
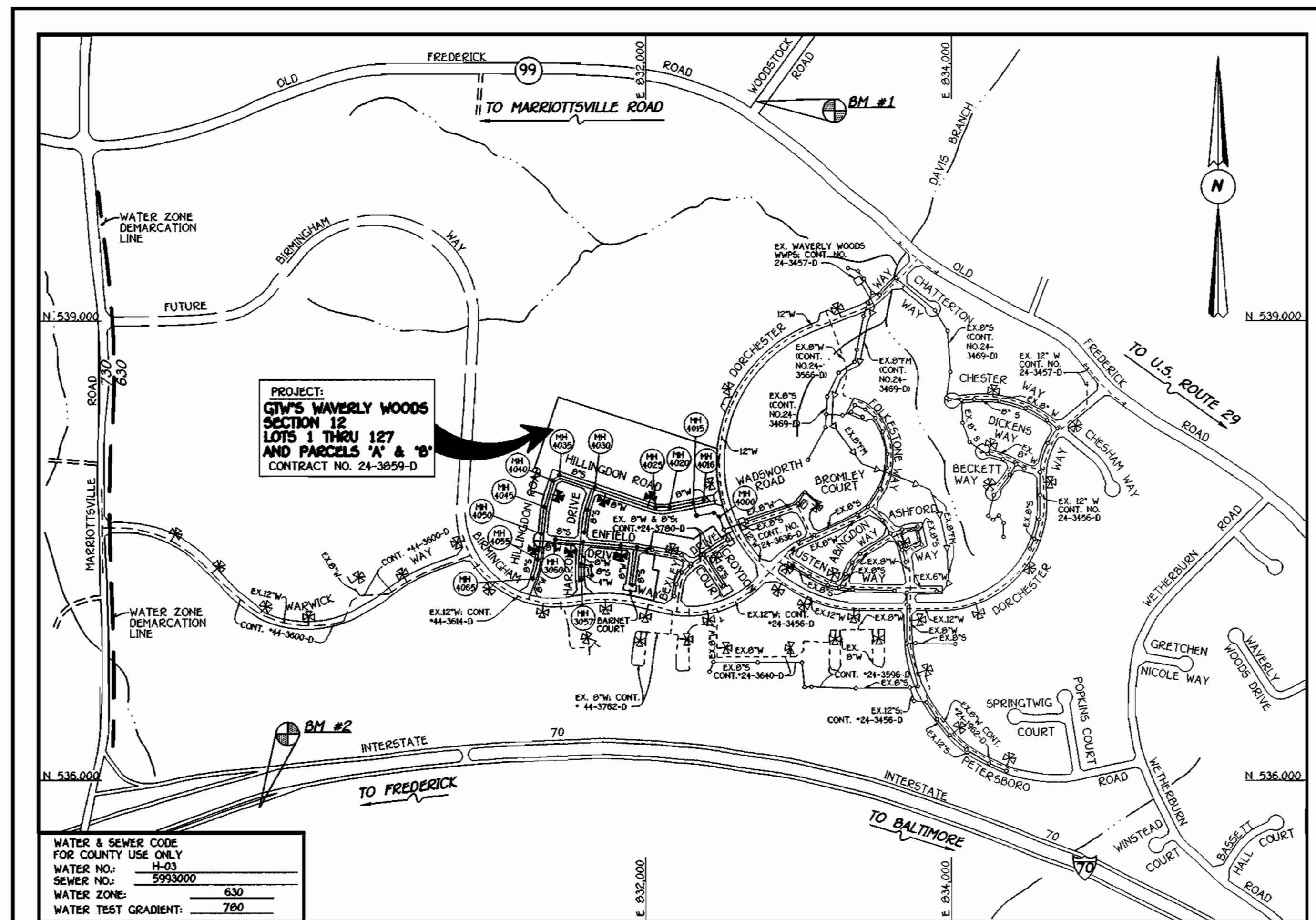


**GENERAL NOTES**

- 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 DAMAGE 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". CLEAR ALL POLES BY 2'-0" MINIMUM.
- 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 (1991 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:
  - STATE HIGHWAY ADMINISTRATION - 531-5533
  - BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICES - 850-4620
  - BALTIMORE GAS & ELECTRIC CO. - UNDER GROUND DAMAGE CONTROL - 787-9068
  - MISS UTILITY - 1-800-257-7777
  - 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 TREES, 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 D.I.P. 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 18" 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 PLANS OR IN THE SPECIFICATIONS.
- HOUSES WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAMES AND COVERS, STANDARD DETAIL G5.51.
- WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED AS TO HAVE ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
- ALL WATER MAINS SHALL 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 THE STANDARD DETAILS (W111 AND W213). SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- THE 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.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, (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 DPW REQUIREMENTS PER SECTION 18.114(d) OF THE HOWARD COUNTY CODE.

QUANTITIES				
ITEM	ESTIMATED	QUANTITIES	AS-BUILT	SUPPLIER
			TYPE	
8" SEWER	2,934 L.F.			
8" SEWER D.I.P.	940 L.F.			
4" SEWER	5,270 L.F.			
MANHOLES	25 EACH			
8" WATER	3,647 L.F.			
6" WATER	86 L.F.			
4" WATER	201 L.F.			
1" WHC	5,214 L.F.			
FIRE HYDRANTS	6 EACH			
12" X 8" TAPPING SLEEVE & VALVE	1 EACH			
8" VALVES	9 EACH			
6" VALVES	6 EACH			
4" VALVES	2 EACH			
8" X 8" CROSS	2 EACH			
8" X 8" TEE	2 EACH			
8" X 6" TEE	6 EACH			
8" X 4" TEE	2 EACH			
8" - 1/8 H.B.	2 EACH			
8" - 1/32 H.B.	1 EACH			
4" - 1/8 H.B.	4 EACH			
8" PLUG & BUTTRESS	3 EACH			
NAME OF UTILITY CONTRACTOR:				
SURVEY & DRAFTING DIVISION AS-BUILT DATE:				



WATER & SEWER CODE FOR COUNTY USE ONLY	
WATER NO.:	H-03
SEWER NO.:	5993000
WATER ZONE:	630
WATER TEST GRADIENT:	780

**VICINITY MAP**

SCALE: 1"=600'

PLAN REFERENCE NUMBERS: P00-17, P01-31

**DEVELOPER'S CERTIFICATION**

I/WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

*M. McCann* FOR: **Waverly Woods Development Corp.** 1/10/01  
SIGNATURE OF DEVELOPER DATE

**ENGINEER'S CERTIFICATION**

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*Paul W. Koedel* 01/10/01  
SIGNATURE OF ENGINEER DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

*Jim Myers / cs* 2/1/01  
U.S.D. NATURAL RESOURCES CONSERVATION SERVICE DATE

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

APPROVED: *Geoffrey W. Selig* 2/1/01  
HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND AS SHOWN ON P01-31 AND THESE PLANS.

*M. McCann* FOR: **Waverly Woods Development Corp.** 1/10/01  
SIGNATURE OF DEVELOPER DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND



DESIGNED BY:	P.W.K.
DRAWN BY:	M.D.T.
CHECKED BY:	P.W.K.
DATE:	JANUARY, 2001
BY NO.	
REVISION	

TITLE SHEET	
600' SCALE MAP NO. 16	BLOCK NO. 3
F.C.C. WORK ORDER NO. 30691	
FILE NAME:	30691 W & S TITLE SHEET SH1

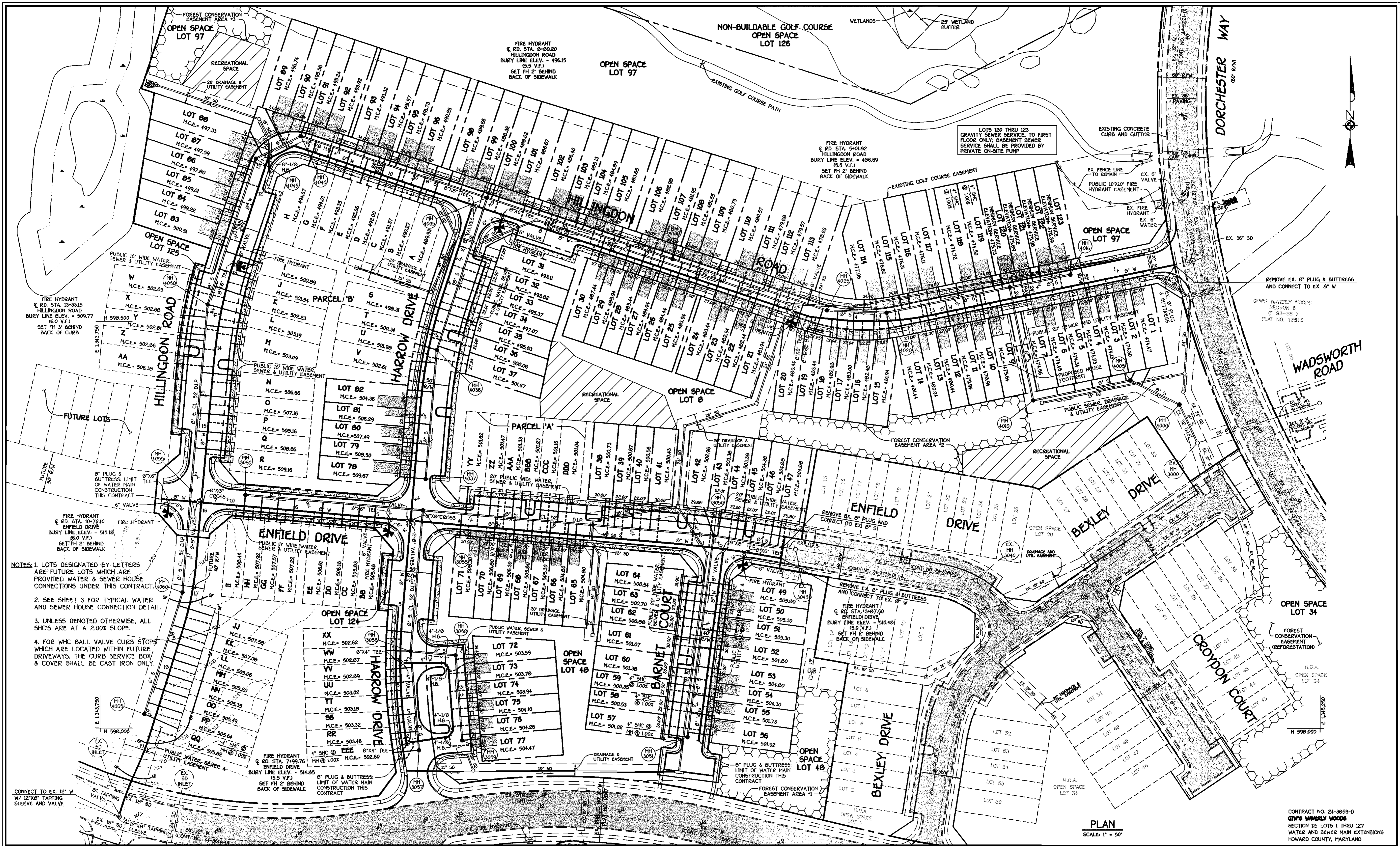
**G.T.W.'S WAVERLY WOODS**  
SECTION 12; LOTS 1 THRU 127 AND PARCELS 'A' & 'B'  
CONTRACT NO. 24-3859-D  
THIRD ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 1 OF 9

<b>BENCHMARK INFORMATION</b>	
BM#1 - HOWARD COUNTY CONTROL STATION #1012 (NAD '83)	(NEAR THE INTERSECTION OF MARYLAND ROUTE 99 & WOODSTOCK ROAD)
N 60.050177	E 1,345,336.750
ELEVATION = 445.577	
BM#2 - HOWARD COUNTY CONTROL STATION # 16E1 (NAD '83)	(NEAR THE INTERSECTION OF U.S. ROUTE 40 & HARRIOTTVILLE ROAD)
N 993,250.932	E 1,340,192.711
ELEVATION = 509.924	

CONTRACT NO. 24-3859-D  
**GTW'S WAVERLY WOODS**  
SECTION 12; LOTS 1 THRU 127  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

**CONTRACT No. 24-3859-D**  
**GTW'S WAVERLY WOODS**  
**SECTION 12; LOTS 1 THRU 127**  
**AND PARCELS 'A' & 'B'**  
**WATER AND SEWER MAIN EXTENSIONS**  
**HOWARD COUNTY, MARYLAND**



NOTES: 1. LOTS DESIGNATED BY LETTERS ARE FUTURE LOTS WHICH ARE PROVIDED WATER & SEWER HOUSE CONNECTIONS UNDER THIS CONTRACT.

2. SEE SHEET 3 FOR TYPICAL WATER AND SEWER HOUSE CONNECTION DETAIL.

3. UNLESS DENOTED OTHERWISE, ALL SHC'S ARE AT A 2.00% SLOPE.

4. FOR WHC BALL VALVE CURB STOPS WHICH ARE LOCATED WITHIN FUTURE DRIVEWAYS, THE CURB SERVICE BOX & COVER SHALL BE CAST IRON ONLY.

PLAN  
SCALE: 1" = 50'

CONTRACT NO. 24-3059-D  
G.T.W.'S WAVERLY WOODS  
SECTION 12, LOTS 1 THRU 127  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Robert J. Beatty*  
CHIEF, BUREAU OF UTILITIES

02-01-01  
DATE

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

*John J. ...*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

2/6/01  
DATE

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 1827 BALTIMORE NATIONAL PIKE  
ELLSWORTH CITY, MARYLAND 21112  
1919 941 - 2255

STATE OF MARYLAND  
TERRELL A. FISHER  
PROFESSIONAL ENGINEER

DESIGNED BY: P.W.K.  
DRAWN BY: M.D.T.  
CHECKED BY: P.W.K.  
DATE: JANUARY, 2001

BY NO.	REVISION	DATE

WATER AND SEWER MAINS  
PLAN VIEW

600' SCALE MAP NO. 16 BLOCK NO. 5

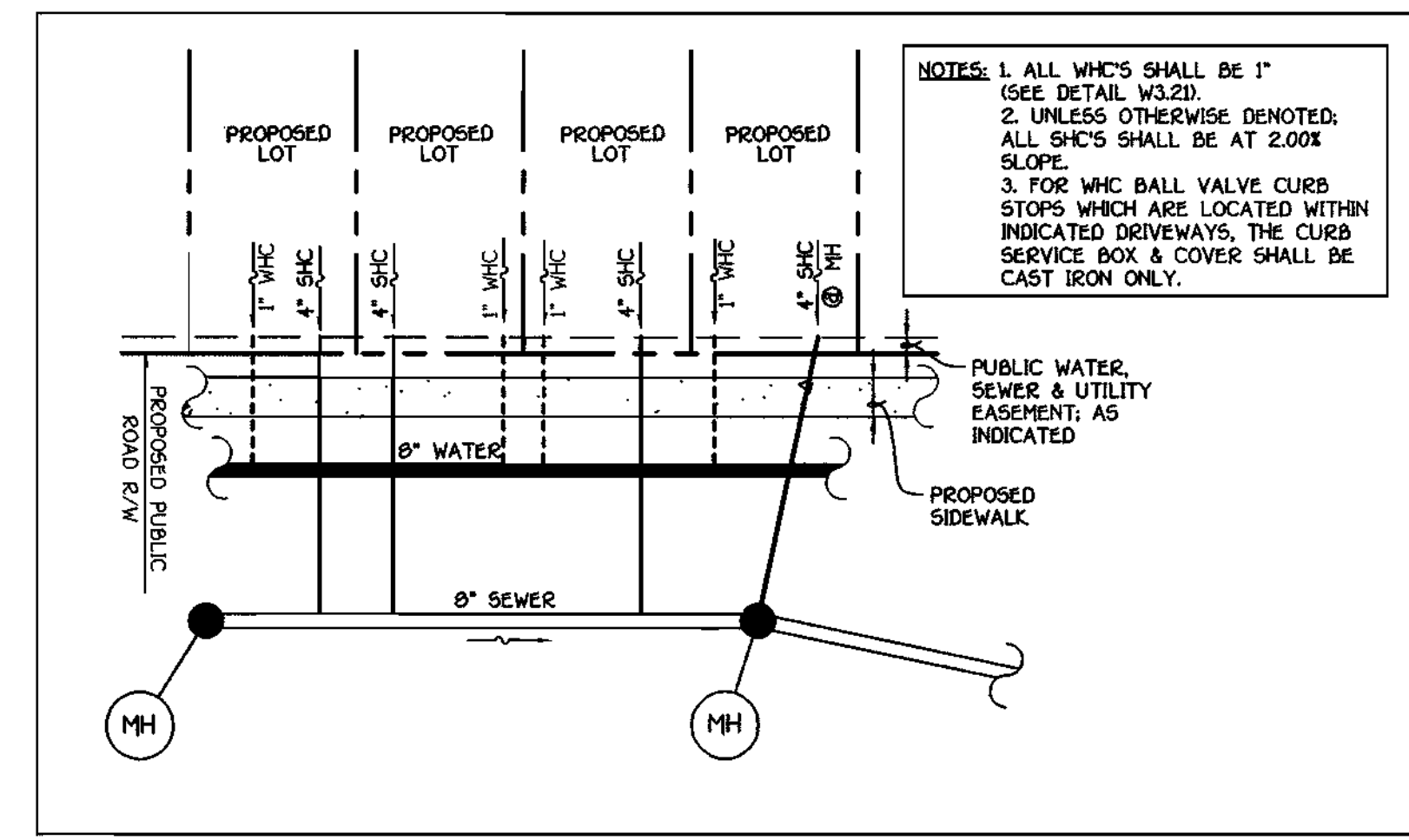
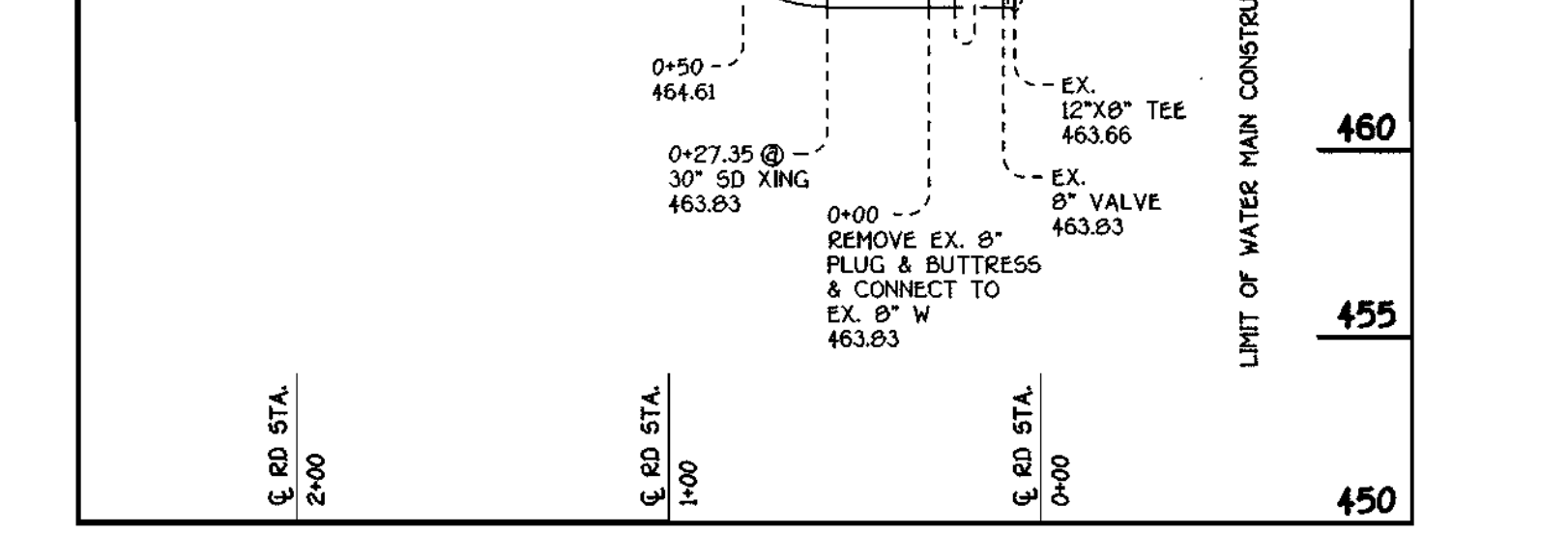
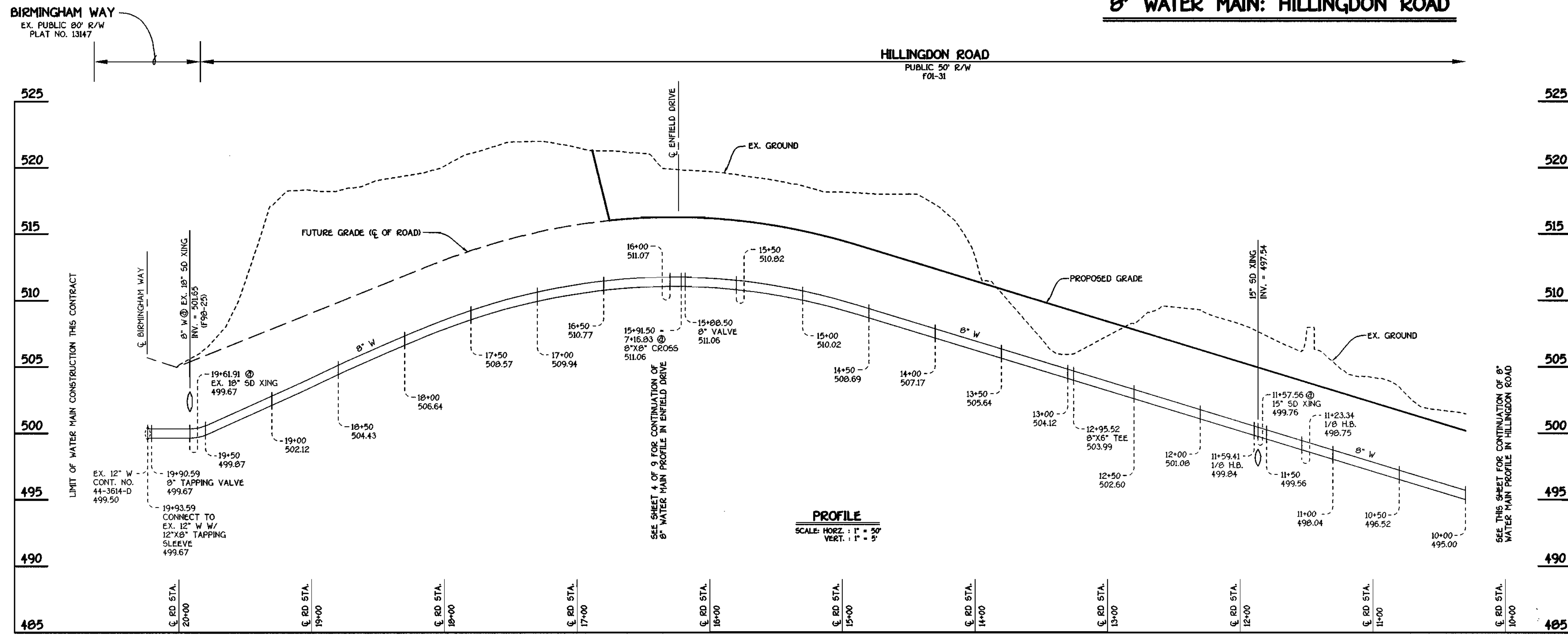
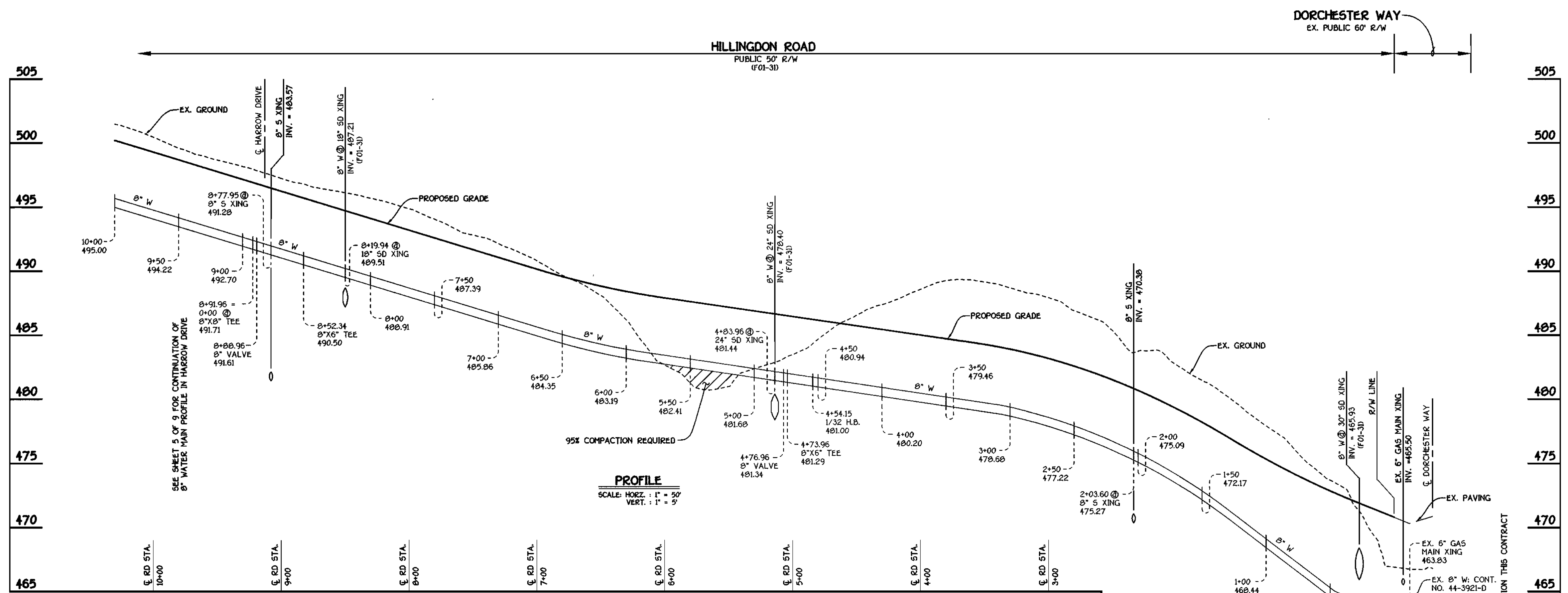
F.C.C. WORK ORDER NO. 30891

FILE NAME: 30891 WATER AND SEWER MAINS PLAN VIEW SH2E

G.T.W.'S WAVERLY WOODS  
SECTION 12, LOTS 1 THRU 127 AND PARCELS 'A' & 'B'  
CONTRACT NO. 24-3059-D  
THIRD ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 2 of 9

WATER MAIN TABULATION CHART			
WM STATION	APPURTENANCE	℄ ROAD STATION	DISTANCE
HILLINGDON ROAD			
0+00	CONNECT TO EX. 8" W	0+54.69	7.00' LT.
3+04.03	P.C. (CRIMP RADIUS = 380')	3+34.00	7.00' LT.
4+24.53	P.T. (CRIMP RADIUS = 380')	4+53.39	2.48' LT.
4+54.15	1/32 H.B.	4+82.01	7.00' LT.
4+73.96	8" X 6" TEE	5+01.82	7.00' LT.
8+52.34	8" X 6" TEE	8+80.20	7.00' LT.
8+88.96	8" VALVE	9+16.82	7.00' LT.
8+91.96	8" X 8" TEE	9+19.82	7.00' LT.
11+23.34	1/8 H.B.	11+53.00	5.00' LT.
11+59.41	1/8 H.B.	11+95.10	5.00' LT.
12+82.44	P.C. (CRIMP RADIUS = 593')	13+19.92	7.00' LT.
12+95.82	8" X 6" TEE	13+33.15	7.00' LT.
14+18.32	P.T. (CRIMP RADIUS = 593')	14+57.41	7.00' LT.
15+88.50	8" VALVE	16+27.62	7.00' LT.
15+91.50	8" X 8" CROSS	16+30.62	7.00' LT.
16+61.90	P.C. (CRIMP RADIUS = 380')	17+00.98	7.00' LT.
17+48.05	P.T. (CRIMP RADIUS = 380')	17+85.41	7.00' LT.
18+90.80	P.C. (CRIMP RADIUS = 380')	19+28.16	5.00' LT.
19+32.59	P.R.C. (CRIMP RADIUS = 380')	19+69.80	3.84' LT.
19+82.59	P.T. (CRIMP RADIUS = 380')	20+19.66	0.60' LT.
19+90.59	8" TAPPING VALVE	-0+04.00	0.60' LT.
19+93.59	12" X 8" TAPPING SLEEVE	-0+07.00	0.60' LT.



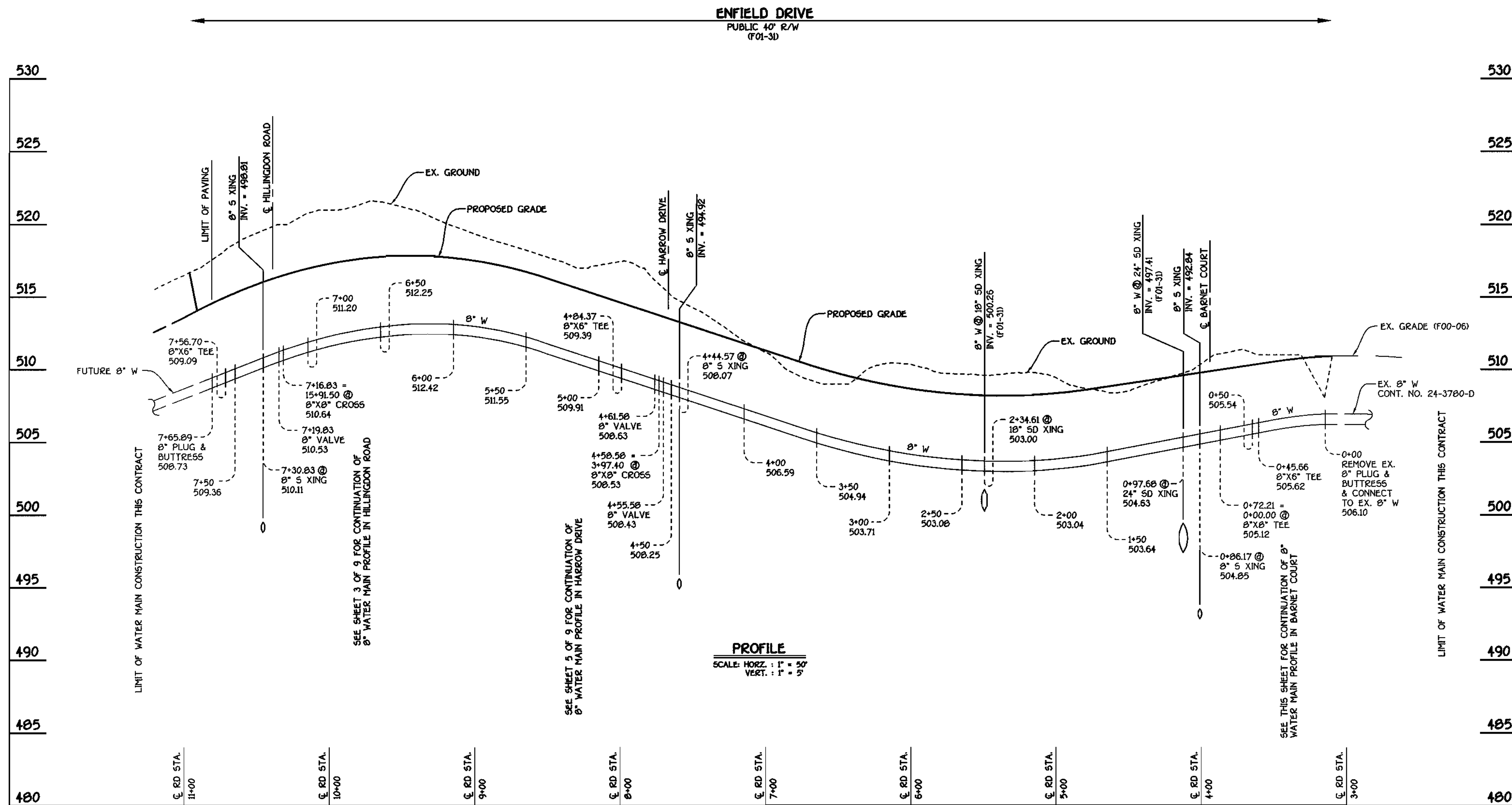
NOTES: 1. ALL WHC'S SHALL BE 1" (SEE DETAIL W3.21).  
 2. UNLESS OTHERWISE DENOTED, ALL SHC'S SHALL BE AT 2.00% SLOPE.  
 3. FOR WHC BALL VALVE CURB STOPS WHICH ARE LOCATED WITHIN INDICATED DRIVEWAYS, THE CURB SERVICE BOX & COVER SHALL BE CAST IRON ONLY.

**8" WATER MAIN: HILLINGDON ROAD**

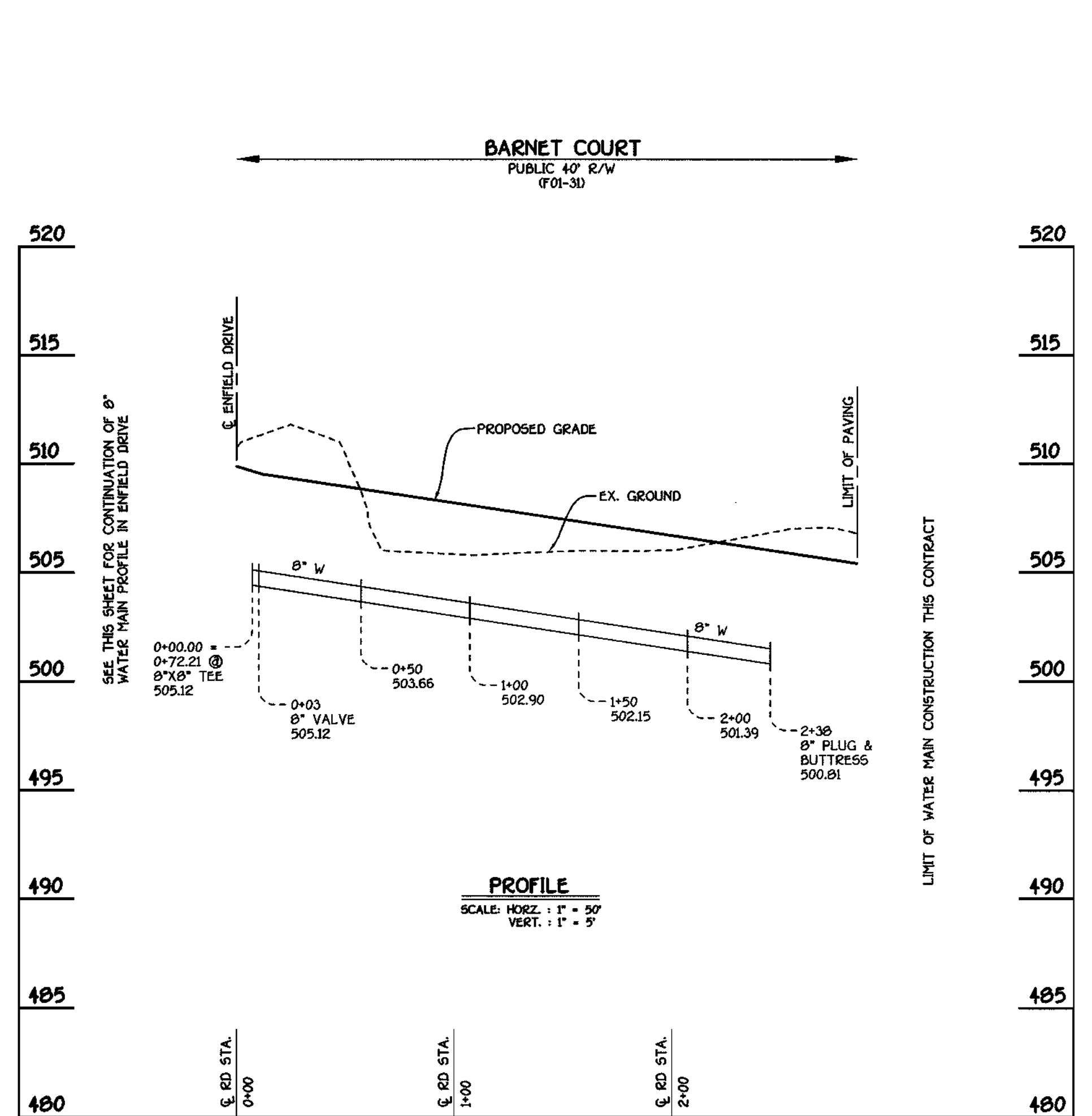
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND 02-01-01 DATE	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND 2/6/01 DATE	FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS CENTRAL SQUARE OFFICE PARK - 3872 BALTIMORE NATIONAL PIKE ELKLOTT CITY, MARYLAND 22842 4109 481 - 2855	DESIGNED BY: P.W.K. DRAWN BY: M.D.T. CHECKED BY: P.W.K. DATE: JANUARY, 2001	WATER MAINS PROFILES 600' SCALE MAP NO. 16 BLOCK NO. 5 F.C.C. WORK ORDER NO. 30691 FILE NAME: 30691 WATER MAIN PROFILES SH13	G.T.W.'S WAVERLY WOODS SECTION 12; LOTS 1 THRU 127 AND PARCELS 'A' & 'B' CONTRACT NO. 24-3859-D THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND	CONTRACT NO. 24-3859-D G.T.W.'S WAVERLY WOODS SECTION 12; LOTS 1 THRU 127 WATER AND SEWER MAIN EXTENSIONS HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET 3 OF 9
---	--	--	--	---	---	---	--------------------------------

**WATER MAIN TABULATION CHART**

WM STATION	APPURTENANCE	± ROAD STATION	DISTANCE
ENFIELD DRIVE			
0+00	CONNECT TO EX. 8" W	3+14.76	7.00' LT.
0+22.50	P.C. (CRMP RADIUS = 1293')	3+37.28	7.00' LT.
0+45.66	8" X 6" TEE	3+60.57	7.00' LT.
0+72.21	8" X 8" TEE	3+87.25	7.00' LT.
1+34.35	P.T. (CRMP RADIUS = 1293')	4+49.74	7.00' LT.
4+55.58	8" VALVE	7+70.97	7.00' LT.
4+58.58	8" X 8" CRO65	7+73.97	7.00' LT.
4+84.37	8" X 6" TEE	7+99.76	7.00' LT.
7+16.83	8" X 8" CRO65	10+32.19	7.00' LT.
7+19.83	8" VALVE	10+35.19	7.00' LT.
7+56.70	8" X 6" TEE	10+72.10	7.00' LT.
7+65.89	8" PLUG & BUTTRESS	10+81.20	7.00' LT.
BARNET COURT			
0+00	8" X 8" TEE	0+07.00	7.00' LT.
0+03.00	8" VALVE	0+10.00	7.00' LT.
2+38.00	8" PLUG & BUTTRESS	2+45.01	7.00' LT.



**ENFIELD DRIVE: WATER MAINS**



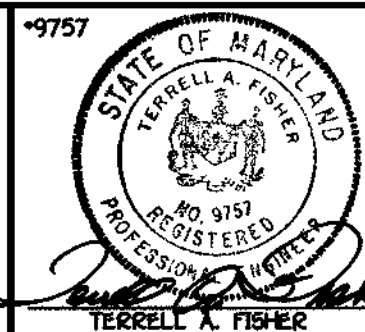
**BARNET COURT: WATER MAINS**

CONTRACT NO. 24-3859-D  
**G.T.W.'S WAVERLY WOODS**  
 SECTION 12; LOTS 1 THRU 127  
 WATER AND SEWER MAIN EXTENSIONS  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTONIAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PIKE  
 ELIXOTT CITY, MARYLAND 21042  
 410-461-2255



DESIGNED BY:	P.W.K.
DRAWN BY:	M.D.T.
CHECKED BY:	P.W.K.
DATE:	JANUARY, 2001
BY NO.	
REVISION	
DATE	

**WATER MAINS PROFILES**

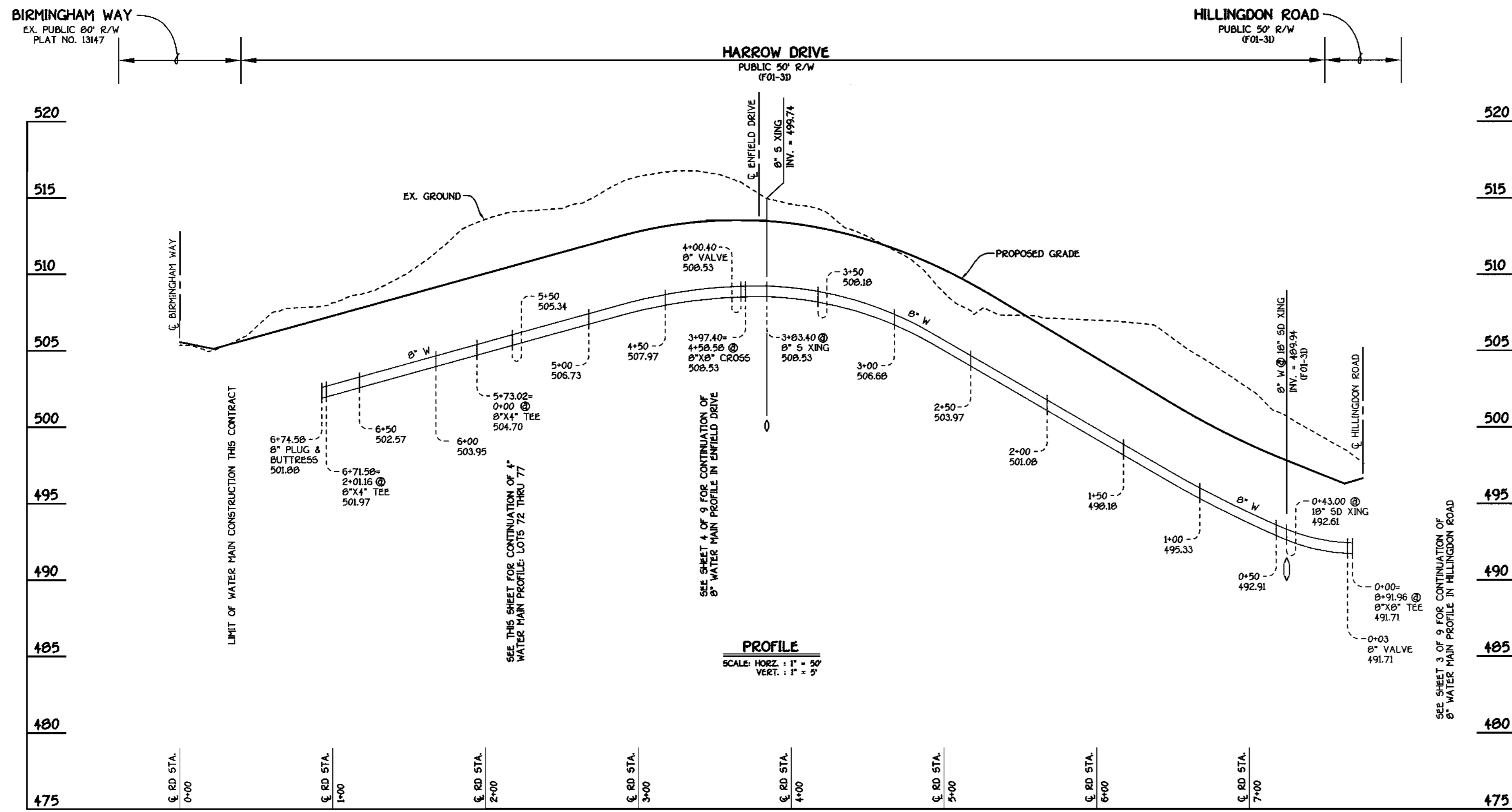
60' SCALE MAP NO. 16 BLOCK NO. 2  
 F.C.C. WORK ORDER NO. 30591  
 FILE NAME: 30691 WATER MAIN PROFILES SH4

**G.T.W.'S WAVERLY WOODS**  
 SECTION 12; LOTS 1 THRU 127 AND PARCELS 'A' & 'B'  
 CONTRACT NO. 24-3859-D  
 THIRD ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

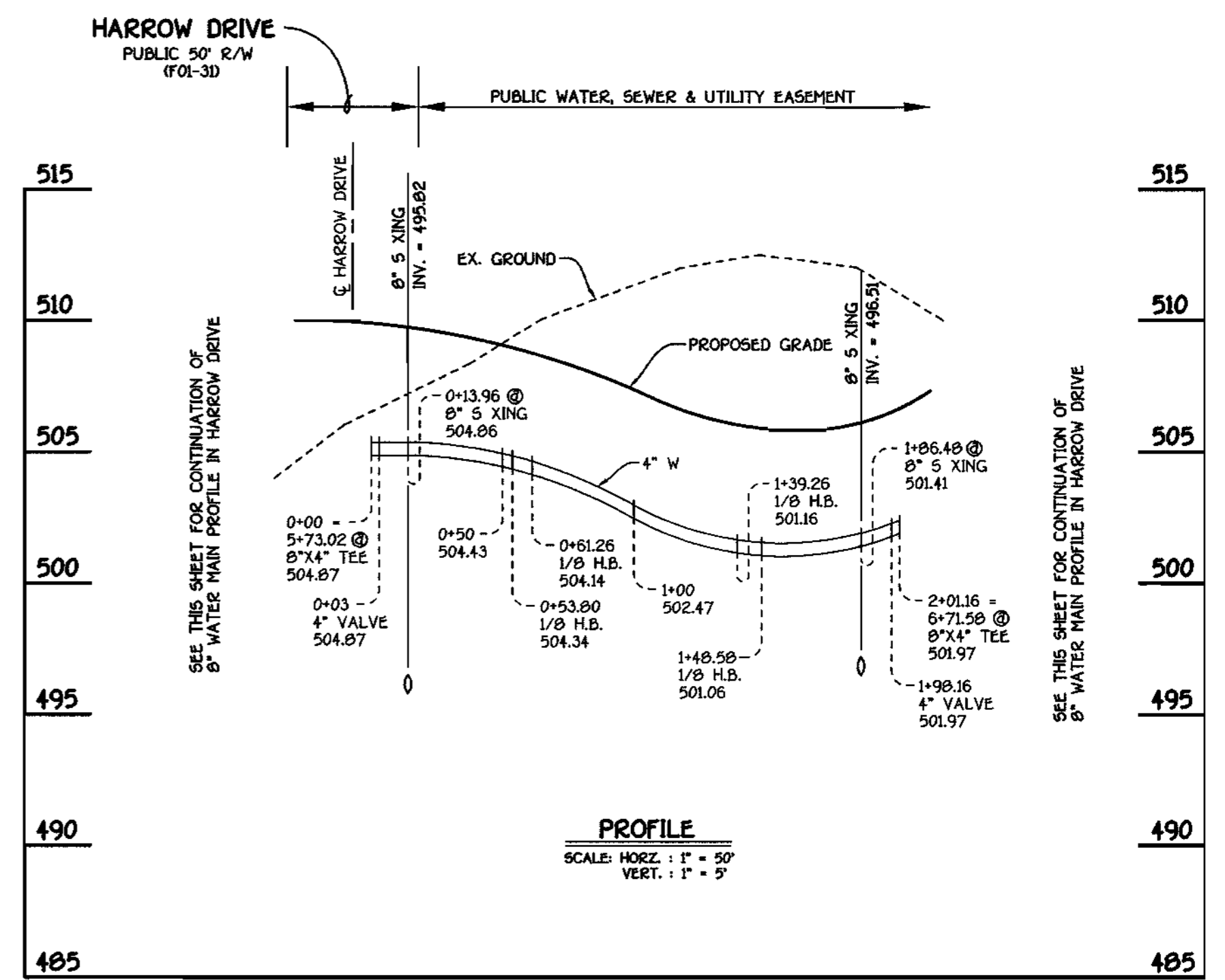
SCALE AS SHOWN  
 SHEET 4 OF 9

WATER MAIN TABULATION CHART			
WM STATION	APPURTENANCE	℄ ROAD STATION	DISTANCE
HARROW DRIVE			
0+00	8" X 8" TEE	7+67.40	7.00' LT.
0+03.00	8" VALVE	7+64.40	7.00' LT.
1+13.77	P.C. (CRIMP RADIUS = 607')	6+53.63	7.00' LT.
2+55.12	P.T. (CRIMP RADIUS = 607')	5+13.91	7.00' LT.
3+97.40	8" X 8" CROSS	3+71.63	7.00' LT.
4+00.40	8" VALVE	3+68.63	7.00' LT.
5+15.25	P.C. (CRIMP RADIUS = 657')	2+53.78	5.00' LT.
5+73.02	8" X 4" TEE	1+96.63	7.00' LT.
6+69.07	P.T. (CRIMP RADIUS = 657')	1+01.60	7.00' LT.
6+71.58	8" X 4" TEE	0+99.09	7.00' LT.
6+74.58	8" PLUG & BUTTRESS	0+96.09	7.00' LT.

4" WATER MAIN TABULATION CHART			
W.M. STA.	APPURTENANCE	℄ ROAD STATION	DISTANCE
4" WATER MAIN FOR LOTS 72-77			
0+00	8" X 4" TEE	1+96.63	7.00' LT.
0+03.00	4" VALVE	1+96.63	4.00' LT.
NORTHING EASTING			
0+53.80	1/8 H.B.	998079.95	1344172.82
0+61.26	1/8 H.B.	998074.68	1344178.10
1+39.26	1/8 H.B.	997996.90	1344184.06
1+48.58	1/8 H.B.	997989.42	1344178.51
℄ ROAD STATION DISTANCE			
1+98.16	4" VALVE	0+99.09	4.00' LT.
2+01.16	8" X 4" TEE	0+99.09	7.00' LT.



**8" WATER MAIN: HARROW DRIVE**



**4" WATER MAIN: LOTS 72 THRU 77**

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Chief, Bureau of Utilities 02-01-01	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND Chief, Development Engineering Division 2/6/01	FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS CENTRAL SQUARE OFFICE PARK - 3072 BALTIMORE NATIONAL PIKE ELKLOTT CITY, MARYLAND 21046 410-461-2255	STATE OF MARYLAND TERRILL A. FISHER REGISTERED PROFESSIONAL ENGINEER 9757	DESIGNED BY: P.W.K.	WATER MAINS PROFILES 600' SCALE MAP NO. 16 BLOCK NO. 5 F.C.C. WORK ORDER NO. 30591 FILE NAME: 30591 WATER MAIN PROFILES SHITS	G.T.W.'S WAVERLY WOODS SECTION 12; LOTS 1 THRU 127 AND PARCELS 'A' & 'B' CONTRACT NO. 24-3859-D THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET 5 OF 9
				DRAWN BY: M.D.T. CHECKED BY: P.W.K. DATE: JANUARY, 2001			

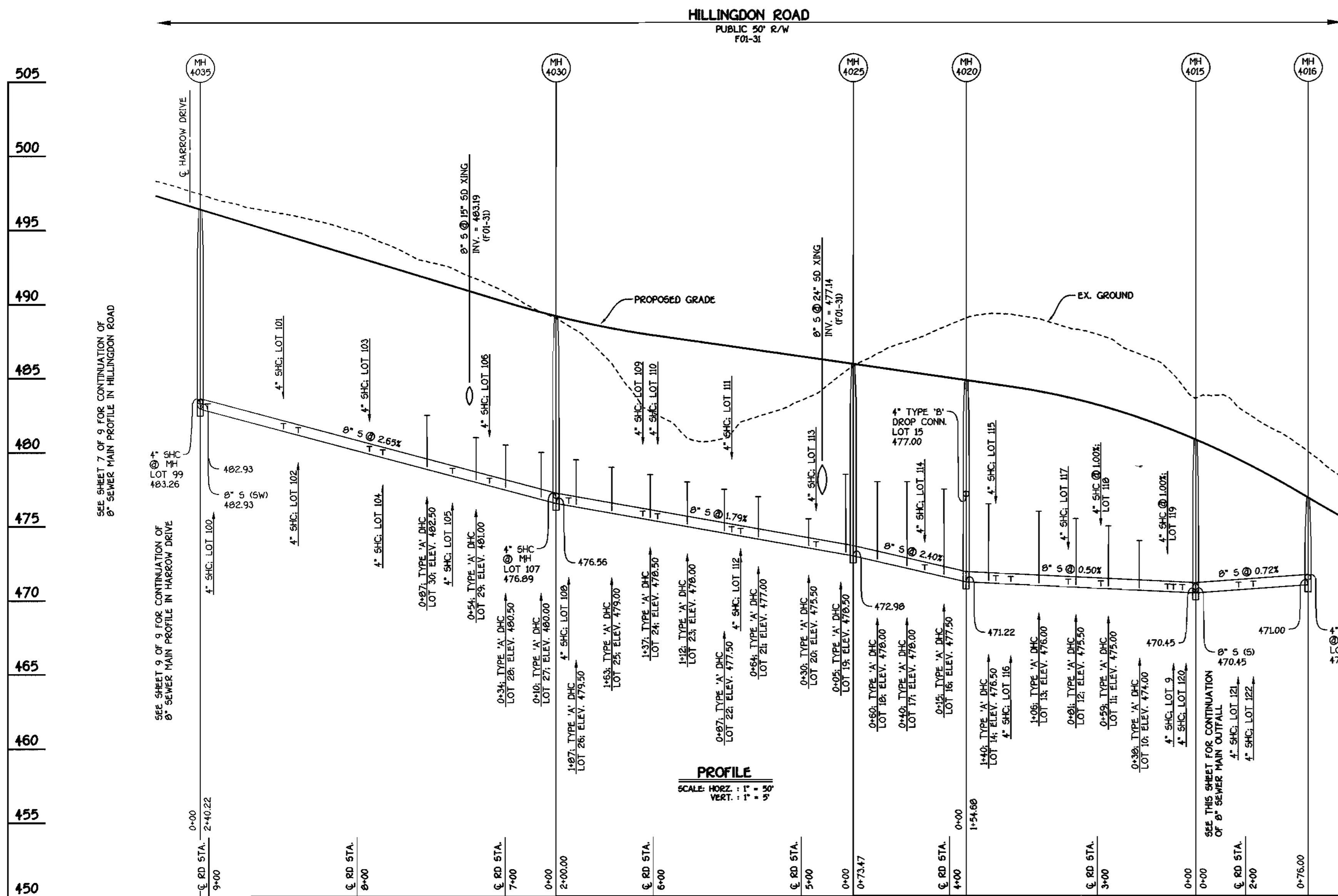
CONTRACT NO. 24-3859-D  
 G.T.W.'S WAVERLY WOODS  
 SECTION 12; LOTS 1 THRU 127  
 WATER AND SEWER MAIN EXTENSIONS  
 HOWARD COUNTY, MARYLAND

SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 4000 TO MH 4005		
0+52 RT.	1	469.87
② MH 4005 RT.	2 (SHC @ MH)	469.70
MH 4005 TO 4010		
0+05 RT.	3	469.53
0+25 RT.	4	469.63
0+47 RT.	5	469.74
0+69 RT.	6	469.85
0+91 RT.	7	469.96
MH 4015 TO 4016		
0+29 LT.	121	471.19
0+39 LT.	122	471.26
② MH 4016 LT.	123 (SHC @ MH)	471.69
MH 4015 TO 4020		
0+09 RT.	120	471.03
0+15 LT.	9	471.34
0+19 RT.	119 (SHC @ 1.00X)	470.90
0+38 LT.	10 (DHC)	474.84
0+59 LT.	11 (DHC)	475.84
0+64 RT.	118 (SHC @ 1.00X)	471.12
0+81 LT.	12 (DHC)	476.14
0+86 RT.	117	471.41
1+06 LT.	13 (DHC)	476.64
1+25 RT.	116	471.61
1+35 RT.	115	471.66
1+40 LT.	14 (DHC)	477.14
② MH 4020 RT.	15 (TYPE 'B' DROP CONN)	477.64

SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 4020 TO 4025		
0+15 LT.	16 (DHC)	478.18
0+28 RT.	114	472.37
0+40 LT.	17 (DHC)	478.70
0+60 LT.	18 (DHC)	478.68
MH 4025 TO 4030		
0+05 LT.	19 (DHC)	479.14
0+25 RT.	113	473.96
0+30 LT.	20 (DHC)	476.14
0+64 LT.	21 (DHC)	477.64
0+76 RT.	112	474.87
0+82 RT.	111	474.98
0+87 LT.	22 (DHC)	478.14
1+12 LT.	23 (DHC)	478.64
1+32 RT.	110	475.87
1+37 LT.	24 (DHC)	479.14
1+42 RT.	109	476.05
1+63 LT.	25 (DHC)	479.64
1+87 LT.	26 (DHC)	480.14
1+92 RT.	108	476.95
② MH 4030 RT.	107 (SHC @ MH)	477.25

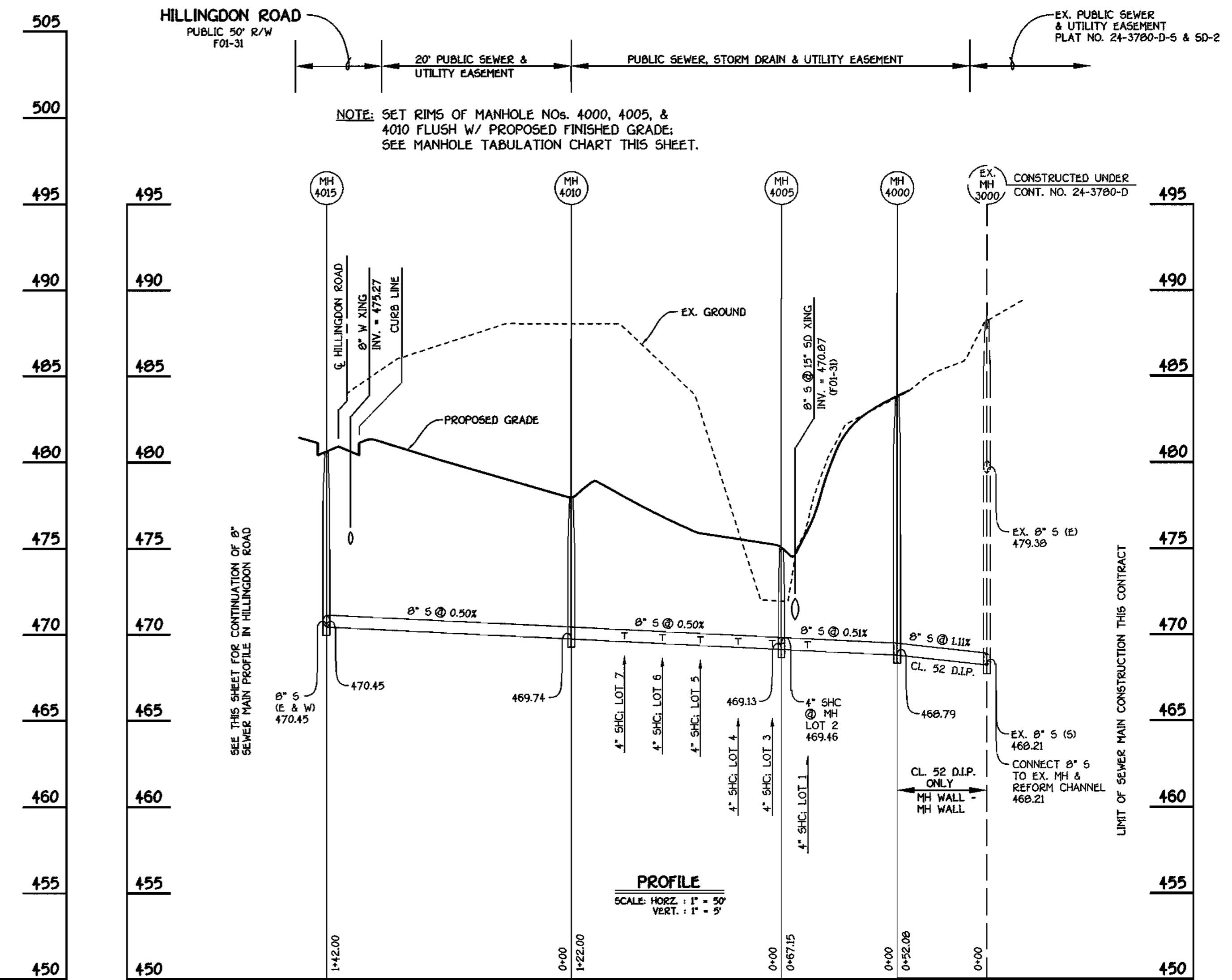
MANHOLE TABULATION CHART				
NO.	ROAD STATION	DISTANCE	SLOPE	RIM ELEVATION
3050	4+01.22 ENFIELD DRIVE	7.91' RT.	-1.50%	509.54
3051	2+41.50 BARNET COURT	7.00' RT.	-1.50%	505.85
3055	7+59.96 ENFIELD DRIVE	7.00' RT.	+3.31%	513.07
3056	2+111.7 HARROW DRIVE	5.61' LT.	+2.77%	510.20
3057	0+88.49 HARROW DRIVE	7.00' LT.	+2.77%	506.75
3058	IN OFF-STREET PARKING AREA	-----	-----	509.02
3059	IN OFF-STREET PARKING AREA	-----	-----	506.43
3060	9+78.96 ENFIELD DRIVE	7.00' RT.	-1.52%	517.61
4000	OUTFALL SEWER MAIN*	-----	-----	483.80
4005	OUTFALL SEWER MAIN*	-----	-----	475.00
4010	OUTFALL SEWER MAIN*	-----	-----	478.00
4016	1+57.50 HILLINGDON ROAD	7.00' RT.	+6.00%	476.70
4015	2+33.50 HILLINGDON ROAD	7.00' RT.	+4.20%	480.59
4020	3+88.64 HILLINGDON ROAD	6.70' RT.	+1.46%	484.62
4025	4+65.05 HILLINGDON ROAD	6.30' RT.	+1.46%	485.75
4030	6+65.60 HILLINGDON ROAD	7.00' RT.	+2.44%	489.00
4035	9+05.82 HILLINGDON ROAD	7.00' RT.	+3.04%	496.21
4036	5+83.77 HARROW DRIVE	3.00' RT.	-6.00%	505.36
4037	4+24.26 HARROW DRIVE	7.00' RT.	-2.14%	512.60
4040	1+45.91 HILLINGDON ROAD	7.67' RT.	+3.04%	503.49
4045	12+02.19 HILLINGDON ROAD	7.67' RT.	+3.04%	505.21
4050	13+86.67 HILLINGDON ROAD	11.01' RT.	+3.04%	510.78
4055	16+16.64 HILLINGDON ROAD	7.00' RT.	+0.32%	516.02
4060	17+43.44 (FUTURE) HILLINGDON ROAD	5.34' RT.	-2.36%	514.64
4065	19+00.67 (FUTURE) HILLINGDON ROAD	7.00' RT.	-4.00%	508.82

\* SET MH RIMS FLUSH W/ PROPOSED FINISHED GRADE



8" SEWER MAIN: HILLINGDON ROAD

SEE MANHOLE TABULATION CHART THIS SHEET



8" SEWER MAIN: OUTFALL

CONTRACT NO. 24-3859-D  
G.T.W.'S WAVERLY WOODS  
SECTION 12; LOTS 1 THRU 127  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CONTINENTAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
ELLSWORTH CITY, MARYLAND 21042  
4109-461-2895



DESIGNED BY:	P.W.K.
DRAWN BY:	M.D.T.
CHECKED BY:	P.W.K.
DATE:	JANUARY, 2001
BY:	NO.
REVISION:	

SEWER MAINS  
PROFILES

600' SCALE MAP NO. 16 BLOCK NO. 5  
F.C.C. WORK ORDER NO. 30591  
FILE NAME: 30591 SEWER MAIN PROFILES SH16

G.T.W.'S WAVERLY WOODS  
SECTION 12; LOTS 1 THRU 127 AND PARCELS 'A' & 'B'  
CONTRACT NO. 24-3859-D  
THIRD ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE  
AS  
SHOWN  
SHEET  
6 OF 9

SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 4030 TO MH 4035		
0+10 LT.	27 (DHC)	480.64
0+34 LT.	28 (DHC)	481.14
0+45 RT.	106	478.28
0+54 LT.	29 (DHC)	481.64
0+70 RT.	105	478.95
0+87 LT.	30 (DHC)	483.14
1+17 RT.	104	480.19
1+26 RT.	103	480.43
1+74 RT.	102	481.70
1+84 RT.	101	481.97
2+35 RT.	100	483.32
② MH 4035 RT.	99 (SHC @ MH)	483.62

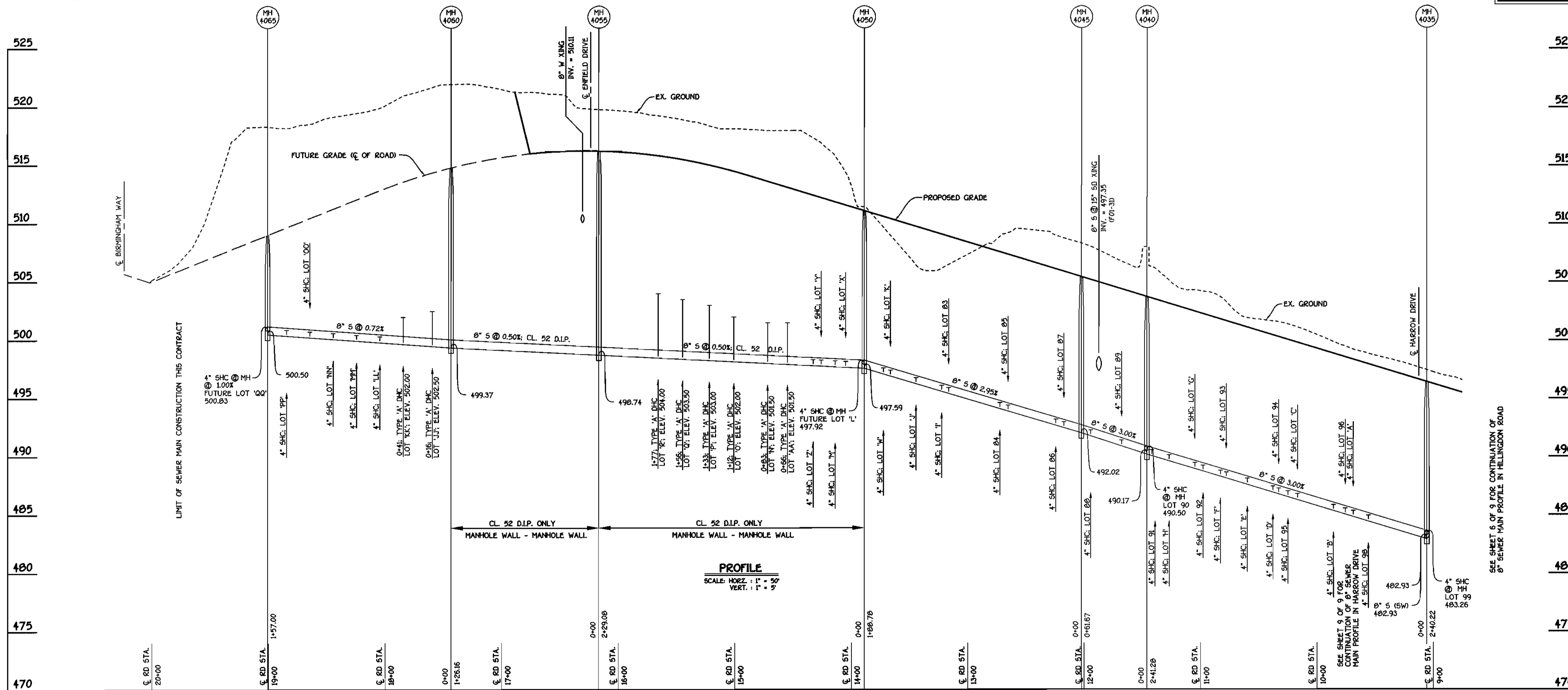
SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 4035 TO MH 4040		
0+50 RT.	98	484.96
0+63 LT.	A	485.63
0+70 RT.	96	485.56
0+80 LT.	B	485.97
1+11 LT.	C	487.07
1+19 RT.	95	487.03
1+27 RT.	94	487.27
1+32 LT.	D	487.70
1+54 LT.	E	488.36
1+72 RT.	93	488.82
1+77 LT.	F	489.05
1+92 RT.	92	489.22
1+99 LT.	G	489.71
2+21 LT.	H	490.37
2+36 RT.	91	490.54
② MH 4040 RT.	90 (SHC @ MH)	490.86
MH 4040 TO MH 4045		
0+24 RT.	89	492.04
0+53 RT.	88	492.63

SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 4045 TO 4050		
0+15 RT.	87	492.99
0+22 RT.	86	493.20
0+63 RT.	85	494.41
0+70 RT.	84	494.62
1+14 RT.	83	495.91
1+20 LT.	I	496.69
1+42 LT.	J	497.34
1+64 LT.	K	498.03
1+70 RT.	W	497.85
② MH 4050 LT.	L (SHC @ MH)	498.99
MH 4050 TO 4055		
0+16 RT.	X	498.48
0+25 LT.	M	498.89
0+37 RT.	Y	498.61
0+44 RT.	Z	498.66
0+66 RT.	AA (DHC)	502.18
0+83 LT.	N (DHC)	502.46
1+12 LT.	O (DHC)	502.36
1+33 LT.	P (DHC)	503.96
1+56 LT.	Q (DHC)	504.46
1+77 LT.	R (DHC)	504.96
MH 4060 TO MH 4065		
0+16 LT.	JJ (DHC)	503.38
0+41 LT.	KK (DHC)	502.88
0+81 LT.	LL	500.86
0+81 LT.	MM	501.00
1+01 LT.	NN	501.15
1+21 LT.	OO	501.29
1+41 LT.	PP	501.44
② MH 4065 LT.	QQ (SHC @ MH @ 1.000)	501.27

BIRMINGHAM WAY  
EX. PUBLIC 80' R/W  
PLAT NO. 12719

SEE MANHOLE TABULATION CHART, SHEET 6 OF 9

HILLINGDON ROAD  
PUBLIC 50' R/W  
F01-31



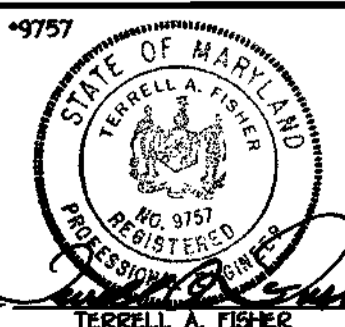
8" SEWER MAIN: HILLINGDON ROAD

CONTRACT NO. 24-3859-D  
G.T.W.'S WAVERLY WOODS  
SECTION 12; LOTS 1 THRU 127  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 1827 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MARYLAND 21042  
(410) 461-2255



DESIGNED BY: P.W.K.  
DRAWN BY: M.D.T.  
CHECKED BY: P.W.K.  
DATE: JANUARY, 2001

SEWER MAINS  
PROFILES

600' SCALE MAP NO. 16 BLOCK NO. 2  
F.C.C. WORK ORDER NO. 3059  
FILE NAME: 3059 SEWER MAIN PROFILES SH17

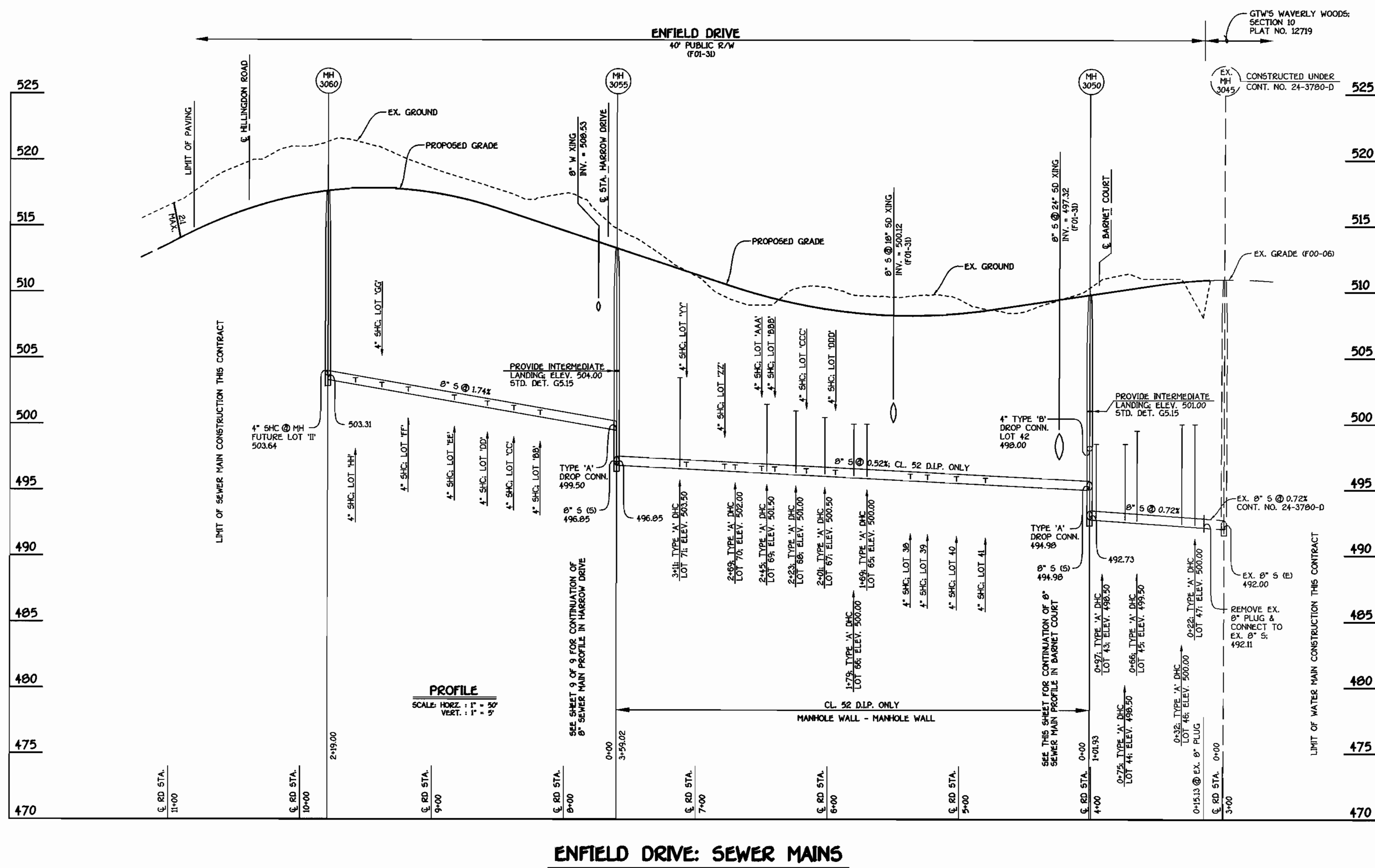
G.T.W.'S WAVERLY WOODS  
SECTION 12; LOTS 1 THRU 127 AND PARCELS 'A' & 'B'  
CONTRACT NO. 24-3859-D  
THIRD ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE  
AS  
SHOWN

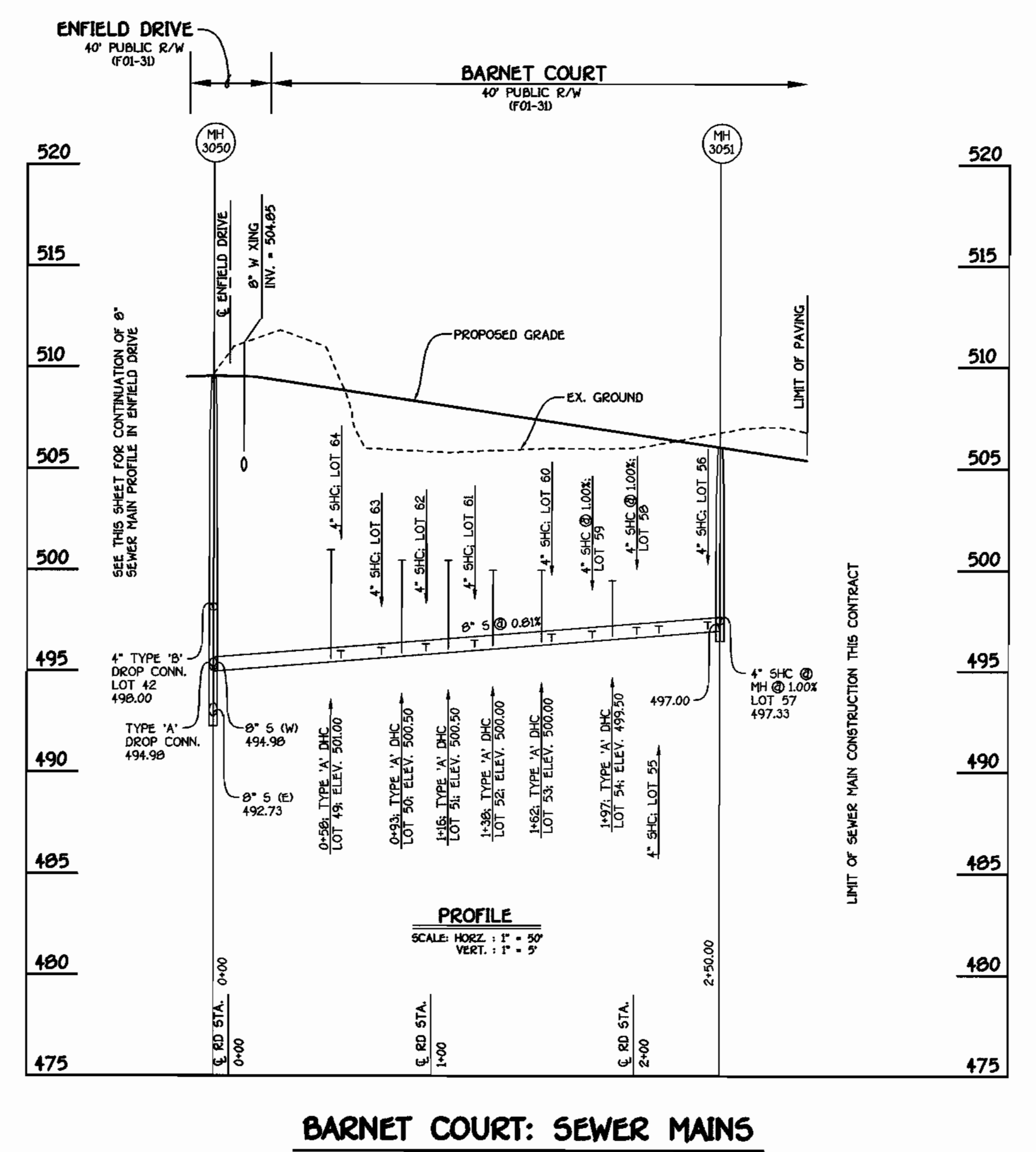
SHEET  
7 OF 9

SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 3045 TO MH 3050		
0+22 RT.	47 (DHC)	500.60
0+32 RT.	46 (DHC)	500.60
0+66 RT.	45 (DHC)	500.10
0+75 RT.	44 (DHC)	499.10
0+97 RT.	43 (DHC)	499.10
① MH 3050 RT.	42 (TYPE 'B' DROP CONN.)	498.76
MH 3050 TO MH 3055		
0+79 RT.	41	496.23
1+01 RT.	40	496.36
1+23 RT.	39	496.47
1+36 RT.	38	496.53
1+69 LT.	65 (DHC)	500.60
1+79 LT.	66 (DHC)	500.60
1+93 RT.	DD	496.84
2+01 LT.	67 (DHC)	501.10
2+15 RT.	CCC	496.95
2+23 LT.	68 (DHC)	501.60
2+39 RT.	BBB	497.07
2+45 LT.	69 (DHC)	502.10
2+49 RT.	AAA	497.13
2+69 LT.	70 (DHC)	502.60
2+77 RT.	ZZ	497.26
3+06 RT.	YY	497.42
3+11 LT.	71 (DHC)	504.10

SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 3055 TO MH 3060		
0+50 LT.	BB	501.20
0+70 LT.	CC	501.63
0+90 LT.	DD	501.90
1+23 LT.	EE	502.41
1+50 LT.	FF	503.02
1+78 LT.	GG	503.37
1+98 LT.	HH	503.72
① MH 3060 LT.	II (SHC @ MH)	504.24
MH 3050 TO MH 3051		
0+50 LT.	49 (DHC)	501.60
0+63 RT.	64	496.34
0+83 RT.	63	496.50
0+93 LT.	50 (DHC)	501.10
1+05 RT.	62	496.60
1+16 LT.	51 (DHC)	501.10
1+29 RT.	61	496.87
1+30 LT.	52 (DHC)	500.60
1+62 LT.	53 (DHC)	500.60
1+67 RT.	60	497.10
1+87 RT.	59 (SHC @ L.O.O.S.)	497.00
1+97 LT.	54 (DHC)	500.10
2+09 RT.	50 (SHC @ L.O.O.S.)	497.10
2+20 LT.	55	497.53
2+44 LT.	56	497.72
① MH 3051 RT.	57 (SHC @ MH @ L.O.O.S.)	497.67



SEE MANHOLE TABULATION CHART SHEET 6 OF 9



ENFIELD DRIVE: SEWER MAINS

BARNET COURT: SEWER MAINS

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS



DESIGNED BY: P.W.K.  
DRAWN BY: M.D.T.  
CHECKED BY: P.W.K.  
DATE: JANUARY, 2001

SEWER MAINS PROFILES  
600' SCALE MAP NO. 16 BLOCK NO. 2  
F.C.C. WORK ORDER NO. 30691  
FILE NAME: 30691 SEWER PROFILES SHT8

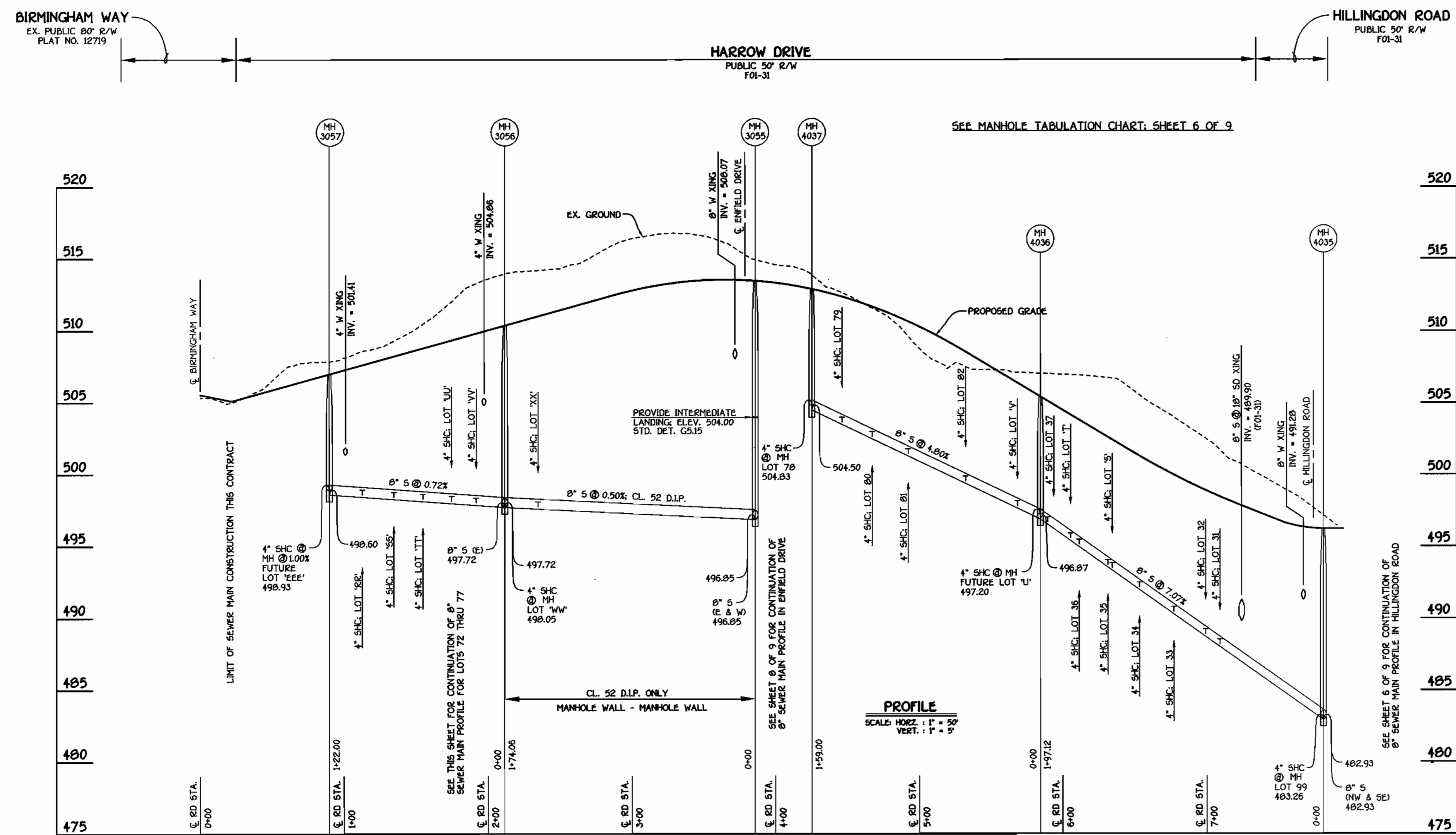
G.T.W.'S WAVERLY WOODS  
SECTION 12; LOTS 1 THRU 127 AND PARCELS 'A' & 'B'  
CONTRACT NO. 24-3859-D  
THIRD ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 8 OF 9

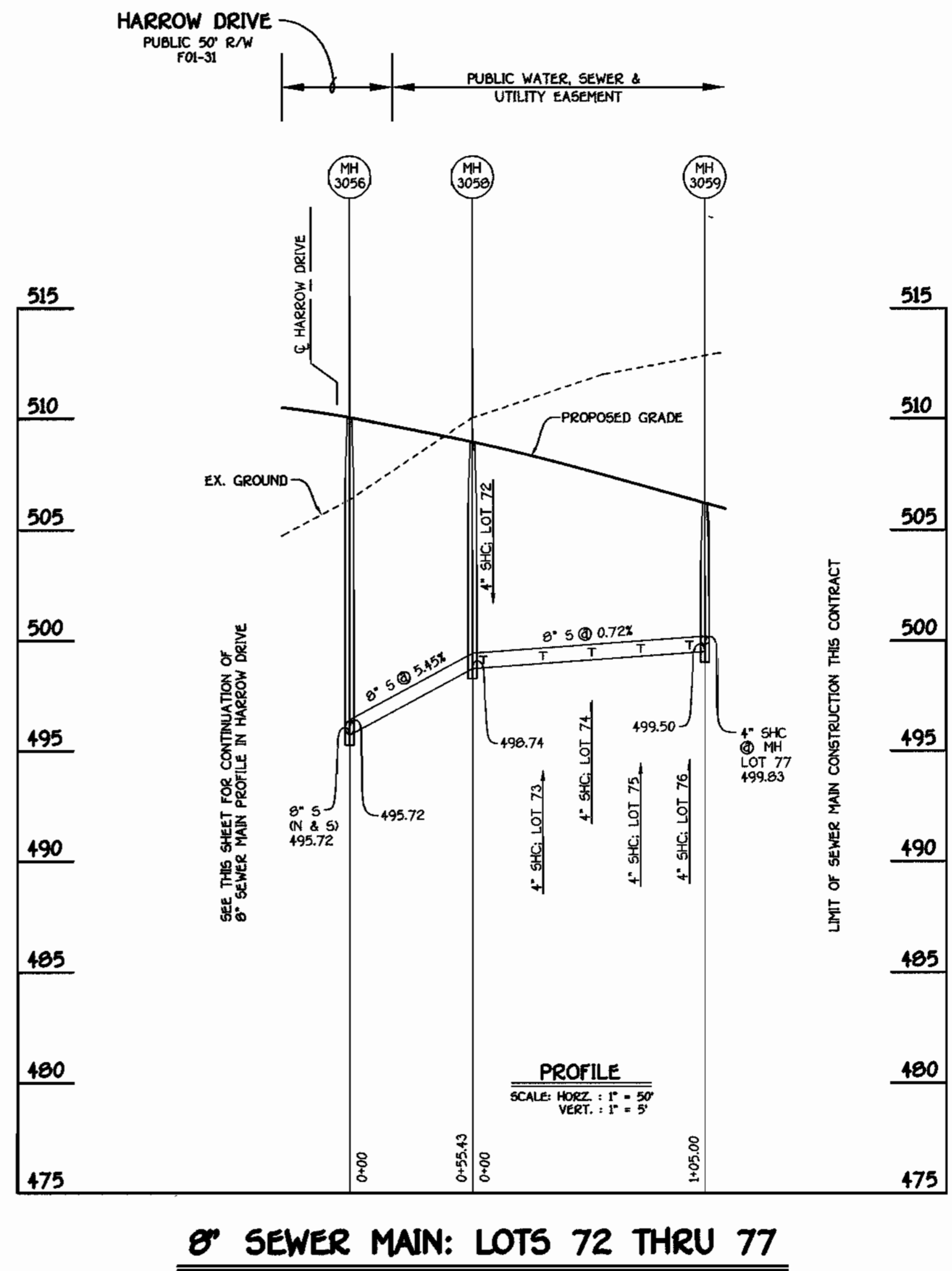


SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 3055 TO MH 3056		
1+51 RT.	XX	498.42
① MH 3056 RT.	WW (SHC @ MH)	498.67
MH 3056 TO MH 3057		
0+20 RT.	VV	498.69
0+37 RT.	UU	498.82
0+57 RT.	TT	498.98
0+77 RT.	SS	499.12
0+99 RT.	RR	499.26
① MH 3057 RT.	EEE (SHC @ MH @ 100X)	499.25
MH 3058 TO MH 3059		
0+05 LT.	72	499.39
0+32 LT.	73	499.58
0+54 LT.	74	499.74
0+76 LT.	75	499.90
0+98 LT.	76	500.06
① MH 3059 LT.	77 (SHC @ MH @ 100X)	500.27

SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 4035 TO MH 4036		
0+72 LT.	31	488.91
0+82 LT.	32	489.62
1+04 LT.	33	491.17
1+28 LT.	34	492.87
1+47 RT.	5	494.11
1+50 LT.	35	494.43
1+70 LT.	36	495.86
1+76 RT.	T	496.14
1+92 LT.	37	497.47
① MH 4036 LT.	U (SHC @ MH)	497.78
MH 4036 TO 4037		
0+16 RT.	V	498.41
0+52 RT.	82	500.16
0+92 RT.	81	502.09
1+17 RT.	80	503.29
1+38 RT.	79	504.30
① MH 4037 RT.	78	505.47



**8" SEWER MAIN: HARROW DRIVE**



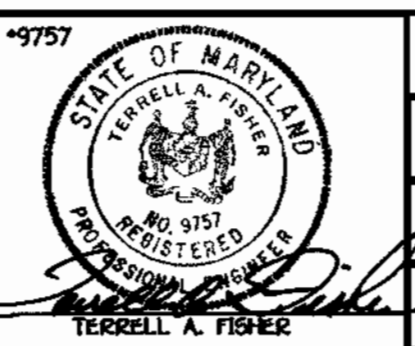
**8" SEWER MAIN: LOTS 72 THRU 77**

CONTRACT NO. 24-3859-D  
 G.T.W.'S WAVERLY WOODS  
 SECTION 12: LOTS 1 THRU 127  
 WATER AND SEWER MAIN EXTENSIONS  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 DATE: 02-01-01  
 CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND  
 DATE: 2/8/01  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

FISHER, COLLINS & CARTER, INC.  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 1100 W. BALTIMORE AVENUE, SUITE 200  
 BALTIMORE, MARYLAND 21201



DESIGNED BY: P.W.K.  
 DRAWN BY: H.D.T.  
 CHECKED BY: P.W.K.  
 DATE: JANUARY, 2001

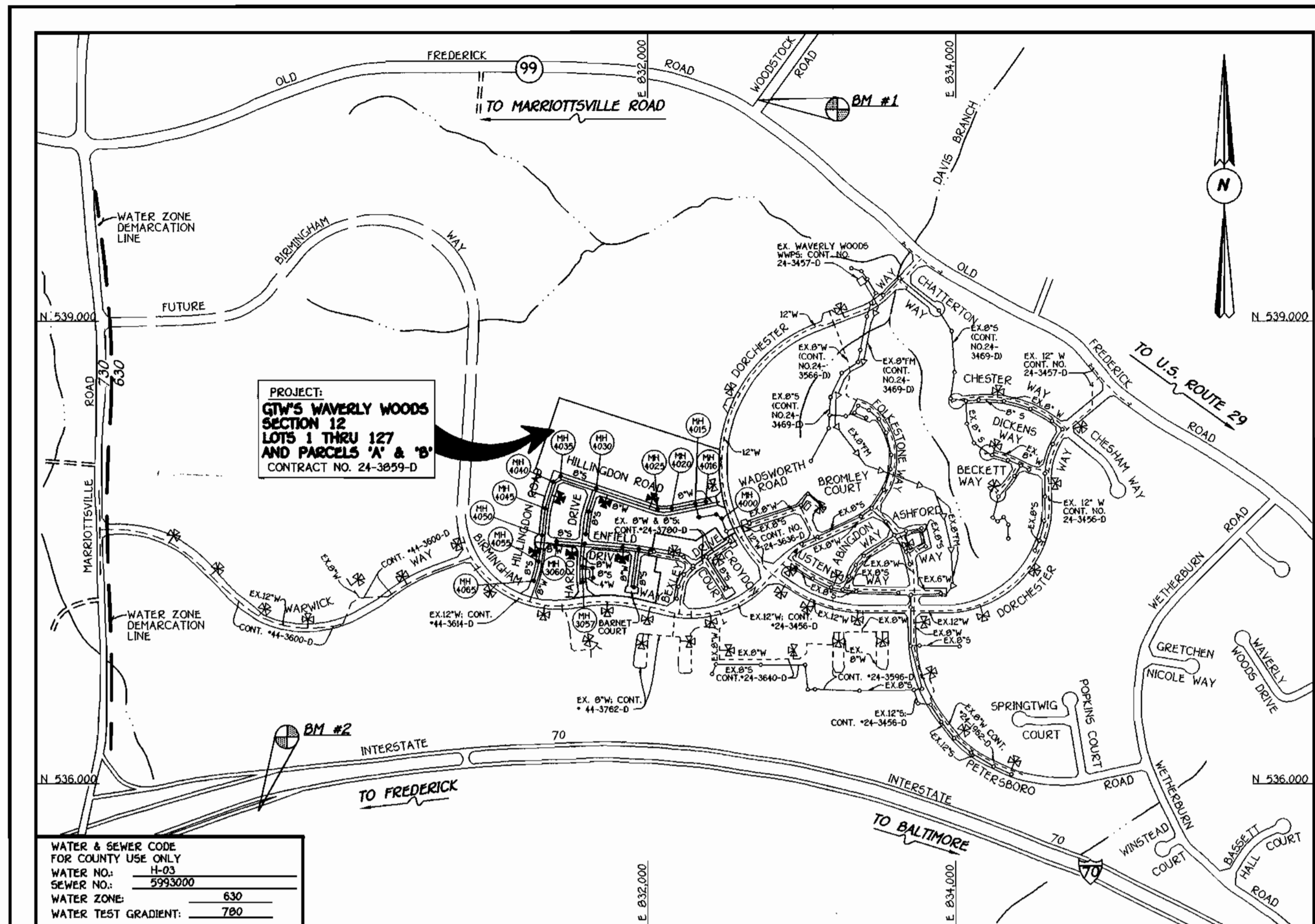
SEWER MAINS PROFILES  
 600' SCALE MAP NO. 16 BLOCK NO. 5  
 F.C.C. WORK ORDER NO. 30891  
 FILE NAME: 30891 SEWER MAIN PROFILES SHTS

**G.T.W.'S WAVERLY WOODS**  
 SECTION 12: LOTS 1 THRU 127 AND PARCELS 'A' & 'B'  
 CONTRACT NO. 24-3859-D  
 THIRD ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
 SHEET 9 OF 9

QUANTITIES				
ITEM	ESTIMATED	QUANTITIES	AS-BUILT	SUPPLIER
8" SEWER	2,934 L.F.			
8" SEWER D.I.P.	940 L.F.			
4" SEWER	5,270 L.F.			
MANHOLES	25 EACH			
8" WATER	3,647 L.F.			
6" WATER	86 L.F.			
4" WATER	201 L.F.			
1" WHC	5,214 L.F.			
FIRE HYDRANTS	6 EACH			
12" X 8" TAPPING SLEEVE & VALVE	1 EACH			
8" VALVES	9 EACH			
6" VALVES	6 EACH			
4" VALVES	2 EACH			
8" X 8" CROSS	2 EACH			
8" X 8" TEE	2 EACH			
8" X 6" TEE	6 EACH			
8" X 4" TEE	2 EACH			
8" - 1/8 H.B.	2 EACH			
8" - 1/32 H.B.	1 EACH			
4" - 1/8 H.B.	4 EACH			
8" PLUG & BUTTRESS	3 EACH			

NAME OF UTILITY CONTRACTOR:  
SURVEY & DRAFTING DIVISION AS-BUILT DATE:



TYPE OF BUILDING	RESIDENTIAL: TOWNHOUSES
NUMBER OF LOTS & PARCELS	127 (120 BUILDABLE)
NO. OF WATER HOUSE CONNECTIONS:	177 (97 FUTURE)
NO. OF SEWER HOUSE CONNECTIONS:	177 (97 FUTURE)
DRAINAGE AREA:	LITTLE PATUXENT
TREATMENT PLANT:	PATAPSCO WASTEWATER TREATMENT PLANT
VIA THE WAVERLY WOODS WASTEWATER PUMPING STATION AND VIA THE ROUTE 108 WASTEWATER PUMPING STATION.	

VICINITY MAP

SCALE: 1"=600'

PLAN REFERENCE NUMBERS:  
P00-17, F01-31

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 DAMAGE 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". CLEAR ALL POLES BY 2'-0" MINIMUM.
- 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 (1991 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  $\square$  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:
  - STATE HIGHWAY ADMINISTRATION - 531-5533
  - BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICES - 850-4620
  - BALTIMORE GAS & ELECTRIC CO. - UNDER GROUND DAMAGE CONTROL - 787-9068
  - MISS UTILITY - 1-800-257-7777
  - 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 TREES, 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 D.I.P. 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 PLANS OR IN THE SPECIFICATIONS.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAMES AND COVERS, STANDARD DETAIL G5.51.
- WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED AS TO HAVE ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
- ALL WATER MAINS SHALL 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 THE STANDARD DETAILS (W11 AND W213). SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- THE 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.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, (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 DPW REQUIREMENTS PER SECTION 18.114(d) OF THE HOWARD COUNTY CODE.

DEVELOPER'S CERTIFICATION

I/WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

FOR: *M. McLean* 1/10/01  
 WAVERLY WOODS DEVELOPMENT CORP. DATE  
 SIGNATURE OF DEVELOPER

ENGINEER'S CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

FOR: *Paul W. Kridel* 01/10/01  
 SIGNATURE OF ENGINEER DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

FOR: *Jim Myers / Cas* 2/7/01  
 U.S.D. NATURAL RESOURCES CONSERVATION SERVICE DATE

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

APPROVED: *Geoffrey W. ...* 2/7/01  
 HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND AS SHOWN ON F01-31 AND THESE PLANS.

FOR: *M. McLean* 1/10/01  
 WAVERLY WOODS DEVELOPMENT CORP. DATE  
 SIGNATURE OF DEVELOPER

CONTRACT No. 24-3859-D  
**GTW'S WAVERLY WOODS**  
 SECTION 12; LOTS 1 THRU 127  
 AND PARCELS 'A' & 'B'  
 WATER AND SEWER MAIN EXTENSIONS  
 HOWARD COUNTY, MARYLAND

BENCHMARK INFORMATION

B.M.#1 - HOWARD COUNTY CONTROL STATION #102 (NAD '83)  
 (NEAR THE INTERSECTION OF MARYLAND ROUTE 99 & WOODSTOCK ROAD)  
 N 501,056.177  
 E 1,345,336.750  
 ELEVATION = 445.577  
 B.M.#2 - HOWARD COUNTY CONTROL STATION #1621 (NAD '83)  
 (NEAR THE INTERSECTION OF U.S. ROUTE 40 & MARIOTTVILLE ROAD)  
 N 593,250.932  
 E 1,340,192.711  
 ELEVATION = 509.924

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND



DESIGNED BY:	P.W.K.
DRAWN BY:	M.D.T.
CHECKED BY:	P.W.K.
DATE:	JANUARY, 2001
BY NO.	
REVISION	
DATE	

TITLE SHEET

600' SCALE MAP NO. 16 BLOCK NO. 5  
 F.C.C. WORK ORDER NO. 30891  
 FILE NAME: 30891.W & 5 TITLE SHEET SH11

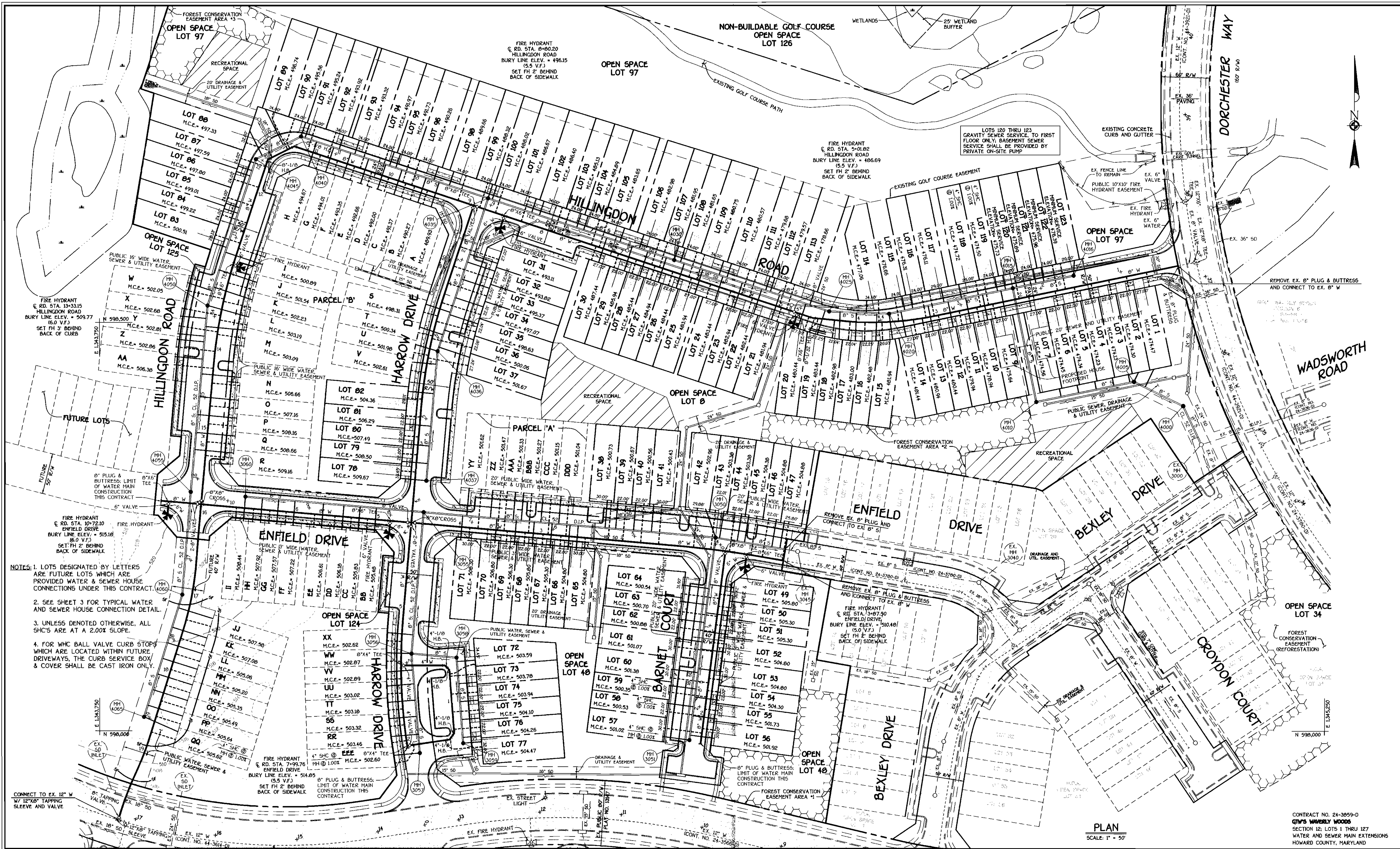
**G.T.W.'S WAVERLY WOODS**  
 SECTION 12; LOTS 1 THRU 127 AND PARCELS 'A' & 'B'  
 CONTRACT NO. 24-3859-D  
 THIRD ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 1 OF 9

CONTRACT NO. 24-3859-D  
 GTW'S WAVERLY WOODS  
 SECTION 12; LOTS 1 THRU 127  
 WATER AND SEWER MAIN EXTENSIONS  
 HOWARD COUNTY, MARYLAND

K:\Drawings\3\30891.DWG SECTION 12; WATER/SEWER MAINS\30891 Title Sheet\_Sht1.dwg Fri Jan 12 08:34:34 2001



- NOTES:
1. LOTS DESIGNATED BY LETTERS ARE FUTURE LOTS WHICH ARE PROVIDED WATER & SEWER HOUSE CONNECTIONS UNDER THIS CONTRACT.
  2. SEE SHEET 3 FOR TYPICAL WATER AND SEWER HOUSE CONNECTION DETAIL.
  3. UNLESS DENOTED OTHERWISE, ALL SLOPES ARE AT A 2.00% GRADE.
  4. FOR W/C BALL VALVE CURB STOPS WHICH ARE LOCATED WITHIN FUTURE DRIVEWAYS, THE CURB SERVICE BOX & COVER SHALL BE CAST IRON ONLY.

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Robert J. ...*  
CHIEF, BUREAU OF UTILITIES

02-01-01  
DATE

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

*...*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

2/10/01  
DATE

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

1000 ...  
ELLSWORTH CITY, MARYLAND 21042

*...*  
TERRELL A. FISHER

DESIGNED BY: P.W.K.  
DRAWN BY: M.D.T.  
CHECKED BY: P.W.K.  
DATE: JANUARY, 2001

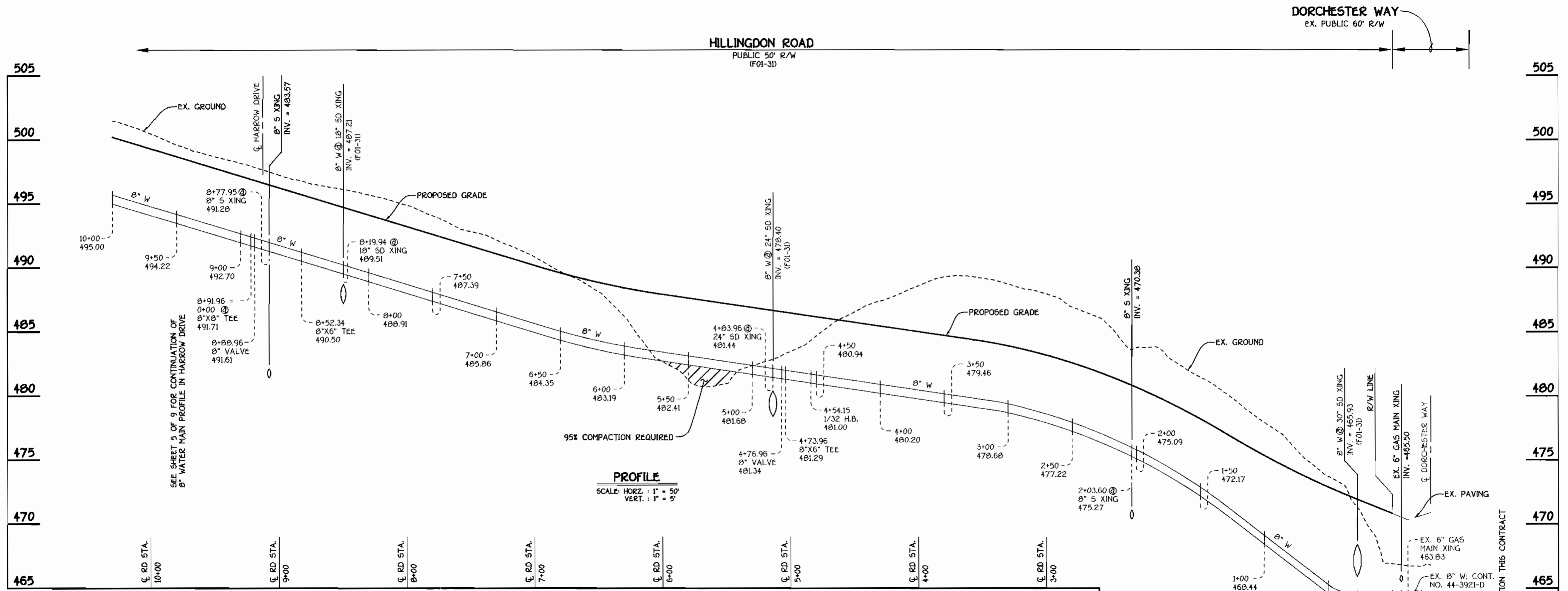
WATER AND SEWER MAINS  
PLAN VIEW

600' SCALE MAP NO. 16 BLOCK NO. 5  
F.C.C. WORK ORDER NO. 30691  
FILE NAME: 30691 WATER AND SEWER MAINS PLAN VIEW SH2

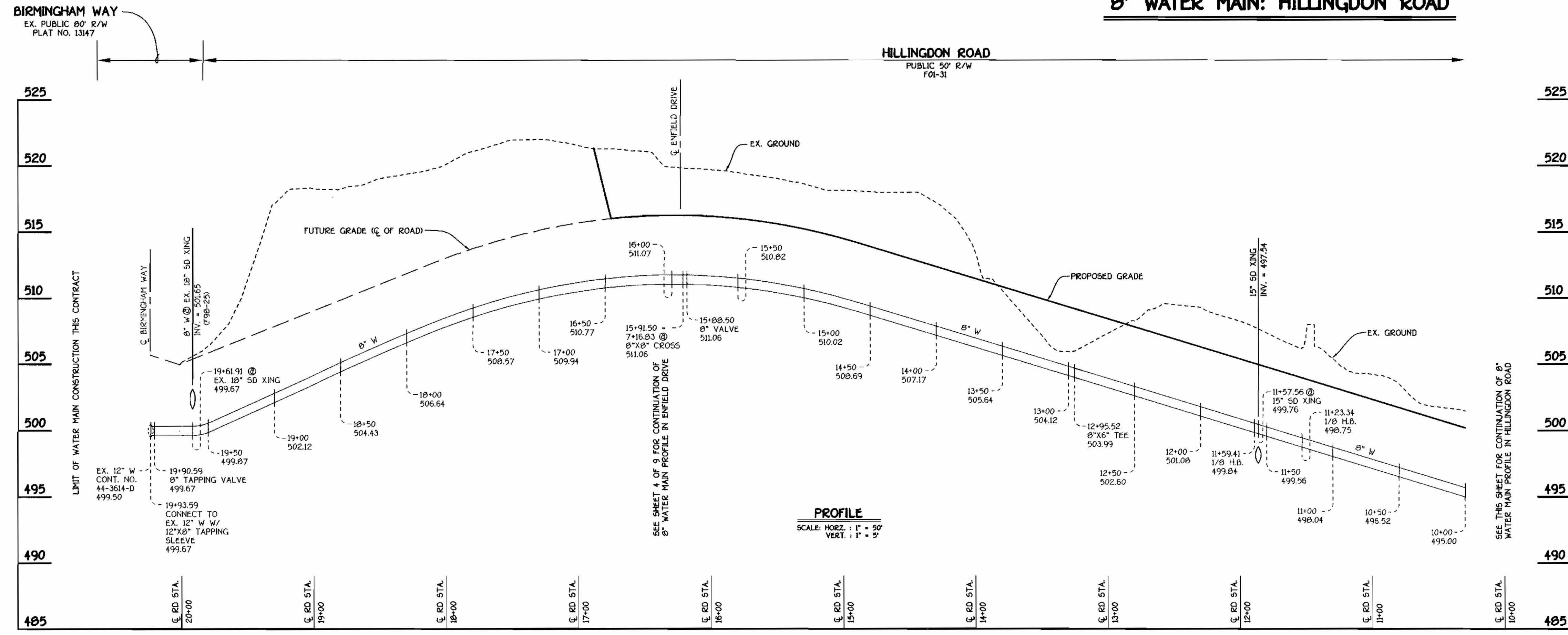
G.T.W.'S WAVERLY WOODS  
SECTION 12: LOTS 1 THRU 127 AND PARCELS 'A' & 'B'  
CONTRACT NO. 24-3059-D  
THIRD ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 2 OF 9

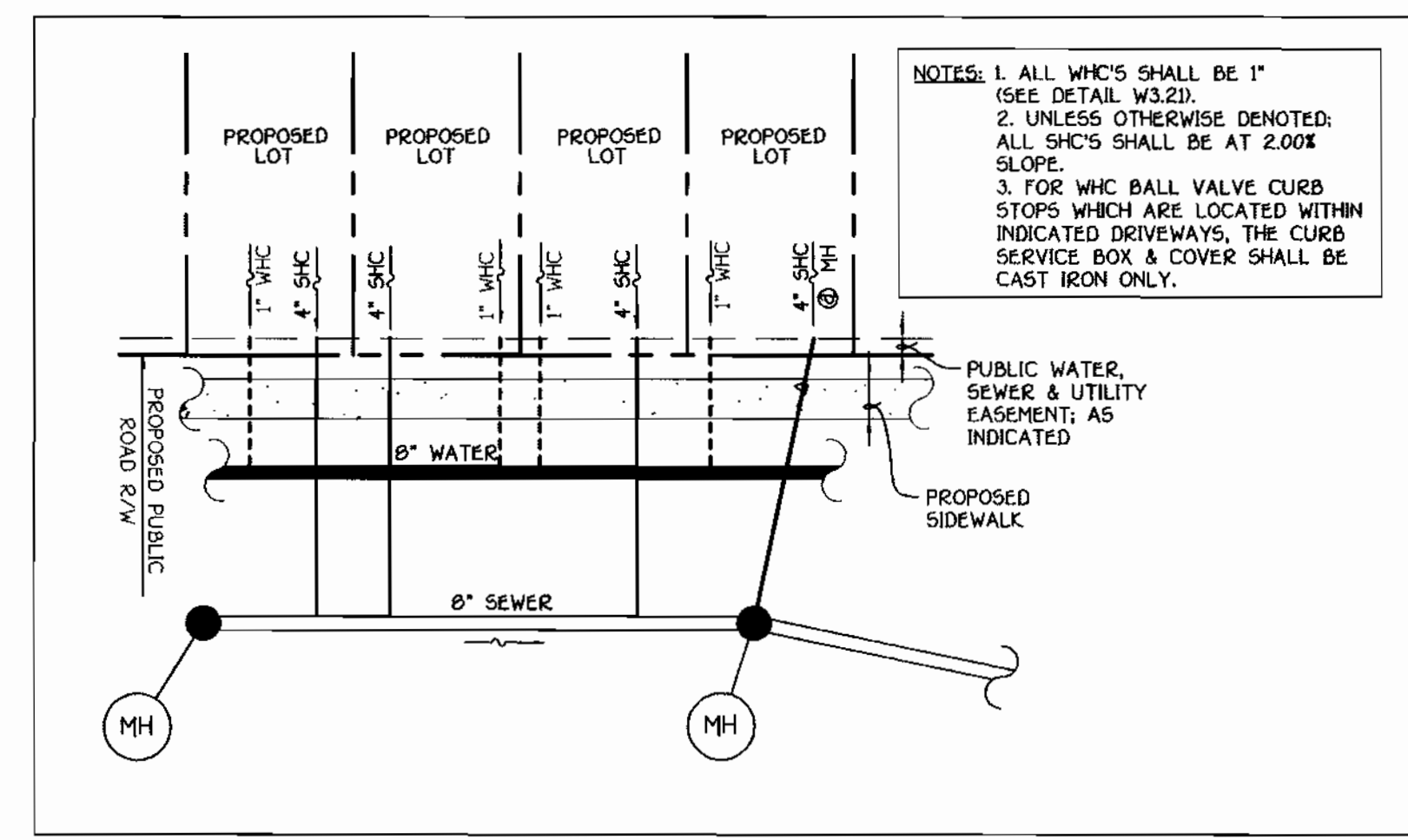
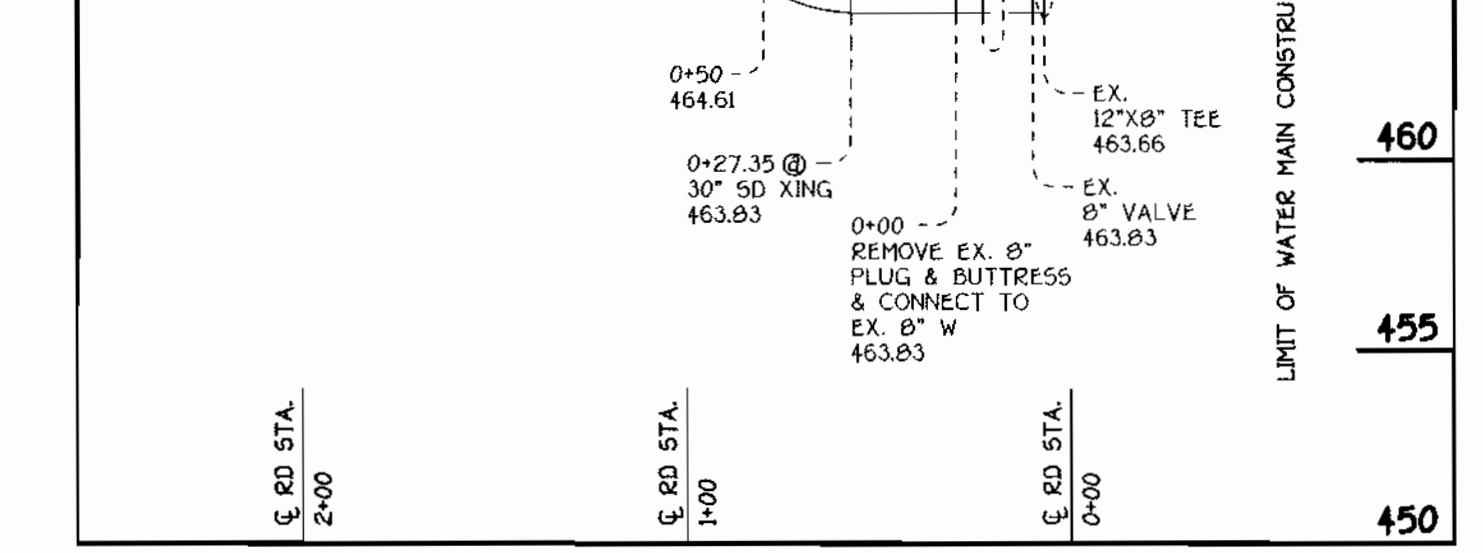
WATER MAIN TABULATION CHART			
WM STATION	APPURTENANCE	± ROAD STATION	DISTANCE
HILLINGDON ROAD			
0+00	CONNECT TO EX. 8" W	0+54.69	7.00' LT.
3+04.03	P.C. (CRIMP RADIUS = 380')	3+34.00	7.00' LT.
4+24.53	P.T. (CRIMP RADIUS = 380')	4+53.39	2.40' LT.
4+54.15	1/32 H.B.	4+82.01	7.00' LT.
4+73.96	8" X 6" TEE	5+01.82	7.00' LT.
8+52.34	8" X 6" TEE	8+80.20	7.00' LT.
8+88.96	8" VALVE	9+16.82	7.00' LT.
8+91.96	8" X 8" TEE	9+19.82	7.00' LT.
11+23.34	1/8 H.B.	11+53.00	5.00' LT.
11+59.41	1/8 H.B.	11+95.10	5.00' LT.
12+82.44	P.C. (CRIMP RADIUS = 593')	13+19.92	7.00' LT.
12+95.52	8" X 6" TEE	13+33.15	7.00' LT.
14+18.32	P.T. (CRIMP RADIUS = 593')	14+57.41	7.00' LT.
15+88.50	8" VALVE	16+27.62	7.00' LT.
15+91.50	8" X 8" CROSS	16+30.62	7.00' LT.
16+61.90	P.C. (CRIMP RADIUS = 380')	17+00.98	7.00' LT.
17+48.06	P.T. (CRIMP RADIUS = 380')	17+85.41	7.00' LT.
18+90.80	P.C. (CRIMP RADIUS = 380')	19+28.16	5.00' LT.
19+32.59	P.R.C. (CRIMP RADIUS = 380')	19+69.80	3.84' LT.
19+82.59	P.T. (CRIMP RADIUS = 380')	20+19.66	0.60' LT.
19+90.59	8" TAPPING VALVE	-0+04.00	0.60' LT.
19+93.59	12" X 8" TAPPING SLEEVE	-0+07.00	0.60' LT.



**8" WATER MAIN: HILLINGDON ROAD**



**8" WATER MAIN: HILLINGDON ROAD**



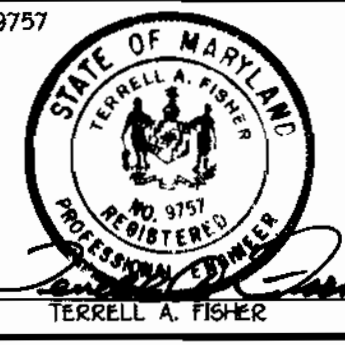
**WHC & SHC DETAIL**  
NOT TO SCALE

CONTRACT NO. 24-3859-D  
G.T.W.'S WAVERLY WOODS  
SECTION 12; LOTS 1 THRU 127  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
02-01-01

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND  
2/6/01

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CONTINENTAL SQUARE OFFICE PARK • 10772 BALTIMORE NATIONAL PIKE  
ELKLOTT CITY, MARYLAND 21042  
(410) 461-2855



DESIGNED BY: P.W.K.  
DRAWN BY: M.D.T.  
CHECKED BY: P.W.K.  
DATE: JANUARY, 2001

WATER MAINS PROFILES  
600' SCALE MAP NO. 18 BLOCK NO. 5  
F.C.C. WORK ORDER NO. 30891  
FILE NAME: 30891 WATER MAIN PROFILES SH13

G.T.W.'S WAVERLY WOODS  
SECTION 12; LOTS 1 THRU 127 AND PARCELS 'A' & 'B'  
CONTRACT NO. 24-3859-D  
THIRD ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 3 OF 9

"WATER" FIELD ASBLUIT MEASUREMENTS (PULLS)

WATER MAIN TABULATION CHART			
WM STATION	APPURTENANCE	± ROAD STATION	DISTANCE
ENFIELD DRIVE			
0+00	CONNECT TO EX. 8" W	3+14.78	7.00' LT.
0+22.50	P.C. (CRMP RADIUS = 1293')	3+37.28	7.00' LT.
0+45.66	8" X 8" TEE	3+60.57	7.00' LT.
0+72.21	8" X 8" TEE	3+87.25	7.00' LT.
1+34.35	P.T. (CRMP RADIUS = 1293')	4+49.74	7.00' LT.
4+55.58	8" VALVE	7+70.97	7.00' LT.
4+58.58	8" X 8" CROSS	7+73.97	7.00' LT.
4+84.37	8" X 8" TEE	7+99.75	7.00' LT.
7+16.83	8" X 8" CROSS	10+32.19	7.00' LT.
7+19.83	8" VALVE	10+35.19	7.00' LT.
7+56.70	8" X 8" TEE	10+72.10	7.00' LT.
7+65.89	8" PLUG & BUTTRESS	10+81.20	7.00' LT.
BARNET COURT			
0+00	8" X 8" TEE	0+07.00	7.00' LT.
0+03.00	8" VALVE	0+10.00	7.00' LT.
2+38.00	8" PLUG & BUTTRESS	2+45.01	7.00' LT.

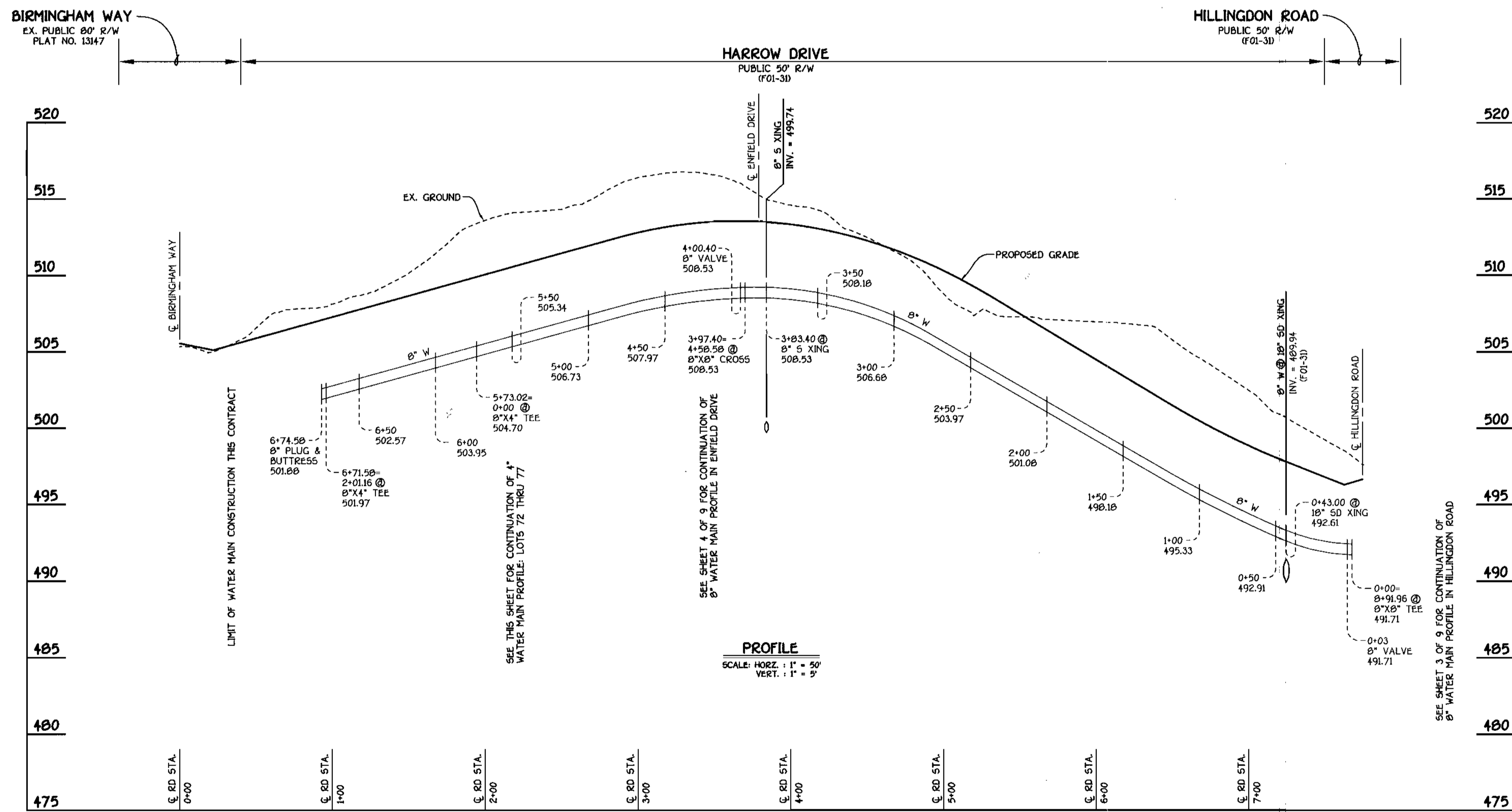
FROM MH 4015	DIST	FROM MH 4016	DIST	TO 1" W.H.C.	LOT#	FROM MH 3045	DIST	FROM MH 3050	DIST	TO 1" W.H.C.	LOT#	FROM MH 4037	DIST	FH NR LOT 31	DIST	TO 1" W.H.C.	LOT#	FROM MH 4015	DIST	FROM FH LOT I J	DIST	TO 1" W.H.C.	LOT#	
"	165	"	95	"	1	"	75	"	55	"	45	"	30	"	300	"	78	"	"	75	"	60	"	84
"	140	"	70	"	2	"	100	"	40	"	44	"	45	"	310	"	79	"	"	115	"	40	"	83
"	120	"	50	"	3	"	125	"	30	"	43	"	60	"	290	"	80	"	"	30	"	65	"	W
"	80	"	30	"	4	"	140	"	20	"	42	"	75	"	245	"	81	"	"	40	"	85	"	Y
"	60	"	10	"	5	"	175	"	10	"	41	"	110	"	235	"	82	"	"	40	"	100	"	V
"	40	"	0	"	6	"	195	"	0	"	40	"	135	"	215	"	83	"	"	60	"	120	"	Z
"	25	"	0	"	7	"	215	"	0	"	39	"	155	"	195	"	84	"	"	80	"	140	"	AA
"	10	"	0	"	8	"	235	"	0	"	38	"	180	"	165	"	85	"	"	85	"	160	"	I
"	0	"	0	"	9	"	255	"	0	"	37	"	205	"	150	"	86	"	"	90	"	180	"	J
"	0	"	0	"	10	"	275	"	0	"	36	"	225	"	135	"	87	"	"	95	"	200	"	K
"	0	"	0	"	11	"	295	"	0	"	35	"	245	"	120	"	88	"	"	100	"	220	"	L
"	0	"	0	"	12	"	315	"	0	"	34	"	265	"	105	"	89	"	"	105	"	240	"	M
"	0	"	0	"	13	"	335	"	0	"	33	"	285	"	90	"	90	"	"	110	"	260	"	N
"	0	"	0	"	14	"	355	"	0	"	32	"	305	"	75	"	91	"	"	115	"	280	"	O
"	0	"	0	"	15	"	375	"	0	"	31	"	325	"	60	"	92	"	"	120	"	300	"	P
"	0	"	0	"	16	"	395	"	0	"	30	"	345	"	45	"	93	"	"	125	"	320	"	Q
"	0	"	0	"	17	"	415	"	0	"	29	"	365	"	30	"	94	"	"	130	"	340	"	R
"	0	"	0	"	18	"	435	"	0	"	28	"	385	"	15	"	95	"	"	135	"	360	"	S
"	0	"	0	"	19	"	455	"	0	"	27	"	405	"	0	"	96	"	"	140	"	380	"	T
"	0	"	0	"	20	"	475	"	0	"	26	"	425	"	0	"	97	"	"	145	"	400	"	U
"	0	"	0	"	21	"	495	"	0	"	25	"	445	"	0	"	98	"	"	150	"	420	"	V
"	0	"	0	"	22	"	515	"	0	"	24	"	465	"	0	"	99	"	"	155	"	440	"	W
"	0	"	0	"	23	"	535	"	0	"	23	"	485	"	0	"	100	"	"	160	"	460	"	X
"	0	"	0	"	24	"	555	"	0	"	22	"	505	"	0	"	101	"	"	165	"	480	"	Y
"	0	"	0	"	25	"	575	"	0	"	21	"	525	"	0	"	102	"	"	170	"	500	"	Z
"	0	"	0	"	26	"	595	"	0	"	20	"	545	"	0	"	103	"	"	175	"	520	"	AAA
"	0	"	0	"	27	"	615	"	0	"	19	"	565	"	0	"	104	"	"	180	"	540	"	BBB
"	0	"	0	"	28	"	635	"	0	"	18	"	585	"	0	"	105	"	"	185	"	560	"	CCC
"	0	"	0	"	29	"	655	"	0	"	17	"	605	"	0	"	106	"	"	190	"	580	"	DDD
"	0	"	0	"	30	"	675	"	0	"	16	"	625	"	0	"	107	"	"	195	"	600	"	EEE
"	0	"	0	"	31	"	695	"	0	"	15	"	645	"	0	"	108	"	"	200	"	620	"	FFF
"	0	"	0	"	32	"	715	"	0	"	14	"	665	"	0	"	109	"	"	205	"	640	"	GGG
"	0	"	0	"	33	"	735	"	0	"	13	"	685	"	0	"	110	"	"	210	"	660	"	HHH
"	0	"	0	"	34	"	755	"	0	"	12	"	705	"	0	"	111	"	"	215	"	680	"	III
"	0	"	0	"	35	"	775	"	0	"	11	"	725	"	0	"	112	"	"	220	"	700	"	JJJ
"	0	"	0	"	36	"	795	"	0	"	10	"	745	"	0	"	113	"	"	225	"	720	"	KKK
"	0	"	0	"	37	"	815	"	0	"	9	"	765	"	0	"	114	"	"	230	"	740	"	LLL
"	0	"	0	"	38	"	835	"	0	"	8	"	785	"	0	"	115	"	"	235	"	760	"	MMM
"	0	"	0	"	39	"	855	"	0	"	7	"	805	"	0	"	116	"	"	240	"	780	"	NNN
"	0	"	0	"	40	"	875	"	0	"	6	"	825	"	0	"	117	"	"	245	"	800	"	OOO
"	0	"	0	"	41	"	895	"	0	"	5	"	845	"	0	"	118	"	"	250	"	820	"	PPP
"	0	"	0	"	42	"	915	"	0	"	4	"	865	"	0	"	119	"	"	255	"	840	"	QQQ
"	0	"	0	"	43	"	935	"	0	"	3	"	885	"	0	"	120	"	"	260	"	860	"	RRR
"	0	"	0	"	44	"	955	"	0	"	2	"	905	"	0	"	121	"	"	265	"	880	"	SSS
"	0	"	0	"	45	"	975	"	0	"	1	"	925	"	0	"	122	"	"	270	"	900	"	TTT
"	0	"	0	"	46	"	995	"	0	"	0	"	945	"	0	"	123	"	"	275	"	920	"	UUU
"	0	"	0	"	47	"	1015	"	0	"	0	"	965	"	0	"	124	"	"	280	"	940	"	VVV
"	0	"	0	"	48	"	1035	"	0	"	0	"	985	"	0	"	125	"	"	285	"	960	"	WWW
"	0	"	0	"	49	"	1055	"	0	"	0	"	1005	"	0	"	126	"	"	290	"	980	"	XXX
"	0	"	0	"	50	"	1075	"	0	"	0	"	1025	"	0	"	127	"	"	295	"	1000	"	YYY
"	0	"	0	"	51	"	1095	"	0	"	0	"	1045	"	0	"	128	"	"	300	"	1020	"	ZZZ
"	0	"	0	"	52	"	1115	"	0	"	0	"	1065	"	0	"	129	"	"	305	"	1040	"	AAA
"	0	"	0	"	53	"	1135	"	0	"	0	"	1085	"	0	"	130	"	"	310	"	1060	"	BBB
"	0	"	0	"	54	"	1155	"	0	"	0	"	1105	"	0	"	131	"	"	315	"	1080	"	CCC
"	0	"	0	"	55	"	1175	"	0	"	0	"	1125	"	0	"	132	"	"	320	"	1100	"	DDD
"	0	"	0	"	56	"	1195	"	0	"	0	"	1145	"	0	"	133	"	"	325	"	1120	"	EEE
"	0	"	0	"	57	"	1215	"	0	"	0	"	1165	"	0	"	134	"	"	330	"	1140	"	FFF
"	0	"	0	"	58	"	1235	"	0	"	0	"	1185	"	0	"	135	"	"	335	"	1160	"	GGG
"	0	"	0	"	59	"	1255	"	0	"	0	"	1205	"	0	"	136	"	"	340	"	1180	"	HHH
"	0	"	0	"	60	"	1275	"	0	"	0	"	1225	"	0	"	137	"	"	345	"	1200	"	III
"	0	"	0	"	61	"	1295	"	0	"	0	"	1245	"	0	"	138	"	"	350	"	1220	"	JJJ
"	0	"	0	"	62	"	1315	"	0	"	0	"	1265	"	0	"	139	"	"	355	"	1240	"	KKK
"	0	"	0	"	63	"	1335	"	0	"	0	"	1285	"	0	"	140	"	"	360	"	1260	"	LLL
"	0	"	0	"	64	"	1355	"	0	"	0	"	1305	"	0	"	141	"	"	365	"	1280	"	MMM
"	0	"	0	"	65	"	1375	"	0	"	0	"	1325	"	0	"	142	"	"	370	"	1300	"	NNN
"	0	"	0	"	66	"	1395	"	0	"	0	"	1345	"	0	"	143	"	"	375	"	1320	"	OOO
"	0	"	0	"	67	"	1415	"	0	"	0	"	1365	"	0	"	144	"	"	380	"	1340	"	PPP
"	0	"	0	"	68	"	1435	"	0	"	0	"	1385	"	0	"	145	"	"	385	"	1360	"	QQQ
"	0	"	0	"	69	"	1455	"	0	"	0	"	1405	"	0	"	146	"	"	390	"	1380	"	RRR
"	0	"	0	"	70	"	1475	"	0	"	0	"	1425	"	0	"	147	"	"	395	"	1400	"	SSS
"	0	"	0	"	71	"	1495	"	0	"	0	"	1445	"	0	"	148	"	"	400	"	1420	"	TTT

WATER MAIN TABULATION CHART			
WM STATION	APPURTENANCE	± ROAD STATION	DISTANCE
HARROW DRIVE			
0+00	8" X 8" TEE	7+57.40	7.00' LT.
0+03.00	8" VALVE	7+64.40	7.00' LT.
1+13.77	P.C. (CRIMP RADIUS = 607')	6+53.63	7.00' LT.
2+55.12	P.T. (CRIMP RADIUS = 607')	5+13.91	7.00' LT.
3+97.40	8" X 8" CROSS	3+71.63	7.00' LT.
4+00.40	8" VALVE	3+68.63	7.00' LT.
5+15.25	P.C. (CRIMP RADIUS = 657')	2+53.78	5.00' LT.
5+73.02	8" X 4" TEE	1+96.63	7.00' LT.
6+69.07	P.T. (CRIMP RADIUS = 657')	1+01.60	7.00' LT.
6+71.58	8" X 4" TEE	0+99.09	7.00' LT.
6+74.58	8" PLUG & BUTTRESS	0+96.09	7.00' LT.

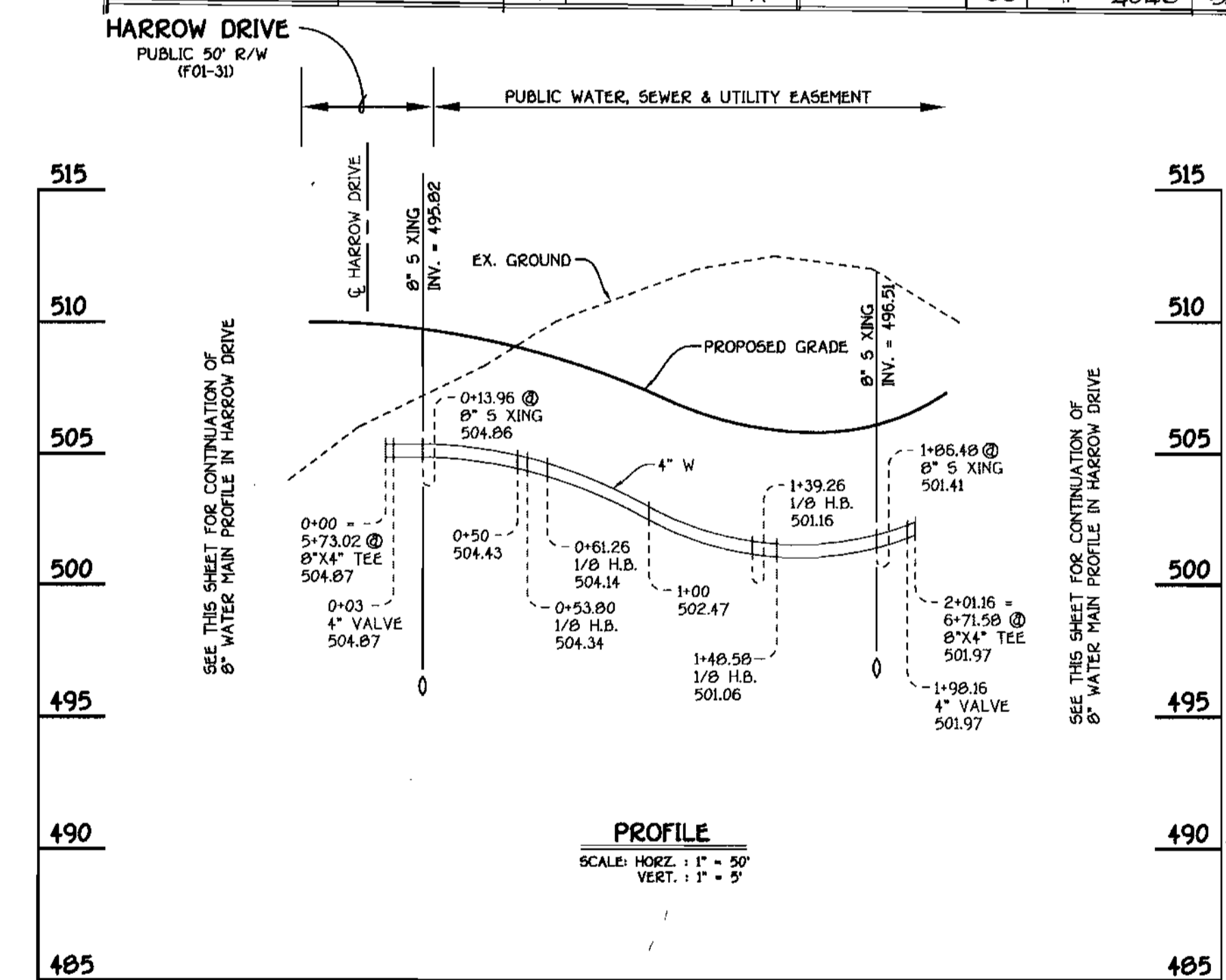
4" WATER MAIN TABULATION CHART			
W.M. STA.	APPURTENANCE	± ROAD STATION	DISTANCE
4" WATER MAIN FOR LOTS 72-77			
0+00	8" X 4" TEE	1+96.63	7.00' LT.
0+03.00	4" VALVE	1+96.63	4.00' LT.
0+53.80	1/8 H.B.	598079.95	1344172.82
0+61.26	1/8 H.B.	598074.68	1344178.10
1+39.26	1/8 H.B.	597996.90	1344184.06
1+48.58	1/8 H.B.	597989.42	1344178.51
		± ROAD STATION	DISTANCE
1+98.16	4" VALVE	0+99.09	4.00' LT.
2+01.16	8" X 4" TEE	0+99.09	7.00' LT.

FROM	DIST.	FROM	DIST.	TO S.H.C.	LOT #
M.H. NR LOT 20	110	M.H. 4020	85	"	15
"	00	"	45	"	16
"	70	"	60	"	17
"	55	"	75	"	18
"	27	"	90	"	19
M.H. NR LOT 20	25	8" V.N.R. M.H. 4055	200	"	BB
M.H. NR LOT 20	30	"	180	"	CC
"	45	"	162	"	DD
"	60	"	172	"	EE
"	90	"	90	"	FF
"	125	"	125	"	GG
"	145	"	145	"	HH
"	165	"	165	"	II
"	185	"	185	"	JJ
FROM M.H. 4020	138	FROM M.H. 4060	178	"	KK
"	116	"	158	"	LL
"	97	"	141	"	MM
"	79	"	121	"	NN
"	64	"	102	"	OO
"	51	"	84	"	PP
"	44	"	67	"	QQ
"	46	"	51	"	RR
4" V.N.R. LOT RREE	130	M.H. 4056	45	"	XX
"	105	"	20	"	YY
"	88	"	22	"	VV
"	75	"	25	"	UU
"	56	"	50	"	TT
"	28	"	70	"	RR
"	20	"	90	"	RR
"	65	"	115	"	EE

FROM	DIST.	FROM	DIST.	TO S.H.C.	LOT #
M.H. 4025	15	M.H. 4010	140	"	1
"	15	"	133	"	2
"	20	"	110	"	3
"	50	"	95	"	4
"	65	"	75	"	5
"	85	"	53	"	6
"	110	"	32	"	7
"		OPEN		SPACE	8
M.H. 4015	38	M.H. 4020	105	TO S.H.C.	9
"	50	"	120	"	10
"	65	"	95	"	11
"	90	"	75	"	12
"	130	"	55	"	13
"	145	"	30	"	14
"	180	"	25	"	15
"	100	"	35	"	16
"	70	"	50	"	17
"	60	"	35	"	18
"	35	"	30	"	19
"	15	"	50	"	20
"	30	M.H. 4030	140	"	21
"	50	"	125	"	22
"	70	"	90	"	23
"	100	"	70	"	24
"	120	"	50	"	25
"	140	"	30	"	26
"	155	"	25	"	27
"	170	"	10	"	28
"	185	"	5	"	29
"	200	"	0	"	30
M.H. 4035	20	M.H. 4036	120	"	31
"	40	"	110	"	32
"	60	"	90	"	33
"	80	"	75	"	34
"	100	"	60	"	35
"	120	"	45	"	36
"	140	"	30	"	37
"	160	"	15	"	38
"	180	"	0	"	39
M.H. 4035	70	8" V.N.R. HARROW	50	"	A
"	85	"	35	"	B
"	100	"	20	"	C
"	115	"	5	"	D
"	130	"	0	"	E
"	145	"	0	"	F
"	160	"	0	"	G
"	175	"	0	"	H
"	190	"	0	"	I
"	205	"	0	"	J
"	220	"	0	"	K
"	235	"	0	"	L
"	250	"	0	"	M
"	265	"	0	"	N
"	280	"	0	"	O
"	295	"	0	"	P
"	310	"	0	"	Q
"	325	"	0	"	R
M.H. 4050	57	M.H. 4015	35	"	1
"	55	"	32	"	2
"	54	"	48	"	3
"	60	"	75	"	4
"	85	"	120	"	5
"	90	"	137	"	6
"	125	"	165	"	7
"	145	"	185	"	8
"	166	"	225	"	9
"	186	"	227	"	10



8" WATER MAIN: HARROW DRIVE



4" WATER MAIN: LOTS 72 THRU 77

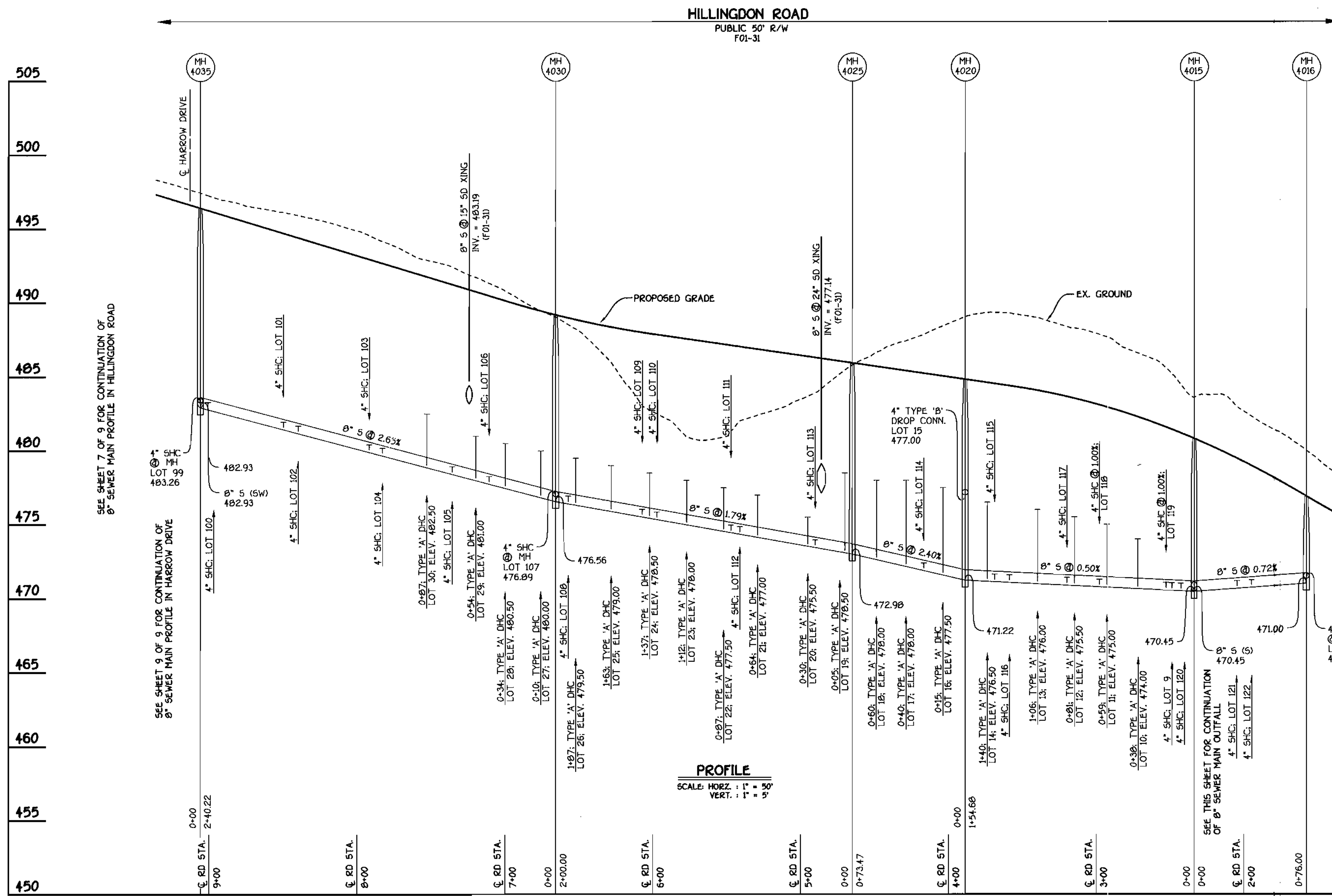
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Chief, Bureau of Utilities 02-01-01	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND Chief, Development Engineering Division 2/6/01	9757 FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS CENTENNIAL SQUARE OFFICE PARK - 10732 BALTIMORE NATIONAL PIKE ELLETTT CITY, MARYLAND 21042 (410) 481-2999	DESIGNED BY: P.W.K. DRAWN BY: M.D.T. CHECKED BY: P.W.K. DATE: JANUARY, 2001 BY: KCI 1 AS-BUILT CONDITIONS ADDED TO PLAN REVISION:	WATER MAINS PROFILES 600' SCALE MAP NO. 18 BLOCK NO. 5 F.C.C. WORK ORDER NO. 30591 FILE NAME: 30591 WATER MAIN PROFILES SHTS	G.T.W.'S WAVERLY WOODS SECTION 12; LOTS 1 THRU 127 AND PARCELS 'A' & 'B' CONTRACT NO. 24-3859-D THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE AS SHOWN SHEET 5 OF 9
---	---	---	---	---	---

SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 4000 TO MH 4005		
0+52 RT.	1	469.87
④ MH 4005 RT.	2 (SHC @ MH)	469.70
MH 4005 TO 4010		
0+05 RT.	3	469.53
0+25 RT.	4	469.63
0+47 RT.	5	469.74
0+69 RT.	6	469.85
0+91 RT.	7	469.96
MH 4015 TO 4016		
0+29 LT.	121	471.19
0+39 LT.	122	471.26
④ MH 4016 LT.	123 (SHC @ MH)	471.69
MH 4015 TO 4020		
0+09 RT.	120	471.03
0+15 LT.	9	471.34
0+19 RT.	119 (SHC @ 1.00X)	470.90
0+38 LT.	10 (DHC)	474.64
0+59 LT.	11 (DHC)	475.64
0+64 RT.	118 (SHC @ 1.00X)	471.12
0+81 LT.	12 (DHC)	476.14
0+86 RT.	117	471.41
1+06 LT.	13 (DHC)	476.64
1+25 RT.	116	471.61
1+35 RT.	115	471.66
1+40 LT.	14 (DHC)	477.14
④ MH 4020 RT.	15 (TYPE 'B' DROP CONN.)	477.64

SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 4020 TO 4025		
0+15 LT.	16 (DHC)	478.18
0+28 RT.	114	472.37
0+40 LT.	17 (DHC)	478.70
0+60 LT.	18 (DHC)	478.68
MH 4025 TO 4030		
0+05 LT.	19 (DHC)	479.14
0+25 RT.	113	473.96
0+30 LT.	20 (DHC)	476.14
0+64 LT.	21 (DHC)	477.64
0+76 RT.	112	474.87
0+82 RT.	111	474.98
0+87 LT.	22 (DHC)	478.14
1+12 LT.	23 (DHC)	478.64
1+32 RT.	110	475.87
1+37 LT.	24 (DHC)	479.14
1+42 RT.	109	476.05
1+63 LT.	25 (DHC)	479.64
1+87 LT.	26 (DHC)	480.14
1+92 RT.	108	476.95
④ MH 4030 RT.	107 (SHC @ MH)	477.25

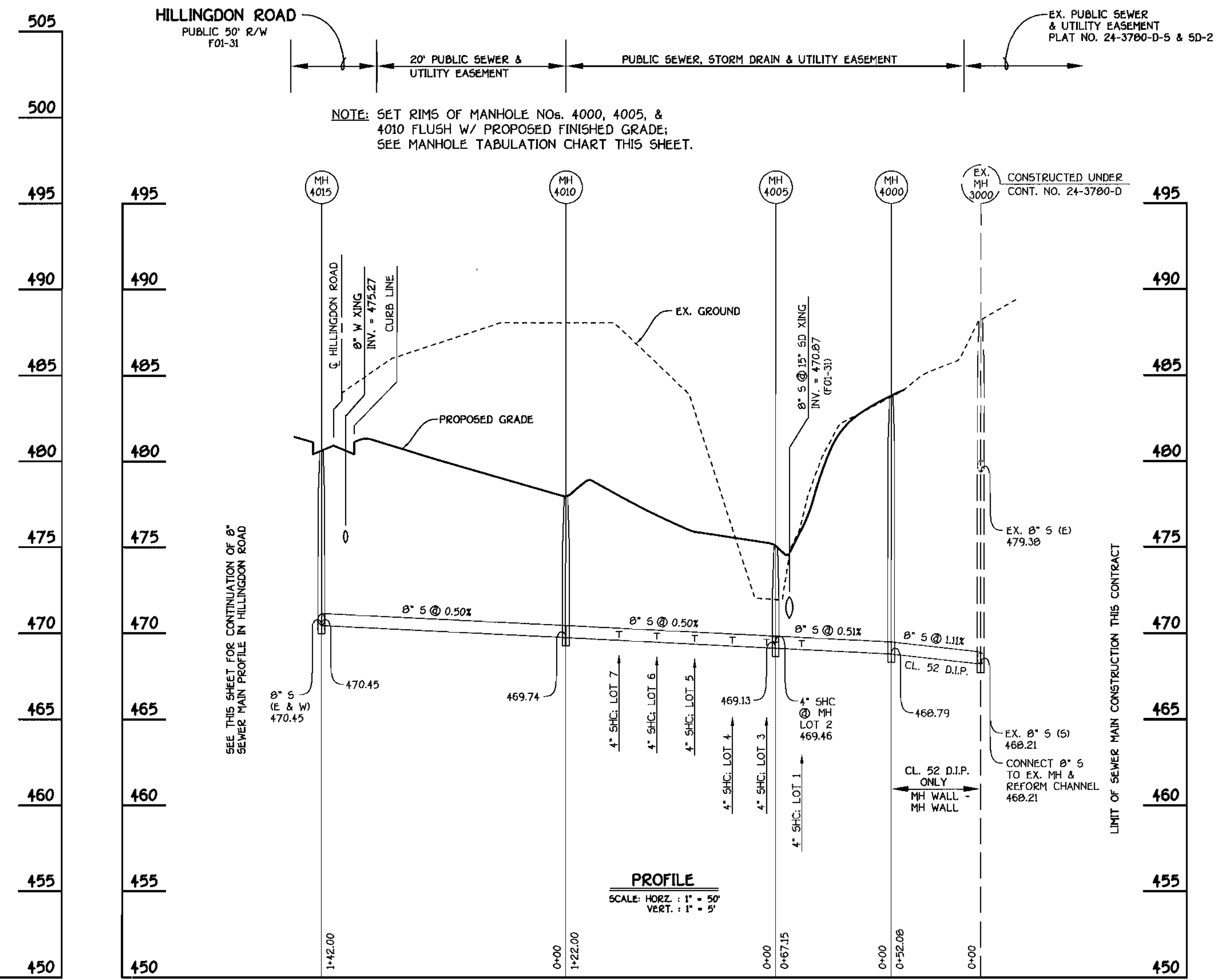
MANHOLE TABULATION CHART				
NO.	ROAD STATION	DISTANCE	SLOPE	RIM ELEVATION
3050	4+01.22 ENFIELD DRIVE	7.91' RT.	-1.50%	509.54
3051	2+41.58 BARNET COURT	7.00' RT.	-1.50%	505.85
3055	7+59.96 ENFIELD DRIVE	7.00' RT.	+3.31%	513.07
3056	2+11.17 HARROW DRIVE	5.61' LT.	+2.77%	510.20
3057	0+88.49 HARROW DRIVE	7.00' RT.	+2.77%	506.75
3058	IN OFF-STREET PARKING AREA	----	----	509.02
3059	IN OFF-STREET PARKING AREA	----	----	506.43
3060	9+78.96 ENFIELD DRIVE	7.00' RT.	-1.52%	517.61
4000	OUTFALL SEWER MAIN*	----	----	483.80
4005	OUTFALL SEWER MAIN*	----	----	475.00
4010	OUTFALL SEWER MAIN*	----	----	478.00
4016	1+57.58 HILLINGDON ROAD	7.00' RT.	+6.00%	476.70
4015	2+33.58 HILLINGDON ROAD	7.00' RT.	+4.20%	480.59
4020	3+88.64 HILLINGDON ROAD	6.70' RT.	+1.46%	484.62
4025	4+65.05 HILLINGDON ROAD	6.30' RT.	+1.46%	485.75
4030	6+65.60 HILLINGDON ROAD	7.00' RT.	+2.44%	489.00
4035	9+05.82 HILLINGDON ROAD	7.00' RT.	+3.04%	496.21
4036	5+83.77 HARROW DRIVE	3.00' RT.	-6.00%	505.36
4037	4+24.26 HARROW DRIVE	7.00' RT.	-2.14%	512.60
4040	11+45.91 HILLINGDON ROAD	7.67' RT.	+3.04%	503.49
4045	12+02.19 HILLINGDON ROAD	7.67' RT.	+3.04%	505.21
4050	13+88.67 HILLINGDON ROAD	11.01' RT.	+3.04%	510.78
4055	16+16.64 HILLINGDON ROAD	7.00' RT.	+0.32%	516.02
4060	17+43.44 (FUTURE) HILLINGDON ROAD	5.34' RT.	-2.36%	514.64
4065	19+00.67 (FUTURE) HILLINGDON ROAD	7.00' RT.	-4.00%	508.82

\* SET MH RIMS FLUSH W/ PROPOSED FINISHED GRADE



8" SEWER MAIN: HILLINGDON ROAD

SEE MANHOLE TABULATION CHART: THIS SHEET



8" SEWER MAIN: OUTFALL

CONTRACT NO. 24-3859-D  
G.T.W.'S WAVERLY WOODS  
SECTION 12: LOTS 1 THRU 127  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
Robert R. Bannister  
CHIEF, BUREAU OF UTILITIES  
DATE: 02-01-01

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND  
DATE: 2/01

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PIKE  
ELLSWORTH CITY, MARYLAND 21042  
4103 481 - 2955

DESIGNED BY: P.W.K.  
DRAWN BY: M.D.T.  
CHECKED BY: P.W.K.  
DATE: JANUARY, 2001  
BY NO. REVISION

SEWER MAINS PROFILES  
600' SCALE MAP NO. 18 BLOCK NO. 5  
F.C.C. WORK ORDER NO. 30991  
FILE NAME: 30891 SEWER MAIN PROFILES SH16

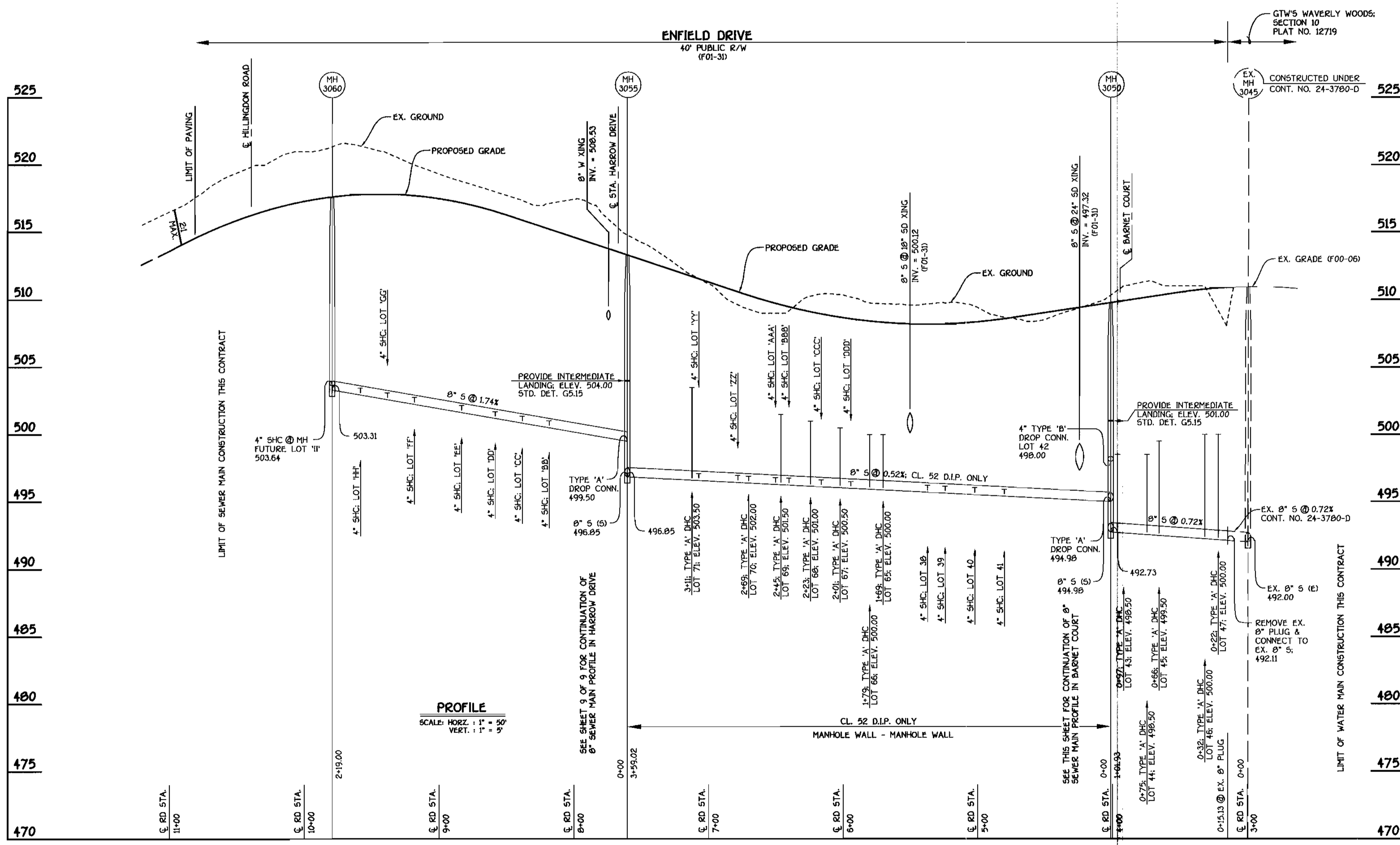
G.T.W.'S WAVERLY WOODS  
SECTION 12: LOTS 1 THRU 127 AND PARCELS 'A' & 'B'  
CONTRACT NO. 24-3859-D  
THIRD ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
SCALE AS SHOWN  
SHEET 6 OF 9





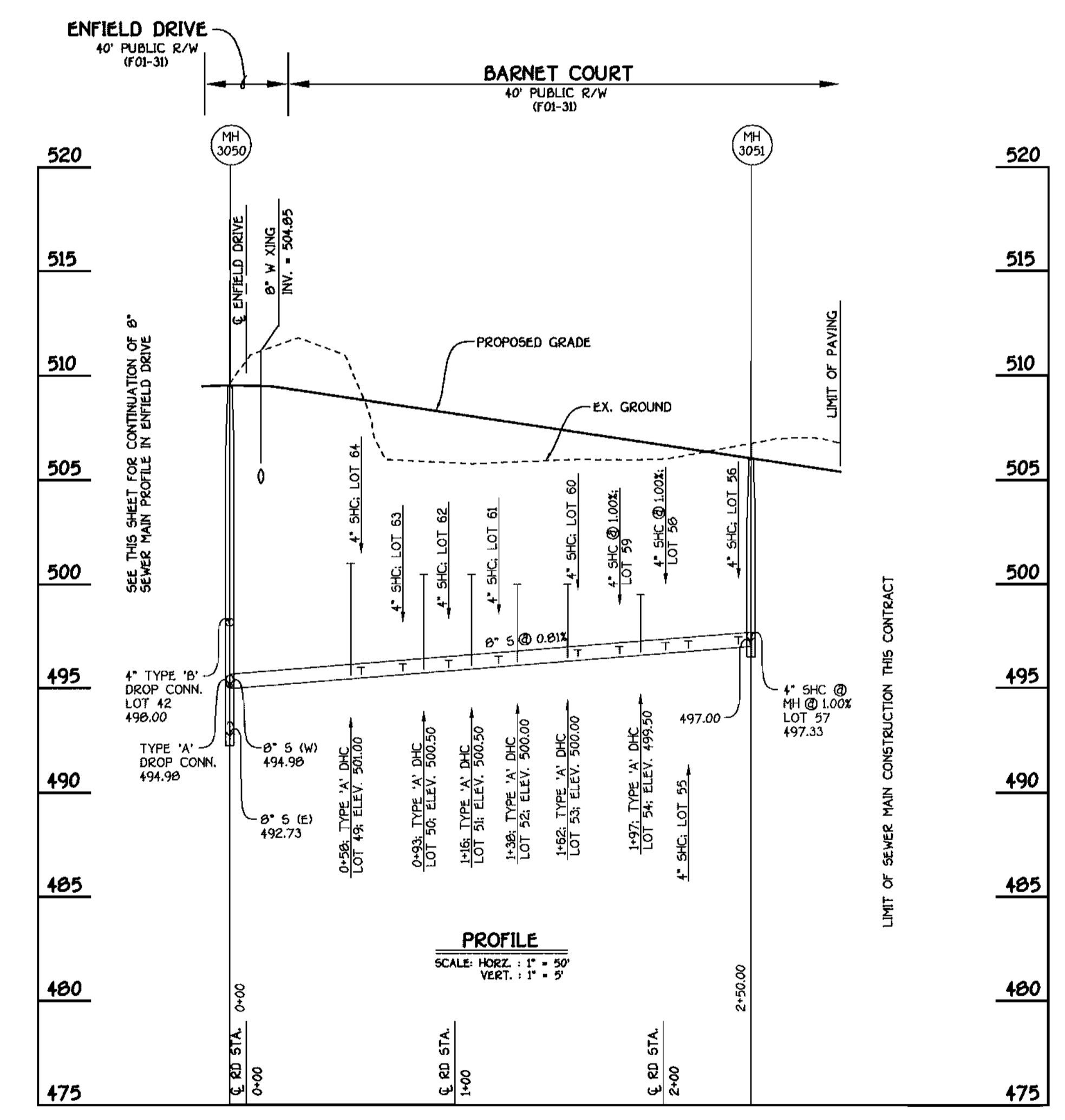
SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 3045 TO MH 3050		
0+22 RT.	47 (DHC)	500.68
0+32 RT.	46 (DHC)	500.68
0+66 RT.	45 (DHC)	500.18
0+75 RT.	44 (DHC)	499.18
0+97 RT.	43 (DHC)	499.18
② MH 3050 RT.	42 (TYPE 'B' DROP CONN.)	498.76
MH 3050 TO MH 3055		
0+79 RT.	41	496.23
1+01 RT.	40	496.36
1+23 RT.	39	496.47
1+36 RT.	38	496.53
1+69 LT.	65 (DHC)	500.60
1+79 LT.	66 (DHC)	500.60
1+93 RT.	DDD	496.84
2+01 LT.	67 (DHC)	501.10
2+15 RT.	CCC	496.95
2+23 LT.	68 (DHC)	501.60
2+39 RT.	BBB	497.07
2+45 LT.	69 (DHC)	502.10
2+49 RT.	AAA	497.13
2+69 LT.	70 (DHC)	502.60
2+77 RT.	ZZ	497.26
3+06 RT.	YY	497.42
3+11 LT.	71 (DHC)	504.10

SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 3055 TO MH 3060		
0+58 LT.	BB	501.28
0+78 LT.	CC	501.63
0+98 LT.	DD	501.98
1+23 LT.	EE	502.41
1+58 LT.	FF	503.02
1+78 LT.	GG	503.37
1+98 LT.	HH	503.72
② MH 3060 LT.	II (SHC @ MH)	504.24
MH 3050 TO MH 3055		
0+58 LT.	49 (DHC)	501.60
0+63 RT.	64	496.34
0+83 RT.	63	496.50
0+93 LT.	50 (DHC)	501.10
1+05 RT.	62	496.66
1+16 LT.	51 (DHC)	501.10
1+29 RT.	61	496.87
1+38 LT.	52 (DHC)	500.60
1+62 LT.	53 (DHC)	500.60
1+67 RT.	60	497.18
1+87 RT.	59 (SHC @ 1.00%)	497.00
1+97 LT.	54 (DHC)	500.10
2+09 RT.	56 (SHC @ 1.00%)	497.18
2+20 LT.	55	497.53
2+44 LT.	56	497.72
② MH 3051 RT.	57 (SHC @ MH @ 1.00%)	497.67



ENFIELD DRIVE: SEWER MAINS

SEE MANHOLE TABULATION CHART SHEET, 6 OF 9

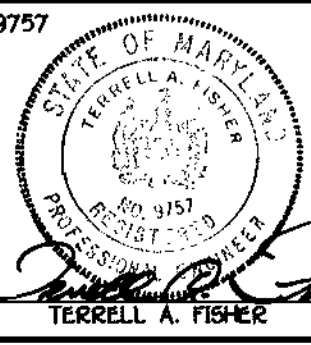


BARNET COURT: SEWER MAINS

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
02-01-01

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND  
2/6/01

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
TERRELL A. FISHER



DESIGNED BY: P.W.K.  
DRAWN BY: M.D.T.  
CHECKED BY: P.W.K.  
DATE: JANUARY, 2001

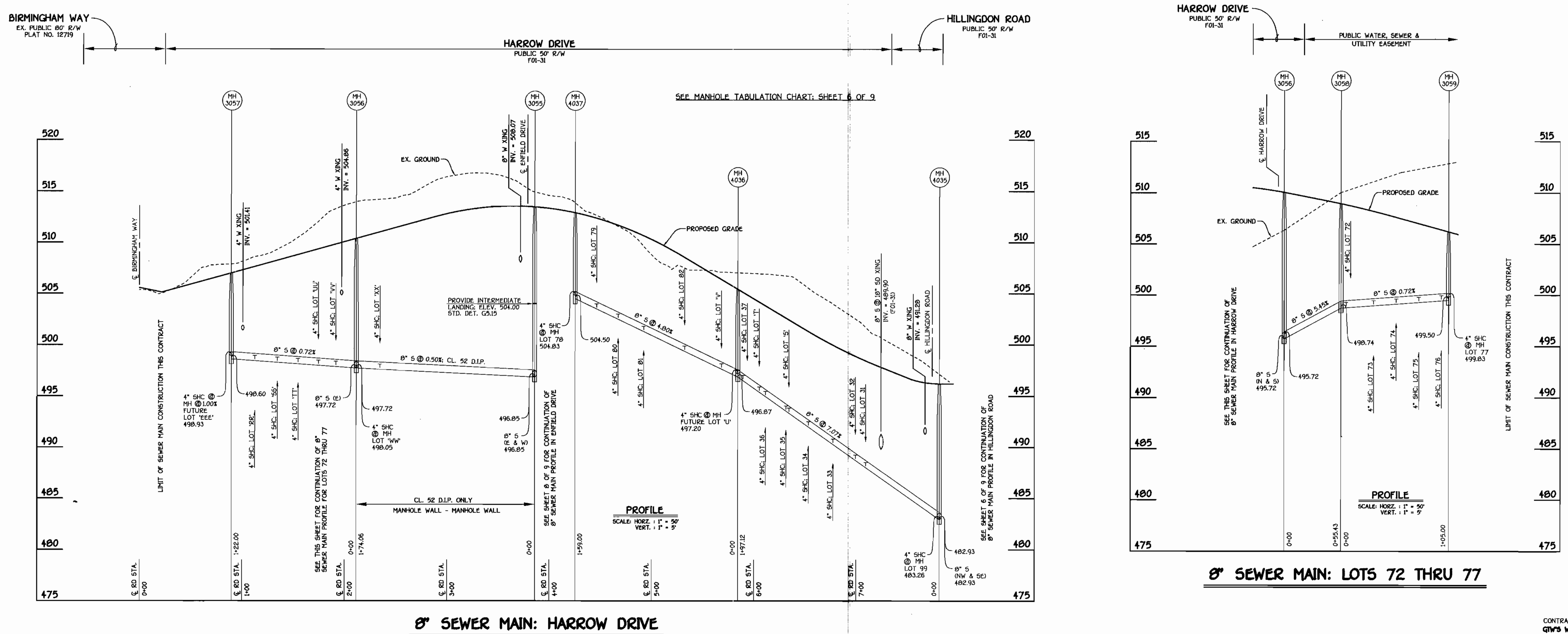
SEWER MAINS PROFILES  
600' SCALE MAP NO. 18 BLOCK NO. 2  
F.C.C. WORK ORDER NO. 30691

G.T.W.'S WAVERLY WOODS  
SECTION 12: LOTS 1 THRU 127 AND PARCELS 'A' & 'B'  
CONTRACT NO. 24-3859-D  
THIRD ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 8 OF 9

SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
1+51 RT.	MH 3055 TO MH 3056	498.42
② MH 3056 RT.	XX	498.67
	WW (SHC @ MH)	
	MH 3056 TO MH 3057	
0+20 RT.	VV	498.69
0+37 RT.	UU	498.82
0+57 RT.	TT	498.98
0+77 RT.	55	499.12
0+99 RT.	RR	499.26
② MH 3057 RT.	EEE (SHC @ MH @ 1.00%)	499.25
	MH 3058 TO MH 3059	
0+05 LT.	72	499.39
0+32 LT.	73	499.58
0+54 LT.	74	499.74
0+76 LT.	75	499.90
0+98 LT.	76	500.06
② MH 3059 LT.	77 (SHC @ MH @ 1.00%)	500.27

SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
0+72 LT.	MH 4035 TO MH 4036	488.91
0+82 LT.	31	489.62
1+04 LT.	32	491.17
1+28 LT.	33	492.87
1+47 RT.	34	494.11
1+50 LT.	5	494.43
1+70 LT.	35	495.86
1+76 RT.	36	496.14
1+92 LT.	T	497.47
② MH 4036 LT.	37	497.78
	U (SHC @ MH)	
	MH 4036 TO 4037	
0+16 RT.	V	498.41
0+52 RT.	82	500.16
0+92 RT.	81	502.09
1+17 RT.	80	503.29
1+38 RT.	79	504.30
② MH 4037 RT.	78	505.47



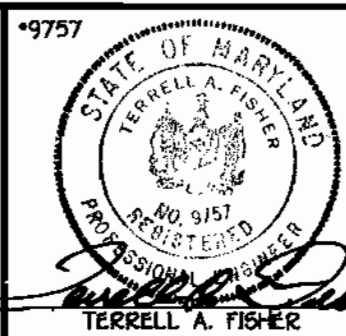
8" SEWER MAIN: HARROW DRIVE

8" SEWER MAIN: LOTS 72 THRU 77

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTENNIAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PIKE  
ELLSWORTH CITY, MARYLAND 21042  
410-418-1255



DESIGNED BY:	P.W.K.
DRAWN BY:	M.D.T.
CHECKED BY:	P.W.K.
DATE:	JANUARY, 2001
BY NO.	
REVISION	

SEWER MAINS  
PROFILES

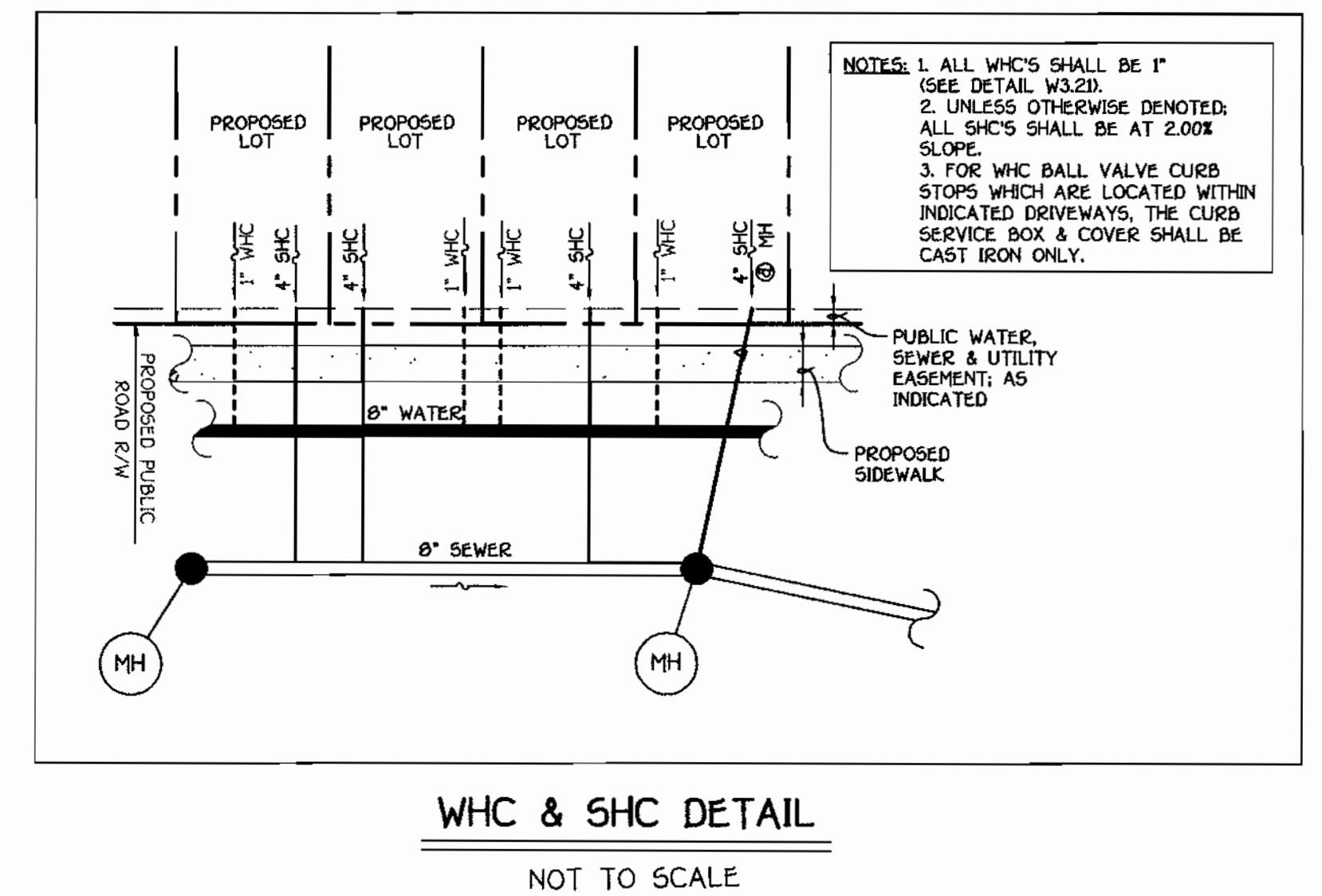
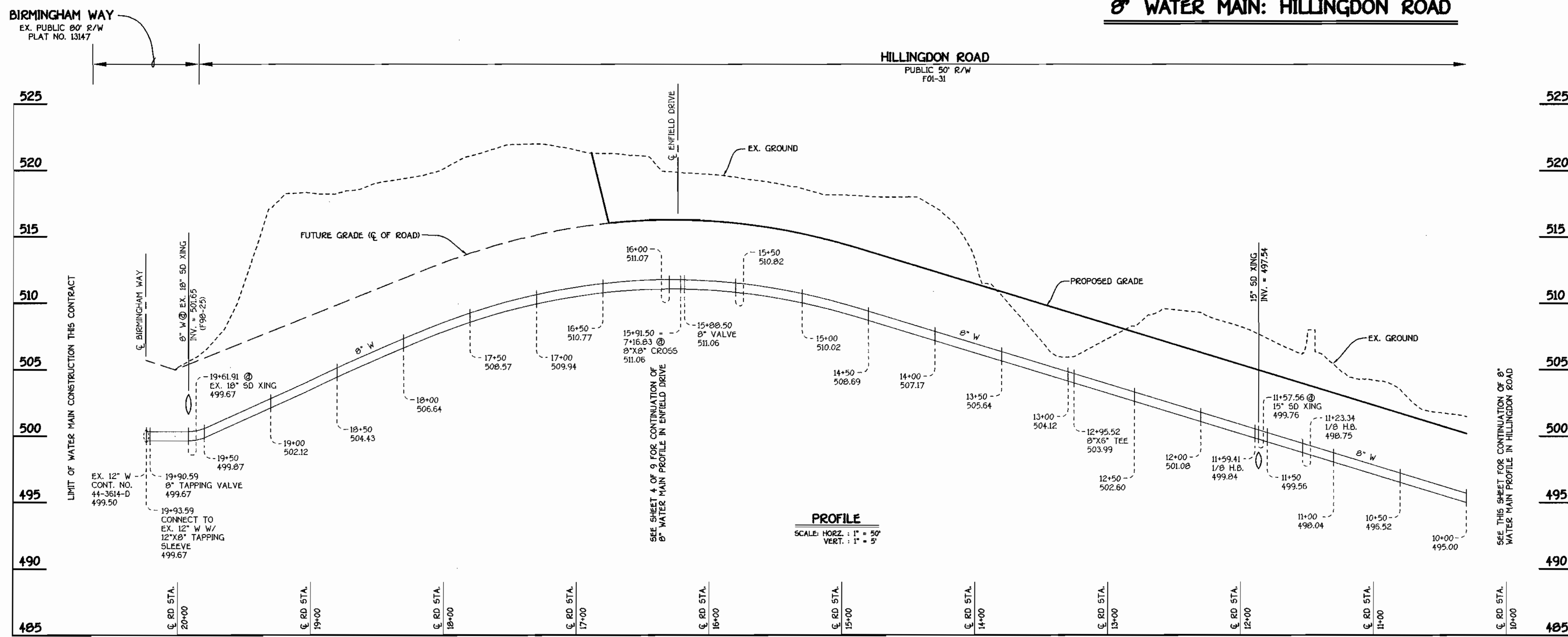
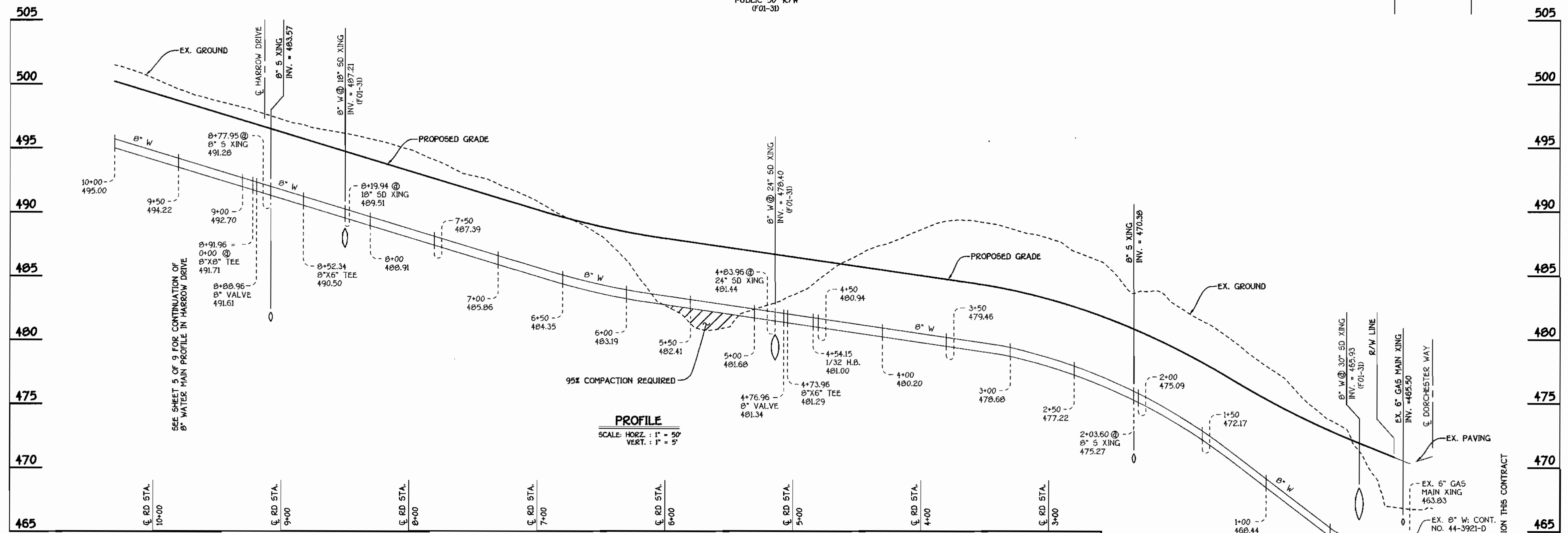
600' SCALE MAP NO.	16	BLOCK NO.	5
F.C.C. WORK ORDER NO.	30691		
FILE NAME:	30691 SEWER MAIN PROFILES SH19		

G.T.W.'S WAVERLY WOODS  
SECTION 12: LOTS 1 THRU 127 AND PARCELS 'A' & 'B'  
CONTRACT NO. 24-3859-D  
THIRD ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE  
AS  
SHOWN  
SHEET  
9 OF 9

CONTRACT NO. 24-3859-D  
G.T.W.'S WAVERLY WOODS  
SECTION 12: LOTS 1 THRU 127  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

WM STATION	APPURTENANCE	℄ ROAD STATION	DISTANCE
HILLINGDON ROAD			
0+00	CONNECT TO EX. 8" W	0+54.69	7.00' LT.
3+04.03	P.C. (CRIMP RADIUS = 380')	3+34.00	7.00' LT.
4+24.53	P.T. (CRIMP RADIUS = 380')	4+53.39	2.48' LT.
4+54.15	1/32 H.B.	4+82.01	7.00' LT.
4+73.96	8" X 6" TEE	5+01.82	7.00' LT.
8+52.34	8" X 6" TEE	8+80.20	7.00' LT.
8+88.96	8" VALVE	9+16.82	7.00' LT.
8+91.96	8" X 6" TEE	9+19.82	7.00' LT.
11+23.34	1/8 H.B.	11+53.00	5.00' LT.
11+59.41	1/8 H.B.	11+95.10	5.00' LT.
12+82.44	P.C. (CRIMP RADIUS = 593')	13+19.92	7.00' LT.
12+95.52	8" X 6" TEE	13+33.15	7.00' LT.
14+18.32	P.T. (CRIMP RADIUS = 593')	14+57.41	7.00' LT.
15+88.50	8" VALVE	16+27.62	7.00' LT.
15+91.50	8" X 8" CROSS	16+30.62	7.00' LT.
16+61.90	P.C. (CRIMP RADIUS = 380')	17+00.98	7.00' LT.
17+48.06	P.T. (CRIMP RADIUS = 380')	17+85.41	7.00' LT.
18+90.80	P.C. (CRIMP RADIUS = 380')	19+28.16	5.00' LT.
19+32.59	P.R.C. (CRIMP RADIUS = 380')	19+69.80	3.84' LT.
19+82.59	P.T. (CRIMP RADIUS = 380')	20+19.66	0.60' LT.
19+90.59	8" TAPPING VALVE	-0+04.00	0.60' LT.
19+93.59	12" X 8" TAPPING SLEEVE	-0+07.00	0.60' LT.

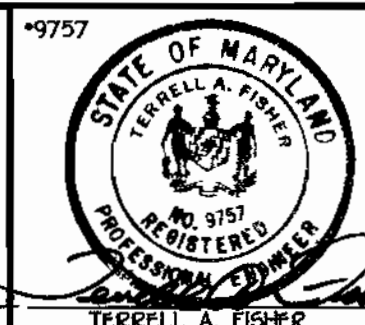


**8" WATER MAIN: HILLINGDON ROAD**

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 20722 BALTIMORE NATIONAL FREE  
ELLSWORTH CITY, MARYLAND 21041  
(410) 461-2855



DESIGNED BY: P.W.K.  
DRAWN BY: M.D.T.  
CHECKED BY: P.W.K.  
DATE: JANUARY, 2001  
BY NO. REVISION DATE

**WATER MAINS PROFILES**

600' SCALE MAP NO. 16 BLOCK NO. 2  
F.C.C. WORK ORDER NO. 30891  
FILE NAME: 30891 WATER MAIN PROFILES SH13

**G.T.W.'S WAVERLY WOODS**  
SECTION 12, LOTS 1 THRU 150  
CONTRACT NO. 24-3859-D  
THIRD ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 3 OF 9

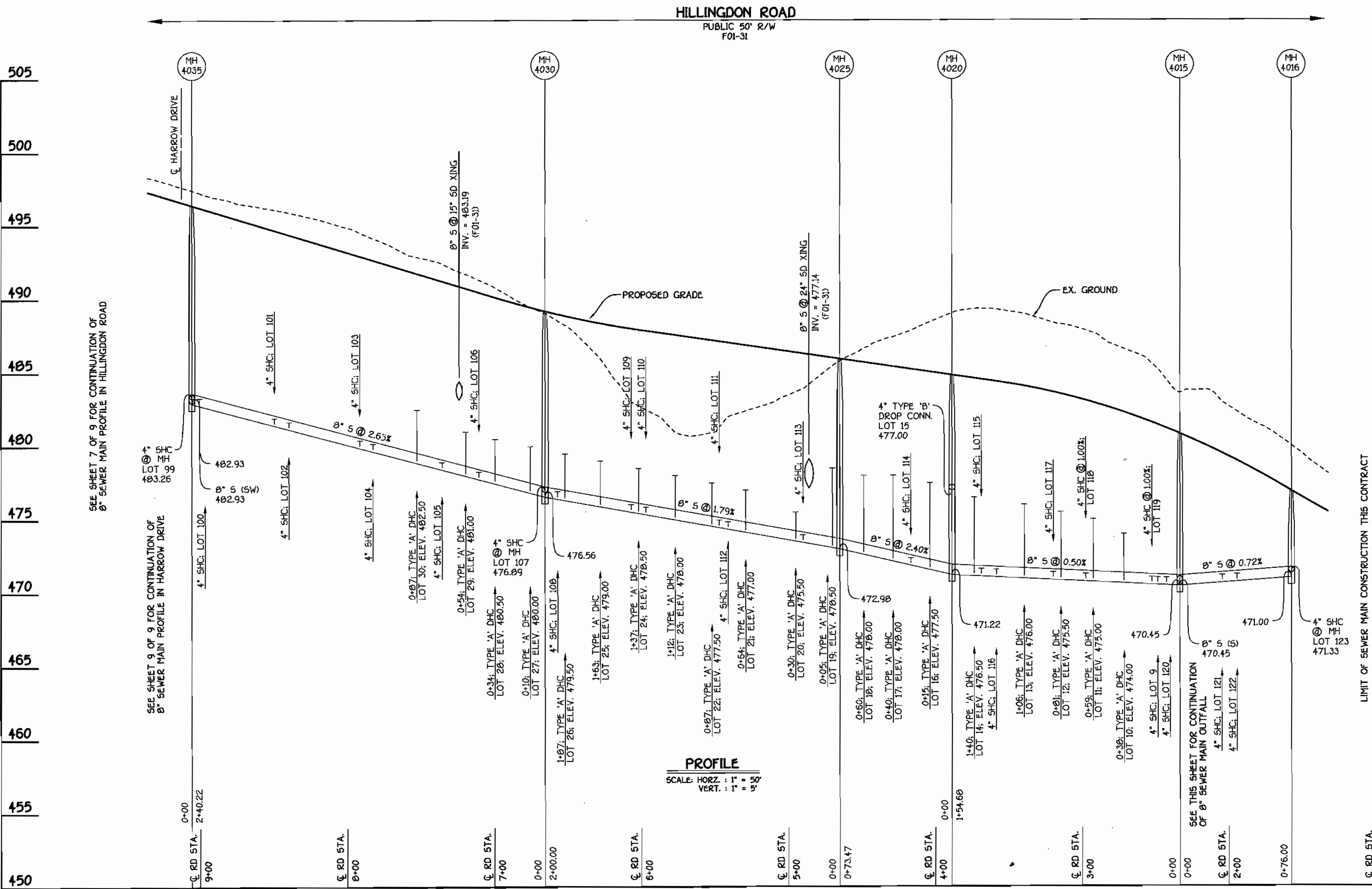
K:\Drawings\3130691.dwg SECTION 12\WATER MAINS\30891-Water Main Profiles SH13.dwg Fri Jan 12 08:55:05 2001

SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 4000 TO MH 4005		
0+52 RT.	1	469.87
⊙ MH 4005 RT.	2 (SHC @ MH)	469.70
MH 4005 TO 4010		
0+05 RT.	3	469.53
0+25 RT.	4	469.63
0+47 RT.	5	469.74
0+69 RT.	6	469.85
0+91 RT.	7	469.96
MH 4015 TO 4016		
0+29 LT.	121	471.19
0+39 LT.	122	471.26
⊙ MH 4016 LT.	123 (SHC @ MH)	471.69
MH 4015 TO 4020		
0+09 RT.	120	471.03
0+15 LT.	9	471.34
0+19 RT.	119 (SHC @ 1.00%)	470.90
0+36 LT.	10 (DHC)	474.64
0+59 LT.	11 (DHC)	475.64
0+64 RT.	118 (SHC @ 1.00%)	471.12
0+81 LT.	12 (DHC)	476.14
0+86 RT.	117	471.41
1+06 LT.	13 (DHC)	476.64
1+25 RT.	116	471.61
1+35 RT.	115	471.66
1+40 LT.	14 (DHC)	477.14
⊙ MH 4020 RT.	15 (TYPE "B" DROP CONN.)	477.64

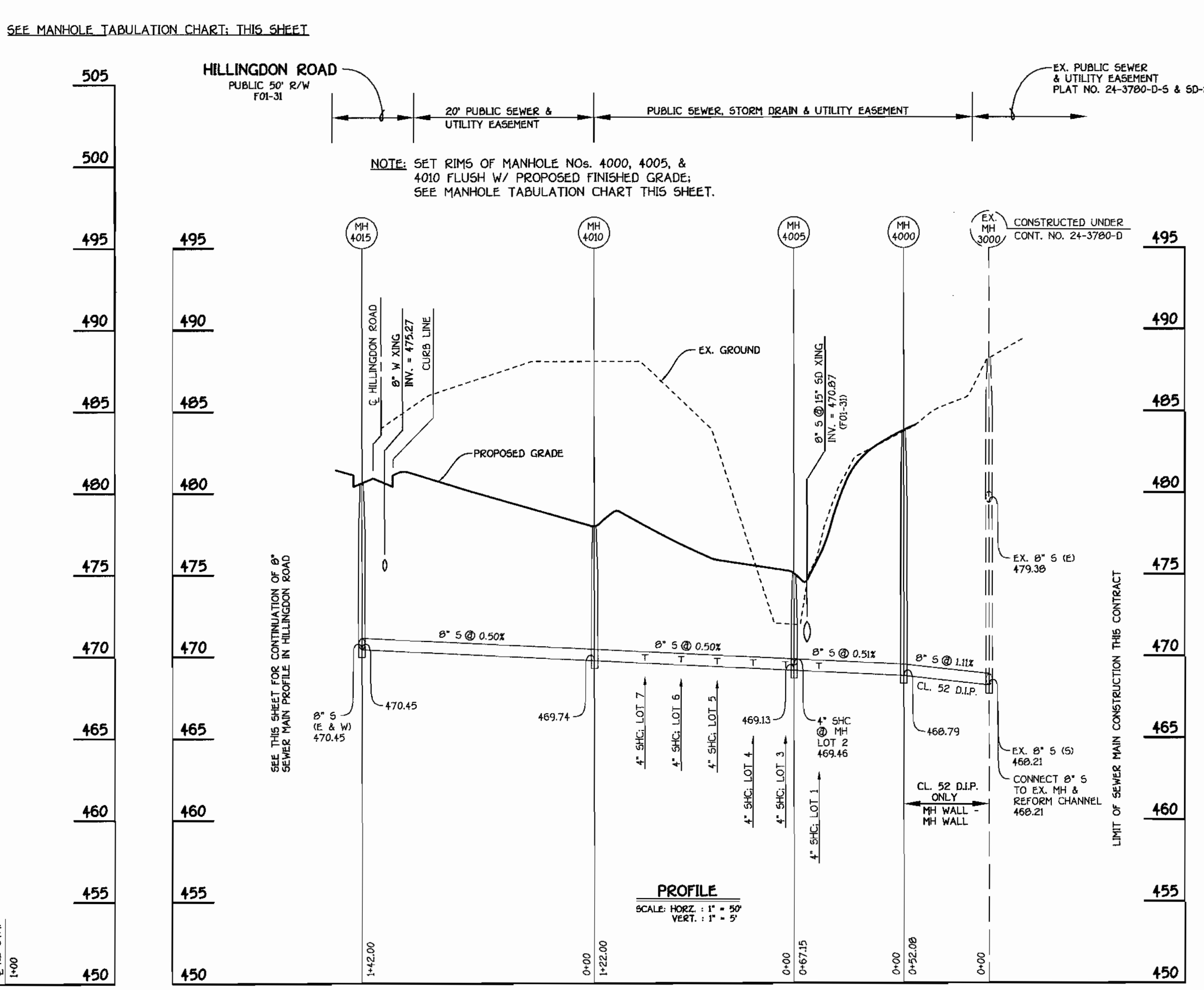
SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 4020 TO 4025		
0+15 LT.	16 (DHC)	478.18
0+28 RT.	114	472.37
0+40 LT.	17 (DHC)	478.70
0+60 LT.	18 (DHC)	478.68
MH 4025 TO 4030		
0+05 LT.	19 (DHC)	479.14
0+25 RT.	113	473.96
0+30 LT.	20 (DHC)	476.14
0+64 LT.	21 (DHC)	477.64
0+76 RT.	112	474.87
0+82 RT.	111	474.98
0+87 LT.	22 (DHC)	478.14
1+12 LT.	23 (DHC)	478.64
1+32 RT.	110	475.87
1+37 LT.	24 (DHC)	479.14
1+42 RT.	109	476.05
1+63 LT.	25 (DHC)	479.64
1+87 LT.	26 (DHC)	480.14
1+92 RT.	108	476.95
⊙ MH 4030 RT.	107 (SHC @ MH)	477.25

MANHOLE TABULATION CHART				
NO.	℄ ROAD STATION	DISTANCE	SLOPE	RIM ELEVATION
3050	4+01.22 ENFIELD DRIVE	7.9' RT.	-1.50%	509.54
3051	2+41.58 BARNET COURT	7.00' RT.	-1.50%	505.85
3055	7+59.96 ENFIELD DRIVE	7.00' RT.	+3.31%	513.07
3056	2+11.77 HARROW DRIVE	5.6' LT.	+2.77%	510.20
3057	0+88.49 HARROW DRIVE	7.00' LT.	+2.77%	506.75
3058	IN OFF-STREET PARKING AREA	-----	-----	509.02
3059	IN OFF-STREET PARKING AREA	-----	-----	506.43
3060	9+78.96 ENFIELD DRIVE	7.00' RT.	-1.52%	517.61
4000	OUTFALL SEWER MAIN*	-----	-----	483.80
4005	OUTFALL SEWER MAIN*	-----	-----	475.00
4010	OUTFALL SEWER MAIN*	-----	-----	478.00
4016	1+57.58 HILLINGDON ROAD	7.00' RT.	+6.00%	476.70
4015	2+33.58 HILLINGDON ROAD	7.00' RT.	+4.20%	480.59
4020	3+88.64 HILLINGDON ROAD	6.70' RT.	+1.46%	484.62
4025	4+85.05 HILLINGDON ROAD	6.30' RT.	+1.46%	485.76
4030	6+65.60 HILLINGDON ROAD	7.00' RT.	+2.44%	489.00
4035	9+05.82 HILLINGDON ROAD	7.00' RT.	+3.04%	496.21
4036	5+83.77 HARROW DRIVE	3.00' RT.	-6.00%	505.38
4037	4+24.28 HARROW DRIVE	7.00' RT.	-2.14%	512.60
4040	11+45.91 HILLINGDON ROAD	7.67' RT.	+3.04%	503.49
4045	12+02.19 HILLINGDON ROAD	7.67' RT.	+3.04%	505.21
4050	13+88.67 HILLINGDON ROAD	11.01' RT.	+3.04%	510.78
4055	16+16.64 HILLINGDON ROAD	7.00' RT.	+0.32%	516.02
4060	17+43.44 (FUTURE) HILLINGDON ROAD	5.34' RT.	-2.36%	514.64
4065	19+00.67 (FUTURE) HILLINGDON ROAD	7.00' RT.	-4.00%	508.82

\* SET MH RIMS FLUSH W/ PROPOSED FINISHED GRADE.



8" SEWER MAIN: HILLINGDON ROAD



8" SEWER MAIN: OUTFALL

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DATE: 02-01-01 CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND DATE: 2/01 CHIEF, DEVELOPMENT ENGINEERING DIVISION	FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS 1172 BALTIMORE NATIONAL PEZ ELICOTT CITY, MARYLAND 21042 (410) 481-2899	DESIGNED BY: P.W.K. DRAWN BY: M.D.T. CHECKED BY: P.W.K. DATE: JANUARY, 2001 BY: NO. REVISION	SEWER MAINS PROFILES 600' SCALE MAP NO. 18 BLOCK NO. 5 F.C.C. WORK ORDER NO. 30591 FILE NAME: 30591 SEWER MAIN PROFILES SH16	G.T.W.'S WAVERLY WOODS SECTION 12, LOTS 1 THRU 15G CONTRACT NO. 24-3859-D THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE AS SHOWN SHEET 6 OF 9
---	---	---	--	---	---

SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 4030 TO MH 4035		
0+10 LT.	27 (DHC)	480.64
0+34 LT.	28 (DHC)	481.14
0+45 RT.	106	478.28
0+54 LT.	29 (DHC)	481.64
0+70 RT.	105	478.95
0+87 LT.	30 (DHC)	483.14
1+17 RT.	104	480.19
1+26 RT.	103	480.43
1+74 RT.	102	481.70
1+84 RT.	101	481.97
2+35 RT.	100	483.32
② MH 4035 RT.	99 (SHC @ MH)	483.62

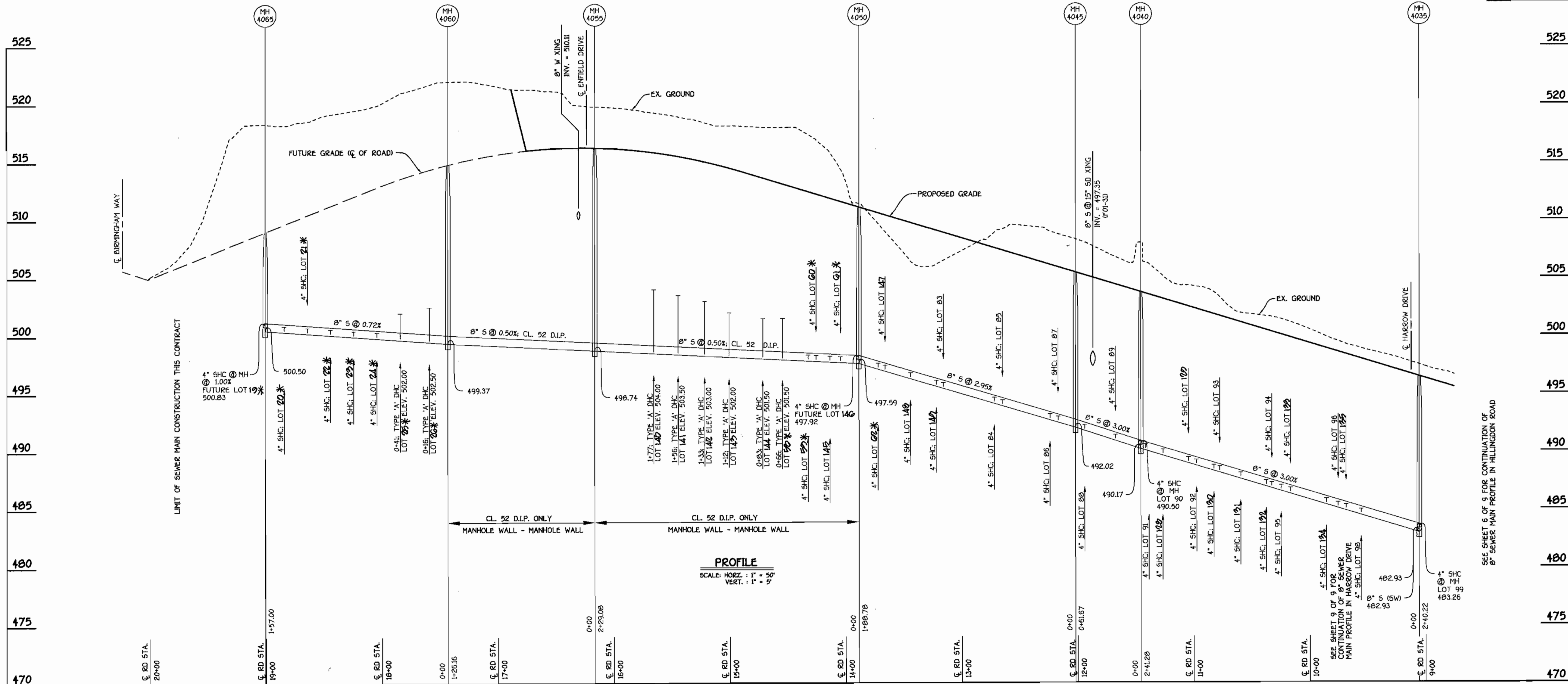
SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 4035 TO MH 4040		
0+50 RT.	98	484.96
0+63 LT.	195	485.63
0+70 RT.	96	485.56
0+80 LT.	194	485.97
1+11 LT.	193	487.07
1+19 RT.	95	487.03
1+27 RT.	94	487.27
1+32 LT.	192	487.70
1+54 LT.	191	488.36
1+72 RT.	93	488.82
1+77 LT.	190	489.05
1+92 RT.	92	489.22
1+99 LT.	189	489.71
2+21 LT.	188	490.37
2+35 RT.	91	490.54
② MH 4040 RT.	90 (SHC @ MH)	490.86
MH 4040 TO MH 4045		
0+24 RT.	89	492.04
0+53 RT.	88	492.63

SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 4045 TO 4050		
0+15 RT.	87	492.99
0+22 RT.	86	493.20
0+63 RT.	85	494.41
0+70 RT.	84	494.62
1+14 RT.	83	495.91
1+20 LT.	147	496.69
1+42 LT.	145	497.34
1+64 LT.	147	498.03
1+70 RT.	82	497.85
② MH 4050 LT.	146 (SHC @ MH)	498.99
MH 4050 TO 4055		
0+16 RT.	81	498.48
0+25 LT.	145	498.89
0+37 RT.	80	498.61
0+44 RT.	79	498.66
0+56 RT.	78 (DHC)	502.18
0+83 LT.	144 (DHC)	502.46
1+12 LT.	143 (DHC)	502.96
1+33 LT.	142 (DHC)	503.96
1+56 LT.	141 (DHC)	504.46
1+77 LT.	140 (DHC)	504.96
MH 4060 TO MH 4065		
0+16 LT.	76 (DHC)	503.38
0+41 LT.	75 (DHC)	502.88
0+61 LT.	74	500.86
0+81 LT.	73	501.00
1+01 LT.	72	501.15
1+21 LT.	71	501.29
1+41 LT.	70	501.44
② MH 4065 LT.	139 (SHC @ MH @ 1.00%)	501.27

BIRMINGHAM WAY  
EX. PUBLIC 80' R/W  
PLAT NO. 12719

SEE MANHOLE TABULATION CHART, SHEET 6 OF 9

HILLINGDON ROAD  
PUBLIC 50' R/W  
F01-31



\* FUTURE LOTS - SECTION 12

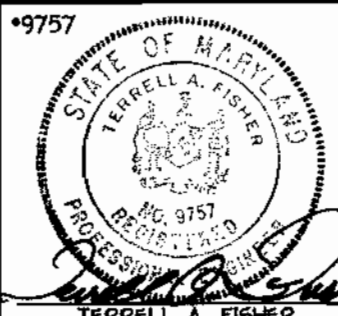
**8" SEWER MAIN: HILLINGDON ROAD**

SEE SHEET 6 OF 9 FOR CONTINUATION OF 8" SEWER MAIN PROFILE IN HILLINGDON ROAD

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
ELLSWORTH CITY, MARYLAND 21038  
410.461.2895



DESIGNED BY: P.W.K.  
DRAWN BY: M.D.T.  
CHECKED BY: P.W.K.  
DATE: JANUARY, 2001

SEWER MAINS  
PROFILES

**G.T.W.'S WAVERLY WOODS**  
SECTION 12, LOTS 1 THRU 156  
CONTRACT NO. 24-3859-D  
THIRD ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

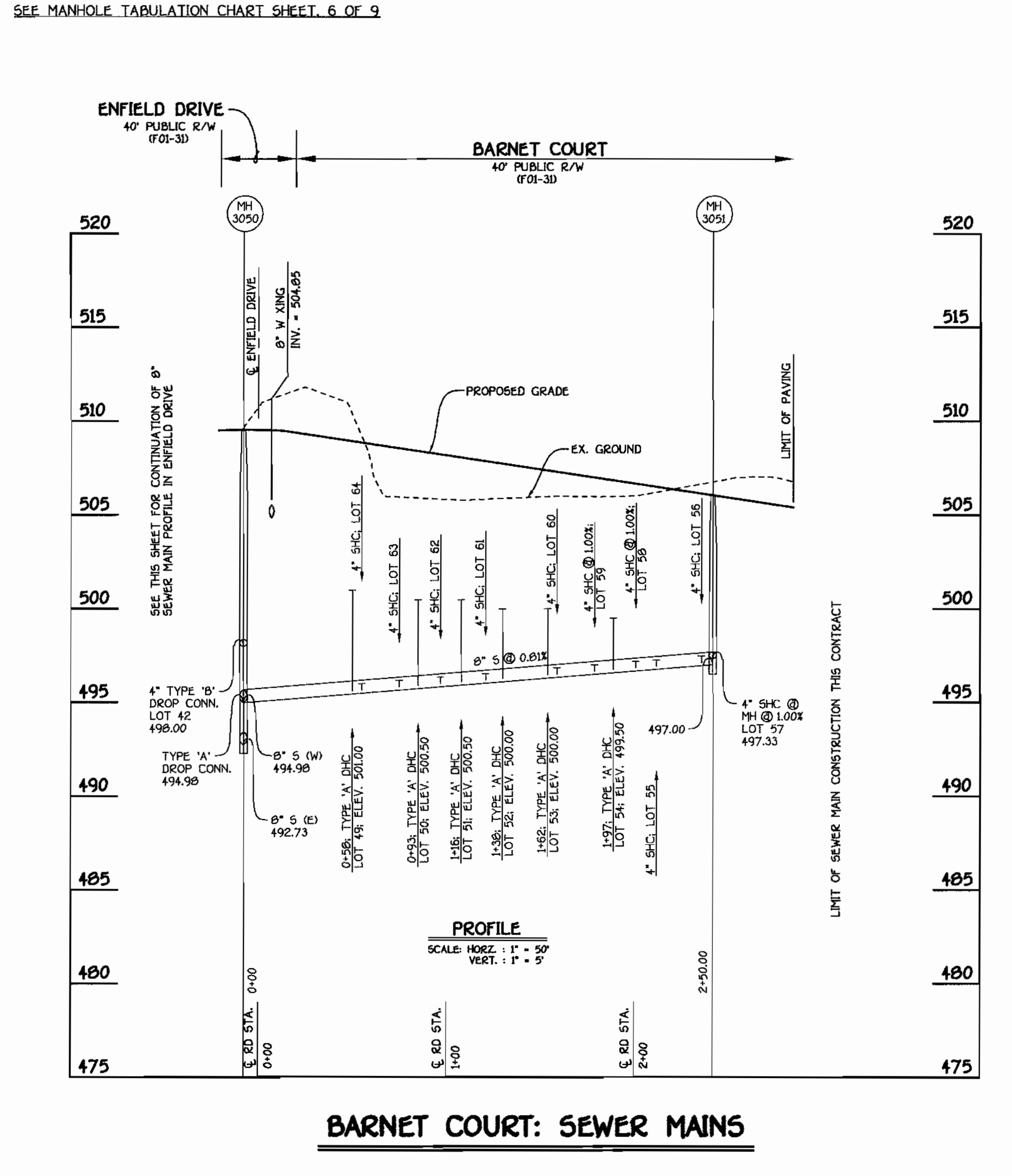
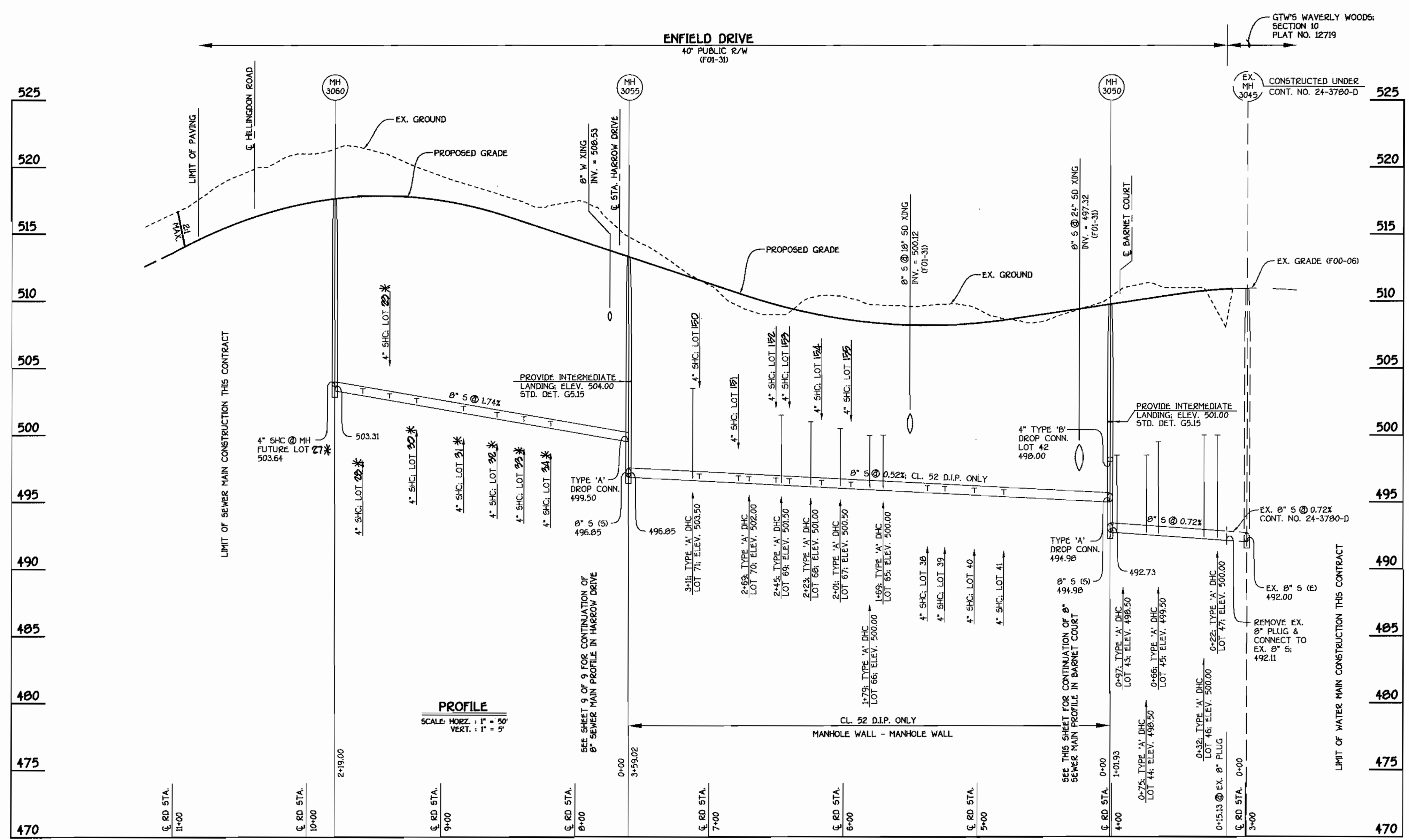
SCALE AS SHOWN

SHEET 7 OF 9

600' SCALE MAP NO. 16 BLOCK NO. 5  
F.C.C. WORK ORDER NO. 30591  
FILE NAME: 30591 SEWER MAIN PROFILES SH17

STATION	LOT	ELEVATION
MH 3045 TO MH 3050		
0+22 RT.	47 (DHC)	500.68
0+32 RT.	46 (DHC)	500.68
0+66 RT.	45 (DHC)	500.18
0+75 RT.	44 (DHC)	499.18
0+97 RT.	43 (DHC)	499.18
@ MH 3050 RT.	42 (TYPE 'B' DROP CONN.)	498.76
MH 3050 TO MH 3055		
0+79 RT.	41	498.23
1+01 RT.	40	498.36
1+23 RT.	39	496.47
1+36 RT.	38	496.53
1+69 LT.	65 (DHC)	500.60
1+79 LT.	66 (DHC)	500.60
1+93 RT.	152	496.84
2+01 LT.	67 (DHC)	501.10
2+15 RT.	154	496.95
2+23 LT.	68 (DHC)	501.60
2+39 RT.	152	497.07
2+45 LT.	69 (DHC)	502.10
2+49 RT.	152	497.13
2+69 LT.	70 (DHC)	502.60
2+77 RT.	151	497.26
3+06 RT.	150	497.42
3+11 LT.	71 (DHC)	504.10

STATION	LOT	ELEVATION
MH 3055 TO MH 3060		
0+58 LT.	34	501.28
0+78 LT.	33	501.63
0+98 LT.	32	501.98
1+23 LT.	31	502.41
1+58 LT.	30	503.02
1+78 LT.	29	503.37
1+98 LT.	28	503.72
@ MH 3060 LT.	27 (SHC @ MH)	504.24
MH 3050 TO MH 3051		
0+58 LT.	49 (DHC)	501.60
0+63 RT.	64	496.34
0+83 RT.	63	496.50
0+93 LT.	50 (DHC)	501.10
1+05 RT.	62	496.68
1+16 LT.	51 (DHC)	501.10
1+29 RT.	61	496.87
1+38 LT.	52 (DHC)	500.60
1+62 LT.	53 (DHC)	500.60
1+67 RT.	60	497.18
1+87 RT.	59 (SHC @ 1.00%)	497.00
1+97 LT.	54 (DHC)	500.10
2+09 RT.	58 (SHC @ 1.00%)	497.18
2+20 LT.	55	497.53
2+44 LT.	56	497.72
@ MH 3051 RT.	57 (SHC @ MH @ 1.00%)	497.67



**ENFIELD DRIVE: SEWER MAINS**

**BARNET COURT: SEWER MAINS**

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Robert B. Buehler*  
CHIEF, BUREAU OF UTILITIES

02-01-01  
DATE

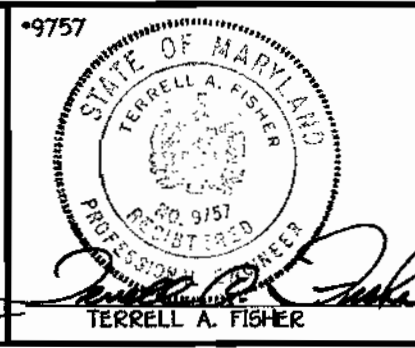
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

*Michael J. ...*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

2/6/01  
DATE

**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
ELLSWORTH CITY, MARYLAND 21042  
4100-880 - 2000

*Terrill A. Fisher*  
TERRILL A. FISHER



DESIGNED BY: P.W.K.  
DRAWN BY: M.D.T.  
CHECKED BY: P.W.K.  
DATE: JANUARY, 2001

BY NO. 1066

REVISION

DATE: 3/21/01

FILE NAME: 30691 SEWER PROFILES SHED

**SEWER MAINS PROFILES**

600' SCALE MAP NO. 16 BLOCK NO. 5  
F.C.C. WORK ORDER NO. 30691

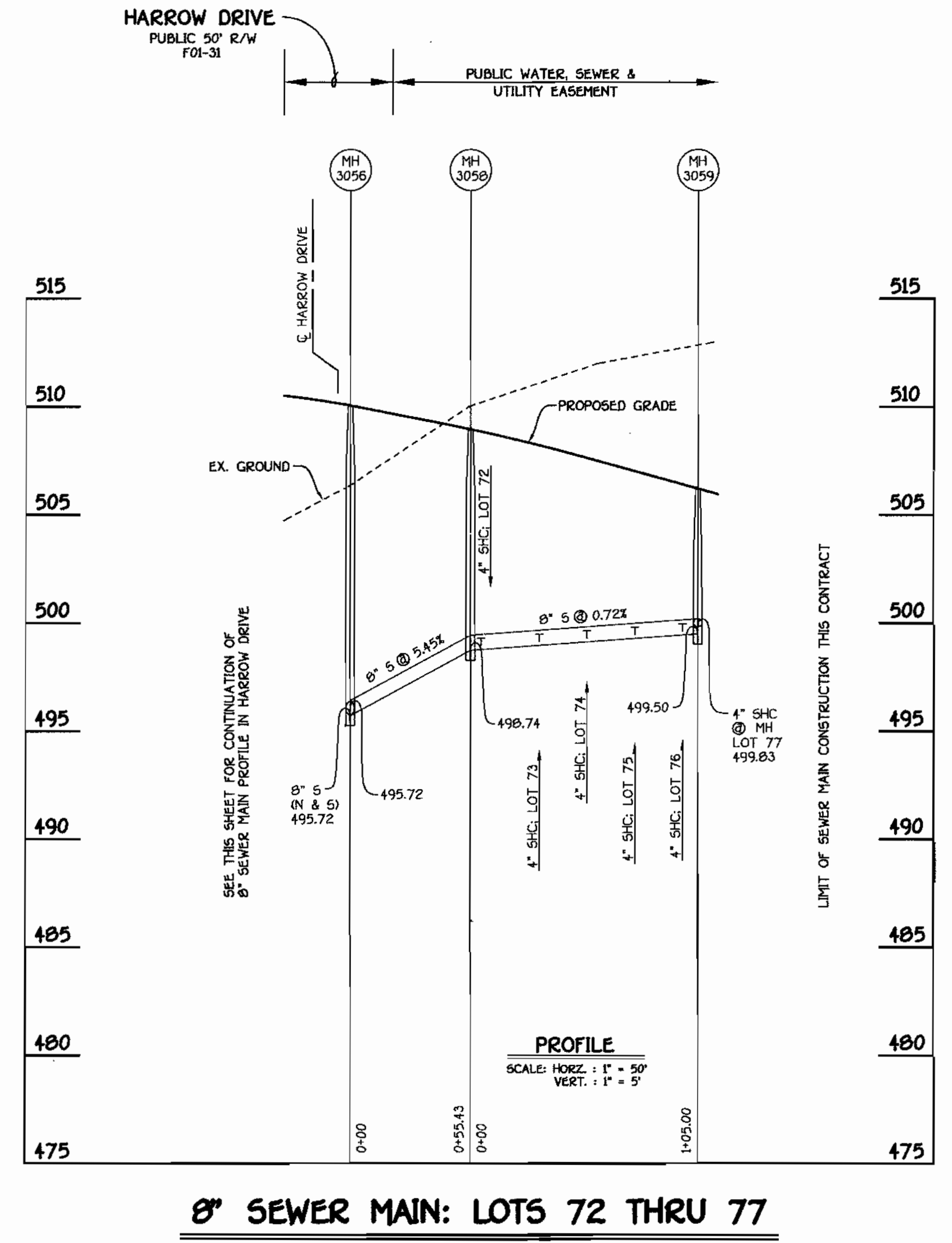
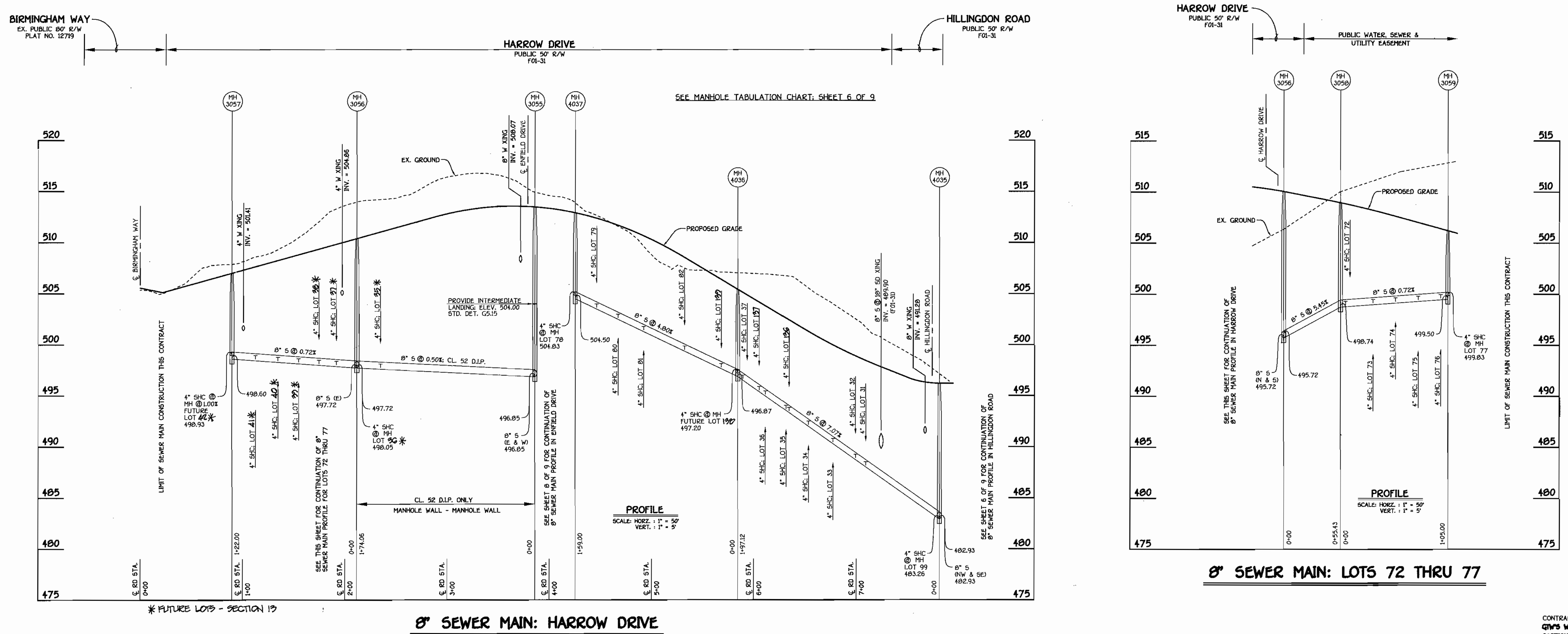
**G.T.W.'S WAVERLY WOODS**  
SECTION 12, LOTS 1 THRU 156  
CONTRACT NO. 24-3859-D  
THIRD ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 8 OF 9

CONTRACT NO. 24-3859-D  
G.T.W.'S WAVERLY WOODS  
SECTION 12, LOTS 1 THRU 156  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 3055 TO MH 3056		
1+51 RT.	35	498.42
④ MH 3056 RT.	35 (SHC @ MH)	498.67
MH 3056 TO MH 3057		
0+20 RT.	37	498.69
0+37 RT.	38	498.82
0+57 RT.	39	498.98
0+77 RT.	40	499.12
0+99 RT.	41	499.25
④ MH 3057 RT.	42 (SHC @ MH @ 1.00X)	499.25
MH 3058 TO MH 3059		
0+05 LT.	72	499.39
0+32 LT.	73	499.58
0+54 LT.	74	499.74
0+76 LT.	75	499.90
0+98 LT.	76	500.06
④ MH 3059 LT.	77 (SHC @ MH @ 1.00X)	500.27

SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 4035 TO MH 4036		
0+72 LT.	31	488.91
0+82 LT.	32	489.62
1+04 LT.	33	491.17
1+28 LT.	34	492.87
1+47 RT.	35	494.11
1+50 LT.	35	494.43
1+70 LT.	36	495.86
1+76 RT.	37	496.14
1+92 LT.	37	497.47
④ MH 4036 LT.	190 (SHC @ MH)	497.78
MH 4036 TO 4037		
0+16 RT.	82	498.41
0+52 RT.	82	500.16
0+92 RT.	81	502.09
1+17 RT.	80	503.29
1+38 RT.	79	504.30
④ MH 4037 RT.	78	505.47

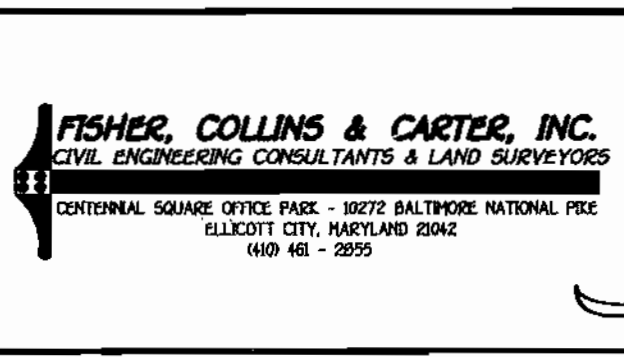


**8" SEWER MAIN: HARROW DRIVE**

**8" SEWER MAIN: LOTS 72 THRU 77**

CONTRACT NO. 24-3859-D  
 G.T.W.'S WAVERLY WOODS  
 SECTION 12; LOTS 1 THRU 150  
 WATER AND SEWER MAIN EXTENSIONS  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DATE: 02-21-01 CHEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND DATE: 2/8/01 CHEF, DEVELOPMENT ENGINEERING DIVISION
--	--

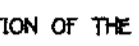


DESIGNED BY:	P.W.K.
DRAWN BY:	M.D.T.
CHECKED BY:	P.W.K.
DATE:	JANUARY, 2001

600' SCALE MAP NO. 16	BLOCK NO. 5
F.C.C. WORK ORDER NO. 30891	
FILE NAME:	30891 SEWER MAIN PROFILES SH9

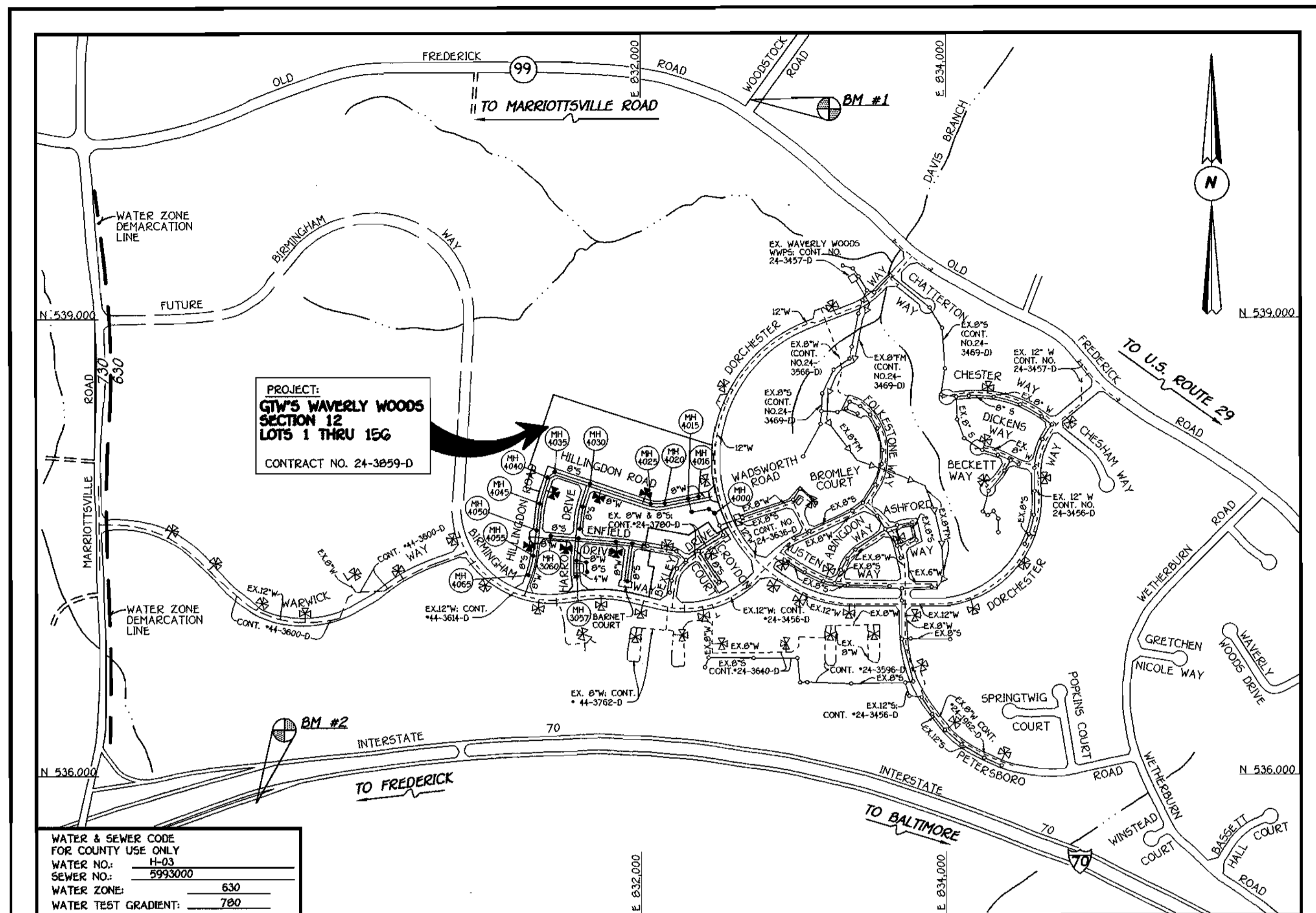
<b>G.T.W.'S WAVERLY WOODS</b> SECTION 12; LOTS 1 THRU 150 CONTRACT NO. 24-3859-D THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET 9 OF 9
--	--------------------------------

**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 DAMAGE 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". CLEAR ALL POLES BY 2'-0" MINIMUM.
- 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 (1991 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:
  - STATE HIGHWAY ADMINISTRATION - 531-5533
  - BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICES - 850-4620
  - BALTIMORE GAS & ELECTRIC CO. - UNDER GROUND DAMAGE CONTROL - 787-9068
  - MESSE UTILITY - 1-800-297-7777
  - COLONIAL PIPELINE CO. - 795-1390
  - BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 313-1900
- 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 TREES, 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 D.I.P. 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 PLANS OR IN THE SPECIFICATIONS.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAMES AND COVERS, STANDARD DETAIL G5.51.
- WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED AS TO HAVE ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
- ALL WATER MAINS SHALL 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 THE STANDARD DETAILS (W11 AND W213). SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- THE 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.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, # (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 DPW REQUIREMENTS PER SECTION 10.14(B) OF THE HOWARD COUNTY CODE.

QUANTITIES				
ITEM	ESTIMATED	QUANTITIES	AS-BUILT	SUPPLIER
8" SEWER	2,934 L.F.	2,920	P.V.C.	BRS INC
8" SEWER D.I.P.	940 L.F.	895	IRON	GRIFFIN PIPE
4" SEWER	5,270 L.F.	5,180	P.V.C.	"
MANHOLES	25 EACH	25	CONCRETE	ATLANTIC IND.
8" WATER	3,647 L.F.	3,532	IRON	GRIFFIN PIPE
6" WATER	86 L.F.	78	"	"
4" WATER	201 L.F.	195	"	"
1" W.H.C.	5,214 L.F.	5,204	COPPER	READING TUBE
FIRE HYDRANTS	6 EACH	6	IRON	MUELLER CO.
12" X 8" TAPPING SLEEVE & VALVE	1 EACH	1	STAINLESS STEEL	DRIESSION
8" VALVES	9 EACH	9	IRON	MUELLER
6" VALVES	6 EACH	6	"	"
4" VALVES	2 EACH	2	"	"
8" X 8" CROSS	2 EACH	2	"	U.S. PIPE FOUNDRY
8" X 8" TEE	2 EACH	2	"	"
8" X 6" TEE	6 EACH	6	"	"
8" X 4" TEE	2 EACH	2	"	"
8" - 1/8 H.B.	2 EACH	2	"	"
8" - 1/32 H.B.	1 EACH	1	"	"
4" - 1/8 H.B.	4 EACH	4	"	"
8" PLUG & BUTTRESS	3 EACH	3	CONCRETE	"

NAME OF UTILITY CONTRACTOR: CONSOLIDATED CONSTRUCTION SERVICES  
 SURVEY & DRAFTING DIVISION AS-BUILT DATE:



WATER & SEWER CODE FOR COUNTY USE ONLY	
WATER NO.:	11-03
SEWER NO.:	5993000
WATER ZONE:	630
WATER TEST GRADIENT:	780

TYPE OF BUILDING: RESIDENTIAL: TOWNHOUSES	
NUMBER OF LOTS: 156 (142 BUILT/14 VALUE)	
NO. OF WATER HOUSE CONNECTIONS:	177 (157 FUTURE)
NO. OF SEWER HOUSE CONNECTIONS:	177 (157 FUTURE)
DRAINAGE AREA:	LITTLE PATUXENT
TREATMENT PLANT:	PATAPSCO WASTEWATER TREATMENT PLANT
VIA THE WAVERLY WOODS WASTEWATER PUMPING STATION AND VIA THE ROUTE 100 WASTEWATER PUMPING STATION.	

**VICINITY MAP**

SCALE: 1"=600'

PLAN REFERENCE NUMBERS: P00-17, F01-31

**CONTRACT No. 24-3859-D**  
**GTW'S WAVERLY WOODS**  
**SECTION 12; LOTS 1 THRU 156**  
**WATER AND SEWER MAIN EXTENSIONS**  
**HOWARD COUNTY, MARYLAND**

BENCHMARK INFORMATION	
B.M.#1 - HOWARD COUNTY CONTROL STATION #1012 (NAD '83) (NEAR THE INTERSECTION OF MARYLAND ROUTE 99 & WOODSTOCK ROAD)	N 601.060177 E 1.345.336799 ELEVATION = 445.577
B.M.#2 - HOWARD COUNTY CONTROL STATION #1661 (NAD '83) (NEAR THE INTERSECTION OF U.S. ROUTE 40 & MARIOTTVILLE ROAD)	N 593.250932 E 1.340.192711 ELEVATION = 509.924

**DEVELOPER'S CERTIFICATION**  
 I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

*M. McLean* FOR: 1/10/01  
 WAVERLY WOODS DEVELOPMENT CORP. DATE  
 SIGNATURE OF DEVELOPER

**ENGINEER'S CERTIFICATION**  
 I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*Paul W. Koebel* 01/10/01  
 SIGNATURE OF ENGINEER DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
*Jim Myers* 2/7/01  
 U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE

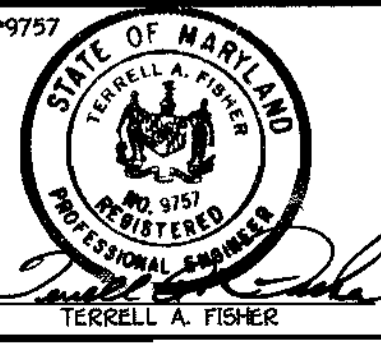
THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.  
 APPROVED: *Geoffrey W. Lee* 2/7/01  
 HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND AS SHOWN ON F01-31 AND THESE PLANS.  
*M. McLean* FOR: 1/10/01  
 WAVERLY WOODS DEVELOPMENT CORP. DATE  
 SIGNATURE OF DEVELOPER

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
*Robert W. Benjamin* 02-01-01  
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND  
*Paul W. Koebel* 2/8/01  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

FISHER COLLINS & CARTER, INC.  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 3072 BALTIMORE NATIONAL PIKE  
 ELKLOFT CITY, MARYLAND 21046  
 (410) 461-2295



DESIGNED BY: P.W.K.  
 DRAWN BY: M.D.T.  
 CHECKED BY: P.W.K.  
 DATE: JANUARY, 2001  
 BY NO. 1  
 IN ACCORDANCE WITH DEVELOPER'S PLAN PROPOSED THE ALPHABETICAL DESIGNATIONS FOR THE LOTS IN PARAGRAPHS 1 & 10 HAVE BEEN CHANGED TO PER THESE PAGES AS BUILT DATA ADDED TO PLAN  
 REVISION  
 DATE: 02/10/01

TITLE SHEET  
 600' SCALE MAP NO. 16 BLOCK NO. 5  
 F.C.C. WORK ORDER NO. 30691  
 FILE NAME: 30691 W & S TITLE SHEET SH1

**G.T.W.'S WAVERLY WOODS**  
 SECTION 12, LOTS 1 THRU 156  
 CONTRACT NO. 24-3859-D  
 THIRD ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
 SHEET 1 of 9

CONTRACT NO. 24-3859-D  
 GTW'S WAVERLY WOODS  
 SECTION 12; LOTS 1 THRU 156  
 WATER AND SEWER MAIN EXTENSIONS  
 HOWARD COUNTY, MARYLAND

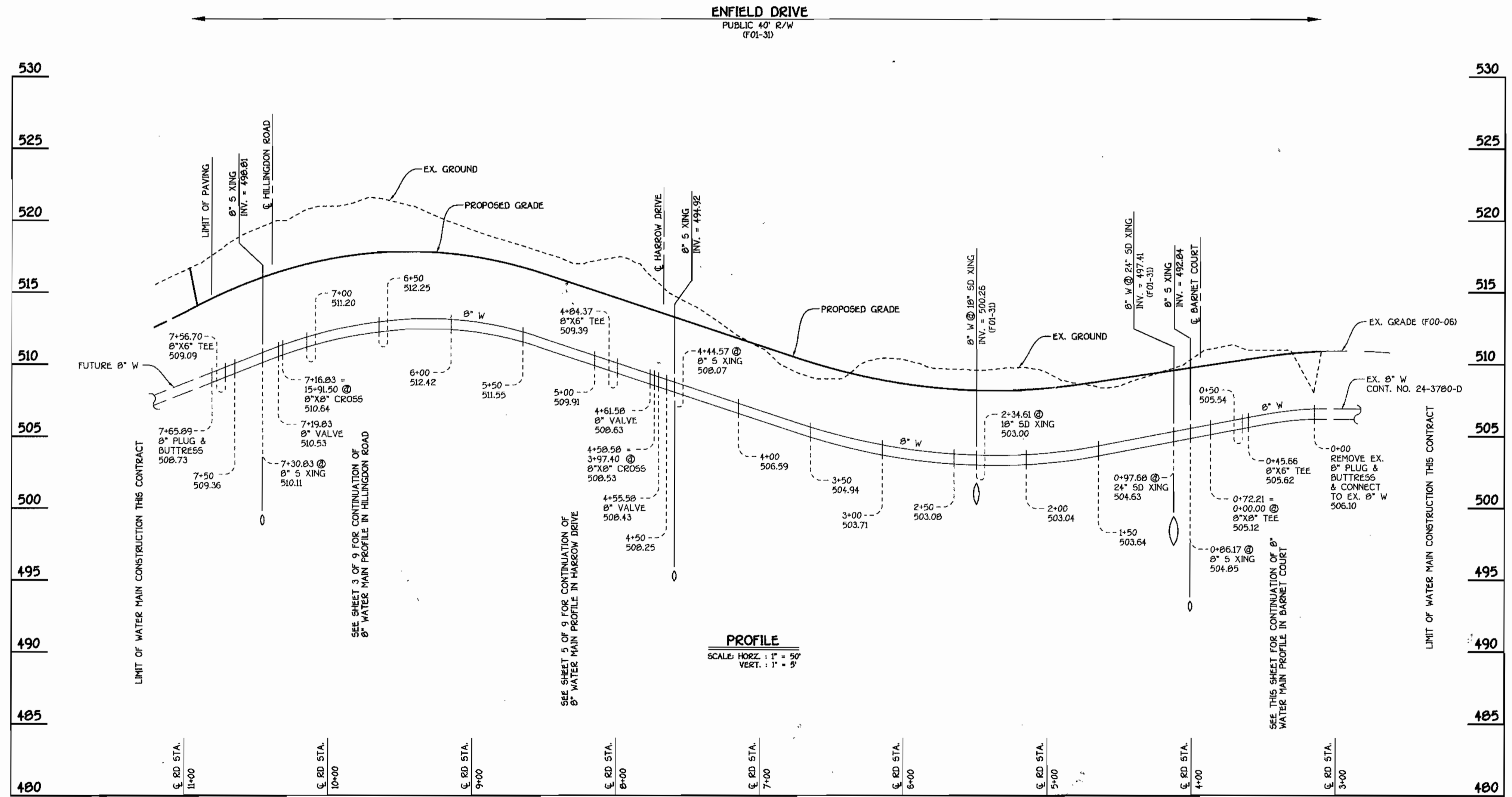




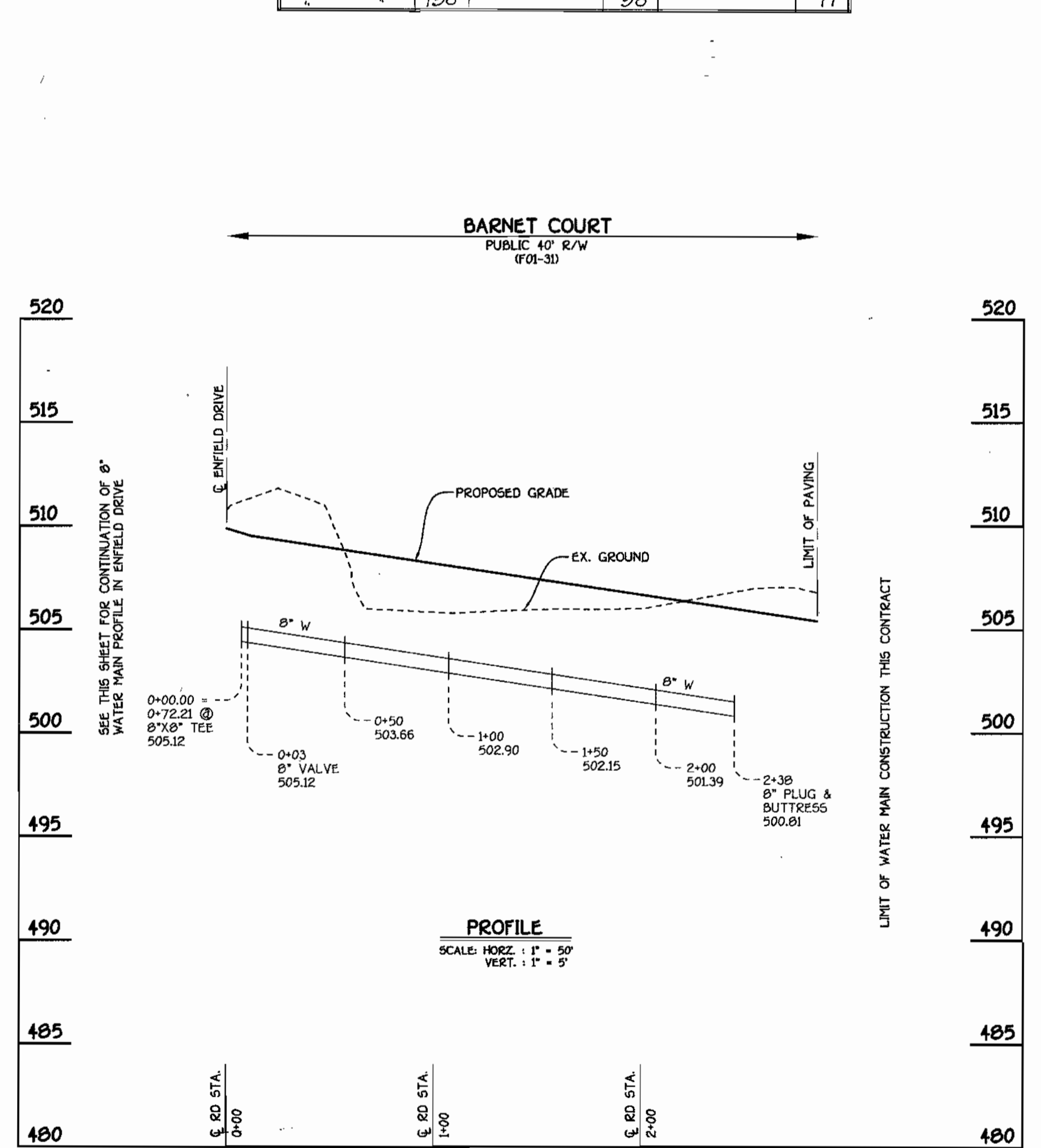
"WATER" FIELD ASBUILT MEASUREMENTS (PULLS)

WATER MAIN TABULATION CHART			
WM STATION	APPURTENANCE	± ROAD STATION	DISTANCE
ENFIELD DRIVE			
0+00	CONNECT TO EX. 8" W	3+14.78	7.00' LT.
0+22.50	P.C. (CRIMP RADIUS = 1293')	3+37.28	7.00' LT.
0+45.66	8" X 6" TEE	3+60.57	7.00' LT.
0+72.21	8" X 8" TEE	3+87.25	7.00' LT.
1+34.35	P.T. (CRIMP RADIUS = 1293')	4+49.74	7.00' LT.
4+55.58	8" VALVE	7+70.97	7.00' LT.
4+58.58	8" X 8" CROSS	7+73.97	7.00' LT.
4+84.37	8" X 6" TEE	7+99.76	7.00' LT.
7+16.83	8" X 8" CROSS	10+32.19	7.00' LT.
7+19.83	8" VALVE	10+35.19	7.00' LT.
7+56.70	8" X 6" TEE	10+72.10	7.00' LT.
7+65.89	8" PLUG & BUTTRESS	10+81.20	7.00' LT.
BARNET COURT			
0+00	8" X 8" TEE	0+07.00	7.00' LT.
0+03.00	8" VALVE	0+10.00	7.00' LT.
2+38.00	8" PLUG & BUTTRESS	2+45.01	7.00' LT.

FROM MH 4015	DIST.	FROM MH 4016	DIST.	TO 1" W.H.C.	LOT#	FROM MH 3045	DIST.	FROM MH 3050	DIST.	TO 1" W.H.C.	LOT#	FROM MH 4037	DIST.	F.H. NR LOT 31	DIST.	TO 1" W.H.C.	LOT#	FROM MH 4015	DIST.	FROM F.H. LOT 142/143	DIST.	TO 1" W.H.C.	LOT#
168	98	79	40	1	75	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
140	79	80	60	2	44	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
120	60	80	60	3	43	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
85	30	80	60	4	42	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
60	15	80	60	5	41	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
40	0	80	60	6	40	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
25	0	80	60	7	39	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
10	0	80	60	8	38	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	9	37	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	10	36	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	11	35	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	12	34	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	13	33	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	14	32	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	15	31	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	16	30	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	17	29	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	18	28	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	19	27	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	20	26	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	21	25	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	22	24	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	23	23	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	24	22	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	25	21	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	26	20	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	27	19	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	28	18	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	29	17	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	30	16	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	31	15	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	32	14	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	33	13	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	34	12	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	35	11	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	36	10	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	37	9	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	38	8	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	39	7	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	40	6	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	41	5	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	42	4	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	43	3	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	44	2	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	45	1	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60
0	0	80	60	46	0	100	40	65	45	80	320	80	78	78	78	78	78	115	115	60	60	60	60



ENFIELD DRIVE: WATER MAINS



BARNET COURT: WATER MAINS

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
Robert W. Bassinger  
02-01-01  
DATE

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND  
[Signature]  
2/8/01  
DATE

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
[Seal]  
TERRELL K. FISHER

DESIGNED BY: P.W.K.  
DRAWN BY: M.D.T.  
CHECKED BY: P.W.K.  
DATE: JANUARY, 2001

WATER MAINS PROFILES  
600' SCALE MAP NO. 16 BLOCK NO. 5  
F.C.C. WORK ORDER NO. 30691  
FILE NAME: 30691 WATER MAIN PROFILES SHT4

G.T.W.'S WAVERLY WOODS  
SECTION 12, LOTS 1 THRU 150  
CONTRACT NO. 24-3859-D  
THIRD ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
SCALE AS SHOWN  
SHEET 4 OF 9

CONTRACT NO. 24-3859-D  
G.T.W.'S WAVERLY WOODS  
SECTION 12, LOTS 1 THRU 150  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

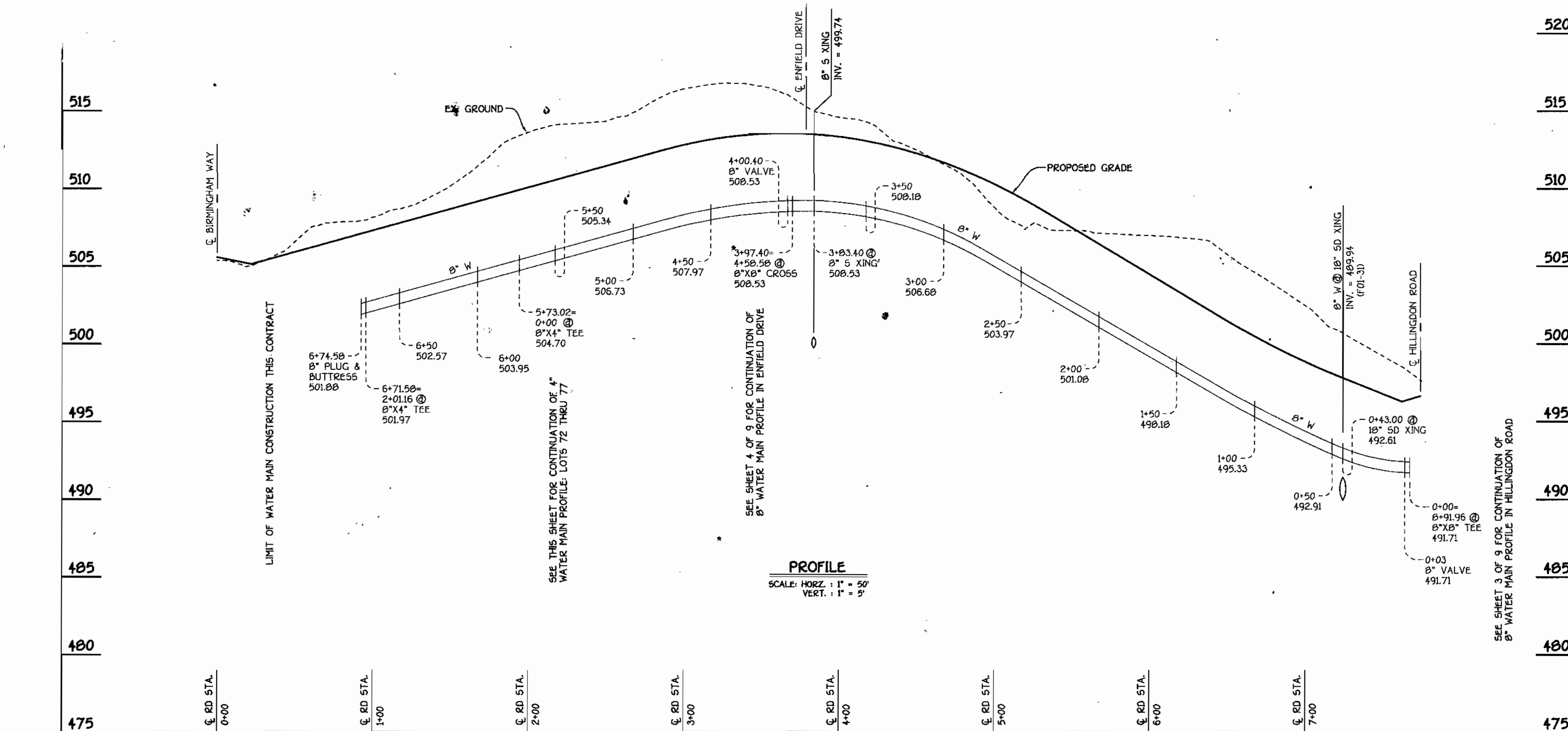
WATER MAIN TABULATION CHART			
WM STATION	APPURTENANCE	± ROAD STATION	DISTANCE
HARROW DRIVE			
0+00	8" X 8" TEE	7+67.40	7.00' LT.
0+03.00	8" VALVE	7+64.40	7.00' LT.
1+13.77	P.C. (CRIMP RADIUS = 607)	6+53.63	7.00' LT.
2+56.12	P.T. (CRIMP RADIUS = 607)	5+13.91	7.00' LT.
3+97.40	8" X 8" CROSS	3+71.53	7.00' LT.
4+00.40	8" VALVE	3+68.63	7.00' LT.
5+15.25	P.C. (CRIMP RADIUS = 657)	2+53.78	5.00' LT.
5+73.02	8" X 4" TEE	1+96.63	7.00' LT.
6+65.07	P.T. (CRIMP RADIUS = 657)	1+01.60	7.00' LT.
6+71.58	8" X 4" TEE	0+99.09	7.00' LT.
6+74.58	8" PLUG & BUTTRESS	0+96.09	7.00' LT.

4" WATER MAIN TABULATION CHART			
W.M. STA.	APPURTENANCE	± ROAD STATION	DISTANCE
4" WATER MAIN FOR LOTS 72-77			
0+00	8" X 4" TEE	1+96.63	7.00' LT.
0+03.00	4" VALVE	1+96.63	4.00' LT.
0+53.80	1/8 H.B.	598079.95	1344172.82
0+61.26	1/8 H.B.	598074.68	1344178.10
1+39.25	1/8 H.B.	597996.90	1344184.06
1+48.58	1/8 H.B.	597989.42	1344178.51
1+98.16	4" VALVE	0+99.09	4.00' LT.
2+01.16	8" X 4" TEE	0+99.09	7.00' LT.

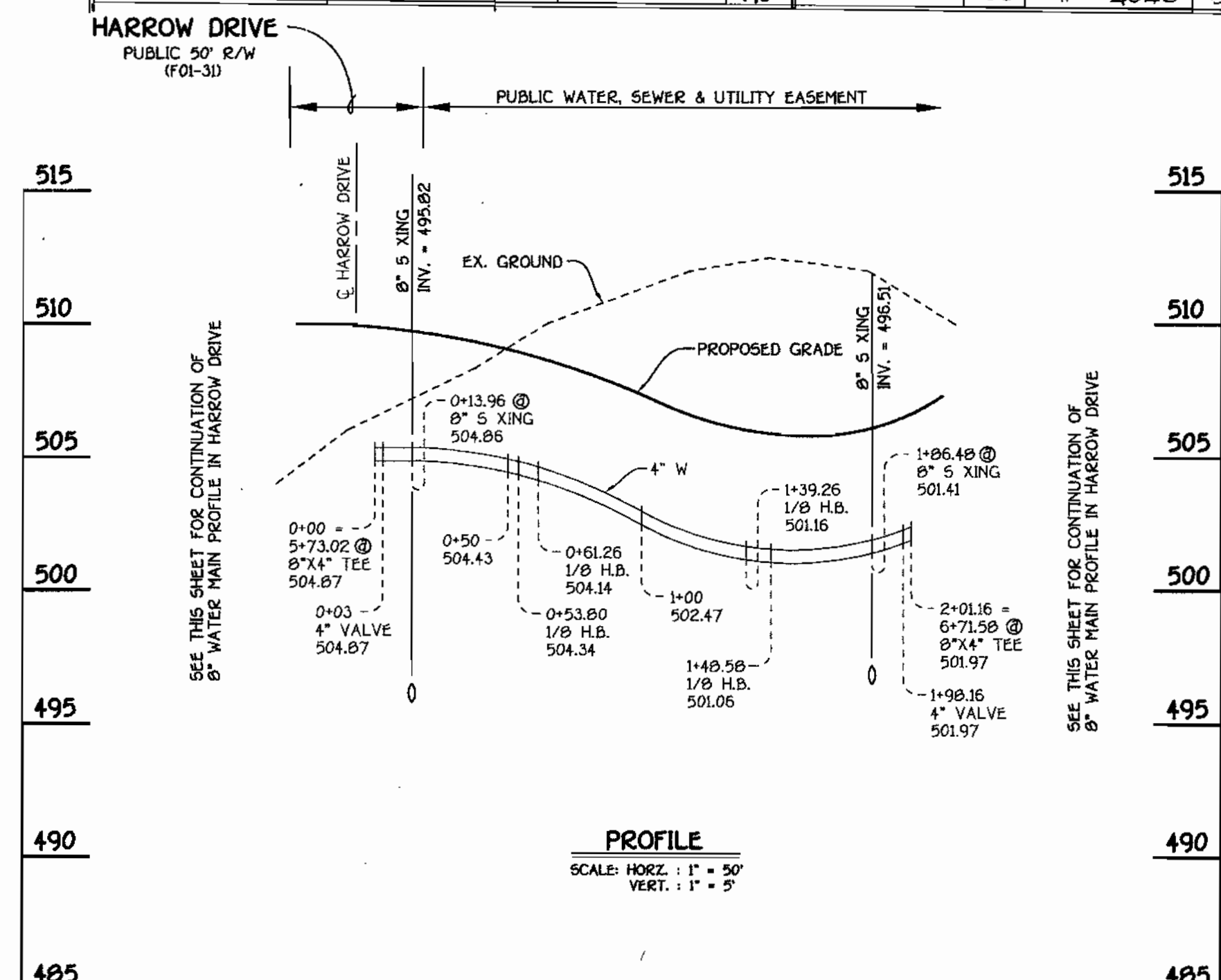
FROM	DIST.	FROM	DIST.	TO S.H.C.	LOT#
F.H. NR LOT 20	110	MH 4020	82		15
"	80	"	45		16
"	70	"	60		17
"	55	"	75		18
"	27	"	90		19
F.H. NR LOT 20	28	8" V.W. @ HARROW	125		20
F.H. NR LOT 28	30	8" V.W. @ HARROW	200		34
"	45	"	182		33
"	65	"	172		32
"	90	"	90		31
"	125	"	125		30
"	145	"	145		29
"	165	"	165		28
"	185	"	185		27
FROM MH 4028	138	FROM MH 4060	178		26
"	116	"	158		25
"	97	"	141		24
"	79	"	121		23
"	64	"	84		22
"	51	"	64		21
"	44	"	67		20
"	46	"	51		19
4" V.W. @ HARROW	130	MH 4056	45		35
"	105	"	20		36
"	75	"	22		37
"	55	"	50		38
"	28	"	70		39
"	25	"	90		40
"	25	"	115		41
"	25	"	115		42
L.T. SIDE S.H.C.	30.4	R.T. SIDE H.B. @ W.H.C.	272	BETWEEN W/S 11	43
W.H.C.	28.8	S.H.C.	28.3		50
W.H.C.	27.9	S.H.C.	25.8		51
W.H.C.	27.9	S.H.C.	25.4		52
S.H.C.	28.5	W.H.C.	27.5		53
W.H.C.	30.8	S.H.C.	31.0		54
W.H.C.	31.4	S.H.C.	31.3		55
W.H.C.	28.8	S.H.C.	29.0		56

FROM	DIST.	FROM	DIST.	TO S.H.C.	LOT#	FROM	DIST.	FROM	DIST.	TO S.H.C.	LOT#
MH 4065	25	MH 4010	140		1	MH # 4037	215	MH # 4038	35		190
"	15	"	188		2	"	188	"	35		191
"	20	"	170		3	"	165	"	30		192
"	50	"	96		4	"	145	"	30		193
"	65	"	75		5	"	110	"	60		194
"	85	"	52		6	"	75	"	95		195
"	110	"	32		7	"	55	"	120		196
"	110	"	32		8	"	40	"	124		197
"	110	"	32		9	"	35	"	155		198
MH 4016	35	MH 4020	145	SPACE TO S.H.C.	10	MH 4040	160	MH 4045	35		199
"	50	"	120		11	HYDRO LOT 110	120	"	22		200
"	65	"	95		12	"	115	"	25		201
"	80	"	75		13	"	78	"	67		202
"	120	"	55		14	"	70	"	67		203
"	130	"	55		15	"	40	"	115		204
"	145	"	30		16	"	25	"	115		205
F.H. @ HARROW	120	MH 4028	25		17	MH # 4050	62	MH # 4050	32		206
"	100	"	35		18	"	62	"	36		207
"	79	"	50		19	"	58	"	36		208
"	60	"	35		20	"	51	"	36		209
"	35	"	20		21	"	45	"	58		210
"	20	"	20		22	"	40	"	78		211
"	30	MH 4030	140		23	MH # 4015	45	# 4016	40		212
"	50	"	125		24	"	40	"	40		213
"	70	"	90		25	4016	50	# 4015	30		214
"	100	"	70		26	"	25	"	25		215
"	100	"	70		27	"	25	"	25		216
SWITCH @ LOT 110	100	"	50		28	"	25	"	20		217
"	75	"	38		29	4015	55	"	20		218
"	55	"	25		30	4025	140	4020	70		219
"	35	"	15		31	4025	100	4025	20		220
"	25	"	5		32	4020	25	4025	20		221
"	25	"	5		33	"	4020	45			222
"	25	"	5		34	"	4020	45			223
MH # 3035	80	MH # 3036	100		35	4025	25	HYDRO	40		224
"	80	"	115		36	4020	120	MH # 4025	75		225
"	110	"	95		37	"	123	MH # 4030	1		226
"	185	"	75		38	"	74	W.W. MH	25		227
"	155	"	60		39	"	64	"	120		228
"	121	"	47		40	"	25	"	70		229
"	195	"	40		41	"	22	"	60		230
MH # 4035	70	8" V.W. @ HARROW	51		42	"	21	"	60		231
"	85	"	75		43	"	21	"	25		232
MH # 4040	132	"	115		44	"	21	"	25		233
"	115	"	100		45	"	21	"	25		234
"	80	"	105		46	"	21	"	25		235
"	70	"	105		47	"	21	"	25		236
"	50	"	125		48	"	21	"	25		237
"	35	"	125		49	"	21	"	25		238
MH # 4050	57	HYDRO LOT 110	55		50	"	21	"	25		239
"	55	"	32		51	"	21	"	25		240
"	54	"	48		52	"	21	"	25		241
"	60	"	75		53	"	21	"	25		242
"	85	"	60		54	"	21	"	25		243
"	90	"	137		55	"	21	"	25		244
"	125	"	165		56	"	21	"	25		245
"	145	"	185		57	"	21	"	25		246
"	166	"	225		58	"	21	"	25		247
"	186	"	227		59	"	21	"	25		248

FROM	DIST.	FROM	DIST.	4" S.H.C.	LOT#	FROM	DIST.	FROM	DIST.	4" S.H.C.	LOT#
F.H. @ STA 8100	22	SHH # 3060	146		35	SHH # 3056	41	SHH # 3057	146		36
"	40	"	144		36	SHH # 3056	41	8" W.V. @ BARRET	105		41
"	60	"	185		37	"	68	SHH # 3045	75		42
"	85	"	96		38	"	102	"	62		43
"	120	"	68		39	"	85	"	50		44
"	140	"	63		40	"	73.4	"	52		45
"	155	"	30		41	"	48.6	"	60		46
"	178	"	30		42	"	25	"	65		47
MH # 4060	45	MH # 4065	150		43	SHH # 3060	64	SHH # 3061	120		48
"	50	"	165		44	"	72	"	120		49
"	75	"	115		45	"	115	"	120		50
"	91	"	85		46	"	140	"	118		51
"	111	"	70		47	"	162	"	95		52
"	120	"	55		48	"	185	"	60		53
"	148	"	45		49	"	210	"	40		54
"	167	"	44		50	"	210	"	30		55
SHH # 3064	125	SHH # 3057	35	4" S.H.C.	51	"	228	"	32		56
"	124	"	45		52	"	208	"	30		57
"	97	"	55		53	"	185	"	12		58
"	61	"	75		54	"	166	"	90		59
"	51	"	90		55	SHH # 3060	120	"	125		60
"	40	"	115		56	"	107	"	150		61
"	35	"	125		57	"	85	"	170		62
"	35	"	125		58	"	67	"	190		63

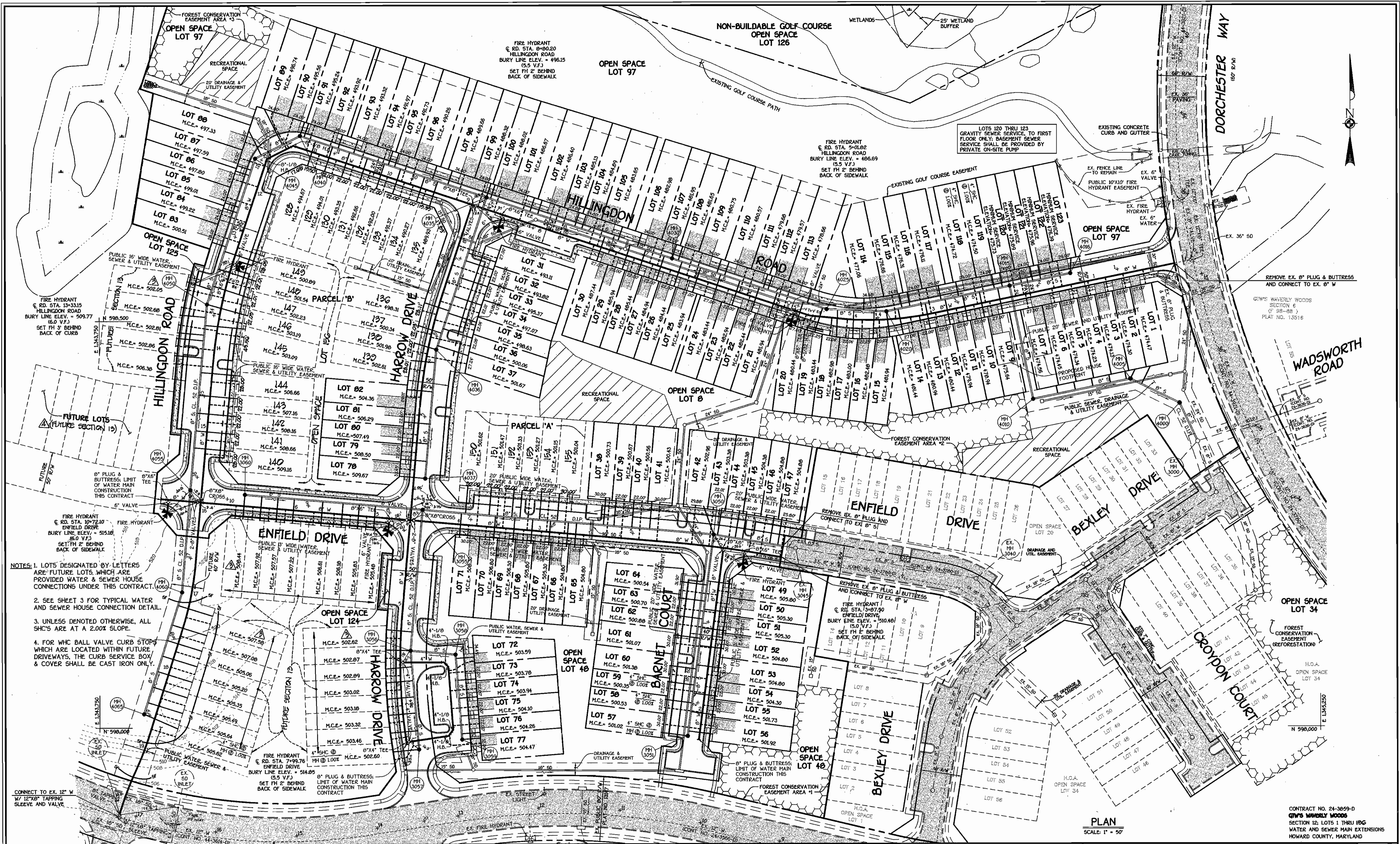


8" WATER MAIN: HARROW DRIVE



4" WATER MAIN: LOTS 72 THRU 77

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Chief, Bureau of Utilities 02-01-01 DATE	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND Chief, Development Engineering Division 2/6/01 DATE	FISHER, COLLINS &
---	---	-------------------



- NOTES:**
1. LOTS DESIGNATED BY LETTERS ARE FUTURE LOTS WHICH ARE PROVIDED WATER & SEWER HOUSE CONNECTIONS UNDER THIS CONTRACT.
  2. SEE SHEET 3 FOR TYPICAL WATER AND SEWER HOUSE CONNECTION DETAIL.
  3. UNLESS DENOTED OTHERWISE, ALL SHC'S ARE AT A 2.00% SLOPE.
  4. FOR WHC BALL VALVE CURB STOPS WHICH ARE LOCATED WITHIN FUTURE DRIVEWAYS, THE CURB SERVICE BOX & COVER SHALL BE CAST IRON ONLY.

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Robert D. Dwyer*  
CHIEF, BUREAU OF UTILITIES

02-01-01  
DATE

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

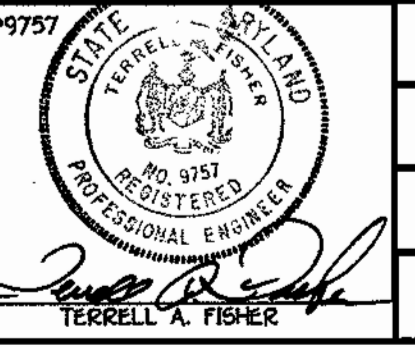
*Michael J. ...*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

2/10/01  
DATE

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

1100 461 - 2205

*Terrell A. Fisher*  
TERRELL A. FISHER



DESIGNED BY: P.W.K. 1/19/01  
DRAWN BY: M.D.T. 1/19/01  
CHECKED BY: P.W.K. 2/14/02  
DATE: JANUARY, 2001 BY NO. 30691

REVISION

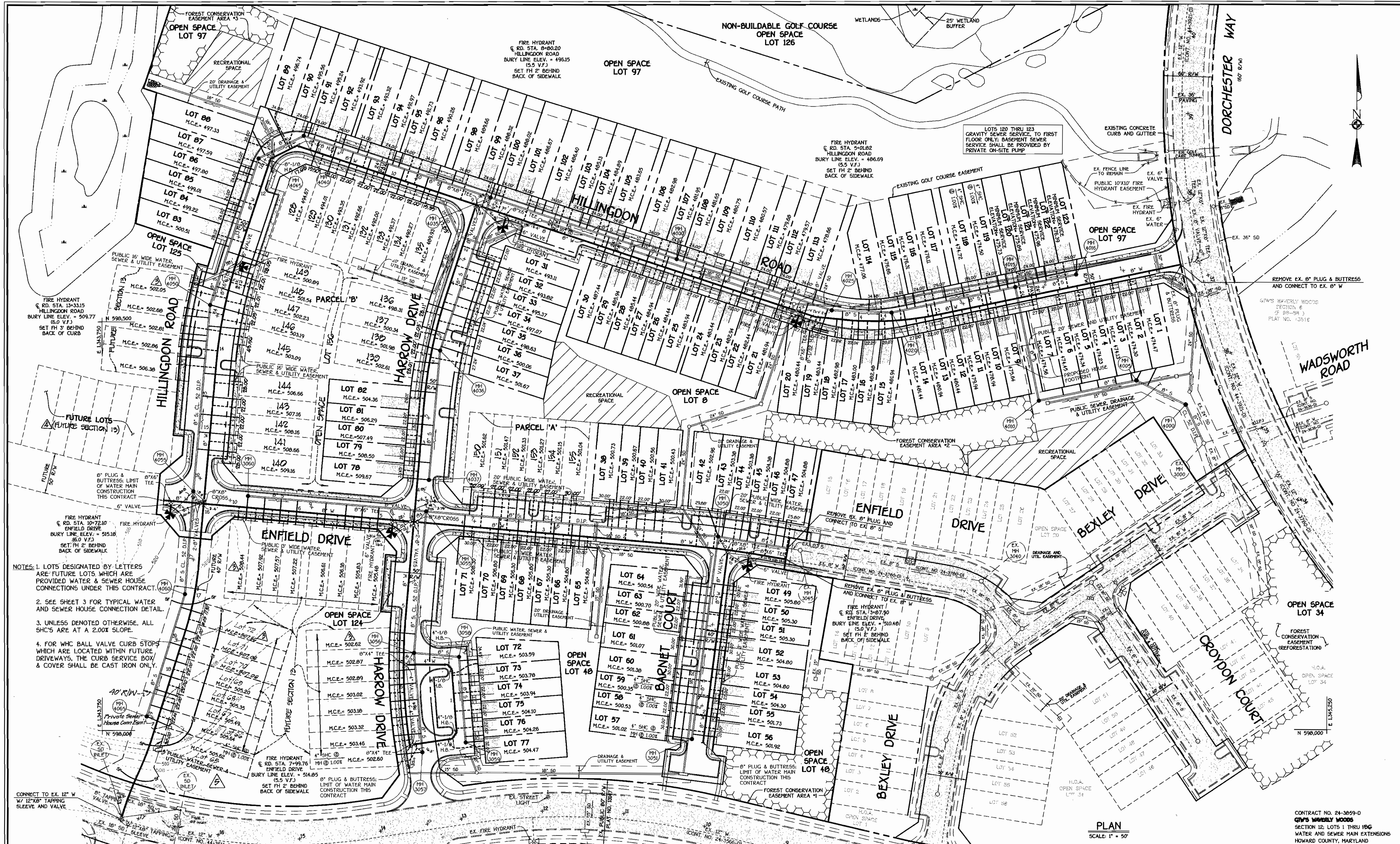
1. PENDING LOTS AS PART OF FUTURE SECTION 13 1/19/01  
2. REPLACE ALL LOT NUMBERS ASSOCIATED WITH FUTURE SECTION 13 IN ACCORDANCE WITH RECORD PLAN #18088-01 3/30/01  
3. REPLACE THE LOTS IN PARCELS 'A' & 'B' WITH THE LOTS SHOWN ON THIS PLAN 3/30/01  
4. AS BUILT DATA RECD TO PLAN 2/14/02

WATER AND SEWER MAINS  
PLAN VIEW

600' SCALE MAP NO. 16 BLOCK NO. 5  
F.C.C. WORK ORDER NO. 30691  
FILE NAME: 30691 WATER AND SEWER MAINS PLAN VIEW SH2

**G.T.W.'S WAVERLY WOODS**  
SECTION 12, LOTS 1 THRU 156  
CONTRACT NO. 24-3059-D  
THIRD ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 2 OF 9



DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 10725 SAUNDERS NATIONAL PEAK  
 ELLICOTT CITY, MARYLAND 21117  
 (410) 661-2000



DESIGNED BY:	P.W.K.	1/11/05
DRAWN BY:	M.D.T.	1/19/04
CHECKED BY:	P.W.K.	3/30/04
DATE:	JANUARY, 2001	2/14/02
BY NO.		
REVISION		

**WATER AND SEWER MAINS PLAN VIEW**

600' SCALE MAP NO. 16 BLOCK NO. 5  
 F.C.C. WORK ORDER NO. 30691  
 FILE NAME: 30691 WATER AND SEWER MAINS PLAN VIEW SH2

**G.T.W.'S WAVERLY WOODS**  
 SECTION 12, LOTS 1 THRU 156  
 CONTRACT NO. 24-3059-D  
 THIRD ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
 SHEET 2 OF 9

K:\Drawings\3130691.DWG SECTION 12 WATER AND SEWER MAINS PLAN SH2.dwg Tue Jan 30 09:23:50 2001