

QUANTITIES				
ITEM	ESTIMATED	QUANTITIES	AS-BUILT	SUPPLIER
12" CW 900 PVC DR-18	945 L.F.	945 L.F.	DR-18 C-900	N.AMERICAN/LB WATER
8" CW 900 PVC DR-18	88 L.F.	88 L.F.	DR-18 C-900	N.AMERICAN/LB WATER
6" CW 900 PVC DR-18	27 L.F.	27 L.F.	DR-18 C-900	N.AMERICAN/LB WATER
12" VALVE	4 EACH	4 EA.	GATE VALVE	AMERICAN/LB WATER
8" VALVE	3 EACH	3 EA.	GATE VALVE	AMERICAN/LB WATER
6" VALVE	2 EACH	2 EA.	GATE VALVE	AMERICAN/LB WATER
1/32 H.B.	3 EACH	3 EA.	M.S. E/C	TYLER/LB WATER
12" X6" TEE	3 EACH	3 EA.	M.S. E/C	TYLER/LB WATER
12" X6" TEE	3 EACH	3 EA.	M.S. E/C	TYLER/LB WATER
12" PLUG & BUTTRESS	2 EACH	2 EA.	M.S. E/C	TYLER/LB WATER
8" PLUG & BUTTRESS	2 EACH	2 EA.	M.S. E/C	TYLER/LB WATER
FIRE HYDRANT	3 EACH	3 EA.	B 0 4 B	AMERICAN/LB WATER
CONTINUITY TEST STATION	3 EACH	3 EA.	VAULT	FRISM PRECAST
4" X 12" DUCTILE IRON	20 L.F.	20 L.F.		
10" X 4" DUCTILE IRON	1 EACH	1 EA.		
1" X 4" DUCTILE IRON	1 EACH	1 EA.		
4" DUCTILE IRON	1 EACH	1 EA.		

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

PAUL W. KRIEBEL
 PROFESSIONAL ENGINEER
 03/04/16
 PAUL W. KRIEBEL #12043
 FOR: DEVELOPER

BENCHMARK INFORMATION
 B.M.#1 - HOWARD COUNTY CONTROL STATION #30CA - HORIZONTAL - (NAD '83)
 (LOCATED ALONG RAILROAD AVENUE, JUST SOUTH OF RYAN AVENUE, APPROX. 22.6' NORTH FROM THE CENTER LINE OF RAILROAD AVENUE.)
 N 555,897.3373
 E 1,390,132.0933
 ELEVATION = 80.783 - VERTICAL - (NAVD '88)
 B.M.#2 - HOWARD COUNTY CONTROL STATION #43CB - HORIZONTAL - (NAD '83)
 (LOCATED ALONG THE SOUTHWEST CORNER OF DORSEY ROAD, APPROX. 2.2' OFF THE EDGE OF PAVING, APPROX. 46.7' EAST OF POWER POLE NO. 19)
 N 552,084.2466
 E 1,382,282.4190
 ELEVATION = 144.391 - VERTICAL - (NAVD '88)

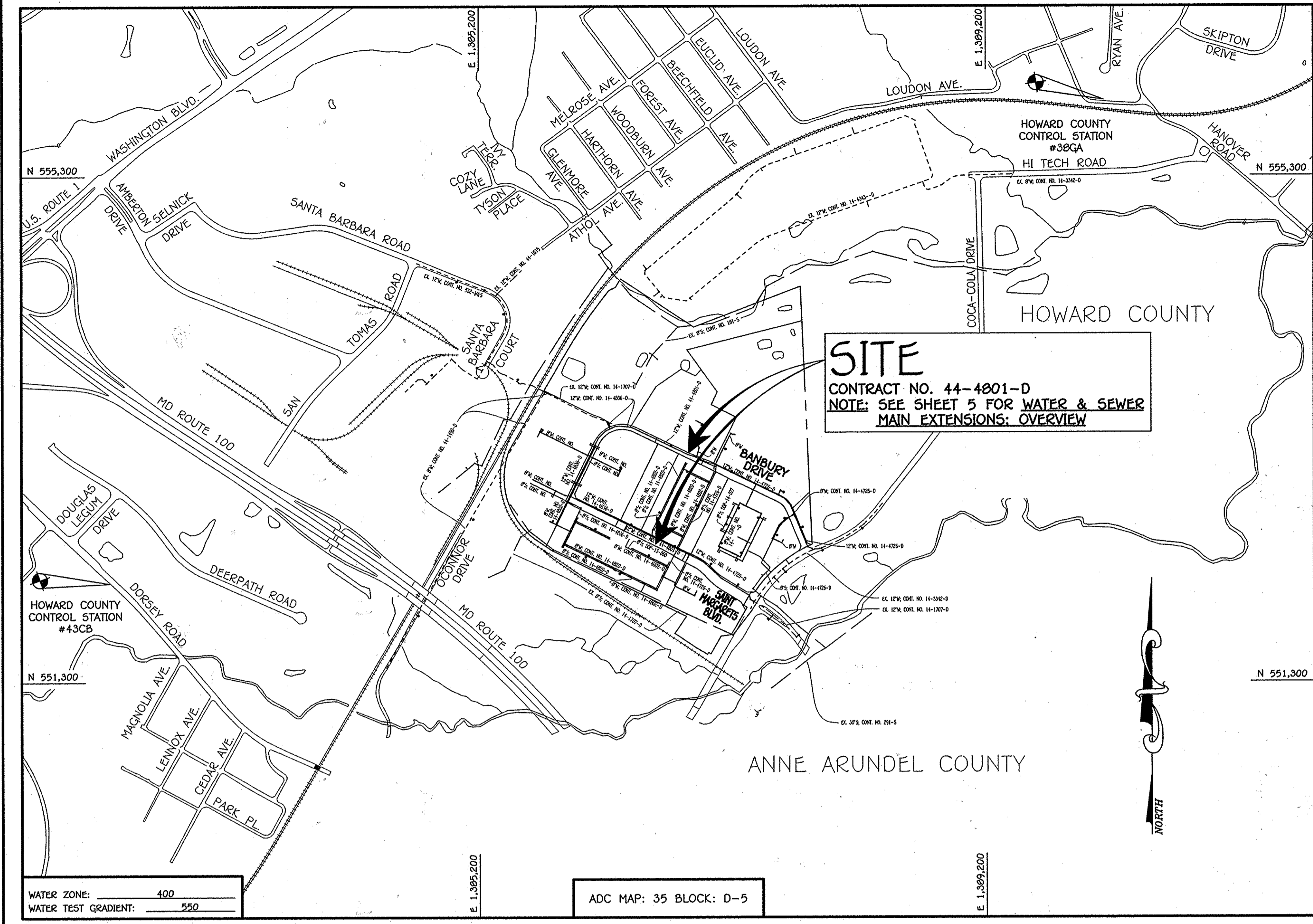
DEVELOPER'S CERTIFICATION
 I/WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE DEPARTMENT 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 COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.
Paul W. Kriebel, FOR:
PRESTON-SCHEFFENACKER PROPERTIES 12/16/13
 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 COUNTY SOIL CONSERVATION DISTRICT.
Paul W. Kriebel
 SIGNATURE OF ENGINEER
 12-16-13
 DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE HOWARD COUNTY DESIGN MANUAL - VOLUME IV: STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION AND AS SHOWN ON THE ROAD CONSTRUCTION PLAN, F-13-095.
Paul W. Kriebel, FOR:
PRESTON-SCHEFFENACKER PROPERTIES 12/16/13
 SIGNATURE OF DEVELOPER

F-13-095
 THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD COUNTY CONSERVATION DISTRICT.
 APPROVED:
John R. Collette
 CHIEF, BUREAU OF UTILITIES
 12/16/13
 DATE

LEGEND	
SYMBOL	DESCRIPTION
---	EX. WATER MAIN
---	EX. SEWER MAIN
○	EX. SEWER MANHOLE
---	EX. WATER, SEWER & UTILITY EASEMENT
+	EX. FIRE HYDRANT
○	EX. VALVE
---	PROP. WATER MAIN
---	PROP. SEWER MAIN
○	PROP. SEWER MANHOLE
---	PROP. WATER, SEWER & UTILITY EASEMENT
---	PROP. WHC
---	PROP. SHC
○	PROP. FIRE HYDRANT
○	PROP. VALVE



TYPE OF BUILDING:	N/A
NUMBER OF PARCELS:	N/A
NO. OF WATER HOUSE CONNECTIONS:	N/A
NO. OF SEWER HOUSE CONNECTIONS:	N/A
SEWER SHED:	PATAPSCO
TREATMENT PLANT:	PATAPSCO WASTEWATER TREATMENT PLANT CITY OF BALTIMORE

LOCATION MAP
 SCALE: 1" = 60'

PLAN REFERENCE NUMBERS:
 F-13-095 (PUBLIC ROAD PLANS & RECORDED PLAN)

CONTRACT NO. 44-4801-D

OXFORD SQUARE

SAINT MARGARETS BOULEVARD

(Sta. 6+62.30 to Sta. 12+52.60) &

BANBURY DRIVE

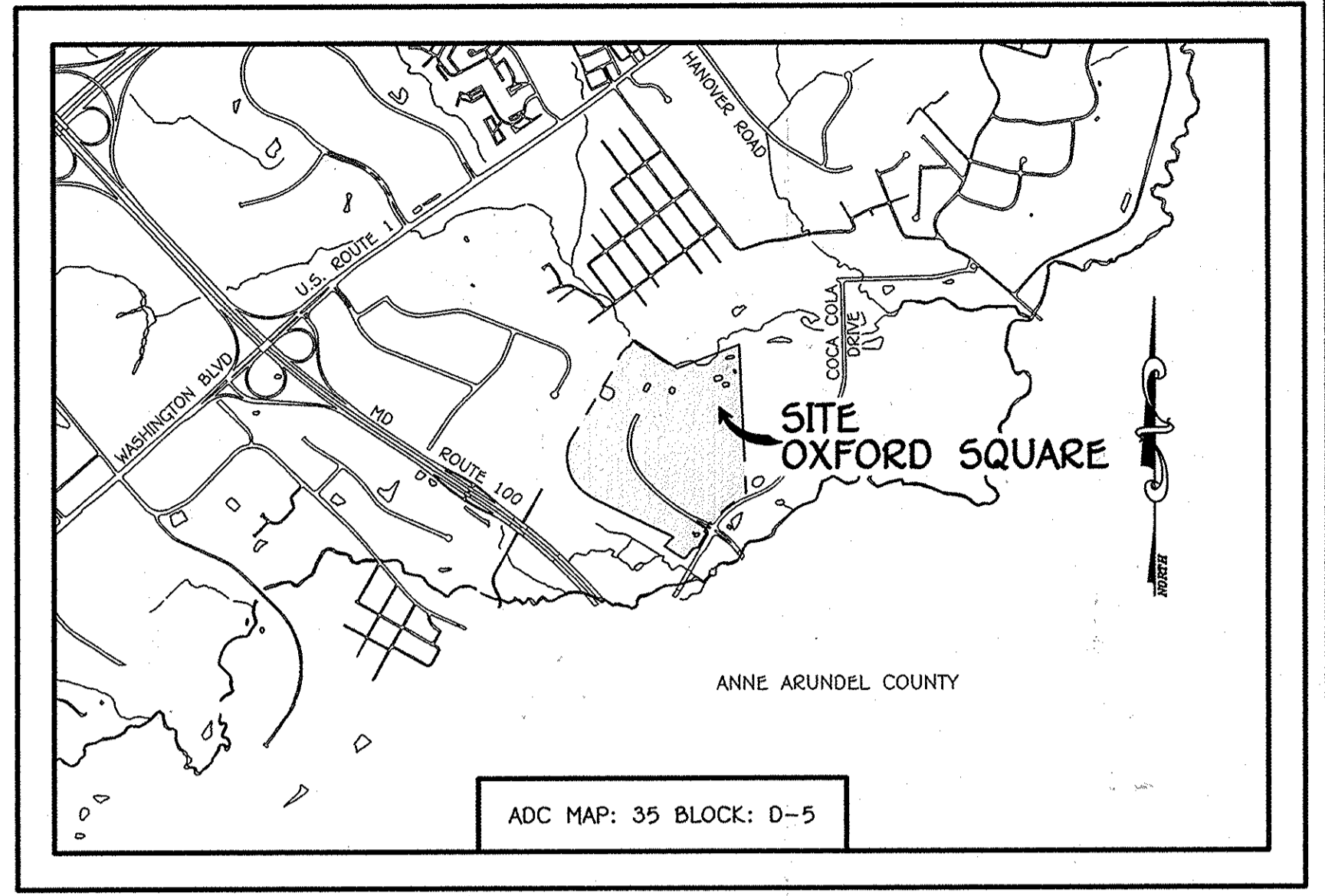
(Sta. 11+98 to Sta. 15+60.84)

WATER MAIN EXTENSIONS

HOWARD COUNTY, MARYLAND

OWNER
 KELLOGG-CCP, LLC
 c/o DAVID P. SCHEFFENACKER, JR.
 MANAGING MEMBER
 2330 WEST JOPPA ROAD, SUITE 190
 LUTHERVILLE, MARYLAND 21093-4614
 PHONE - 410-296-3800

DEVELOPER
 PRESTON-SCHEFFENACKER PROPERTIES
 2330 WEST JOPPA ROAD, SUITE 190
 LUTHERVILLE, MARYLAND 21093-4614
 PHONE - 410-296-3800



GENERAL NOTES

VICINITY MAP
 SCALE: 1" = 2000'

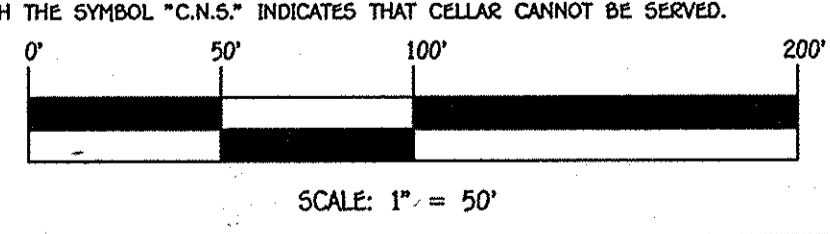
- APPROXIMATE LOCATIONS OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED ON OR ABOUT MAY, 2010 BY FISHER, COLLINS & CARTER, INC.
- HORIZONTAL AND VERTICAL SURVEY CONTROLS ARE SHOWN. 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. 38GA & NO. 43CB.
- ALL VERTICAL CONTROLS ARE SHOWN. 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 OBTAINED ALL NECESSARY PERMITS AND AGREEMENTS FOR 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 (S) 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:
 - BGE (CONTRACTOR SERVICES) 1-800-252-1133
 - BGE (EMERGENCY) 410-637-8713
 - BUREAU OF UTILITIES 410-313-4900
 - COLONIAL PIPELINE CO 1-800-257-7777
 - HESS UTILITY 410-795-1390
 - STATE HIGHWAY ADMINISTRATION 410-531-2533
 - VERIZON 1-800-745-0033 / 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 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 BORROWING OF ANY COUNTY ROAD FOR LAYING WATER/SEWER MAINS IN ACCORDANCE WITH THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.11(A) OF THE HOWARD COUNTY CODE.

PART B: WATER MAIN GENERAL NOTES

- ALL WATER MAINS SHALL BE AWMA C900 PVC, DR-18.
- TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STAPPED 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 AWMA 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 HANGERS. 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.
- PROPER ASSEMBLY OF GASKETED PVC PIPE JOINTS: THE MANUFACTURER'S INSERTION LINE OF GASKETED PVC PIPE JOINTS INDICATES THE MAXIMUM DEPTH OF INSERTION OF THE BELL AFTER ASSEMBLY OF THE JOINT. THE INSERTION LINE SHALL REMAIN VISIBLE. DUAL INSERTION LINES ON GASKETED PVC PIPE INDICATE THE MAXIMUM AND MINIMUM DEPTH OF INSERTION OF THE SPIGOT INTO THE BELL. THE CONTRACTOR SHALL NOT OVER INSERT OR OVER HOME THE SPIGOT INTO THE BELL OF PVC PIPE.
- ALL CHANGES IN HORIZONTAL OR VERTICAL DIRECTION OF PVC WATER PIPE SHALL BE MADE WITH STANDARD BENDS, 5-DEGREE SWEEPS OR HIGH DEFLECTION(HD) COUPLINGS. NO BENDING OF THE PIPE OR DEFLECTING OF PVC PIPE JOINTS IS PERMITTED, WHERE HIGH DEFLECTION COUPLINGS OR 5-DEGREE SWEEPS ARE PERMITTED. THE CONTRACTOR SHALL PROVIDE ONE FULL PIPE LENGTH (20 FOOT LONG) ON EITHER SIDE OF THE HIGH DEFLECTION COUPLING OR 5-DEGREE SWEEP, TAKING CARE NOT TO USE COMPACTION EQUIPMENT DIRECTLY OVER THE FITTING.
- PVC HIGH DEFLECTION COUPLINGS SHALL BE LIMITED TO A TOTAL OF 3-DEGREES (1 1/2-DEGREE ON EITHER END OF THE COUPLING). SHALL BE RATED FOR A MINIMUM 200 PSI MEETING THE REQUIREMENTS OF AWMA C900, SHALL HAVE A MINIMUM LAY LENGTH OF 36-INCHES AND SHALL HAVE CENTER STOPS. PVC HIGH DEFLECTION COUPLINGS SHALL BE CERTAINTED PVC HIGH DEFLECTION (HD) STOP COUPLINGS OR EQUAL.
- FIVE DEGREE SWEEPS SHALL BE BELL BY SPIGOT, RATED FOR A MINIMUM 225 PSI, DR-18 MEETING THE REQUIREMENTS OF AWMA C900 AND SHALL BE MULTI FITTINGS (PEX) BLUE BRUTE DR-18 OR EQUAL.
- WHEN PVC HIGH DEFLECTION COUPLINGS OR PVC 5-DEGREE SWEEPS ARE USED TO FACILITATE CHANGES IN HORIZONTAL OR VERTICAL ALIGNMENTS OF AWMA C900 PVC PIPELINES, THE CONTRACTOR SHALL INSERT DEVICES FOR THE PREVENTION OF OVER-INSERTION OF THE PVC PIPE SPIGOTS OR PLAIN ENDS INTO THE PUSH ON BELL JOINT ON BOTH SIDES OF THE HIGH DEFLECTION COUPLINGS AND 5-DEGREE SWEEPS. BELL STOPS SHALL BE PLACED AT THE PROPER INSERTION LINE FOR THE FITTING. THE BELL STOP SHALL BE MANUFACTURED OF DUCTILE IRON AND INCORPORATE AN EXPANSION RETENTION SPRING TO ALLOW FOR PIPE EXPANSION AND CONTRACTION. THE BELL STOPS SHALL BE SERIES 5000 MEGA-STOP, AS MANUFACTURED BY EBMA IRON, INC. OR APPROVAL EQUAL.

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 18" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER-TIGHT FRAME AND COVER, STANDARD DETAIL 05.52.
- WHERE WATER-TIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-0" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
John R. Collette
 CHIEF, BUREAU OF UTILITIES
 12/16/13
 DATE

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND
Paul W. Kriebel
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 12/16/13
 DATE

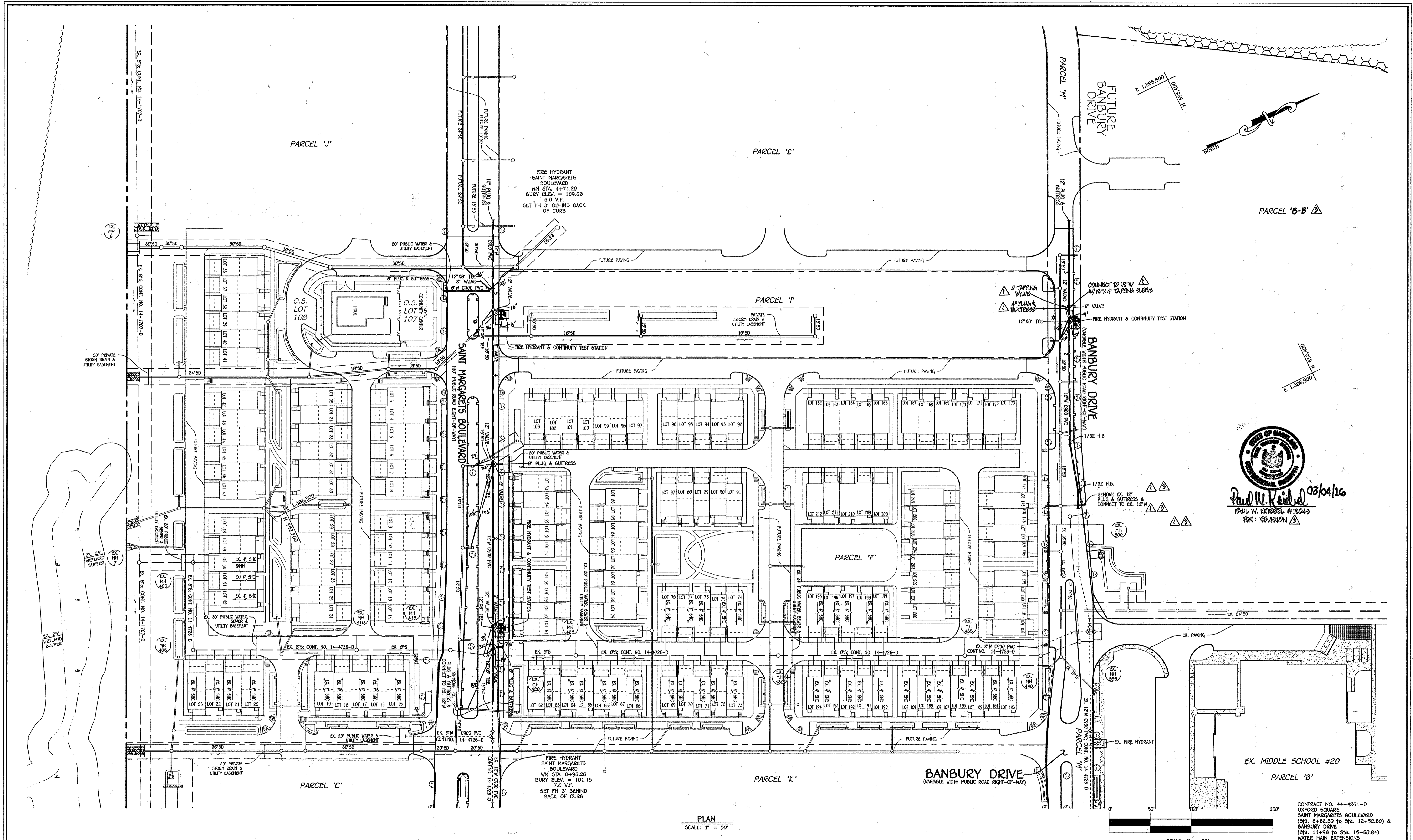
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 12043 EXPIRATION DATE IS 7/16/14.
FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CONTINENTAL SQUARE OFFICE PARK - 10722 BALTHORE NATIONAL PIKE
 SUITE 201, MARYLAND 21042
 (410) 461-2255

PAUL W. KRIEBEL
 PROFESSIONAL ENGINEER
 12043

DESIGNED BY:	B.C.R.
DRAWN BY:	B.C.R.
CHECKED BY:	P.W.K.
DATE:	DECEMBER, 2013
BY NO.	
REVISION	

WATER MAIN EXTENSIONS TITLE SHEET
 600' SCALE MAP NO. 38 BLOCK NO. 19 & 20
 F.C.C. WORK ORDER NO. 09014-3002
 FILE NAME: WATER & SEWER MAIN EXTENSION PLAN

OXFORD SQUARE
 SAINT MARGARETS BOULEVARD (Sta. 6+62.30 to Sta. 12+52.60) & BANBURY DRIVE (Sta. 11+98 to Sta. 15+60.84)
 WATER MAIN EXTENSIONS
 CONTRACT NO. 44-4801-D
 FIRST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SCALE AS SHOWN
 SHEET 1 OF 5



PLAN
SCALE: 1" = 50'

Paul W. Kriebel 08/04/16
 PAUL W. KRIEBEL #12043
 P.E. - RESIDION

CONTRACT NO. 44-4801-D
 OXFORD SQUARE
 SAINT MARGARETS BOULEVARD
 (Sta. 6+62.30 to Sta. 12+52.60) &
 BANBURY DRIVE
 (Sta. 11+98 to Sta. 15+60.84)
 WATER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

 CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND

 CHIEF, DEVELOPMENT ENGINEERING DIVISION

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 5/7/16/14.

 FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 12723 BALDWIN NATIONAL Pk. ELLICOTT CITY, MARYLAND 21042 (410) 461-2295

#12043

 PAUL W. KRIEBEL

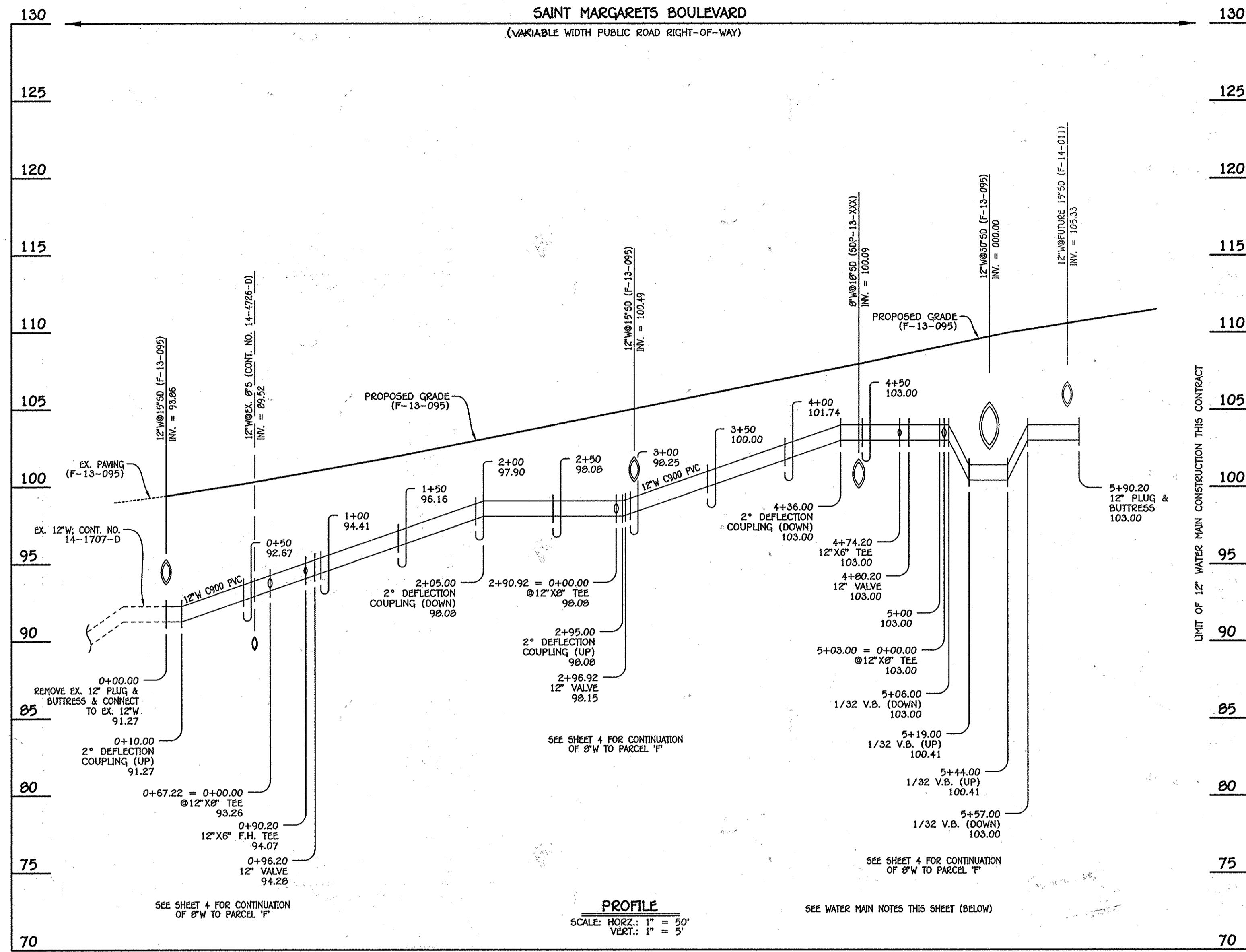
DESIGNED BY:	B.C.R.
DRAWN BY:	B.C.R.
CHECKED BY:	P.W.K.
DATE:	DECEMBER, 2013
BY NO.	NO.
REVISION	REVISION
DATE	DATE
FILE NAME:	WATER & SEWER MAIN EXTENSION PLAN

WATER MAIN EXTENSIONS PLAN
 600' SCALE MAP NO. 30 BLOCK NO. 19 & 20
 F.C.C. WORK ORDER NO. 09014-3002

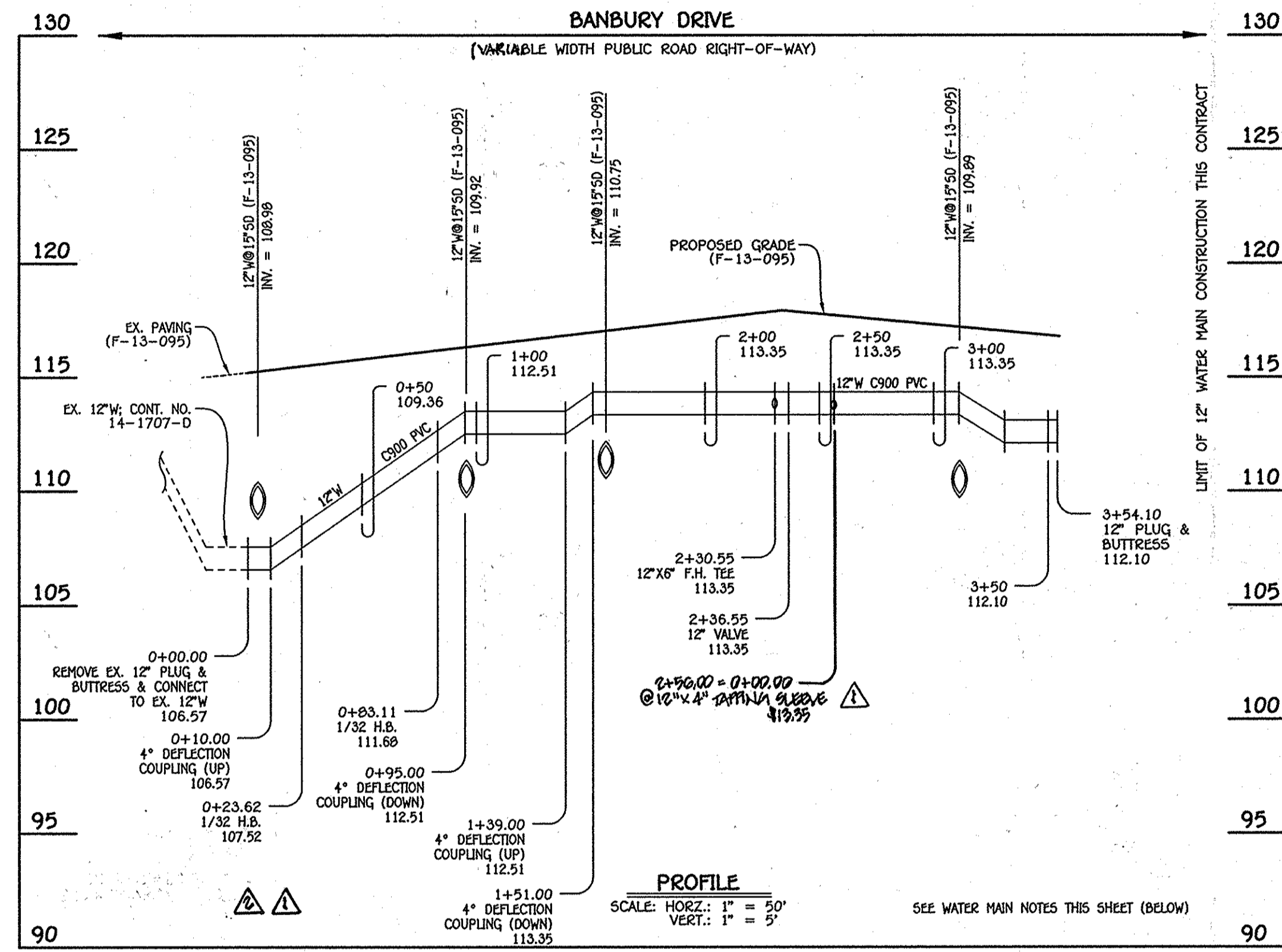
OXFORD SQUARE
 SAINT MARGARETS BOULEVARD (Sta. 6+62.30 to Sta. 12+52.60) &
 BANBURY DRIVE (Sta. 11+98 to Sta. 15+60.84)
 WATER MAIN EXTENSIONS
 CONTRACT NO. 44-4801-D
 FIRST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 2 OF 5

E:\2009\09014.dwg - Sewer Contracts\3002 - Contract No. 44-4801-D (F-13-0953)\Files\09014-3002 Water and Sewer Contract Plan - Phase 2.dwg, Plan Sheet 2, 12/1/2013, 12:26:27 PM



12" WATER MAIN: SAINT MARGARETS BOULEVARD



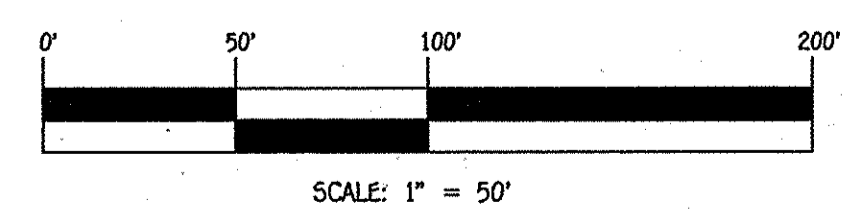
12" WATER MAIN: BANBURY DRIVE

WATER MAIN TABULATION CHART			
W.M. STA.	APPURTENANCE	NORTHING	EASTING
12" WATER MAIN: SAINT MARGARETS BOULEVARD			
0+00.00	EX. 12" PLUG & BUTTRESS	552319.80	1386828.36
0+67.22	12" X6" TEE	552353.96	1386759.29
0+90.20	12" X6" F.H. TEE	552364.13	1386738.68
0+96.20	12" VALVE	552336.78	1386833.30
2+90.92	12" X6" TEE	552452.94	1386558.68
2+96.92	12" VALVE	552455.60	1386553.30
4+74.20	12" X6" F.H. TEE	552534.04	1386394.32
4+80.20	12" VALVE	552536.69	1386388.94
5+03.00	12" X6" TEE	552546.78	1386368.49
5+90.20	12" PLUG & BUTTRESS	552585.36	1386290.29

WATER MAIN TABULATION CHART			
W.M. STA.	APPURTENANCE	NORTHING	EASTING
12" WATER MAIN: BANBURY DRIVE			
0+00.00	EX. 12" PLUG & BUTTRESS	553069.80	1386922.81
0+23.62	1/32" H.B.	553080.15	1386901.57
0+83.11	1/32" H.B.	553096.86	1386844.49
2+30.55	12" X6" F.H. TEE	553096.85	1386844.48
2+36.55	12" VALVE	553161.47	1386711.98
3+54.10	12" PLUG & BUTTRESS	553215.62	1386600.90
2+56.00	12" X4" DAMPA SLEAVE	553168.40	1386697.97

- WATER MAIN NOTES:**
1. ALL WATER MAINS SHALL BE AWWA C900 PVC PIPE, DR-18.
 2. ALL PIPE BEDDING, TRACER WIRE, LOCATING TAPE AND OTHER APPURTENANCES SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV - WATER AND SEWER STANDARDS FOR AWWA C900 PVC WATER PIPE INSTALLATION.
 3. DEFLECTION COUPLINGS SHALL BE CERTAIN-TYED PVC HIGH DEFLECTION COUPLINGS.
 4. ALL WATER HOUSE CONNECTIONS AND TAPS SHALL BE PERFORMED USING A SADDLE.

03/04/16
 Paul W. Kriebel
 FOR: REVISION



CONTRACT NO. 44-4801-D
 OXFORD SQUARE
 SAINT MARGARETS BOULEVARD
 (Sta. 6+62.30 to Sta. 12+52.60) &
 BANBURY DRIVE
 (Sta. 11+98 to Sta. 15+60.84)
 WATER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Chief, Bureau of Utilities
 12/28/13

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND
 Chief, Development Engineering Division
 1-24-14

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. 12243 EXPIRATION DATE 5/7/16/14.
FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CONTINENTAL SQUARE OFFICE PARK - 10225 BALDWIN NATIONAL PIKE
 ELKOTT CITY, MARYLAND 21042
 (410) 461-2995

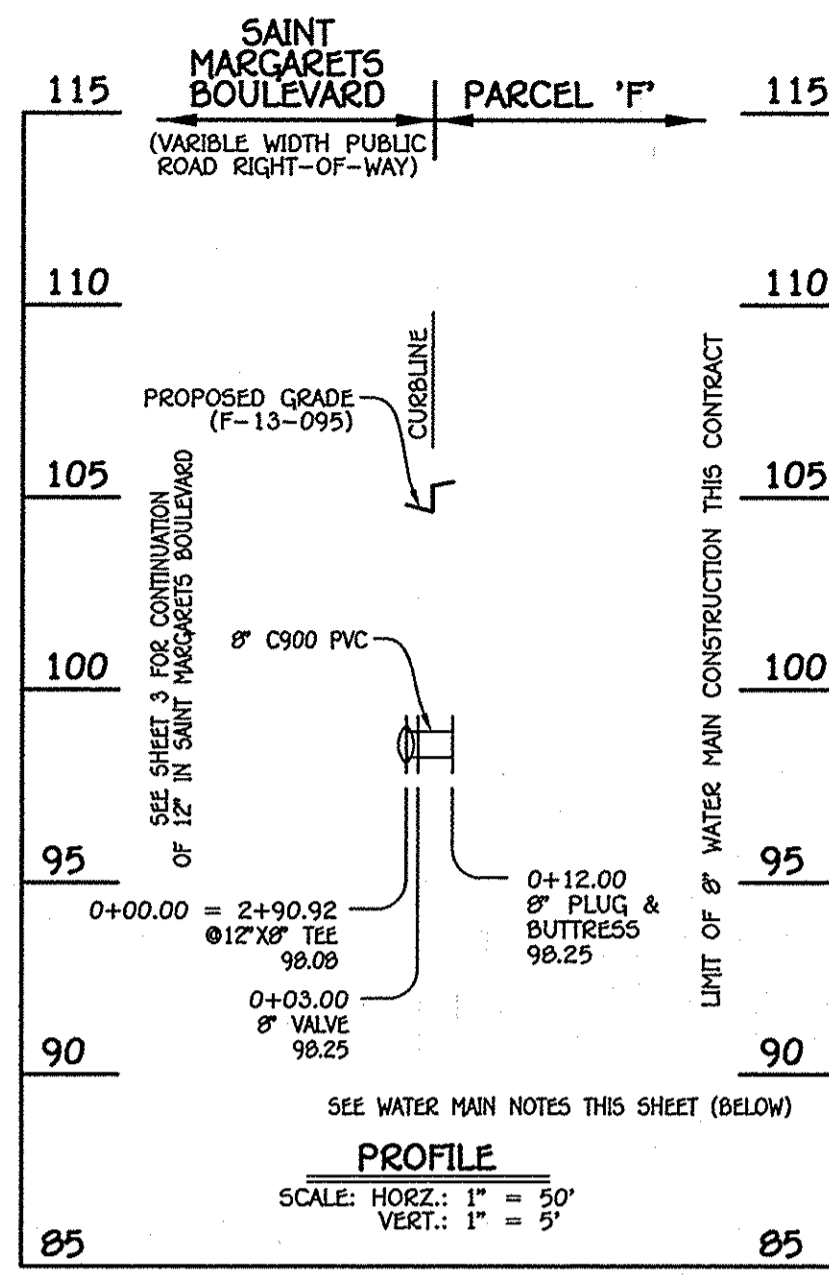
PAUL W. KRIEBEL
 12043

DESIGNED BY: B.C.E.
 DRAWN BY: B.C.E.
 CHECKED BY: P.W.K.
 DATE: DECEMBER, 2013
 REVISION: REMOVE 8" W.P. TO RW FOR PARCEL 6A, NON PARCEL 10-B, REMOVE PROFILE & CHART 3/4/16
 ADD 8" W.P. EXTENSIONS UP TO RW FOR PARCEL 6A & 11 REPRESENTED 7/30/14

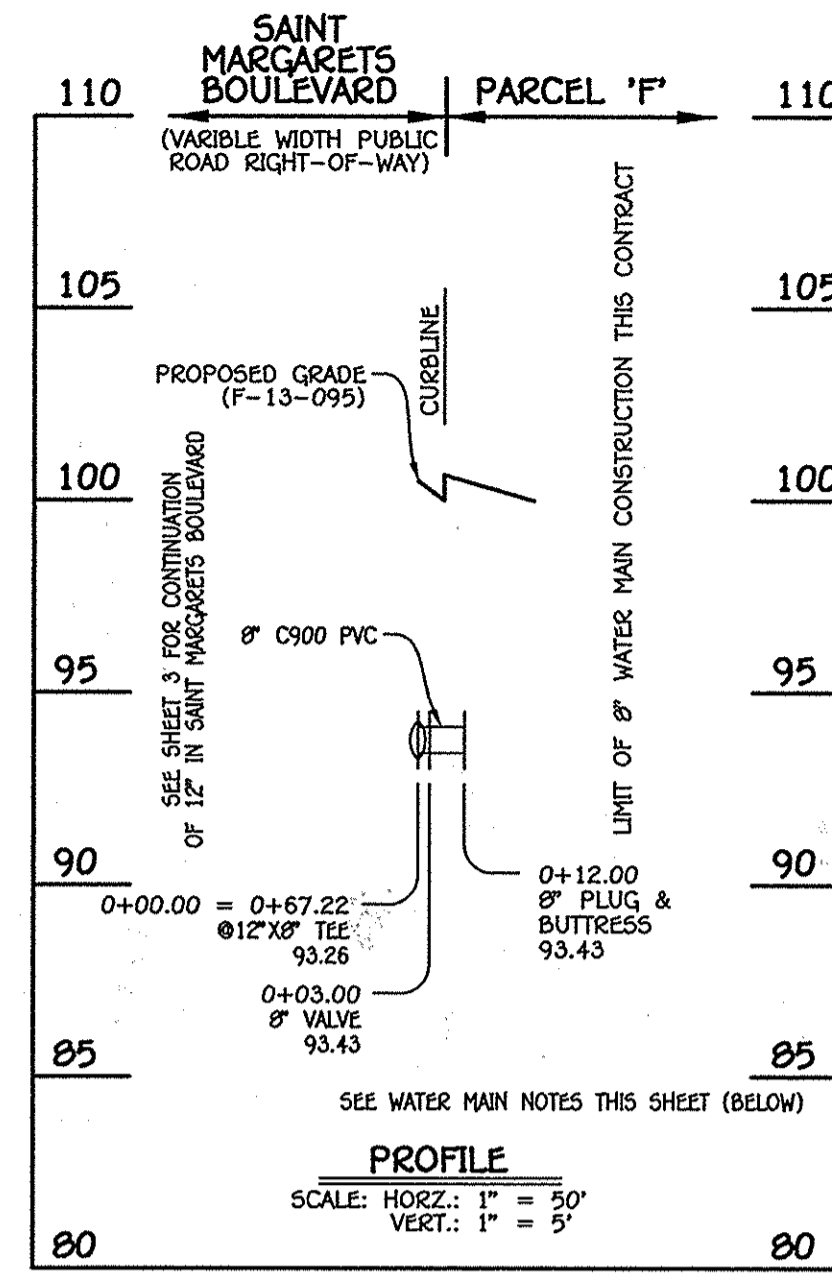
WATER MAIN EXTENSIONS
 PROFILES & CHARTS
 600' SCALE MAP NO. 38 BLOCK NO. 19 & 20
 F.C.C. WORK ORDER NO. 09014-3002
 FILE NAME: WATER & SEWER MAIN EXTENSION PLAN

OXFORD SQUARE
 SAINT MARGARETS BOULEVARD (Sta. 6+62.30 to Sta. 12+52.60) &
 BANBURY DRIVE (Sta. 11+98 to Sta. 15+60.84)
 WATER MAIN EXTENSIONS
 CONTRACT NO. 44-4801-D
 FIRST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

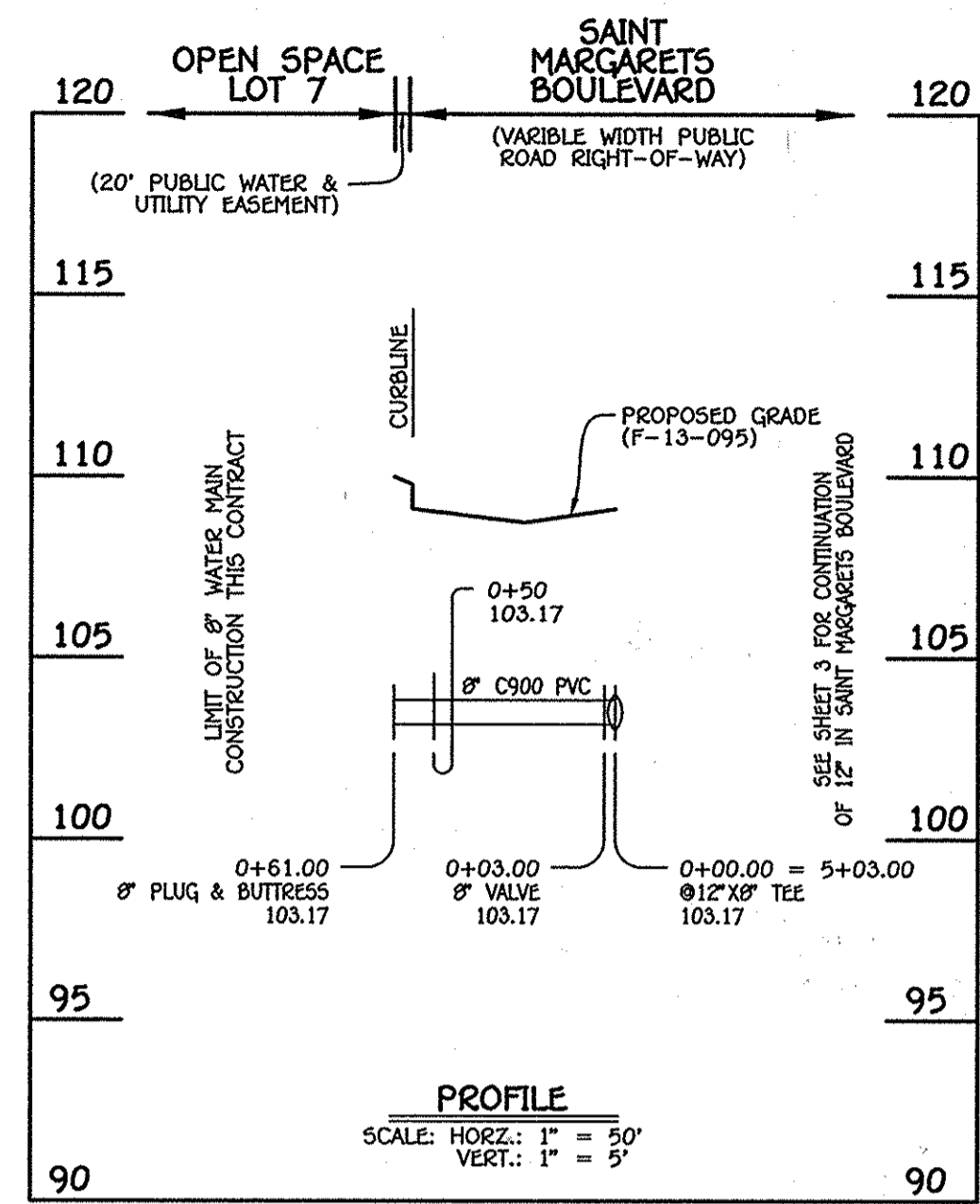
SCALE AS SHOWN
 SHEET 3 OF 5



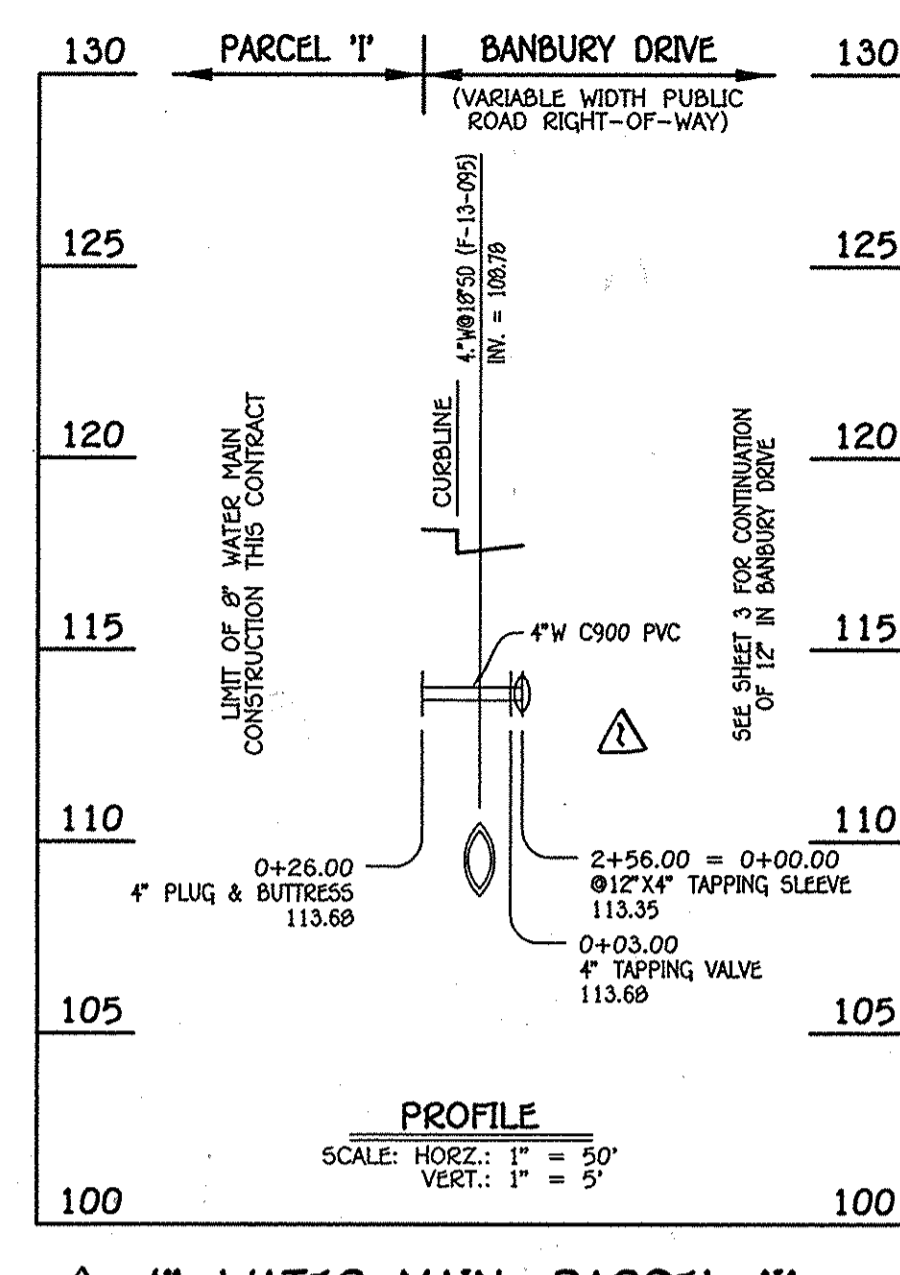
8" WATER MAIN: PARCEL 'F' (N)



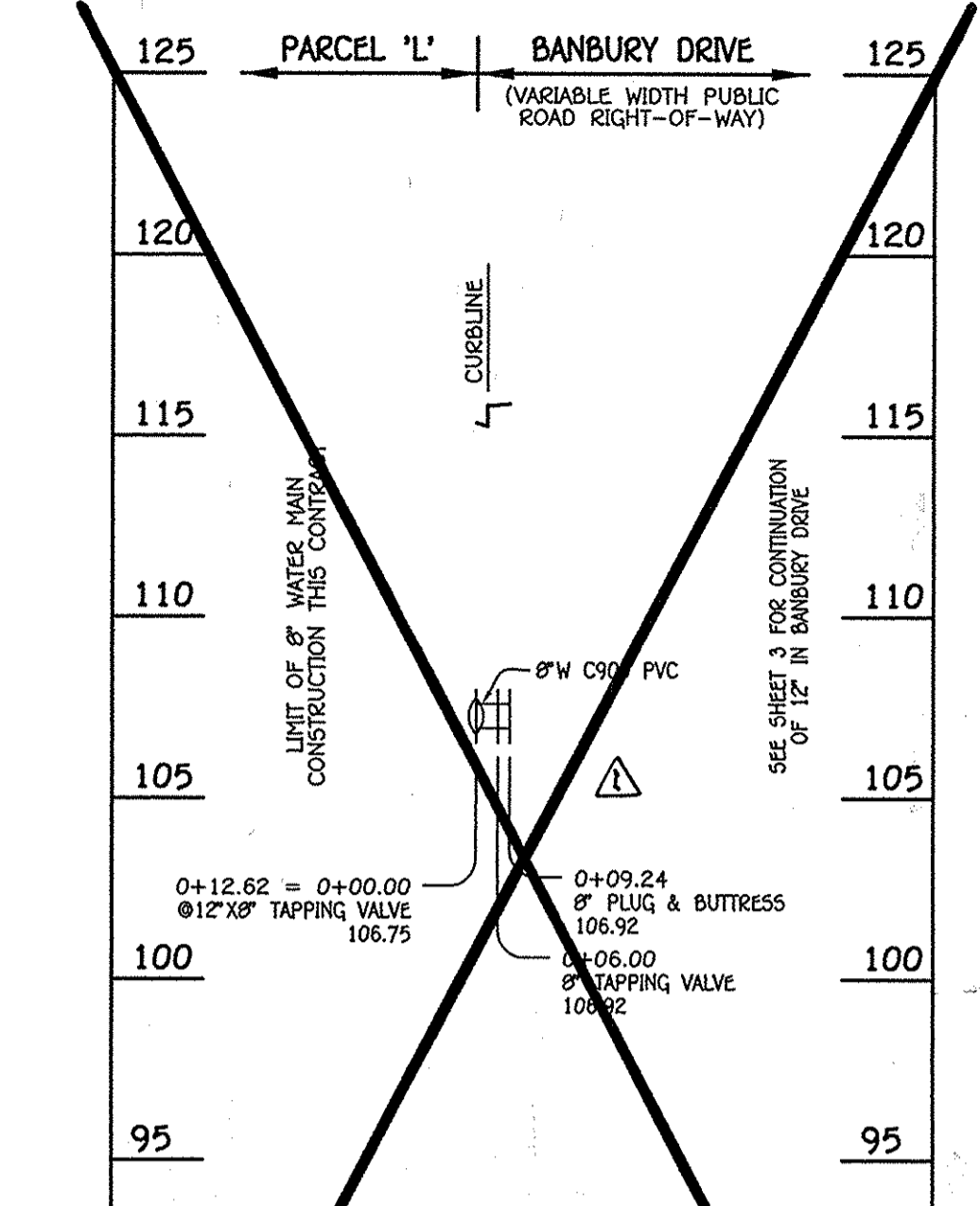
8" WATER MAIN: PARCEL 'F' (S)



8" WATER MAIN: FUTURE OPEN SPACE LOT 7



4" WATER MAIN: PARCEL 'I'



8" WATER MAIN: PARCEL 'L'

W.M. STA.	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN: PARCEL 'F' (N)			
0+00.00	12" X 8" TEE	552452.94	1386550.60
0+03.00	8" VALVE	552455.63	1386560.00
0+12.00	8" PLUG & BUTTRESS	552463.70	1386563.99

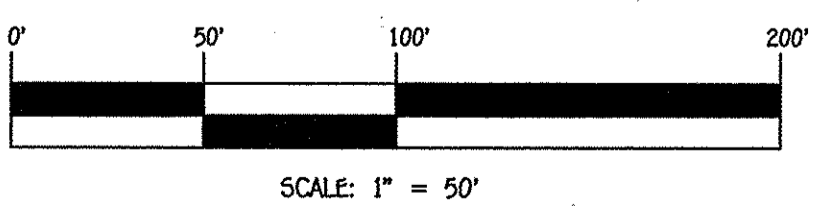
W.M. STA.	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN: PARCEL 'F' (S)			
0+00.00	12" X 8" TEE	552353.96	1386759.29
0+03.00	8" VALVE	552356.65	1386760.62
0+12.00	8" PLUG & BUTTRESS	552364.72	1386764.60

W.M. STA.	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN: FUTURE OPEN SPACE LOT 7			
0+00.00	12" X 8" TEE	552546.70	1386360.49
0+03.00	8" VALVE	552544.09	1386367.16
0+61.00	8" PLUG & BUTTRESS	552492.00	1386341.50

W.M. STA.	APPURTENANCE	NORTHING	EASTING
4" WATER MAIN: PARCEL 'I'			
0+00.00	12" X 4" TAPPING SLEEVE	553160.40	1386697.57
0+03.00	4" TAPPING VALVE	553165.79	1386696.26
0+26.00	4" PLUG & BUTTRESS	553145.11	1386686.18

W.M. STA.	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN: PARCEL 'L'			
0+12.62	12" X 8" TAPPING SLEEVE	553075.33	1386911.46
0+06.00	8" TAPPING VALVE	553020.72	1386914.09
0+09.24	8" PLUG & BUTTRESS	553083.64	1386915.51

- WATER MAIN NOTES:**
- ALL WATER MAINS SHALL BE ANNA C900 PVC PIPE, DR-10.
 - ALL PIPE BEDDING, TRACER WIRE, LOCATING TAPE AND OTHER APPURTENANCES SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV - WATER AND SEWER STANDARDS FOR ANNA C900 PVC WATER PIPE INSTALLATION.
 - DEFLECTION COUPLINGS SHALL BE CERTAIN-TEED PVC HIGH DEFLECTION COUPLINGS.
 - ALL WATER HOUSE CONNECTIONS AND TAPS SHALL BE PERFORMED USING A SADDLE.



CONTRACT NO. 44-4801-D
 OXFORD SQUARE
 SAINT MARGARETS BOULEVARD
 (Sta. 6+62.30 to Sta. 12+52.60) &
 BANBURY DRIVE
 (Sta. 11+90 to Sta. 15+60.84)
 WATER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND

12/20/13
 DATE

1-24-14
 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 7/16/14.

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PARK
 ELLSWORTH CITY, MARYLAND 21042
 (410) 461-2995

PAUL W. KRIEDEL
 #12043

DESIGNED BY: B.C.R.

DRAWN BY: B.C.R.

CHECKED BY: P.W.K.

DATE: DECEMBER, 2013

BY NO. REVISION DATE

REVISIONS:
 1. REVISE 8" W MAIN FOR PARCEL 'L', NOW PARCEL 'I' TO BE PARCEL 'L' 3/1/16
 2. ADD 8" W MAIN EXTENSIONS UP TO 8" W MAIN FOR PARCEL 'L' & 'I' RESPECTIVELY 7/20/14

WATER MAIN EXTENSIONS
 PROFILES & CHART

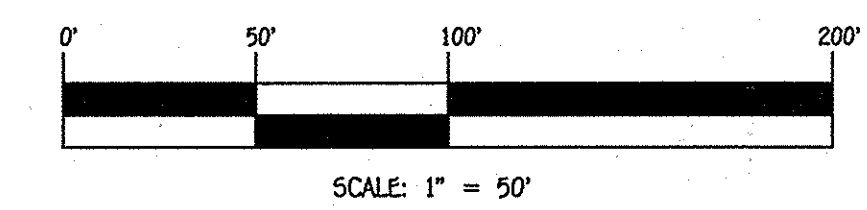
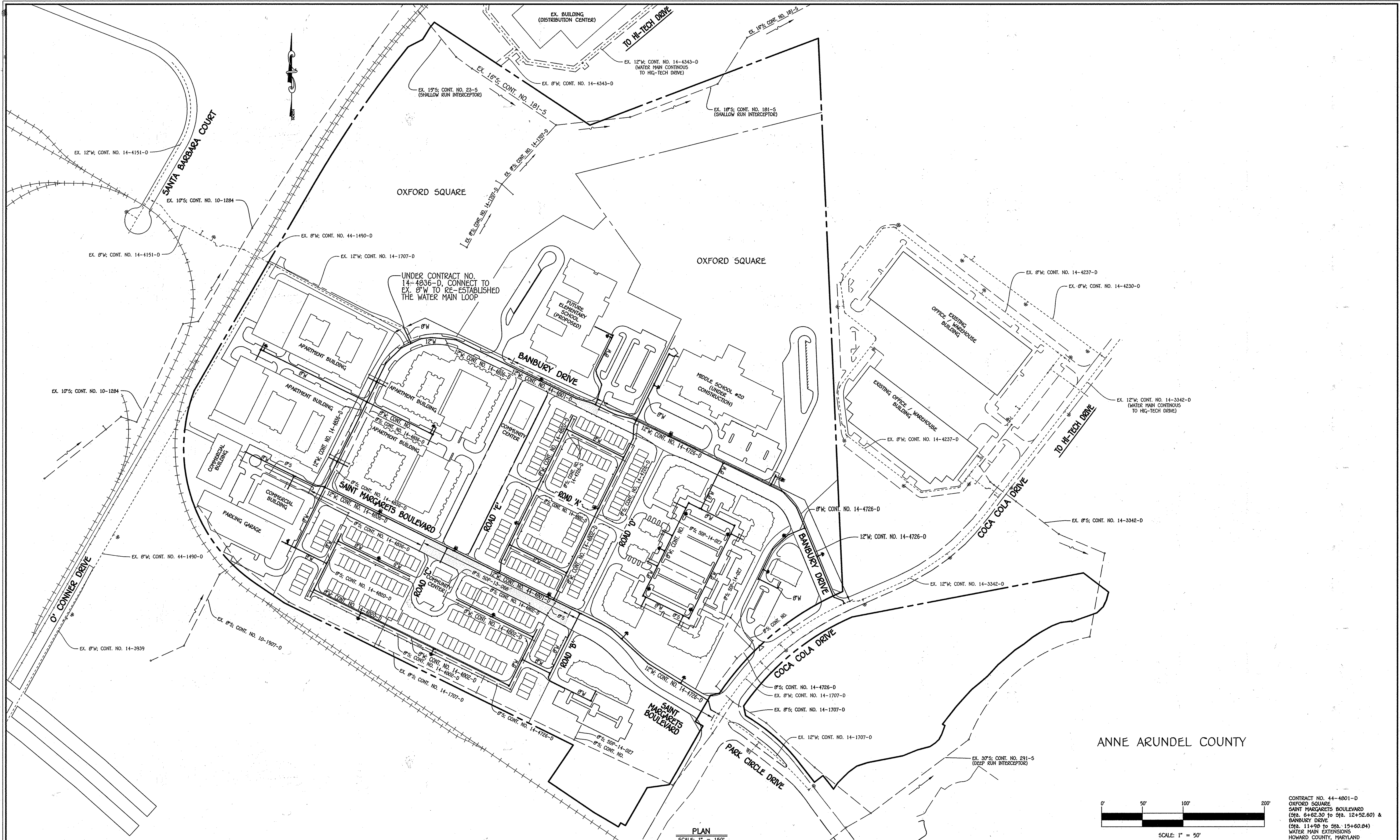
60' SCALE MAP NO. 38 BLOCK NO. 19 & 20
 F.C.C. WORK ORDER NO. 09014-3002
 FILE NAME: WATER & SEWER MAIN EXTENSION PLAN

OXFORD SQUARE
 SAINT MARGARETS BOULEVARD (Sta. 6+62.30 to Sta. 12+52.60) &
 BANBURY DRIVE (Sta. 11+90 to Sta. 15+60.84)
 WATER MAIN EXTENSIONS
 CONTRACT NO. 44-4801-D
 FIRST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 4 OF 5

PAUL W. KRIEDEL
 03/04/16
 PAUL W. KRIEDEL #12043
 P.E. REVISION

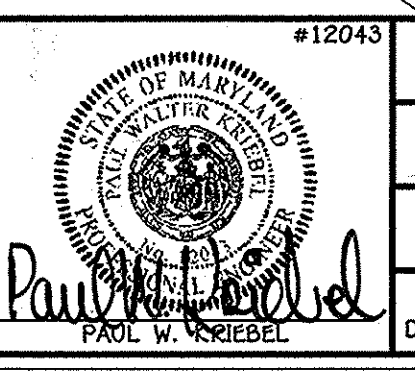


CONTRACT NO. 44-4801-D
 OXFORD SQUARE
 SAINT MARGARETS BOULEVARD
 (Sta. 6+52.30 to Sta. 12+52.60) &
 BANBURY DRIVE
 (Sta. 11+98 to Sta. 15+60.84)
 WATER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Chief, Bureau of Utilities
 12/24/13

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND
 Chief, Development Engineering Division
 1-24-14

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 7/16/14.
FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10222 BALTIMORE NATIONAL PIKE
 ELLETTT CITY, MARYLAND 21042
 (410) 461-2255



DESIGNED BY:	B.C.R.
DRAWN BY:	B.C.R.
CHECKED BY:	P.W.K.
DATE:	DECEMBER, 2013
BY NO.	
REVISION	

WATER & SEWER MAIN EXTENSIONS OVERVIEW
 600' SCALE MAP NO. 39 BLOCK NO. 19 & 20
 F.C.C. WORK ORDER NO. 09014-3002
 FILE NAME: WATER & SEWER MAIN EXTENSION PLAN

OXFORD SQUARE
 SAINT MARGARETS BOULEVARD (Sta. 6+62.30 to Sta. 12+52.60 & BANBURY DRIVE (Sta. 11+98 to Sta. 15+60.84)
 WATER MAIN EXTENSIONS
 CONTRACT NO. 44-4801-D
 FIRST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 5 OF 5

I:\2009\09014\09014-Water & Sewer\Contract\3002 - Contract No. 44-4801-D (F-13-095)\Finals\09014-3002 Water and Sewer Contract Plan - Phase 2 - Sheet 5.dwg, Sheet 5, 12/13/2013 9:04:51 AM