

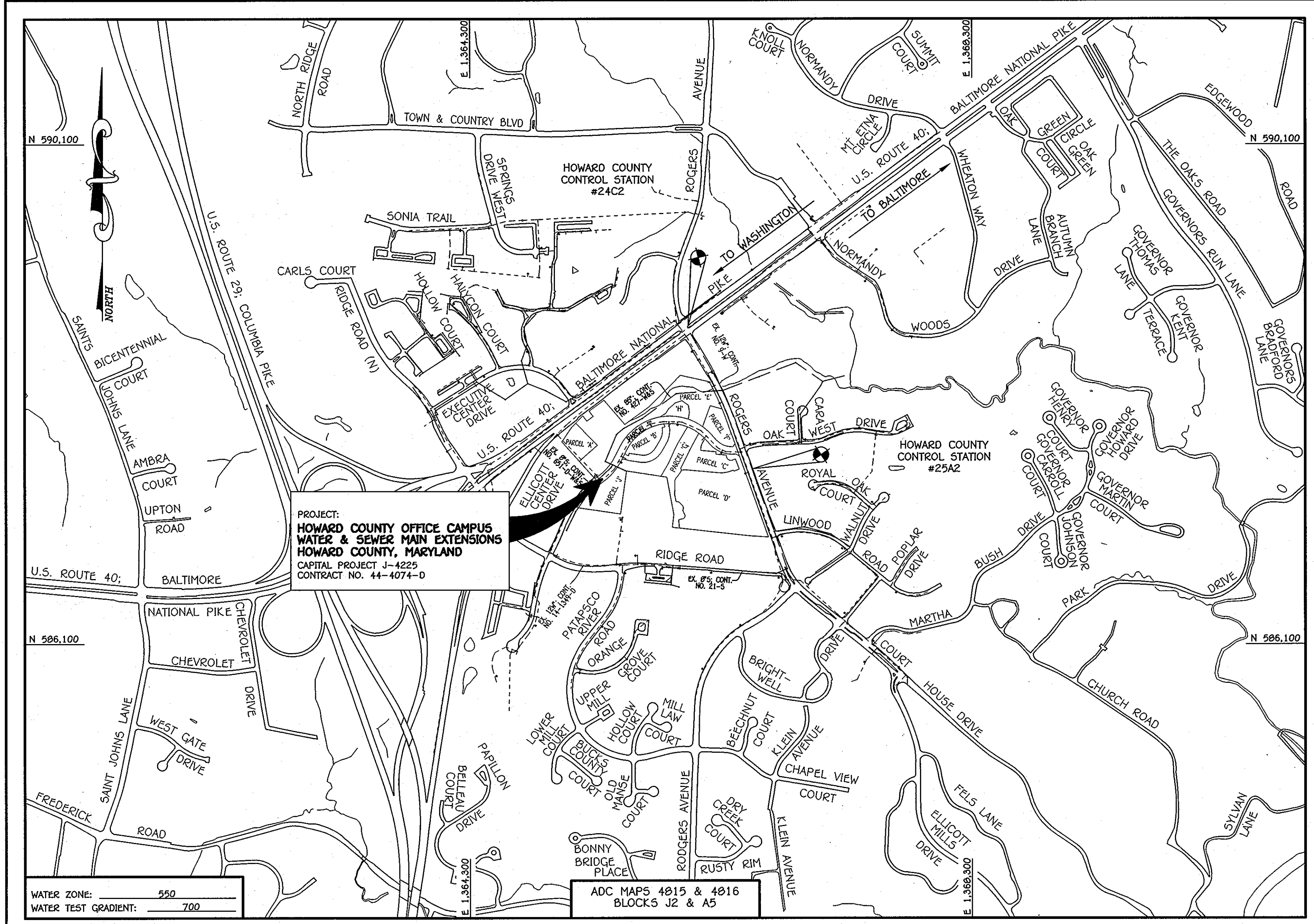
QUANTITIES				
ITEM	ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	SUPPLIER
8" W	1,740 L.F.			
6" W	70 L.F.			
8" VALVE	6 EACH			
6" VALVE	3 EACH			
12" X 8" TAPPING SLEEVE	2 EACH			
8" TAPPING VALVE	2 EACH			
8" X 8" TEE	5 EACH			
8" X 6" TEE	3 EACH			
1/8" H.B.	2 EACH			
1/16" H.B.	9 EACH			
1/32" H.B.	3 EACH			
FIRE HYDRANT	3 EACH			
8" PLUG & BUTTRESS	5 EACH			
CONTINUITY TEST STATION	3 EACH			
8" S; PVC	595 EACH			
MANHOLES	11 EACH			

**BENCHMARK INFORMATION**

B.M.#1 - HOWARD COUNTY CONTROL STATION #24C2 - HORIZONTAL - (NAD '83)  
 (LOCATED IN THE MIDDLE OF MD ROUTE 40; BALTIMORE NATIONAL PIKE IN THE NORTHEAST SIDE OF THE MEDIAN, AT THE INTERSECTION ON ROGERS AVENUE AND MD ROUTE 40)  
 N 580,648.3703  
 E 1,365,803.1388  
 ELEVATION = 354.017 - VERTICAL - (NAVD '89)

B.M.#2 - HOWARD COUNTY CONTROL STATION #25A2 - HORIZONTAL - (NAD '83)  
 (LOCATED ALONG ROGERS AVENUE SOUTH OF WEST DRIVE, APPROX. 6.2' SW OF SANITARY MANHOLE, ALONG THE EAST SIDE OF ROAD, APPROX. 67.8' NORTH OF HOUSE NO. 3329)  
 N 587,502.7292  
 E 1,365,556.3776  
 ELEVATION = 348.145 - VERTICAL - (NAVD '89)

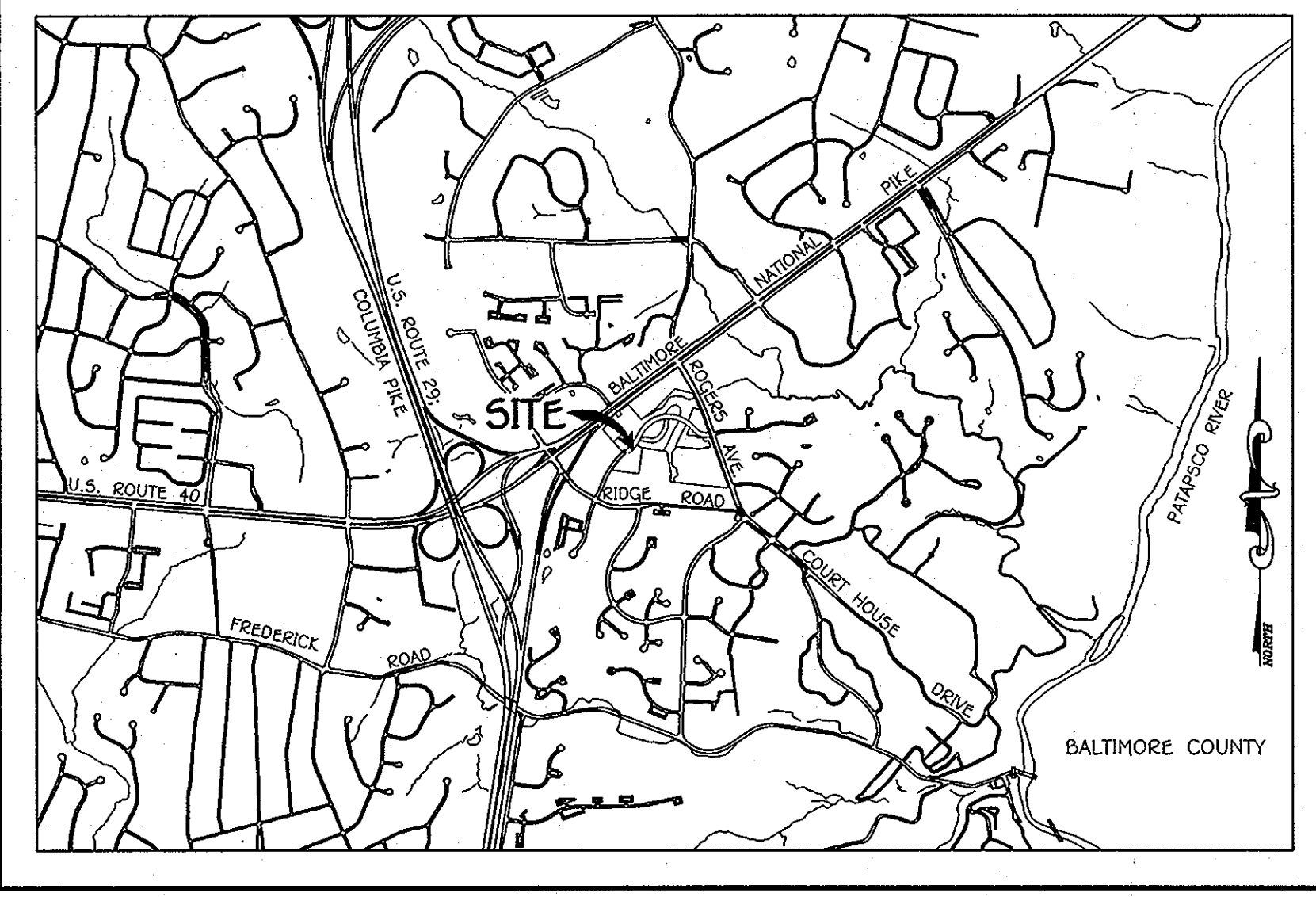
SHEET INDEX CHART	
SHEET	TITLE
1	TITLE SHEET
2	PLAN SHEET
3	WATER MAIN PROFILES & CHARTS
4	WATER MAIN PROFILES & CHARTS
5	SEWER MAIN PROFILES & CHARTS
6	SED & EROSION CONTROL PLAN, NOTES & DETAILS



TYPE OF BUILDING: FUTURE OFFICE BUILDING	
NUMBER OF PARCELS:	1
NO. OF WATER HOUSE CONNECTIONS:	0
NO. OF SEWER HOUSE CONNECTIONS:	0
SEWER SHED:	PATAPSCO
TREATMENT PLANT:	PATAPSCO WASTEWATER TREATMENT PLANT CITY OF BALTIMORE

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

PLAN REFERENCE NUMBERS:  
 S0P-03-026



**VICINITY MAP**  
 SCALE: 1" = 2000'

**GENERAL NOTES**

- PART A**
- 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 WERE PERFORMED ON OR ABOUT MARCH, 2011 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. 24C2 & NO. 25A2. ALL VERTICAL CONTROLS ARE BASED ON NAVD '89. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS.
  - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
  - CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND 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 PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL (S) AT THE LOCATIONS OF THE TEST PITS. 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 DRUG 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:
 

ATA&T	1-800-252-1133
BGE (CONTRACTOR SERVICES)	410-637-8713
BGE (EMERGENCY)	410-695-0123
BUREAU OF UTILITIES	410-313-4900
COLONIAL PIPELINE CO	410-799-1390
MISS UTILITY	1-800-257-7777
STATE HIGHWAY ADMINISTRATION	410-531-5533
VERIZON	1-800-743-0033 / 410-224-9210
  - 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 DPW REQUIREMENTS PER SECTION 18.114(a) OF THE HOWARD COUNTY CODE.

- PART B: WATER MAIN GENERAL NOTES**
- ALL WATER MAINS SHALL BE AWWA C900 PVC; DR-18.
  - TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED.
  - VALVES ADJACENT TO THE MAIN SHALL BE STRAPPED TO TEES.
  - ALL FITTINGS SHALL BE BUTTRESSED 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 1000 AND SECTION 1005 OF THE STANDARD SPECIFICATIONS.
  - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
  - TRACER WIRE AND CONTINUITY TEST STATIONS SHALL BE INSTALLED ON ALL D.I.P. AND PVC WATER MAINS IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL.
  - FOR PVC WATER MAINS, ALL RECORDS FOR THE QUALITY CONTROL AND QUALIFICATION TEST REQUIREMENTS NOTED IN SECTION 5.1 OF THE AWWA STANDARD C900 FOR PVC PRESSURE PIPE SHALL BE SUBMITTED WITH THE PIPE MATERIAL CERTIFICATIONS OR SHOP DRAWINGS PRIOR TO APPROVAL OF THE MATERIAL FOR USE. THE TEST RECORDS SHALL BE FOR THE PIPE TO BE INSTALLED UNDER THIS CONTRACT. ALL PVC PIPE SHALL CONTAIN MARKINGS TO ALLOW CROSS REFERENCING OF THE PIPE SUPPLIED TO THE TEST RECORDS RECEIVED.
  - UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS, SEVENTEEN (17) POUND SACRIFICIAL ANODES SHALL BE INSTALLED ON ALL VALVES AND METALLIC FITTINGS USED WITH PVC WATER MAINS IN ACCORDANCE WITH VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION. MAGNESIUM ANODES SHALL BE INSTALLED ON ALL VALVES AND DUCTILE IRON FITTINGS INCLUDING RESTRAINTS AND HARNESSSES. ZINC ANODES SHALL BE INSTALLED ON ALL STAINLESS STEEL FITTINGS AND SADDLES USED WITH PVC MAINS. ALL "TEES" USED WITH PVC MAINS SHALL BE DUCTILE IRON.

- PART C: SEWER MAIN GENERAL NOTES**
- 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 C5.52. 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 CELLAR CANNOT BE SERVED.

OWNERS	DEVELOPER
HOWARD COUNTY MD 3430 COURTHOUSE DRIVE ELLCOTT CITY, MD 21042 410-313-4400	3330 ROGERS AVENUE LLC SUITE 102 5300 DORSEY HALL DRIVE ELLCOTT CITY, MD 21042 443-367-0422

**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 THE 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.

*Paul W. Kaidel*, FOR:  
 3330 ROGERS AVENUE, LLC 04-17-12  
 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. Kaidel*, 04/17/12  
 SIGNATURE OF ENGINEER DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 303 OF THE HOWARD COUNTY DESIGN MANUAL - VOLUME IV: STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION AND AS SHOWN ON THE SITE DEVELOPMENT PLAN, S0P-03-026 & ON THESE PLANS.

*Paul W. Kaidel*, FOR:  
 3330 ROGERS AVENUE LLC 04-17-12  
 SIGNATURE OF DEVELOPER DATE

EP-12-033  
 THIS DRAWING SUPERSEDES THE PREVIOUS DRAWING SIGNED IN APRIL, 2003

APPROVED:  
*John R. Roberts* 4/21/12  
 HOWARD SOIL CONSERVATION DISTRICT DATE

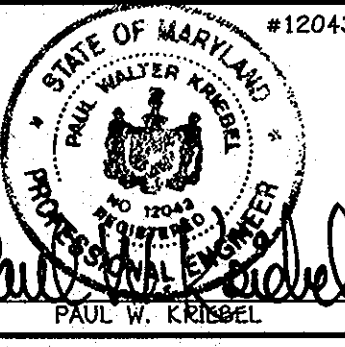
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**CAPITAL PROJECT J-4225  
 CONTRACT NO. 44-4074-D  
 HOWARD COUNTY  
 OFFICE CAMPUS  
 WATER & SEWER MAIN EXTENSIONS  
 HOWARD COUNTY, MARYLAND**

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND			
<i>John R. Roberts</i> DIRECTOR OF PUBLIC WORKS	<i>John R. Roberts</i> DATE 4/21/12	<i>Thomas S. Juller</i> CHIEF, BUREAU OF ENGINEERING	4/19/12 DATE
<i>John R. Roberts</i> CHIEF, BUREAU OF UTILITIES	4/20/2012 DATE	<i>John R. Roberts</i> CHIEF, UTILITY DESIGN DIVISION	4/19/12 DATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12043 EXPIRATION DATE IS 7/1/2012.

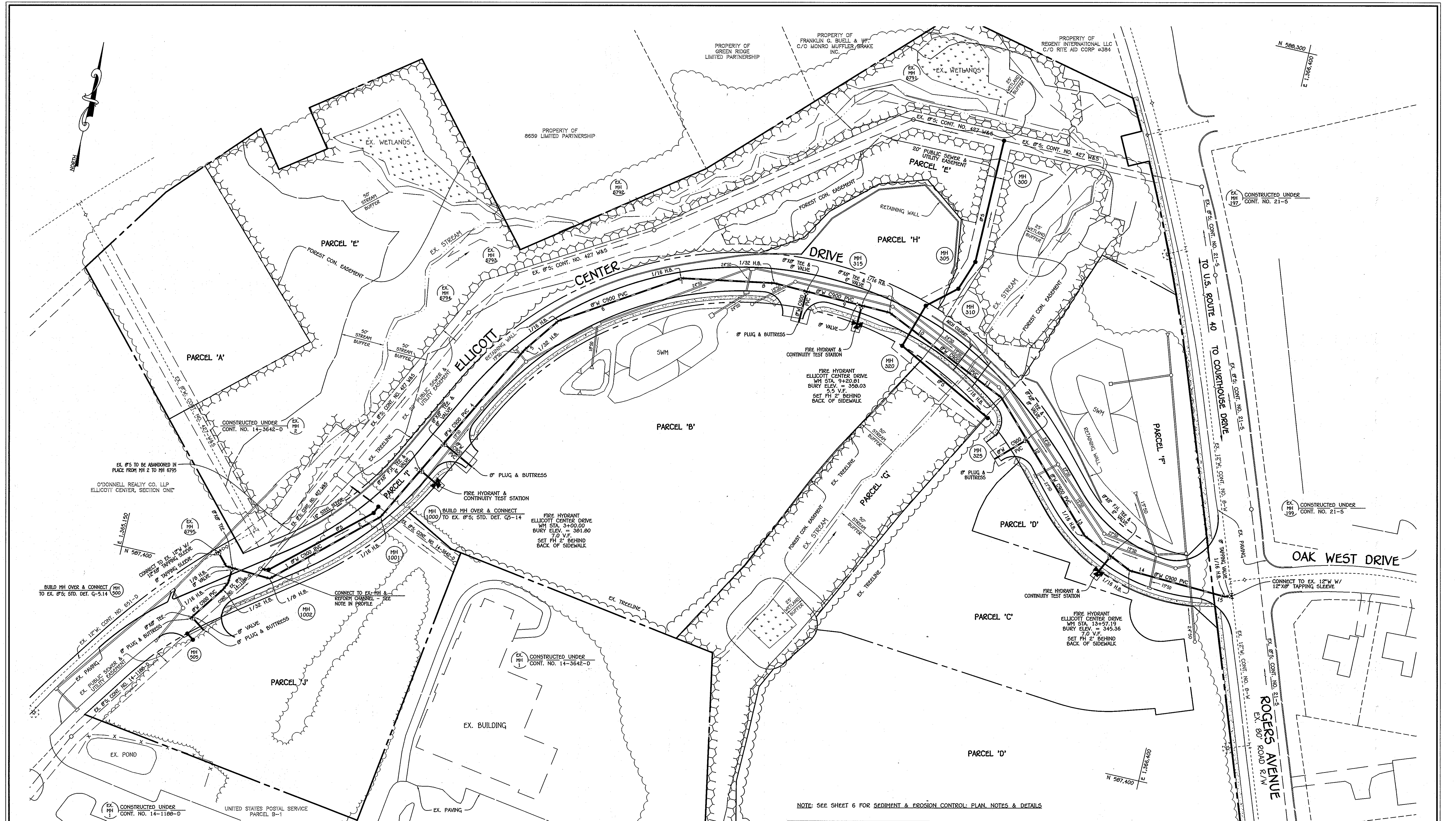
**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING, CONSULTANTS & LAND SURVEYORS  
 CENTRAL ENGINEERING OFFICE: 10272 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MARYLAND 21042  
 (410) 461-2095



DESIGNED BY:	B.C.R.			
DRAWN BY:	B.C.R.			
CHECKED BY:	P.W.K.			
DATE:	APRIL, 2012	BY NO.		REVISION
				DATE

WATER & SEWER MAIN EXTENSIONS TITLE SHEET	
600' SCALE MAP NO. 24/25	BLOCK NO. 6/1
F.C.C. WORK ORDER NO. 10040	
FILE NAME: WATER & SEWER MAIN EXTENSION TITLE SHEET	

HOWARD COUNTY OFFICE CAMPUS CAPITAL PROJECT J-4225 CONTRACT NO. 44-4074-D WATER & SEWER MAIN EXTENSIONS SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND		SCALE AS SHOWN
		SHEET 1 OF 6



NOTE: SEE SHEET 6 FOR SEDIMENT & EROSION CONTROL PLAN, NOTES & DETAILS

THIS DRAWING SUPERSEDES THE PREVIOUS DRAWING SIGNED IN APRIL, 2003

PLAN  
SCALE: 1" = 50'

NOTE: SEE SHEET 6 FOR SEDIMENT & EROSION CONTROL PLAN & NOTES

**OWNERS**

HOWARD COUNTY MD  
3430 COURTHOUSE DRIVE  
ELICOTT CITY, MD 21042  
410-313-4400

3330 ROGERS AVENUE LLC  
SUITE 102  
5300 DORSEY HALL DRIVE  
ELICOTT CITY, MD 21042  
443-367-0422

**DEVELOPER**

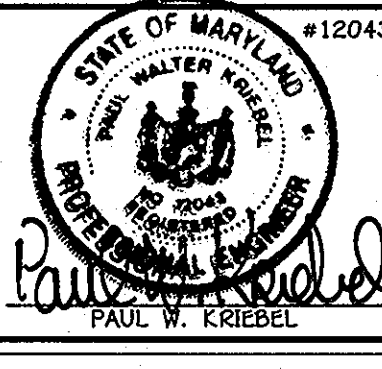
3330 ROGERS AVENUE LLC  
SUITE 102  
5300 DORSEY HALL DRIVE  
ELICOTT CITY, MD 21042  
443-367-0422

CAPITAL PROJECT J-4225  
CONTRACT NO. 44-4074-D  
HOWARD COUNTY OFFICE CAMPUS  
WATER & SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

**DEPARTMENT OF PUBLIC WORKS**  
HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* DATE: 4/19/12  
 Chief, Bureau of Engineering: *[Signature]* DATE: 4/19/12  
 Chief, Bureau of Utilities: *[Signature]* DATE: 4/20/12  
 Chief, Utility Design Division: *[Signature]* DATE: 4/19/12

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
 LICENSE NO. 12043 EXPIRATION DATE IS 7/16/12.  
**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTONAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
 ELICOTT CITY, MARYLAND 21042  
 (410) 461-2299



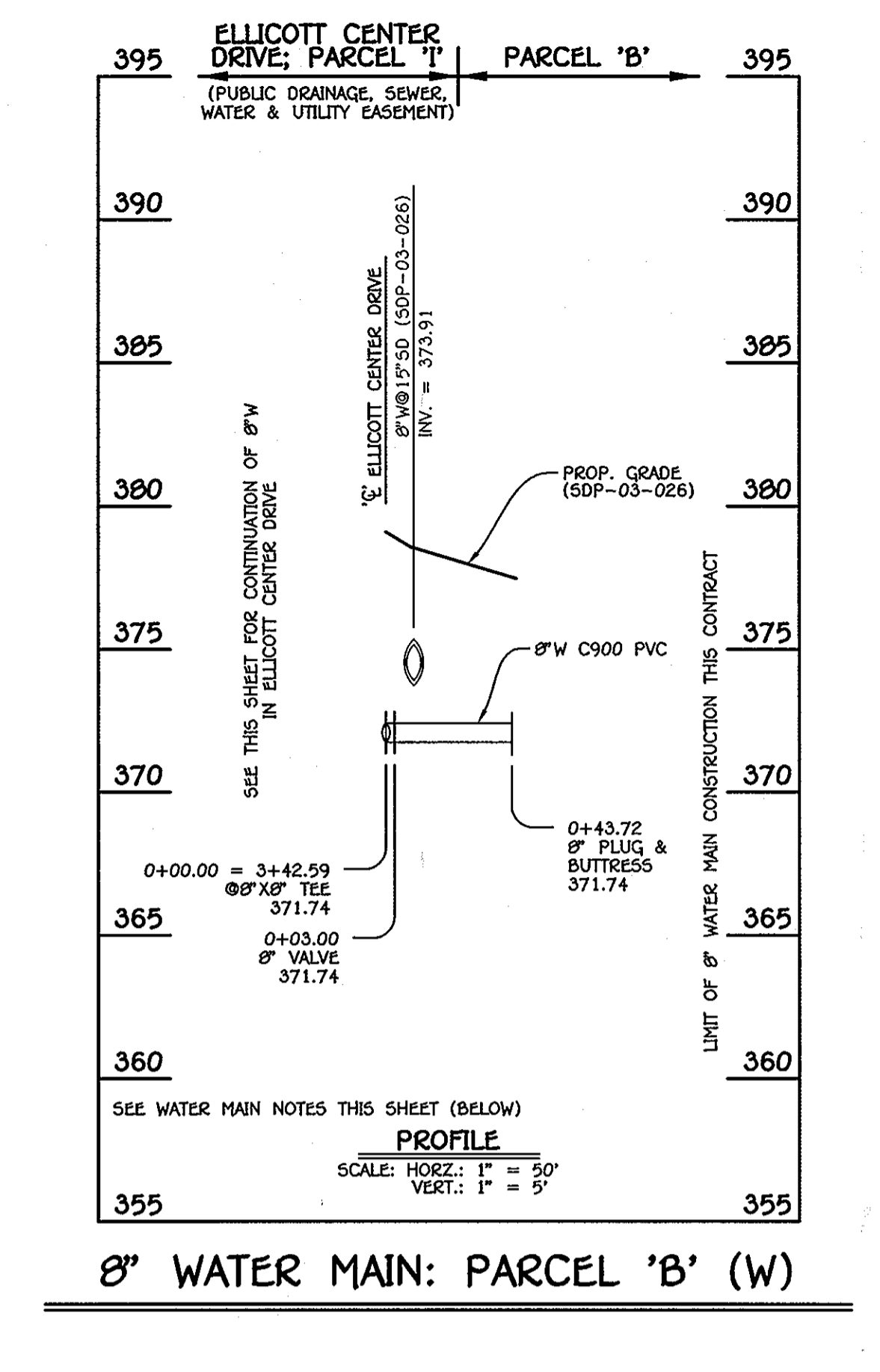
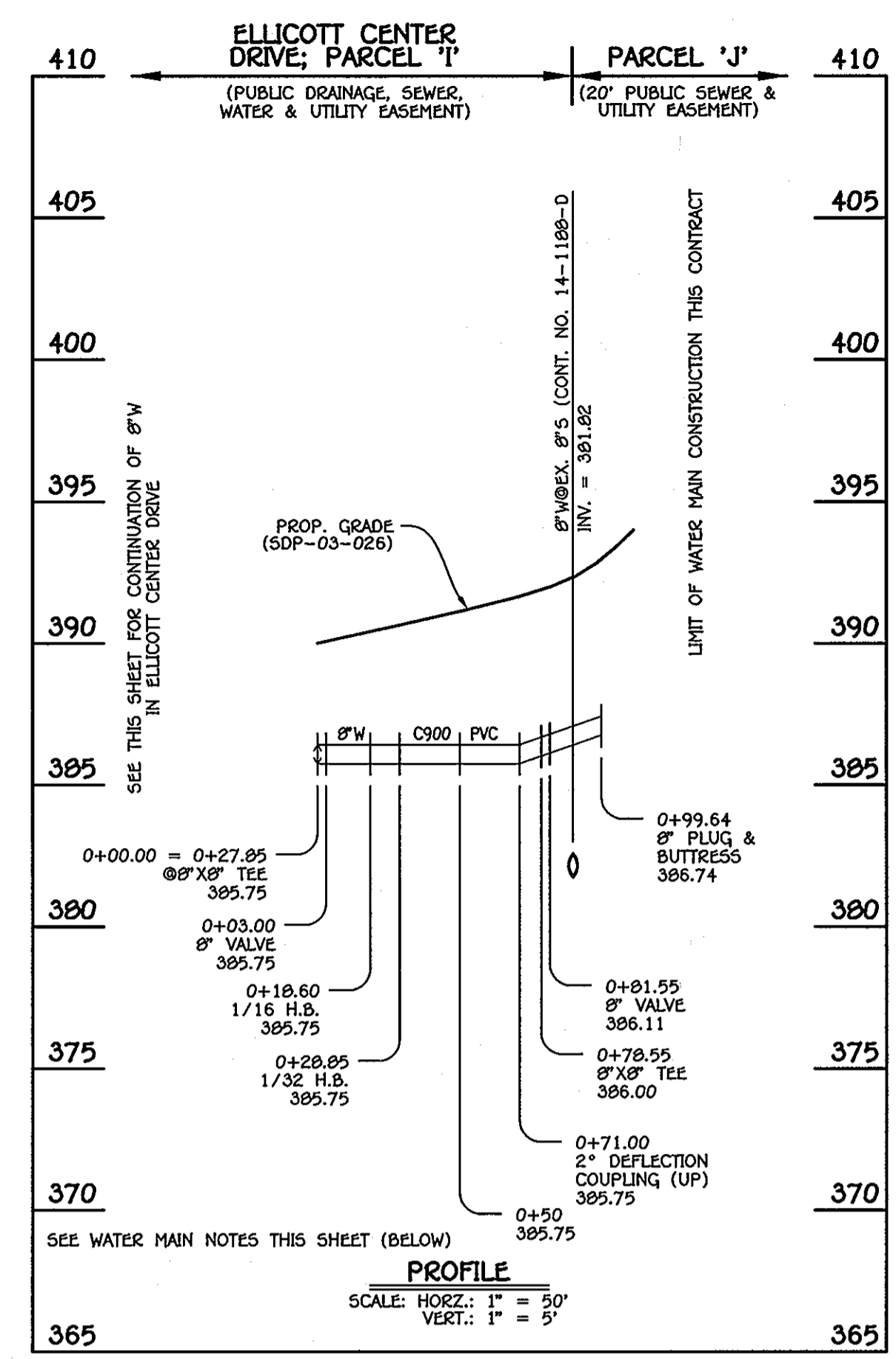
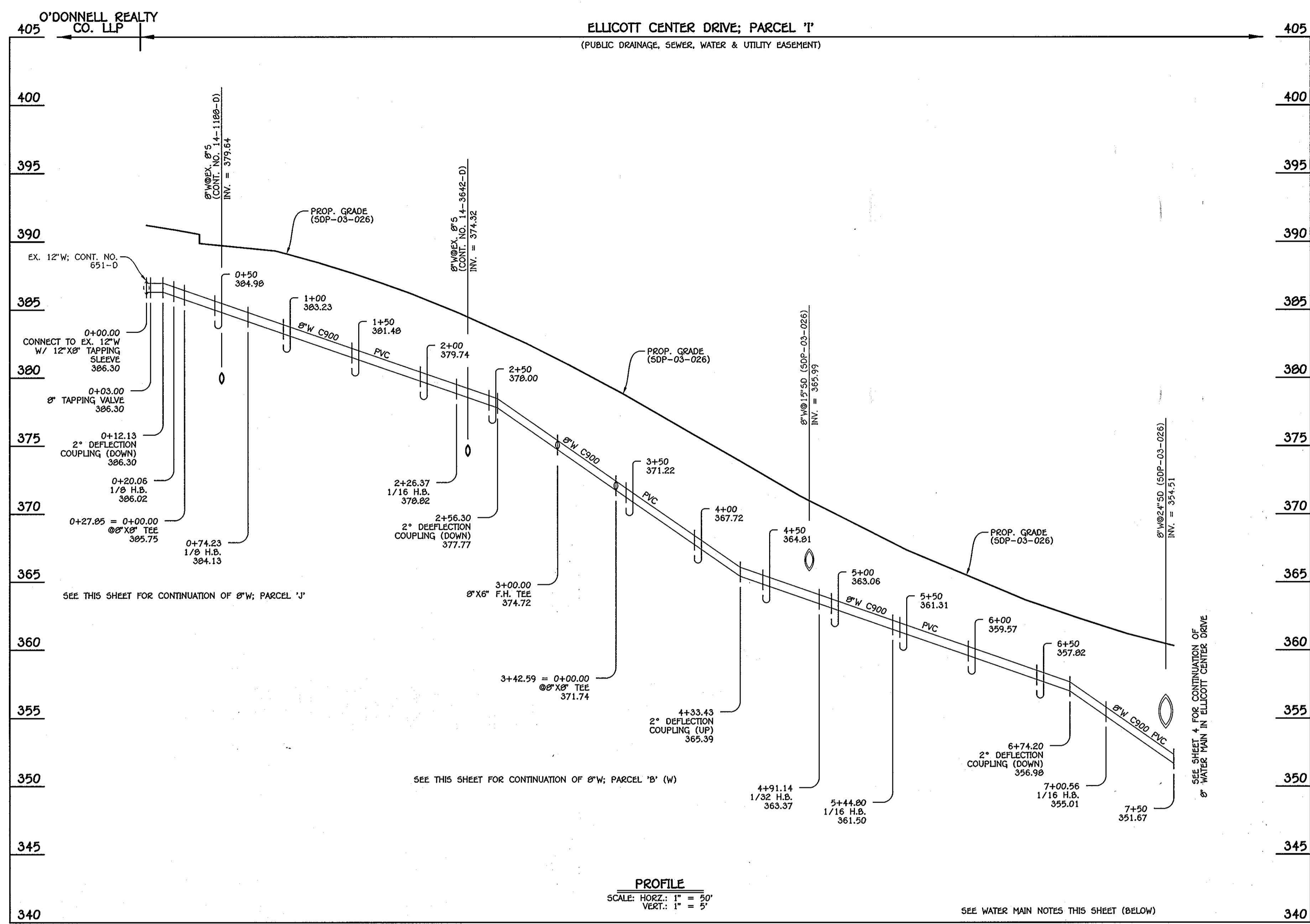
DESIGNED BY:	B.C.R.	DATE:	
DRAWN BY:	B.C.R.	DATE:	
CHECKED BY:	P.W.K.	DATE:	
DATE:	APRIL, 2012	BY:	NO.
REVISION		DATE	

<b>WATER &amp; SEWER MAIN EXTENSIONS PLAN</b>	
600' SCALE MAP NO. 24/25	BLOCK NO. 6/1
F.C.C. WORK ORDER NO. 10040	
FILE NAME: WATER & SEWER MAIN EXTENSION PLAN	

**HOWARD COUNTY OFFICE CAMPUS**  
 CAPITAL PROJECT J-4225  
 CONTRACT NO. 44-4074-D  
 WATER & SEWER MAIN EXTENSIONS  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN  
 SHEET 2 OF 6

I:\2010\10\04\04\040-5001 Water and Sewer Base Plan 40-4074 (Revised).dwg, 4/17/2012 14:05:54 AM



**8" WATER MAIN: ELlicOTT CENTER DRIVE**

W.M. STA.	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN: ELlicOTT CENTER DRIVE			
0+00.00	12" X 8" TAPPING SLEEVE	587419.62	1365263.85
0+03.00	8" TAPPING VALVE	587417.38	1365265.85
0+20.06	1/8 H.B.	587404.63	1365277.19
0+27.85	8" X 8" TEE	587404.23	1365284.97
0+74.23	1/8 H.B.	587401.84	1365331.29
2+26.37	1/16 H.B.	587504.44	1365443.63
3+00.00	8" X 6" F.H. TEE	587569.75	1365477.62
3+42.59	8" X 8" TEE	587607.53	1365497.28
4+91.14	1/32 H.B.	587739.30	1365565.87
5+44.80	1/16 H.B.	587782.54	1365597.63
7+00.56	1/16 H.B.	587866.05	1365729.12

- WATER MAIN NOTES:**
1. ALL WATER MAINS SHALL BE AWWA C900 PVC DR-14 PIPE.
  2. TRACER WIRE AND CONTINUITY TEST STATIONS SHALL BE IN ACCORDANCE WITH SECTION 1002 AND THE STANDARD DETAILS OF THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV - WATER AND SEWER STANDARDS FOR AWWA C900 PVC WATER PIPE INSTALLATION.
  3. DEFLECTION COUPLINGS SHALL BE CERTAIN-TEED PVC HIGH DEFLECTION COUPLINGS.
  4. ALL WATER HOUSE CONNECTIONS AND TAPS SHALL BE PERFORMED USING A SADDLE.

W.M. STA.	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN: PARCEL 'J'			
0+00.00	8" X 8" TEE	587404.23	1365284.97
0+03.00	8" VALVE	587401.24	1365284.81
0+18.60	1/16 H.B.	587385.66	1365284.00
0+28.85	1/32 H.B.	587376.33	1365279.77
0+78.55	8" X 8" TEE	587335.72	1365251.11
0+81.55	8" VALVE	587333.99	1365253.56
0+99.64	8" PLUG & BUTTRESS	587323.55	1365268.34

W.M. STA.	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN: PARCEL 'B' (W)			
0+00.00	8" X 8" TEE	587607.53	1365497.28
0+03.00	8" VALVE	587606.18	1365499.97
0+43.72	8" PLUG & BUTTRESS	587587.90	1365536.35

THIS DRAWING SUPERSEDES THE PREVIOUS DRAWING SIGNED IN APRIL, 2003

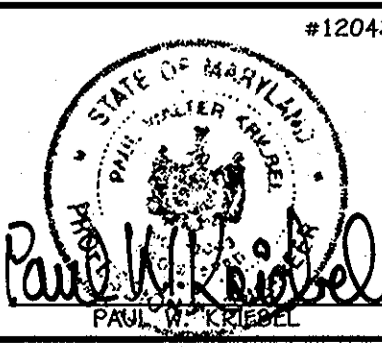
CAPITAL PROJECT J-4225  
CONTRACT NO. 44-4074-D  
HOWARD COUNTY OFFICE CAMPUS  
WATER & SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* DATE: 4/19/12  
Chief, Bureau of Engineering: *[Signature]* DATE: 4/19/12  
Chief, Utility Design Division: *[Signature]* DATE: 4/19/12

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 12043 EXPIRATION DATE IS 7/18/12.

**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTENAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PkE  
ELlicOTT CITY, MARYLAND 21042  
(410) 461-2295



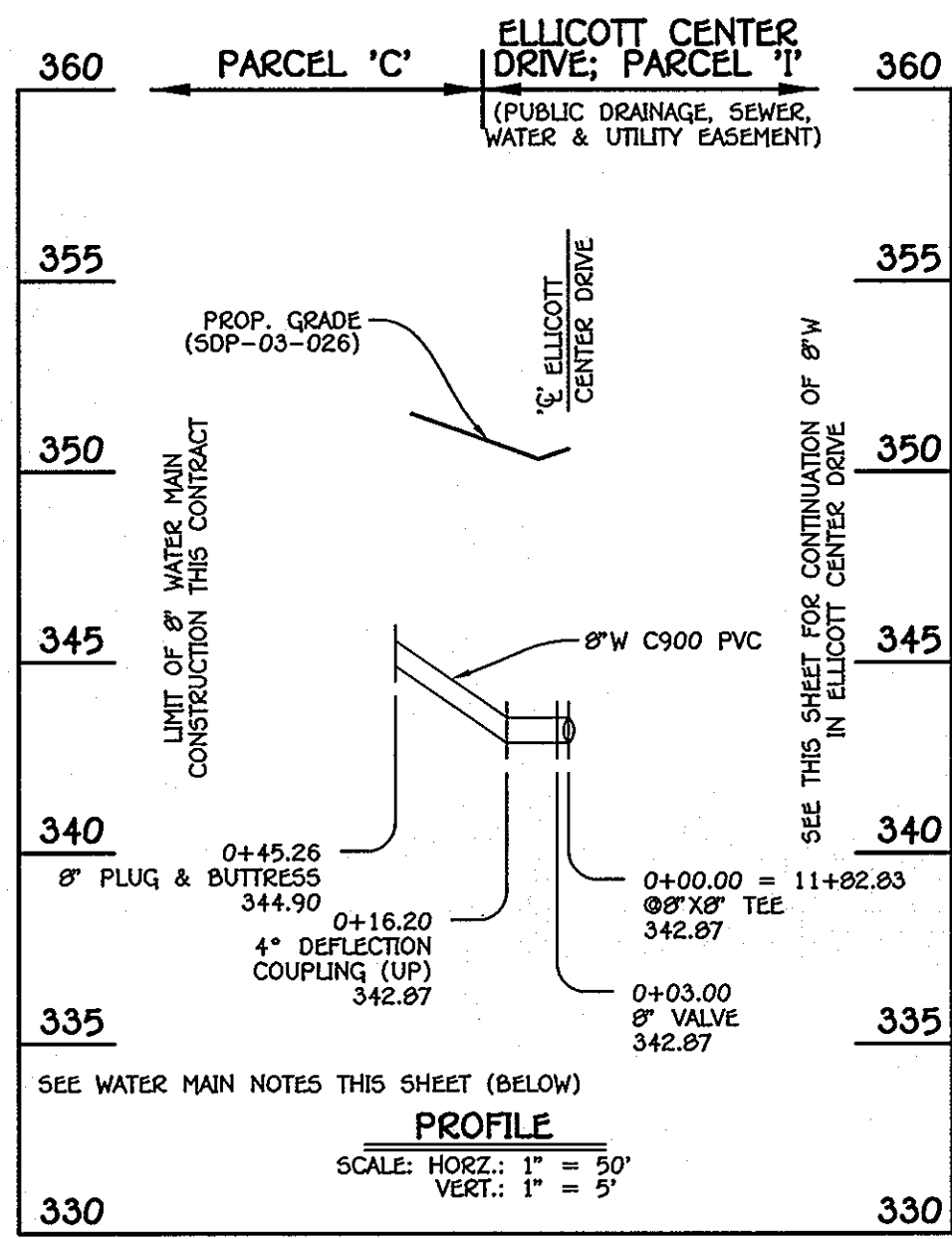
DESIGNED BY: B.C.R.  
DRAWN BY: B.C.R.  
CHECKED BY: P.W.K.  
DATE: APRIL 2012

**WATER MAIN EXTENSIONS PROFILES & CHARTS**

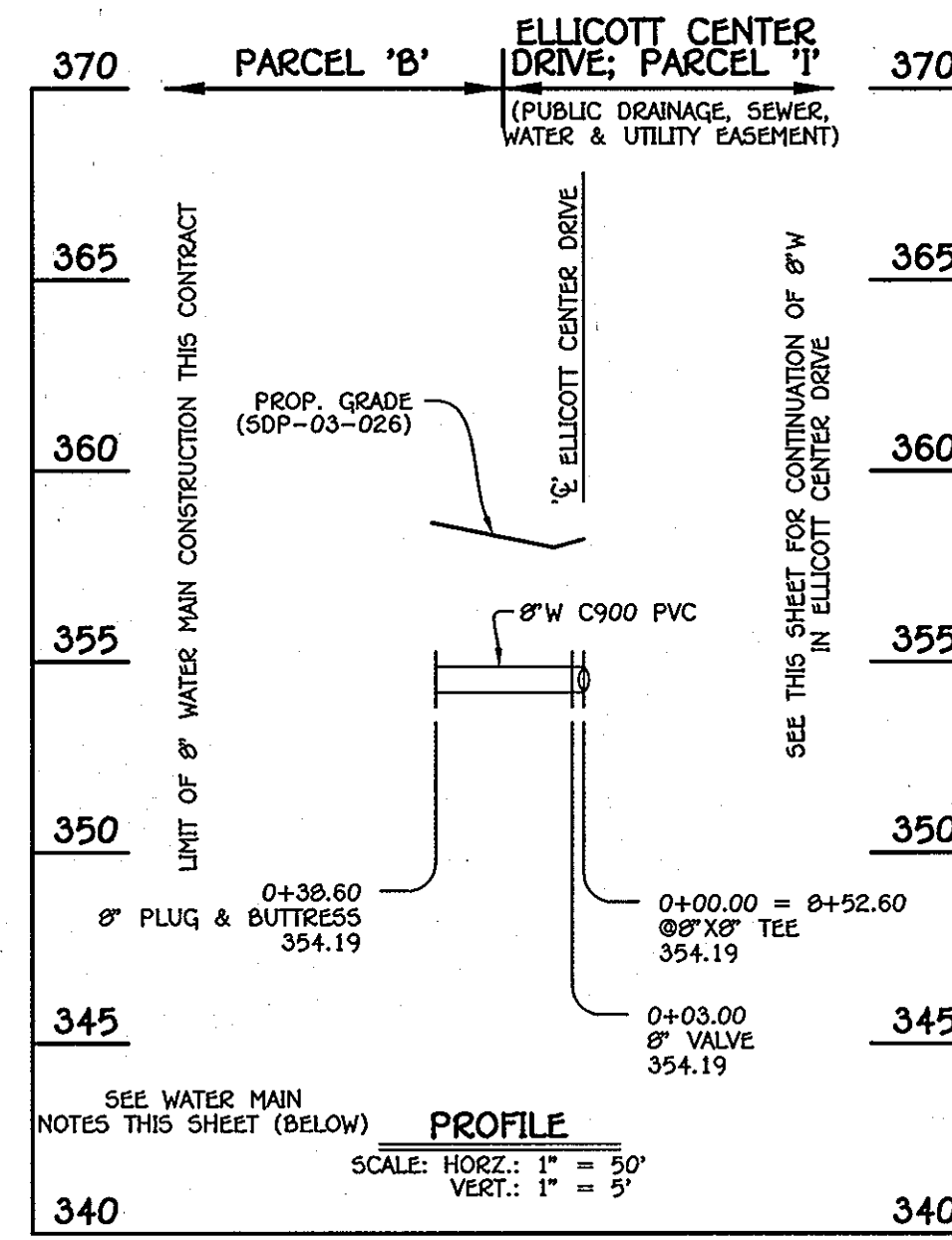
600' SCALE MAP NO. 24/25 BLOCK NO. 6/1  
F.C.C. WORK ORDER NO. 10040  
FILE NAME: WATER MAIN EXTENSION PROFILES

**HOWARD COUNTY OFFICE CAMPUS**  
CAPITAL PROJECT J-4225  
CONTRACT NO. 44-4074-D  
WATER & SEWER MAIN EXTENSIONS  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

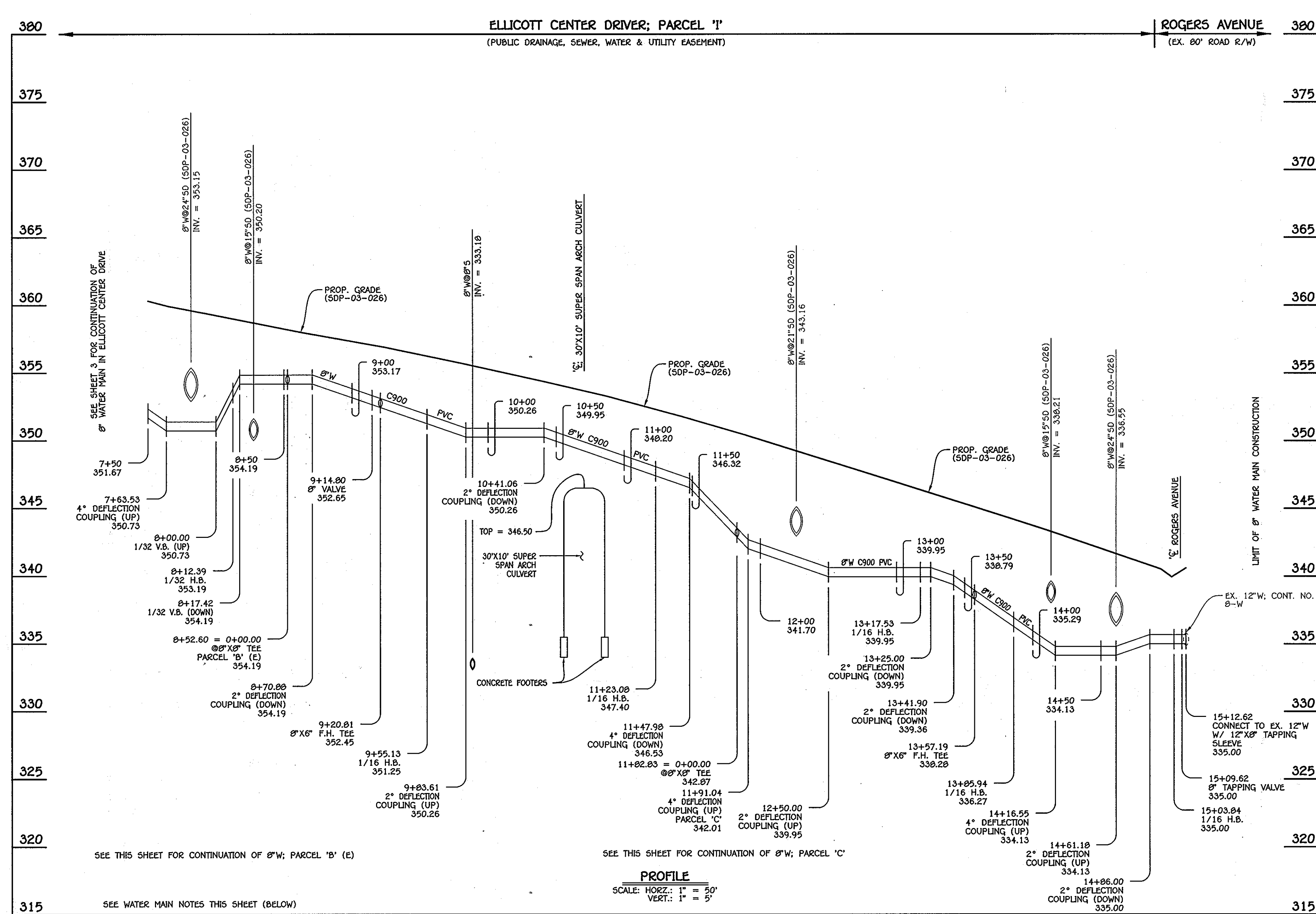
SCALE AS SHOWN  
SHEET 3 OF 6



8" WATER MAIN: PARCEL 'C'



8" WATER MAIN: PARCEL 'B' (E)



8" WATER MAIN: ELICOTT CENTER DRIVE

W.M. STA.	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN: PARCEL 'C'			
0+00.00	8" X 8" TEE	587770.06	1366176.56
0+03.00	8" VALVE	587767.98	1366174.41
0+45.26	8" PLUG & BUTTRESS	587738.60	1366144.02

W.M. STA.	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN: PARCEL 'B' (E)			
0+00.00	8" X 8" TEE	587804.54	1365879.43
0+03.00	8" VALVE	587801.56	1365879.36
0+38.60	8" PLUG & BUTTRESS	587845.97	1365878.51

W.M. STA.	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN: ELICOTT CENTER DRIVE			
8+12.39	1/32 H.B.	587886.53	1365839.24
8+52.60	8" X 8" TEE	587804.56	1365879.43
9+14.80	8" VALVE	587803.07	1365941.63
9+20.81	8" X 8" F.H. TEE	587802.93	1365947.63
9+55.13	1/16 H.B.	587802.10	1365981.94
11+23.08	1/16 H.B.	587813.02	1366135.03
11+82.83	8" X 8" TEE	587770.06	1366176.56
13+17.53	1/16 H.B.	587673.23	1366270.20
13+57.19	8" X 8" F.H. TEE	587656.54	1366306.17
13+85.94	1/16 H.B.	587644.43	1366332.24
15+03.84	1/16 H.B.	587639.48	1366450.04
15+09.62	8" TAPPING VALVE	587641.38	1366455.50
15+12.62	12" X 8" TAPPING SLEEVE	587642.37	1366458.33

- WATER MAIN NOTES:
- ALL WATER MAINS SHALL BE AWWA C900 PVC DR-14 PIPE.
  - TRACES WIRE AND CONTINUITY TEST STATIONS SHALL BE IN ACCORDANCE WITH SECTION 1002 AND THE STANDARD DETAILS OF THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV - WATER AND SEWER STANDARDS FOR AWWA C900 PVC WATER PIPE INSTALLATION.
  - DEFLECTION COUPLINGS SHALL BE CERTAIN-TEEDED PVC HIGH DEFLECTION COUPLINGS.
  - ALL WATER HOUSE CONNECTIONS AND TAPS SHALL BE PERFORMED USING A SADDLE.

THIS DRAWING SUPERSEDES THE PREVIOUS DRAWING SIGNED IN APRIL, 2003

CAPITAL PROJECT J-4225  
CONTRACT NO. 44-4074-D  
HOWARD COUNTY OFFICE CAMPUS  
WATER & SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* DATE: 4/19/12  
Chief, Bureau of Engineering: *[Signature]* DATE: 4/19/12  
Chief, Bureau of Utilities: *[Signature]* DATE: 4/21/12  
Chief, Utility Design Division: *[Signature]* DATE: 4/19/12

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 12043 EXPIRATION DATE IS 7/16/12.

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING, CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
ELICOTT CITY, HOWARD COUNTY 21114  
(410) 461-2295

DESIGNED BY: B.C.R.  
DRAWN BY: B.C.R.  
CHECKED BY: P.W.K.  
DATE: APRIL, 2012

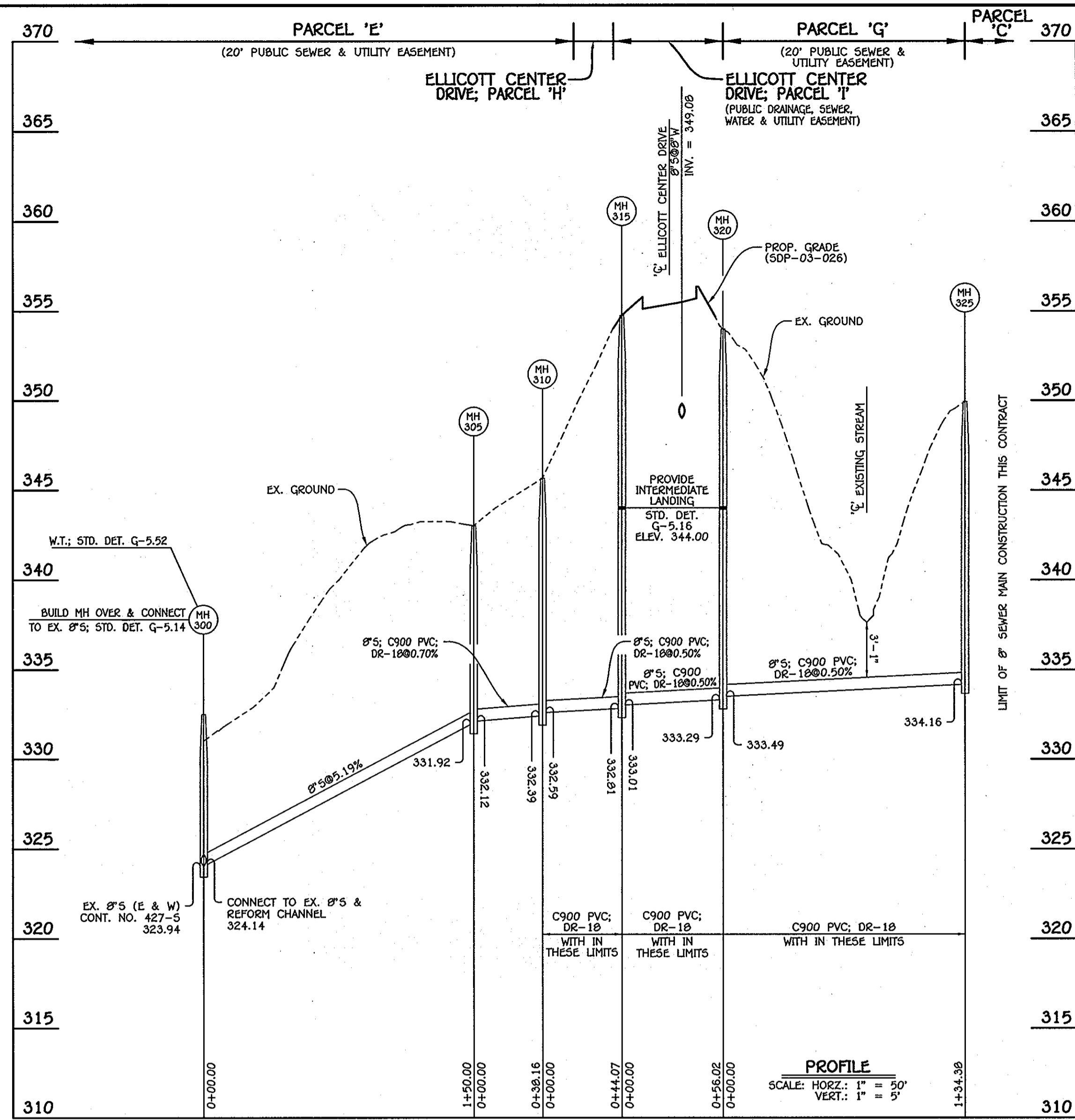
REVISION

WATER MAIN EXTENSIONS  
PROFILES & CHARTS

600' SCALE MAP NO. 24/25 BLOCK NO. 6/1  
F.C.C. WORK ORDER NO. 10040  
FILE NAME: WATER MAIN EXTENSION PROFILES

HOWARD COUNTY OFFICE CAMPUS  
CAPITAL PROJECT J-4225  
CONTRACT NO. 44-4074-D  
WATER & SEWER MAIN EXTENSIONS  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

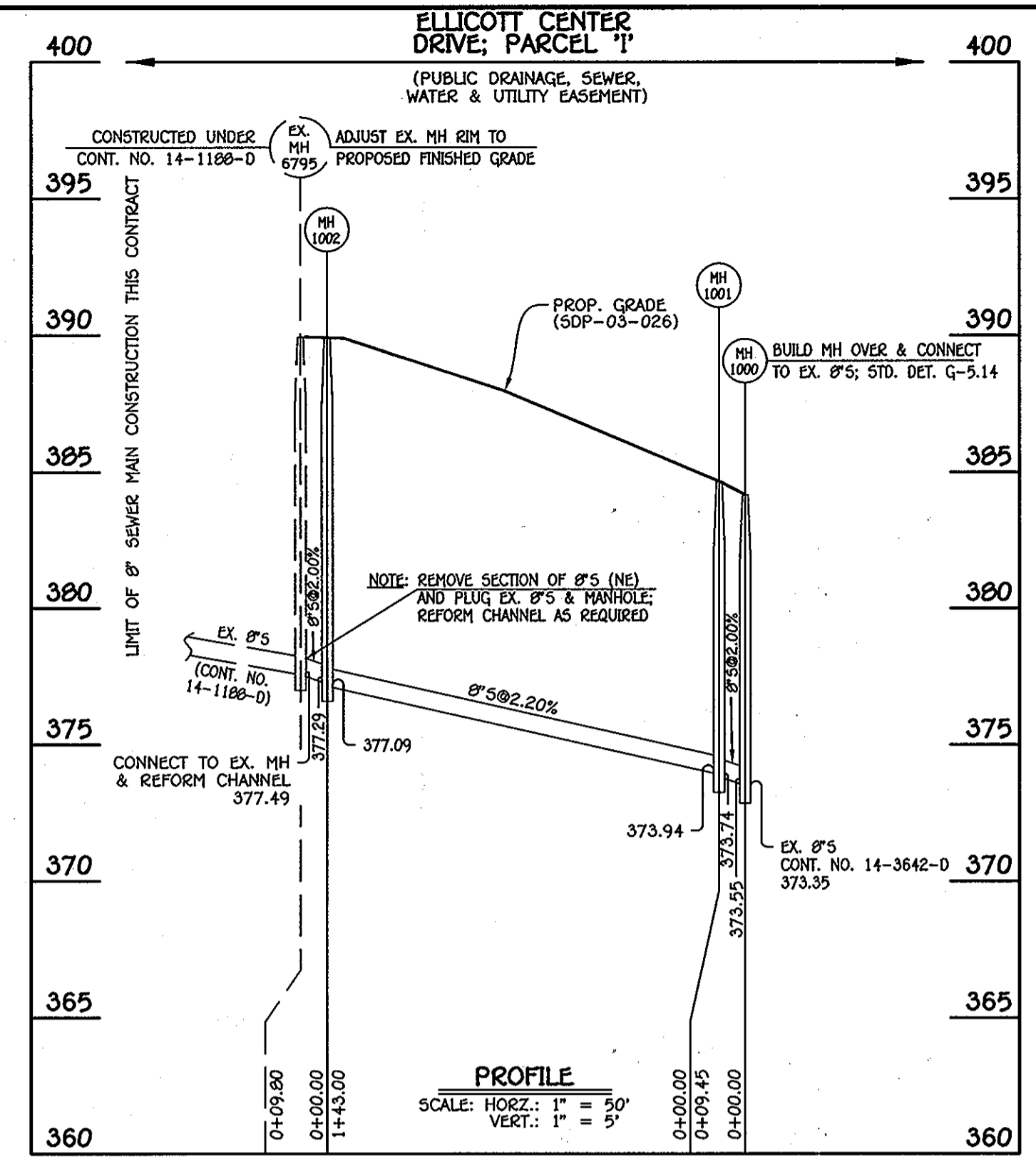
SCALE AS SHOWN  
SHEET 4 OF 6



8" SEWER MAIN; PARCEL 'C'

NO.	NORTHING	EASTING	RIM ELEVATION
300	508114.90	1366068.42	332.50 **
305	507964.98	1366068.06	343.00 *
310	507928.93	1366055.54	345.66 *
315	507900.11	1366022.19	354.51 *
320	507846.60	1366005.61	354.00 *
325	507785.06	1366125.07	350.00 *

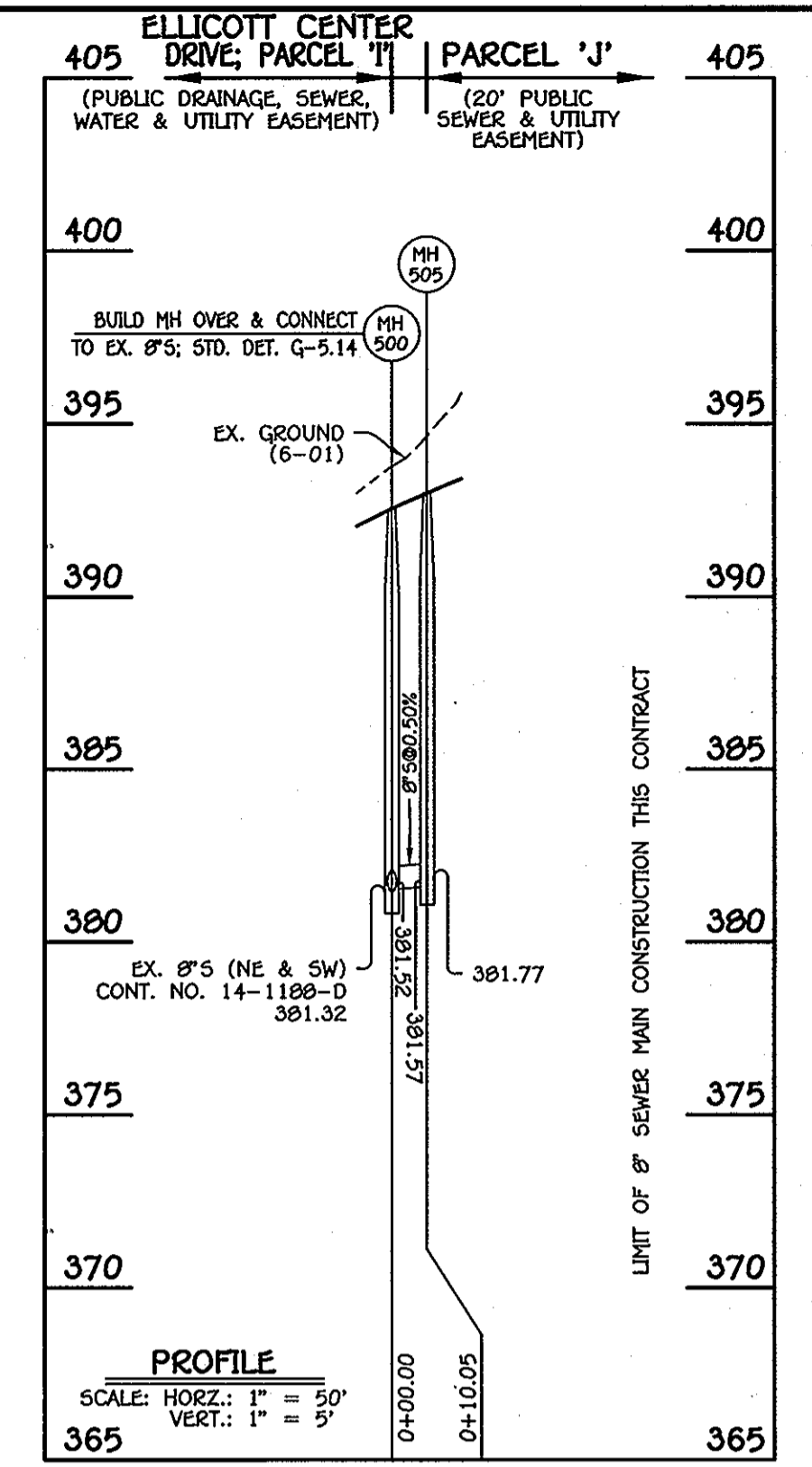
\* NOTE: SET MH RIMS FLUSH W/EXISTING GROUND OR PROPOSED GRADE AS APPLICABLE.  
 \*\* NOTE: SET MH RIM 1'-6" ABOVE EX. GROUND; STD. DET. G-5.14.



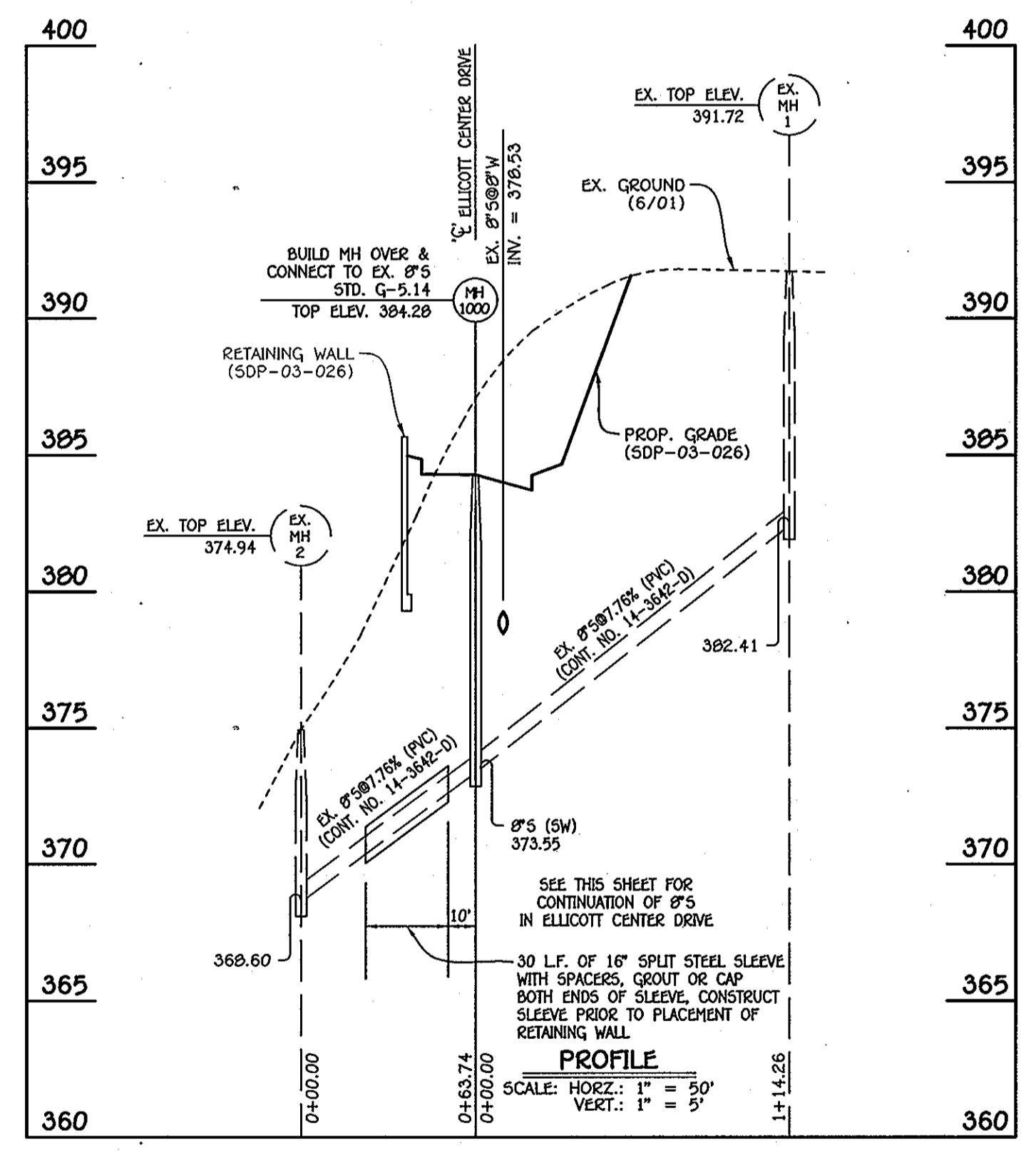
8" SEWER MAIN: ELLICOTT CENTER DRIVE

NO.	NORTHING	EASTING	RIM ELEVATION
1000	507515.77	1365438.26	384.16
1001	507507.12	1365434.45	384.65
1002	507412.04	1365327.63	389.90

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.



8" SEWER MAIN; PARCEL 'J'



STEEL SLEEVE @ EX. 8" SEWER MAIN

NO.	NORTHING	EASTING	RIM ELEVATION
500	507315.18	1365250.20	392.50
505	507309.38	1365258.41	393.00

NOTE: SET MH RIMS FLUSH W/PROPOSED GRADE.

THIS DRAWING SUPERSEDES THE PREVIOUS DRAWING SIGNED IN APRIL, 2003

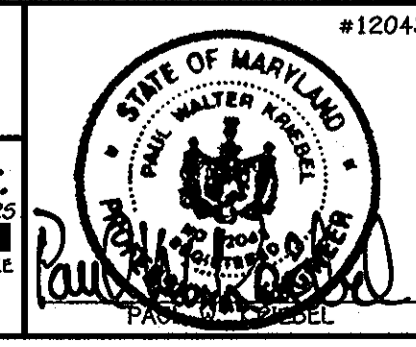
CAPITAL PROJECT J-4225  
 CONTRACT NO. 44-4074-D  
 HOWARD COUNTY OFFICE CAMPUS  
 WATER & SEWER MAIN EXTENSIONS  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* DATE: 4/19/12  
 Chief, Bureau of Engineering: *[Signature]* DATE: 4/19/12  
 Chief, Utility Design Division: *[Signature]* DATE: 4/19/12

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 12043 EXPIRATION DATE IS 7/16/12.

FISHER, COLLINS & CARTER, INC.  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MARYLAND 21142  
 (410) 461-2995



DESIGNED BY:	B.C.R.
DRAWN BY:	B.C.R.
CHECKED BY:	P.W.K.
DATE:	APRIL, 2012
BY NO.	
REVISION	

SEWER MAIN EXTENSIONS PROFILES & CHARTS	
60' SCALE MAP NO. 24/25	BLOCK NO. 6/1
F.C.C. WORK ORDER NO. 10040	
FILE NAME:	SEWER MAIN EXTENSION PROFILES

HOWARD COUNTY OFFICE CAMPUS  
 CAPITAL PROJECT J-4225  
 CONTRACT NO. 44-4074-D  
 WATER & SEWER MAIN EXTENSIONS  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
 SHEET 5 OF 6

SECTION 20 : STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

DEFINITION USING VEGETATION AS COVER FOR BARREN SOIL TO PROTECT IT FROM FORCES THAT CAUSE EROSION. VEGETATIVE STABILIZATION SPECIFICATIONS ARE USED TO PROMOTE THE ESTABLISHMENT OF VEGETATION ON EXPOSED SOIL...

CONDITONS WHERE PRACTICE APPLIES THIS PRACTICE SHALL BE USED ON DENuded AREAS AS SPECIFIED ON THE PLANS AND MAY BE USED ON HIGHLY ERODIBLE OR CRITICALLY ERODING AREAS...

EFFECTS ON WATER QUALITY AND QUANTITY PLANTING VEGETATION IN DISTURBED AREAS WILL HAVE AN EFFECT ON THE WATER BUDGET, ESPECIALLY ON VOLUMES AND RATES OF RUNOFF...

SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS

- A. SITE PREPARATION 1. INSTALL EROSION AND SEDIMENT CONTROL STRUCTURES (EITHER TEMPORARY OR PERMANENT) SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, BERMS, WATERWAYS, OR SEDIMENT CONTROL BASINS...

- B. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS) 1. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER...

- C. SEED SPECIFICATIONS 1. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED SHALL BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY...

- D. SEED MIXTURES - TEMPORARY SEEDING 1. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE 26 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE 5) AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW...

- E. METHODS OF SEEDING 1. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER). BROADCAST OR DROP SEEDING, OR A CULTIPACKER SEEDER...

- F. MULCH SPECIFICATIONS 1. STRAW SHALL CONSIST OF THOROUGHLY THRESHED WHEAT, RYE OR OAT STRAW, REASONABLY BRIGHT IN COLOR, AND SHALL NOT BE MUSTY, MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY...

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND. Includes signatures of Director of Public Works, Chief Bureau of Engineering, and Chief Utility Design Division.

SECTION 2 - TEMPORARY SEEDING

ANNUAL GRASS OR GRAM USED TO PROVIDE COVER ON THE DISTURBED AREAS FOR UP TO 12 MONTHS. FOR LONGER DURATION OF VEGETATIVE COVER, PERMANENT SEEDING IS REQUIRED.

- A. SEED MIXTURES - TEMPORARY SEEDING 1. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE 26 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE 5) AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW...

- B. METHODS OF SEEDING 1. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER). BROADCAST OR DROP SEEDING, OR A CULTIPACKER SEEDER...

- C. MULCH SPECIFICATIONS 1. STRAW SHALL CONSIST OF THOROUGHLY THRESHED WHEAT, RYE OR OAT STRAW, REASONABLY BRIGHT IN COLOR, AND SHALL NOT BE MUSTY, MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY...

Table with 5 columns: NO., SPECIES, APPLICATION RATE (lb/ac), SEEDING DATES, SEEDING DEPTHS, FERTILIZER RATE (10-10-10), LIME RATE. Includes rows for BARLEY, OATS, RYE, TALL FESCUE, PERENNIAL RYE GRASS, KENTUCKY BLUEGRASS, HARD FESCUE.

SECTION 3 - PERMANENT SEEDING

SEEDING GRASS AND LEGUMES TO ESTABLISH GROUND COVER FOR A MINIMUM OF ONE YEAR ON DISTURBED AREAS GENERALLY RECEIVING LOW MAINTENANCE.

- A. SEED MIXTURES - PERMANENT SEEDING 1. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE 25 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE 5) AND ENTER THEM IN THE PERMANENT SEEDING SUMMARY BELOW...

Table with 5 columns: NO., SPECIES, APPLICATION RATE (lb/ac), SEEDING DATES, SEEDING DEPTHS, FERTILIZER RATE (10-20-20), LIME RATE. Includes rows for TALL FESCUE, PERENNIAL RYE GRASS, KENTUCKY BLUEGRASS, HARD FESCUE.

STATE OF MARYLAND seal and professional stamps for Paul W. Roidel, Engineer, and Fisher, Collins & Carter, Inc., Civil Engineering Consultants & Land Surveyors.

SECTION 3 - PERMANENT SEEDING

SEEDING GRASS AND LEGUMES TO ESTABLISH GROUND COVER FOR A MINIMUM OF ONE YEAR ON DISTURBED AREAS GENERALLY RECEIVING LOW MAINTENANCE.

Table with 5 columns: NO., SPECIES, APPLICATION RATE (lb/ac), SEEDING DATES, SEEDING DEPTHS, FERTILIZER RATE (10-20-20), LIME RATE. Includes rows for TALL FESCUE, PERENNIAL RYE GRASS, KENTUCKY BLUEGRASS, HARD FESCUE.

SEDIMENT CONTROL NOTES

- 1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSING AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1055).

SECTION 21 : STANDARD AND SPECIFICATIONS FOR TOPSOIL

- 1. DEFINITION: PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

SEQUENCE OF CONSTRUCTION

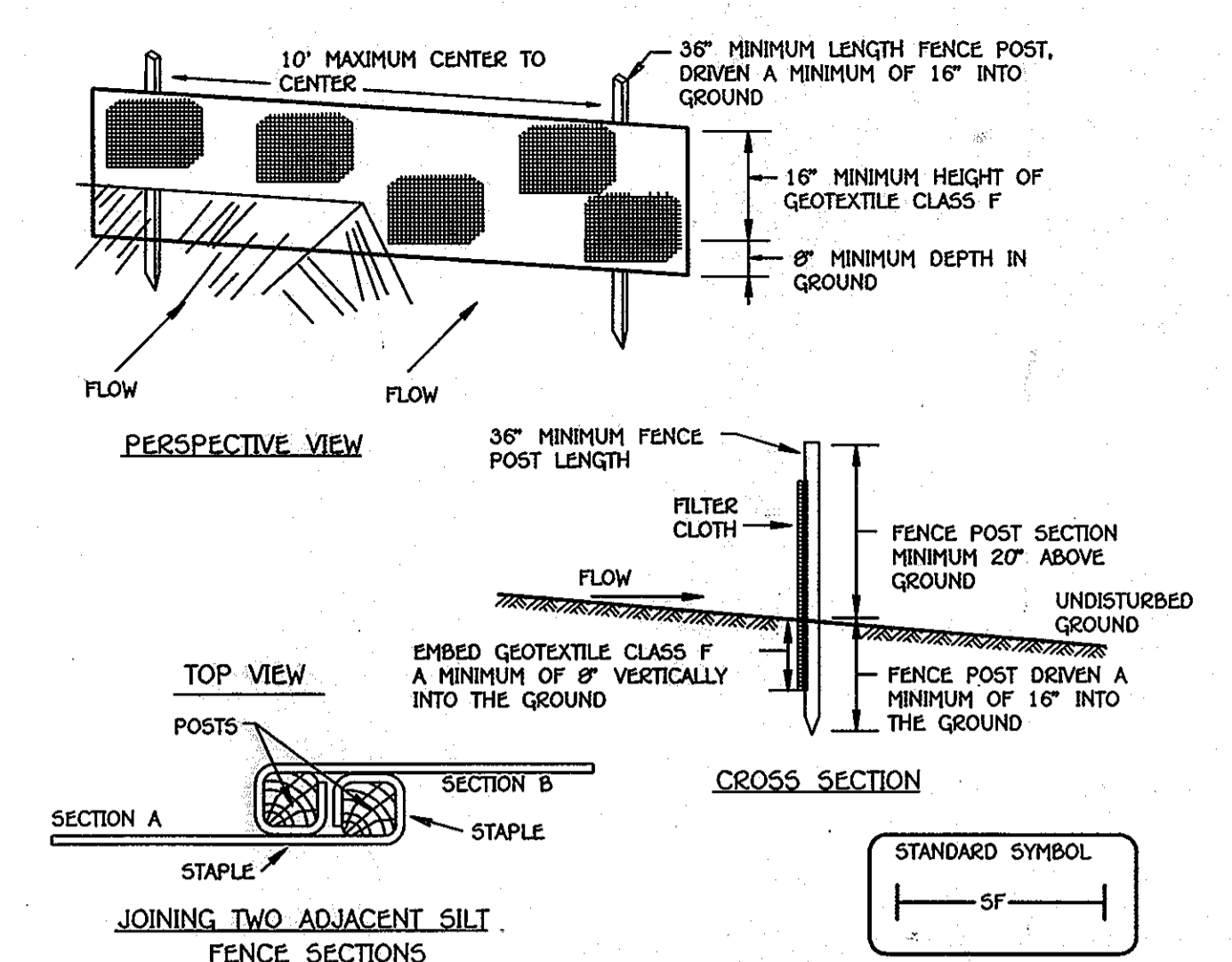
- 1. OBTAIN THE REQUIRED GRADING PERMIT.

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...

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 I WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY CONSERVATION DISTRICT.



CONSTRUCTIONS SPECIFICATIONS

- 1. FENCE POSTS SHALL BE A MINIMUM OF 36" LONG DRIVEN 16" MINIMUM INTO THE GROUND. WOOD POSTS SHALL BE 1 1/2" X 1 1/2" SQUARE (MINIMUM) CUT, OR 1 3/4" DIAMETER (MINIMUM) ROUND AND SHALL BE OF SOUND QUALITY HARDWOOD...

SILT FENCE

- 1. FENCE POSTS SHALL BE A MINIMUM OF 36" LONG DRIVEN 16" MINIMUM INTO THE GROUND. WOOD POSTS SHALL BE 1 1/2" X 1 1/2" SQUARE (MINIMUM) CUT, OR 1 3/4" DIAMETER (MINIMUM) ROUND AND SHALL BE OF SOUND QUALITY HARDWOOD...

SECTION 21 : STANDARD AND SPECIFICATIONS FOR TOPSOIL

- 1. DEFINITION: PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

SEQUENCE OF CONSTRUCTION

- 1. OBTAIN THE REQUIRED GRADING PERMIT.

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...

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 I WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY CONSERVATION DISTRICT.

HOWARD COUNTY OFFICE CAMPUS CAPITAL PROJECT J-4225 CONTRACT NO. 44-4074-D WATER & SEWER MAIN EXTENSIONS SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND. Includes scale and sheet information.