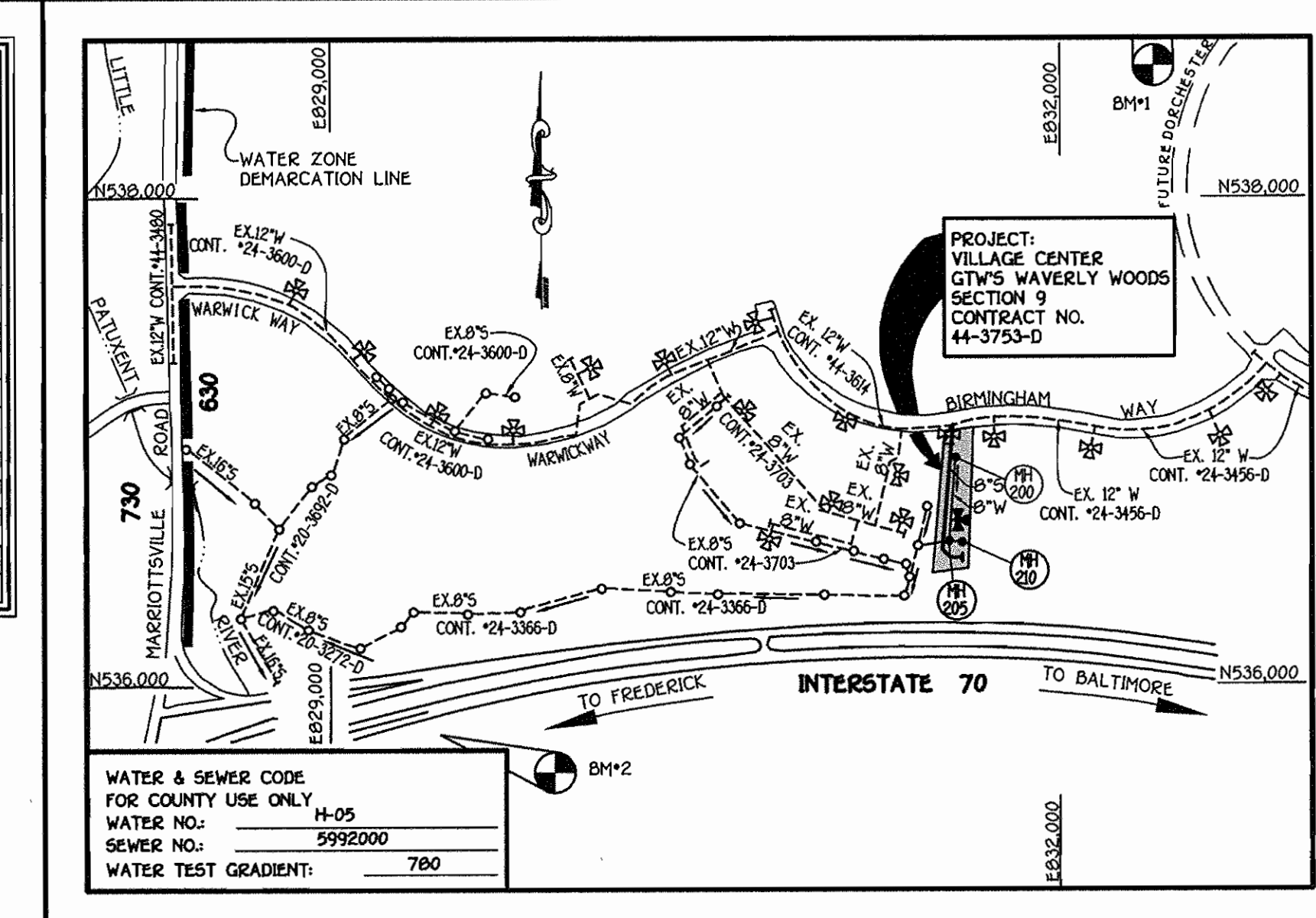


QUANTITIES

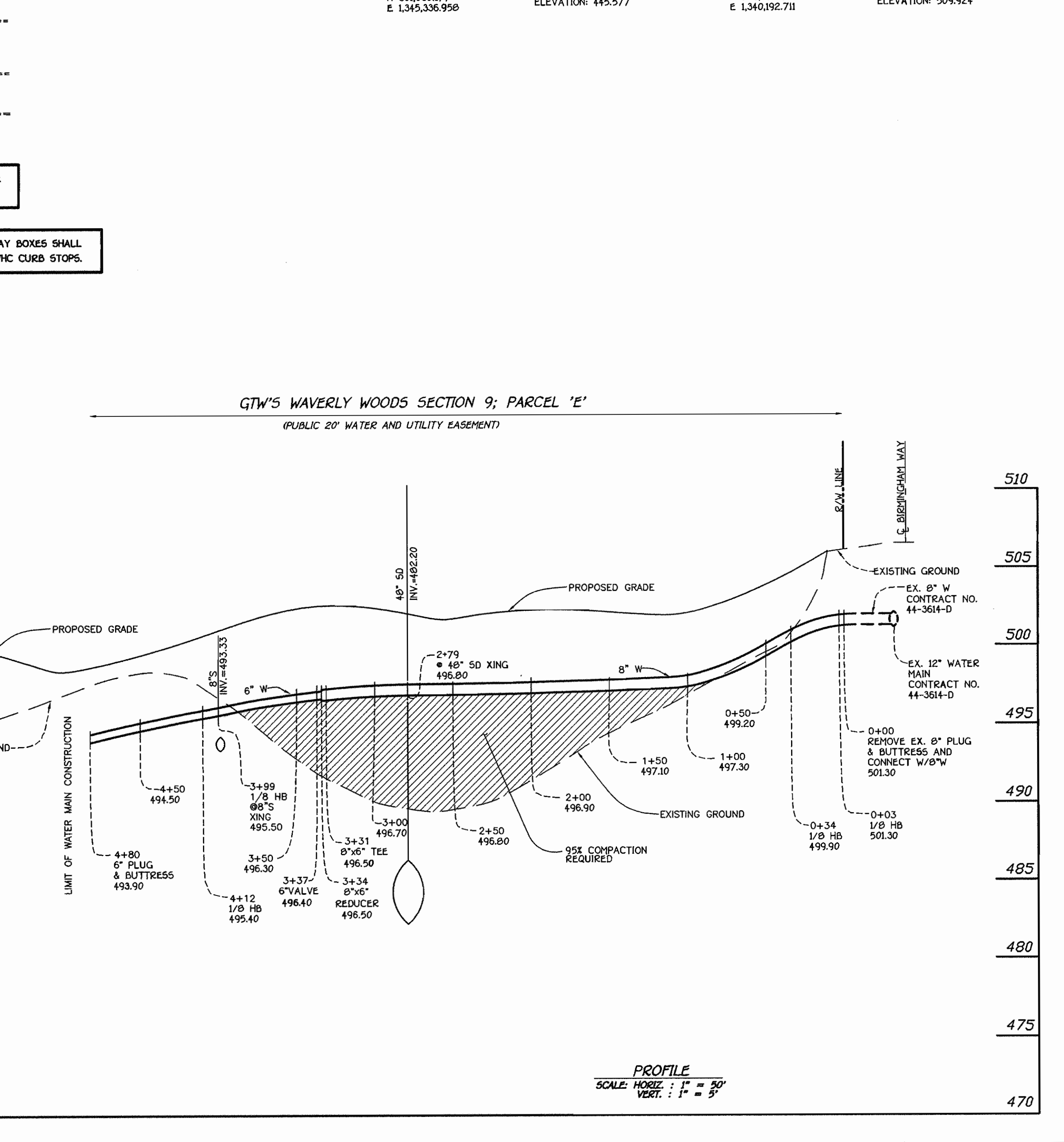
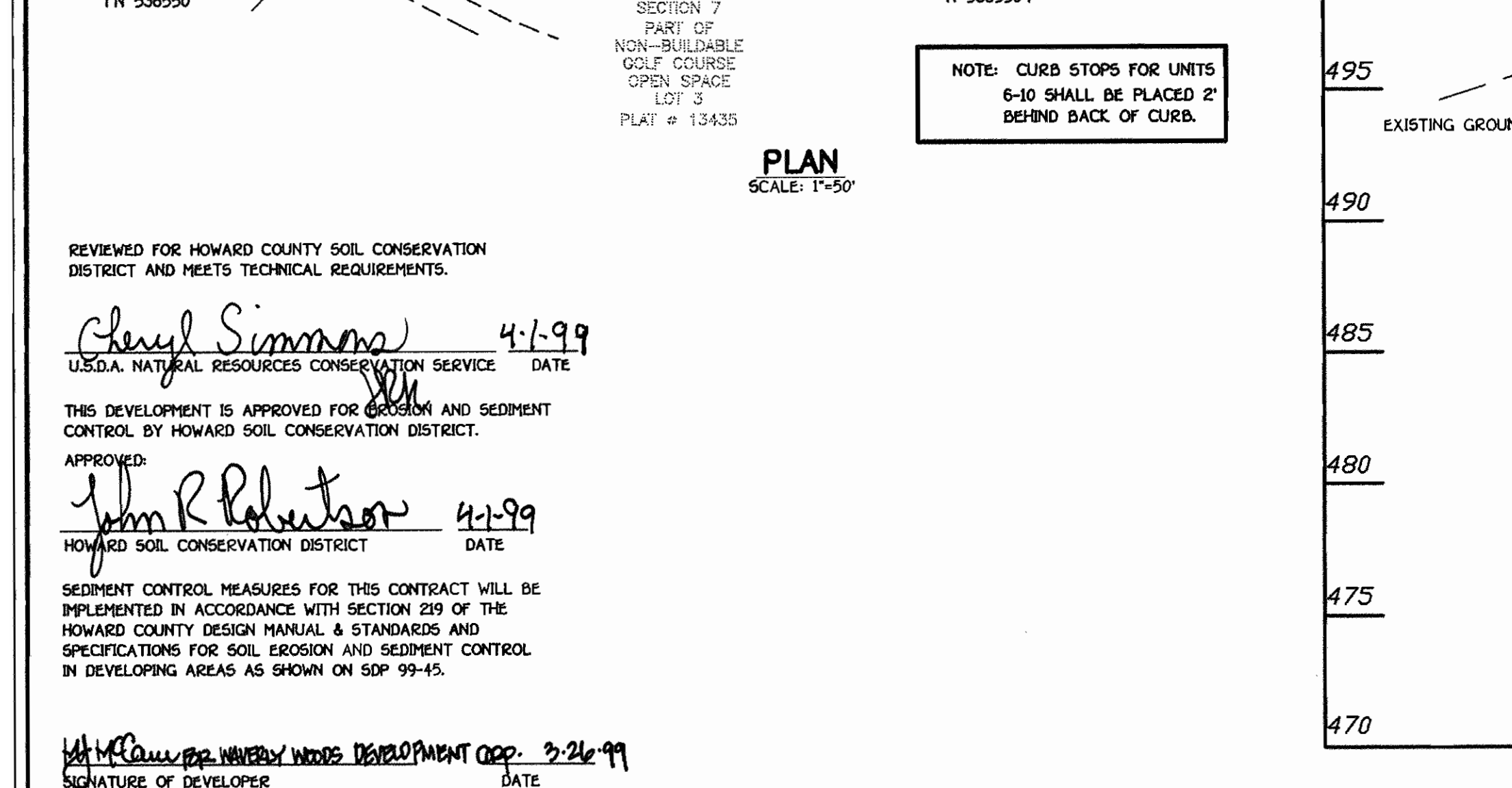
ITEM	ESTIMATED QUANTITIES	AS-BUILT	
		QUANTITIES	SUPPLIER
8" WATER	334 L.F.		
6" WATER	166 L.F.		
FIREHYDRANTS	1 EACH		
1 1/2" WATER	203 L.F.		
8" X 6" TEE	1 EACH		
8" X 6" REDUCER	1 EACH		
6" VALVE	2 EACH		
8" -1/8" HB	2 EACH		
6" -1/8" HB	2 EACH		
6" PLUG & BUTRESS	1 EACH		

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



BENCH MARKS

MARK	DESCRIPTION	ELEVATION
BM #1	HOWARD COUNTY CONTROL STATION *1012 (NAD '83) (NEAR THE INTERSECTION OF ROUTE 99 & WOODSTOCK ROAD)	445.577
BM #2	HOWARD COUNTY CONTROL STATION *16E1 (NAD '83) (NEAR THE INTERSECTION OF U.S. ROUTE 40 & MARIOTTVILLE ROAD)	509.924



VICINITY MAP

SCALE: 1"=600'

TYPE OF BUILDING:	COMMERCIAL
NUMBER OF UNITS:	14 (10 PROPOSED AND 4 FUTURE)
NO. OF WATER HOUSE CONNECTIONS:	10
NO. OF SEWER HOUSE CONNECTIONS:	10 (PRIVATE)
DRAINAGE AREA:	LITTLE PATUXENT
TREATMENT PLANT:	PATAPSCO W.W.T.P.; CITY OF BALTIMORE VIA ROUTE 100 PUMPING STATION

NUMBER OF SHCS FOR FUTURE LOTS: 4
 NUMBER OF SHCS FOR FUTURE LOTS: 4 (PRIVATE)

- ### 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 (0991 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 16" WALLS ARE FOR BRICK MANHOLES ONLY.
 - MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER TIGHT FRAME AND COVERS, STANDARD DETAIL G 5.52.
 - 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 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 3/4" 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 W2.13). 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(h) OF THE HOWARD COUNTY CODE.

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

Cheryl Simmons 4-1-99
 U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE

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

APPROVED:
John R. Robertson 4-1-99
 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 AS SHOWN ON SDP 99-45.

W. McCann 3-24-99
 SIGNATURE OF DEVELOPER DATE

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND

John R. Robertson 4/1/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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

9757
 STATE OF MARYLAND
 TERRILL A. FISHER

DESIGNED BY: M.D.T.
 DRAWN BY: MDT.
 CHECKED BY: RLJM
 DATE: March 26, 1999

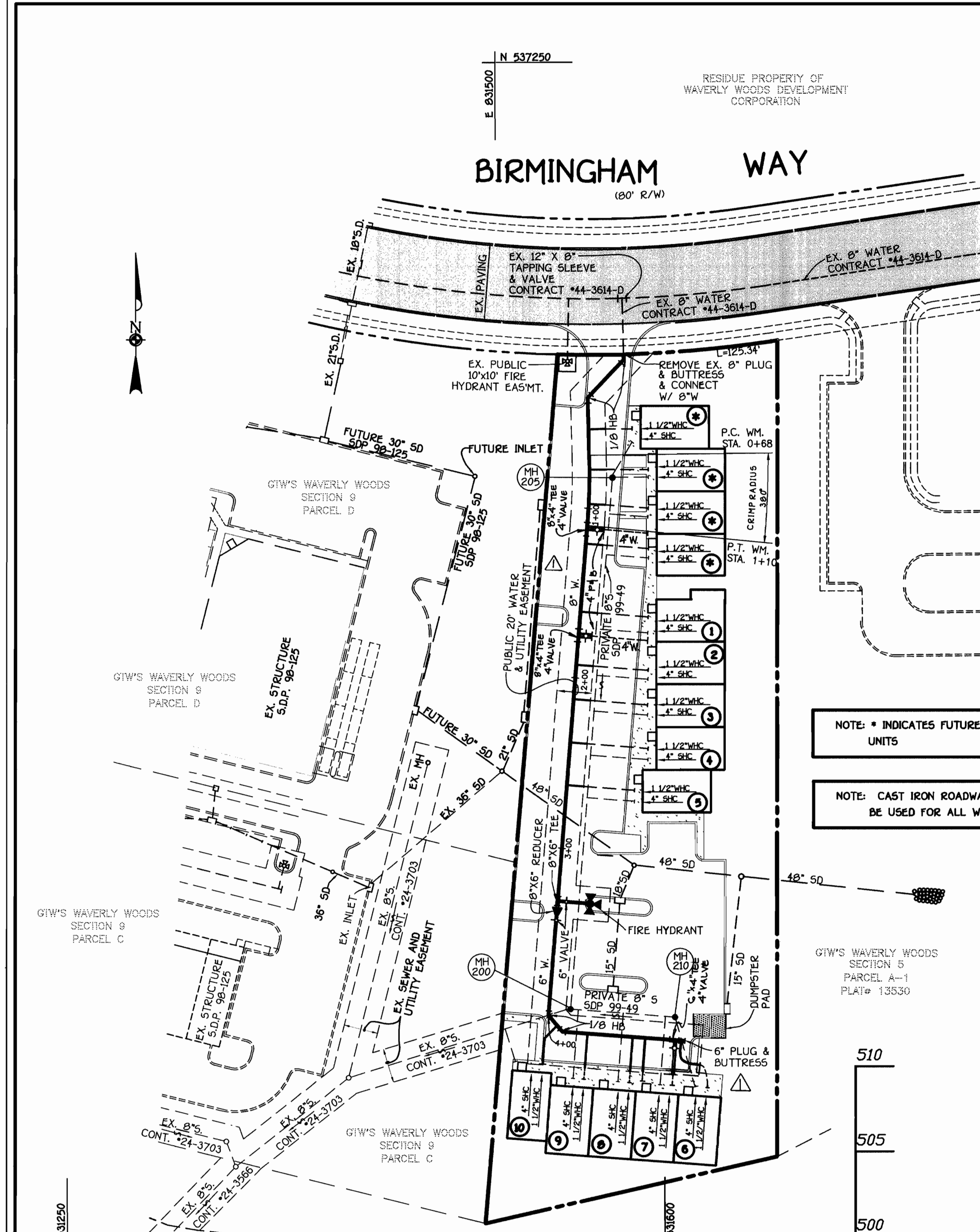
WATER MAIN
 PLAN AND PROFILE

600' SCALE MAP NO. 16 BLOCK NOS. 5 & 11
 F.C.C. WORK ORDER NO. 40322
 FILE NAME: G:\DWGS\40322\40322 WATERPLAN.dwg

G.T.W.'S WAVERLY WOODS
 VILLAGE CENTER
 SECTION 9; PARCEL 'E'
 CONTRACT NO. 44-3753-D
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

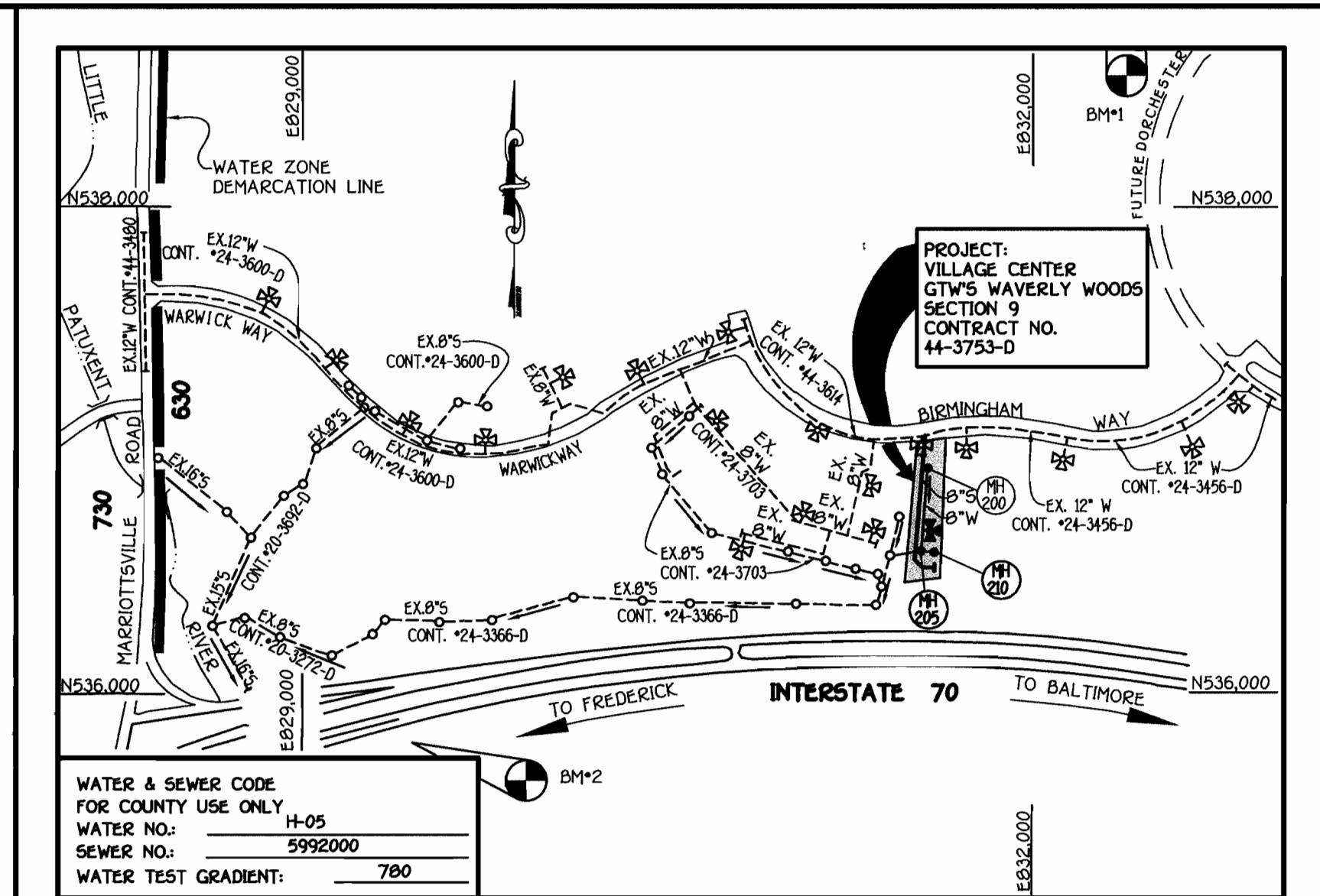
CONTRACT NO. 44-3753-D
 G.T.W.'S WAVERLY WOODS VILLAGE CENTER
 SECTION 9; PARCEL 'E'
 WATER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN
 SHEET: 1 OF 1



QUANTITIES				
ITEM	ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	SUPPLIER
6" WATER	334 L.F.			
6" WATER	166 L.F.			
FIREHYDRANTS	1 EACH			
1 1/2" WATER	205 L.F.			
6" X 6" TEE	1 EACH			
6" X 6" REDUCER	1 EACH			
6" VALVE	2 EACH			
6" 1/8" HB	2 EACH			
6" PLUG & BUTRESS	1 EACH			
4" WATER	40 L.F.			
4" VALVE	3 EACH			
4" PLUG & BUTRESS	3 EACH			

BENCH MARKS			
BM #1	HOWARD COUNTY CONTROL STATION #1012 (NAD '83) (NEAR THE INTERSECTION OF ROUTE 99 & WOODSTOCK ROAD)	BM #2	HOWARD COUNTY CONTROL STATION #16E1 (NAD '83) (NEAR THE INTERSECTION OF U.S. ROUTE 40 & MARIOTTVILLE ROAD)
N 601,060.177	E 1,345,336.958	ELEVATION: 445.577	
N 539,250.932	E 1,340,192.711	ELEVATION: 509.924	

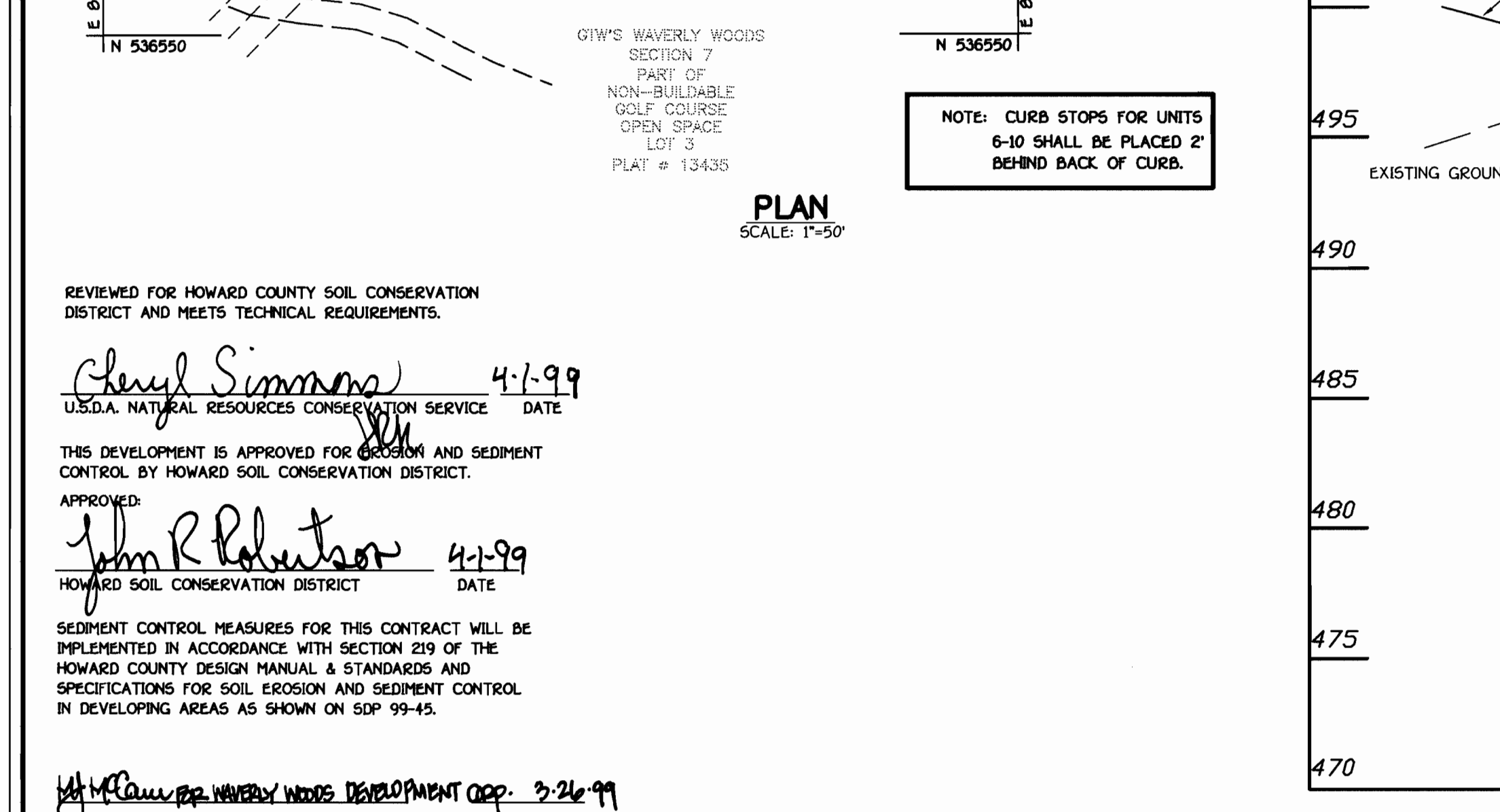


WATER & SEWER CODE FOR COUNTY USE ONLY	
WATER NO.:	H-05
SEWER NO.:	5992000
WATER TEST GRADIENT:	780

VICINITY MAP	
TYPE OF BUILDING:	COMMERCIAL
NUMBER OF UNITS:	14 (10 PROPOSED AND 4 FUTURE)
NO. OF WATER HOUSE CONNECTIONS:	10
NO. OF SEWER HOUSE CONNECTIONS:	10 (PRIVATE)
DRAINAGE AREA:	LITTLE PATUXENT
TREATMENT PLANT:	PATAPSCO W.W.T.P.; CITY OF BALTIMORE VIA ROUTE 100 PUMPING STATION
NUMBER OF WH'S FOR FUTURE LOTS:	4
NUMBER OF SH'S FOR FUTURE LOTS:	4 (PRIVATE)

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.
- 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 G.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.



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

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

Cheryl Simmons 4-1-99
U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE

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

APPROVED:
John R. Robertson 4-1-99
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 AS SHOWN ON SDP 99-45.

John R. Robertson 3-31-99
SIGNATURE OF DEVELOPER DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
INTERNATIONAL SQUARE OFFICE PARK - 18272 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21046
(410) 461-2885

DESIGNED BY: M.D.T.
DRAWN BY: M.D.T.
CHECKED BY: M.J.M.
DATE: March 26, 1999

FILE NO. ADD 4" WATER SPRINKLER LINES IN 3 LOCATIONS

DATE: 7-6-99

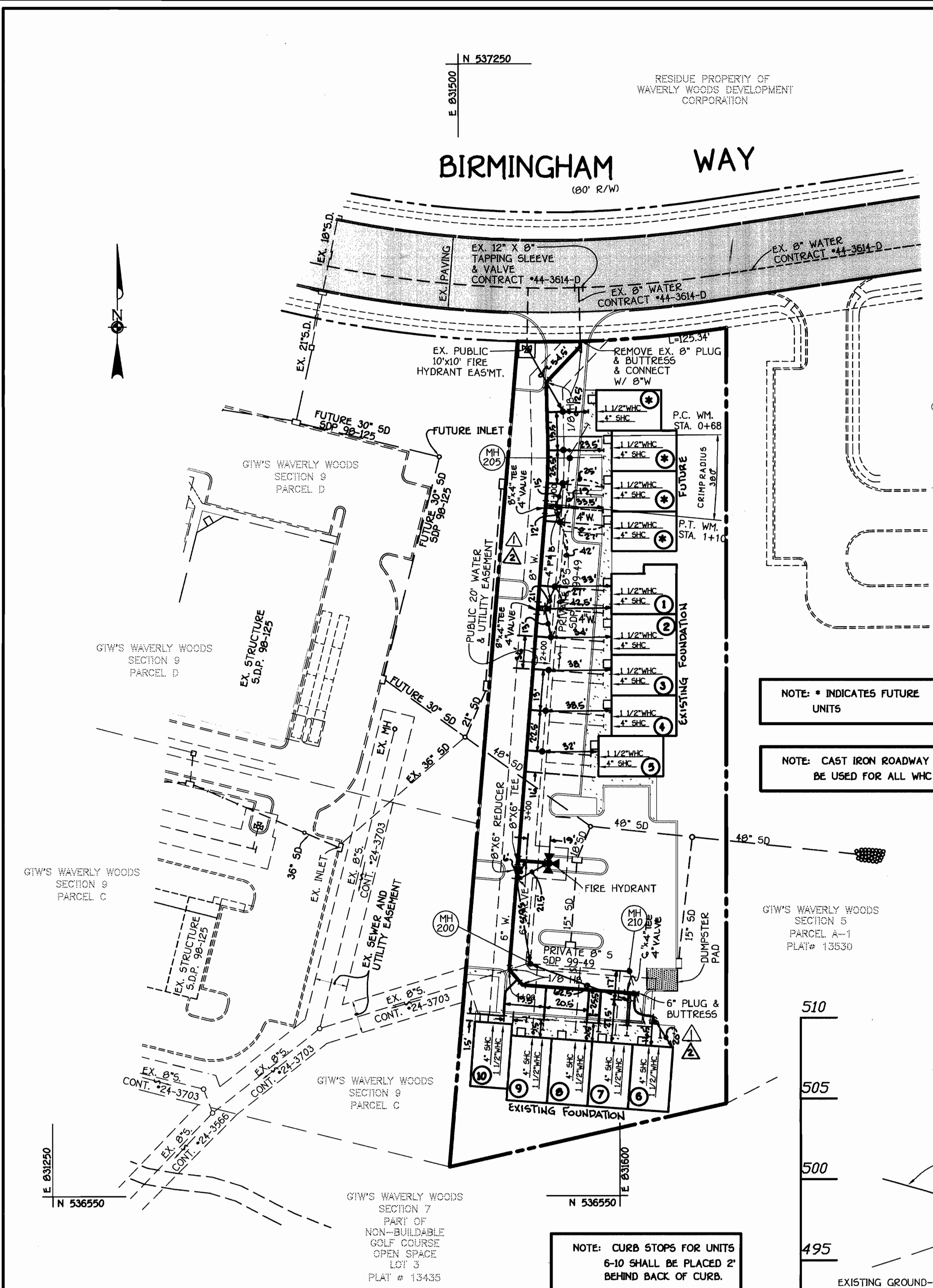
WATER MAIN
PLAN AND PROFILE

600' SCALE MAP NO. 16 BLOCK NO. 5 & 11
F.C.C. WORK ORDER NO. 40322
FILE NAME: G:\DWGS\40322\40322 WATERPLAN.dwg

PLAN REFERENCE NUMBERS:
SDP 99-49

CONTRACT NO. 44-3753-D
G.T.W.'S WAVERLY WOODS VILLAGE CENTER
SECTION 9, PARCEL 'E'
WATER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 1 of 1



PLAN
SCALE: 1"=50'

NOTE: CURB STOPS FOR UNITS 6-10 SHALL BE PLACED 2' BEHIND BACK OF CURB.

NOTE: * INDICATES FUTURE UNITS

NOTE: CAST IRON ROADWAY BOXES SHALL BE USED FOR ALL WHC CURB STOPS.

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

Cheryl Simmons 4-1-99
U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE

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

APPROVED:
John R. Robertson 4-1-99
HOWARD COUNTY 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 AS SHOWN ON SDP-99-45.

W. McCann 3-26-99
SIGNATURE OF DEVELOPER DATE

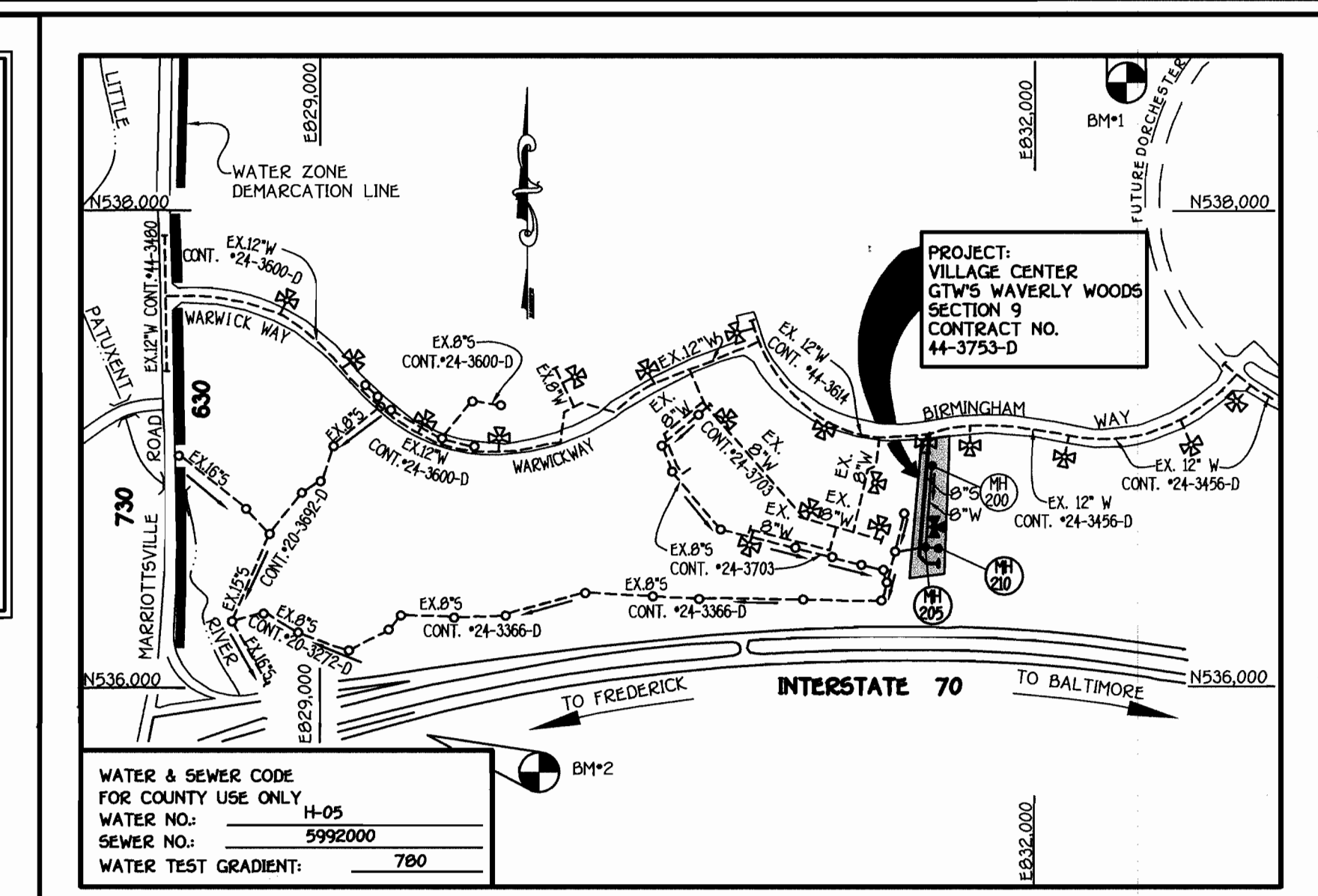
QUANTITIES				
ITEM	ESTIMATED QUANTITIES	AS-BUILT		
		QUANTITIES	TYPE	SUPPLIER
8" WATER	334 L.F.	334	D.I.P. TYTON JT	U.S. PIPE
6" WATER	166 L.F.	166.5	D.I.P. TYTON JT	U.S. PIPE
FIRE HYDRANTS	1 EACH	1		MUELLER
1" WATER	205 L.F.	234.6	"K"	READING TUBE
8" X 6" TEE	1 EACH	1	D.I.P.	U.S. PIPE
8" X 6" REDUCER	1 EACH	1	D.I.P.	U.S. PIPE
6" VALVE	2 EACH	2	GATE	MUELLER
8" 1/8" HB	2 EACH	2	D.I.P.	U.S. PIPE
6" 1/8" HB	2 EACH	2	D.I.P.	U.S. PIPE
6" PLUG & BUTTRESS	1 EACH	1	D.I.P.	U.S. PIPE
4" WATER	40 L.F.	43	D.I.P. TYTON JT	U.S. PIPE
4" VALVE	3 EACH	3	GATE	MUELLER
4" PLUG & BUTTRESS	3 EACH	1	D.I.P.	U.S. PIPE

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

BENCH MARKS

BM #1 HOWARD COUNTY CONTROL STATION #1012 (NAD 83) NEAR THE INTERSECTION OF ROUTE 99 & WOODSTOCK ROAD
N 601,060.177 E 1,345,336.958 ELEVATION: 445.577

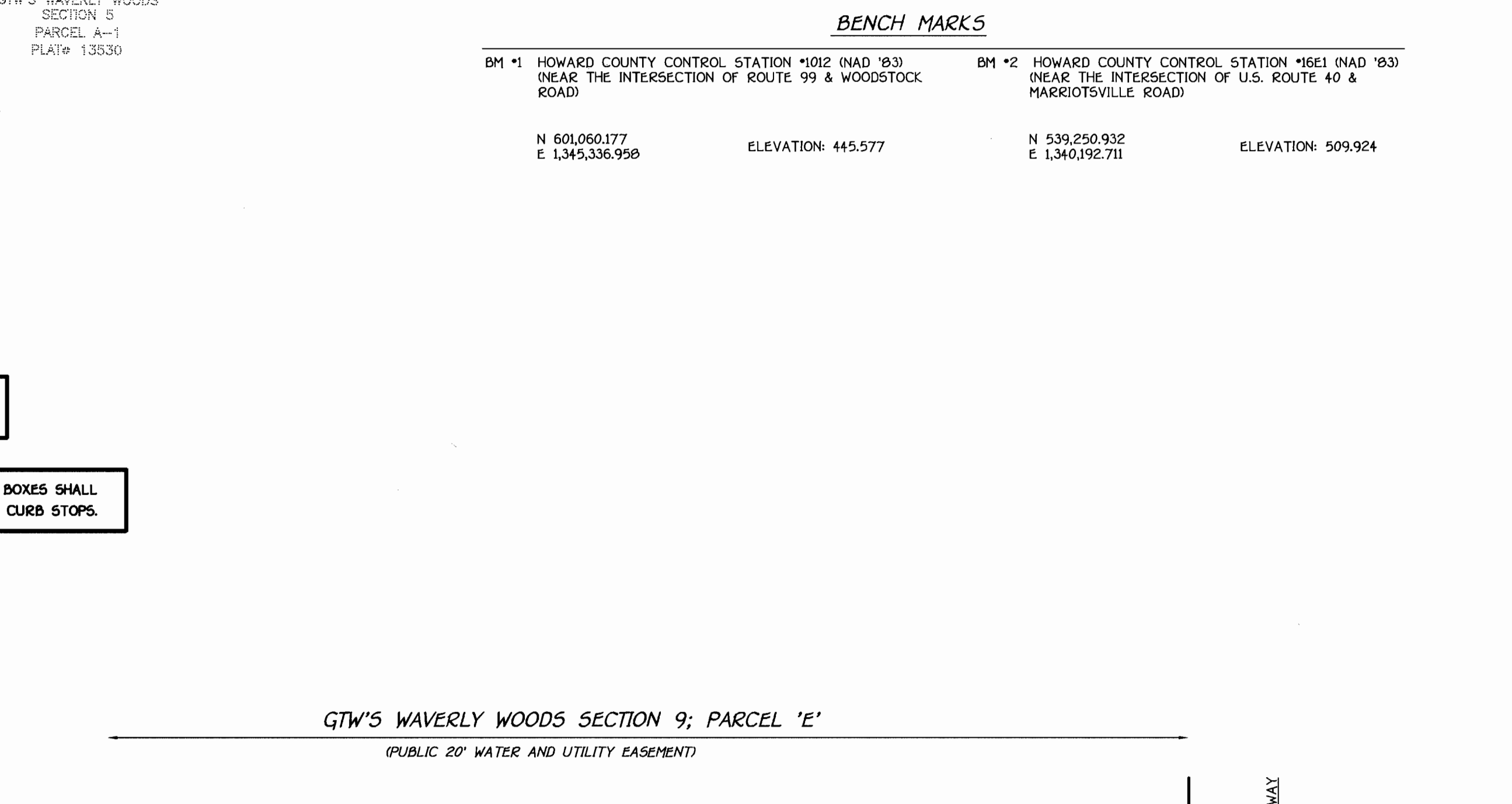
BM #2 HOWARD COUNTY CONTROL STATION #161 (NAD 83) NEAR THE INTERSECTION OF U.S. ROUTE 40 & HARRIOTSVILLE ROAD
N 539,250.932 E 1,340,192.711 ELEVATION: 509.924



VICINITY MAP
SCALE: 1"=600'

TYPE OF BUILDING: COMMERCIAL
NUMBER OF UNITS: 14 (10 PROPOSED AND 4 FUTURE)
NO. OF WATER HOUSE CONNECTIONS: 10 (PRIVATE)
NO. OF SEWER HOUSE CONNECTIONS: 10 (PRIVATE)
DRAINAGE AREA: LITTLE PATUXENT
TREATMENT PLANT: PATAPSCO W.W.T.P.; CITY OF BALTIMORE VIA ROUTE 108 PUMPING STATION

NUMBER OF WHCS FOR FUTURE LOTS: 4
NUMBER OF SHCS FOR FUTURE LOTS: 4 (PRIVATE)



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

STATE HIGHWAY ADMINISTRATION - 531-5533
BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICES - 850-4620
BALTIMORE GAS & ELECTRIC CO. - UNDER GROUND DAMAGE CONTROL - 767-9066
MESS UTILITY - 1-800-257-7777
COLONIAL PIPELINE CO. - 795-1390
BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 313-4900

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert B. Berman 3-31-99
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

H. [Signature] 4/6/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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

TERRELL A. FISHER
REGISTERED PROFESSIONAL ENGINEER
M.D. 9197

DESIGNED BY: M.D.T.
DRAWN BY: M.D.T.
CHECKED BY: M.J.M.
DATE: March 26, 1999

BY NO. REVISION

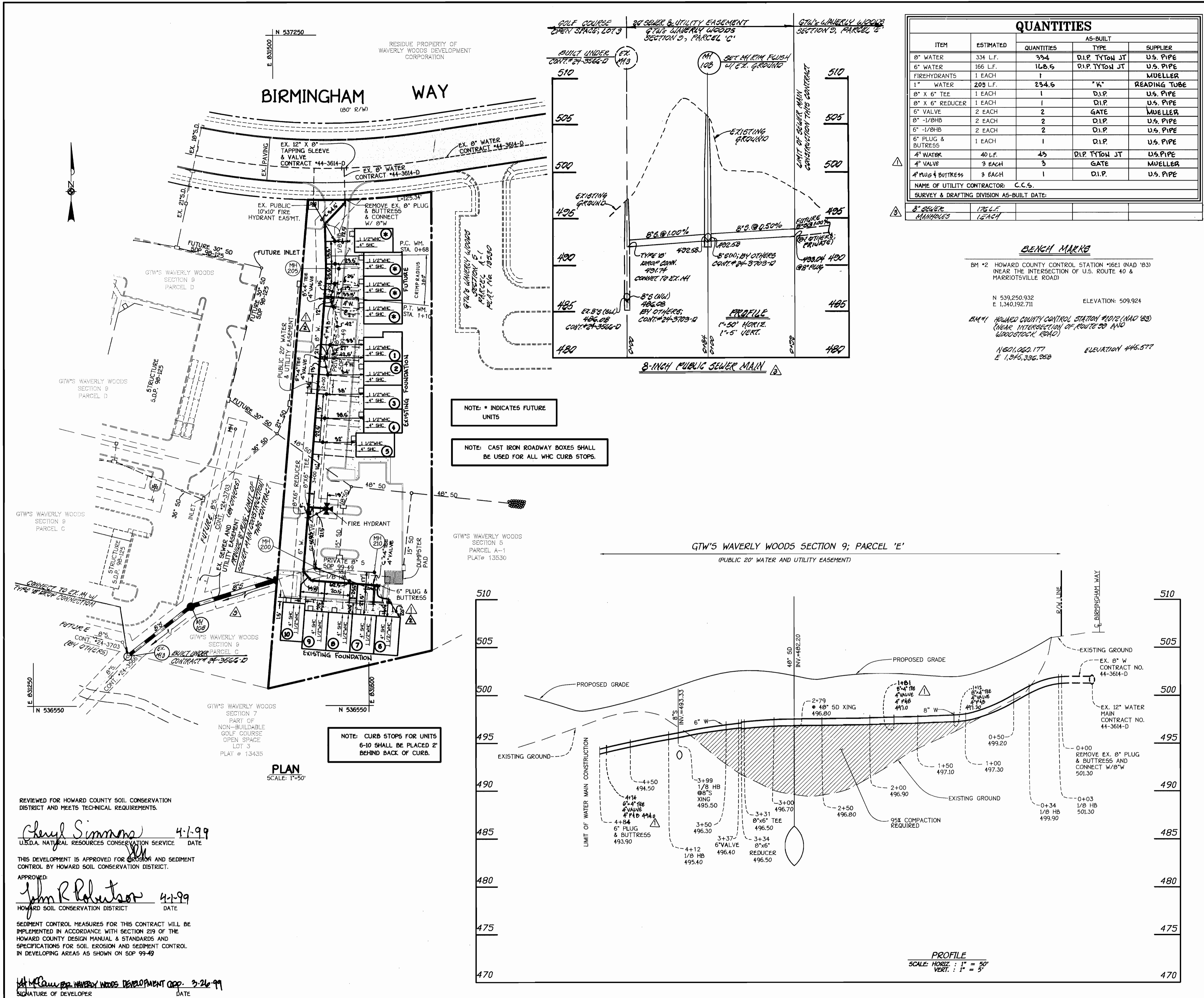
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DATE: 7-6-99

WATER MAIN
PLAN AND PROFILE

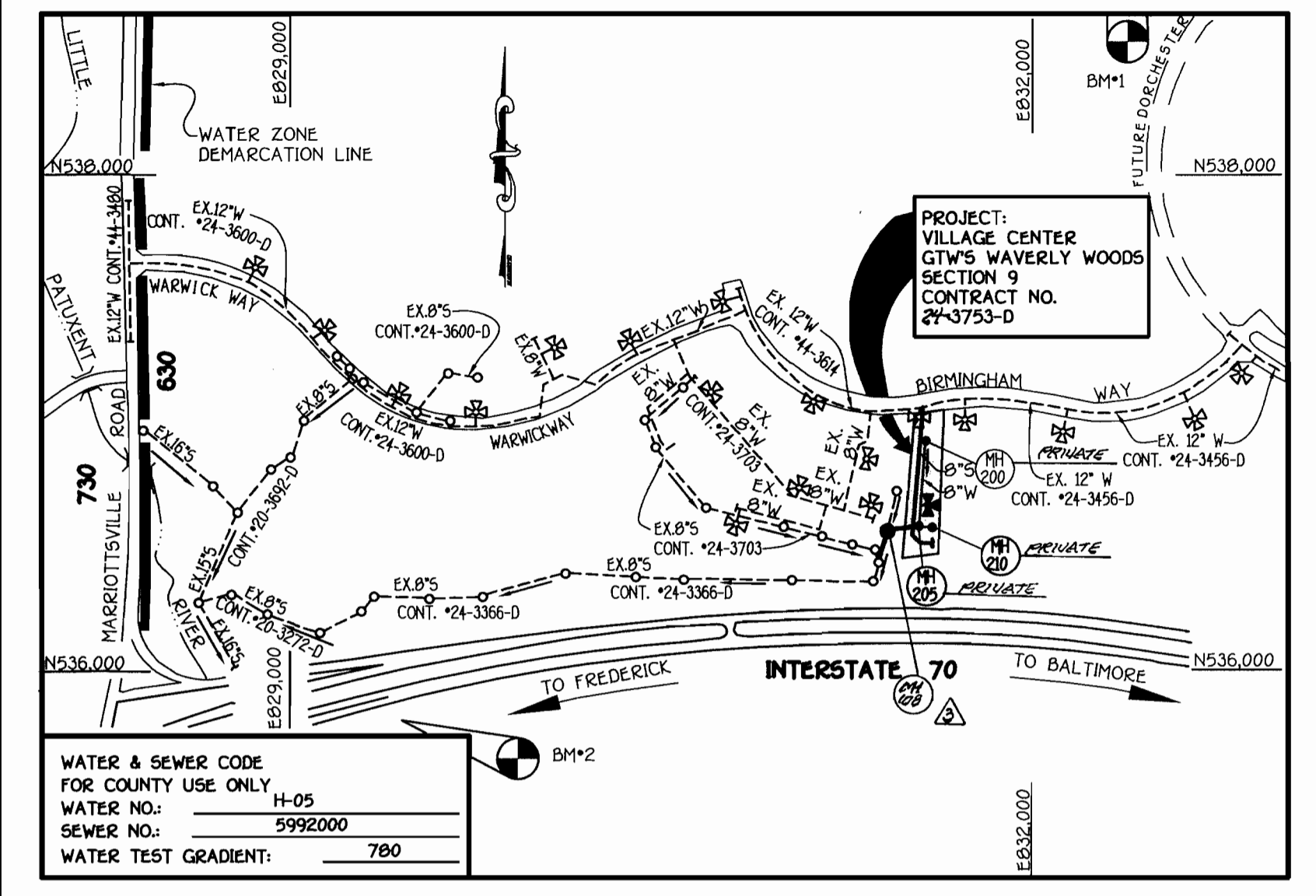
600' SCALE MAP NO. 16 BLOCK NOS. 5 & 11
F.C.C. WORK ORDER NO. 40322
FILE NAME: G:\DWGS\40322\40322 WATERPLAN.dwg

G.T.W.'S WAVERLY WOODS
VILLAGE CENTER
SECTION 9; PARCEL 'E'
CONTRACT NO. 44-3753-D
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 1 OF 1



ITEM	ESTIMATED QUANTITIES	AS-BUILT		SUPPLIER
		QUANTITIES	TYPE	
8" WATER	334 L.F.	334	D.I.P. TYTON JT	U.S. PIPE
6" WATER	166 L.F.	166.5	D.I.P. TYTON JT	U.S. PIPE
FIREHYDRANTS	1 EACH	1		MUELLER
1" WATER	205 L.F.	234.5	"V."	READING TUBE
8" X 6" TEE	1 EACH	1	D.I.P.	U.S. PIPE
8" X 6" REDUCER	1 EACH	1	D.I.P.	U.S. PIPE
6" VALVE	2 EACH	2	GATE	MUELLER
8" 1/8" HB	2 EACH	2	D.I.P.	U.S. PIPE
6" 1/8" HB	2 EACH	2	D.I.P.	U.S. PIPE
6" PLUG & BUTRESS	1 EACH	1	D.I.P.	U.S. PIPE
4" WATER	40 L.F.	45	D.I.P. TYTON JT	U.S. PIPE
4" VALVE	3 EACH	3	GATE	MUELLER
4" 1/8" BUTRESS	3 EACH	1	D.I.P.	U.S. PIPE



VICINITY MAP	
TYPE OF BUILDING:	COMMERCIAL
NUMBER OF UNITS:	14 (10 PROPOSED AND 4 FUTURE)
NO. OF WATER HOUSE CONNECTIONS:	10
NO. OF SEWER HOUSE CONNECTIONS:	10 (PRIVATE)(PUBLIC)
DRAINAGE AREA:	LITTLE PATUXENT
TREATMENT PLANT:	PATAPSCO W.W.T.P.; CITY OF BALTIMORE VIA ROUTE 100 PUMPING STATION
NUMBER OF WHC'S FOR FUTURE LOTS:	4
NUMBER OF SHC'S FOR FUTURE LOTS:	4 (PRIVATE)

- ### 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.C.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.S. 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 WATER TIGHT FRAME AND COVERS, STANDARD DETAIL G 5.52. 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 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 G5.1.
 - 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 10.14(a) OF THE HOWARD COUNTY CODE.

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

Cheryl Simmons 4-1-99
U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE

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

APPROVED:
John R. Robertson 4-1-99
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 AS SHOWN ON SDP 99-49

John R. Robertson 3-26-99
SIGNATURE OF DEVELOPER DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

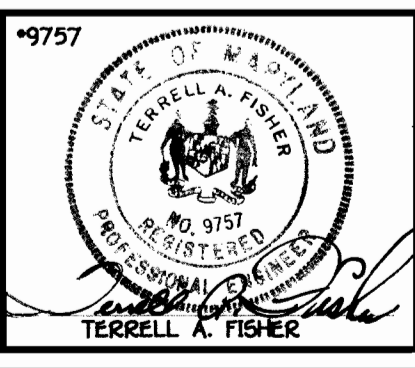
Robert Beniger 3-31-99
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

H. H. H. 4/6/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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

10700 BALTIMORE NATIONAL PARK
ELLSWORTH CITY, MARYLAND 21042
(410) 461-2833



DESIGNED BY:	M.D.T.	DATE:
DRAWN BY: <td>M.D.T. <td>2/21/98</td> </td>	M.D.T. <td>2/21/98</td>	2/21/98
CHECKED BY: <td>M.J.M. <td>10-7-99</td> </td>	M.J.M. <td>10-7-99</td>	10-7-99
DATE: <td>March 26, 1999 <td>7-6-99</td> </td>	March 26, 1999 <td>7-6-99</td>	7-6-99
BY NO. <td>REVISION <td>DATE </td></td>	REVISION <td>DATE </td>	DATE

WATER & SEWER MAINS
PLAN AND PROFILES

600' SCALE MAP NO. 16 BLOCK NO. 2 & 11
F.C.C. WORK ORDER NO. 40322
FILE NAME: G:\DWG5\40322\40322 WATERPLAN.dwg

G.T.W.'S WAVERLY WOODS
VILLAGE CENTER
SECTION 9; PARCEL 'E'
CONTRACT NO. 24-3753-D
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN
SHEET 1 of 1