

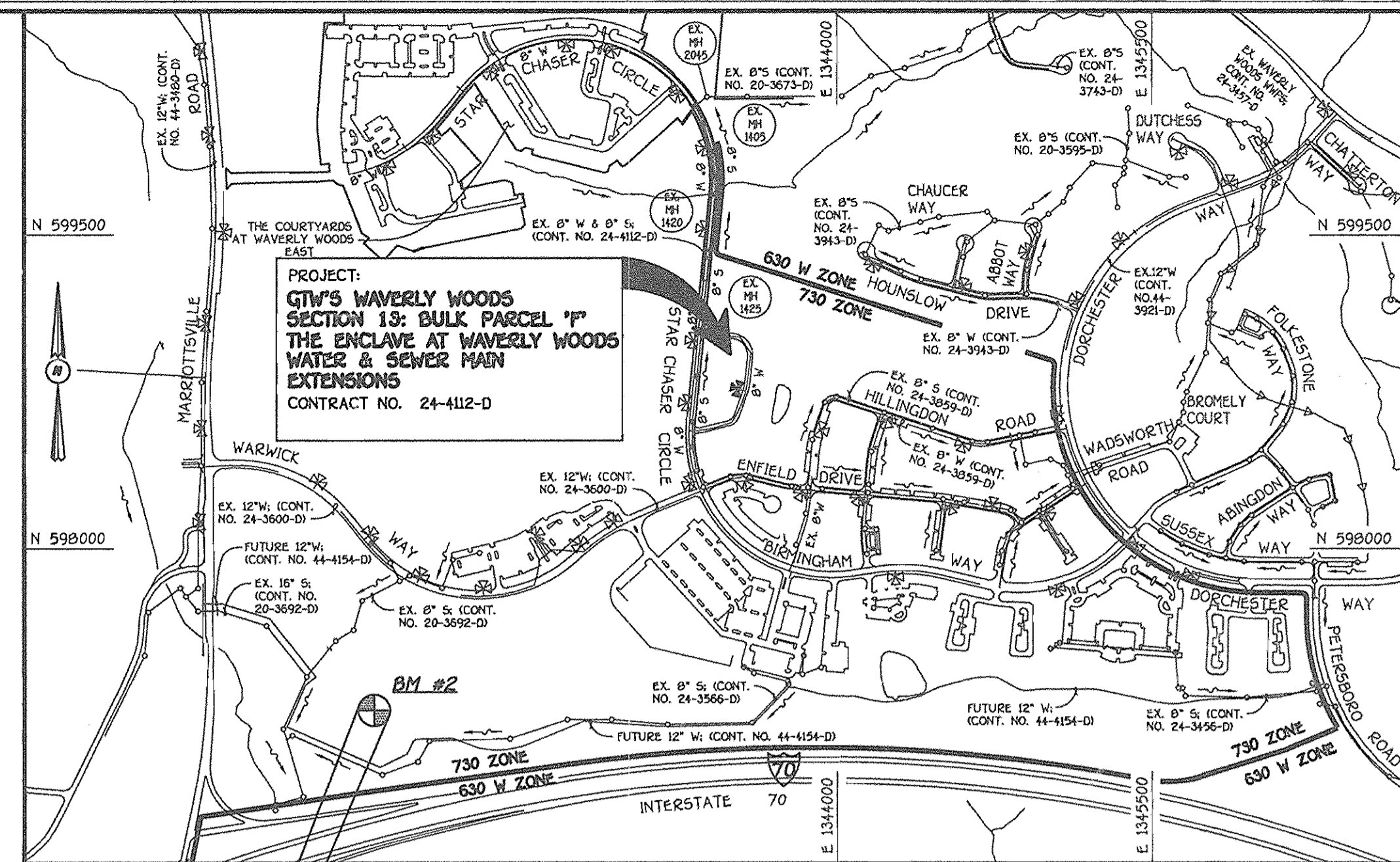
QUANTITIES				
ITEM	ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	SUPPLIER
8" SEWER	125 L.F.	125 L.F.	P.V.C. SDR 35	BRS
MANHOLES	2 EACH	2 EA	PRECAST	ATLANTIC
8" WATER	852 L.F.	852 L.F.	OIP CL 52	GRIFFIN
1 1/2" W/M	1,735 L.F.	1,744 L.F.	"K COPPER	BRS
6" WATER	24 L.F.	21 L.F.	DIP CL 52	GRIFFIN
FIRE HYDRANTS	1 EACH	1 EA	T. MUELLER	BRS
8" X 8" TAPPING SLEEVE & VALVE	1 EACH	ELIMINATED	---	---
8" X 8" TEE	1 EACH	2 EA	M.J. SIGMA	BRS
8" X 6" TEE	1 EACH	1 EA	M.J. SIGMA	BRS
8" VALVE	3 EACH	4 EA	GATE MUELLER	BRS
6" VALVE	1 EACH	1 EA	GATE MUELLER	BRS
1/8" H.B.	2 EACH	2 EA	M.J. SIGMA	BRS
1/16" H.B.	1 EACH	1 EA	M.J. SIGMA	BRS
1" W.P.S. METERS	56 EACH	56 EACH	---	---

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

**BENCHMARK INFORMATION**

B.M.#1 - HOWARD COUNTY CONTROL STATION #1012 (NAD '83)  
(NEAR THE INTERSECTION OF MARYLAND ROUTE 99 & WOODSTOCK ROAD)  
N 601,060.177  
E 1,345,335.758  
ELEVATION = 445.577

B.M.#2 - HOWARD COUNTY CONTROL STATION #16E1 (NAD '83)  
(NEAR THE INTERSECTION OF U.S. ROUTE 40 & MARIOTTVILLE ROAD)  
N 593,590.932  
E 1,340,192.711  
ELEVATION = 509.924



WATER & SEWER CODE FOR COUNTY USE ONLY

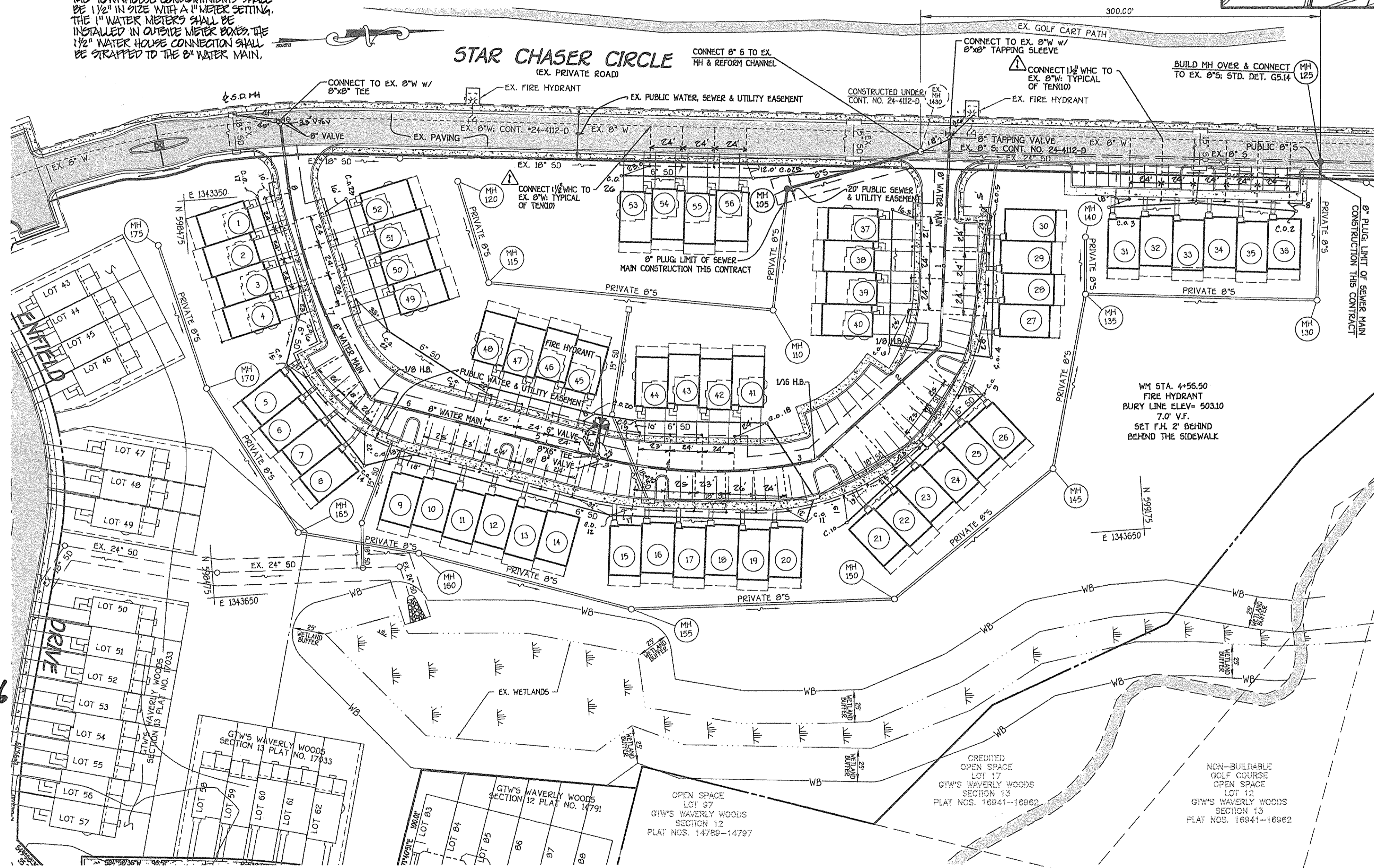
WATER NO.: K02  
SEWER NO.: 9992030  
WATER ZONE: 730  
WATER TEST GRADIENT: .880

PLAN REFERENCE NUMBERS: SDP-05-079 F-06-146

**VICINITY MAP**  
SCALE: 1"=600'

TYPE OF BUILDING: RESIDENTIAL: TOWNHOUSE, CONDOMINIUMS  
NUMBER OF LOTS & PARCELS: 1 BULK PARCEL: 56 UNITS  
NO. OF WATER HOUSE CONNECTIONS: 56  
NO. OF SEWER HOUSE CONNECTIONS: 0  
DRAINAGE AREA: LITTLE PATUXENT  
TREATMENT PLANT: LITTLE PATUXENT WATER RECLAMATION PLANT

**NOTE:** ALL WATER HOUSE CONNECTIONS TO THE TOWNHOUSE CONDOMINIUMS SHALL BE 1/2" IN SIZE WITH A 1" METER SETTING. THE 1" WATER METERS SHALL BE INSTALLED IN OUTSIDE METER BOXES. THE 1/2" WATER HOUSE CONNECTION SHALL BE STRAPPED TO THE 8" WATER MAIN.



**GENERAL NOTES**

- PART I**
- APPROXIMATE LOCATIONS OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
  - TOPOGRAPHIC FIELD SURVEYS PERFORMED ON OR ABOUT FEBRUARY, 2004 BY FISHER, COLLINS & CARTER, INC.
  - HORIZONTAL AND VERTICAL CONTROLS: THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM NAD '83/91 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 1012 & NO. 10E1. SEE THIS SHEET FOR BENCHMARK INFORMATION. ALL VERTICAL CONTROLS ARE BASED ON NAVD 83. VERTICAL CONTROLS ARE BASED ON TRANSVERSE POINT NO. 925, AN IRON PIPE SET ON THE WEST SIDE OF STAR CHASER CIRCLE, ELEV. 504.68.
  - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
  - CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES CLEAR FOR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES WHO HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF THE ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONIES OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
  - 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 (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
  - WHERE TEST FITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL @ AT THE LOCATIONS OF THE TEST FITS. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST FIT OR FITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST FITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
  - THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:  
AT&T ..... 1-800-252-1133  
BGE (CONSTRUCTION SERVICES) ..... 410-850-4820  
BGE (EMERGENCY) ..... 410-685-1400  
BUREAU OF UTILITIES ..... 410-313-4900  
COLONIAL PIPELINE CO ..... 410-795-1990  
MS&S UTILITY ..... 1-800-257-7777  
STATE HIGHWAY ADMINISTRATION ..... 410-531-5533  
VERIZON ..... 1-800-743-0033/410-224-9220
  - TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE 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 THE CONSTRUCTION OF THE MAIN.
  - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT 410-313-7450 AT LEAST FIVE WORKING DAYS BEFORE OPEN CUTTING OR BORING/JACKING OF ANY COUNTY ROAD FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPM REQUIREMENTS PER SECTION 18.14(D) OF THE HOWARD COUNTY CODE.
- PART II: WATER**
- ALL WATER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
  - TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED.
  - VALVES ADJACENT TO TREES SHALL BE STRAPPED TO TREES.
  - ALL FITTINGS SHALL BE BUTTERFLEED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
  - FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1800 AND SECTION 1805 OF THE STANDARD SPECIFICATIONS.
  - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- PART III: SEWER**
- 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.
  - FORCE MAINS SHALL BE D.I.P. ONLY.
  - 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 COVER, STANDARD DETAIL G5.92. WHERE WATER TIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
  - HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.

STATE OF MARYLAND  
TERRELL A. FISHER  
FOR: REVISIONS 7/12/07

**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 APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS DEEMED NECESSARY.  
Paul W. Koebel FOR: Waverly Woods Development Corp. 04/18/06  
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.  
Jim Meyer 4/14/06  
SIGNATURE OF ENGINEER DATE

GP-06-088  
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
Jim Meyer 5/14/06  
HON. NATURAL RESOURCES CONSERVATION SERVICE DATE  
THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.  
John K. Blanton 5/14/06  
APPROVED  
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 SDP-06-079.  
Paul W. Koebel FOR: Waverly Woods Development Corp. 04/18/06  
SIGNATURE OF DEVELOPER DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
4-26-06  
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND  
5/17/06  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTENNIAL SQUARE OFFICE PARK - 10072 BALTIMORE NATIONAL PIKE  
ELICOTT CITY, MARYLAND 21042  
410-481-2995

STATE OF MARYLAND  
TERRELL A. FISHER  
PROFESSIONAL ENGINEER

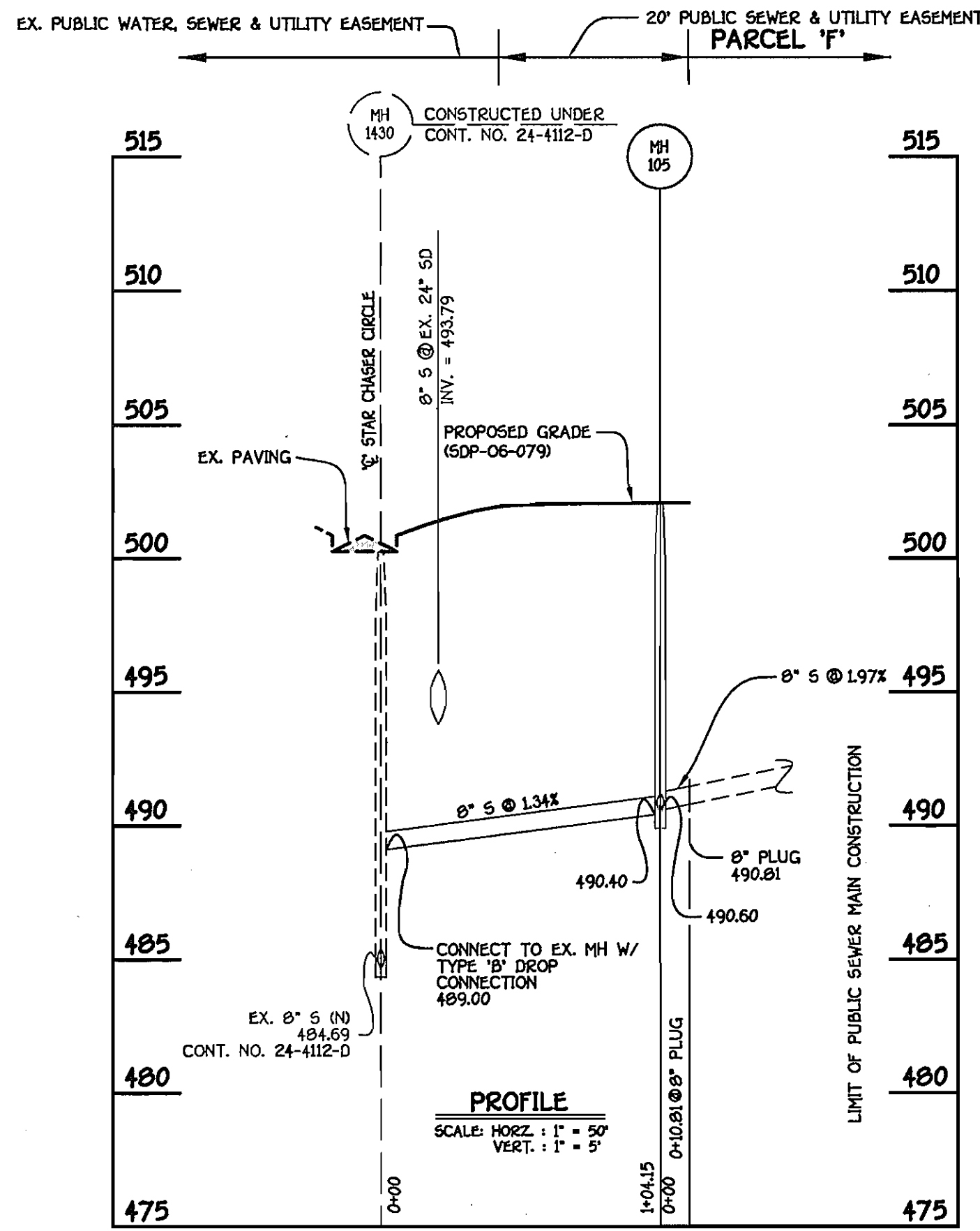
DESIGNED BY: P.W.K.  
DRAWN BY: B.C.R.  
CHECKED BY: KCI ASBUILT DATA 7/11/07  
DATE: 7/11/07  
APRIL, 2006  
BY NO. REVISION DATE

WATER & SEWER MAINS PLAN  
600' SCALE MAP NO. 16 BLOCK NO. 5  
F.C.C. WORK ORDER NO. 04017-4005  
FILE NAME: WATER AND SEWER PLAN SH1.1

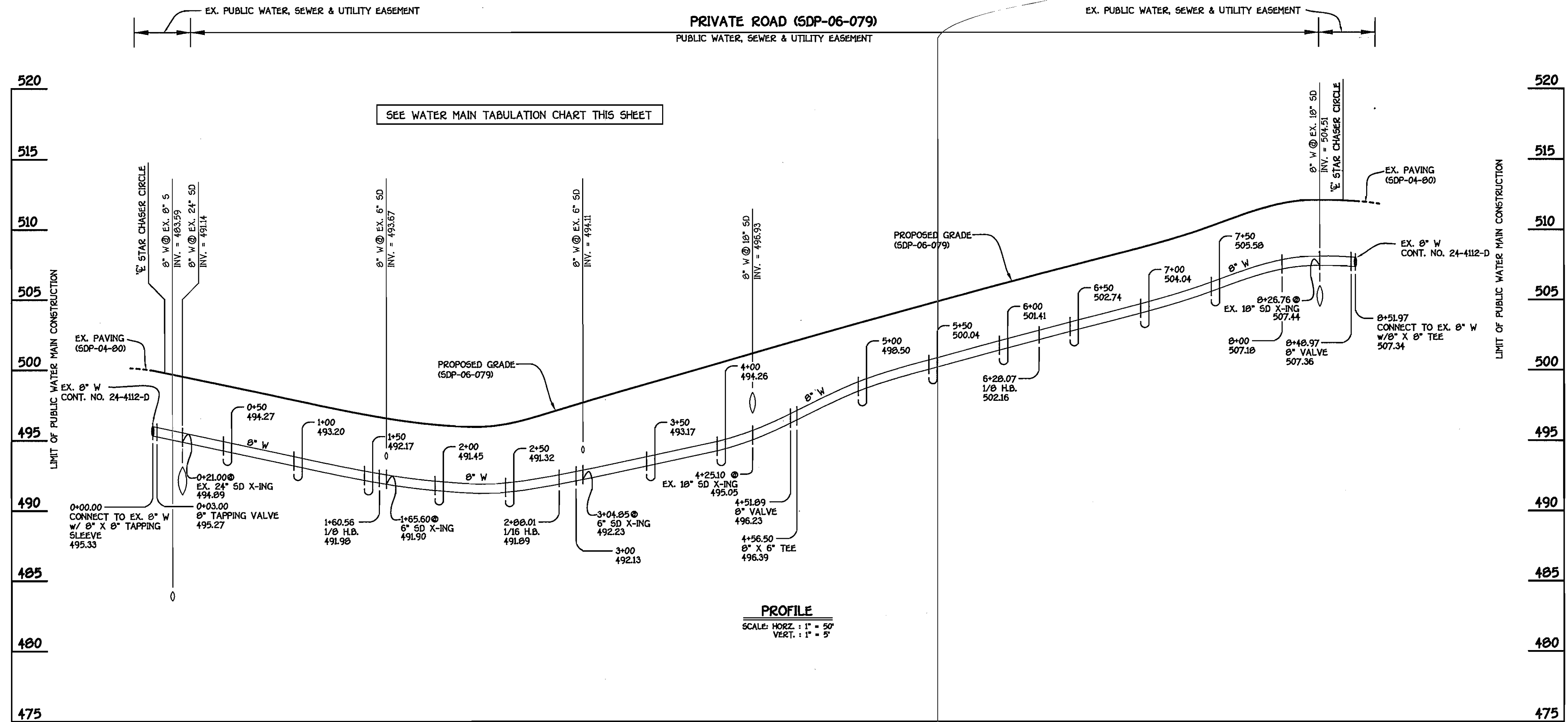
**GTW'S WAVERLY WOODS**  
SECTION 13: BULK PARCEL 17  
THE ENCLAVE AT WAVERLY WOODS  
CONTRACT NO. 24-4306-D  
THIRD ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 1 OF 2





**8" SEWER MAIN**

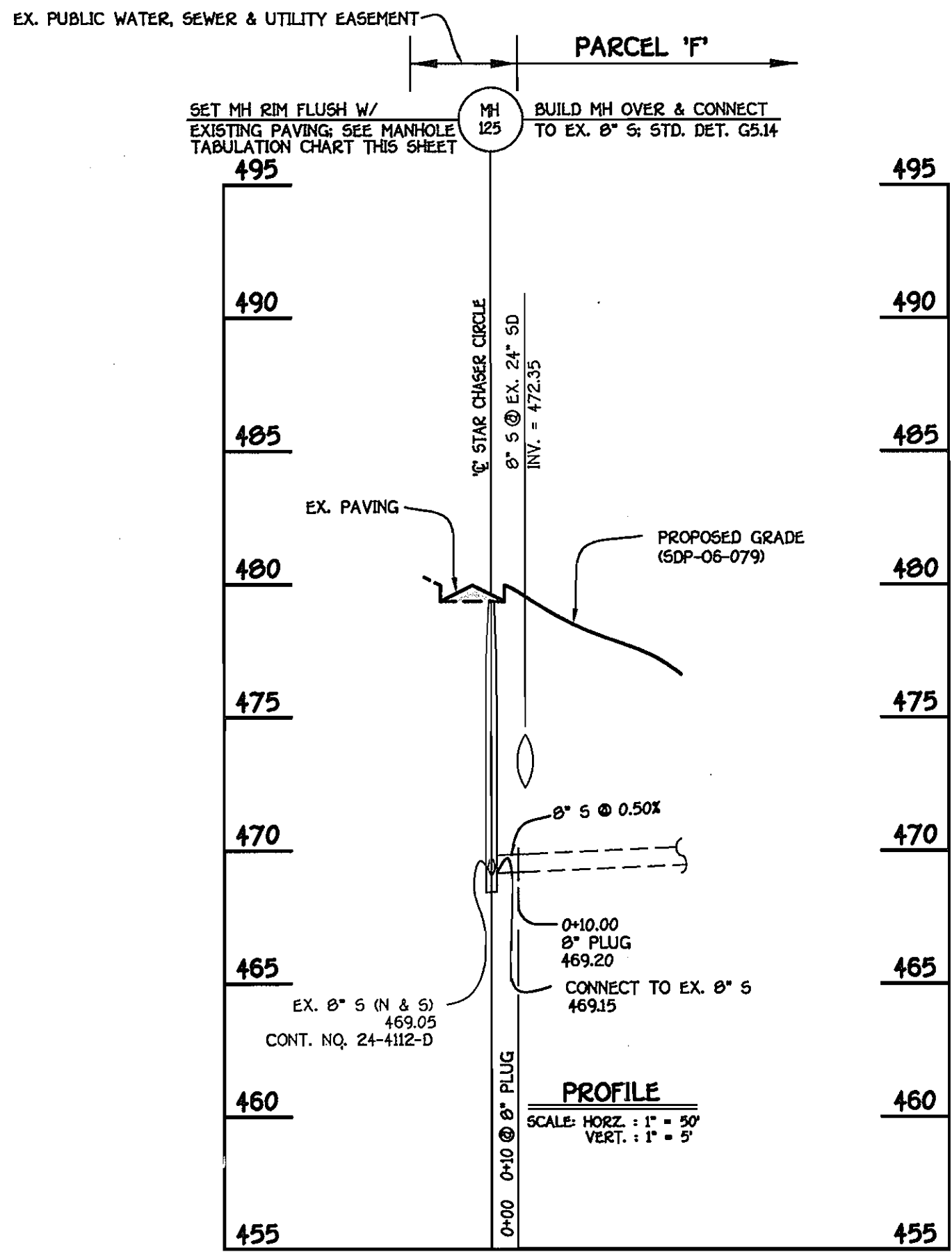


**8" WATER MAIN: PRIVATE ROAD**

MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION
105	598926.98	1343374.40	502.00*
125	599327.55	1343383.60	481.00**

NOTE: \*SET MH RIM FLUSH W/ PROPOSED FINISHED GRADE  
 \*\*SET MH RIM FLUSH W/ EXISTING PAVING

WATER MAIN TABULATION CHART			
W.M. STA.	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN			
0+00.00	8"x8" TAPPING SLEEVE	599051.78	1343341.95
0+03.00	8" TAPPING VALVE	599051.48	1343344.95
1+60.56	1/8 H.B.	599032.84	1343501.39
2+00.01	1/16 H.B.	598932.68	1343500.21
3+01.00	PC (CRIMP RADIUS 360')	598919.78	1343501.46
4+40.03	PT (CRIMP RADIUS 360')	598782.16	1343569.66
4+51.89	8" VALVE	598770.85	1343566.08
4+56.50	8"x6" TEE	598766.45	1343564.61
6+28.07	1/8 H.B.	598603.51	1343509.69
6+54.50	PC (CRIMP RADIUS 404')	598591.92	1343485.94
8+02.24	PT (CRIMP RADIUS 404')	598553.77	1343344.06
8+48.97	8" VALVE	598551.31	1343297.40
8+51.97	8"x8" TEE	598551.27	1343294.40



**8" SEWER MAIN**

CONTRACT NO. 24-4306-D  
 CITY'S WAVERLY WOODS  
 SECTION 13: BULK PARCEL 'F'  
 THE ENCLAVE AT WAVERLY WOODS  
 WATER & SEWER MAIN EXTENSIONS  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 R. J. Berman  
 CHIEF, BUREAU OF UTILITIES  
 4-26-06  
 DATE

DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND  
 [Signature]  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 5/17/06  
 DATE

FISHER, COLLINS & CARTER, INC.  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
 ELKLOTT CITY, MARYLAND 21042  
 (410) 461-2955



DESIGNED BY: P.W.K.  
 DRAWN BY: B.C.R.  
 CHECKED BY: P.W.K.  
 DATE: APRIL, 2006  
 BY NO. REVISION

WATER & SEWER MAINS  
 PROFILES  
 600' SCALE MAP NO. 16 BLOCK NO. 5  
 F.C.C. WORK ORDER NO. 04017-4006  
 DATE FILE NAME: WATER AND SEWER PROFILE SHT 2

G.T.W.'S WAVERLY WOODS  
 SECTION 13: BULK PARCEL 'F'  
 THE ENCLAVE AT WAVERLY WOODS  
 CONTRACT NO. 24-4306-D  
 THIRD ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
 SHEET 2 OF 2