

QUANTITIES				
ITEM	ESTIMATED QUANTITIES	AS-BUILT QUANTITIES	TYPE	SUPPLIER
8" WATER	1378.25 LF.	745 LF.	DIP	GRIFFIN/BRS
6" WATER	56 LF.	178 LF.	DIP	GRIFFIN/BRS
4" WATER	60 LF.	30 LF.	DIP	GRIFFIN/BRS
1" WATER	707 LF.	743 LF.	K-CAPPER	READING/BRS
FIRE HYDRANTS	3 EACH	3 EACH	6"FNH	MUELLER/BRS
12" X 8" TAPPING SLEEVE & VALVE	1 EACH	1 EACH	S.S.SLEEVE R.S.G.V.	DRESSER/MUELLER/BRS
8" X 8" TEE	2 EACH	2 EACH	DIP	U.S. PIPE
8" X 6" TEE	4 EACH	4 EACH	DIP	U.S. PIPE
8" X 4" TEE	3 EACH	3 EACH	DIP	U.S. PIPE
8" X 6" REDUCER	1 EACH	1 EACH	DIP	U.S. PIPE
8" VALVES	4 EACH	4 EACH	R.S.G.V.	MUELLER/BRS
6" VALVES	4 EACH	4 EACH	"	"
4" VALVES	6 EACH	3 EACH	"	"
1/8" H.B.	4 EACH	2 EACH	DIP	U.S. PIPE
6-1/8" H.B.	1 EACH	2 EACH	DIP	U.S. PIPE
6-1/16" H.B.	1 EACH	0	"	"
4" PLUG & BUTTRESS	6 EACH	0	"	"
6" PLUG & BUTTRESS	2 EACH	1 EACH	DIP	U.S. PIPE
8" PLUG & BUTTRESS	2 EACH	1 EACH	DIP	U.S. PIPE
8" SEWER	10 LF.	10 LF.	PVC	I.M.
6" SEWER	10 LF.	10 LF.	PVC	I.M.
4" SEWER	60 LF.	60 LF.	PVC	I.M.
8" PLUG	1 EACH	0	"	"
6" X 4" TEE	1 EACH	0	"	"
8" X 4" REDUCER	1 EACH	0	"	"
6" X 4" REDUCER	1 EACH	0	"	"

M.C.E. CHART	
UNIT	M.C.E.
GTW'S SECTION 7 PARCEL 'B'	
25	463.34
26	463.59
27	463.84
28	464.09
29	465.77
PROPOSED DAY CARE FACILITY	47312
30	466.05

**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 THE DEPARTMENT OF THE ENVIRONMENT 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 AND DEEMED NECESSARY.  
**Paul W. Reibel FOR:**  
 Waverly Woods Development Corp. 04/08/02  
 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.  
**Mid D. Tuble**  
 SIGNATURE OF ENGINEER 4/8/02  
 DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
**Jim Moses** 5/2/02  
 LUDA, NATURAL RESOURCES CONSERVATION SERVICE DATE  
 THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.  
**John K. Rebuton** 5/2/02  
 APPROVED: SIGNATURE OF DISTRICT CHIEF DATE  
 HOWARD SOIL CONSERVATION DISTRICT

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 SDP-02-74.  
**Paul W. Reibel FOR:**  
 Waverly Woods Development Corp. 04/08/02  
 SIGNATURE OF DEVELOPER DATE

SHC INVERT @ PROPERTY LINE CHART		
STATION	UNIT	ELEVATION
EX. MH 746 TO EX. MH 749		
0+20 RT.	25	459.24
0+45 RT.	26	459.49
0+70 RT.	27	459.74
0+95 RT.	28	459.99
0+20 RT.	29	461.47
EX. MH 749 TO EX. MH 750		
1+50 RT.	PROPOSED DAY CARE FACILITY	466.02
0+53 RT.	30	462.95

WATER AS-BUILT DATA			
-ALL MEASUREMENTS ARE TO W.M.C.-			
LOT	FROM	DIST'	TO
1	MHS	41	1/4" MHS
2	MHS	31.7	1/4" MHS
3	MHS	35	1/4" MHS
4	MHS	174	1/4" MHS
5	MHS	97	1/4" MHS
6	MHS	125.3	1/4" MHS
7	MHS	41.6	1/4" MHS
8	MHS	38.0	1/4" MHS
9	MHS	34	1/4" MHS
10	MHS	57.4	1/4" MHS
11	MHS	38	1/4" MHS
12	MHS	53.2	1/4" MHS
13	MHS	80.2	1/4" MHS
14	MHS	71	1/4" MHS
15	MHS	85	1/4" MHS
16	MHS	59.2	1/4" MHS
17	MHS	41	1/4" MHS
18	MHS	31.7	1/4" MHS
19	MHS	35	1/4" MHS
20	MHS	174	1/4" MHS
21	MHS	97	1/4" MHS
22	MHS	125.3	1/4" MHS
23	MHS	41.6	1/4" MHS
24	MHS	38.0	1/4" MHS
25	MHS	34	1/4" MHS
26	MHS	57.4	1/4" MHS
27	MHS	38	1/4" MHS
28	MHS	53.2	1/4" MHS
29	MHS	80.2	1/4" MHS
30	MHS	71	1/4" MHS
31	MHS	85	1/4" MHS
32	MHS	59.2	1/4" MHS
33	MHS	41	1/4" MHS
34	MHS	31.7	1/4" MHS
35	MHS	35	1/4" MHS
36	MHS	174	1/4" MHS
37	MHS	97	1/4" MHS
38	MHS	125.3	1/4" MHS
39	MHS	41.6	1/4" MHS
40	MHS	38.0	1/4" MHS
41	MHS	34	1/4" MHS
42	MHS	57.4	1/4" MHS
43	MHS	38	1/4" MHS
44	MHS	53.2	1/4" MHS
45	MHS	80.2	1/4" MHS
46	MHS	71	1/4" MHS
47	MHS	85	1/4" MHS
48	MHS	59.2	1/4" MHS
49	MHS	41	1/4" MHS
50	MHS	31.7	1/4" MHS
51	MHS	35	1/4" MHS
52	MHS	174	1/4" MHS
53	MHS	97	1/4" MHS
54	MHS	125.3	1/4" MHS
55	MHS	41.6	1/4" MHS
56	MHS	38.0	1/4" MHS
57	MHS	34	1/4" MHS
58	MHS	57.4	1/4" MHS
59	MHS	38	1/4" MHS
60	MHS	53.2	1/4" MHS
61	MHS	80.2	1/4" MHS
62	MHS	71	1/4" MHS
63	MHS	85	1/4" MHS
64	MHS	59.2	1/4" MHS
65	MHS	41	1/4" MHS
66	MHS	31.7	1/4" MHS
67	MHS	35	1/4" MHS
68	MHS	174	1/4" MHS
69	MHS	97	1/4" MHS
70	MHS	125.3	1/4" MHS
71	MHS	41.6	1/4" MHS
72	MHS	38.0	1/4" MHS
73	MHS	34	1/4" MHS
74	MHS	57.4	1/4" MHS
75	MHS	38	1/4" MHS
76	MHS	53.2	1/4" MHS
77	MHS	80.2	1/4" MHS
78	MHS	71	1/4" MHS
79	MHS	85	1/4" MHS
80	MHS	59.2	1/4" MHS
81	MHS	41	1/4" MHS
82	MHS	31.7	1/4" MHS
83	MHS	35	1/4" MHS
84	MHS	174	1/4" MHS
85	MHS	97	1/4" MHS
86	MHS	125.3	1/4" MHS
87	MHS	41.6	1/4" MHS
88	MHS	38.0	1/4" MHS
89	MHS	34	1/4" MHS
90	MHS	57.4	1/4" MHS
91	MHS	38	1/4" MHS
92	MHS	53.2	1/4" MHS
93	MHS	80.2	1/4" MHS
94	MHS	71	1/4" MHS
95	MHS	85	1/4" MHS
96	MHS	59.2	1/4" MHS
97	MHS	41	1/4" MHS
98	MHS	31.7	1/4" MHS
99	MHS	35	1/4" MHS
100	MHS	174	1/4" MHS

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
**R. J. ...**  
 CHIEF, BUREAU OF UTILITIES  
 4-22-02 DATE

DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND  
**...**  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 9/1/02 DATE

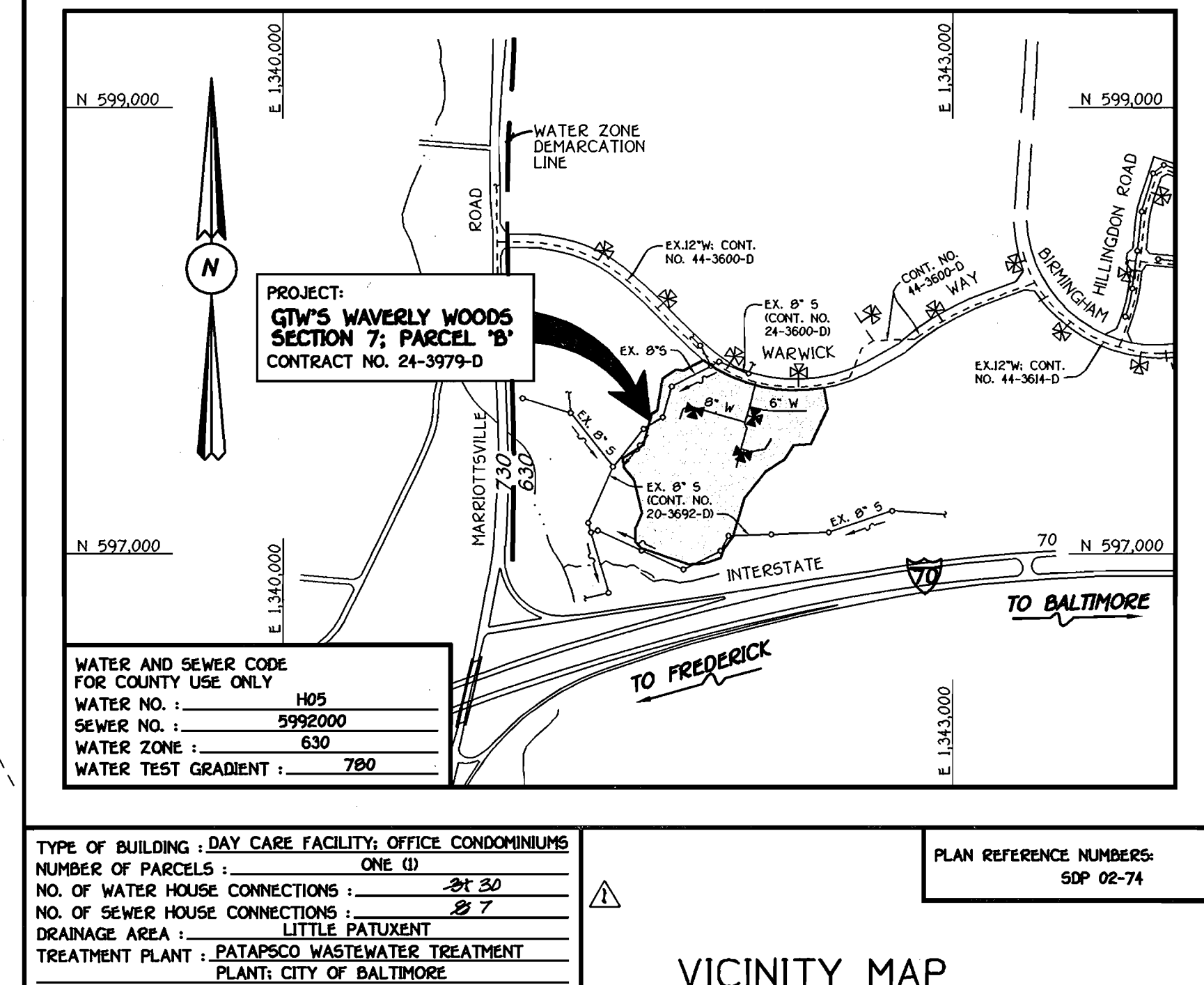
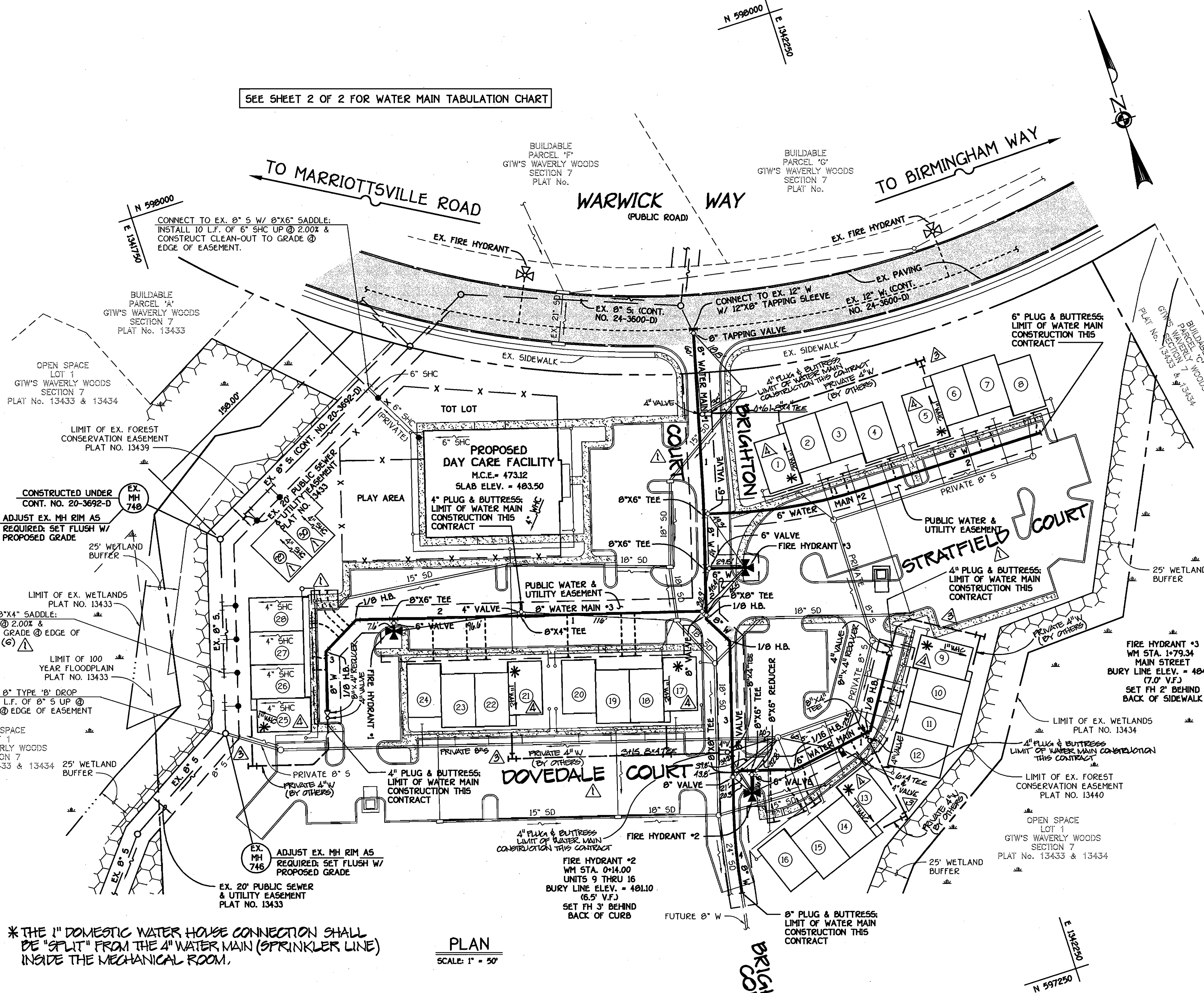
**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
 ELICOTT CITY, MARYLAND 21042  
 410.461.2000  
**TERRELL A. FISHER**  
 PROFESSIONAL LAND SURVEYOR  
 \*9757



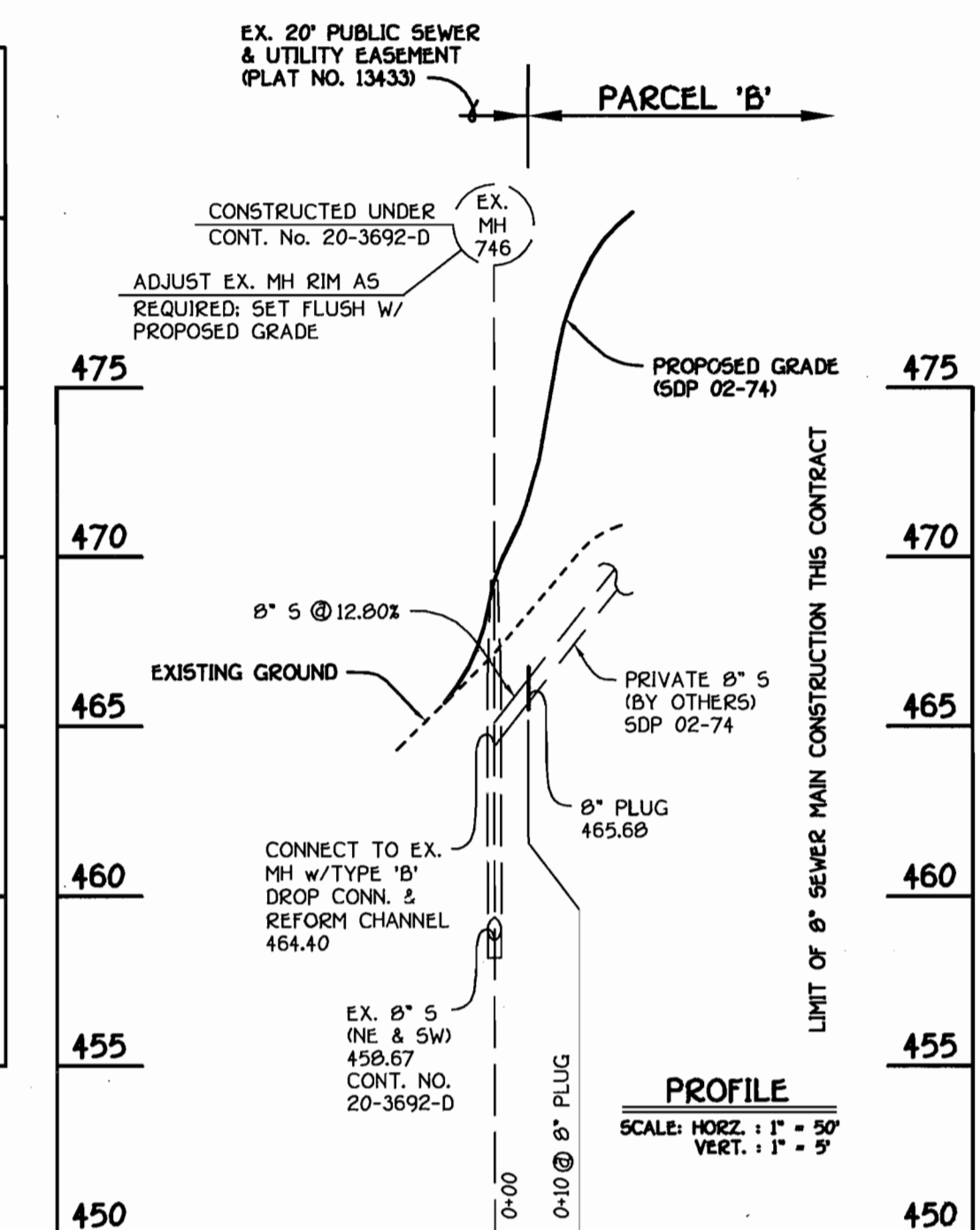
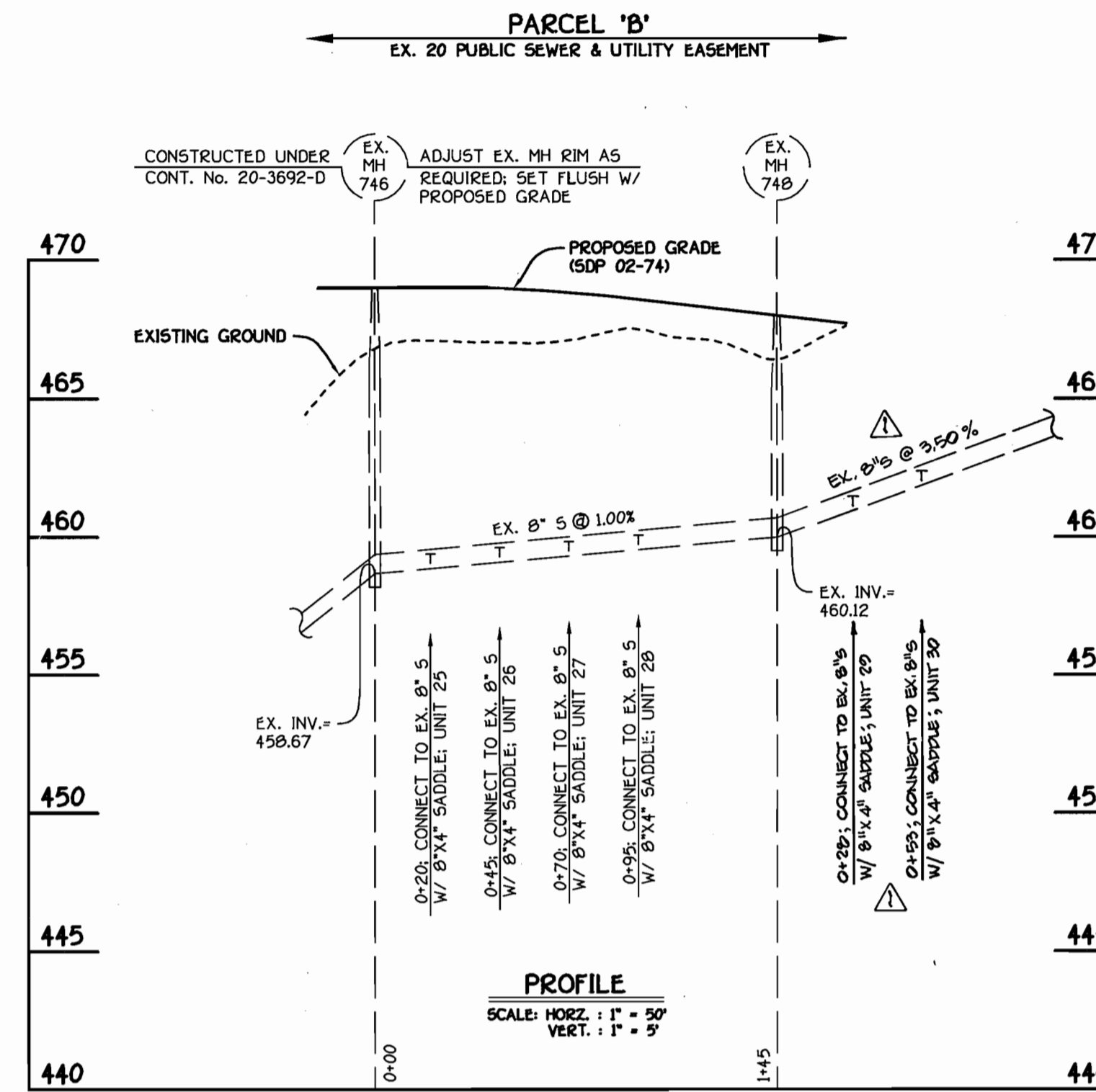
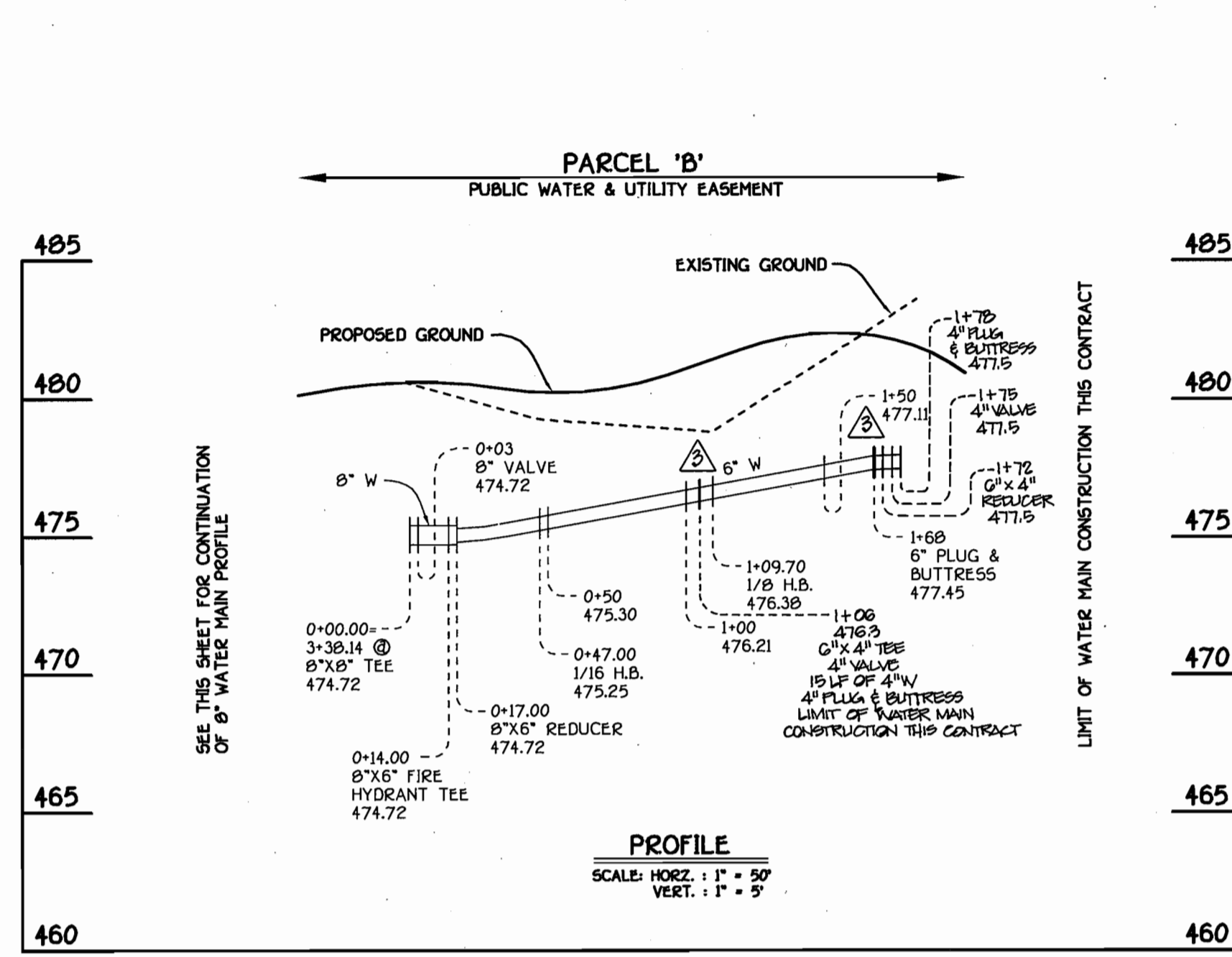
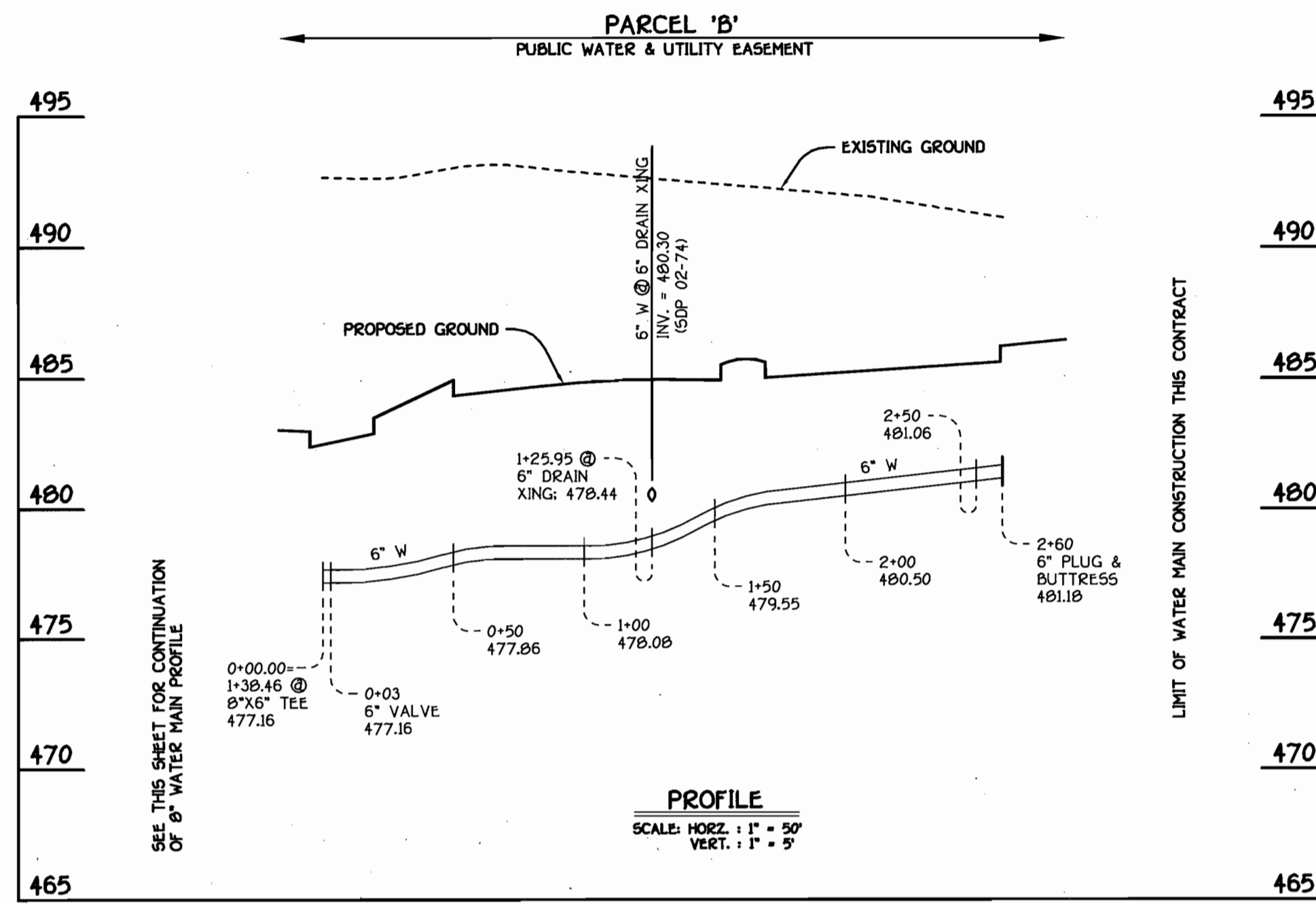
DESIGNED BY: P.W.K.  
 DRAWN BY: M.D.T.  
 CHECKED BY: P.W.K.  
 DATE: APRIL, 2002  
 INDICATE 1" W.M.C. FOR DOMESTIC SERVICE FROM 4" W  
 ADD 4" WATER SERVICE CONNECTIONS FOR FIRE PROTECTION  
 AS-BUILT DATA ADDED TO PLAN  
 ADDED STREET NAMES, RECONSTRUCTED UNITS 27 & 30, RELOCATE SHC LOT 27, ADDED MHC & SHC LOT 30 REVISIONS CHANGES & QUANTITIES

WATER MAINS  
 TITLE SHEET AND PLAN VIEW  
 600' SCALE MAP NO. 16 BLOCK NO. 5  
 F.C.C. WORK ORDER NO. 40395  
 FILE NAME: 40395 FINAL WATER TITLE AND PLAN SHT 1

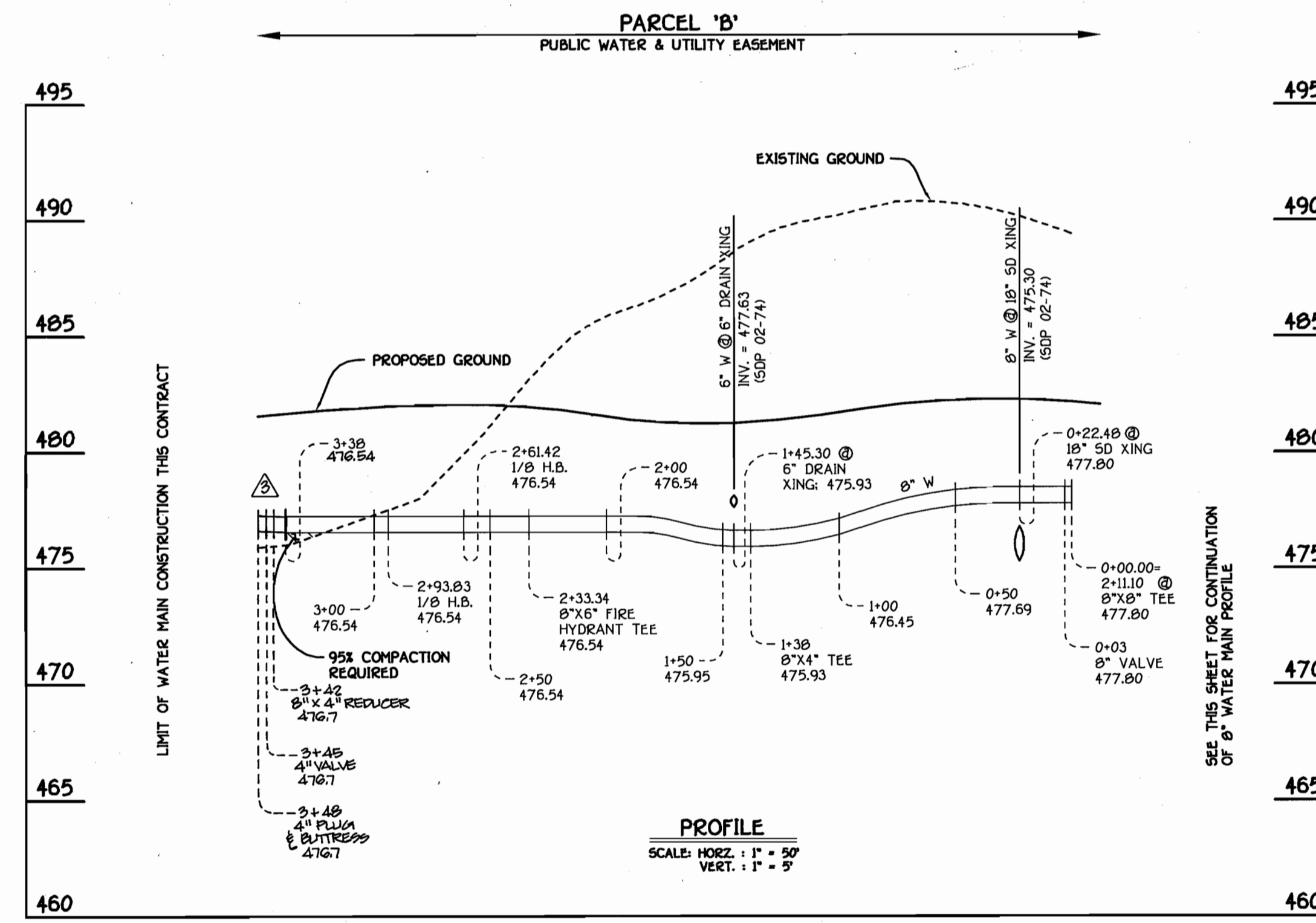
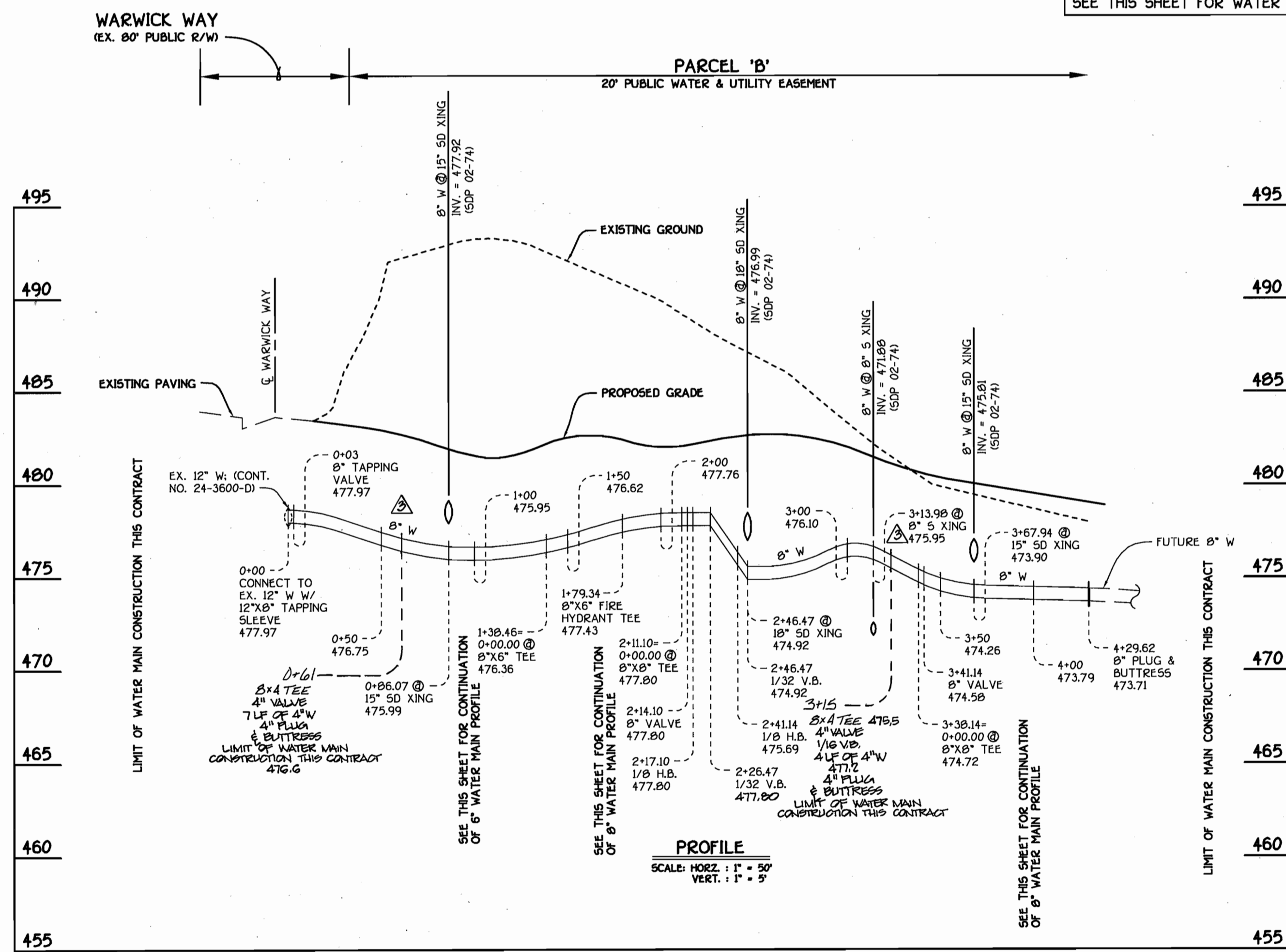
**GTW'S WAVERLY WOODS**  
 SECTION 7; PARCEL 'B'  
 CONTRACT NO. 24-3979-D  
 THIRD ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 SCALE AS SHOWN  
 SHEET 1 OF 2



**GENERAL NOTES**  
 1. APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.  
 2. ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES, NAD 83.  
 3. ALL VERTICAL CONTROLS ARE BASED ON NAVD 29.  
 4. ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS.  
 5. CLEAR ALL UTILITIES BY A MINIMUM OF 12". CLEAR ALL POLES BY 5'-0" MINIMUM.  
 6. FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (9991 AMENDMENTS) THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.  
 7. WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL (B) 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 THE EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.  
 8. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:  
 AT&T . . . . . 1-800-526-2000  
 BGE (CONTRACTOR SERVICES) . . . . . 410-850-4620  
 BGE (UNDERGROUND DAMAGE CONTROL) . . . . . 410-797-9095  
 BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS . . . . . 410-313-4900  
 BELL ATLANTIC MARYLAND, INC. . . . . 1-800-621-9900  
 COLONIAL PIPELINE CO. . . . . 410-795-1590  
 MISSISSIPPI UTILITY . . . . . 1-800-257-7777  
 STATE HIGHWAY ADMINISTRATION . . . . . 410-531-5533  
 9. 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.  
 10. 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 THE CONSTRUCTION OF THE MAIN.  
 11. ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.  
 12. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.  
 13. T.B. DENOTES TEST BORING.  
 14. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.  
 15. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER-TIGHT FRAME AND COVERS, STANDARD DETAIL C5.52.  
 16. WHERE WATER-TIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE PLANS OR SPECIFICATIONS.  
 17. HOUSES WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR SETTING MUST BE SERVED.  
 18. ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.  
 19. MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAMES AND COVERS, STANDARD DETAIL C5.51.  
 20. 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.  
 21. ALL WATER MAINS SHALL BE D.I.P., CLASS 52 UNLESS OTHERWISE NOTED.  
 22. TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-1/2" COVER UNLESS OTHERWISE NOTED.  
 23. VALVES ADJACENT TO TREES SHALL BE STRAPPED TO TREES.  
 24. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.  
 25. 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 (MHI AND W213). SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.  
 26. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER MAIN SYSTEM.  
 27. ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH THE AWWA SPECIFICATIONS C-153 DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.  
 28. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, (410) 313-2450 AT LEAST FIVE (5) 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 (B1416) OF THE HOWARD COUNTY CODE.



SEE THIS SHEET FOR WATER MAIN TABULATION CHART



WATER MAIN TABULATION CHART			
W.M. STATION	APPURTENANCE	NORTHING	EASTING
<b>6" WATER MAIN #1</b>			
0+00.00	12" x 8" TAPPING SLEEVE	597792.62	134213.83
0+03.00	8" TAPPING VALVE	597789.70	134213.08
1+25.06	P.C. (CRIMP RADIUS = 300.00)	597671.47	1342092.79
1+30.31	P.T. (CRIMP RADIUS = 300.00)	597656.69	1342089.24
1+30.46	8" x 6" TEE	597656.56	1342089.24
1+79.34	8" x 6" FIRE HYDRANT TEE	597619.33	1342077.71
2+11.10	8" x 8" TEE	597506.86	1342068.76
2+14.10	8" VALVE	597505.98	1342067.92
2+17.10	1/8" H.B.	597503.10	1342067.07
2+41.14	1/8" H.B.	597582.00	1342078.60
3+38.14	8" x 8" TEE	597468.93	1342051.25
3+41.14	8" VALVE	597464.61	1342049.98
3+69.21	P.C. (CRIMP RADIUS = 300.00)	597439.12	1342042.49
4+26.33	P.R.C. (CRIMP RADIUS = 300.00)	597363.31	1342030.57
4+29.62	8" PLUG & BUTTRESS	597380.06	1342030.11
<b>6" WATER MAIN #2</b>			
0+00.00	8" x 6" TEE	597656.56	1342089.24
0+03.00	8" VALVE	597657.73	1342092.13
0+12.29	P.C. (CRIMP RADIUS = 300.00)	597655.09	1342101.03
1+20.86	P.T. (CRIMP RADIUS = 300.00)	597639.69	1342208.13
2+60.00	6" PLUG & BUTTRESS	597639.69	1342347.27
<b>8" WATER MAIN #3</b>			
0+00.00	8" x 8" TEE	597506.86	1342068.76
0+03.00	8" VALVE	597505.98	1342065.87
1+30.00	8" x 4" TEE	597627.75	1341936.36
2+33.34	8" x 6" FIRE HYDRANT TEE	597654.62	1341844.88
2+61.42	1/8" H.B.	597662.54	1341817.94
2+93.83	1/8" H.B.	597647.01	1341789.49
3+38.00	8" PLUG & BUTTRESS	597604.63	1341777.04
<b>8" WATER MAIN #4</b>			
0+00.00	8" x 8" TEE	597468.93	1342051.25
0+03.00	8" VALVE	597468.08	1342054.14
0+14.00	8" x 6" FIRE HYDRANT TEE	597464.99	1342064.66
0+17.00	8" x 6" REDUCER	597464.14	1342067.57
0+47.00	1/16" H.B.	597455.68	1342096.35
1+09.70	1/8" H.B.	597466.16	1342158.16
1+68.00	6" PLUG & BUTTRESS	597315.67	1342188.95

CONTRACT NO. 24-3979-D  
GTW'S WAVERLY WOODS  
SECTION 7; PARCEL 'B'  
WATER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

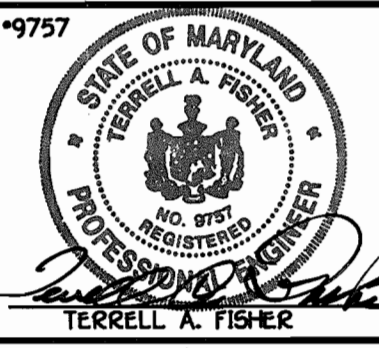
DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

4-22-02

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

5/3/02

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



DESIGNED BY: P.W.K.  
DRAWN BY: H.D.T.  
CHECKED BY: P.W.K.  
DATE: APRIL, 2002

PKC  
KCI  
PK

ADD 4" WATER SERVICE CONNECTIONS FOR FIRE PROTECTION  
AS BUILT DATA ADDED TO PLAN  
ADDED STREET MANHOLE RELOCATED UNITS 25 & 30, RELOCATE 8" C  
LOT 25, ADDED VIC & 25' @ 30'

WATER AND SEWER MAINS PROFILES

600' SCALE MAP NO. 16 BLOCK NO. 5  
F.C.C. WORK ORDER NO. 40355  
FILE NAME: 40355 FINAL WATER PROFILES SH2

GTW'S WAVERLY WOODS  
SECTION 7; PARCEL 'B'  
CONTRACT NO. 24-3979-D  
THIRD ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 2 OF 2