

GENERAL NOTES

- PART I**
- APPROXIMATE LOCATION 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.
 - THE TOPOGRAPHY SHOWN HEREON IS BASED ON AERIAL PHOTOGRAMMETRY PERFORMED BY POTOMAC AERIAL, DATED MARCH 1998.
 - HORIZONTAL AND VERTICAL SURVEY 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 43B2 AND 43B2.
ALL VERTICAL CONTROLS ARE BASED ON NAVD' 88. VERTICAL CONTROLS PROVIDED ON DRAWINGS ARE:
GEODETIC SURVEY CONTROL 43B2 (N 551,654.993/E 1,378,176.951)
BRASS DISC SET ON TOP OF A CONCRETE MONUMENT.
GEODETIC SURVEY CONTROL 43B6 (N 550,601.597/E 1,376,866.072)
BRASS DISC SET ON TOP OF A CONCRETE MONUMENT.
 - 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 DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR BRACING OF 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.
 - WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL \odot 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 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 THESE PLANS:
AT&T 1-800-252-1133
BGE (CONSTRUCTION SERVICES) 410-637-8713
BGE (EMERGENCY) 410-685-0123
BUREAU OF UTILITIES 410-313-4900
COLONIAL PIPELINE CO. 410-795-1390
MISS UTILITY 1-800-257-7777
STATE HIGHWAY ADMINISTRATION 410-531-5533
VERIZON 1-800-743-0033
 - 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.
 - THE 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(g) OF THE HOWARD COUNTY CODE.

PART II - WATER

- ALL WATER MAINS TO BE D.I.P. CLASS 54 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-6" 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 ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE 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.
- FOR PVC WATER MAINS, ALL RECORDS FOR THE QUALITY CONTROL AND QUALIFICATIONS TEST REQUIREMENTS NOTE IN SECTION 5.1 OF THE ANWA STANDARD C900 FOR PVC PRESSURE PIPE SHALL BE SUBMITTED WITH TEN 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 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) ROUND 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 HANGES. 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 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 WATERTIGHT FRAME AND COVERS, STANDARD DETAIL 05.52. WHERE WATERTIGHT FRAME AND COVER IS 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.

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE SPECIFICATIONS AND WITH SITE DEVELOPMENT PLAN F-02-35

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

John R. Roberts 11/2/10
SOIL CONSERVATION DISTRICT DATE

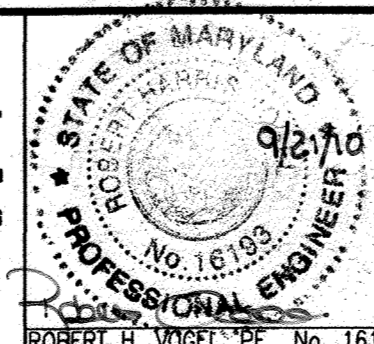
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

John C. ... 10/12/10
CHIEF, BUREAU OF UTILITIES DATE

William ... 11/10/10
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET TEL: 410.461.7666
ELLCOTT CITY, MD 21043 FAX: 410.461.8961



PROFESSIONAL CERTIFICATE
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. 16193, EXPIRATION DATE 09-27-2012.
DRN: KG DES: DZ
CHK: RHV
DATE: SEPTEMBER 2010

DZ	1	REVISION NUMBER LAP TO THE OAKS AT WATER'S EDGE	04/02/12
	3	REVISION WATER AND SEWER DESIGN BASED ON CHANGES TO THE GRADING AND F-02-035	9/7/11
	2	REVISION WATER AND SEWER PIPE MATERIAL FROM DIP TO C-900 PVC	3/9/2011
DZ	1	REVISION WATER AND SEWER TO ACCOMMODATE CHANGES TO F-02-035.	09/20/10
BY	NO.	REVISION	DATE

FINAL WATER & SEWER CONSTRUCTION PLAN COVER SHEET

BLUE STREAM
OPEN SPACE LOTS G-1 AND G2, AND BUILDABLE BULK PARCELS H-M
CONTRACT # 14-4083-D

SCALE AS SHOWN
SHEET 1 OF 8

TAX MAP 43 GRID 4 AND 5
1ST ELECTION DISTRICT

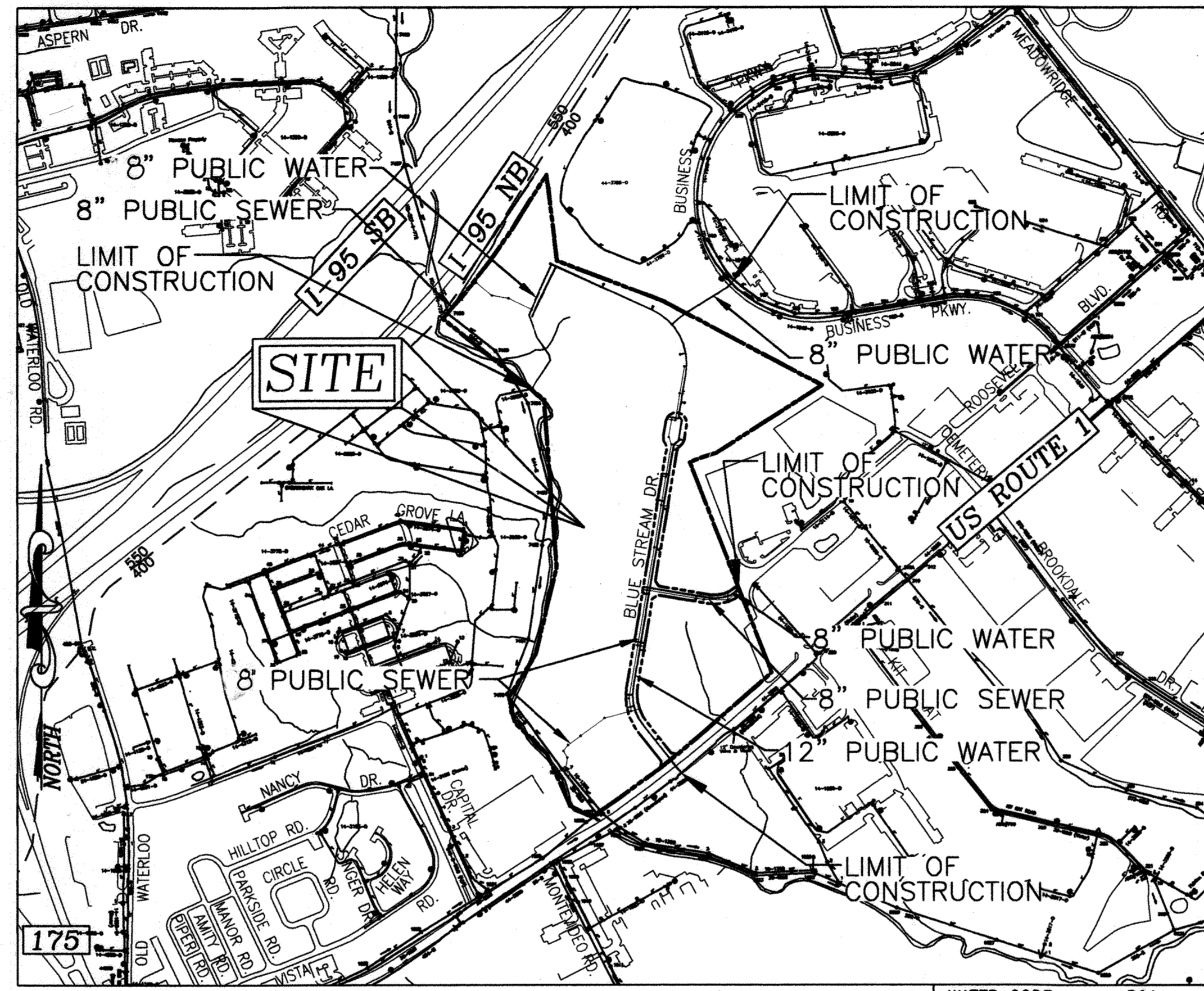
PARCEL P/O 'S', 14 AND 558
HOWARD COUNTY, MARYLAND

BLUE STREAM

OPEN SPACE LOTS G-1 AND G-2, AND BUILDABLE BULK PARCELS H-M

FINAL WATER AND SEWER PLAN

CONT. 14-4083-D

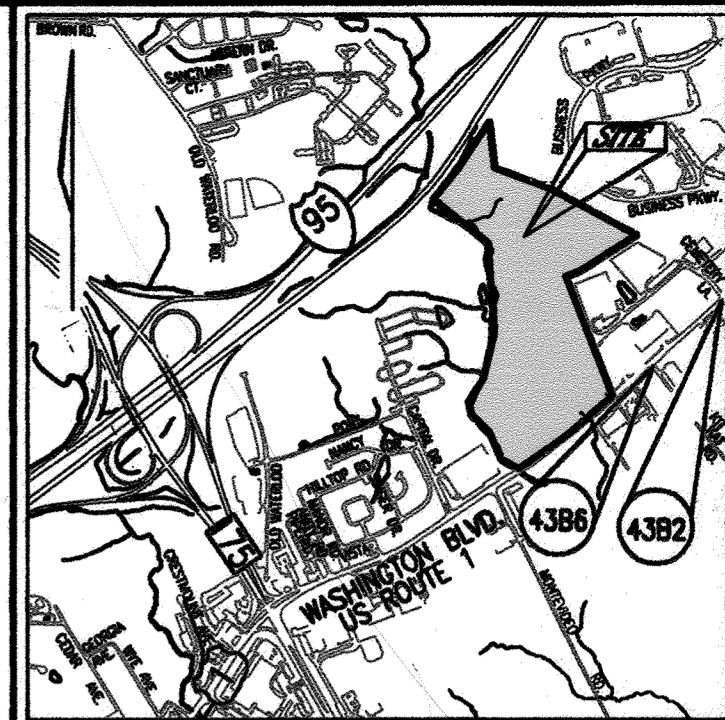
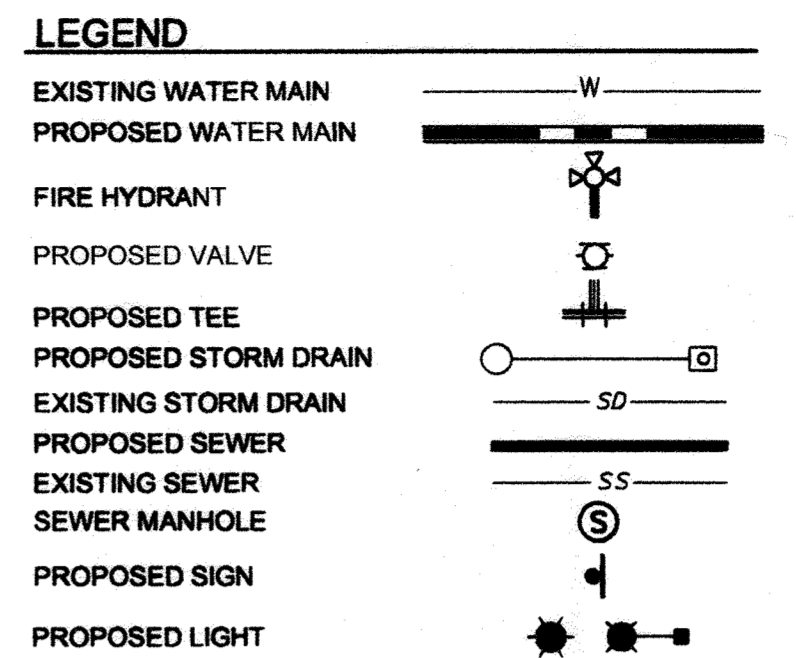


VICINITY MAP
SCALE: 1"=600'

WATER CODE: 801
SEWER CODE: 2153000
TEST GRADIENT: 550

TYPE OF BUILDING :	N/A
NO. OF LOTS/PARCELS :	N/A
NO. OF SINGLE WATER HOUSE CONNECTIONS :	N/A
NO. OF TWIN WATER HOUSE CONNECTIONS :	N/A
NO. OF SEWER HOUSE CONNECTIONS :	N/A
SEWER SHED :	PATAPSCO
TREATMENT PLANT :	PATAPSCO RIVER

BENCHMARKS
HOWARD COUNTY BENCHMARK 43B2
N 551,654.993 E 1,378,176.951 ELEV.: 209.601'
HOWARD COUNTY BENCHMARK 43B6
N 550,601.597 E 1,376,866.072 ELEV.: 210.559'

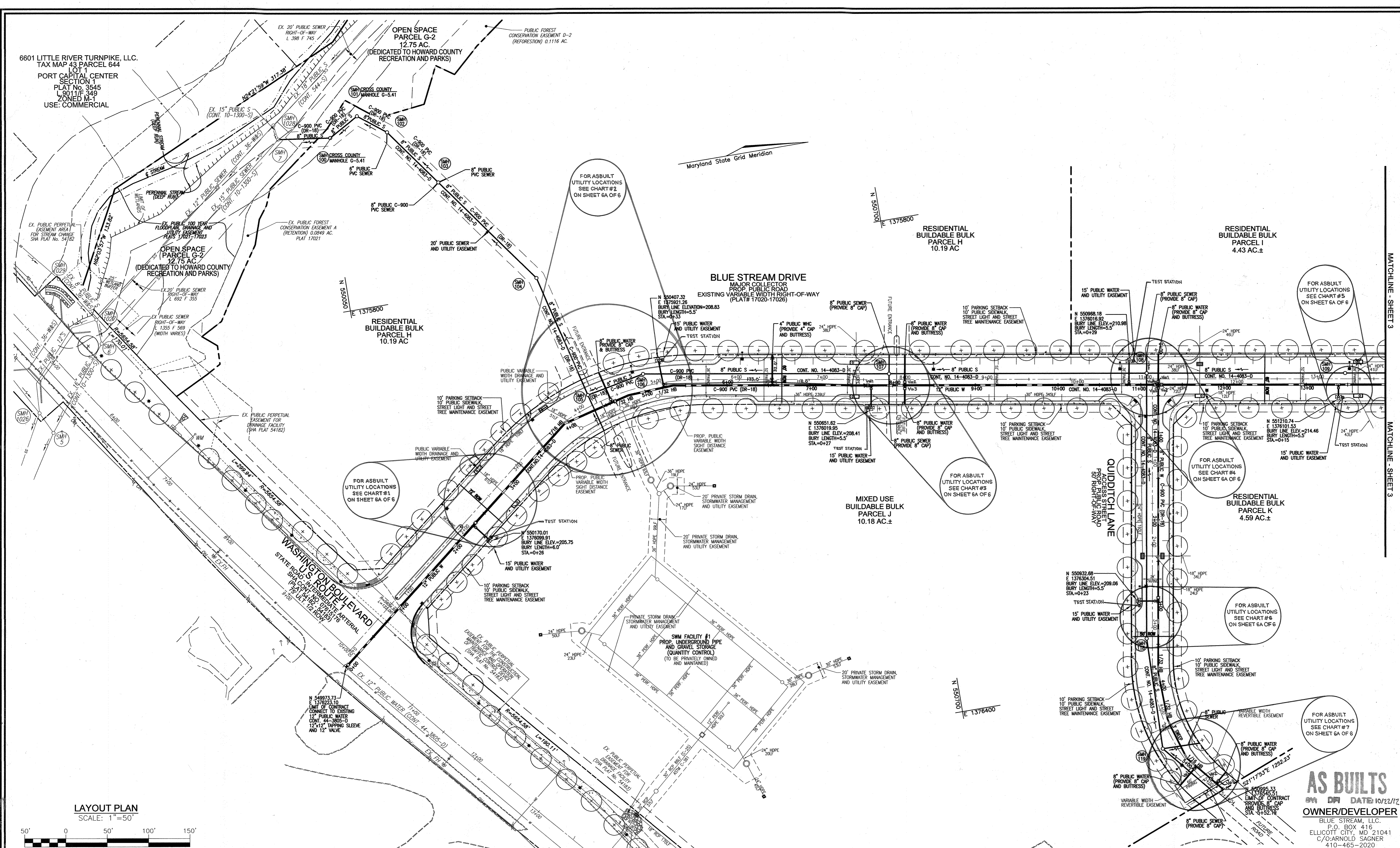


LOCATION MAP
SCALE: 1"=2000'
ADC MAP COORDINATES:
16 J11,K11,J12,K12

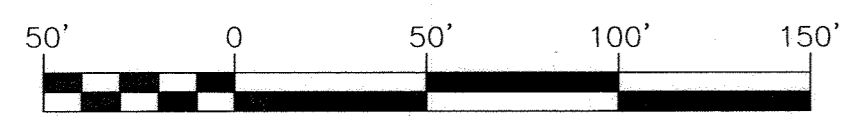
QUANTITIES				
NAME OF UTILITY CONTRACTOR : CJ MILLER				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE :				
ITEMS	QUANTITIES ESTIMATED	QUANTITIES	TYPE	AS-BUILT MANUFACTURER/SUPPLIER
WATER				
12" WATER C-900 PVC	50.47 LF	380.0 LF	P.V.C. C-900	J.M. EAGLE / L.B. WATER SERVICE
8" WATER C-900 PVC	18.00 LF	14.54 LF	P.V.C. C-900	J.M. EAGLE / L.B. WATER SERVICE
6" WATER C-900 PVC	2.75 LF	21.5 LF	P.V.C. C-900	J.M. EAGLE / L.B. WATER SERVICE
12"x12" TAPPING SLEEVE	2 EA	2 EA	STAINLESS STEEL	J.FORD / L.B. WATER SERVICE
12" X 12" TEE	1 EA	1 EA	D.I.P.	TYLER UNION / L.B. WATER SERVICE
12" X 8" TEE	7 EA	7 EA	D.I.P.	TYLER UNION / L.B. WATER SERVICE
12" X 6" TEE	12 EA	12 EA	D.I.P.	TYLER UNION / L.B. WATER SERVICE
8" X 8" TEE	3 EA	2 EA	D.I.P.	TYLER UNION / L.B. WATER SERVICE
12" X 8" CROSS	2 EA	2 EA	D.I.P.	TYLER UNION / L.B. WATER SERVICE
12" VALVE	16 EA	16 EA	GATE VALVE	AMERICAN FLOW CONTROL / L.B. WATER SERVICE
8" VALVE	17 EA	17 EA	GATE VALVE	AMERICAN FLOW CONTROL / L.B. WATER SERVICE
6" VALVE	12 EA	12 EA	GATE VALVE	AMERICAN FLOW CONTROL / L.B. WATER SERVICE
12" CAP	1 EA	1 EA	D.I.P.	TYLER UNION / L.B. WATER SERVICE
8" CAP	15 EA	12 EA	D.I.P.	TYLER UNION / L.B. WATER SERVICE
6" FIRE HYDRANT	12 EA	12 EA		MUELLER / L.B. WATER SERVICE
12" - 1/8" BEND	6 EA	6 EA	D.I.P.	TYLER UNION / L.B. WATER SERVICE
12" - 1/32" BEND	12 EA	12 EA	D.I.P.	TYLER UNION / L.B. WATER SERVICE
8" - 1/8" BEND	4 EA	4 EA	D.I.P.	TYLER UNION / L.B. WATER SERVICE
8" - 1/16" BEND	2 EA	2 EA	D.I.P.	TYLER UNION / L.B. WATER SERVICE
8" - 1/32" BEND	6 EA	6 EA	D.I.P.	TYLER UNION / L.B. WATER SERVICE
12" TAPPING VALVE	2 EA	2 EA	TAPPING VALVE	AMERICAN FLOW CONTROL / L.B. WATER SERVICE
SEWER				
MANHOLE	24 EA	24 EA	PNE-CAST	CONTRACTORS PRE-CAST CORR
8" PVC SEWER	2226 LF	2226 LF	P.V.C. SDR 35	J.M. EAGLE / L.B. WATER SERVICE
6" PVC SEWER	1786 LF	1786 LF	P.V.C. SDR 35	J.M. EAGLE / L.B. WATER SERVICE
6" CAP	16 EA	16 EA		G.P.R. PRODUCTS
WATER				
4" WATER C-900 PVC	57 LF	37 LF	C-900 PVC	J.M. EAGLE / L.B. WATER SERVICE
12" X 4" TEE	1 EA	1 EA	D.I.P.	TYLER UNION / L.B. WATER SERVICE
4" VALVE	1 EA	1 EA	GATE VALVE	AMERICAN FLOW CONTROL / L.B. WATER SERVICE
4" CAP	1 EA	1 EA	D.I.P.	TYLER UNION / L.B. WATER SERVICE
12" - 1/16" BEND	1 EA	1 EA	D.I.P.	TYLER UNION / L.B. WATER SERVICE
12" - 3/8" SWEEP	2 EA	2 EA	D.I.P.	TYLER UNION / L.B. WATER SERVICE
12" - 5/8" SWEEP	2 EA	2 EA	D.I.P.	TYLER UNION / L.B. WATER SERVICE
12" COUPLING	14 EA	14 EA		CERTANTEB / L.B. WATER SERVICE
0" - 3/8" SWEEP	1 EA	1 EA	D.I.P.	TYLER UNION / L.B. WATER SERVICE
0" - 5/8" SWEEP	2 EA	2 EA	D.I.P.	TYLER UNION / L.B. WATER SERVICE
0" COUPLING	11 EA	11 EA	COUPLING	CERTANTEB / L.B. WATER SERVICE

AS BUILTS
DATE 10/22/12

OWNER/DEVELOPER
BLUE STREAM, LLC.
P.O. BOX 416
ELLCOTT CITY, MD 21041
C/O ARNOLD SAGNER
410-465-2020



LAYOUT PLAN
SCALE: 1"=50'



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

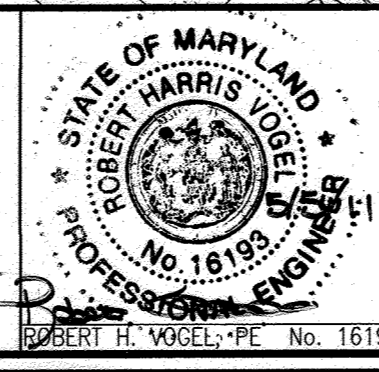
[Signature]
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION

5-25-11
DATE

ROBERT H. VOGEL
ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8561



PROFESSIONAL CERTIFICATE

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. 16193, EXPIRATION DATE: 09-27-2012

DRN:	JMR	DES:	DZ
CHK:	RHV		
DATE:	FEBRUARY 2011		

BY	NO.	REVISION	DATE
JMR	1	REVISE WATER AND SEWER MAIN FROM DIP TO PVC C-900.	03/08/11
DZ	1	REVISE WATER AND SEWER TO ACCOMMODATE CHANGES TO F-02-035.	09/20/10

FINAL WATER & SEWER CONSTRUCTION PLAN
PLAN VIEW

600' SCALE MAP NO. 43
BLOCK NO. 4 AND 5

BLUE STREAM
OPEN SPACE LOTS G-1 AND G2,
AND BUILDABLE BULK PARCELS H-M
CONTRACT # 14-4083-D

TAX MAP 43, GRID 4 AND 5
1ST ELECTION DISTRICT

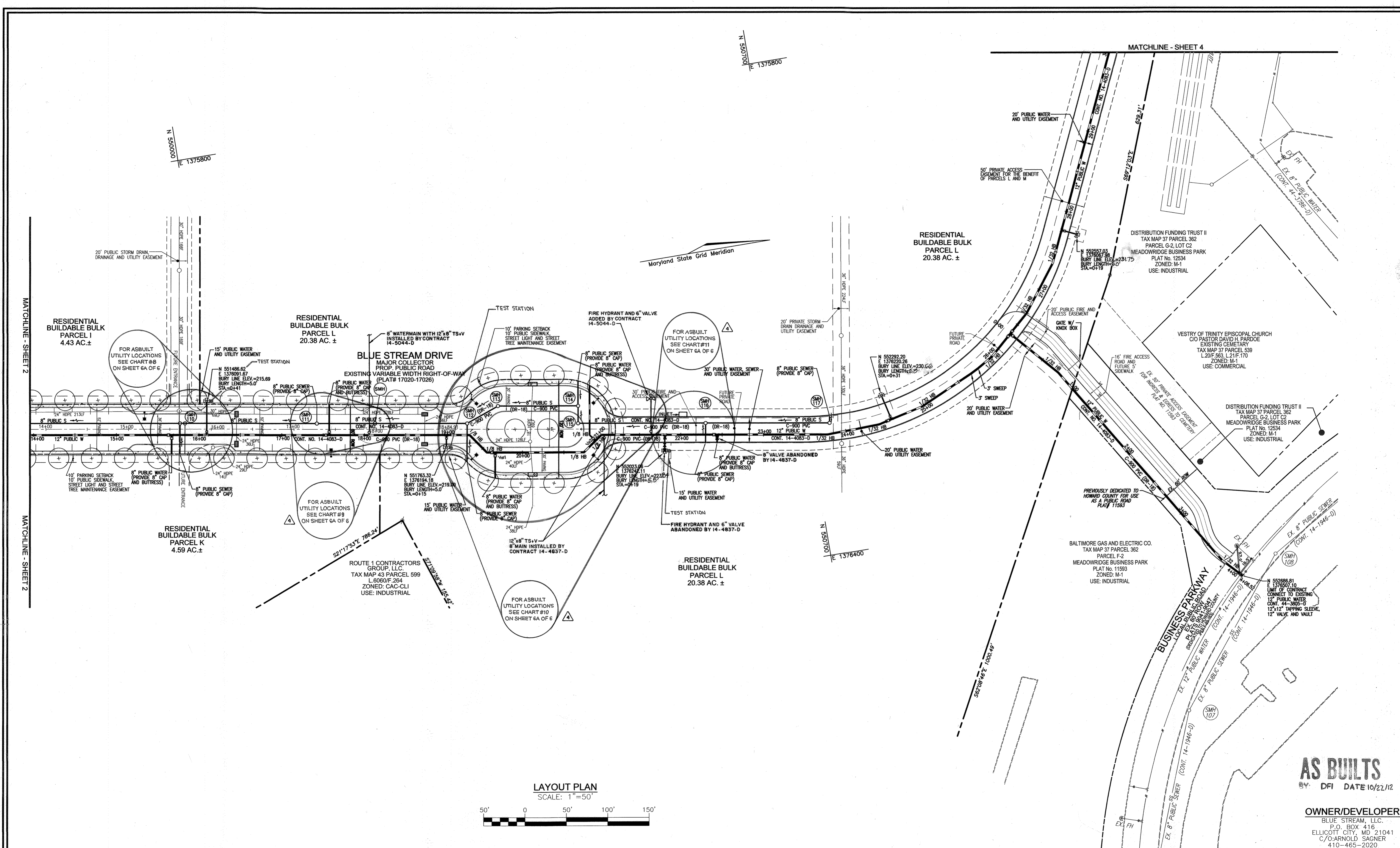
PARCEL P/O 'S', 14 AND 558
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 2 OF 8

AS BUILTS
DATE: 10/22/12
OWNER/DEVELOPER
BLUE STREAM, LLC.
P.O. BOX 416
ELLICOTT CITY, MD 21041
C/O ARNOLD SAGNER
410-465-2020

MATCHLINE - SHEET 3



LAYOUT PLAN
SCALE: 1"=50'

AS BUILTS
BY: DFI DATE 10/22/12

OWNER/DEVELOPER
BLUE STREAM, LLC
P.O. BOX 416
ELLCOTT CITY, MD 21041
C/O: ARNOLD SAGNER
410-465-2020

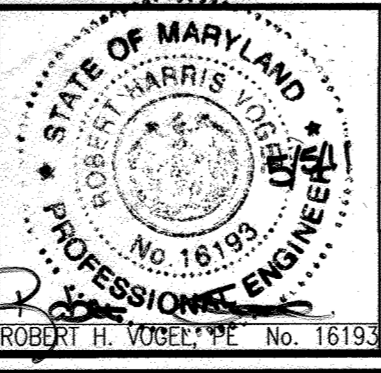
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Steve C. G... 5/17/11
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

Chris... 5-25-11
CHIEF, DEVELOPMENT ENGINEERING DIVISION

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLCOTT CITY, MD 21043 TEL: 410.461.7666
FAX: 410.461.8951



PROFESSIONAL CERTIFICATE	WRA	AS-BUILT	1/2021
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. 16193, EXPIRATION DATE: 09-27-2012	3	REVISE WATER AND SEWER DESIGN BASED ON CHANGES TO THE GRADING AND F-02-035	9/7/11
DRN: JMR DES: DZ	JMR	REVISE WATER AND SEWER MAIN FROM DIP TO PVC C-900.	03/08/11
CHK: RHV	DZ	REVISE WATER AND SEWER TO ACCOMMODATE CHANGES TO F-02-035.	09/20/10
DATE: FEBRUARY 2011	BY	NO.	REVISION
			DATE

FINAL WATER & SEWER CONSTRUCTION PLAN
PLAN VIEW

600' SCALE MAP NO. 43 BLOCK NO. 4 AND 5

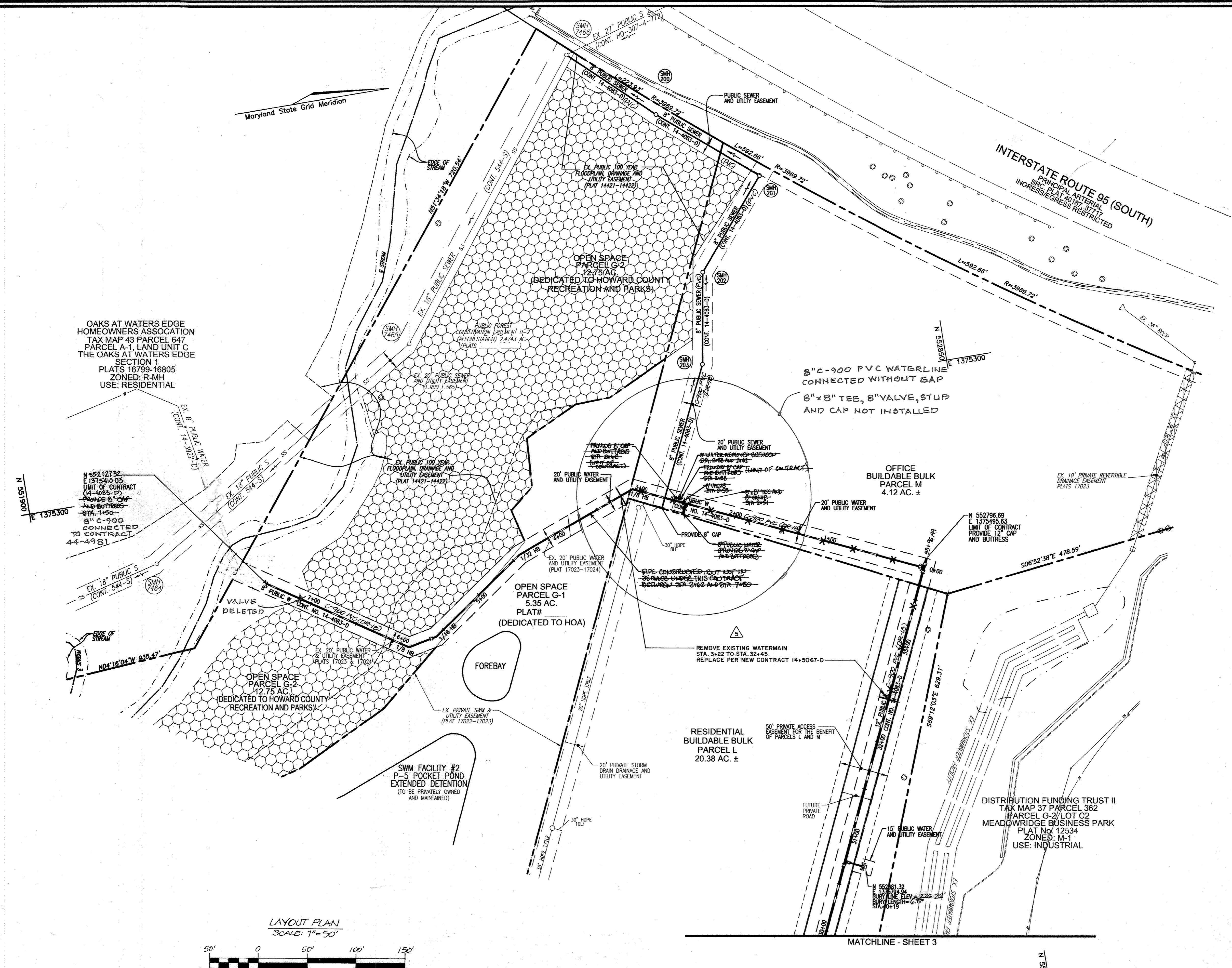
BLUE STREAM
OPEN SPACE LOTS G-1 AND G2, AND BUILDABLE BULK PARCELS H-M
CONTRACT # 14-4083-D

TAX MAP 43 GRID 4 AND 5
1ST ELECTION DISTRICT

PARCEL P/O 'S', 14 AND 558
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 3 OF 8



OAKS AT WATERS EDGE
HOMEOWNERS ASSOCIATION
TAX MAP 43 PARCEL 647
PARCEL A-1, LAND UNIT C
THE OAKS AT WATERS EDGE
SECTION 1
PLATS 16799-16805
ZONED: R-MH
USE: RESIDENTIAL

8" C-900 PVC WATERLINE
CONNECTED WITHOUT GAP
8" x 8" TEE, 8" VALVE, STUB
AND CAP NOT INSTALLED

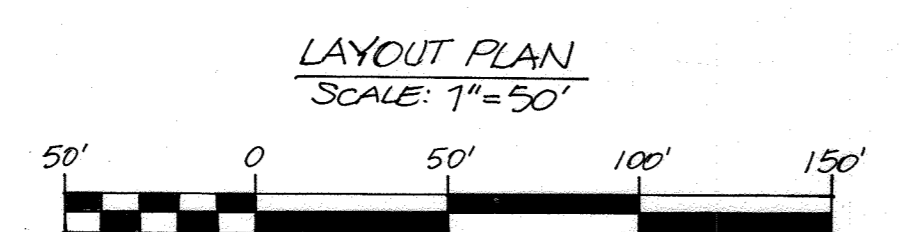
OFFICE
BUILDABLE BULK
PARCEL M
4.12 AC. ±

OPEN SPACE
PARCEL G-1
5.35 AC.
PLAT#
(DEDICATED TO HOA)

OPEN SPACE
PARCEL G-2
12.75 AC.
(DEDICATED TO HOWARD COUNTY
RECREATION AND PARKS)

RESIDENTIAL
BUILDABLE BULK
PARCEL L
20.38 AC. ±

DISTRIBUTION FUNDING TRUST II
TAX MAP 37 PARCEL 362
PARCEL G-2/LOT C2
MEADOWBRIDGE BUSINESS PARK
PLAT NO. 12534
ZONED: M-1
USE: INDUSTRIAL



AS-BUILT
By *[Signature]* Date 2/23/18

AS BUILTS
BY: DFI DATE: 10/22/12

OWNER/DEVELOPER
BLUE STREAM, LLC.
P.O. BOX 416
ELLCOTT CITY, MD 21041
C/O: ARNOLD SAGNER
410-465-2020

WRA	AS-BUILT	DATE
DZ	1	1/2021
DZ	2	04/12/12
DZ	3	09/17/11
DZ	4	09/20/10
DZ	5	09/20/10
DZ	6	09/20/10
DZ	7	09/20/10
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DZ	99	09/20/10
DZ	100	09/20/10

**FINAL WATER & SEWER
CONSTRUCTION PLAN
PLAN VIEW**

BLUE STREAM
OPEN SPACE LOTS G-1 AND G2,
AND BUILDABLE BULK PARCELS H-M
CONTRACT # 14-4083-D

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

[Signature]
CHIEF, BUREAU OF UTILITIES

[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**ROBERT H. VOGEL
ENGINEERING, INC.**
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET TEL: 410.461.7666
ELLCOTT CITY, MD 21043 FAX: 410.461.8951

PROFESSIONAL CERTIFICATE
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. 16193
EXPIRATION DATE: 09-27-2012

DRN: KG DES: DZ
CHK: RHV
DATE: SEPTEMBER 2010

STATE OF MARYLAND
PROFESSIONAL ENGINEER
ROBERT H. VOGEL, PE No. 16193

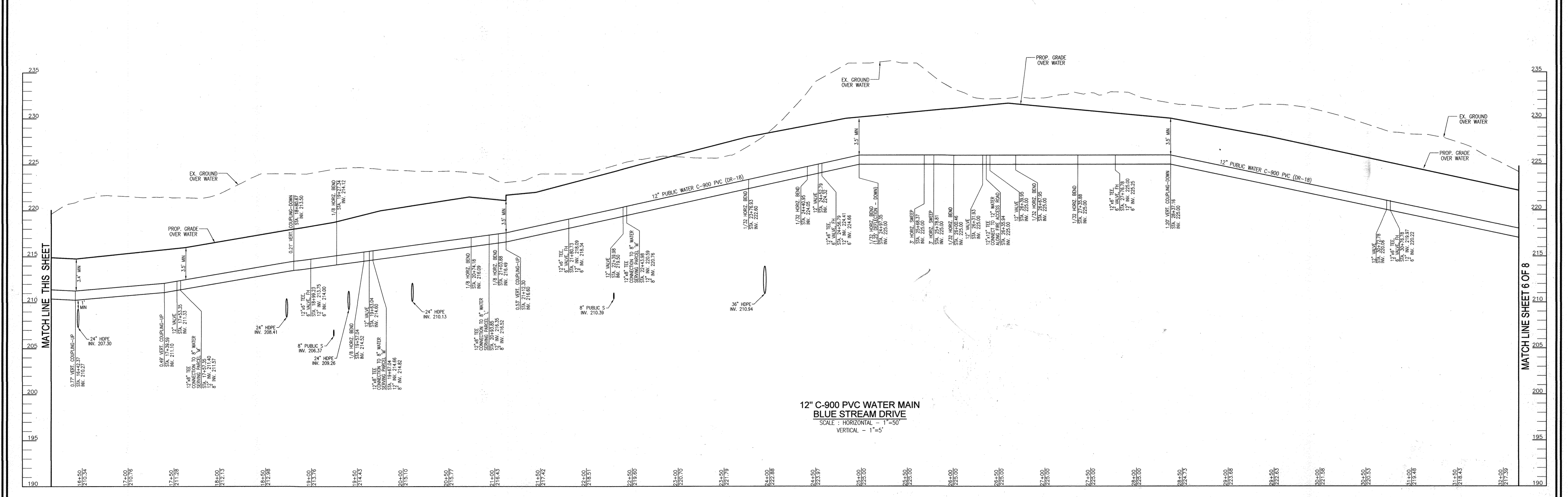
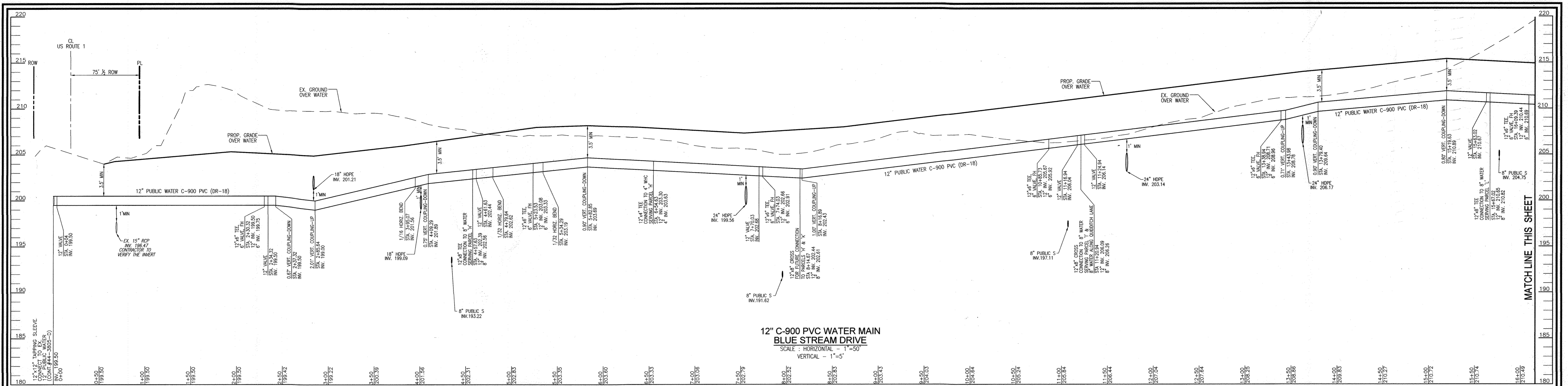
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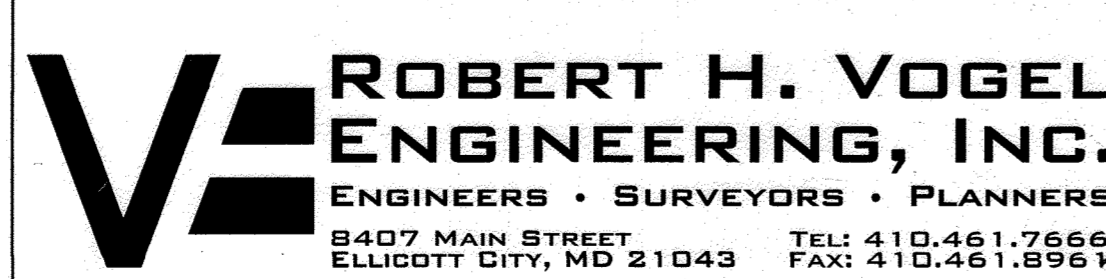
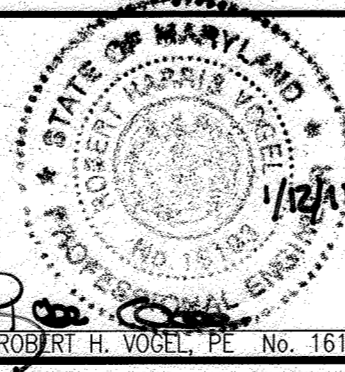
TAX MAP 43 GRID 4 AND 5
1ST ELECTION DISTRICT

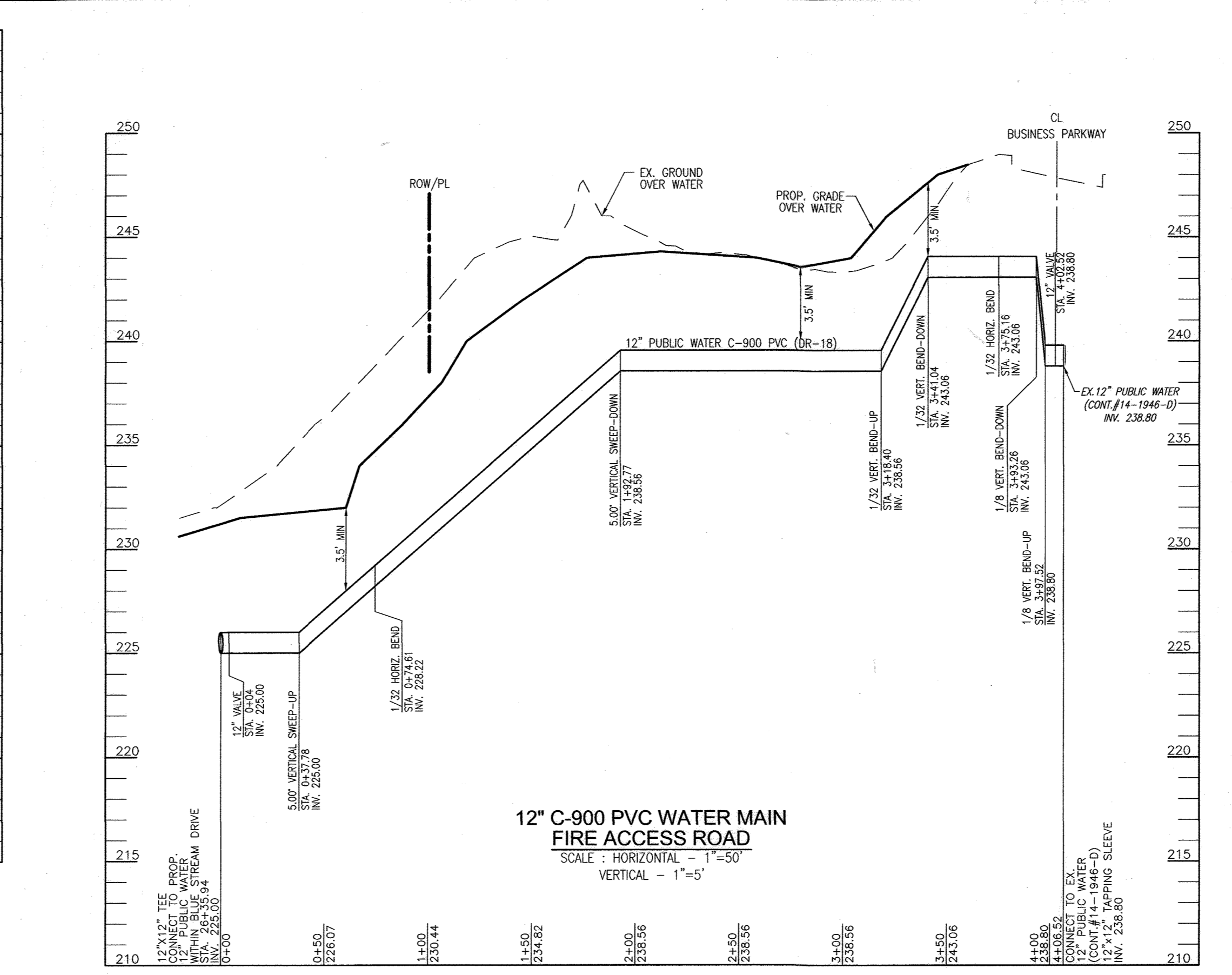
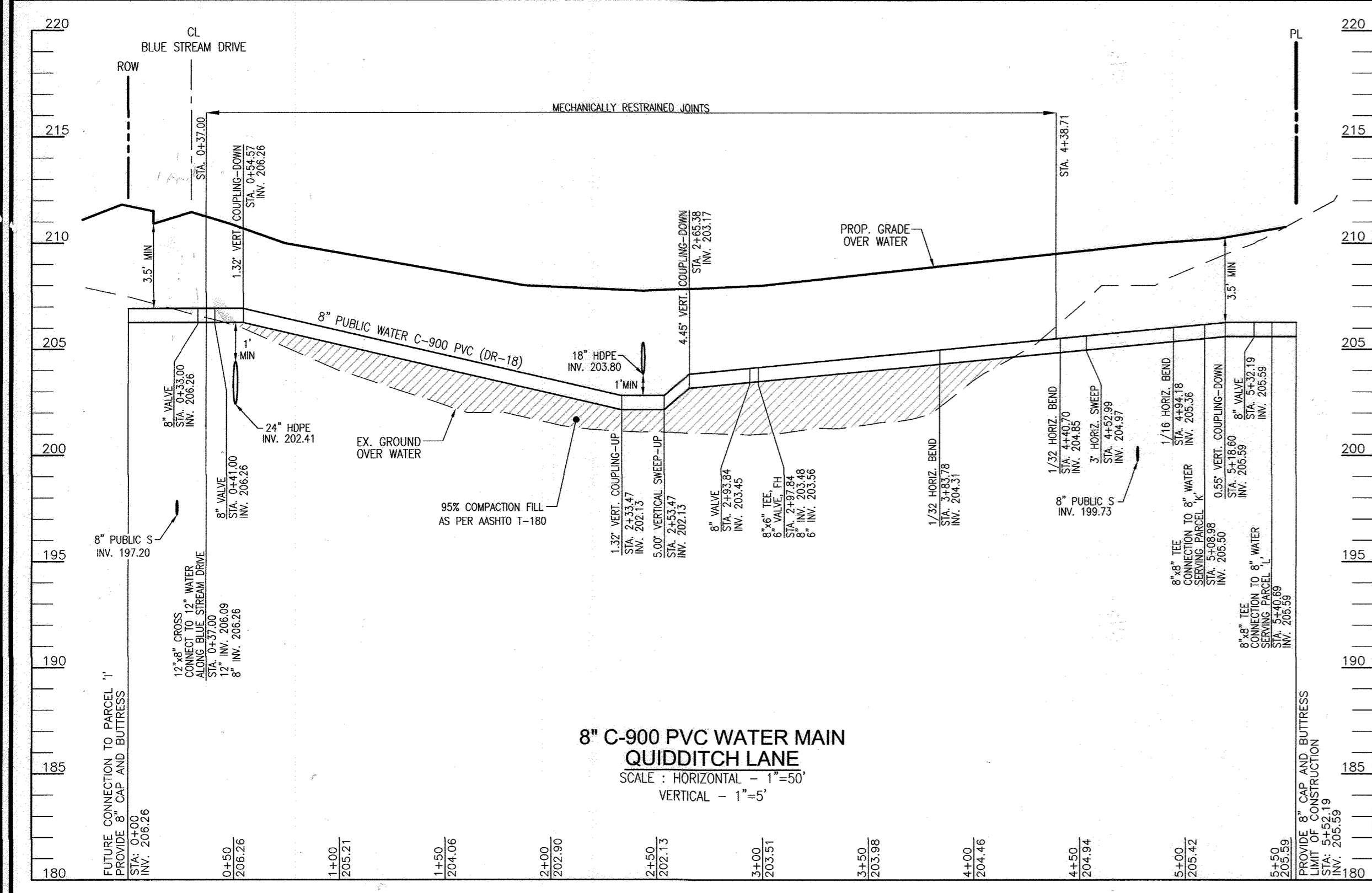
PARCEL P/O 'S', 14 AND 558
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

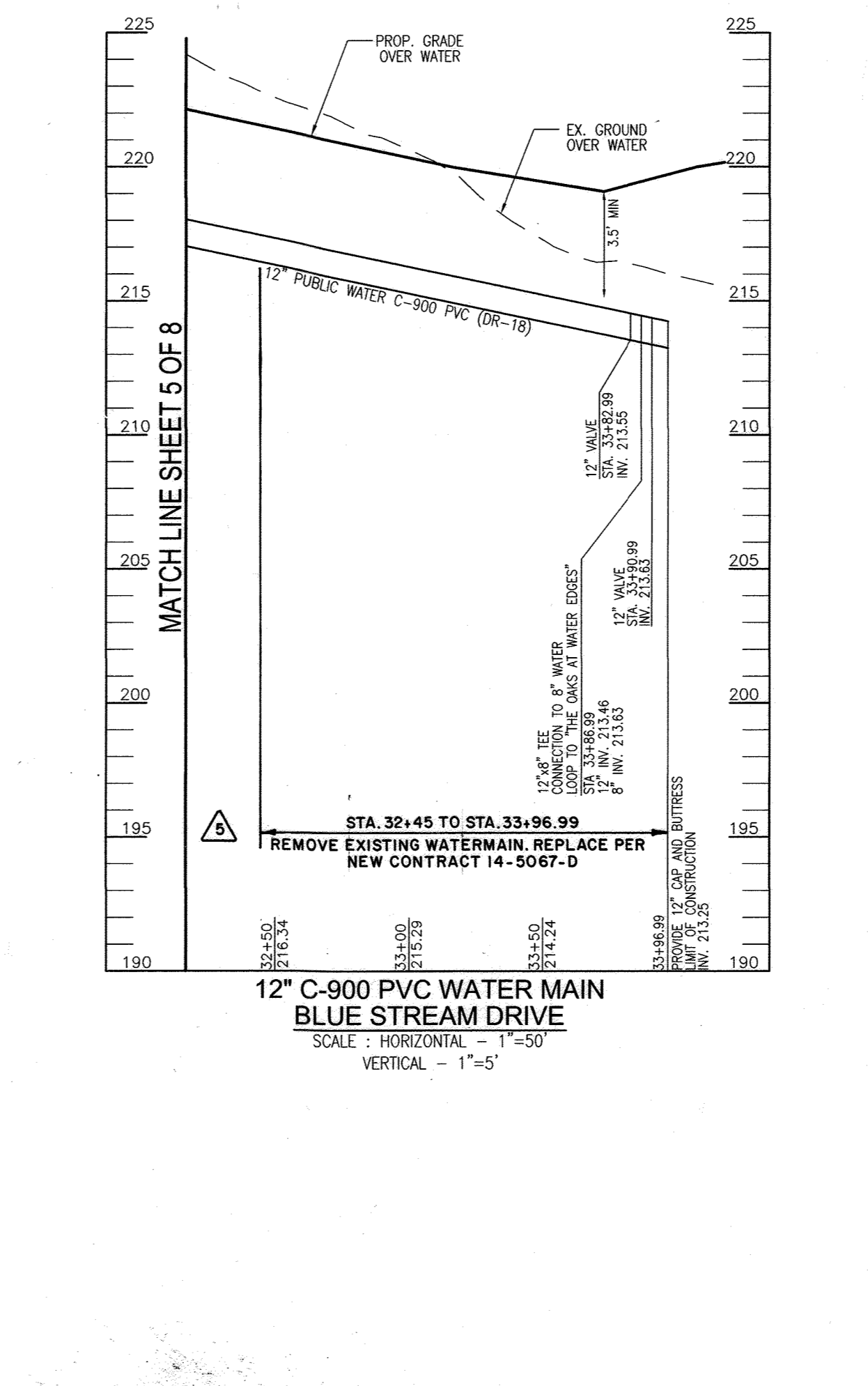
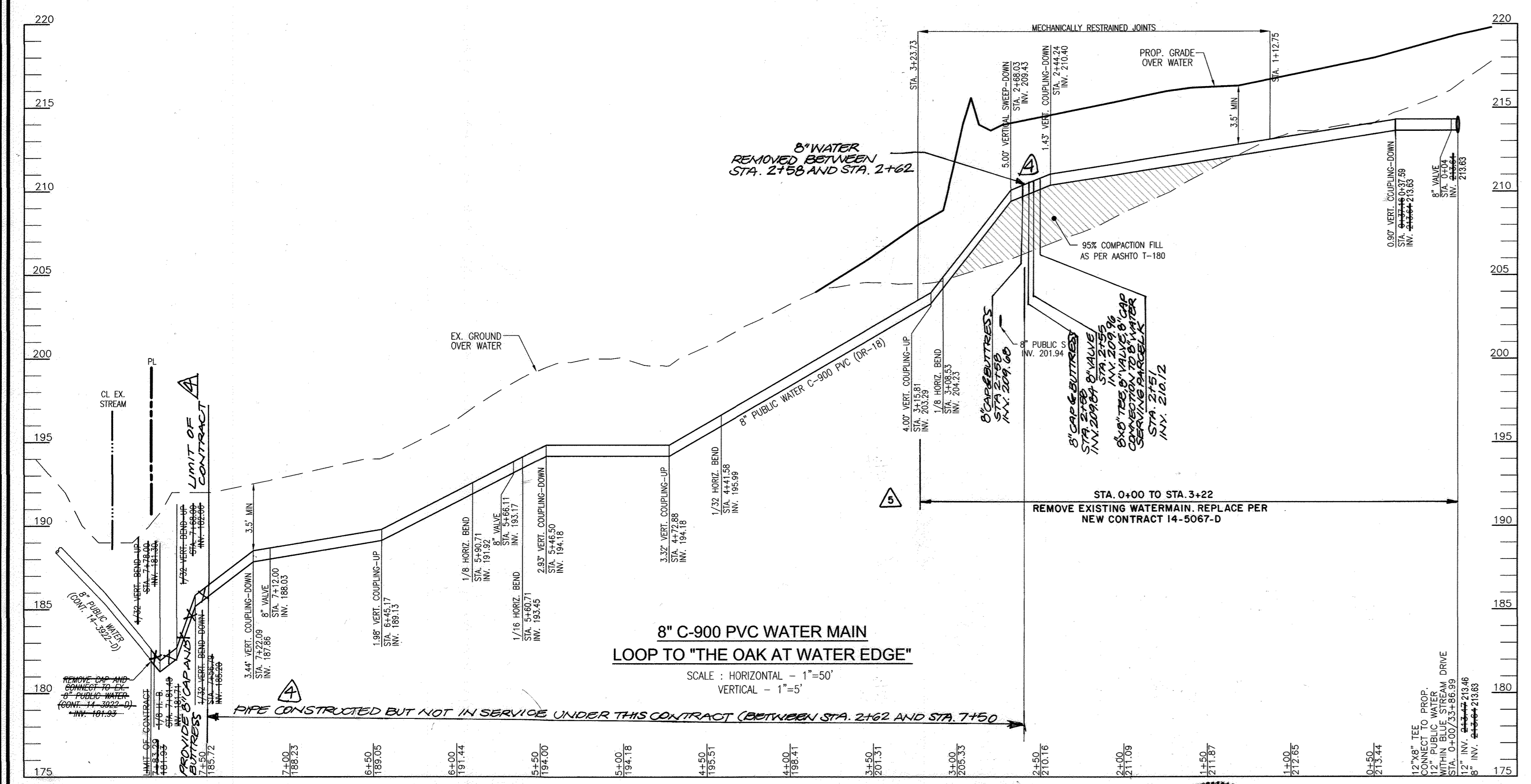
SHEET 4 OF 8



DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>S. C. Com</i> CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND <i>W. J. ...</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	 <p>ROBERT H. VOGEL ENGINEERING, INC. ENGINEERS • SURVEYORS • PLANNERS 8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8956</p>		PROFESSIONAL CERTIFICATE 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. 16193 EXPIRATION DATE: 09-27-2012 DRN: JMR DES: DZ CHK: RHV DATE: JANUARY 2012	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>REVISION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>DZ 3</td> <td>REVISE W&S PROFILES PER GRADING CHANGES, CORRECT SEWER CHARTS</td> <td>01/10/12</td> </tr> <tr> <td>JMR 2</td> <td>REVISE WATER AND SEWER MAIN FROM DIP TO PVC C-900.</td> <td>03/08/11</td> </tr> <tr> <td>DZ 1</td> <td>REVISE WATER AND SEWER TO ACCOMMODATE CHANGES TO F-02-035.</td> <td>09/20/10</td> </tr> </tbody> </table>	NO.	REVISION	DATE	DZ 3	REVISE W&S PROFILES PER GRADING CHANGES, CORRECT SEWER CHARTS	01/10/12	JMR 2	REVISE WATER AND SEWER MAIN FROM DIP TO PVC C-900.	03/08/11	DZ 1	REVISE WATER AND SEWER TO ACCOMMODATE CHANGES TO F-02-035.	09/20/10	<p>FINAL WATER & SEWER CONSTRUCTION PLAN WATER PROFILES</p>	<p>AS BUILTS 09/11 DFI DATE 10/22/12</p>	<p>OWNER/DEVELOPER BLUE STREAM, LLC. P.O. BOX 416 ELLICOTT CITY, MD 21041 C/O: ARNOLD SAGNER 410-465-2020</p>	<p>BLUE STREAM OPEN SPACE LOTS G-1 AND G2, AND BUILDABLE BULK PARCELS H-M CONTRACT # 14-4083-D</p>	<p>SCALE AS SHOWN</p> <p>SHEET 5 OF 8</p>
NO.	REVISION	DATE																				
DZ 3	REVISE W&S PROFILES PER GRADING CHANGES, CORRECT SEWER CHARTS	01/10/12																				
JMR 2	REVISE WATER AND SEWER MAIN FROM DIP TO PVC C-900.	03/08/11																				
DZ 1	REVISE WATER AND SEWER TO ACCOMMODATE CHANGES TO F-02-035.	09/20/10																				



WATER MAIN STRUCTURE SCHEDULE BLUE STREAM DRIVE			
STATION	DESCRIPTION	STATION	DESCRIPTION
0+00.00	12" x 12" TAPPING SLEEVE CONNECT TO EX. 12" PUBLIC WATER (CONT. 44-3805-D)	18+99.23	12" x 6" TEE, 6" VALVE AND F.H.
0+04.00	12" VALVE	19+27.34	1/8" HORIZONTAL BEND
2+30.32	12" x 6" TEE, 6" VALVE AND F.H.	19+57.04	1/8" HORIZONTAL BEND
2+34.32	12" VALVE	19+63.04	12" VALVE
2+37.32	0.67" VERTICAL COUPLING-DOWN	19+67.04	12" x 8" TEE
2+85.64	2.01" VERTICAL COUPLING-UP	20+74.18	1/8" HORIZONTAL BEND
3+95.07	1/16" HORIZONTAL BEND	20+93.85	12" x 8" TEE
4+09.29	0.75" VERTICAL COUPLING-DOWN	21+03.88	1/8" HORIZONTAL BEND
4+57.63	12" x 8" TEE	21+12.30	0.66" VERTICAL COUPLING-UP
4+61.63	12" VALVE	21+80.73	12" x 6" TEE, 6" VALVE AND F.H.
4+79.64	1/32" HORIZONTAL BEND	22+39.98	12" VALVE
5+23.53	12" x 6" TEE, 6" VALVE AND F.H.	22+43.98	12" x 8" TEE
5+34.29	1/32" HORIZONTAL BEND	23+76.93	1/32" HORIZONTAL BEND
5+82.85	0.90" VERTICAL COUPLING-DOWN	24+40.95	1/32" HORIZONTAL BEND
6+54.63	12" x 4" TEE	24+52.79	12" VALVE
7+70.03	12" VALVE	24+56.79	12" x 6" TEE, 6" VALVE AND F.H.
7+74.03	12" x 6" TEE, 6" VALVE AND F.H.	24+97.35	1/32" HORIZONTAL BEND
8+14.67	12" x 8" CROSS	25+68.37	3.00" HORIZONTAL SWEEP
8+16.89	1.00" VERTICAL COUPLING-UP	25+78.81	3.00" HORIZONTAL SWEEP
10+85.73	12" x 6" TEE, 6" VALVE AND F.H.	26+00.46	1/32" HORIZONTAL BEND
11+16.94	12" VALVE	26+14.63	2.04" VERTICAL COUPLING-DOWN
11+20.94	12" x 8" CROSS	26+31.93	12" VALVE
11+24.94	12" VALVE	26+35.94	12" x 12" TEE
13+38.94	12" x 6" TEE, 6" VALVE AND F.H.	26+39.95	12" VALVE
13+43.98	0.71" VERTICAL COUPLING-UP	26+67.95	1/32" HORIZONTAL BEND
13+79.40	0.90" VERTICAL COUPLING-DOWN	27+35.88	1/32" HORIZONTAL BEND
15+19.63	0.80" VERTICAL COUPLING-DOWN	27+41.19	0.66" VERTICAL COUPLING-UP
15+62.02	12" VALVE	27+76.78	12" x 6" TEE, 6" VALVE AND F.H.
15+66.02	12" x 8" TEE	30+72.78	12" VALVE
16+09.39	12" x 6" TEE, 6" VALVE AND F.H.	30+76.78	12" x 6" TEE, 6" VALVE AND F.H.
16+42.37	0.77" VERTICAL COUPLING-UP	33+82.99	12" VALVE
17+39.59	0.49" VERTICAL COUPLING-UP	33+86.99	12" x 8" TEE
17+53.35	12" VALVE	33+90.99	12" VALVE
17+57.35	12" x 8" TEE	33+96.99	12" CAP AND BUTTRISS
18+80.67	0.21" VERTICAL COUPLING-DOWN		



WATER MAIN STRUCTURE SCHEDULE 8" WATER LOOP	
STATION	DESCRIPTION
0+00.00	12" x 8" TEE
0+04.00	8" VALVE
0+37.16	0.90" VERTICAL COUPLING-DOWN
2+44.24	1.43" VERTICAL COUPLING-DOWN
2+68.03	5.00" VERTICAL SWEEP-DOWN
3+08.53	1/8" HORIZONTAL BEND
3+15.81	4.00" VERTICAL COUPLING-UP
4+41.58	1/32" HORIZONTAL BEND
4+72.88	3.32" VERTICAL COUPLING-UP
5+46.50	2.93" VERTICAL COUPLING-DOWN
5+60.71	1/16" HORIZONTAL BEND
5+66.11	8" VALVE
5+90.71	1/8" HORIZONTAL BEND
6+45.17	1.98" VERTICAL COUPLING-UP
7+12.00	8" VALVE
7+22.09	3.44" VERTICAL COUPLING-DOWN
7+56.79	1/32" VERTICAL BEND-DOWN
7+68.00	1/32" VERTICAL BEND-UP
7+78.00	1/32" VERTICAL BEND-UP
7+81.45	1/8" HORIZONTAL BEND

WATER MAIN STRUCTURE SCHEDULE QUIDDITCH LANE	
STATION	DESCRIPTION
0+00.00	8" CAP AND BUTTRISS
0+33.00	8" VALVE
0+37.00	12" x 8" CROSS
0+41.00	8" VALVE
0+54.57	1.32" VERTICAL COUPLING-UP
2+33.47	1.32" VERTICAL COUPLING-UP
2+53.47	5.00" VERTICAL SWEEP-UP
2+65.38	4.45" VERTICAL COUPLING-DOWN
2+93.84	8" VALVE
2+97.84	8" x 6" TEE, 6" VALVE AND F.H.
3+83.78	1/32" HORIZONTAL BEND
4+40.70	1/32" HORIZONTAL BEND
4+52.99	3.00" HORIZONTAL SWEEP
4+94.18	1/16" HORIZONTAL BEND
5+08.98	8" x 8" TEE
5+18.60	0.55" VERTICAL COUPLING-DOWN
5+32.19	8" VALVE
5+40.69	8" x 8" TEE
5+52.19	8" CAP AND BUTTRISS

WATER MAIN STRUCTURE SCHEDULE FIRE ACCESS ROAD	
STATION	DESCRIPTION
0+00.00	12" x 12" TEE
0+04.00	12" VALVE
0+61.92	5.00" VERTICAL SWEEP-UP
0+74.61	1/32" HORIZONTAL BEND
1+78.17	5.00" VERTICAL SWEEP-DOWN
3+20.91	1/32" VERTICAL BEND-UP
3+41.04	1/32" VERTICAL BEND-DOWN
3+75.16	1/32" HORIZONTAL BEND
3+93.26	1/8" VERTICAL BEND-DOWN
3+97.52	1/8" VERTICAL BEND-UP
4+02.52	12" VALVE
4+06.52	12" x 12" TAPPING SLEEVE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

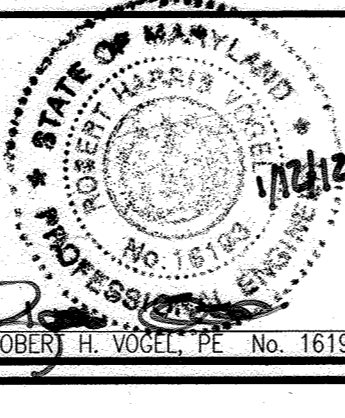
Silva C. G...
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

...
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EXPIRATION DATE: 09-27-2012

DRN: JMR DES: DZ
CHK: RHV
DATE: JANUARY 2012

NO.	REVISION	DATE
1	AS-BUILT	1/20/12
2	REVISE WATER LOOP TO "THE OAKS AT WATERS EDGE"	02/21/12
3	REVISE W&S PROFILES PER GRADING CHANGES, CORRECT SEWER CHARTS	01/10/12
4	REVISE WATER AND SEWER MAIN FROM DIP TO PVC C-900.	03/08/11
5	REVISE WATER AND SEWER TO ACCOMMODATE CHANGES TO	09/20/10
6	F-02-035.	

**FINAL WATER & SEWER
CONSTRUCTION PLAN
WATER PROFILES**

600' SCALE MAP NO. 43
BLOCK NO. 4 AND 5

BLUE STREAM
OPEN SPACE LOTS G-1 AND G2,
AND BUILDABLE BULK PARCELS H-M
CONTRACT # 14-4083-D

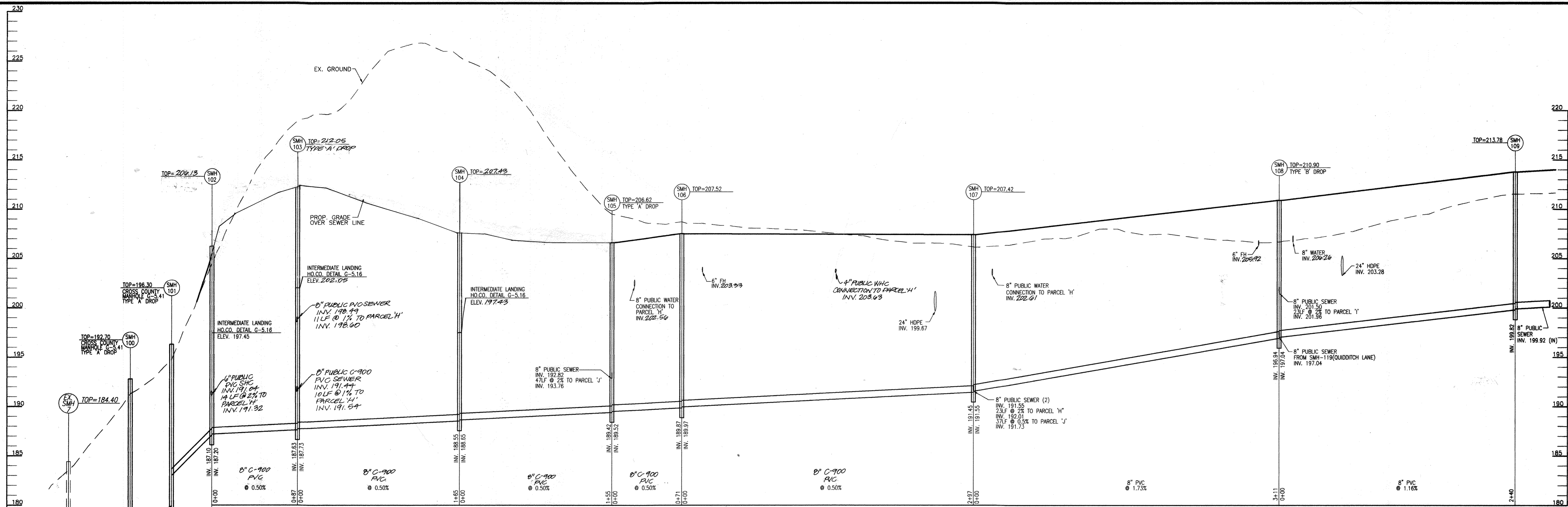
TAX MAP 43 GRID 4 AND 5
1ST ELECTION DISTRICT

PARCEL P/O 'S', 14 AND 558
HOWARD COUNTY, MARYLAND

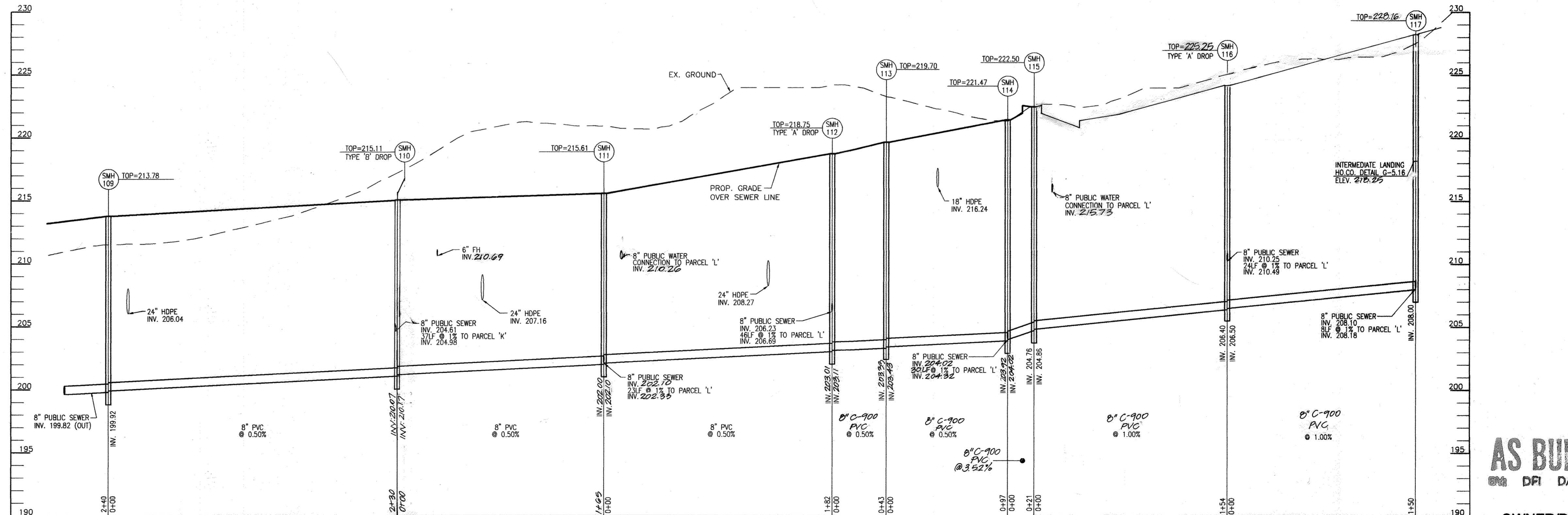
OWNER/DEVELOPER
BLUE STREAM, LLC
P.O. BOX 416
ELLICOTT CITY, MD 21041
C/O ARNOLD SAGNER
410-465-2020

SCALE
AS SHOWN

SHEET
6 OF 8



**8" SEWER MAIN
BLUE STREAM DRIVE**
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



**8" SEWER MAIN
BLUE STREAM DRIVE**
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'

AS BUILTS
DFI DATE: 10/22/12

OWNER/DEVELOPER
BLUE STREAM, LLC.
P.O. BOX 416
ELLCOTT CITY, MD 21041
C/O ARNOLD SAGNER
410-465-2020

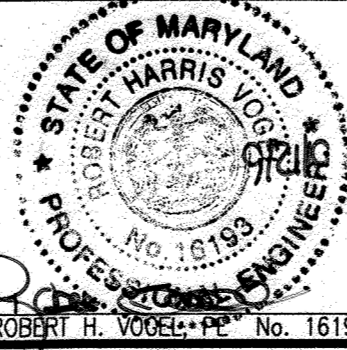
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature]
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DATE: SEPTEMBER 2010

3	REVISED WATER AND SEWER DESIGN BASED ON CHANGES TO THE GRADING AND F-02-03P	9/7/11	
2	REVISE WATER AND SEWER PIPE MATERIAL FROM 12" TO C-900 PVC	3/8/11	
DZ 1	REVISE WATER AND SEWER TO ACCOMMODATE CHANGES TO F-02-03S.	09/20/10	
BY	NO.	REVISION	DATE

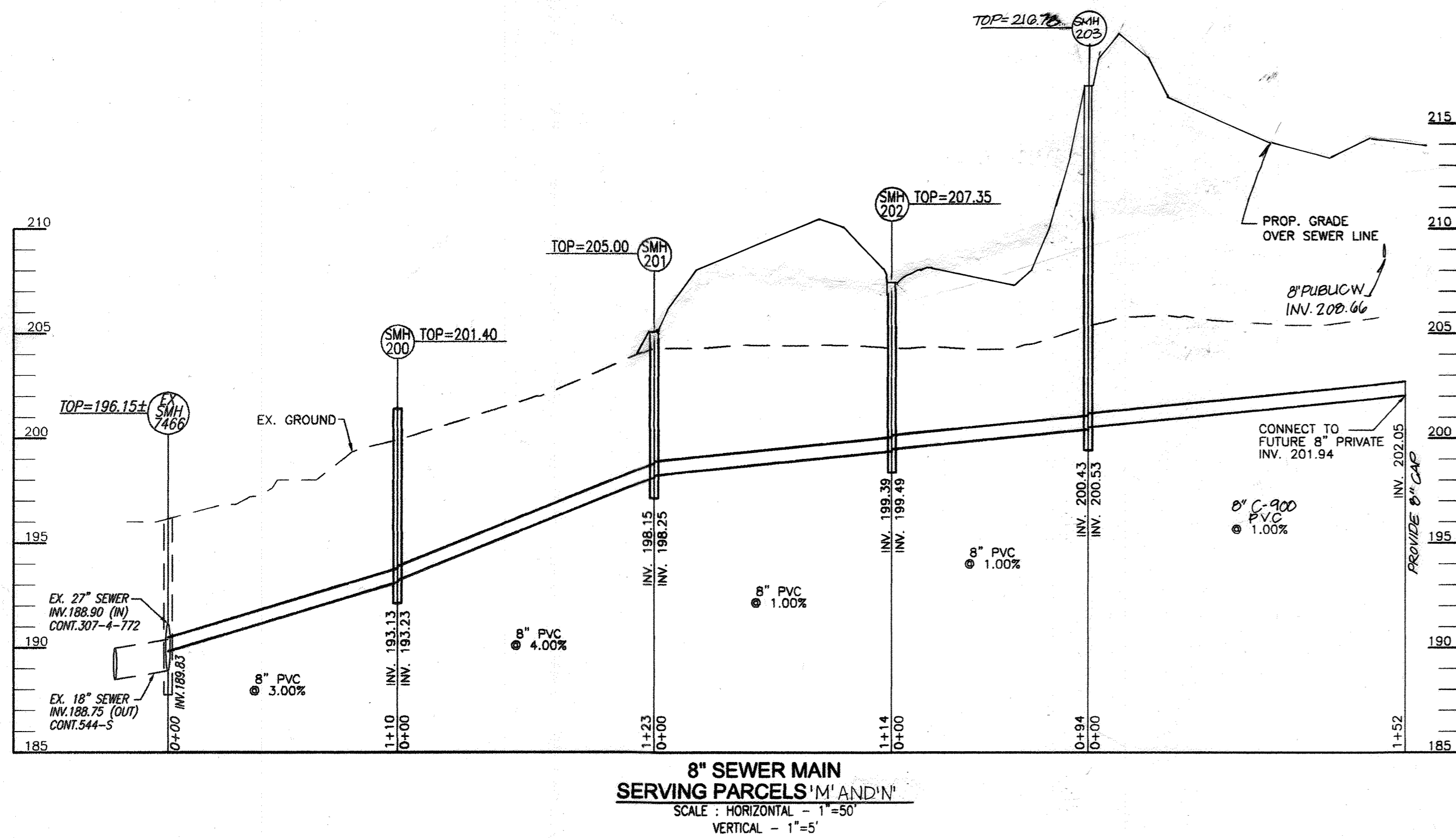
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CONSTRUCTION PLAN
SEWER PROFILES**

BLUE STREAM
OPEN SPACE LOTS G-1 AND G2,
AND BUILDABLE BULK PARCELS H-M
CONTRACT # 14-4083-D

TAX MAP 43 GRID 4 AND 5
1ST ELECTION DISTRICT

PARCEL P/O '5, 14 AND 558
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 7 OF 8

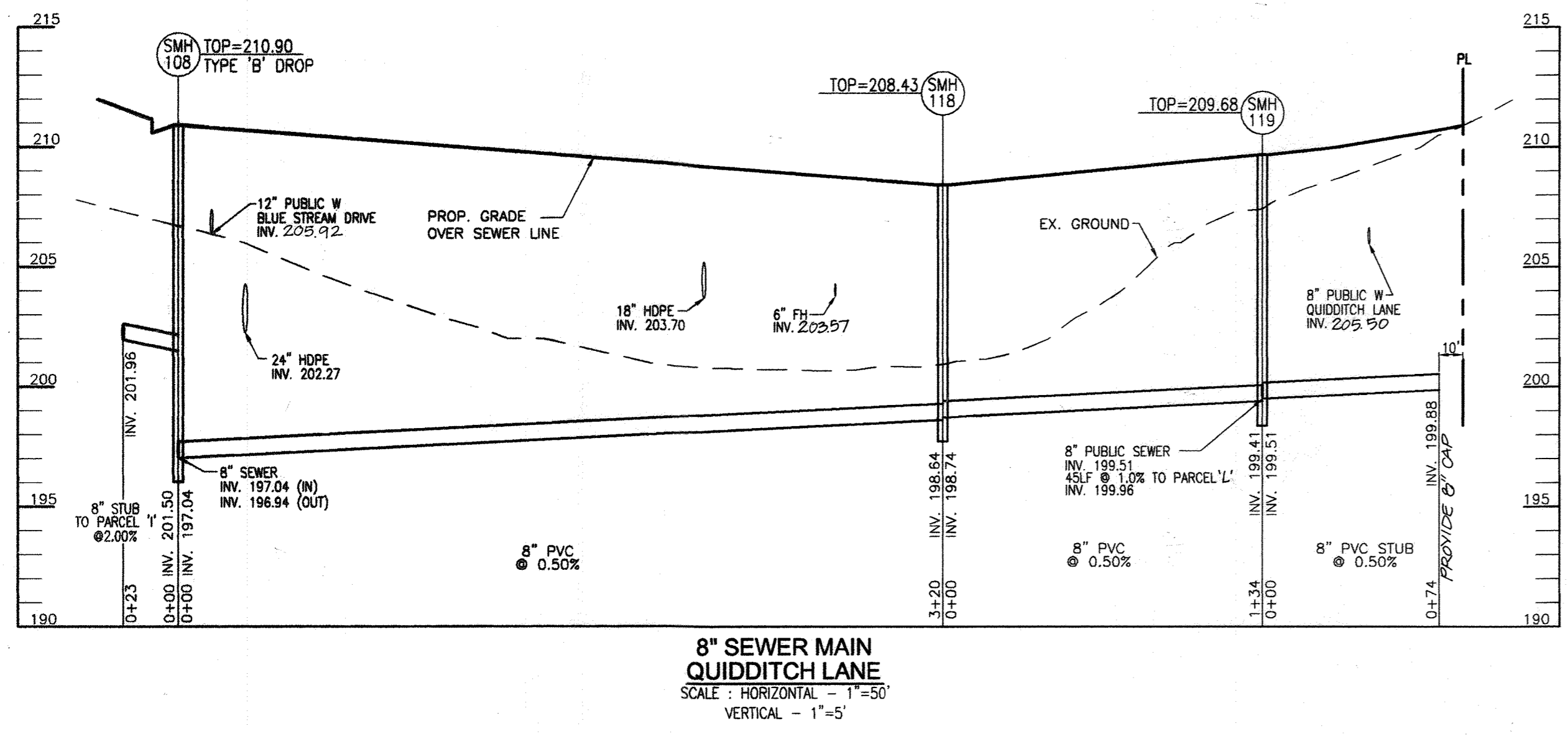


MANHOLE LOCATION CHART

MH No.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT
SMH 100	CROSS COUNTRY MANHOLE (G 5.41)	N 550090.33 E 1375990.54	192.70	177.15	173.40
SMH 101	CROSS COUNTRY MANHOLE (G 5.41)	N 550096.62 E 1375970.02	196.30	183.00	179.25
SMH 102	STD. PRECAST MANHOLE (G 5.12)	N 550129.29 E 1375995.21	204.13	187.20	187.10
SMH 103	STD. PRECAST MANHOLE (G 5.12)	N 550180.58 E 1375665.06	212.09	187.73	187.63
SMH 104	STD. PRECAST MANHOLE (G 5.12)	N 550278.40 E 1375988.29	207.43	188.65	188.55
SMH 105	STD. PRECAST MANHOLE (G 5.12)	N 550316.44 E 1,375948.14	206.62	189.92	189.42
SMH 106	STD. PRECAST MANHOLE (G 5.12)	N 550386.31 E 1,375934.23	207.52	189.97	189.87
SMH 107	STD. PRECAST MANHOLE (G 5.12)	N 550679.68 E 1375983.42	207.42	187.84	191.45
SMH 108	STD. PRECAST MANHOLE (G 5.12)	N 550986.66 E 1376034.89	210.90	201.50	196.94
SMH 109	STD. PRECAST MANHOLE (G 5.12)	N 551223.36 E 1376074.57	213.78	199.92	199.82
SMH 110	STD. PRECAST MANHOLE (G 5.12)	N 551450.28 E 1376112.62	215.16	201.17	201.07
SMH 111	STD. PRECAST MANHOLE (G 5.12)	N 551613.34 E 1376139.96	215.61	202.10	202.00
SMH 112	STD. PRECAST MANHOLE (G 5.12)	N 551792.76 E 1376170.04	218.75	203.73	203.01
SMH 113	STD. PRECAST MANHOLE (G 5.12)	N 551832.92 E 1376155.48	219.70	203.43	203.33
SMH 114	STD. PRECAST MANHOLE (G 5.12)	N 551928.37 E 1376171.49	221.47	204.03	203.92
SMH 115	STD. PRECAST MANHOLE (G 5.12)	N 551924.90 E 1376192.20	222.50	204.86	204.76
SMH 116	STD. PRECAST MANHOLE (G 5.12)	N 552077.06 E 1376217.71	224.25	206.50	206.40
SMH 117	STD. PRECAST MANHOLE (G 5.12)	N 552224.81 E 1376242.48	225.12	208.10	208.00
SMH 118	STD. PRECAST MANHOLE (G 5.12)	N 550933.75 E 1376350.48	208.43	198.74	198.64
SMH 119	STD. PRECAST MANHOLE (G 5.12)	N 552442.56 E 1376174.73	209.68	199.51	199.41
SMH 200	STD. PRECAST MANHOLE (G 5.12)	N 552509.87 E 1376091.94	201.40	193.23	193.13
SMH 201	STD. PRECAST MANHOLE (G 5.12)	N 552626.99 E 1375834.64	205.00	198.25	198.15
SMH 202	STD. PRECAST MANHOLE (G 5.12)	N 552762.07 E 1375537.93	207.35	199.49	199.39
SMH 203	STD. PRECAST MANHOLE (G 5.12)	N 552783.15 E 1375491.67	216.75	200.53	200.43

SEWER CONNECTION TABULATION

PARCEL No.	TYPE	ELEVATION @ MAIN	ELEVATION @ R/W
J	8" PVC	192.82 @ SMH 105	193.76
J	8" PVC	191.55 @ SMH 107	191.73
H	8" PVC	191.55 @ SMH 107	192.01
I	8" PVC	201.50 @ SMH 108	201.96
K	8" PVC	204.61 @ SMH 110	204.98
L	8" PVC	202.10 @ SMH 111	202.33
L	8" PVC	206.23 @ SMH 112	206.69
L	8" PVC	209.02 @ SMH 114	209.32
L	8" PVC	210.25 @ SMH 116	210.49
L	8" PVC	208.10 @ SMH 117	208.10
L	8" PVC	199.51 @ SMH 119	199.98
H	8" PVC	191.04 @ SMH 102	191.92
H	8" PVC	191.44 @ SMH 103	191.54
H	8" PVC	190.49 @ SMH 103	196.60



DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>Steve C...</i> CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND <i>John P...</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	 ROBERT H. VOGEL ENGINEERING, INC. ENGINEERS • SURVEYORS • PLANNERS 8407 MAIN STREET TEL: 410.461.7666 ELLICOTT CITY, MD 21043 FAX: 410.461.8966	 PROFESSIONAL CERTIFICATE I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16183 EXPIRATION DATE: 09-27-2012 DRN: KG DES: DZ CHK: RHY DATE: SEPTEMBER 2010	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">3</td> <td style="width: 60%;">REVISE WATER AND SEWER DESIGN BASED ON CHANGES TO THE GRADING AND F-02-035</td> <td style="width: 35%;">9/7/11</td> </tr> <tr> <td>2</td> <td>REVISE WATER AND SEWER PIPE MATERIAL FROM DIP TO C-900 PVC</td> <td>3/8/11</td> </tr> <tr> <td>1</td> <td>REVISE WATER AND SEWER TO ACCOMMODATE CHANGES TO F-02-035.</td> <td>09/20/10</td> </tr> </table>	3	REVISE WATER AND SEWER DESIGN BASED ON CHANGES TO THE GRADING AND F-02-035	9/7/11	2	REVISE WATER AND SEWER PIPE MATERIAL FROM DIP TO C-900 PVC	3/8/11	1	REVISE WATER AND SEWER TO ACCOMMODATE CHANGES TO F-02-035.	09/20/10	FINAL WATER & SEWER CONSTRUCTION PLAN SEWER PROFILES	BLUE STREAM OPEN SPACE LOTS G-1 AND G2, AND BUILDABLE BULK PARCELS H-M CONTRACT # 14-4083-D	SCALE AS SHOWN SHEET 8 OF 8
3	REVISE WATER AND SEWER DESIGN BASED ON CHANGES TO THE GRADING AND F-02-035	9/7/11														
2	REVISE WATER AND SEWER PIPE MATERIAL FROM DIP TO C-900 PVC	3/8/11														
1	REVISE WATER AND SEWER TO ACCOMMODATE CHANGES TO F-02-035.	09/20/10														
				600' SCALE MAP NO. 43 BLOCK NO. 4 AND 5		TAX MAP 43 GRID 4 AND 5 1ST ELECTION DISTRICT		PARCEL P/O '5', 14 AND 558 HOWARD COUNTY, MARYLAND								

AS BUILTS
BY: DFI DATE: 10/22/12

OWNER/DEVELOPER
 BLUE STREAM, LLC.
 P.O. BOX 416
 ELLICOTT CITY, MD 21041
 C/O: ARNOLD SAGNER
 410-465-2020

ASBUILT UTILITY LOCATION CHART #1		
FROM	TO	DISTANCE
F.H.	TEST STATION	2.67'
F.H.	6" F.H. VALVE	24.80'
6" F.H. VALVE	TEST STATION	24.80'
6" F.H. VALVE	12" VALVE	4.40'
F.H.	12" VALVE	27.00'
12" VALVE	C.L. INLET MH I-3	56.00'
12" VALVE	C.L. INLET MH I-2	63.00'

ASBUILT UTILITY LOCATION CHART #2		
FROM	TO	DISTANCE
6" F.H. VALVE	F.H.	31.00'
6" F.H. VALVE	TEST STATION	31.00'
F.H.	TEST STATION	2.50'
F.H.	SMH 106	24.70'
6" F.H. VALVE	SMH 106	30.20'
6" F.H. VALVE	SDMH	13.70'
8" VALVE	8" W CAP @ STUB (PARCEL 'H')	41.60'
8" VALVE	SMH 105	29.60'
8" VALVE	SDMH	29.70'
8" W CAP @ STUB (PARCEL 'H')	SMH 105	15.20'
8" VALVE	12" VALVE	5.70'
12" VALVE	SDMH	9.70'

ASBUILT UTILITY LOCATION CHART #3		
FROM	TO	DISTANCE
12" VALVE #1	6" F.H. VALVE	4.67'
12" VALVE #1	F.H.	27.00'
12" VALVE #1	SMH 107	29.40'
6" F.H. VALVE	F.H.	24.50'
6" F.H. VALVE	TEST STATION	24.60'
6" F.H. VALVE	SMH 107	28.10'
F.H.	TEST STATION	2.67'
8" VALVE #2	8" W CAP @ STUB (PARCEL 'H')	37.50'
8" VALVE #2	SMH 107	20.00'
8" VALVE #2	8" VALVE #3	7.33'
8" VALVE #3	8" W CAP @ STUB (PARCEL 'J')	25.00'
8" VALVE #3	SMH 107	25.50'

ASBUILT UTILITY LOCATION CHART #4		
FROM	TO	DISTANCE
12" VALVE #4	SMH 108	19.00'
SDMH #5	12" VALVE #4	22.17'
SDMH #5	6" F.H. VALVE	18.67'
F.H. VALVE	F.H.	27.17'
SMH 108	8" VALVE #1	18.00'
SMH 108	8" W CAP @ STUB	27.60'
SMH 108	8" S CAP @ STUB	22.00'
SMH 108	F.H.	24.60'
SMH 108	6" F.H. VALVE	23.00'
SMH 108	TEST STATION	23.00'
F.H.	TEST STATION	2.50'
6" F.H. VALVE	TEST STATION	27.17'
F.H.	8" S CAP @ STUB	22.33'
12" VALVE #4	6" F.H. VALVE	31.00'
F.H.	8" W CAP @ STUB	35.00'
8" VALVE #1	12" VALVE #2	5.67'
12" VALVE #2	8" VALVE #3	5.67'
8" VALVE #3	12" VALVE #4	5.83'
12" VALVE #4	8" VALVE #1	5.33'

ASBUILT UTILITY LOCATION CHART #5		
FROM	TO	DISTANCE
F.H.	6" F.H. VALVE	14.50'
F.H.	TEST STATION	2.80'
6" F.H. VALVE	SMH 110	18.70'
F.H.	SMH 110	31.50'
F.H.	INLET MH	26.00'
6" F.H. VALVE	INLET MH	26.50'

ASBUILT UTILITY LOCATION CHART #6		
FROM	TO	DISTANCE
F.H.	6" F.H. VALVE	22.20'
F.H.	8" VALVE	23.67'
F.H.	TEST STATION	2.67'
6" F.H. VALVE	8" VALVE	3.67'
8" VALVE	TEST STATION	24.20'
F.H.	SMH 118	45.60'
6" F.H. VALVE	SMH 118	48.00'

ASBUILT UTILITY LOCATION CHART #7		
FROM	TO	DISTANCE
8" VALVE #1	SMH 119	46.60'
8" VALVE #1	PARCEL 'J'	29.30'
8" VALVE #3	PARCEL 'K'	22.00'
8" VALVE #2	SMH 119	47.30'
SMH 119	8" W CAP @ STUB (PARCEL 'J')	49.00'
SMH 119	8" W CAP @ STUB (PARCEL 'K')	83.00'
8" VALVE #3	8" W CAP @ STUB (PARCEL 'K')	13.00'
8" VALVE #2	8" S CAP @ STUB	13.90'
8" VALVE #2	8" W CAP @ STUB (@STA 5+52.19)	17.40'
8" VALVE #3	8" W CAP @ STUB (@STA 5+52.19)	7.60'
8" W CAP @ STUB (@STA 5+52.19)	8" S CAP @ STUB	13.60'

ASBUILT UTILITY LOCATION CHART #8		
FROM	TO	DISTANCE
F.H.	6" F.H. VALVE	39.00'
F.H.	SMH 110	39.50'
F.H.	TEST STATION	2.80'
6" F.H. VALVE	SMH 110	34.50'
6" F.H. VALVE	SDMH	17.40'
F.H.	SDMH	38.00'
12" VALVE	8" VALVE	8.00'
12" VALVE	SMH 110	24.70'
8" VALVE	SMH 110	22.00'
8" VALVE	8" W CAP @ STUB	19.00'
8" W CAP @ STUB	8" S CAP @ STUB	10.00'

ASBUILT UTILITY LOCATION CHART #9		
FROM	TO	DISTANCE
12" VALVE	8" VALVE	3.60' 4.00'
12" VALVE	SMH 111	48.50' 18.00'
8" VALVE	SMH 111	47.60' 18.00'
8" VALVE	8" W CAP @ STUB	38.00'
SMH 111	8" W CAP @ STUB	31.60'
SMH 111	8" VALVE (CONTRACT 14-5044-D)	65.00'
8" VALVE	SMH	56.00'
8" VALVE (CONTRACT 14-5044-D)	SMH	13.00'

ASBUILT UTILITY LOCATION CHART #10		
FROM	TO	DISTANCE
F.H.	6" F.H. VALVE	12.50'
6" F.H. VALVE	SMH 112	30.00'
F.H.	SMH 112	38.90'
12" VALVE	8" VALVE #1	4.00'
12" VALVE	F.H.	54.60'
12" VALVE	SMH 112	48.00'
8" VALVE #1	SMH 112	52.00'
8" VALVE #1	8" W CAP @ STUB (PARCEL 'L' EAST)	35.00'
8" S CAP @ STUB (PARCEL 'L' EAST)	8" W CAP @ STUB (PARCEL 'L' EAST)	44.00'
12" VALVE	SMH 113	57.80'
8" VALVE #1	SMH 113	60.00'
8" VALVE #2	SMH 115	29.00'
8" VALVE #2	SMH 114	45.50'
SMH 114	8" W CAP @ STUB (PARCEL 'L' WEST)	29.00'
SMH 115	8" W CAP @ STUB (PARCEL 'L' WEST)	49.00'
8" S CAP @ STUB (PARCEL 'L' WEST)	8" W CAP @ STUB (PARCEL 'L' WEST)	13.60'
8" VALVE (CONTRACT 14-4837-D)	SMH 115	37.00'
8" VALVE (CONTRACT 14-4837-D)	SMH 114	49.00'
8" VALVE (CONTRACT 14-4837-D)	8" VALVE #2	13.00'
6" F.H. VALVE (CONTRACT 14-5044-D)	6" F.H. VALVE (CONTRACT 14-5044-D)	57.00'
6" F.H. VALVE (CONTRACT 14-5044-D)	F.H. (CONTRACT 14-5044-D)	40.00'

ASBUILT UTILITY LOCATION CHART #11		
FROM	TO	DISTANCE
F.H.	6" F.H. VALVE	17.00'
F.H.	SMH 116	59.30'
F.H.	TEST STATION	3.60'
F.H. VALVE	SMH 116	52.25'
TEST STATION	SMH 116	52.00'
12" VALVE	SMH 116	19.00'
12" VALVE	8" VALVE	3.67'
8" VALVE	SMH 116	23.00'
8" VALVE	F.H.	65.00'
8" VALVE	8" W CAP @ STUB	9.60'
12" VALVE	F.H.	63.50'
8" S CAP @ STUB	8" W CAP @ STUB	14.00'

F.H. ABANDONED BY 14-4837-D

F.H. ABANDONED BY 14-4837-D

8" VALVE ABANDONED BY 14-4837-D

AS BUILTS
 DEL. DATE 10/22/12

*NOTE: THIS SHEET HAS BEEN ADDED FOR ASBUILT RECORD ONLY.

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND CHIEF, DEVELOPMENT ENGINEERING DIVISION	ROBERT H. VOGEL ENGINEERING, INC. ENGINEERS • SURVEYORS • PLANNERS 8407 MAIN STREET ELLSWORTH CITY, MD 21043 TEL: 410-321-2881	WRA AS-BUILT DATE: 1/2021	FINAL WATER & SEWER CONSTRUCTION PLAN SEWER PROFILES	BLUE STREAM OPEN SPACE LOTS 0-1 AND 02, AND BUILDABLE BULK PARCELS 10-11 CONTRACT # 14-4022-0 SHEET 8 OF 8	SCALE AS SHOWN 800' SCALE MAP NO. _____ BLOCK NO. _____ TRV MAP 43 GRID 4 AND 5 1ST ELECTION DISTRICT PARCEL P/O 3', 14 AND 350'
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