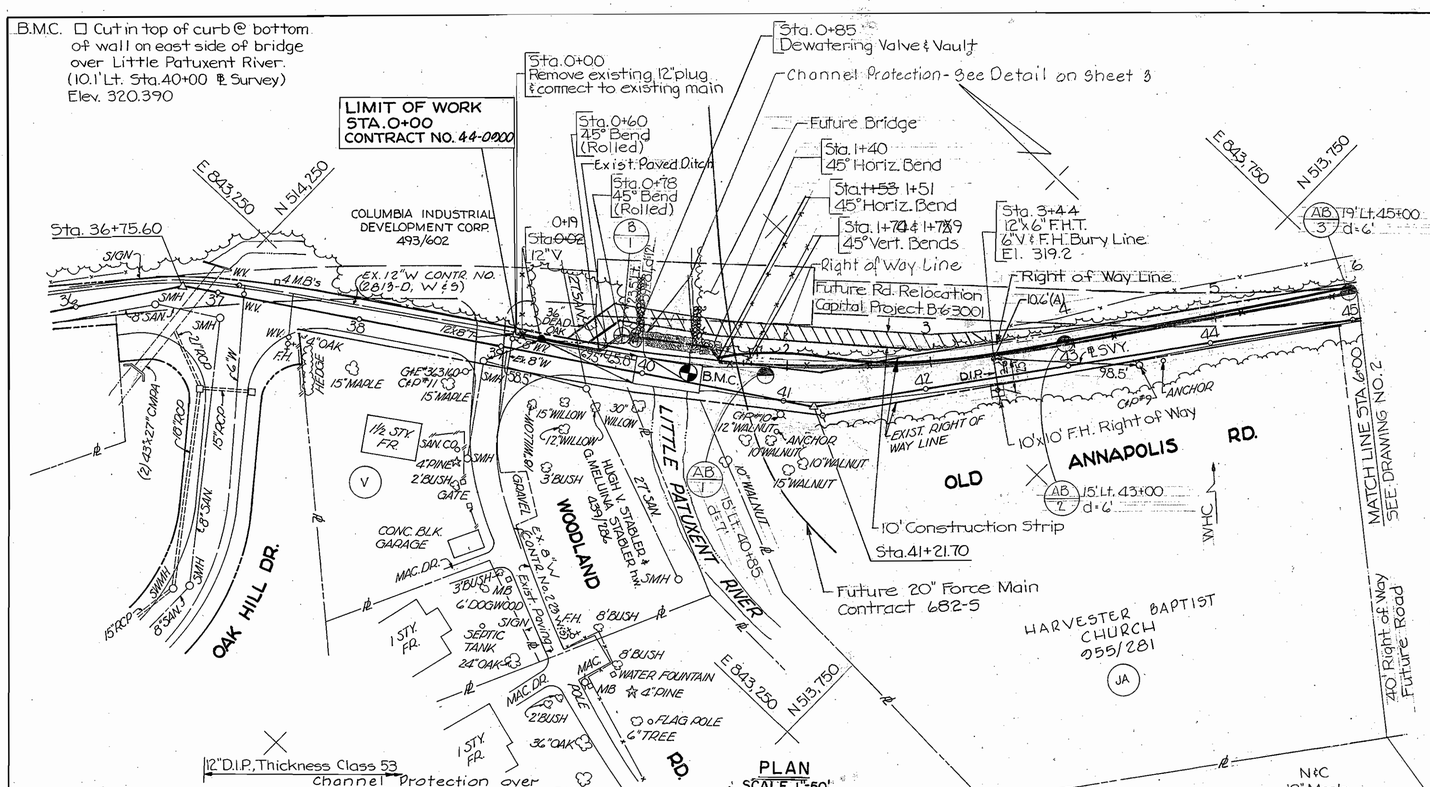
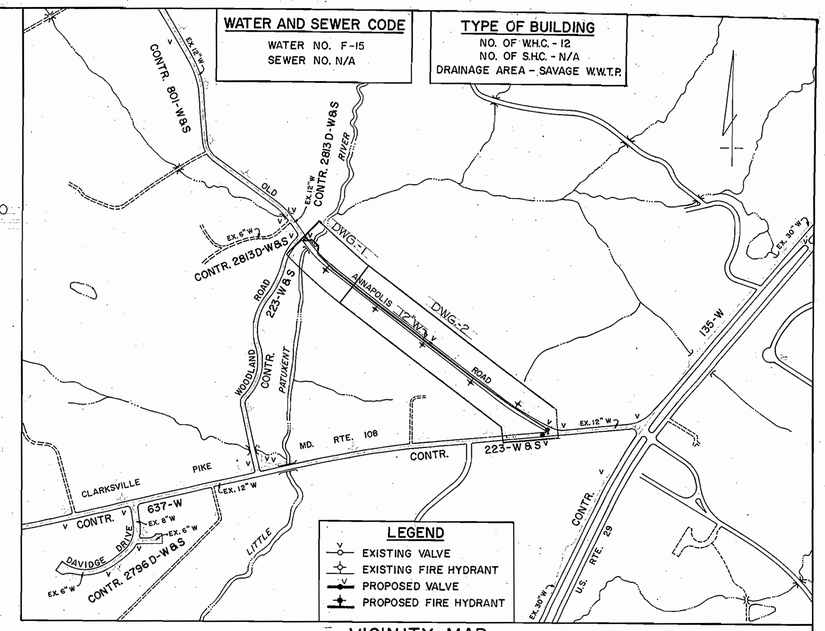
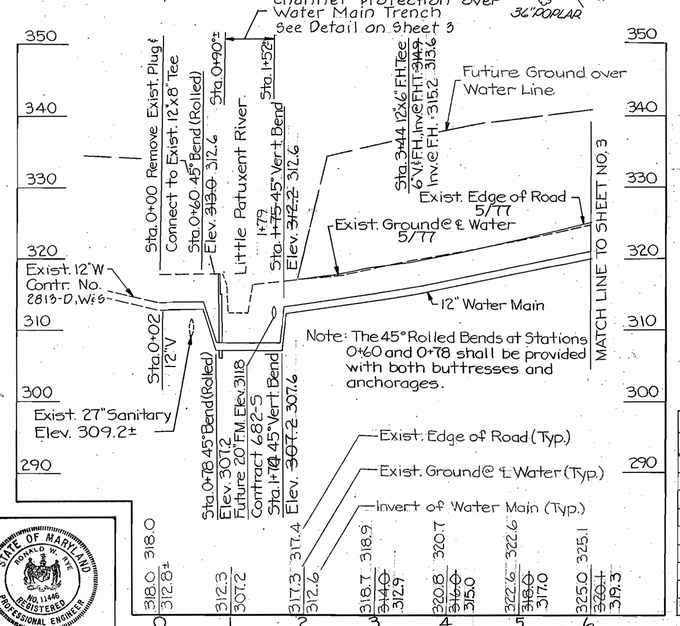




VICINITY MAP

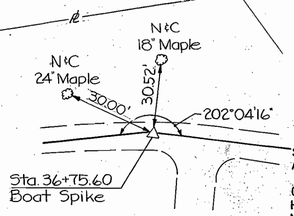
SCALE: 1" = 600'

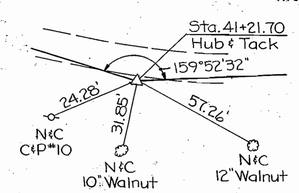


NOTES:

(A) Distance from water valve or curb stop to painted ℄ of the existing roadway.

(B) Distance from water valve or curb stop to edge of existing roadway pavement.





QUANTITIES				
ITEM	UNIT	ESTIMATE	AS BUILT	SUPPLIER
12" Water	L.F.	1656	1668	GRIFFIN PIPE PRODUCTS CO.
12" D.I.P., Class 53	L.F.	1,003	997	"
6" Water	L.F.	90	96	"
6" D.I.P., Class 53	L.F.	26	25	"
12" Valve	Ea.	3	4	FLOW INDUSTRIES, INC.
12" Dewatering Valve & Vault	Ea.	1	1	ATLANTIC CONC. PROD. CORP.
Fire Hydrants	Ea.	5	5	FLOW INDUSTRIES, INC.
3/4" Copper Water Service	L.F.	310	371	"
1" Copper Water Service	L.F.	—	32	"
6" Valve	Ea.	5	5	"

CONSTRUCTION STAKEOUT DATA		
℄ SURVEY STATION	OFFSET (FEET)	WATER MAIN STATION
39+68	10.5	0+60
39+81	23.5	0+78
40+43	26.5	1+40
40+52.49	~~18~~ 21	1+53
41+00	~~24.5~~ 34	2+01
42+00	~~18~~ 19	2+93
43+00	~~15~~ 17.5	3+94
44+00	~~17~~ 19.5	4+94
45+00	~~19~~ 23	5+95

GENERAL NOTES

1. Approximate locations of existing mains are shown. The contractor shall take all the necessary precautions to protect the existing mains and services and maintain uninterrupted supply. Any damage incurred due to the contractor's operations shall be repaired immediately at the contractor's expense.
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 the vicinity of proposed utilities.
4. For all standard details see standards bound in specifications.
5. Clear all utilities by a minimum of 6". Clear all utility poles by 2'-0" or tunnel as required. Any costs incurred to the contractor for tunneling or bracing at poles shall be included in unit prices bid for excavation.
6. Contractor shall notify the following utilities or agencies at least five (5) days before starting work shown on these plans:

State Highway Administration	531-5533	Baltimore Gas & Electric Company-Underground Electric Distribution Engineering- "Damage Control"	234-5691
American Telephone and Telegraph Cable Location Division	393-3553	Baltimore Gas & Electric Company-Underground Gas Distribution Engineering	559-0100
Colonial Pipeline Company	781-4641	Chesapeake & Potomac Telephone Company	725-9976
Howard County Bureau of Utilities	992-2366		
Miss Utility	393-3648		

7. 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.
8. 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.
9. All water mains to be C.I.P. or D.I.P. unless otherwise noted.
10. Top of all water mains to have a minimum of 3'-6" cover unless otherwise noted.
11. All valves shall be strapped to tees, where applicable, in accordance with standard details.
12. Buttress or anchor all water main fittings with concrete. See Standard details bound in the Specifications.
13. Bury line elevations on fire hydrants shall be set to the 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 5-15 of the Standard Specifications.
14. Cost of strapping fire hydrants and valves to be included in the unit price bid for furnishing and installing fire hydrants.
15. All horizontal controls are based on Maryland State Coordinates.
16. All vertical controls are based on USGS Datum.
17. Contractor shall remove trees, stumps and roots along line of excavation as directed by the Engineer. Payment for such removal shall be included in the unit price bid for excavation and backfill for water mains.
18. All water house connections shall be constructed in accordance with the Standards bound in the Specifications for inside meters.
19. Block all fittings with concrete, see Standards bound in the Specifications.

LEGEND

(d = Depth of Boring)

AB 1 — Auger Boring

B 1 — Auger Boring with Split Spoon

NOTE: See Special Provisions for Soil Boring Data

OLD ANNAPOLIS ROAD
PROJECT NO. W-7-8073

CONTRACT NO. 44-0900

STATE OF MARYLAND — HOWARD R. RIVE — No. 11448 — REGISTERED PROFESSIONAL ENGINEER — 4/7/80

THE WILSON T. BALLARD COMPANY
CONSULTING ENGINEERS
OWINGS MILLS MARYLAND

Robert W. Burns — CHIEF-BUREAU OF UTILITIES — 1/22/81 DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Lloyd F. Nemeyer — DIRECTOR OF PUBLIC WORKS — 1-23-81 DATE

Kreamer & Ray — CHIEF - BUREAU OF ENGINEERING — 1-22-81 DATE

CONTRACT NO. 44-0900
CAPITAL PROJECT NO. W-7-8073

PLAN AND PROFILE OF 12" WATER MAIN

OLD ANNAPOLIS ROAD WATER MAIN
WOODLAND ROAD TO MD. 108
ELECTION DISTRICT NO. 2

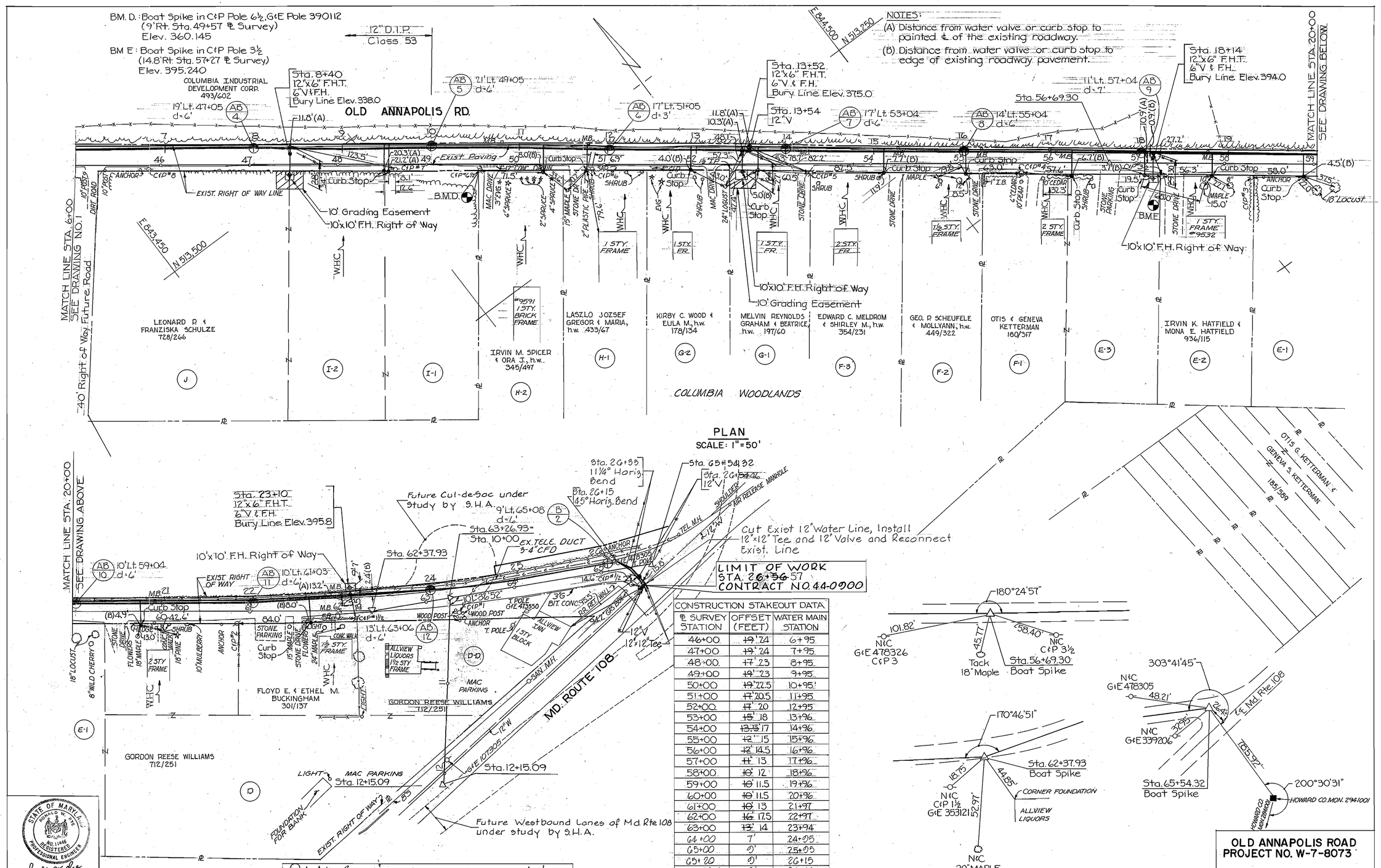
DRAWING NO. 1 OF 3

SCALE AS SHOWN

Designed R.W.R.
Drafted R.A.W.
Checked R.W.R.

AS BUILT AUGUST 17, 1981 - THE WILSON T. BALLARD CO.

W-7-8073



CONSTRUCTION STAKEOUT DATA		
℄ SURVEY STATION	OFFSET (FEET)	WATER MAIN STATION
46+00	~~19~~ 24	6+95
47+00	~~19~~ 24	7+95
48+00	~~17~~ 23	8+95
49+00	~~19~~ 23	9+95
50+00	~~19~~ 22.5	10+95
51+00	~~17~~ 20.5	11+95
52+00	~~17~~ 20	12+95
53+00	~~15~~ 18	13+96
54+00	~~13.5~~ 17	14+96
55+00	~~12~~ 15	15+96
56+00	~~12~~ 14.5	16+96
57+00	~~11~~ 13	17+96
58+00	~~10~~ 12	18+96
59+00	~~10~~ 11.5	19+96
60+00	~~10~~ 11.5	20+96
61+00	~~10~~ 13	21+97
62+00	~~16~~ 17.5	22+97
63+00	~~13~~ 14	23+94
64+00	7'	24+05
65+00	0'	25+05
65+20	0'	26+15
65+54	3'	26+33

STATE OF MARYLAND — DONALD W. TAYLOR — REG. NO. 11446 — REGISTERED PROFESSIONAL ENGINEER
4/17/80

THE WILSON T. BALLARD COMPANY
CONSULTING ENGINEERS
OWINGS MILLS MARYLAND

CHIEF-BUREAU OF UTILITIES — 1/27/81 DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
DIRECTOR OF PUBLIC WORKS — DATE 1-23-81
CHIEF – BUREAU OF ENGINEERING — DATE 1-22-81

CONTRACT NO. 44-0900
CAPITAL PROJECT NO. W-7-8073

PLAN AND PROFILE OF 12" WATER MAIN

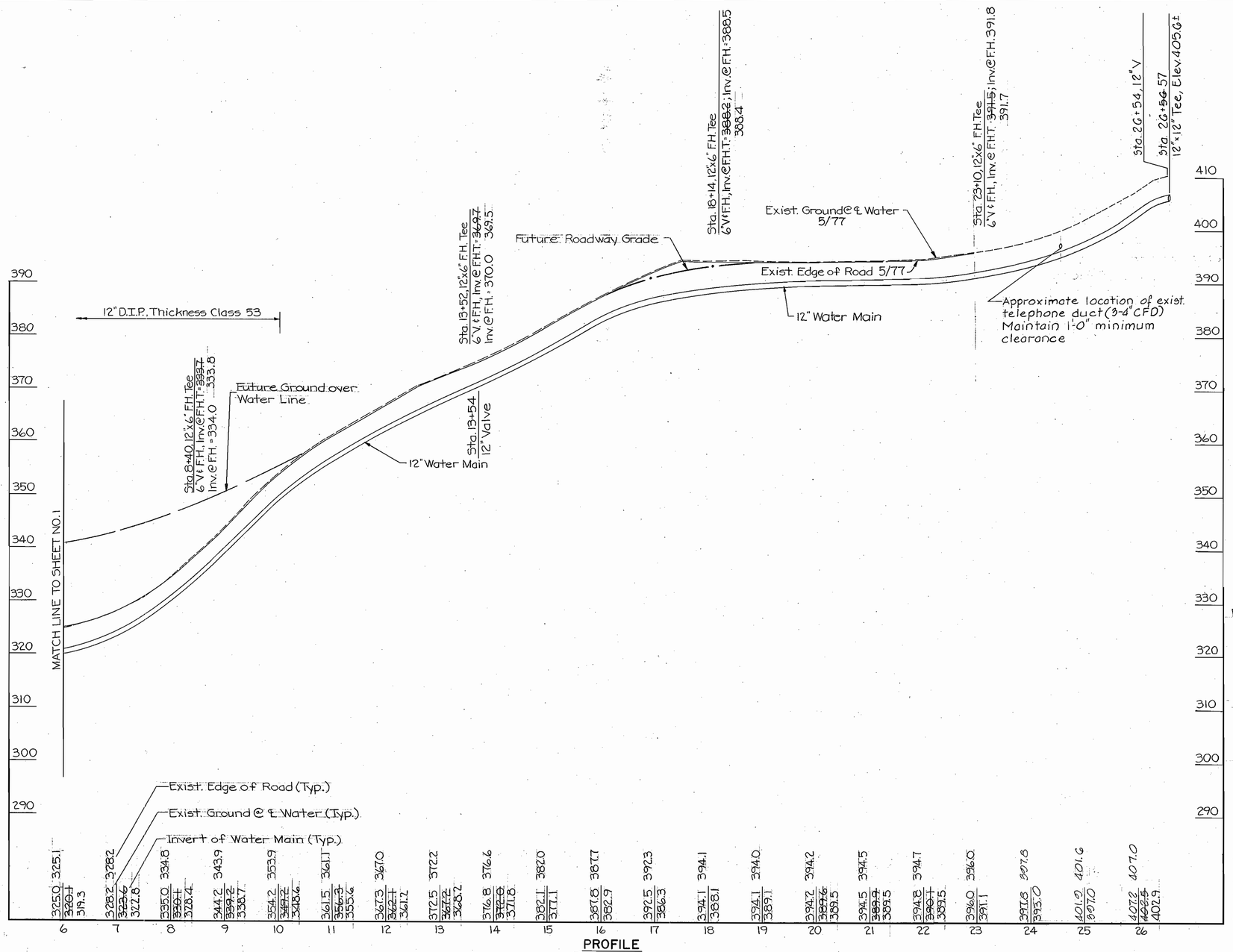
OLD ANNAPOLIS ROAD WATER MAIN
WOODLAND ROAD TO MD. 108
ELECTION DISTRICT NO. 2

OLD ANNAPOLIS ROAD
PROJECT NO. W-7-8073
CONTRACT NO. 44-0900

DRAWING NO. 2 OF 3
SCALE AS SHOWN
Designed R.W.R.
Drafted R.A.W.
Checked R.W.R.

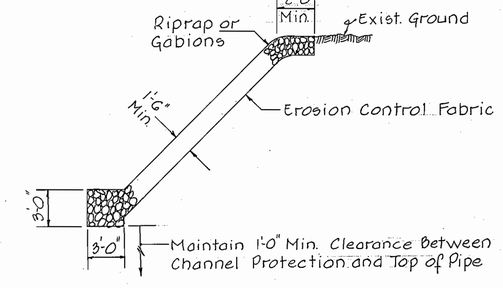
AS BUILT AUGUST 17, 1981 – THE WILSON T. BALLARD CO.

WS 900-W/2



PROFILE

SCALE: HOR. 1" = 100'
VERT. 1" = 10'



NOTES:

1. Channel Protection to be placed to a minimum width of 10 feet.
2. Erosion control fabric shall be Poly-Filter X as manufactured by Carthage Mills, Permcaliner as manufactured by Staff Industries Inc. or equal.
3. Riprap to consist of dense rock of random shapes and sizes resistant to the action of air and water, and suitable for channel protection. All rocks shall weigh a minimum of 15.0 lbs.
4. Gabions shall be series 300 heavy duty galvanized gabions as manufactured by Maccaferri Gabion Inc. Bekaert Gabion as manufactured by Terra Aqua Conservation or equal.

CHANNEL PROTECTION DETAIL

NO SCALE

Note: See Drawing No. 2 for Plan.

STATE OF MARYLAND — HONALD W. RITE — NO. 11446 — REGISTERED PROFESSIONAL ENGINEER — 4/17/80

Robert W. Berringer — CHIEF-BUREAU OF UTILITIES — 1/27/81 DATE

OLD ANNAPOLIS ROAD
PROJECT NO. W-7-8073

CONTRACT NO. 44-0900

THE WILSON T. BALLARD COMPANY
CONSULTING ENGINEERS
OWINGS MILLS MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Geoff F. Nemeyer — DIRECTOR OF PUBLIC WORKS — 1-23-81 DATE
William E. Raly — CHIEF - BUREAU OF ENGINEERING — 1-22-81 DATE

CONTRACT NO. 44-0900
CAPITAL PROJECT NO. W-7-8073

PLAN AND PROFILE OF 12" WATER MAIN

OLD ANNAPOLIS ROAD WATER MAIN
WOODLAND ROAD TO MD. 108
ELECTION DISTRICT NO. 2

DRAWING NO. 3 OF 3

SCALE AS SHOWN

Designed R.W.R.
Drafted R.A.W.
Checked R.W.R.

AS BUILT AUGUST 17, 1981 - THE WILSON T. BALLARD CO.

WS 900-W13