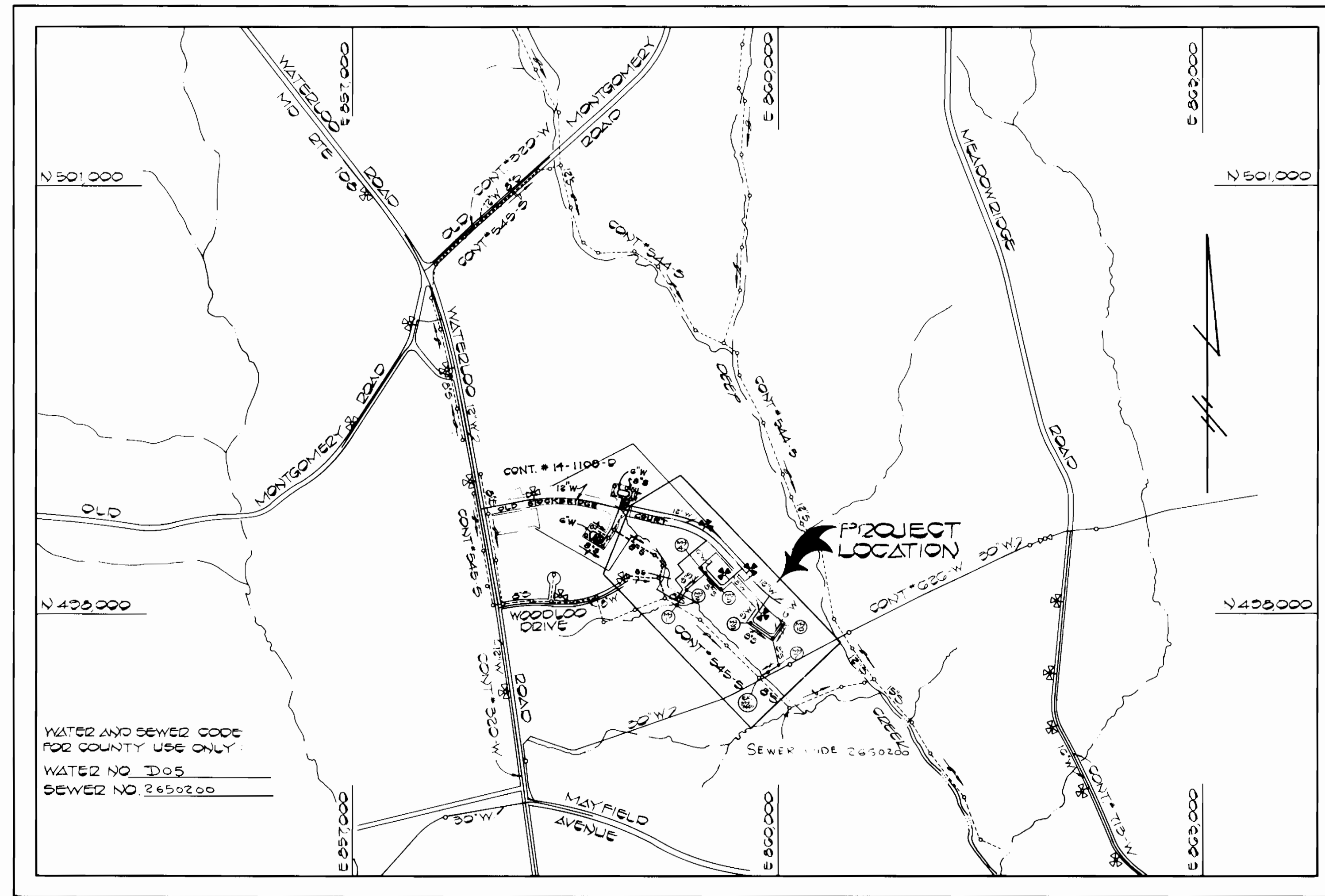


GENERAL NOTES

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.S. DATUM.
4. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
5. CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. ANY COST INCURRED TO THE CONTRACTOR FOR TUNNELING OR BRACING AT POLES SHALL BE INCLUDED IN UNIT PRICES BID FOR CONSTRUCTION OF THE MAIN.
6. FOR DETAILS NOT SHOWN ON THE DRAWINGS USE HOWARD COUNTY STANDARD DETAILS.
7. FOR MATERIAL AND CONSTRUCTION METHODS USE HOWARD COUNTY STANDARD SPECIFICATIONS.
8. CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN THE VICINITY OF PROPOSED UTILITIES AT HIS OWN EXPENSE.
9. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 - STATE HIGHWAY ADMINISTRATION : 531-5533
 - BALTIMORE GAS & ELECTRIC COMPANY - UNDERGROUND GAS DISTRIBUTION CUSTOMER SERVICE: 685-0123
 - BALTIMORE GAS & ELECTRIC COMPANY - UNDERGROUND ELECTRIC DISTRIBUTION CUSTOMER SERVICE: 685-0123
 - ENGINEERING "DAMAGE CONTROL": 234-5621
 - "MISS UTILITY": 1-559-0100
 - CHESAPEAKE & POTOMAC TELEPHONE COMPANY : 725-9976
 - BUREAU OF UTILITIES - HOWARD COUNTY : 992-2366
10. 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.
11. 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 CONSTRUCTION OF THE MAIN.
12. 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.
13. ALL SEWER MAINS SHALL BE V.C.P.X., C.S.P.X., P.V.C. OR A.C.P. CLASS 2400 UNLESS OTHERWISE NOTED.
14. CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALLS.
15. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
16. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE BRICK MANHOLES ONLY.
17. ALL WATER MAINS TO BE C.I.P. OR D.I.P. UNLESS OTHERWISE NOTED.
18. TOP OF WATER MAINS TO HAVE A MINIMUM OF 3'-6" COVER UNLESS OTHERWISE NOTED.
19. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
20. BLOCK ALL FITTINGS WITH CONCRETE.
21. 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 1003 OF THE STANDARD SPECIFICATIONS.
22. ALL WATER HOUSE CONNECTIONS SHALL BE FOR AN INSIDE METER SETTING.
23. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM.
24. WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED SO AS TO HAVE AT LEAST ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
25. MANHOLES LOCATED WITHIN PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAME AND COVER, STANDARD DETAIL G5 S1.
26. MANHOLES DESIGNATED WT IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G5 S2. WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE.
27. ALL WATER HOUSE CONNECTIONS SHALL BE DUAL CONNECTIONS IN ACCORDANCE WITH DETAIL W3.23, UNLESS OTHERWISE NOTED.
28. ALL SEWER HOUSE CONNECTIONS SHALL BE TWIN SEWER HOUSE CONNECTIONS, UNLESS OTHERWISE NOTED.
29. FOR ALL COPPER WATER HOUSE CONNECTIONS, UTILIZE FLARED TYPE FITTINGS ONLY.

QUANTITIES			
ITEM	EST'D	AS BUILT	SUPPLIER
12" WATER	1120 L.F.	1120 L.F.	Griffin Pipe
8" WATER	605 L.F.	605 L.F.	Griffin Pipe
6" WATER	440 L.F.	432 L.F.	Griffin Pipe
3/4" W.H.C.	201 L.F.	1003	K. Copper Cambridge Lee
1" W.H.C.	313 L.F.	314	K. Copper Cambridge Lee
FIRE HYDRANTS	4 EA.	4 ea.	
MANHOLES	10 EA.	10 ea.	Atlantic Precast
8" SEWER	1115 L.F.	958 L.F.	A&P Certain-Teed
6" SEWER	1100 L.F.	958 L.F.	A&P Certain-Teed
8" VALVES	2 EA.	2 ea.	Metro Mech Joint Dresser
12" VALVES	2 EA.	2 ea.	Metro Mech Joint Dresser
BLOWOFF	1 EA.	1 ea.	Ford / Trenton



TYPE OF BUILDINGS	TOWNHOUSES
TOTAL NUMBER OF LOTS	44
NO OF WATER HOUSE CONNECTIONS	44
NO OF SEWER HOUSE CONNECTIONS	44
DRAINAGE AREA	FATATSCO

SCALE : 1" = 600'

CONTRACT NO. 14-1193-D SECTION TWO AREA TWO WOODLAND PARK WATER AND SEWER MAIN EXTENSIONS HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH ARTICLE 15 OF THESE SPECIFICATIONS AND ALSO AS SHOWN ON THE GRADING AND SEDIMENT CONTROL PLAN (F-04-113).

THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT

REVIEW FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
 Robert M. Beninger 5-17-84
 CHIEF, BUREAU OF UTILITIES DATE

APPROVED
 Joseph K. Somers 5-17-84
 HOWARD SOIL CONSERVATION DISTRICT DATE

CONTRACT NO. 14-1193-D
 WOODLAND PARK
 SECTION TWO AREA TWO
 WATER AND SEWER EXTENSION
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DIRECTOR OF PUBLIC WORKS DATE Robert M. Beninger 5-25-84 CHIEF, BUREAU OF UTILITIES DATE	FISHER, COLLINS, AND CARTER, INC. CONSULTING ENGINEERS AND LAND SURVEYORS 8388 COURT AVENUE ELLICOTT CITY, MARYLAND 21043 DATE 2/2/84	DES. D.B.S. DRN. D.B.S. CHK. T.A.F. DATE 2/2/84 BY NO. REVISION	TITLE SHEET 600' SCALE MAP NO. 37 BLOCK NO.
			WOODLAND PARK SECTION TWO AREA TWO CONTRACT NO. 14-1193-D FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
			SCALE AS SHOWN SHEET 1 OF 4

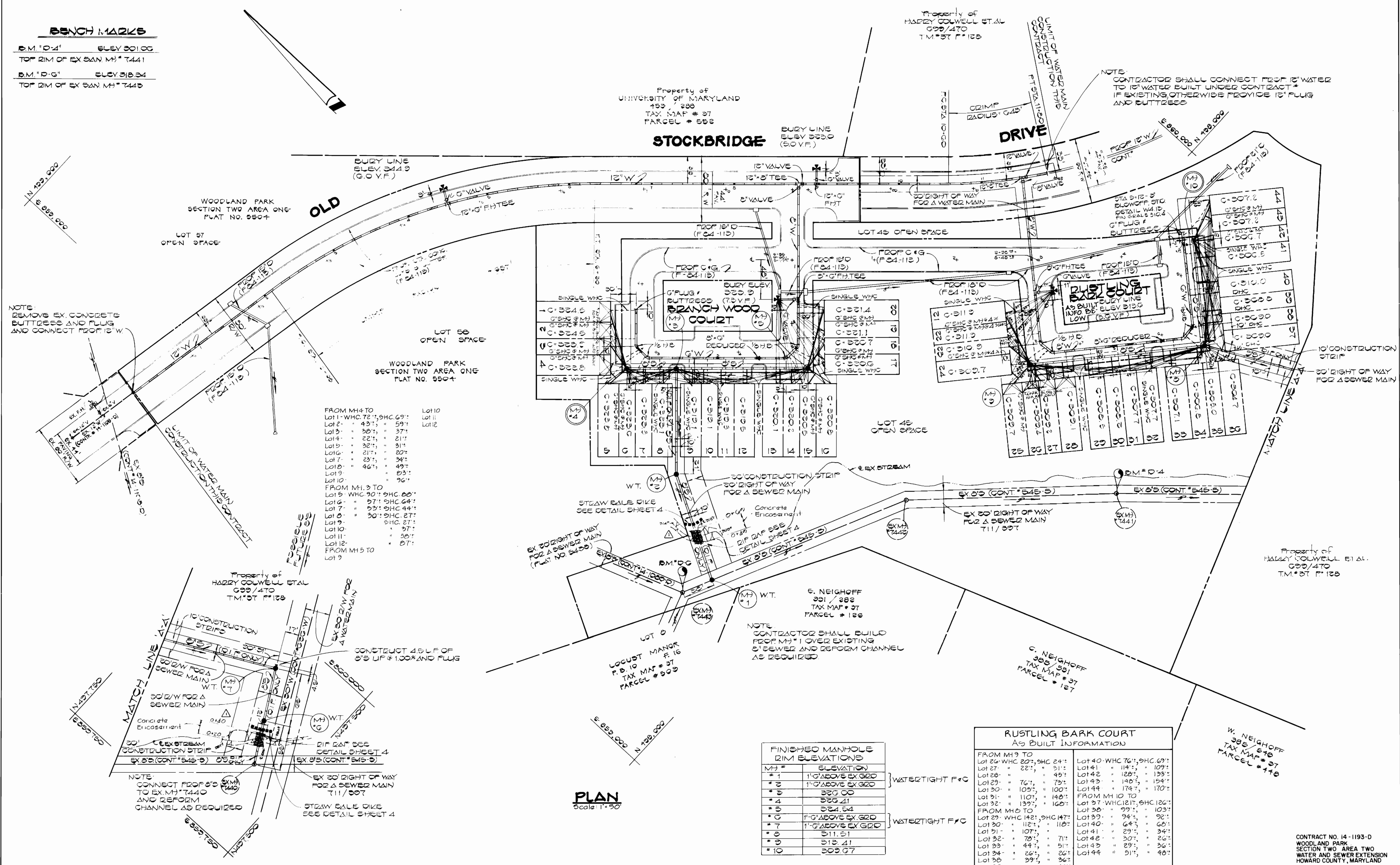
BENCH MARKS
 B.M. "D-4" ELEV 301.00
 TOP RIM OF EX SAN. MH # T441
 B.M. "D-6" ELEV 318.34
 TOP RIM OF EX SAN. MH # T443

Property of
 UNIVERSITY OF MARYLAND
 499 / 288
 TAX MAP # 37
 PARCEL # 552

Property of
 HARRY COLWELL ET AL
 699/470
 T.M.#37 P.#128

NOTE
 CONTRACTOR SHALL CONNECT PROP 12" WATER
 TO 12" WATER BUILT UNDER CONTRACT #
 IF EXISTING, OTHERWISE PROVIDE 12" FLUG
 AND BUTTRESS

NOTE
 REMOVE EX. CONCRETE
 BUTTRESS AND FLUG
 AND CONNECT PROP 12" W



FROM MH 4 TO

Lot 1 - WHC 72', SHC 69'	Lot 11
Lot 2 - 43', 59'	Lot 12
Lot 3 - 30', 37'	
Lot 4 - 22', 21'	
Lot 5 - 32', 31'	
Lot 6 - 21', 20'	
Lot 7 - 23', 34'	
Lot 8 - 46', 49'	
Lot 9 - 23', 26'	
Lot 10 - 26', 27'	
Lot 11 - 50', 57'	
Lot 12 - 27', 27'	

FROM MH 5 TO

Lot 1 - WHC 90', SHC 88'	
Lot 2 - 57', SHC 64'	
Lot 3 - 59', SHC 44'	
Lot 4 - 30', SHC 27'	
Lot 5 - SHC 27'	
Lot 6 - 50', 57'	
Lot 7 - 27', 27'	
Lot 8 - 50', 57'	
Lot 9 - 27', 27'	

FINISHED MANHOLE RIM ELEVATIONS

MH #	ELEVATION
# 1	1'-0" ABOVE EX. GROUND
# 2	1'-0" ABOVE EX. GROUND
# 3	336.00
# 4	336.41
# 5	324.84
# 6	1'-0" ABOVE EX. GROUND
# 7	1'-0" ABOVE EX. GROUND
# 8	311.51
# 9	313.41
# 10	309.67

WATER TIGHT F/C

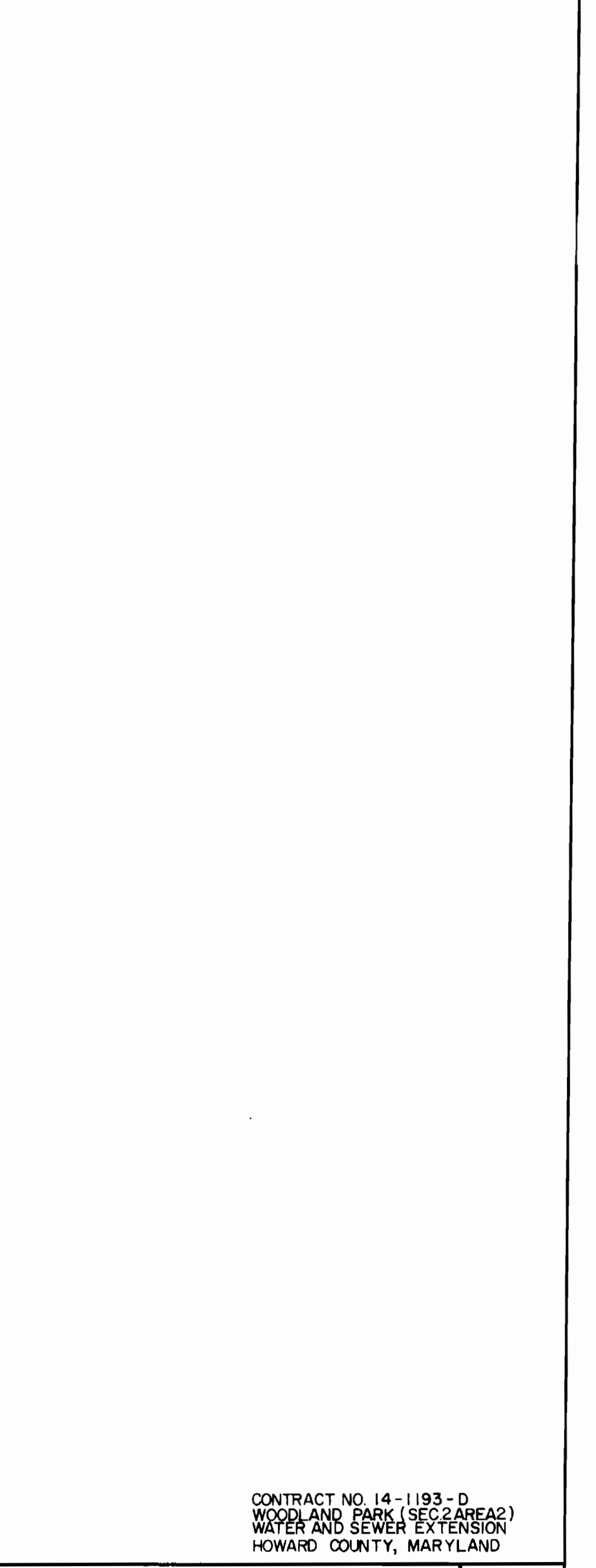
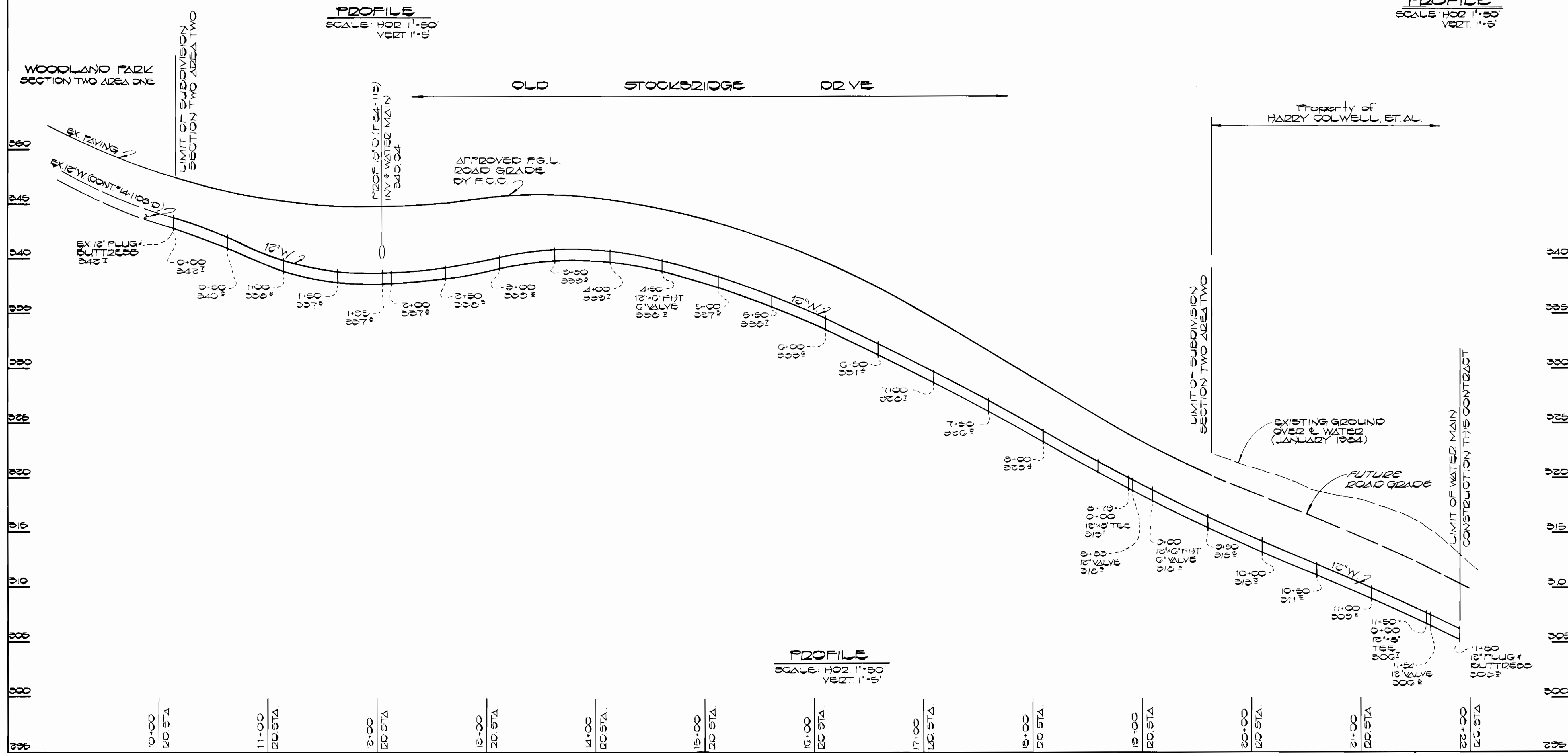
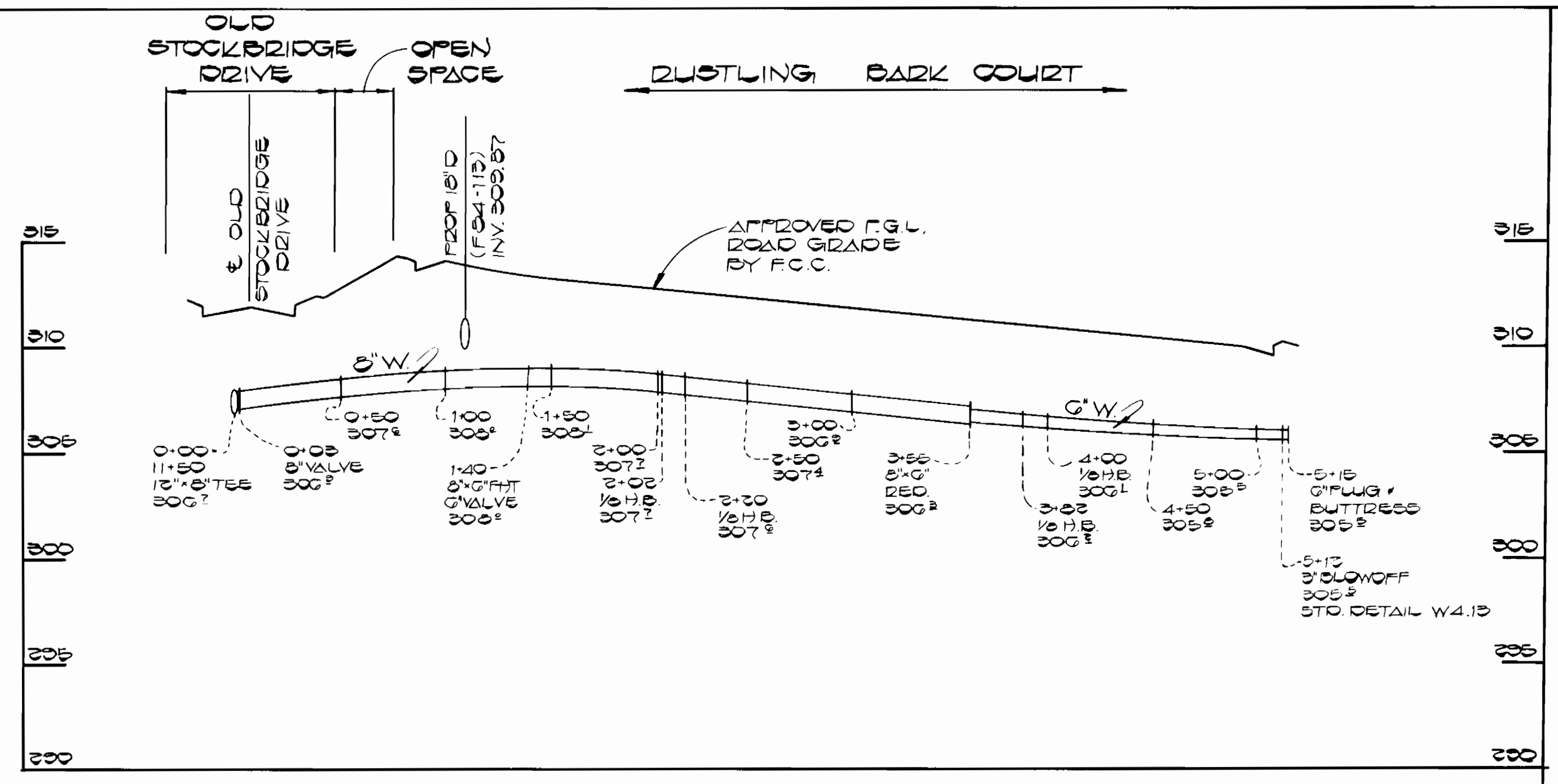
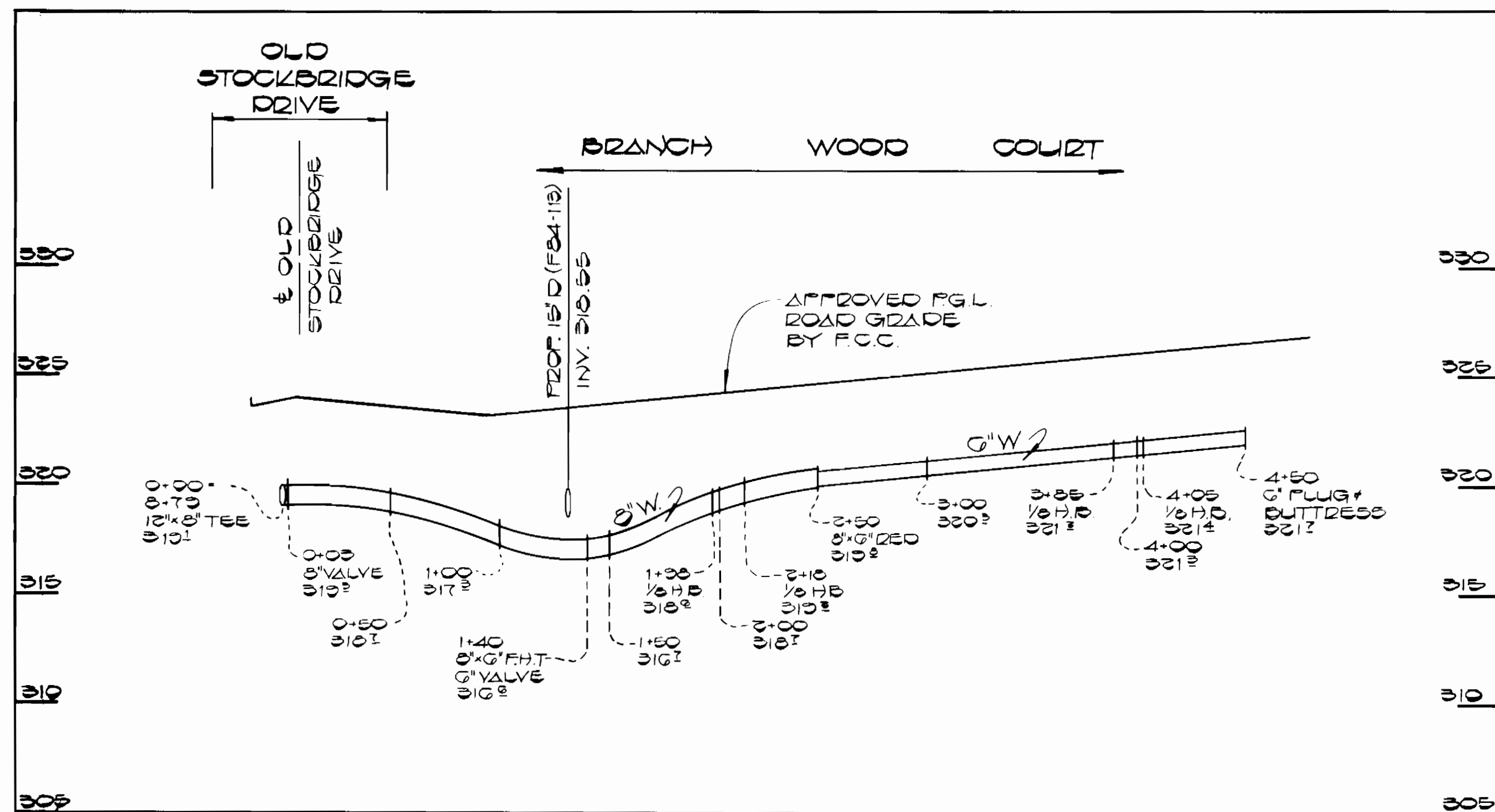
RUSTLING BARK COURT AS BUILT INFORMATION

FROM MH 9 TO	TO
Lot 26 - WHC 20', SHC 24'	Lot 40 - WHC 76', SHC 69'
Lot 27 - 22', 31'	Lot 41 - 114', 109'
Lot 28 - 45', 45'	Lot 42 - 120', 133'
Lot 29 - 76', 73'	Lot 43 - 140', 154'
Lot 30 - 105', 100'	Lot 44 - 174', 170'
Lot 31 - 110', 140'	
Lot 32 - 139', 160'	
FROM MH 5 TO	FROM MH 10 TO
Lot 29 - WHC 142', SHC 147'	Lot 37 - WHC 121', SHC 126'
Lot 30 - 112', 110'	Lot 38 - 99', 103'
Lot 31 - 107', 110'	Lot 39 - 94', 92'
Lot 32 - 70', 71'	Lot 40 - 64', 60'
Lot 33 - 44', 51'	Lot 41 - 29', 34'
Lot 34 - 26', 26'	Lot 42 - 30', 26'
Lot 35 - 29', 36'	Lot 43 - 29', 36'
Lot 36 - 45', 48'	Lot 44 - 51', 40'

PLAN
 Scale: 1"=30'

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DATE: 5-25-84 CHIEF, BUREAU OF UTILITIES	FISHER, COLLINS, AND CARTER, INC. CONSULTING ENGINEERS AND LAND SURVEYORS 8388 COURT AVENUE ELLICOTT CITY, MARYLAND 21043 481-2855	TERRELL A. FISHER DATE: 2/2/84	DES: D.B.S. DRN: D.B.S. CHK: T.A.F.	DEV: Add Conc Encosament between MH's 112 & 117 and Ex. MH 7480 to MH G. Add Scale to Plan, Sht.	PLAN WATER AND SEWER MAINS	WOODLAND PARK SECTION TWO AREA TWO CONTRACT NO. 14-1193-D FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET 2 OF 4
			DATE: 2/2/84	REVISION:			DATE: 6'00" SCALE MAP NO. 37 BLOCK NO.

CONTRACT NO. 14-1193-D
 WOODLAND PARK
 SECTION TWO AREA TWO
 WATER AND SEWER EXTENSION
 HOWARD COUNTY, MARYLAND

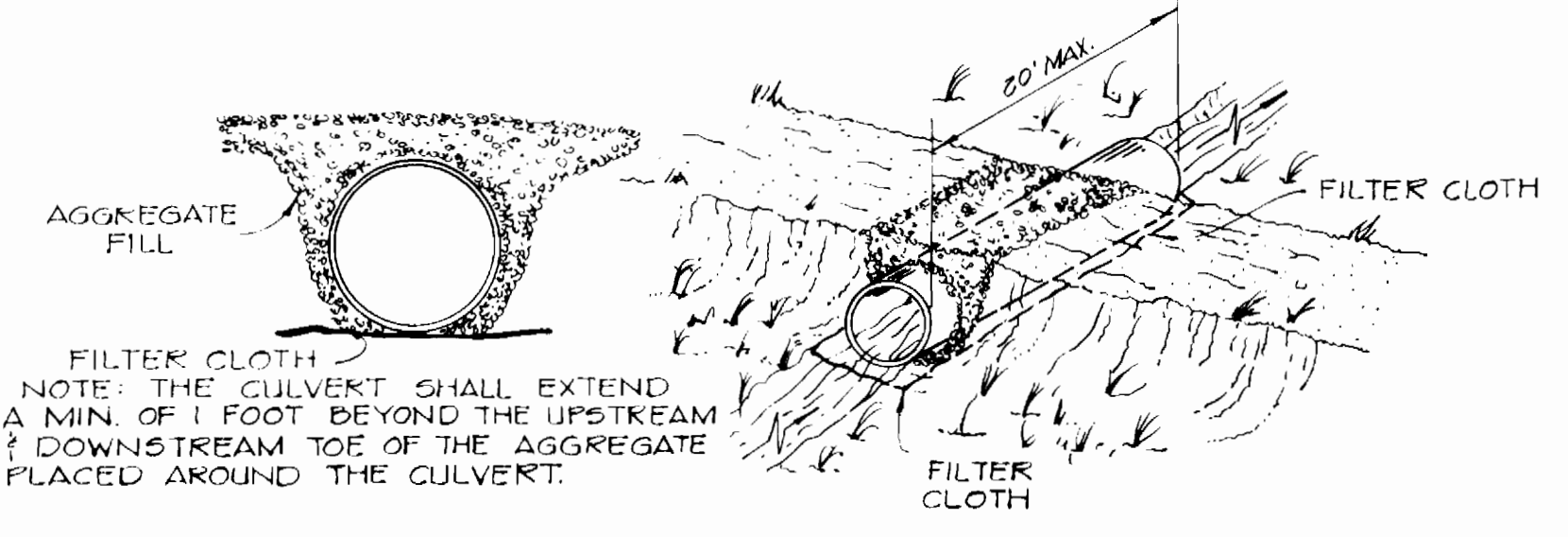


CONTRACT NO. 14-1193-D
WOODLAND PARK (SEC. 2 AREA 2)
WATER AND SEWER EXTENSION
HOWARD COUNTY, MARYLAND

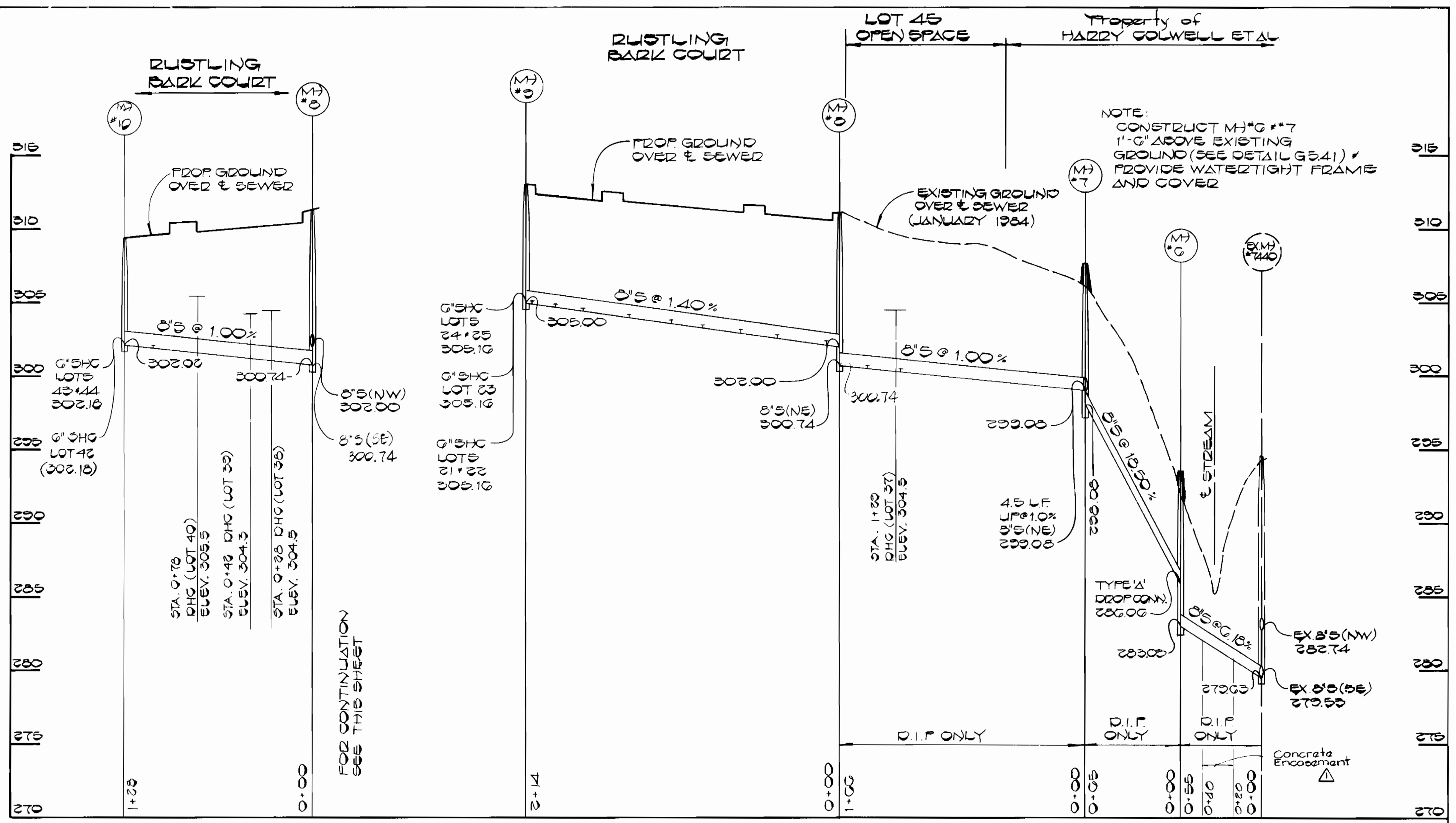
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: <i>Robert M. Switzer</i> DATE: 5-11-84 Chief, Bureau of Utilities: <i>Robert M. Switzer</i> DATE: 5-25-84		FISHER, COLLINS, AND CARTER, INC. CONSULTING ENGINEERS AND LAND SURVEYORS 8388 COURT AVENUE ELLICOTT CITY, MARYLAND 21043 461-2855 Chief, Bureau of Engineering: <i>William J. Fisher</i> DATE: 5/11/84 Chief, Land Development Division: <i>William J. Fisher</i> DATE: 5/24/84		STATE OF MARYLAND REGISTERED PROFESSIONAL ENGINEER FERRELL A. FISHER No. 1151 DATE: 2/2/84	DES. D.B.S. DRN. D.B.S. CHK. T.A.F. DATE: 2/2/84	PROFILE WATER MAINS 600' SCALE MAP NO. 37 BLOCK NO.	WOODLAND PARK SECTION TWO AREA TWO CONTRACT NO. 14-1193-D FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET 3 OF 4
---	--	--	--	--	---	---	---	--------------------------------

SEWER HOUSE CONNECTION
INVERT ELEVATIONS AT PROPERTY LINE

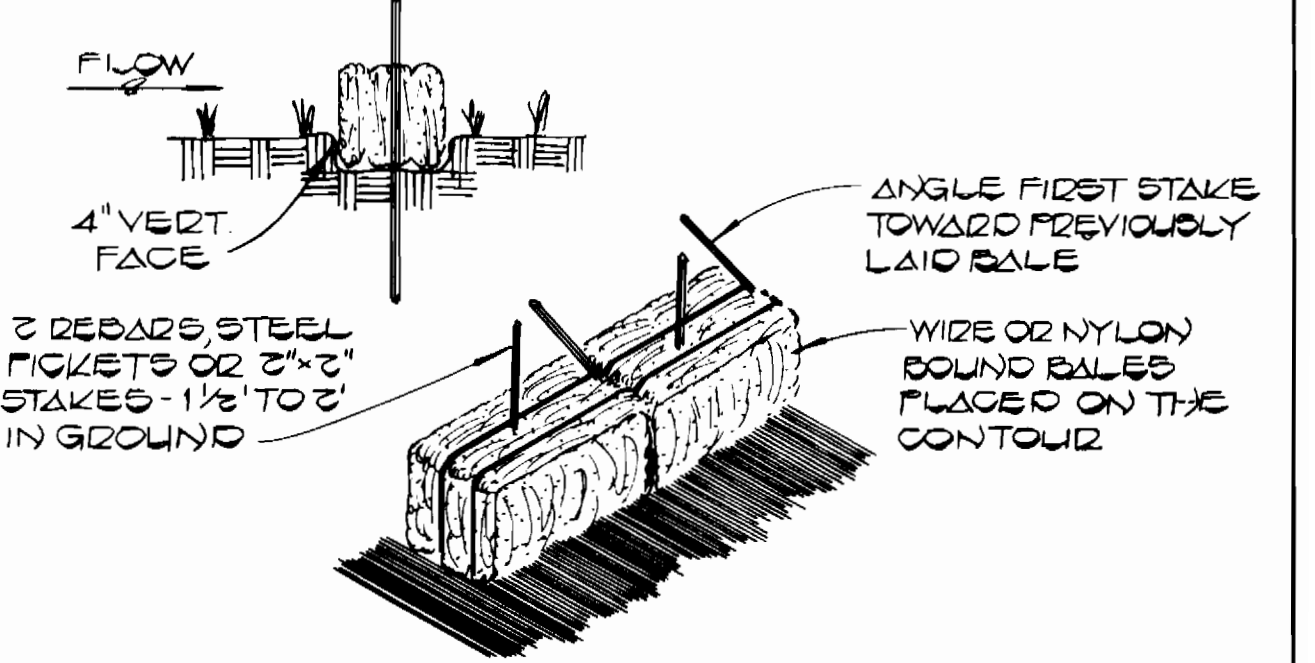
STATION	LOT	ELEV
M1#3 TO M1#5		
0+20 RT.	LOT 9	314.58
0+33 RT.	LOT 10	315.11
0+54 RT.	LOT 11	315.33
0+66 RT.	LOT 12	315.64
1+06 RT.	LOT 13	316.04
1+40 RT.	LOT 14	316.10
M1#5 RT.	LOT 15	316.68
M1#5 LT.	LOT 16	316.73
M1#5 LT.	LOT 17	316.63
M1#5 LT.	LOT 18	316.72
M1#5 LT.	LOT 19	317.10
M1#5 LT.	LOT 20	317.46
M1#3 TO M1#4		
0+15 LT.	LOT 5	310.03
0+37 LT.	LOT 7	310.25
0+57 LT.	LOT 6	310.45
M1#4 LT.	LOTS 4 # 5	310.76
M1#4 RT.	LOT 3	310.64
M1#4 RT.	LOTS 1 # 2	320.42
M1#6 TO M1#10		
0+28 RT.	LOT 36 DHC	304.92
0+42 RT.	LOT 33 DHC	304.73
0+78 RT.	LOT 40 DHC	305.96
1+08 RT.	LOT 41	302.39
M1#10 RT.	LOT 42	302.68
M1#10 RT.	LOTS 43 # 44	302.12
M1#7 TO M1#8		
1+26 LT.	LOT 36	300.62
1+42 RT.	LOT 37 DHC	304.70
1+46 LT.	LOT 35	300.94
M1#8 TO M1#9		
0+09 LT.	LOT 34	302.61
0+42 LT.	LOT 33	303.07
0+67 LT.	LOT 32	303.42
0+93 LT.	LOT 31	303.73
1+14 LT.	LOT 30	304.08
1+43 LT.	LOT 29	304.48
1+74 LT.	LOT 28	304.92
2+09 LT.	LOT 27	305.18
M1#9 LT.	LOT 26	305.41
M1#9 LT.	LOTS 24 # 25	305.76
M1#9 RT. @ 4%	LOT 23	305.60
M1#9 RT. @ 4%	LOTS 21 # 22	307.68



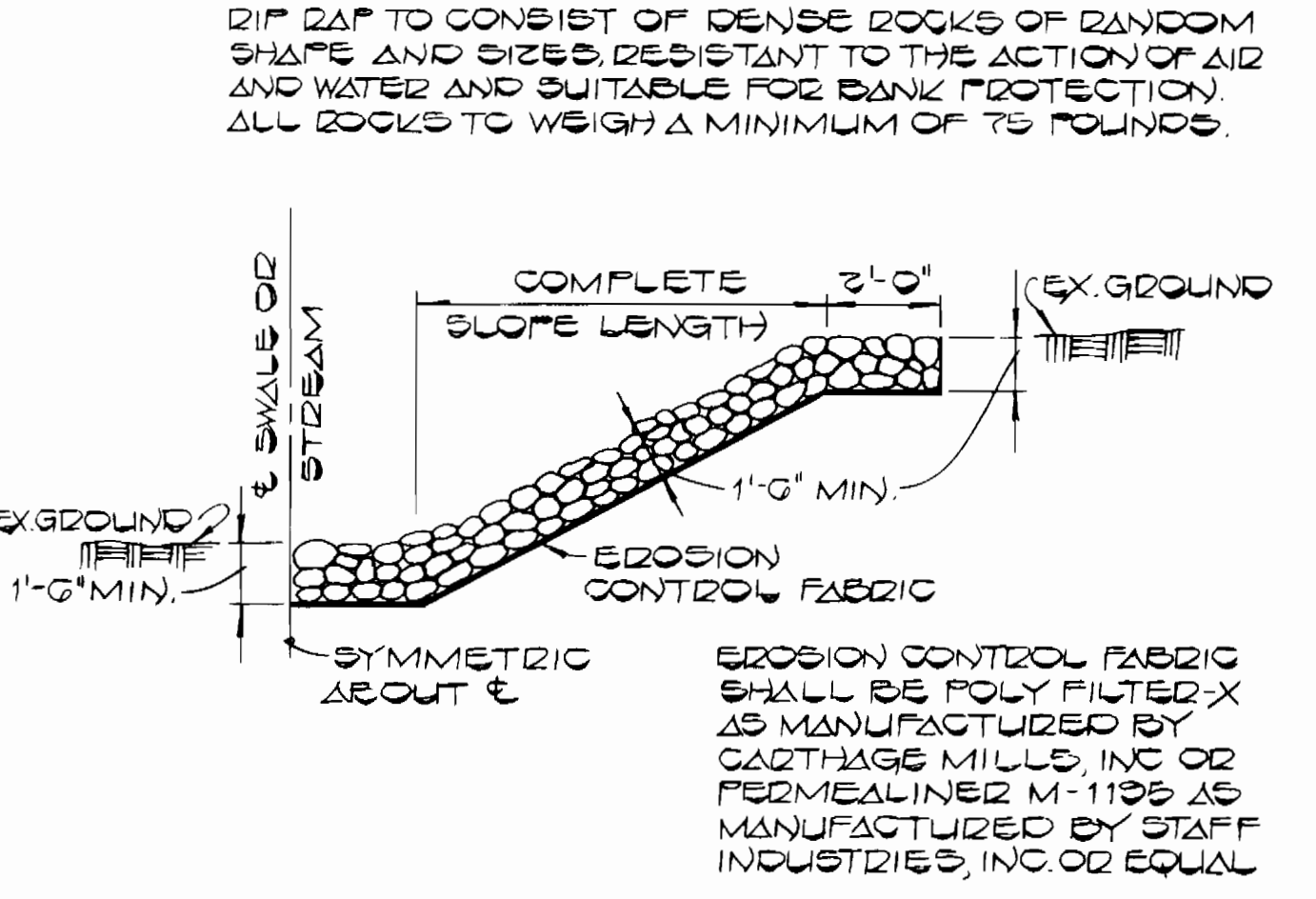
TEMPORARY ACCESS CULVERT AT STREAM CROSSING
No Scale



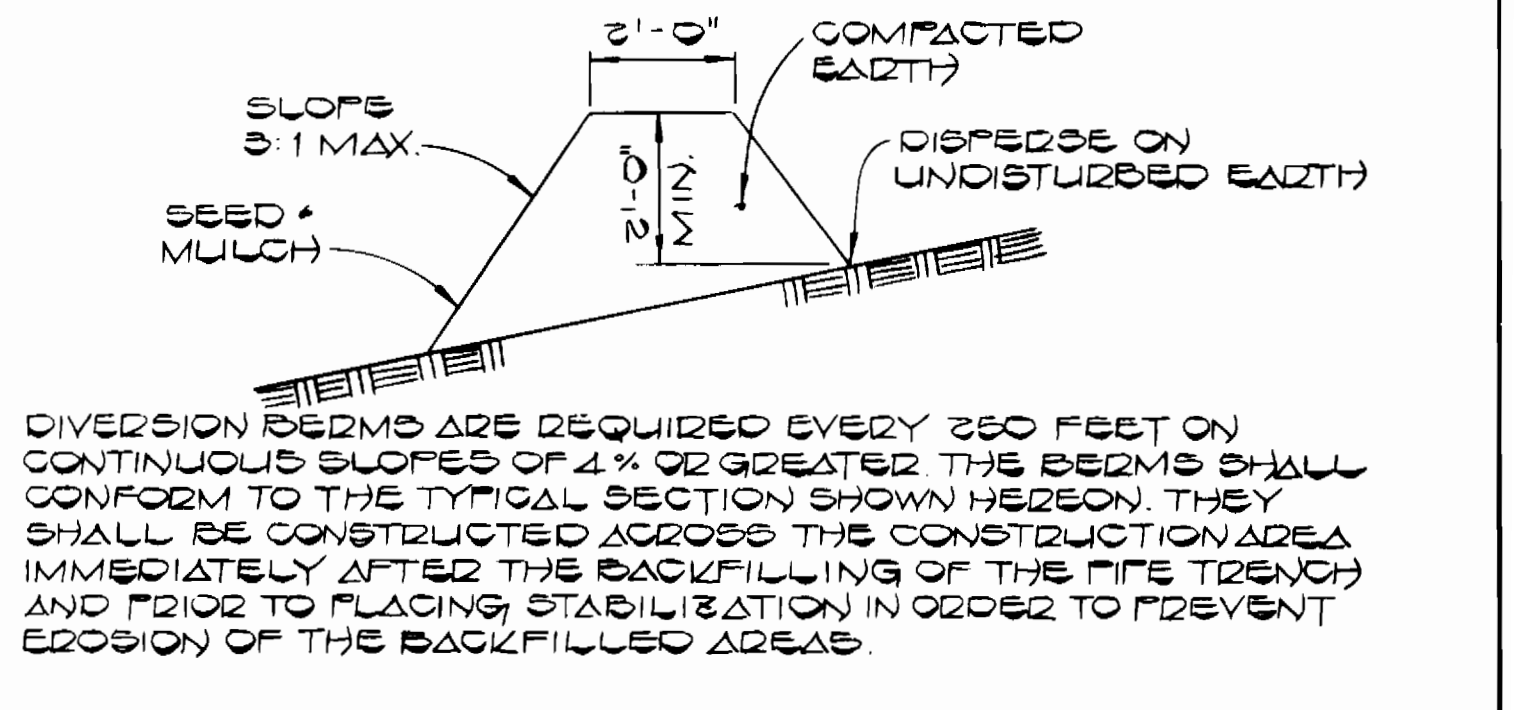
PROFILE
SCALE: 1"=50' HOR
1"=5' VERT.



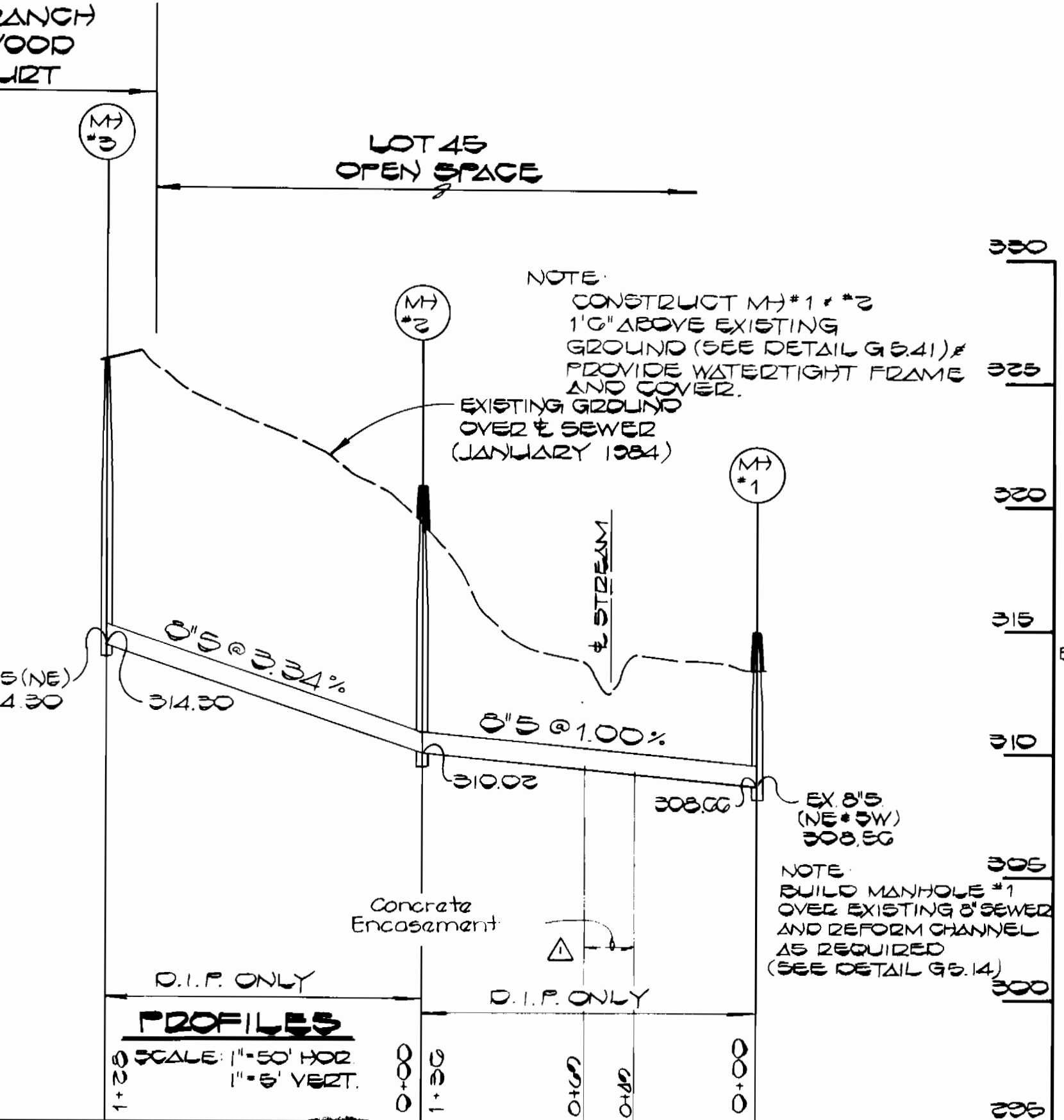
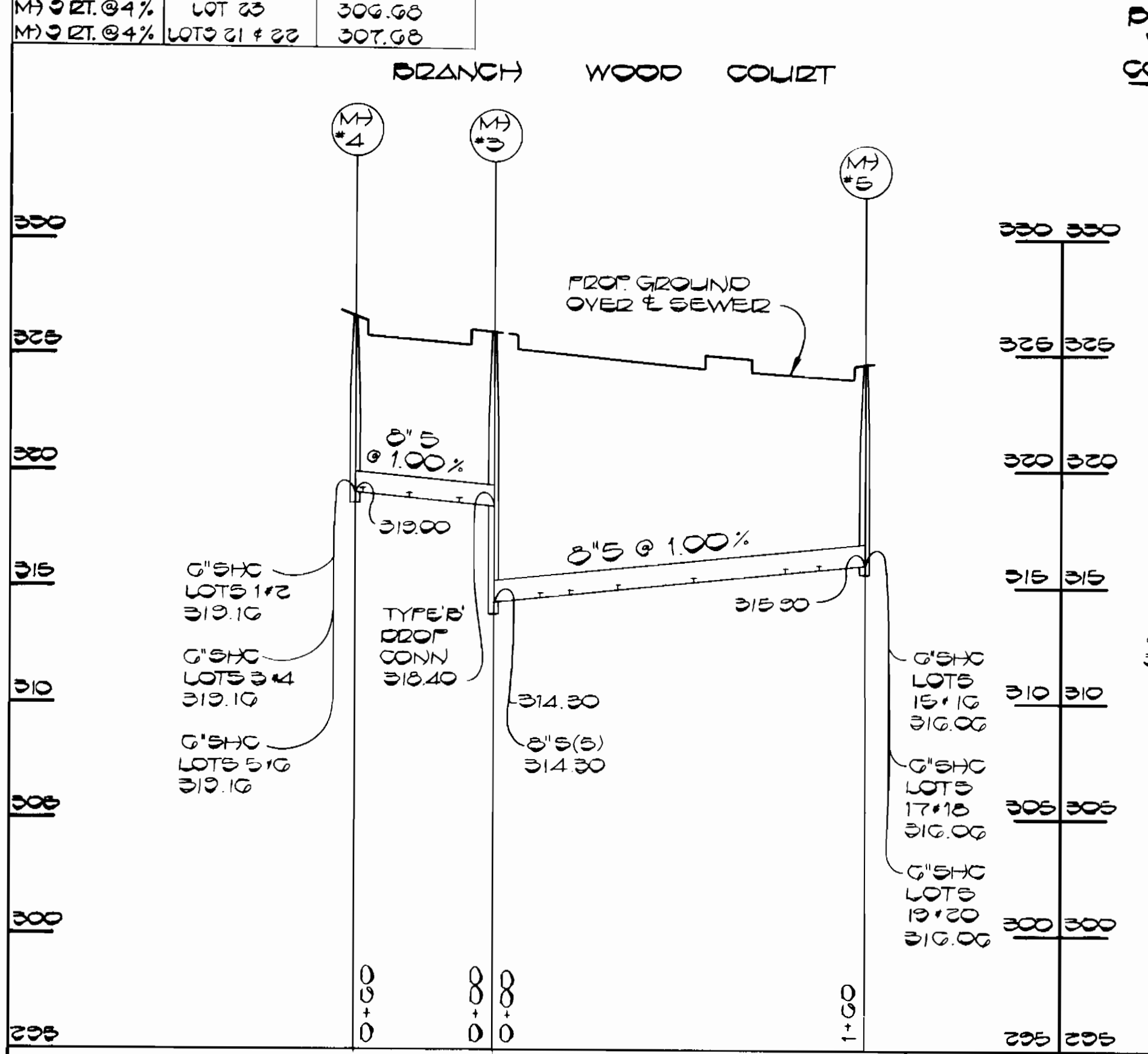
STRAW BALE DIKE
NO SCALE



UNGROUTED RIP RAP DETAIL
NO SCALE



TEMPORARY EARTH DIVERSION BERM
NO SCALE



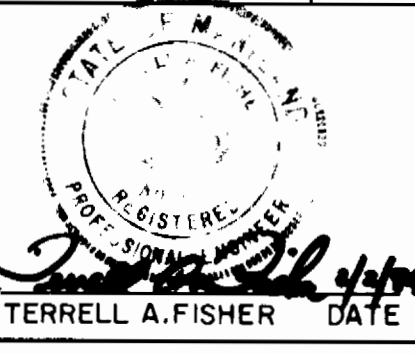
PROFILES
SCALE: 1"=50' HOR
1"=5' VERT.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: Robert M. Beiringer, dated 5-25-84
Chief, Bureau of Engineering: [Signature], dated [Date]
Chief, Land Development Division: [Signature], dated [Date]

FISHER, COLLINS, AND CARTER, INC.
CONSULTING ENGINEERS AND LAND SURVEYORS
8388 COURT AVENUE
ELLCOTT CITY, MARYLAND 21043
461-2855

TERRELL A. FISHER, dated [Date]



DES: D.B.S.
DRN: D.B.S.
CHK: T.A.F.

DEV: [Symbol] Add Conc Encasement between M1#1 & 2 and Ex.M1 7440 M1 G

DATE: 2/2/84

PROFILE AND DETAILS
SEWER MAIN

600' SCALE MAP NO. 37 BLOCK NO.

WOODLAND PARK
SECTION TWO AREA TWO
CONTRACT NO. 14-1193-D
FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 4 OF 4

CONTRACT NO. 14-1193-D
WOODLAND PARK (SEC 2 AREA 2)
WATER AND SEWER EXTENSION
HOWARD COUNTY, MARYLAND