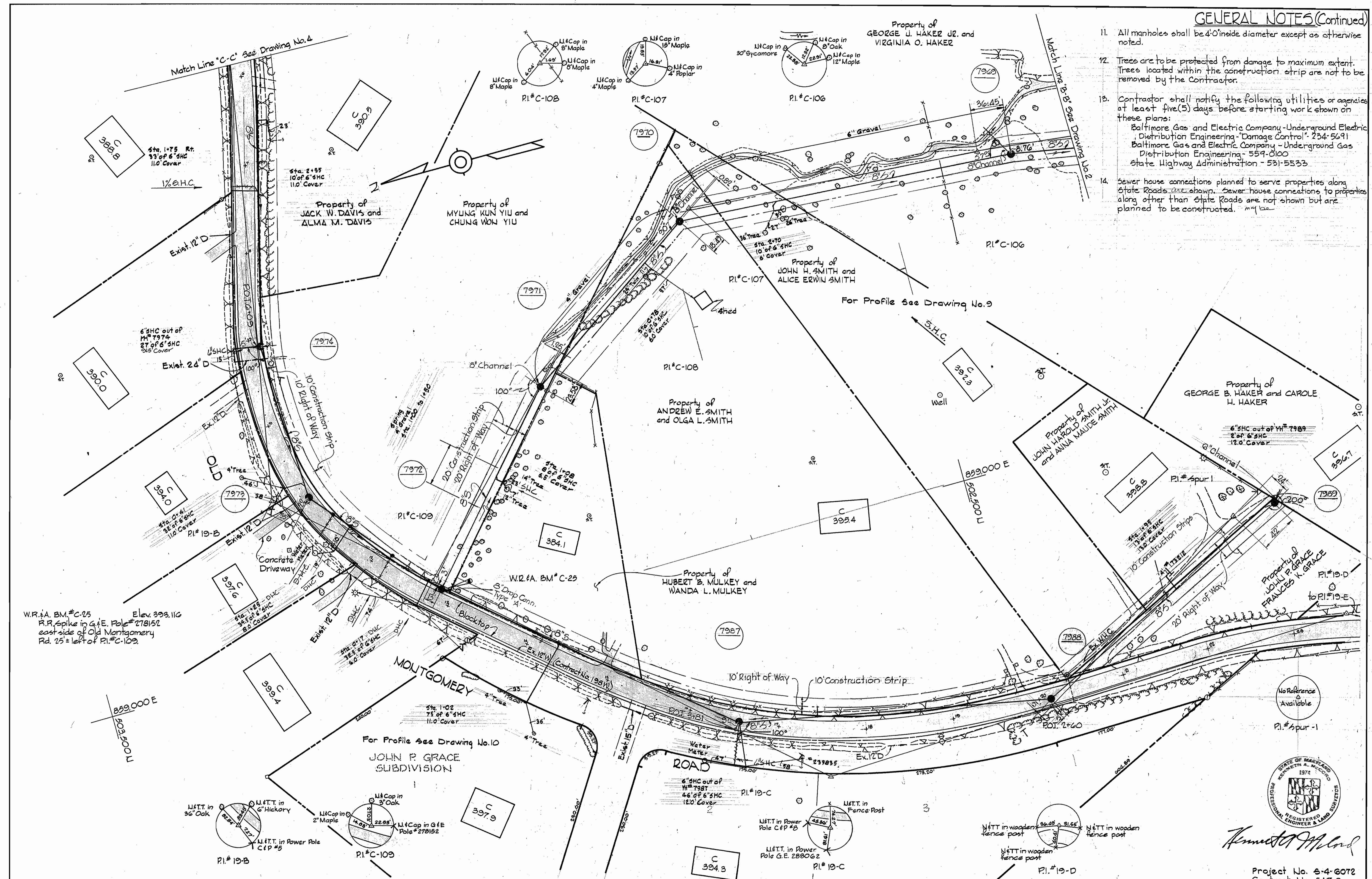


<p>WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND</p>	<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>P.R. Rogers</i> 11-26-76 DIRECTOR OF PUBLIC WORKS — DATE</p>	<p>CONTRACT NO. 547-S</p>	<p>PLAN OF SEWER MAINS</p>	<p>ELECTION DISTRICT ELKRIDGE NO. 1</p>	<p>DRAWING NO. 2 OF 10 SCALE 1" = 50'</p>
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WS 547-S/2

GENERAL NOTES (Continued)

11. All manholes shall be 4'-0" inside diameter except as otherwise noted.
12. Trees are to be protected from damage to maximum extent. Trees located within the construction strip are not to be removed by the Contractor.
13. Contractor shall notify the following utilities or agencies at least five (5) days before starting work shown on these plans:
 Baltimore Gas and Electric Company - Underground Electric Distribution Engineering - Damage Control - 234-5691
 Baltimore Gas and Electric Company - Underground Gas Distribution Engineering - 559-0100
 State Highway Administration - 531-5533
14. Sewer house connections planned to serve properties along State Roads are shown. Sewer house connections to properties along other than State Roads are not shown but are planned to be constructed.



WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 1304 ST. PAUL ST.
 BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 W. O. Falout 11-26-76
 CHIEF BUREAU OF ENGINEERING - DATE

CONTRACT NO. 547-S

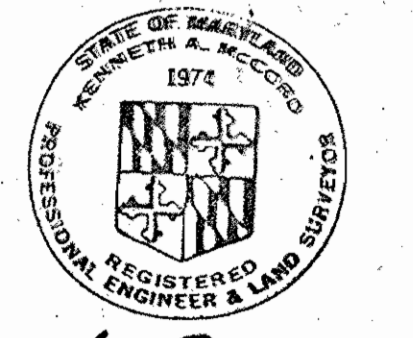
PLAN OF
 SEWER MAINS

ELECTION DISTRICT
 ELKRIDGE NO. 1

DRAWING NO. 3 OF 10
 SCALE 1"=50'
 503-B
 502-B

W. O. 6601-2

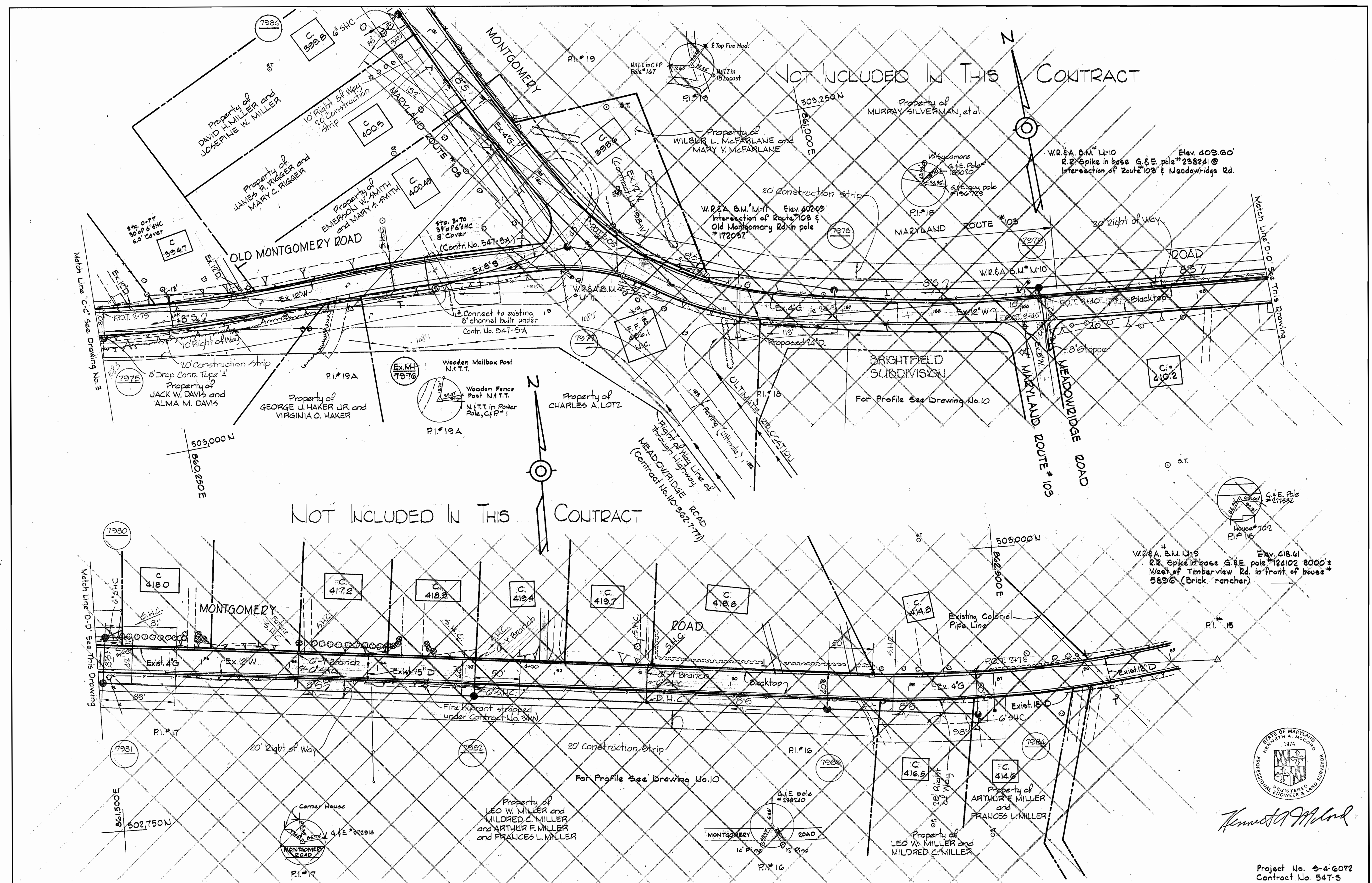
Project No. 6-4-6072
 Contract No. 547-S
 FEB 29 1978
 APRIL 18 1978
 Sheet 3 of 6
 AS BUILT
 February 26, 1980



Kenneth A. McCord

WS 547-5/3

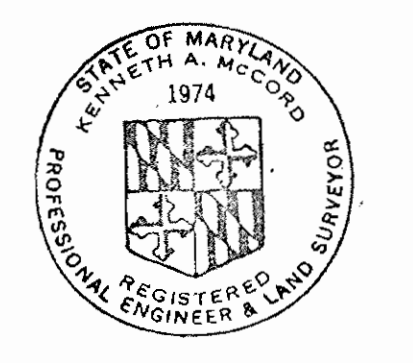
WS 547-5/4



WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>W.O. Selbert</i> 11-22-76 CHIEF-BUREAU OF ENGINEERING - DATE	CONTRACT NO. 547-S	PLAN OF SEWER MAINS	ELECTION DISTRICT ELKRIDGE NO. 1	DRAWING NO. 4 OF 10 SCALE 1"=50' Project No. 5-4-6072 Contract No. 547-S
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W.O. 6601-2

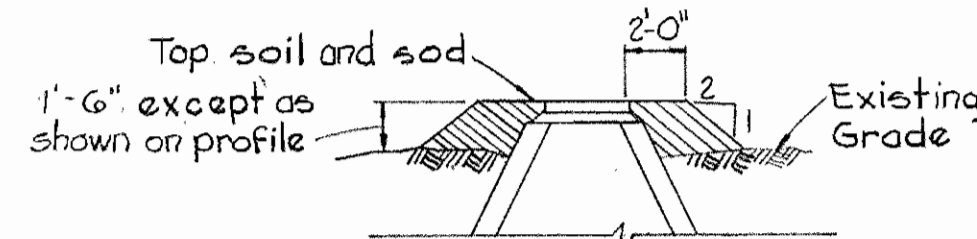
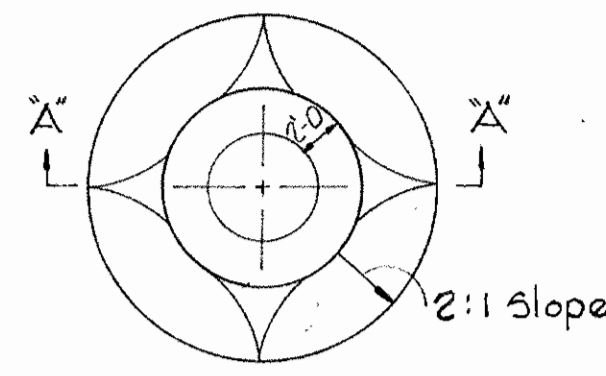
F.B. #3914, 2628 APR 18, 1978
 Sheet 4 of 6 February 26, 1980
AS BUILT



Herbert A. McLeod

WS 547-5/9

Notes:
 Erosion Control Fabric shall be Poly Filter-X as manufactured by Cathage Mills Inc., Erosion Control Division, 124 W. 66th Street Cincinnati, Ohio; Laurel Erosion Control Cloth as manufactured by Laurel Plastics Inc., Madison, Maine, or approved equal.



SECTION 'AA'

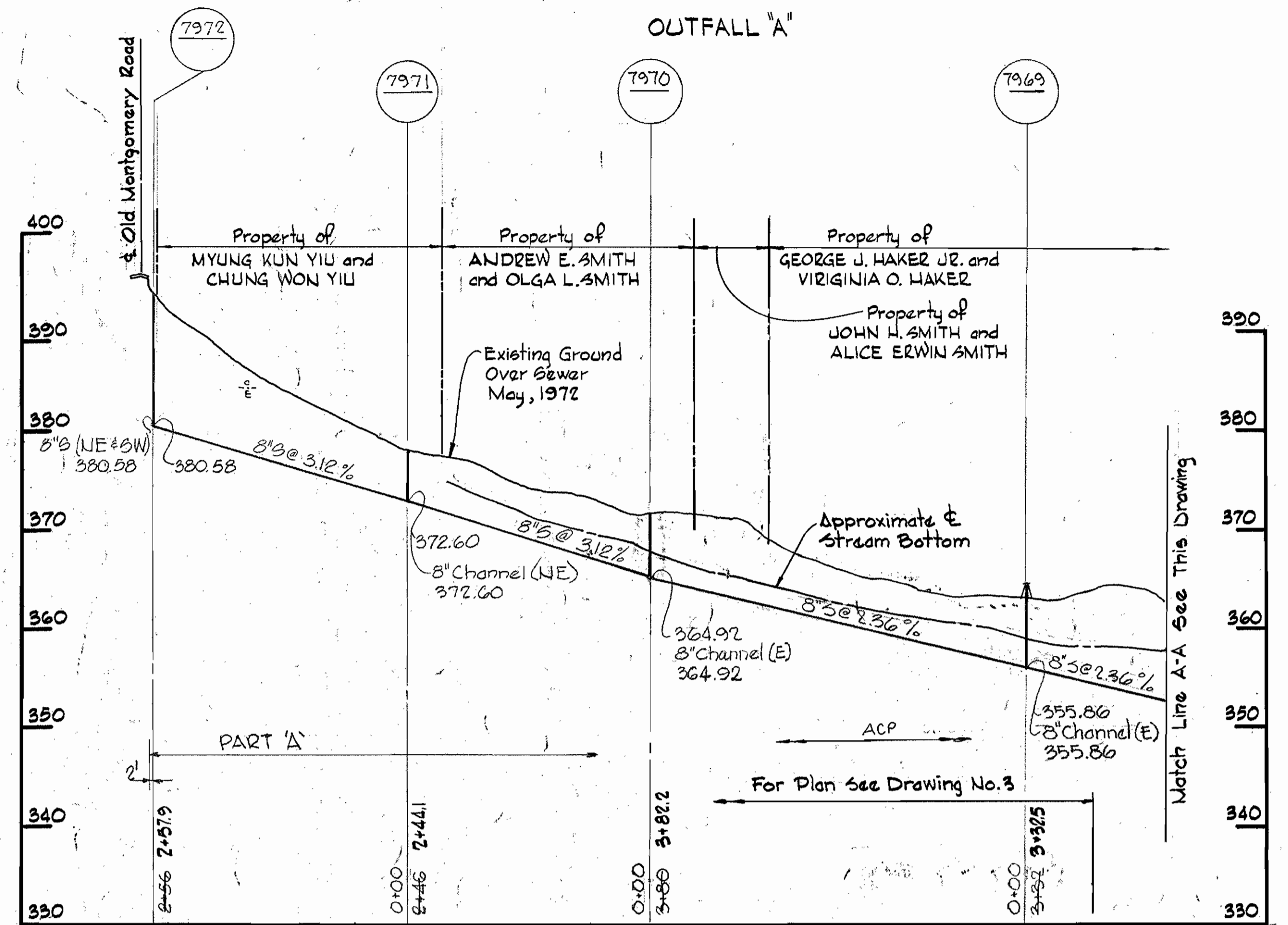
FILL AT MANHOLES
Scale: 1/8" = 1'-0"

Rip-Rap shall consist of dense, rocks of random shapes and sizes, resistant to the action of air and water, and suitable for bank protection. All rocks shall weigh a minimum of 150 pounds.

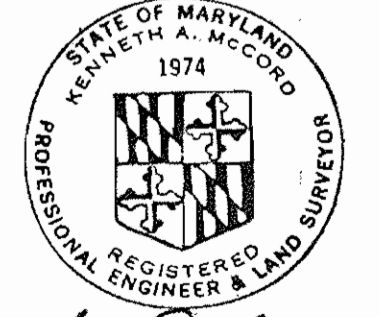
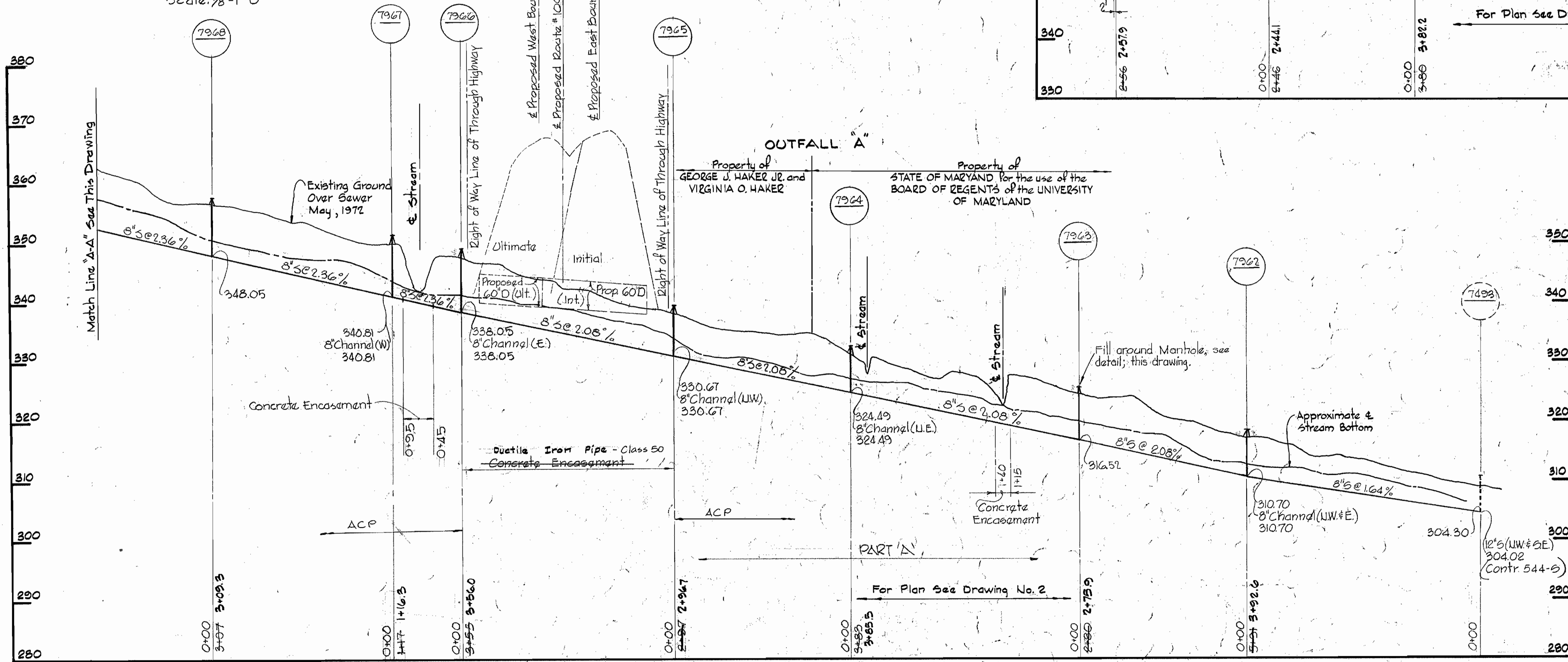
Maintain 1' minimum clearance between Rip-Rap and top of pipe.

RIP-RAP DETAIL
Scale: 3/8" = 1'-0"

Note: Rip-Rap shall be placed 6" minimum each side of sewer. Payment shall be included in unit price bid for furnishing and placing Rip-Rap.

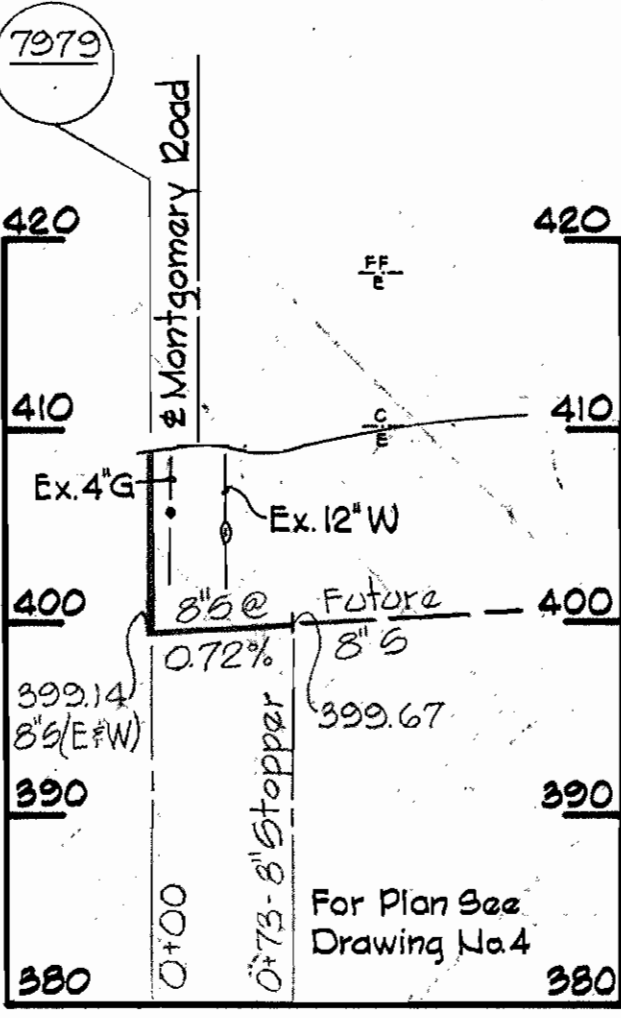
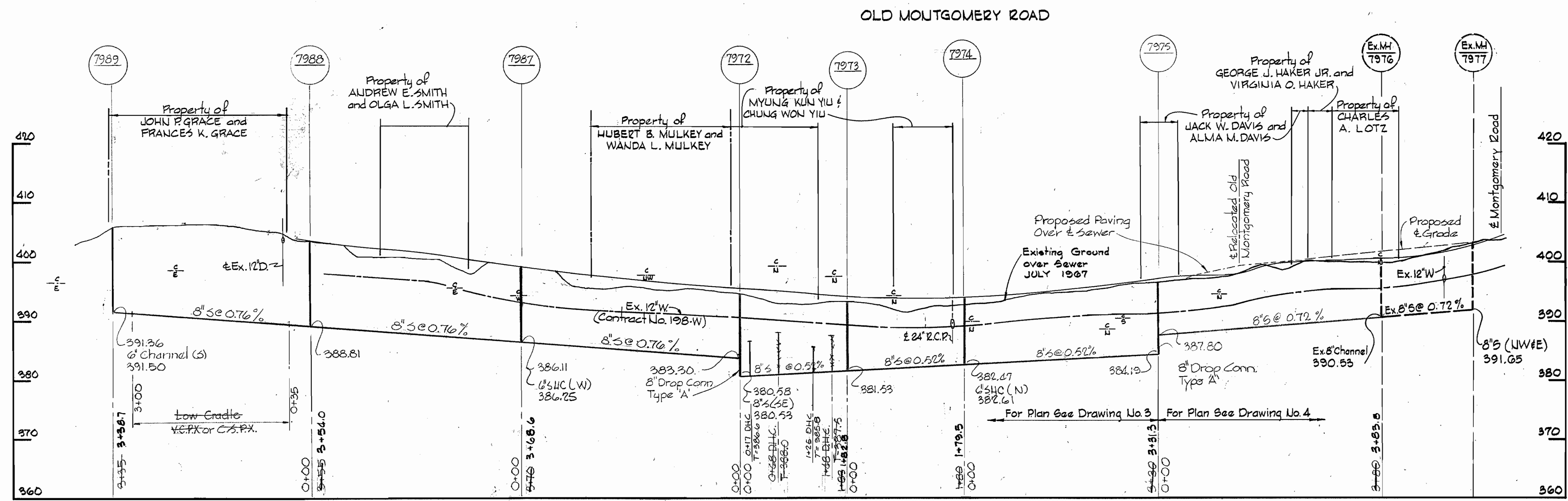
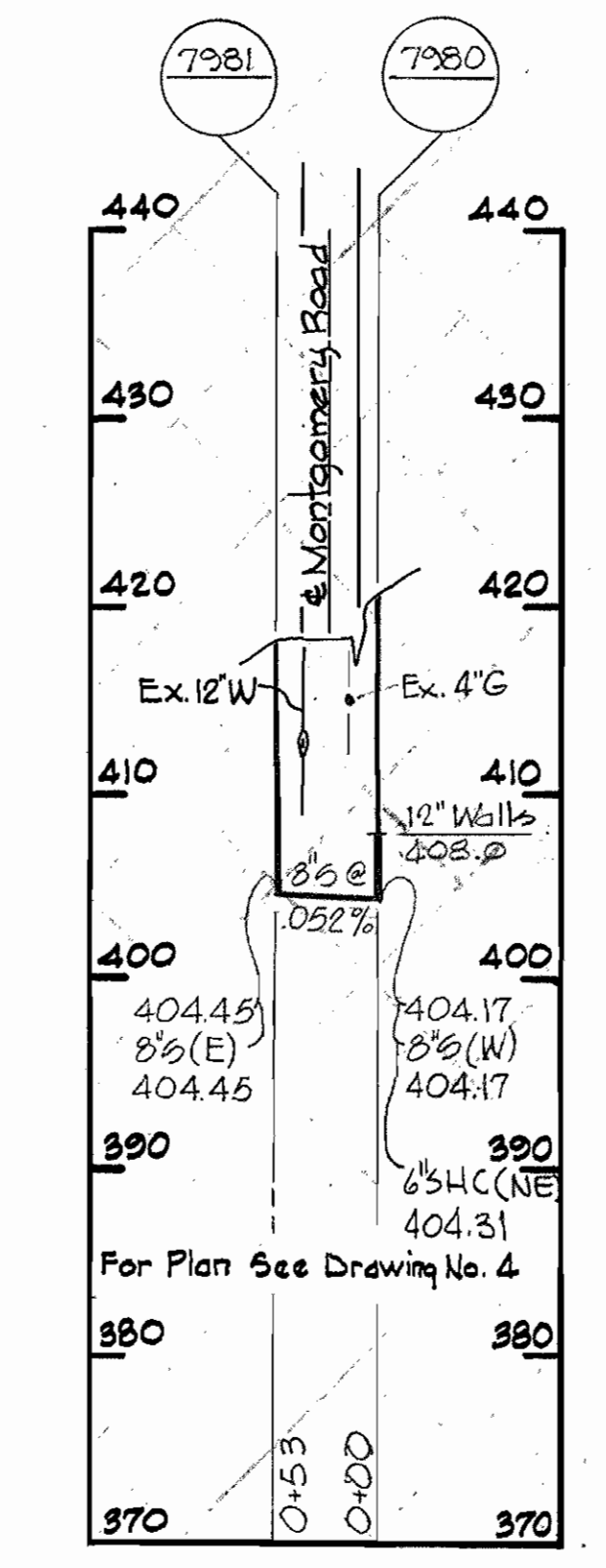
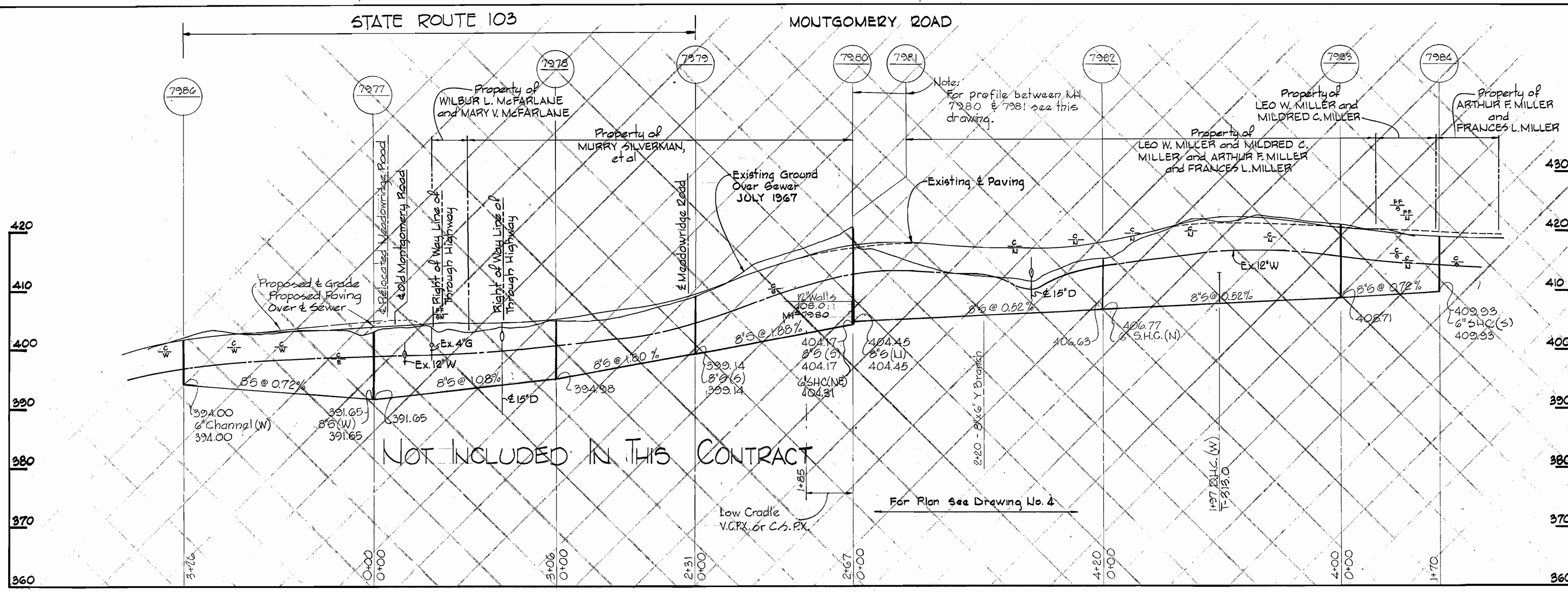


Match Line A-A See This Drawing



Kenneth A. McCord
 Project No. 54-6072
 Contr. 547-5

WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>P. J. Pagan 11-22-76</i> DIRECTOR OF PUBLIC WORKS - DATE	<i>W. O. Gilbert 11-22-76</i> CHIEF BUREAU OF ENGINEERING - DATE	CONTRACT NO. 547-S	PROFILE AND DETAILS OF SEWER MAINS	ELECTION DISTRICT ELKCRIDGE NO. 1	DRAWING NO. 9 OF 10	SCALE AS SHOWN
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Kenneth A. Milrod

Project No. 5-4-6072 /
Contr. 547-S

WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>Pg. Reppard</i> 11-26-76 DIRECTOR OF PUBLIC WORKS - DATE	CONTRACT NO. 547-S <i>W.O. Libbert</i> 11-22-76 CHIEF BUREAU OF ENGINEERING - DATE	PROFILE OF SEWER MAINS	ELECTION DISTRICT ELKRIDGE NO. 1	DRAWING NO. 10 OF 10 SCALE H=1"=100' V=1"=10'
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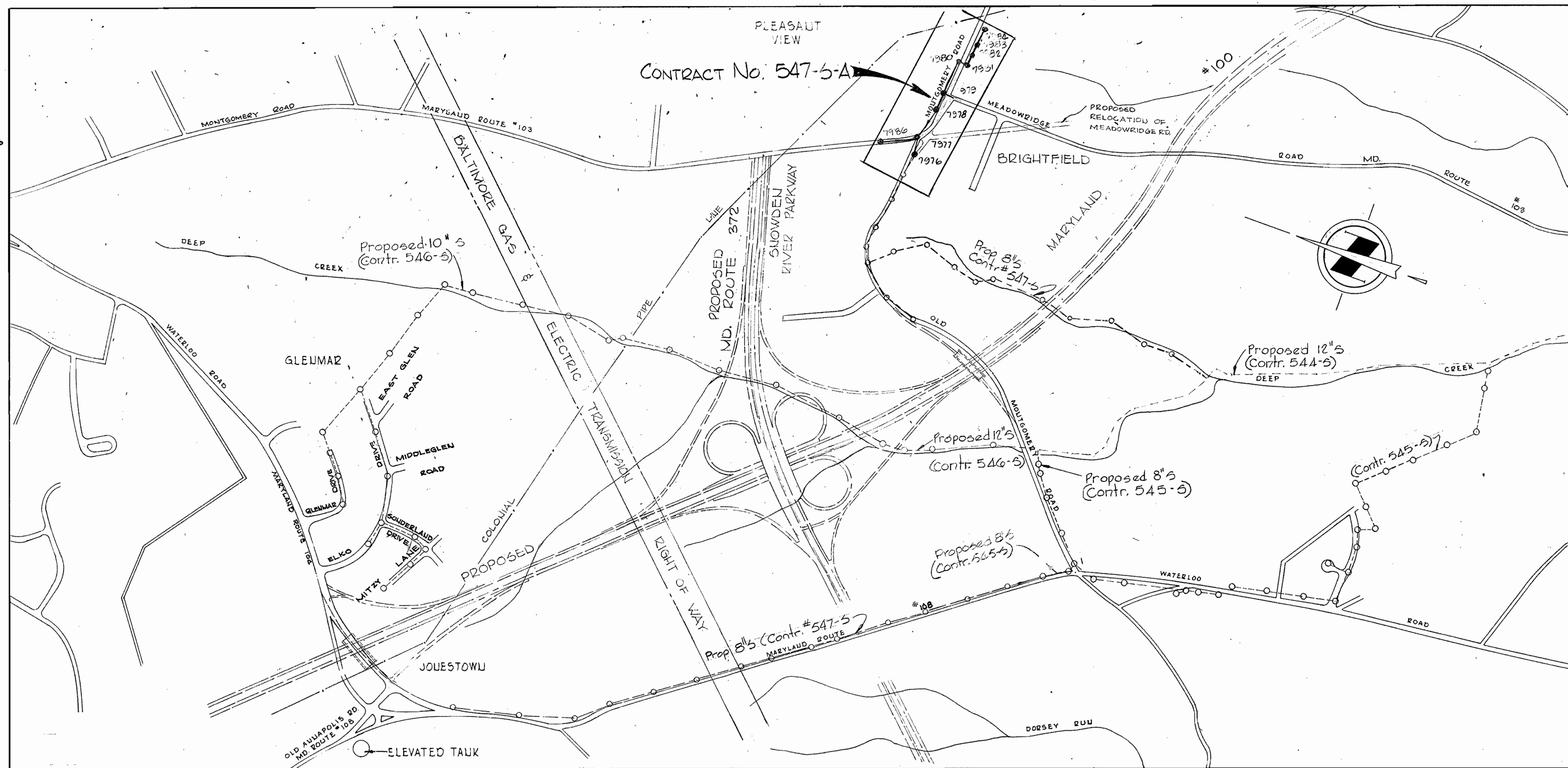
W. O. 6601-2

Sheet 606 APRIL 18 1978
February 26, 1980
AS BUILT

WS 547-S/10

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. All damage incurred shall be repaired immediately.
2. All pipe elevations shown are invert \odot elevations.
3. The Contractor shall locate existing utilities a minimum of two weeks in advance of construction operations in vicinity of utilities.
4. The Contractor shall notify the following utilities or agencies at least five days before starting work shown on these Drawings:
 Baltimore Gas and Electric Company
 Undergound Gas Distribution Engineering - 559-0100.
 Undergound Electric Distribution Engineering -
 Damage Control - 284-5691.
 Chesapeake and Potomac Telephone Company - 725-9976.
 Miss Utility - 1-800-441-8355
 State Highway Administration - 531-5533.
5. For all standard details see standards bound in specifications.
6. All Horizontal and Vertical controls are based on Maryland State Datum.
7. Clear all utilities by a minimum of 6'; clear all poles by 2'-0" minimum or tunnel as required.
8. Trees are to be protected from damage to maximum extent. Trees located within the construction strip are not to be removed by the Contractor.
9. The Contractor shall provide a joint in all sewer mains within 2'-0" of exterior manhole walls.
10. Sewer pipe shall be V.C.P.X., C.B.P.X. or A.C.P. Class 2400 except where noted.
11. All manholes shall be 4'-0" inside diameter except as other wise noted.
12. Manholes shown with 12" Walls are for brick manholes only.
13. Build all manholes to existing ground or paving unless other wise shown.



PROJECT NO. S-4-6072

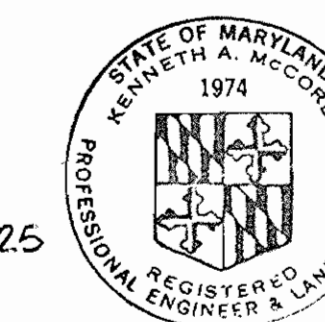
DEEP CREEK COLLECTORS

HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

QUANTITIES		
ITEM	QUANTITY	
	Design	As-Built
8" sewer	2400 LF	2362 LF

"AS BUILT"
 Stakeout and Diary FB-6075
 8" S - Johns Manville
 ACP Cl. 2400



Kenneth A. McLeod

Project No S-4-6072
 Contract No 547-S-A

WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 1304 ST. PAUL ST.
 BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
P. J. Reardon 4-7-77
 DIRECTOR OF PUBLIC WORKS - DATE
W. O. Libbert 4-7-77
 CHIEF, BUREAU OF ENGINEERING - DATE

CONTRACT NO. 547-S-A

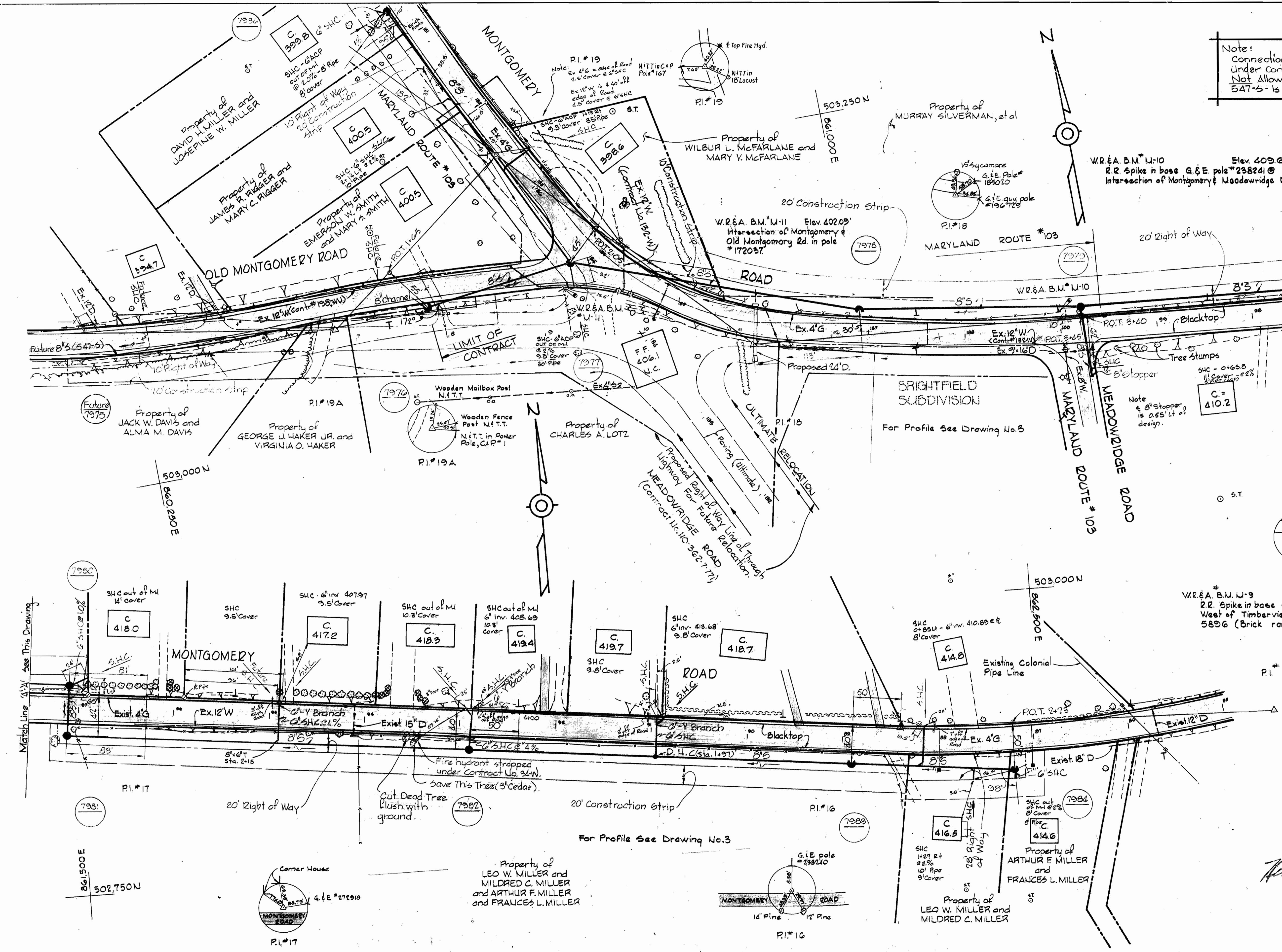
LOCATION MAP

ELECTION DISTRICT
 ELKRIDGE NO. 1

DRAWING NO. 1 OF 3
 SCALE 1" = 600'

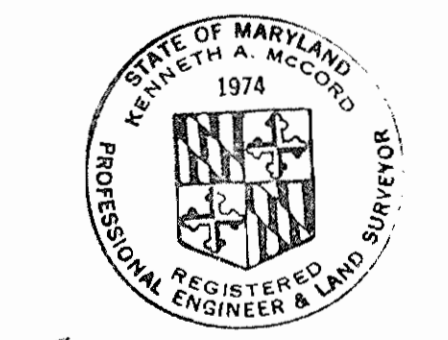
WS 547-S-A/1

Note:
Connections To Sewers Constructed
Under Contract No. 547-S-A, Are
Not Allowed Until Contract No.
547-S-1s Approved For Service.



WR&A B.M. #11-10 Elev. 409.60'
R.R. Spike in base G.E. pole #238241 @
Intersection of Montgomery & Meadowridge Rd.

WR&A B.M. #11-9 Elev. 418.61'
R.R. Spike in base G.E. pole #124102 8000±
West of Timberview Rd. in front of house #
5896 (Brick rancher)



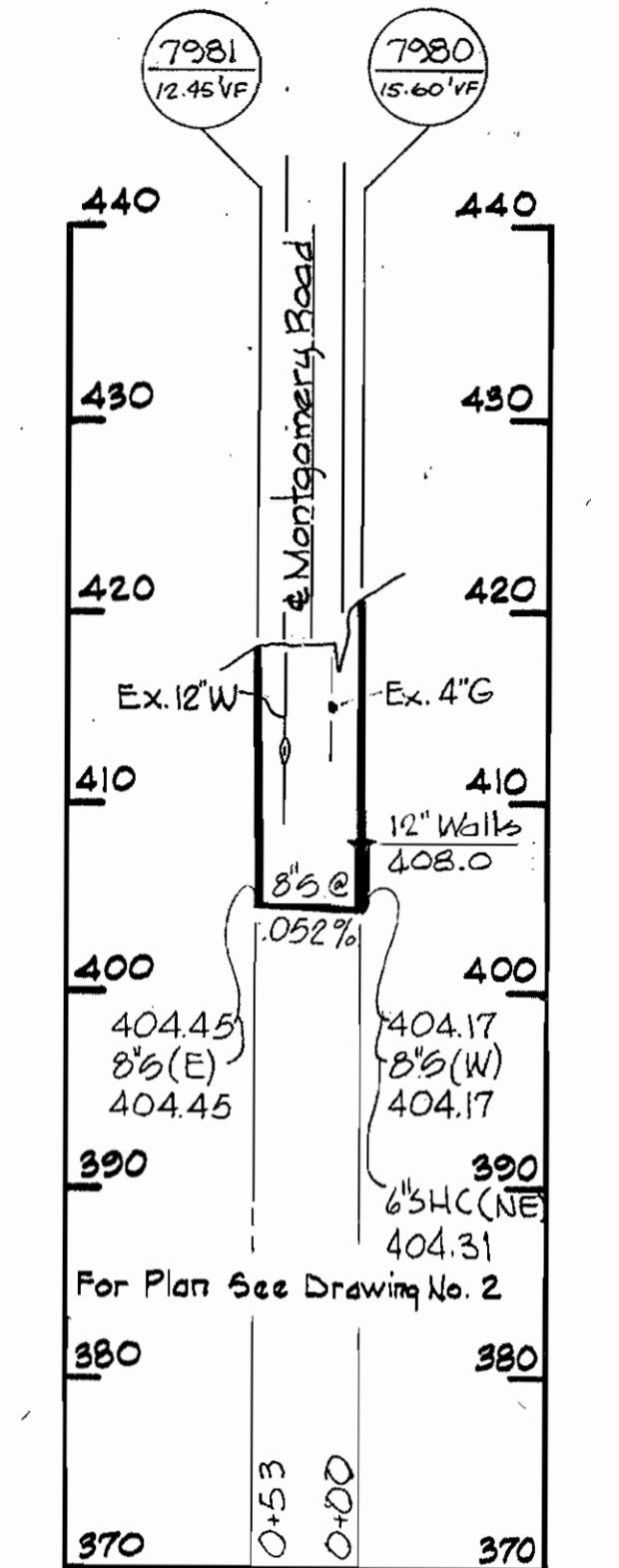
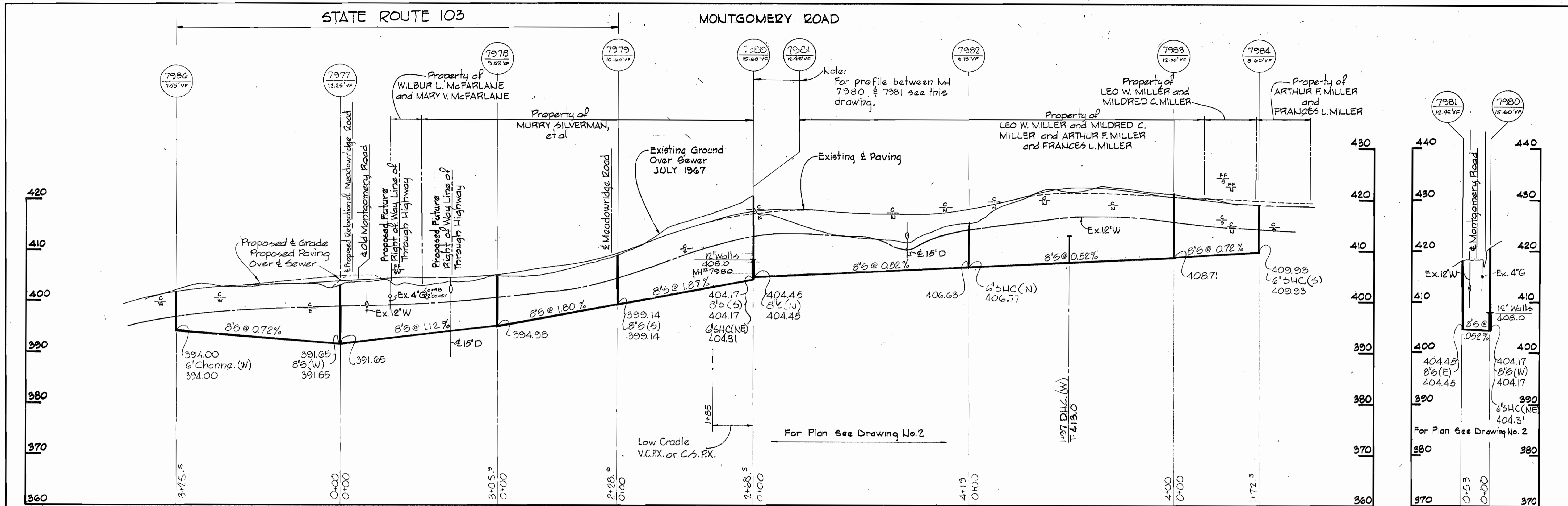
Kenneth A. McLeod

WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>P.J. Reardon</i> 4-7-77 DIRECTOR OF PUBLIC WORKS - DATE	CONTRACT NO. 547-S-A <i>W.O. Gilbert</i> 4-7-77 CHIEF-BUREAU OF ENGINEERING - DATE	PLAN OF SEWER MAINS	ELECTION DISTRICT ELKRIDGE NO. 1	DRAWING NO. 2 OF 3 SCALE 1"=50' Project No. 5-4-6072 Contract No. 547-S-A
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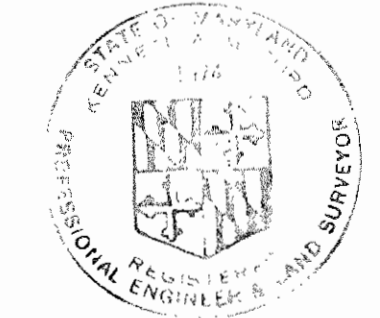
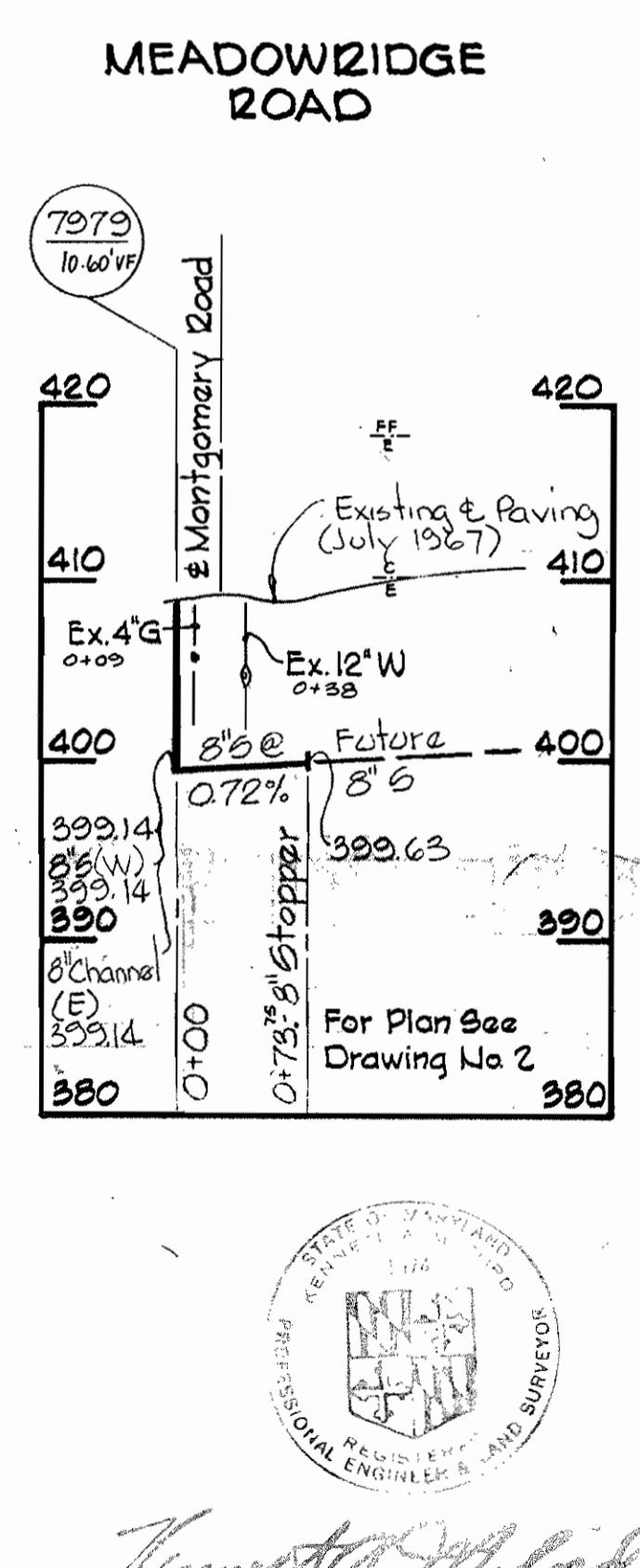
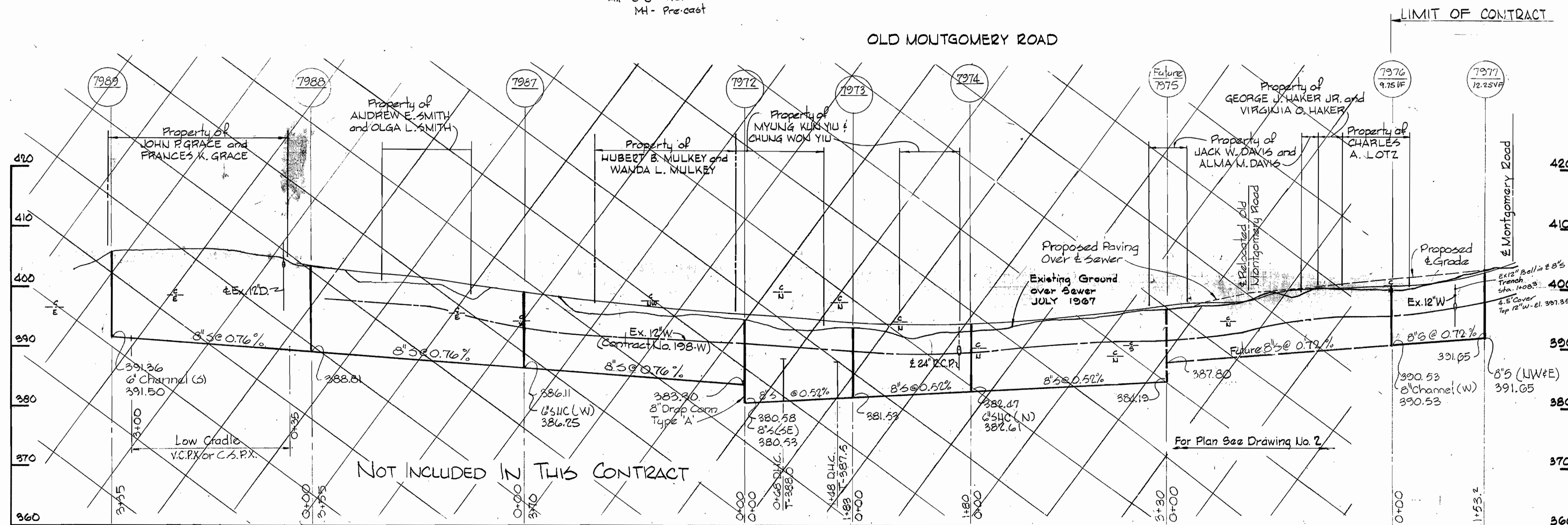
W. O. GGO1-2

F.S. #914,2628
October 13, 1977

WS 547-S-A/2



All 8" S - ACP Cl. 2400
MH - Pre-cast



Project No. 54-6072
Contr. 547-S-A

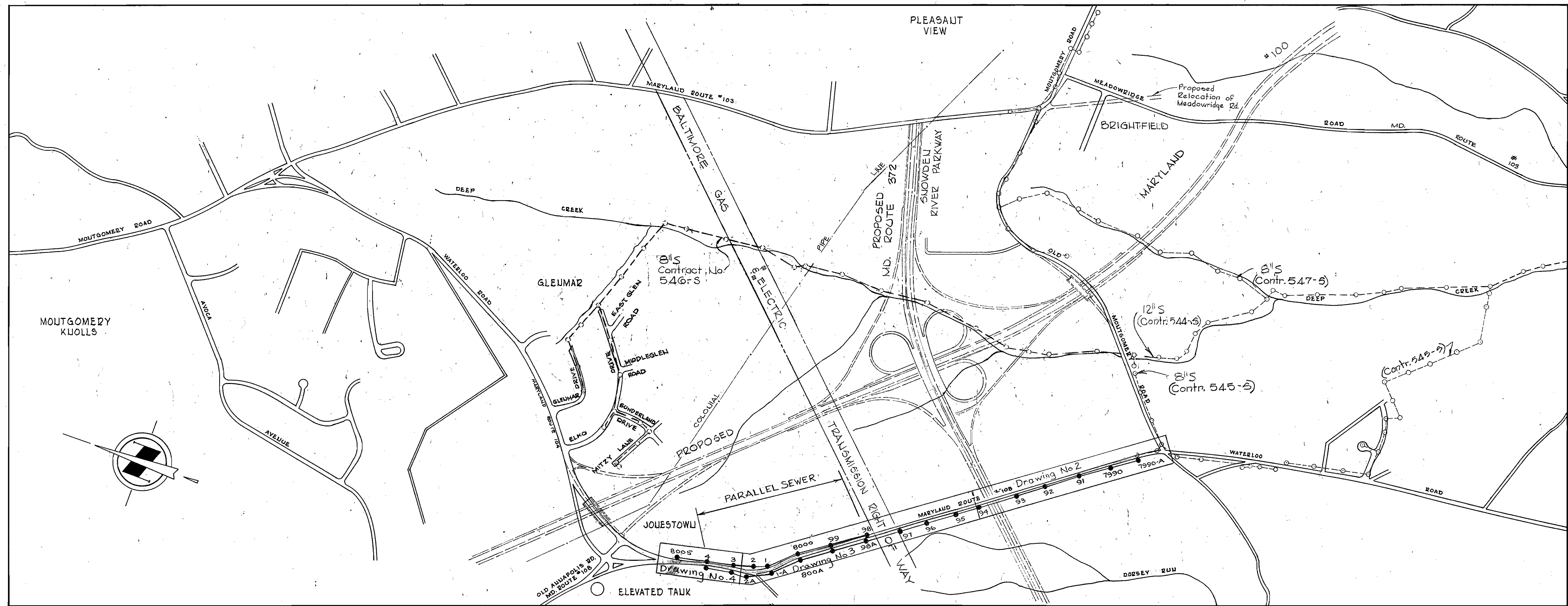
WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works - DATE Chief - Bureau of Engineering - DATE	CONTRACT NO. 547-S-A	PROFILE OF SEWER MAINS	ELECTION DISTRICT ELKRIDGE NO. 1	DRAWING NO. 3 OF 3 SCALE H=1"=100' V=1"=10'
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W. O. 6601-2

October 13, 1977

AS BUILT

WS 547-S-A/3



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.
2. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
3. THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN VICINITY OF UTILITIES.
4. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
BALTIMORE GAS AND ELECTRIC COMPANY - UNDERGROUND ELECTRIC DISTRIBUTION ENGINEERING. DAMAGE CONTROL - 234-5691
UNDERGROUND GAS DISTRIBUTION ENGINEERING 234-5621
CHESAPEAKE AND POTOMAC TELEPHONE COMPANY 393-3648.
MISS UTILITY - 1 - 559-0100
5. FOR ALL STANDARD DETAILS SEE STANDARDS BOUND IN SPECIFICATIONS.
6. ALL HORIZONTAL AND VERTICAL CONTROLS ARE BASED ON MARYLAND STATE DATUM.
7. CLEAR ALL UTILITIES BY A MINIMUM OF 6", CLEAR ALL POLES BY 2'-0" OR TUNNEL AS REQUIRED.
8. BLOCK ALL FITTINGS WITH CONCRETE, SEE STANDARDS BOUND IN SPECIFICATIONS.
9. ALL SEWER MAINS SHALL BE C.S.P.P., V.C.P.X. OR A.C.P. CLASS 2400 UNLESS OTHERWISE NOTED.
10. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER.
11. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALLS.
12. TREES ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
13. MANHOLES SHOWN WITH 12" WALLS ARE BRICK MANHOLES ONLY.

PROJECT NO. S-4-6072

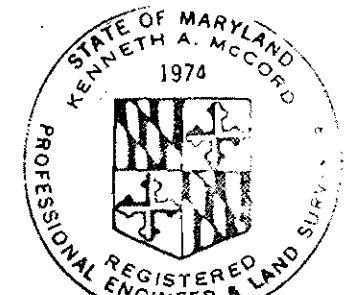
COLLECTOR SEWERS

HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

QUANTITIES		
ITEM	QUANTITY	MATERIAL/SUPPLIER
8" Sewer	7740 LF	7,815 LF Johns Manville
Manhole	250 V.F.	233 V.F. Concrete Products

Diary 142 in FB# 6328 and 6326
Stakeout in FB# 6326



Kenneth A. McLeod

Project No. S-4-6072
Contract No. 547-S-B

WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>P.J. Pagan 11-26-76</i> DIRECTOR OF PUBLIC WORKS - DATE	CONTRACT NO. <u>547-S-B</u> PROJECT NO. <u>S-4-6072</u>	LOCATION MAP	ELECTION DISTRICT ELKRIDGE NO. 1	DRAWING NO. <u>1</u> OF <u>5</u>	SCALE <u>1" = 600'</u>
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W.O. 6601-2

AS-BUILT

JUNE 15, 1979

July 8, 1980

WS 547-S-B/1

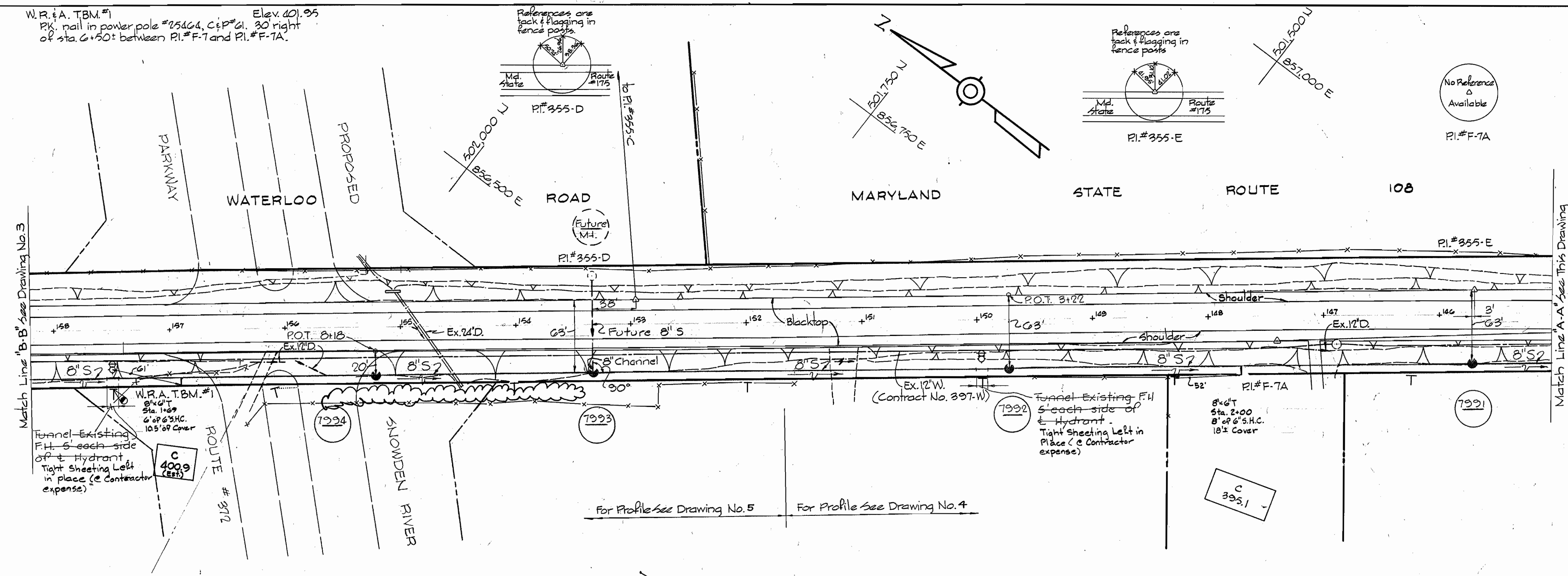
DRAWING 4-510 1-7-76

W.R. & A. T.B.M. #1
 PK. nail in power pole #25464, C.P. #1. 30' right
 of sta. 6+90.2 between PI.#F-7 and PI.#F-7A.
 Elev. 401.95

References are
 back & blurring in
 fence posts

References are
 back & blurring in
 fence posts

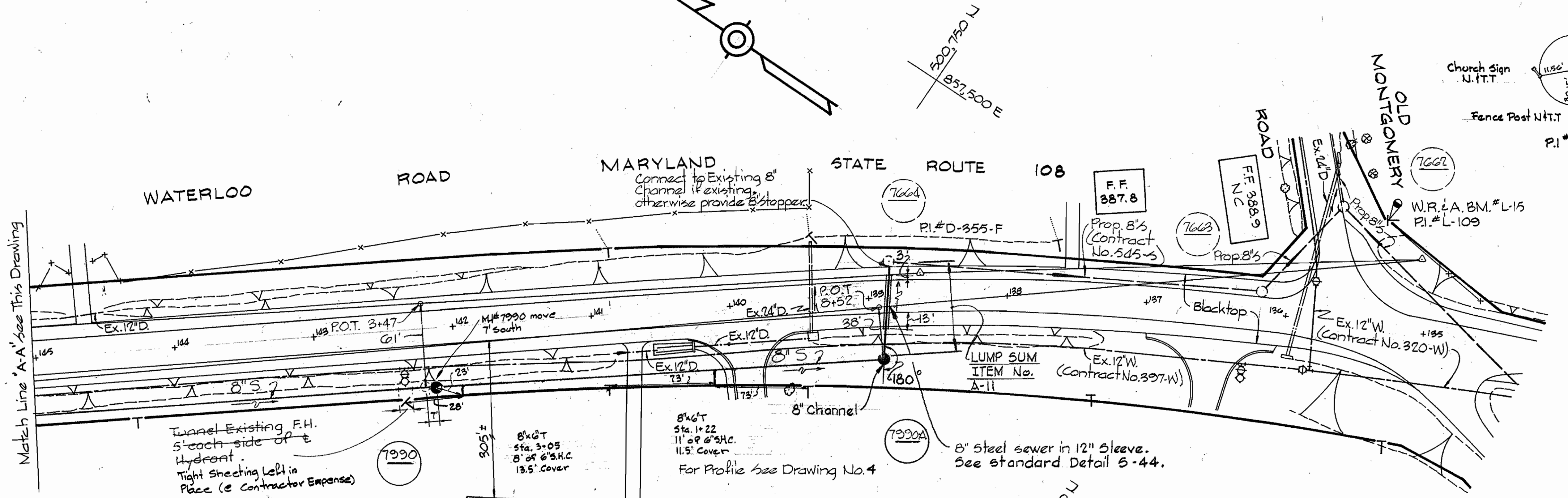
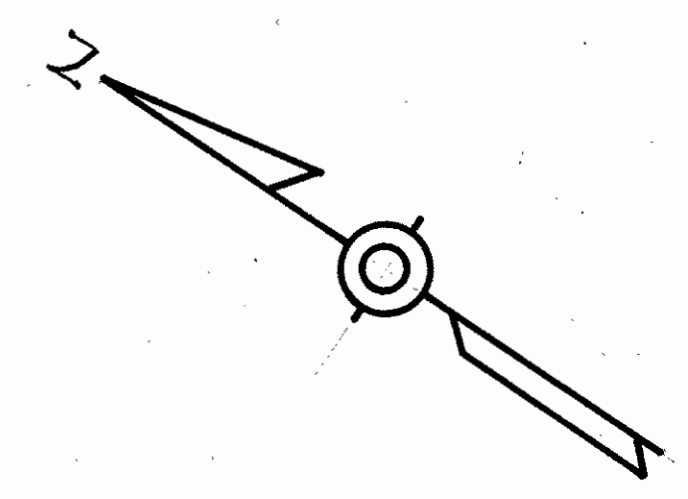
No Reference
 Available
 PI.#F-7A



For Profile See Drawing No. 5 For Profile See Drawing No. 4

W.R. & A. T.B.M. #1
 8" x 4" T
 Sta. 1+69
 6" x 6" S.H.C.
 10.5' Cover
 C 400.9 (Est.)

8" x 4" T
 Sta. 2+00
 8" x 6" S.H.C.
 18" Cover
 C 395.1

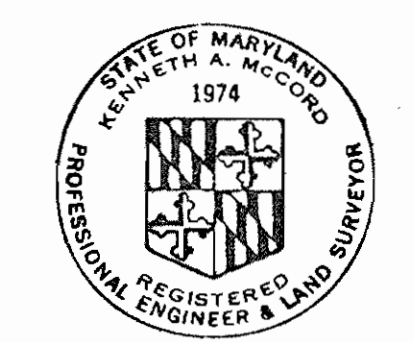


W.R. & A. T.B.M. #1
 8" x 4" T
 Sta. 3+05
 8" x 6" S.H.C.
 13.5' Cover
 C 390.7

8" x 4" T
 Sta. 1+22
 11" x 6" S.H.C.
 11.5' Cover
 For Profile See Drawing No. 4

References are
 PK. & T.T. in edge
 road.
 PI.#D-355-F

W.R. & A. B.M. #L-15
 Elev. 387.750
 Galvanized Boat spike base of G. & E.
 Pole #239830, 30' Lt. Sta. 7+09.2 bet.
 PI.#L-108 & PI.#L-109 intersection Old
 Montgomery Rd. & Waterloo Rd. S.E. Cor.



Kenneth A. McLeod

Project No. S-4-4072
 Contract No. 547-S-B

WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 1304 ST. PAUL ST.
 BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 W. O. Fulbert 11-22-76
 CHIEF-BUREAU OF ENGINEERING - DATE

CONTRACT NO. 547-S-B

PLAN OF
 SEWER MAINS

ELECTION DISTRICT
 ELKRIDGE NO. 1

DRAWING
 NO. 2
 OF 5
 SCALE
 1" = 50'

W. O. 6601-2

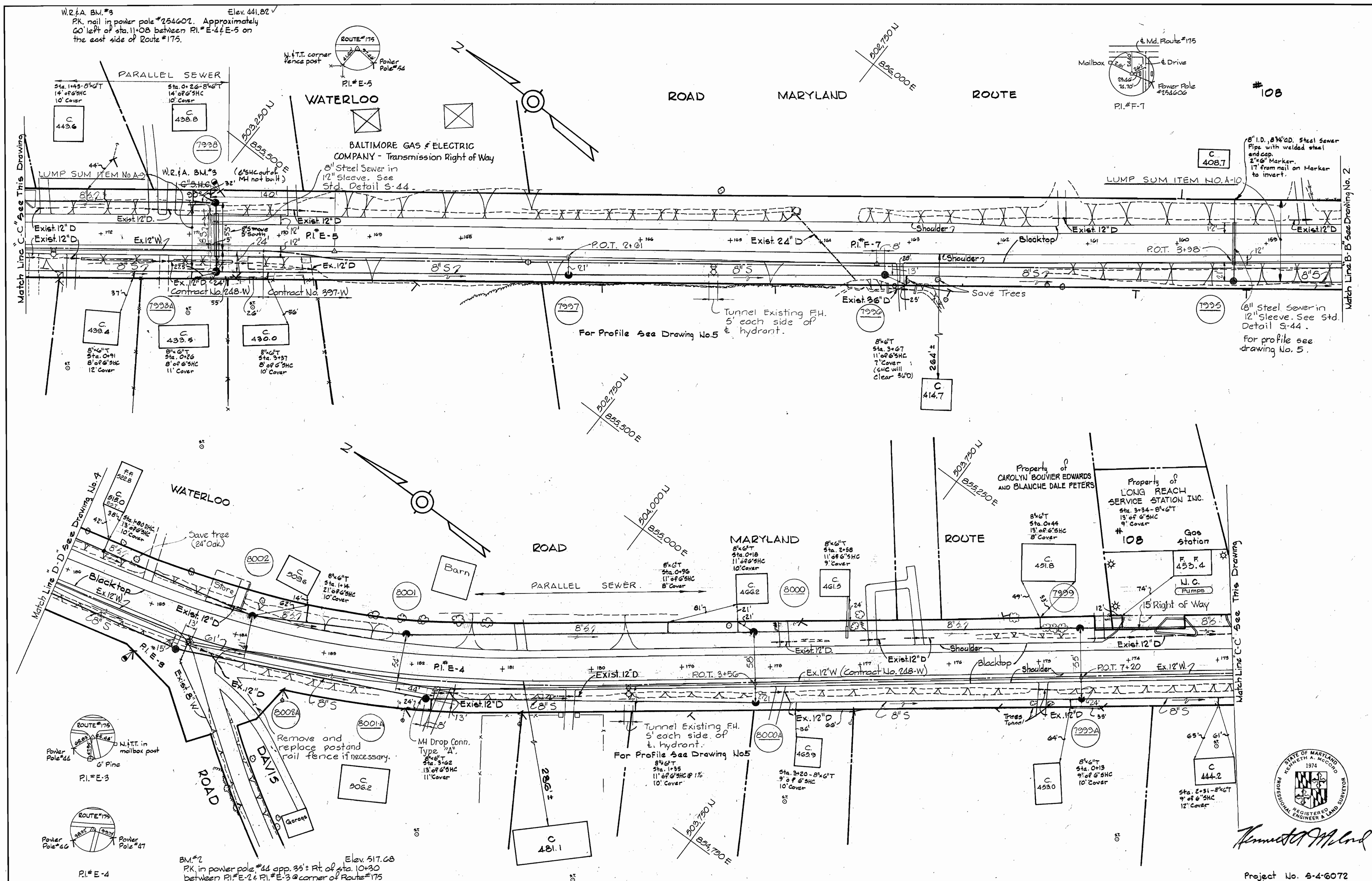
A5-BUILT July 8, 1980

JUNE 15, 1979

FB#4104
 FB#5153

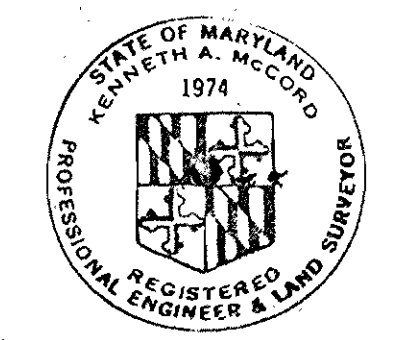
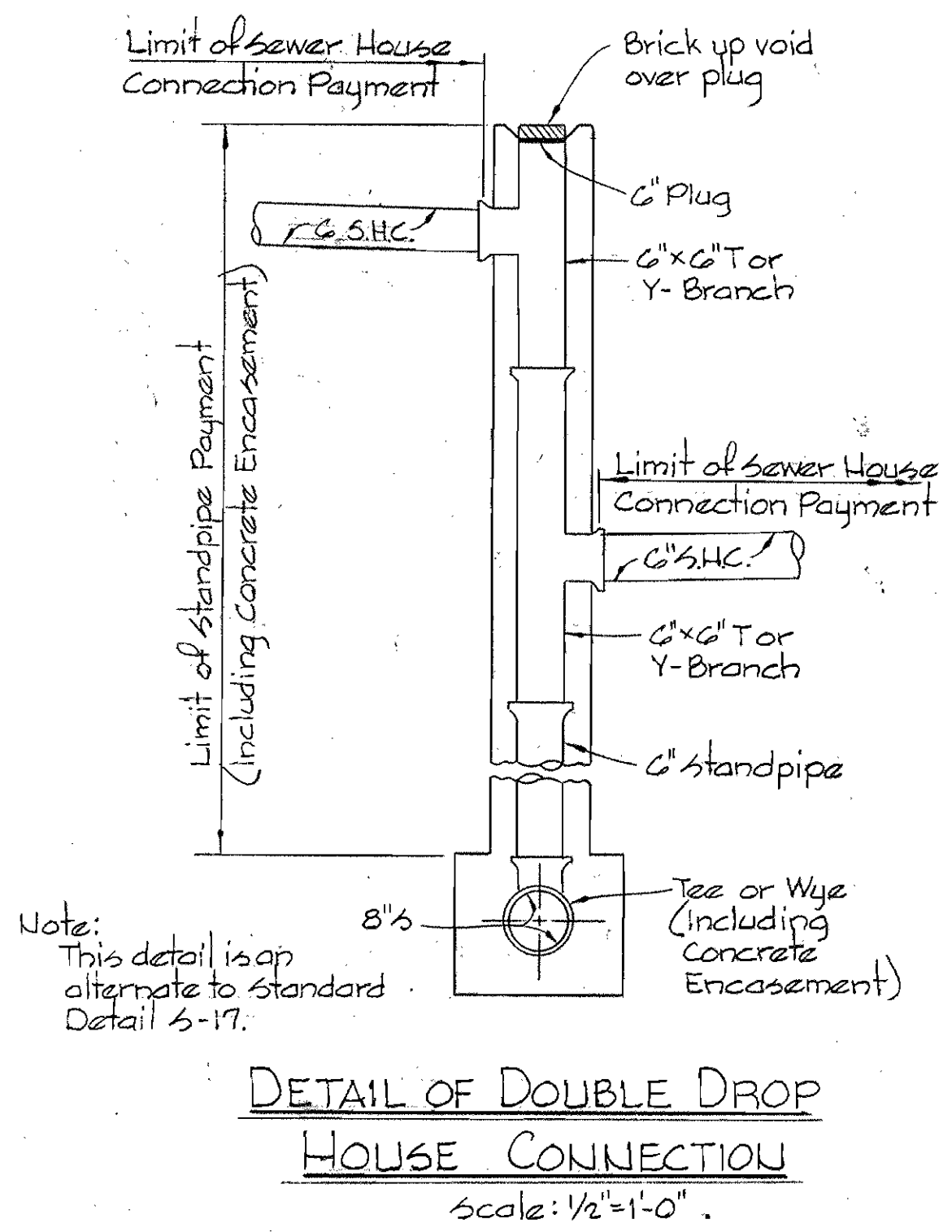
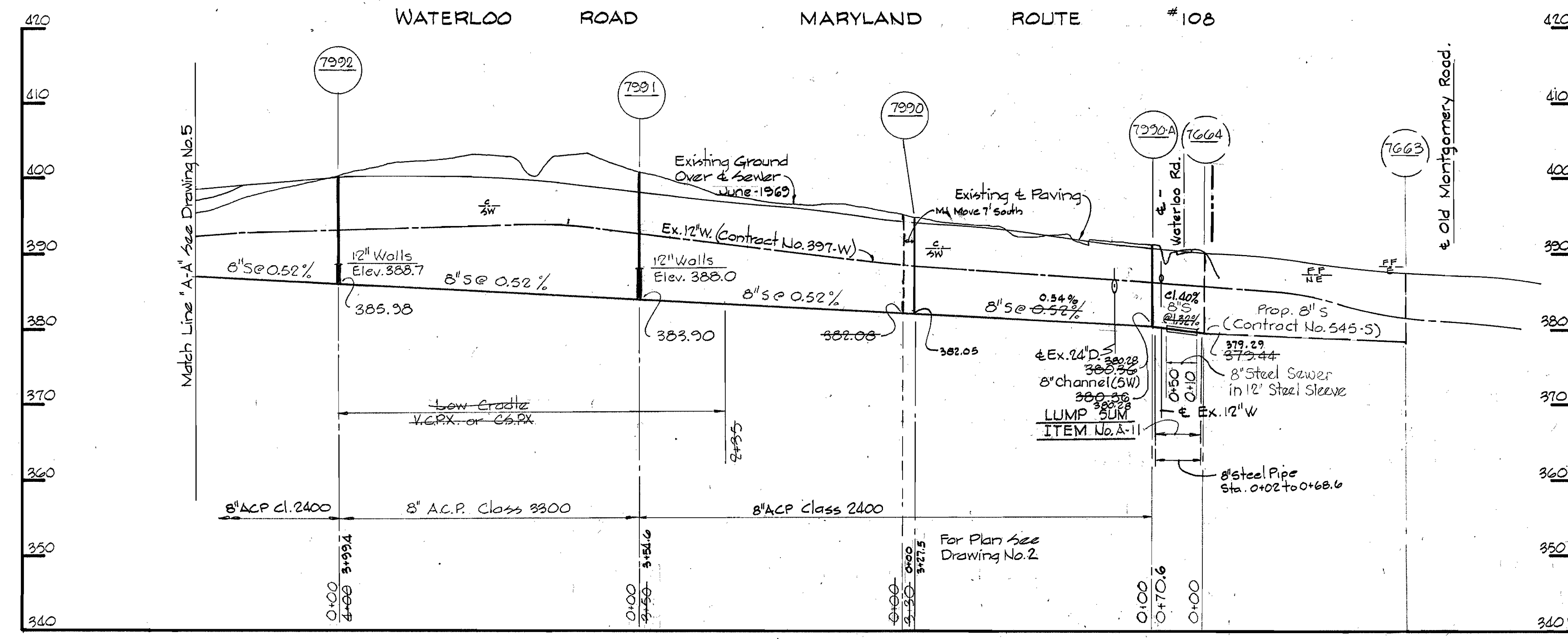
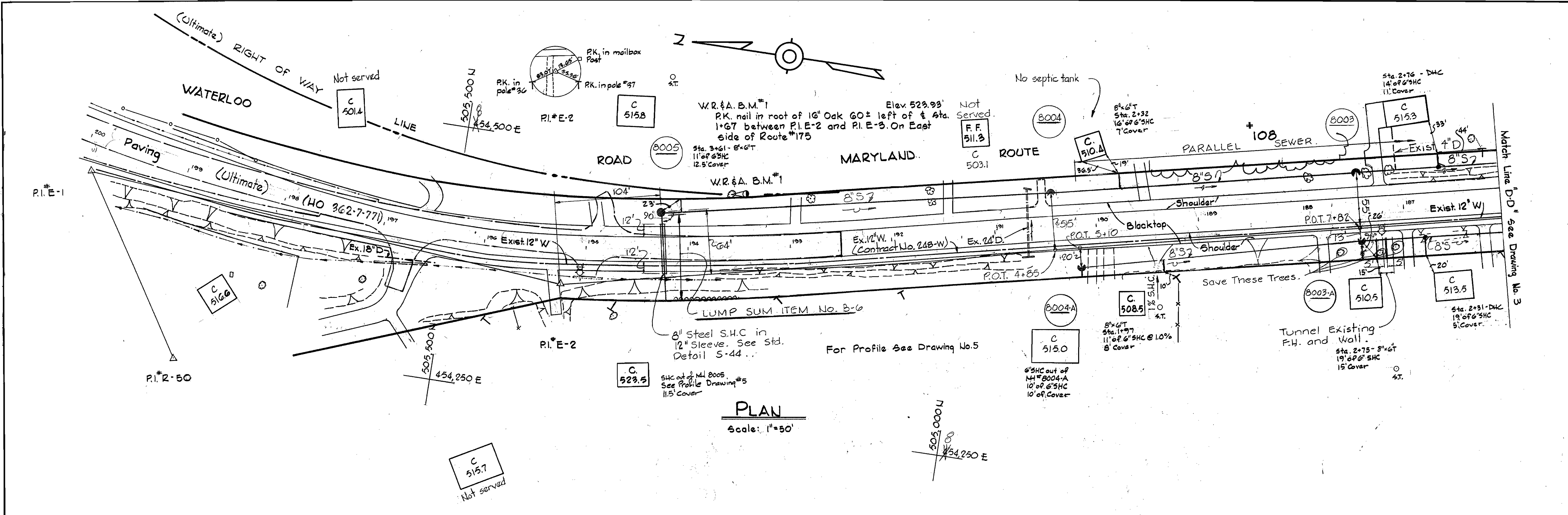
WS 547-S-B/e

BRUNING 44510 18497



WS 547-S-B/3

WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>W.O. Folbert</i> 11-22-76 CHIEF-BUREAU OF ENGINEERING - DATE	CONTRACT NO. 547-S-B	PLAN OF SEWER MAINS	ELECTION DISTRICT ELKCRIDGE NO. 1	DRAWING NO. 3 OF 5 SCALE 1" = 50'
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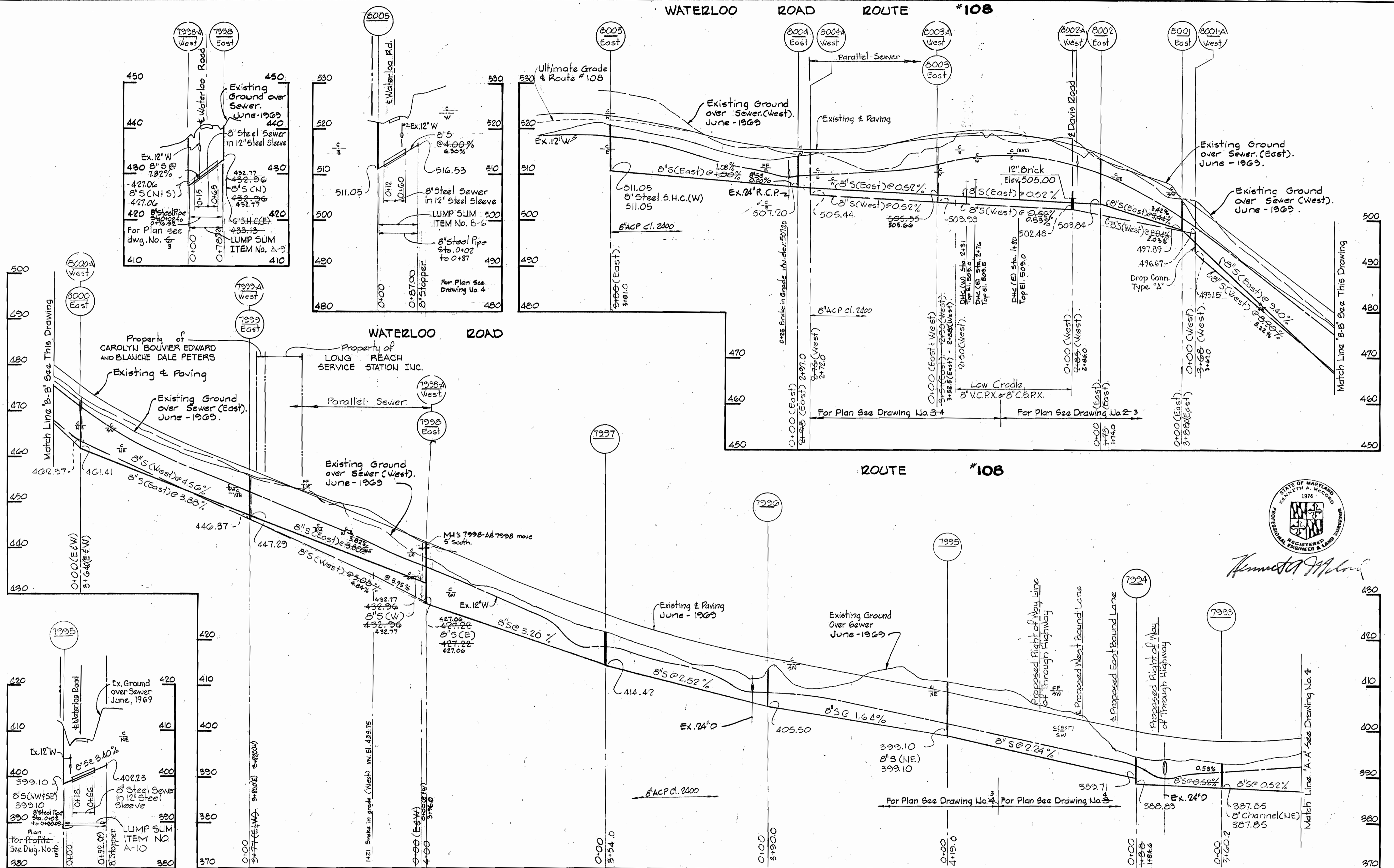


Kenneth A. McCord

WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND M. J. Reagan, Jr. 11-22-76 DIRECTOR OF PUBLIC WORKS - DATE	CONTRACT NO. 547-S-B	PLAN, PROFILE & DETAIL OF SEWER MAINS	ELECTION DISTRICT ELKRIDGE NO. 1	DRAWING NO. 4 OF 5 SCALE AS SHOWN 504-489 505-489
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WS 547-S-B/4

WATERLOO ROAD ROUTE #108



Kenneth A. McCord

WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>M. J. Reardon</i> 11-26-76 DIRECTOR OF PUBLIC WORKS - DATE	CONTRACT NO. 547-S-B <i>W. O. Gilbert</i> 11-22-76 CHIEF BUREAU OF ENGINEERING - DATE	PROFILE OF SEWER MAINS	ELECTION DISTRICT ELKRIDGE NO. 1	Project No. 64-6072 Contr. 547-S-B DRAWING NO. 5 OF 5 SCALE H=1"=100' V=1"=10'
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WS 547-S-B/S

RECORDING 44-510 18392