

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

APPROVED: *[Signature]* 11/23/92
 HOWARD COUNTY SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND ALSO AS SHOWN ON THE GRADING AND SEDIMENT CONTROL PLAN F-92-155 REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

[Signature] 11/23/92
 U.S. SOIL CONSERVATION SERVICE DATE

PLAN REFERENCE NUMBERS:
 P-92-09
 F-92-155

PROPERTY OF H. JONES BAKER 213/328

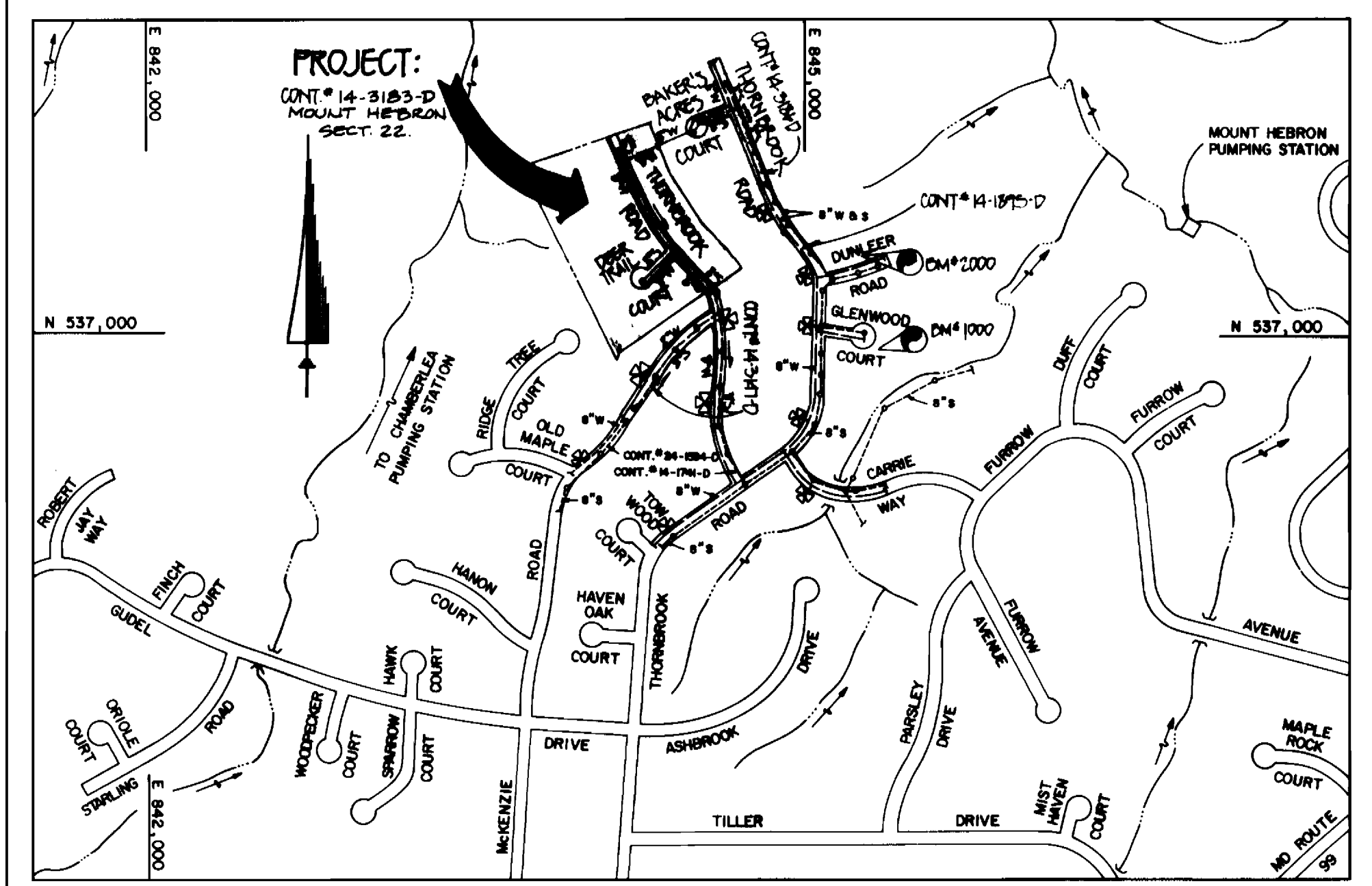
PROVIDE & MAINTAIN ALL WEATHER ACCESS ROAD TO THE CHAMBERLEA SEWER PUMPING STATION AT ALL TIMES DURING THE CONSTRUCTION.
 TYPICAL PAVING SECTION SHALL BE "P-2" AS SHOWN ON STANDARD DETAIL R-2.01. REFERENCE ROAD & STORM DRAIN DRAWINGS, F-92-155.

SEE SHEET 2 FOR PROFILES OF WATER & SEWER MAINS

BENCHMARKS
 BM 1000 ELEVATION: 427.81
 REBAR SET 27" SOUTHWEST OF LINEAR PROFILE STATION 1+55 GLENWOOD COURT ON LOT 45
 BM 2000 ELEVATION: 423.62
 REBAR SET 71" NORTH OF STATION 2+00 DUNLEER ROAD ON LOT 36

PROPERTY OF H. JONES BAKER 213/328

PLAN SCALE: 1"=50'



VICINITY MAP
 SCALE: 1"=600'

TYPE OF BUILDING: RESIDENTIAL
 NUMBER OF LOTS (21 EXCLUDABLE): 21
 NO. OF WATER HOUSE CONNECTIONS: 21
 NO. OF SEWER HOUSE CONNECTIONS: 21
 DRAINAGE AREA: PATAPSCO
 TREATMENT PLANT: PATAPSCO, CITY OF BALTIMORE VIA THE MOUNT HEBRON PUMPING STATION.

WATER & SEWER CODE FOR COUNTY USE ONLY
 WATER NO. 103
 SEWER NO. 145800
 TEST GRADIENT: .780

GENERAL NOTES

- 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 DAMAGED 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 ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 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 (ITM) AMENDMENTS) THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
- 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 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.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 C. & P. TELEPHONE COMPANY - 1-800-257-7777
 STATE HIGHWAY ADMINISTRATION - 531-5533
 BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICES - 850-4620
 BALTIMORE GAS & ELECTRIC CO. - UNDER GROUND DAMAGE CONTROL - 859-9004
 BALTIMORE GAS & ELECTRIC CO. - TROUBLE SHOOTING - 298-9001
 MISS UTILITY - 1-800-559-0100
 COLONIAL PIPELINE CO. - 795-1390
 BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 313-4900
- 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 TREE, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- ALL SEWER MAINS SHALL BE C.S.P.X., R.C.S.P., V.C.P.X., OR P.V.C. UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- T.B. DENOTES TEST BORING.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G 5.52.
- WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED SET TOP OF FRAME 1'6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTINGS, UNLESS OTHERWISE NOTED ON THE PLANS OR THE SPECIFICATIONS.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CAN NOT BE SERVED.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN SPECIFICATIONS.
- MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLES, FRAMES AND COVERS STANDARD DETAIL G 5.51.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
- WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED SO AS TO HAVE ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
- ALL WATER MAINS TO BE D.I.P., CLASS 52 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 ELEVATION SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS. REFERENCE STANDARD DETAILS W1.11 & W2.11.
- CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATIONS C-153; DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.

QUANTITIES

ITEM	ESTIMATED QUANTITY	AS BUILT QUANTITY	TYPE	MANUFACTURER
2" SEWER	770 LF	971 LF	P.V.C.	JM MANUFACTURING CO.
MANHOLES	0 EACH	3 BA	-	-
4" S	602 LF	611 LF	P.V.C.	JM MANUFACTURING CO.
8" WATER	264 LF	257 LF	DIP	GRiffin PIPE PROD.
FIRE HYDRANT	2 EACH	2 BA	-	U.S. PIPE FOUNDRY
6" W	247 LF	246 LF	-	GRiffin PIPE PROD.
1" WVC	103 LF	-	-	HOBELL METALS
3/4" WVC	474 LF	-	-	HOBELL METALS
8" VALVE	2 EACH	3 BA	-	MUELLER CO.
6" VALVE	3 EACH	3 BA	-	MUELLER CO.

(GENERAL NOTES, CONTINUED)

26. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH D.P.W. REQUIREMENTS PER SECTION 18.114(G) OF THE HOWARD COUNTY CODE.

CONTRACT NO. 14-3183-D
 MT. HEBRON SECTION 22
 LOTS 1-25
 WATER AND SEWER EXTENSIONS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

[Signature] 11/23/92
 DIRECTOR OF PUBLIC WORKS DATE

[Signature] 11/23/92
 CHIEF, BUREAU OF ENGINEERING DATE

[Signature] 11/23/92
 CHIEF, BUREAU OF UTILITIES DATE

[Signature] 11/23/92
 CHIEF, LAND DEVELOPMENT DIVISION DATE

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 SUITE 100, 9171 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21043
 (301) 461-2855

#9757
 TERRELL A. FISHER

DES: MM
 DRWN: MM
 CHK: PWK
 DATE: 9/93

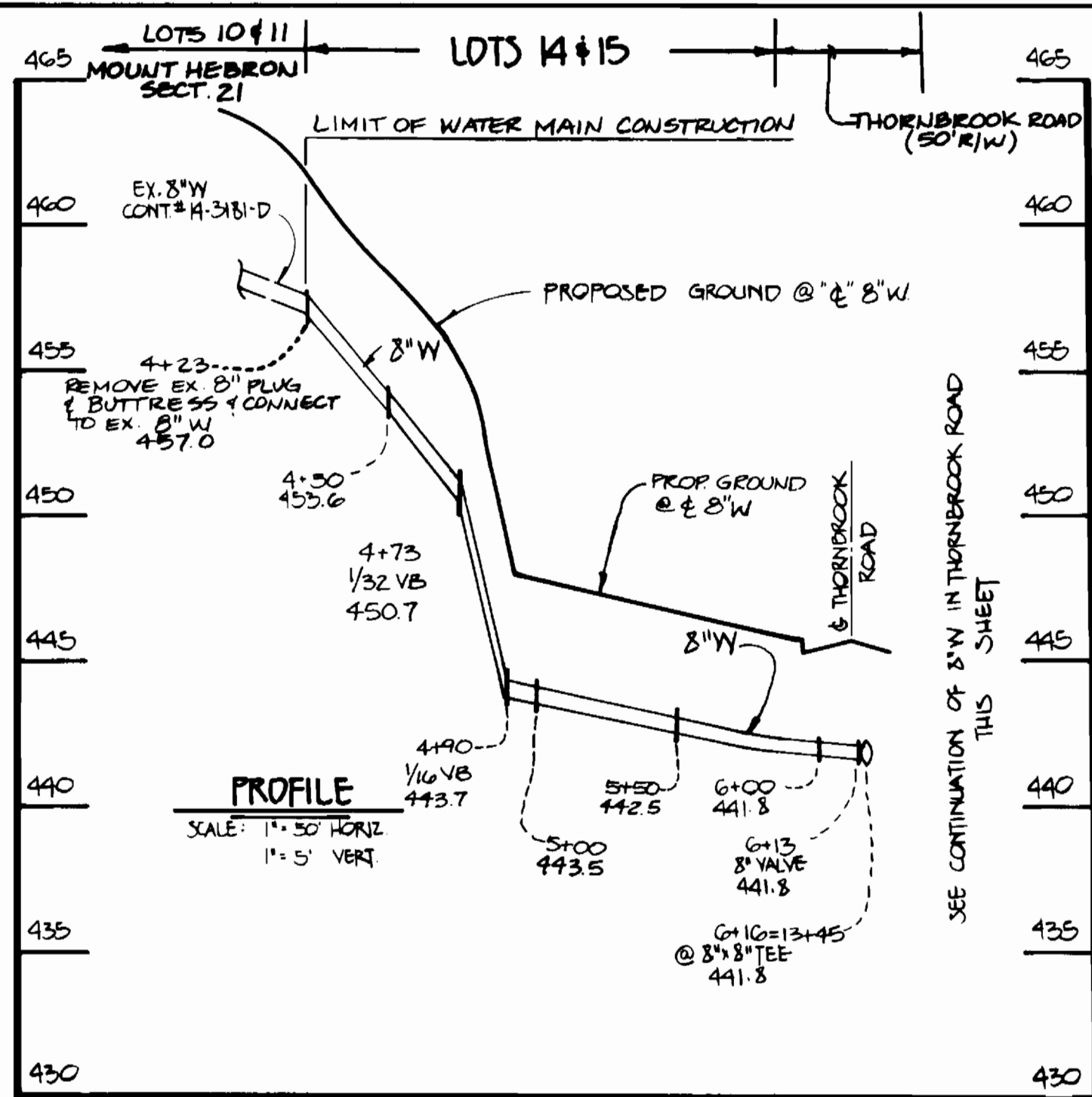
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WATER AND SEWER MAINS
 PLAN

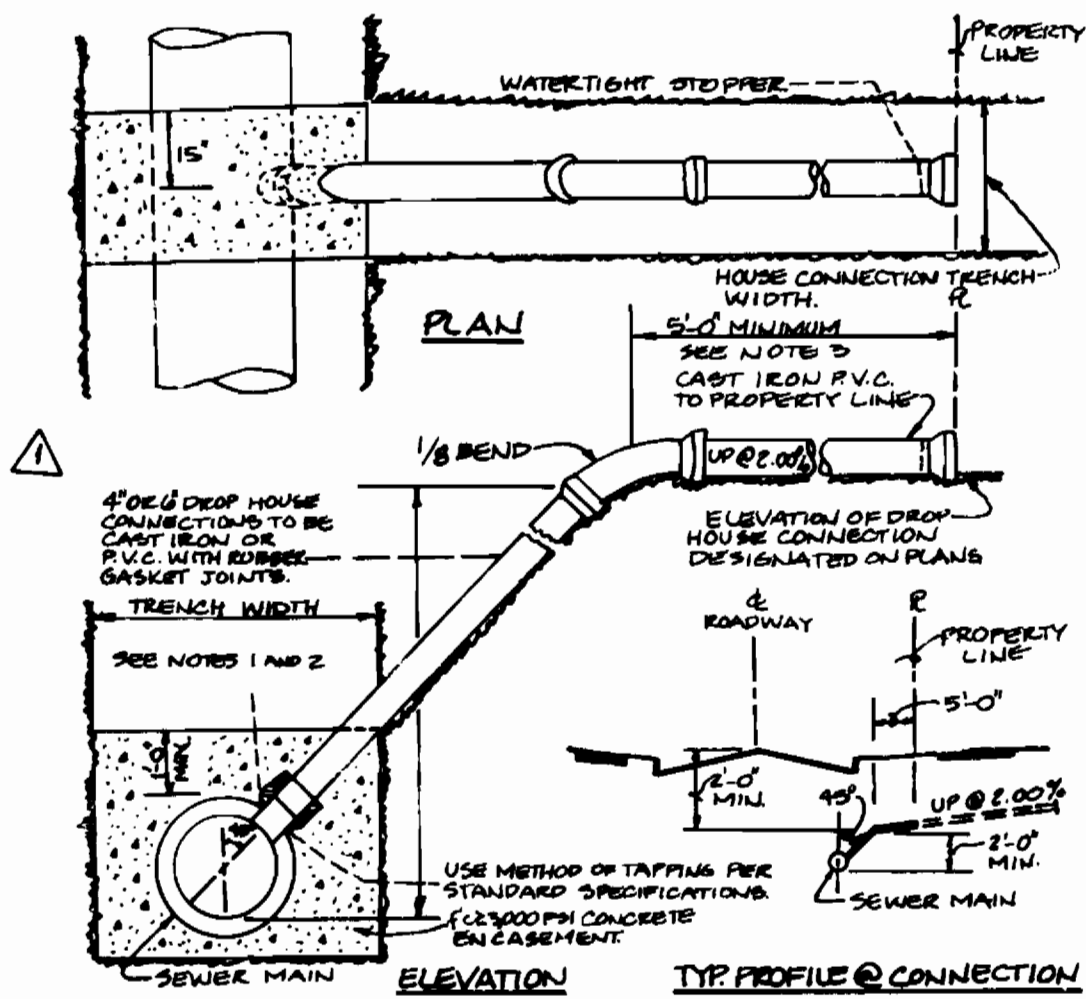
600' SCALE MAP NO. 17 BLOCK NO. 3

MT. HEBRON; SECTION 22
 LOTS 1-25
 CONTRACT NO. 14-3183-D
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 1 OF 2
 AS-BUILT 10/15/93



8-INCH WATER MAIN; LOOP



NOTES:
 1. S.H.C. TO 8\"/>

S.H.C. INVERTS @ PROPERTY LINE		
STATION	LOT	ELEVATION
MH#300 TO MH#301		
0+25 RT	12 (1.00%)	428.30
0+60 LT	(45) 1 DHC	434.48
0+85 RT	21 (1.00%)	428.66
1+45 LT	(45) 2 DHC	434.51
1+75 RT	20	429.29
MH#301 TO MH#302		
0+50 RT	19	429.84
1+30 RT	18	430.24
1+50 LT	8	430.66
MH#302 TO MH#303		
0+80 RT	(45) 17 DHC	435.52
1+00 LT	9	431.21
1+60 LT	10	431.51
MH#303 TO MH#304		
0+30 RT	(45) 16 DHC	430.20
1+00 LT	12 (1.00%)	432.01
1+20 RT	(45) 15 DHC	437.25
@ MH 304 LT	13 (1.00%)	432.82
@ MH 304 RT	14 D.C.	436.38
MH#301 TO MH#310		
0+30 RT	7 (1.00%)	433.05
1+25 LT	3	433.68
@ MH 310 LT	4	435.25
@ MH 310 RT	5	435.57
@ MH 310 RT	6 FF ONLY!	430.75

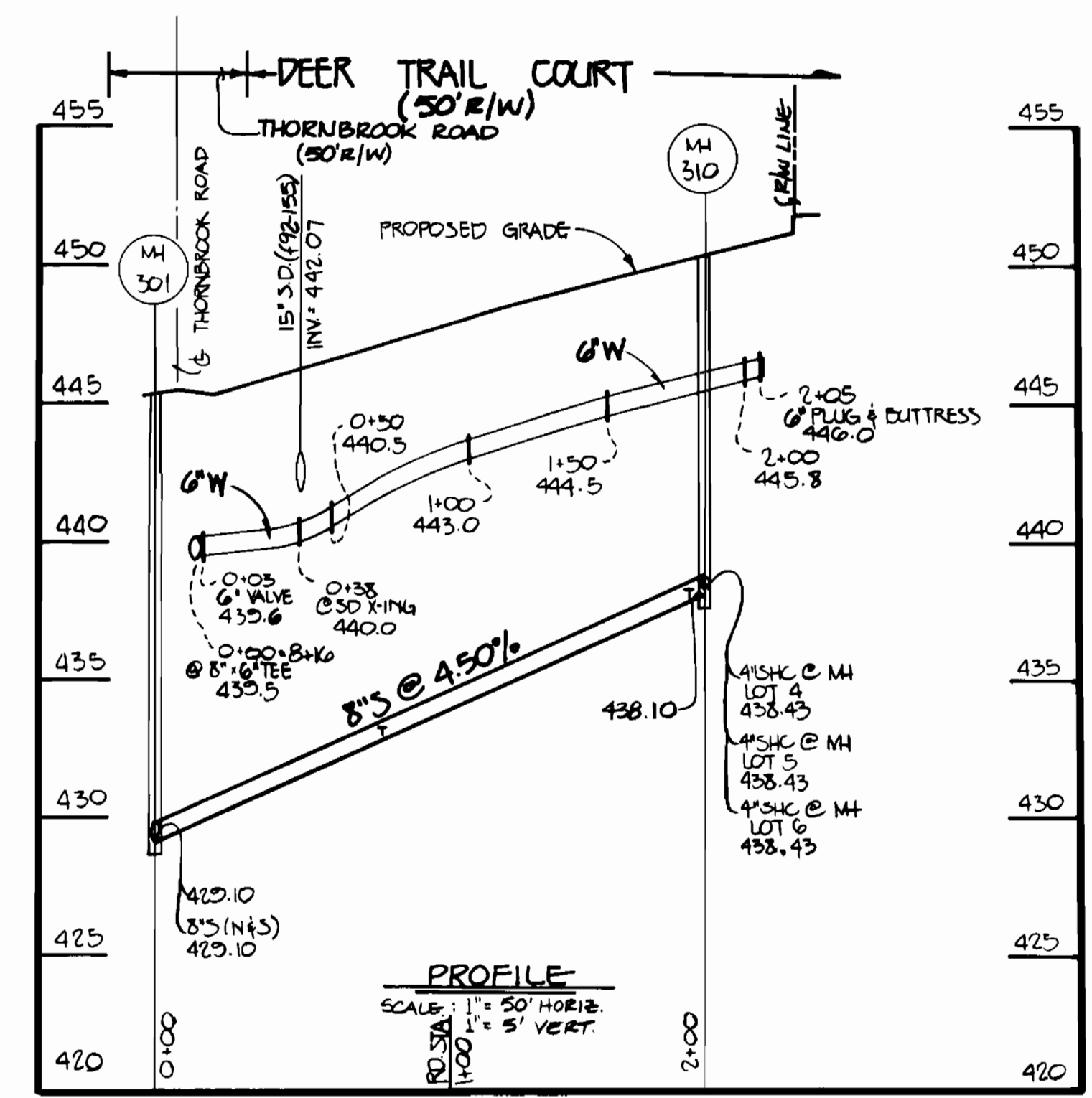
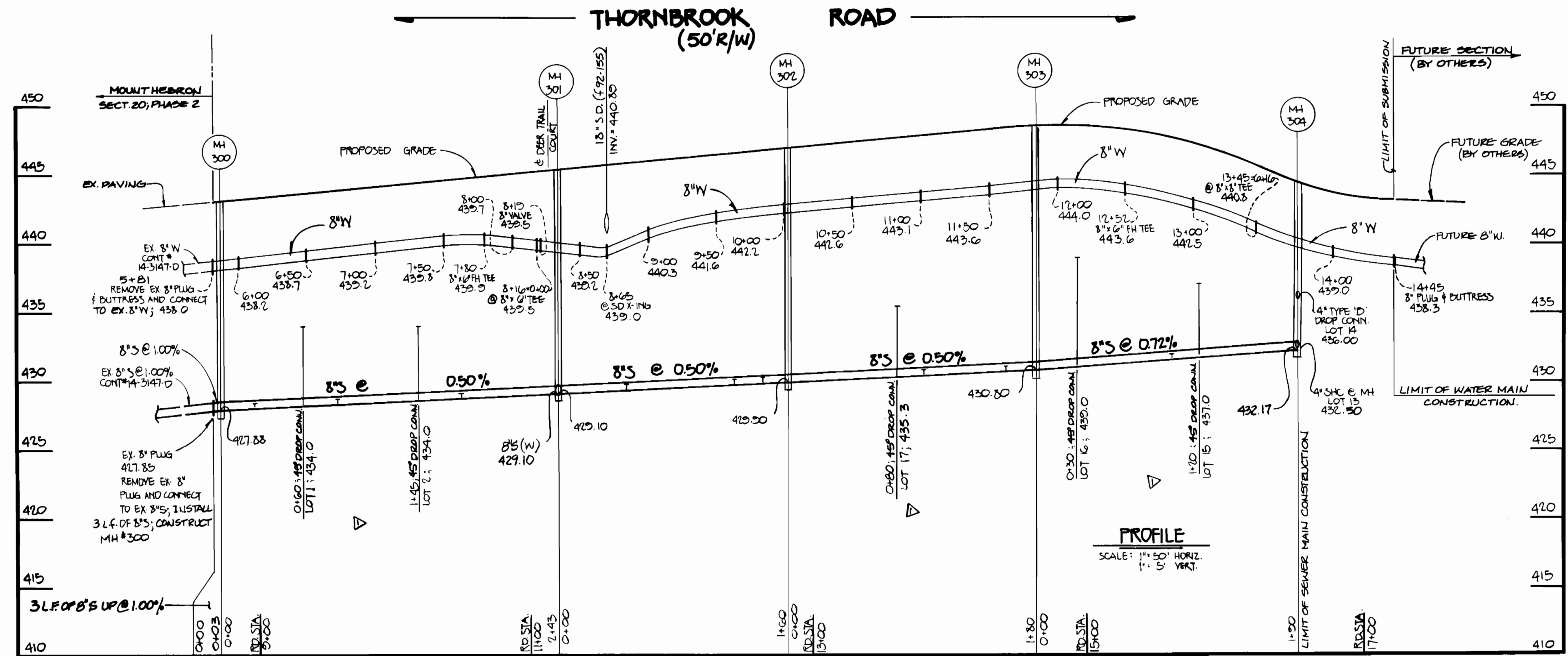
4" - 45° DROP HOUSE CONNECTION CHART				
LOT NO.	INV @ 8" SEWER	INV @ 1/8 BEND	DISTANCE @ MAIN TO 1/8 BEND	DISTANCE @ 2% 1/8 BEND TO 2'
1	428.18	434.00	5.82'	24.18'
2	428.61	434.00	5.39'	25.61'
15	431.66	437.00	5.34'	12.66'
16	431.02	439.00	7.98'	10.02'
17	430.30	435.30	5.00'	11.00'

WM TABULATION CHART		
6" ROAD STATION	APPURTENANCE	DISTANCE
THORNBROOK ROAD		
10+70	8" x 6" FH TEE	7' LT
10+70	6" VALVE	10' LT
11+04	8" x 8" TEE	7' LT
11+04	8" VALVE	10' LT
11+07	8" VALVE	7' LT
15+40	6" VALVE	4' LT
15+40	8" x 6" FH TEE	7' LT
16+32	8" VALVE	4' LT
16+32	8" x 8" TEE	7' LT
17+26	8" PLUG & BUTTRESS	7' LT
DEER TRAIL COURT		
LP STA. 0+33	6" PLUG & BUTTRESS	3' RT.

MANHOLE TABULATION CHART *				
NO.	6" RD. STATION	DISTANCE	SLOPE	RIM ELEV.
300	8+75	5' RT.	+1.00%	442.72
301	11+18	7' RT.	+1.00%	445.23
302	12+33	7' RT.	+1.00%	446.88
303	14+63	7' RT.	+1.00%	448.68
304	16+53	7' RT.	-3.12%	444.61
310	1N CUL-16-SAC	----	13.00%	450.50

* SET ALL RIMS FLUSH W/ PROPOSED FINISHED GRADE.

SEE SHEET 1 FOR PLAN VIEW OF WATER & SEWER MAINS



CONTRACT NO. 14-3183-D
 MT. HEBRON; SECTION 22
 LOTS 1-23
 WATER AND SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: [Signature] 11-23-92
 Chief, Bureau of Engineering: [Signature] 11-28-92
 Chief, Bureau of Utilities: [Signature] 11-9-92
 Chief, Land Development Division: [Signature] 11/20/92

FISHER, COLLINS, AND CARTER, INC. 0757
 CONSULTING ENGINEERS AND LAND SURVEYORS
 9171 BALTIMORE NATIONAL PIKE, SUITE 100
 ELLICOTT CITY, MARYLAND 21043
 [Seal of Terrill Fisher]

DES: MM	FCSC	ADJUST 48" DHC'S, ADDED CHART & DETAIL	9/93
DRN: MM			
CHK: PWK			
DATE:	BY NO.	REVISION	DATE

WATER AND SEWER MAINS
 PROFILES
 600' SCALE MAP NO. 17 BLOCK NO. 3

MT. HEBRON: SECTION 22
 LOTS 1-23
 CONTRACT NO. 14-3183-D
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SCALE AS SHOWN
 SHEET 2 OF 2