

GENERAL NOTES

PART I

- APPROXIMATE LOCATIONS OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- THE EXISTING TOPOGRAPHY SHOWN HEREON IS TAKEN FROM AN AERIAL TOPOGRAPHIC SURVEY PREPARED BY POTOMAC AERIAL SURVEYS INC., DECEMBER 21, 2017 AND SUPPLEMENTED BY FIELD SURVEYS PREPARED BY VOGEL ENGINEERING+TIMMONS GROUP DATED MARCH 2013, FEB/MARCH 2014 AND FEB/MARCH/JUNE 2018.
- THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM NAD '83/91 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 16E1 AND 16H3. ALL VERTICAL CONTROLS ARE BASED ON NAVD' 88. VERTICAL CONTROLS PROVIDED ON DRAWINGS ARE:
 GEODETIC SURVEY CONTROL 16E1 (N 593250.96 E 1340192.70)
 BRASS DISC SET ON TOP OF A CONCRETE MONUMENT.
 GEODETIC SURVEY CONTROL 16H3 (N 592408.04 E 1341523.97)
 BRASS DISC SET ON TOP OF A CONCRETE MONUMENT.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED.
- 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 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 DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATION AT HIS OWN EXPENSE.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 AT&T 1-800-252-1133
 BGE (CONSTRUCTION SERVICES) 410-637-8713
 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(c) OF THE HOWARD COUNTY CODE.

PART II - WATER

- ALL WATER MAINS SHALL BE C900 PVC (DR-14) UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF 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 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 DIP AND PVC WATER MAINS IN ACCORDANCE WITH THE 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 ALLOW CROSS REFERENCING OF THE PIPE SUPPLIED TO THE TEST RECORDS RECEIVED.
- UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS, 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. SEVENTEEN (17) POUND MAGNESIUM ANODES SHALL BE INSTALLED ON ALL VALVES AND DUCTILE IRON FITTINGS INCLUDING RESTRAINTS AND HARNESSSES. TWENTY (20) POUND 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 SPIGOT INTO 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 OR HIGH DEFLECTION 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. THE CONTRACTOR SHALL USE A VIBRATORY PLATE COMPACTOR OR OTHER APPROVED MEANS TO THOROUGHLY COMPACT THE #57 STONE ON BOTH SIDES OF THE HIGH DEFLECTION COUPLING OR 5-DEGREE SWEEP, TAKING CARE NOT TO USE COMPACTOR EQUIPMENT DIRECTLY OVER THE FITTING.
 PVC HIGH DEFLECTION COUPLINGS SHALL BE LIMITED TO A TOTAL DEFLECTION 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 AWWA C900. SHALL HAVE A MINIMUM LAY LENGTH OF 9-INCHES AND SHALL HAVE CENTER STOPS. PVC HIGH DEFLECTION COUPLINGS SHALL BE CERTAINTED PVC HIGH DEFLECTION (HD) STOP COUPLINGS OR EQUAL. PVC 5-DEGREE SWEEPS SHALL BE BELL BY SPIGOT, RATED FOR A MINIMUM 225 PSI, DR18 MEETING THE REQUIREMENTS OF AWWA C900 AND SHALL BE MULTI FITTINGS (PEX) BLUE BRUTE DR18 OR EQUAL.
- WHEN PVC HIGH DEFLECTION COUPLINGS OR PVC 5-DEGREE SWEEPS ARE USED TO FACILITATE CHANGES IN HORIZONTAL OR VERTICAL ALIGNMENTS OF AWWA C-900 PVC PIPELINES, THE CONTRACTOR SHALL INSTALL 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 EBAA IRON INC. OR APPROVED EQUAL.
- SPRINKLER SYSTEM FOR SINGLE RESIDENTIAL DWELLING UNITS SHALL HAVE WATER HOUSE CONNECTIONS AND WATER METERS THAT ARE SIZED IN ACCORDANCE WITH THE DESIGN OF THE SPRINKLER SYSTEMS. SPRINKLER SYSTEMS FOR SINGLE RESIDENTIAL DWELLINGS SHALL HAVE A MINIMUM OF 1.5" SERVICE CONNECTION WITH A 1" OUTSIDE METER SETTING.

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE SPECIFICATIONS AND WITH SITE DEVELOPMENT PLAN F-21-011.

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

Alexander Bratchi 08/25/21
 SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND
 CHIEF, BUREAU OF UTILITIES DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

FINAL WATER AND SEWER CONSTRUCTION PLAN

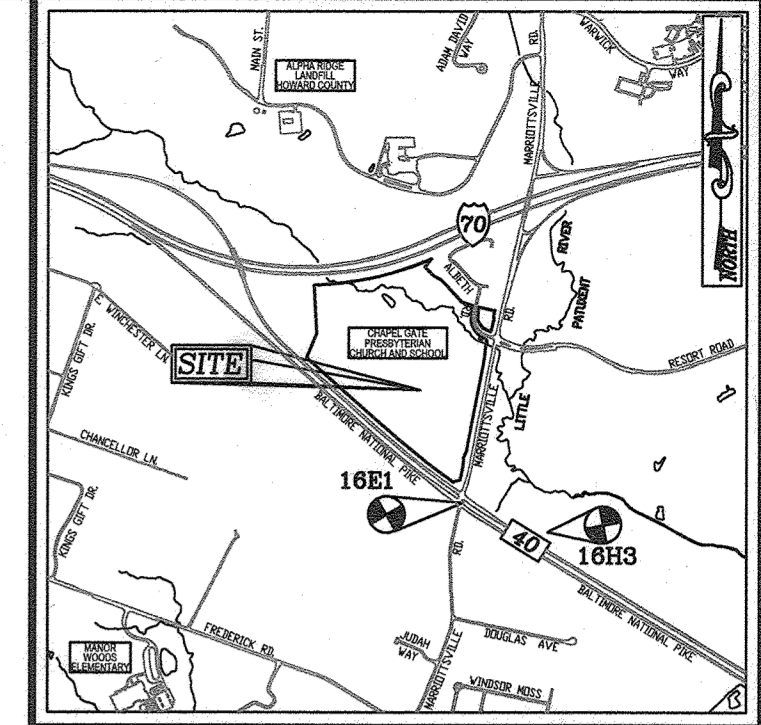
CHAPELGATE WOODS-PHASE 2

LOTS 44-87 & 119, AND OPEN SPACE LOTS 135-137,
 PARCEL A AND NON-BUILDABLE PARCELS B & C

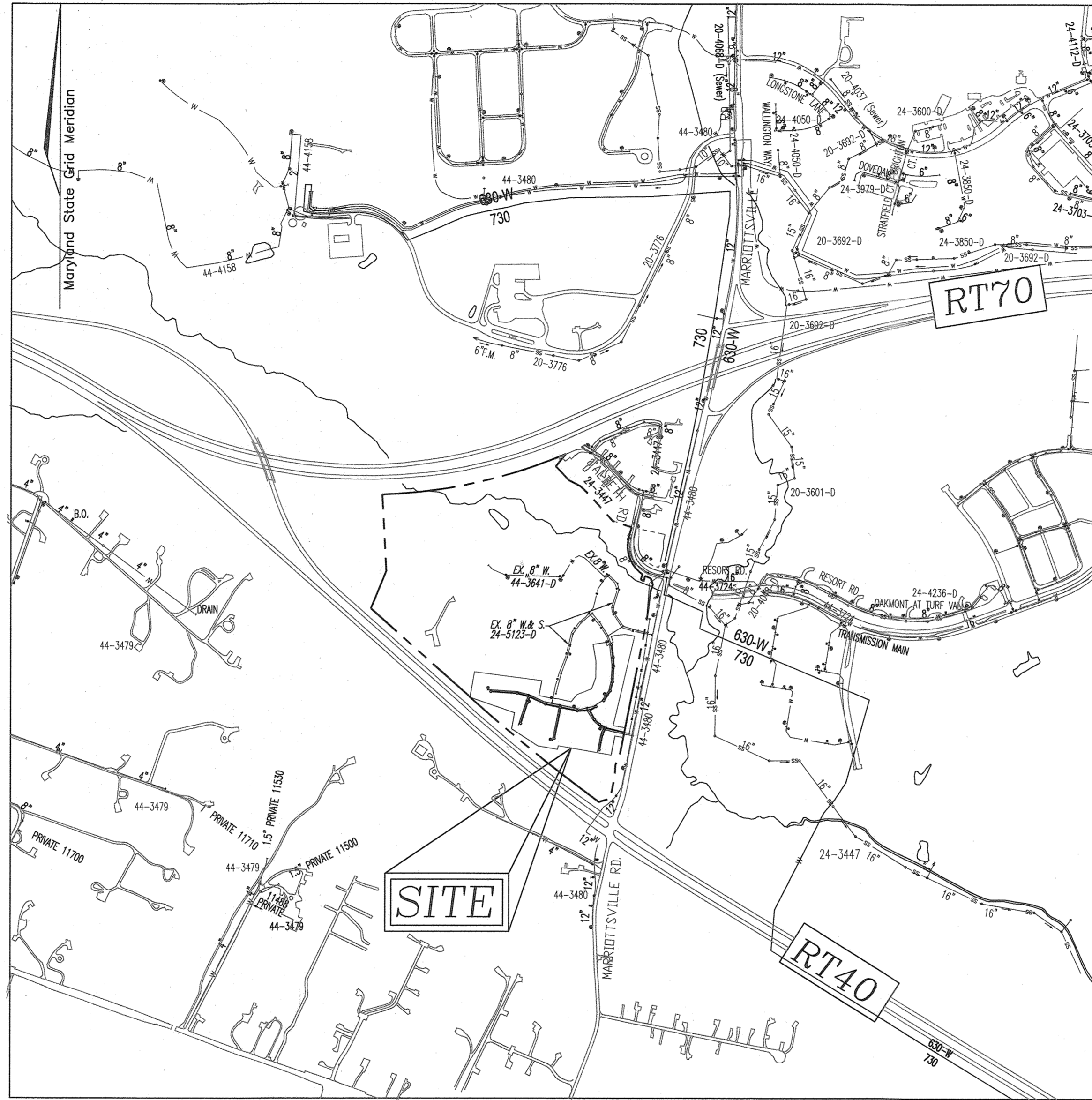
CONTRACT 24-5165-D
 HOWARD COUNTY, MARYLAND

BENCHMARKS

HOWARD COUNTY BENCHMARK 16E1 (CONC. MON.)
 N 593250.96 E 1340192.70 ELEV. 463.89
 LOCATION: ISLE AT CORNER RT-40 & MARRIOTTSVILLE ROAD
 HOWARD COUNTY BENCHMARK 16H3 (CONC. MON.)
 N 592408.04 E 1341523.97 ELEV. 469.7
 LOCATION: RT-40, 0.45 MILES WEST OF TURF VALLEY ROAD



LOCATION MAP
 SCALE: 1"=200'
 ADC MAP: PAGE: 19 BLOCK: B3, B4, C3 & C4



VICINITY MAP
 SCALE: 1"=600'

WATER ZONE: 730
 TEST GRADIENT: 1007
 TEST PRESSURE: 244.26 PSI

Type of Building :	RESIDENTIAL
No. of Lots/Parcels :	45 SFA
No. of single Water House Connections :	18
No. of Twin Water House Connections :	14
No. of Sewer House Connections :	45
No. of Twin Sewer House Connections :	0
Sewer Shed :	Rt. 108
Treatment Plant :	LITTLE PATUXENT WATER RECLAMATION PLANT

NOTE:
 REVISION #2, APPROVED ON APRIL 17, 2023, REPLACED SHEET 2 AND ADDED SHEET 6. THE PURPOSE OF REVISION #2 IS TO ADD WATER MAIN 'A' FROM CONTRACT 24-3480-D AND SEWER MAIN FROM SMH 6 TO SMH 10, WHICH WAS PREVIOUSLY PART OF CHAPELGATE WOODS-PHASE 1; CONTRACT 24-5123-D, TO THIS CHAPELGATE WOODS-PHASE 2; CONTRACT 24-5165-D.

SHEET INDEX

DESCRIPTION	SHEET NO.
COVER SHEET & LOCATION MAP	1 OF 5
LAYOUT PLAN	2 OF 5
WATER PROFILES	3 OF 5
WATER AND SEWER PROFILES	4 OF 5
SEWER PROFILES	5 OF 5

LEGEND

- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING WATER MAIN
- PROPOSED WATER MAIN
- FIRE HYDRANT
- PROPOSED VALVE
- PROPOSED TEE
- PROPOSED STORM DRAIN
- PROPOSED SEWER MAIN
- EXISTING STORM DRAIN
- EXISTING SEWER
- SEWER MANHOLE
- PRIVATE WATER HOUSE CONNECTION
- PRIVATE SEWER HOUSE CONNECTION
- PROPOSED SIGN
- PROPOSED LIGHT
- ROW LINE
- PROPERTY LINE

QUANTITIES - PHASE 2

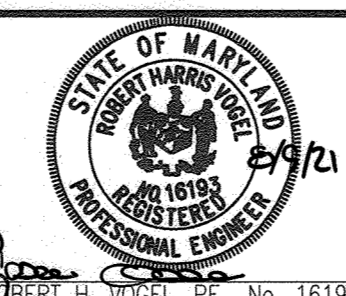
NAME OF UTILITY CONTRACTOR :
 SURVEY AND DRAFTING DIVISION AS-BUILT DATE :

ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
8" WATER C-900 PVC (DR-14)	1294 LF	1294 LF	DR-18	J M EAGLE LB WATER
8" WATER (DIP)	59 LF	59 LF	GL-54	TYTON JOINT LB WATER
8" X 8" TEE	4 EA	4	MJ	STAR PIPE LB WATER
8" X 6" TEE	4 EA	4	MJ	STAR PIPE LB WATER
8" VALVE	6 EA	6	2500 RV	AMERICAN FLOW LB WATER
6" VALVE	4 EA	4	2500 RV	AMERICAN FLOW LB WATER
FIRE HYDRANT	4 EA	4		AMERICAN DAWLING LB WATER
8" CAP AND BUTTRESS	4 EA	4	MJ	STAR PIPE LB WATER
8" H. COUPLING	1 EA	1	MJ	STAR PIPE LB WATER
5" H. SWEEP	1 EA	1	C900	MULTI-FITTINGS LB WATER
1/32 H. BEND	6 EA	6	MJ	STAR PIPE LB WATER
5" VERT. SWEEP	2 EA	2	C900	MULTI-FITTINGS LB WATER
8" VERT. COUPLING	5 EA	5	MJ	STAR PIPE LB WATER
1/32 VERT. BEND	1 EA	1	MJ	STAR PIPE LB WATER
1 1/2" VHC	592 LF	592 LF	TYPE K	CAMBRIDGE-LEE LB WATER
1" WATER METER VAULT	32 EA	32	CONCRETE	HORNE CONCRETE LB WATER
MANHOLE	11 EA	11		CPC CPC
5" SEWER PVC-SDR 35	1291 LF	1241 LF	SDR-35	J M EAGLE LB WATER
4" SHC	632 LF	632 LF	SDR-26	J M EAGLE LB WATER
SEWER CLEANOUT	45 EA	45		CAPITOL FOUNDRY LB WATER

*FROM HOWARD COUNTY DESIGN MANUAL VOLUME II-SECTION 4.3, TABLE 4.3D.

OWNER
 CHAPELGATE PRESBYTERIAN CHURCH, INC.
 2600 MARRIOTTSVILLE RD.
 MARRIOTTSVILLE, MD 21104
 (410) 442-5888
DEVELOPER
 SECURITY DEVELOPMENT
 8480 BALTIMORE NATIONAL PIKE
 SUITE 415
 ELLICOTT CITY, MD 21041
 410-465-1244
 SDCPROPERTIES.COM

VOGEL ENGINEERING
 +
TIMMONS GROUP
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21143
 P: 410-461-7666 F: 410-461-8961 www.timmons.com



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.
 EXPIRATION DATE: 08-21-2022

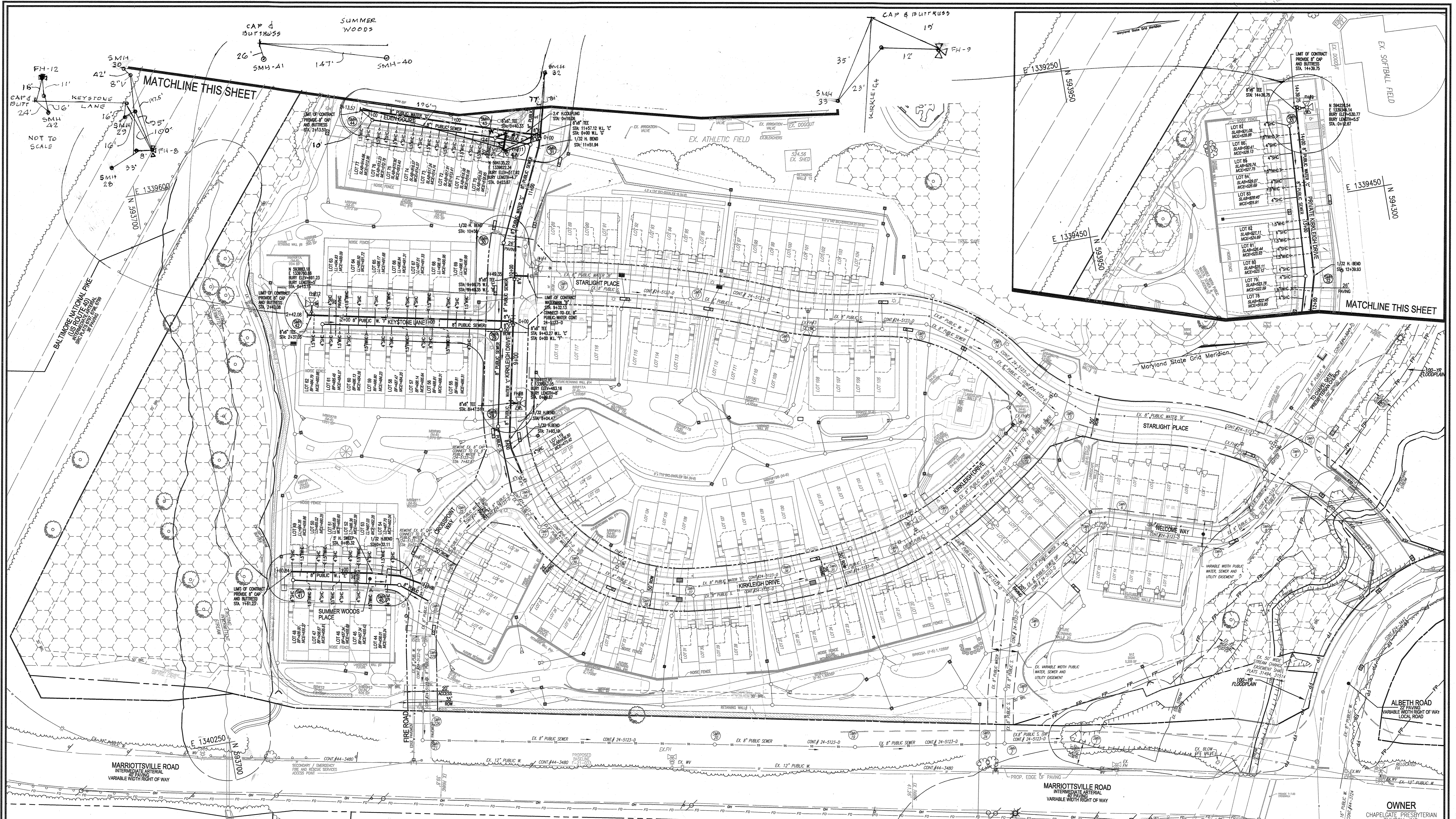
NO.	DATE	REVISION
1	12-21-2023	AS-BUILT
2	8-15-2023	REVISE TO REFLECT BENCHMARK 'D' AND A PORTION OF 'C' AND SEWER MAINS 6 TO 31, 238 AND 23-27 TO CHAPELGATE WOODS PHASE 1 (24-5123-D)
3	4-17-2023	REVISE TO ADD WATER MAINS 'A' AND 'D' AND SEWER MAIN SMH-6 TO SMH-10 FROM CHAPELGATE WOODS-PHASE 1; CONTRACT 24-5123-D
4	3-25-2022	REVISE SITE LAYOUT, VHC AND SHC INVERTS

FINAL WATER AND SEWER CONSTRUCTION PLAN
 CONTRACT 24-5165-D
 COVER SHEET

CHAPELGATE WOODS-PHASE 2
 LOTS 44-87 & 119, AND OPEN SPACE LOTS 135-137,
 PARCEL A AND NON-BUILDABLE PARCELS B & C

TAX MAP 16 GRID 10 ZONED: CEF-M PARCEL 110
 TAX MAP 16 GRID 10 ZONED: CEF-M PARCEL 421
 3RD ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 1 OF 5



PLAN VIEW
SCALE: 1"=50'
SCALE 1"=50'
25' 0" 50'

OWNER
CHAPEL GATE PRESBYTERIAN CHURCH, INC.
2600 MARRIOTTVILLE RD.
MARRIOTTVILLE, MD 21104
(410) 442-5888

DEVELOPER
SECURITY DEVELOPMENT
8480 BALTIMORE NATIONAL PIKE
SUITE 415
ELLCOTT CITY, MD 21041
410-465-4244
SDCPROPERTIES.COM

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature]
CHIEF, BUREAU OF UTILITIES

9/7/2023
DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

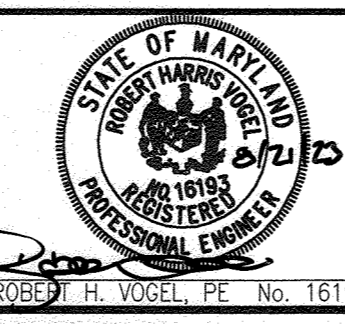
[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION

9/14/23
DATE

VOGEL ENGINEERING

TIMMONS GROUP

3300 NORTH RIDGE ROAD, SUITE 110, ELLCOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com



PROFESSIONAL CERTIFICATE NUMBER: 16193	ISSUE DATE: 09-27-2024	EXPIRES: 09-27-2028
DRN: KG	DES: KG	WRA: 4
CHK: RHV	VTG: 3	BY NO.:
DATE: JULY 2023	REVISION:	DATE:

FINAL WATER AND SEWER CONSTRUCTION PLAN
CONTRACT 24-5165-D
LAYOUT SHEET

600' SCALE MAP NO. 16
BLOCK NO. 10

CHAPEL GATE WOODS-PHASE 2
LOTS 44-87, 119, AND OPEN SPACE LOTS 135-137, PARCEL A AND NON-BUILDABLE PARCELS B & C

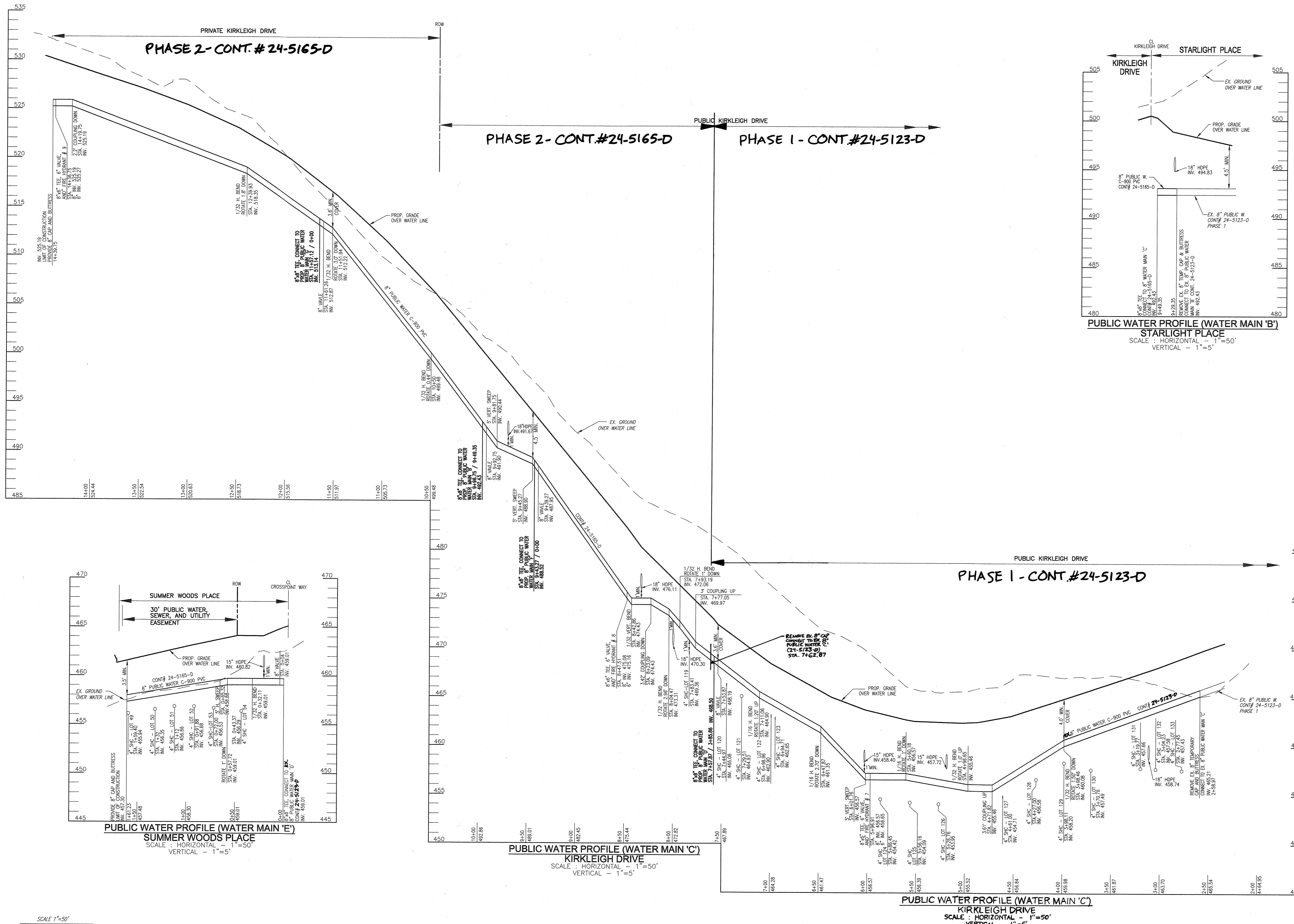
TAX MAP 16 GRID 10
3RD ELECTION DISTRICT

ZONED: CEF-M
HOWARD COUNTY, MARYLAND

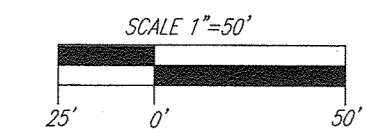
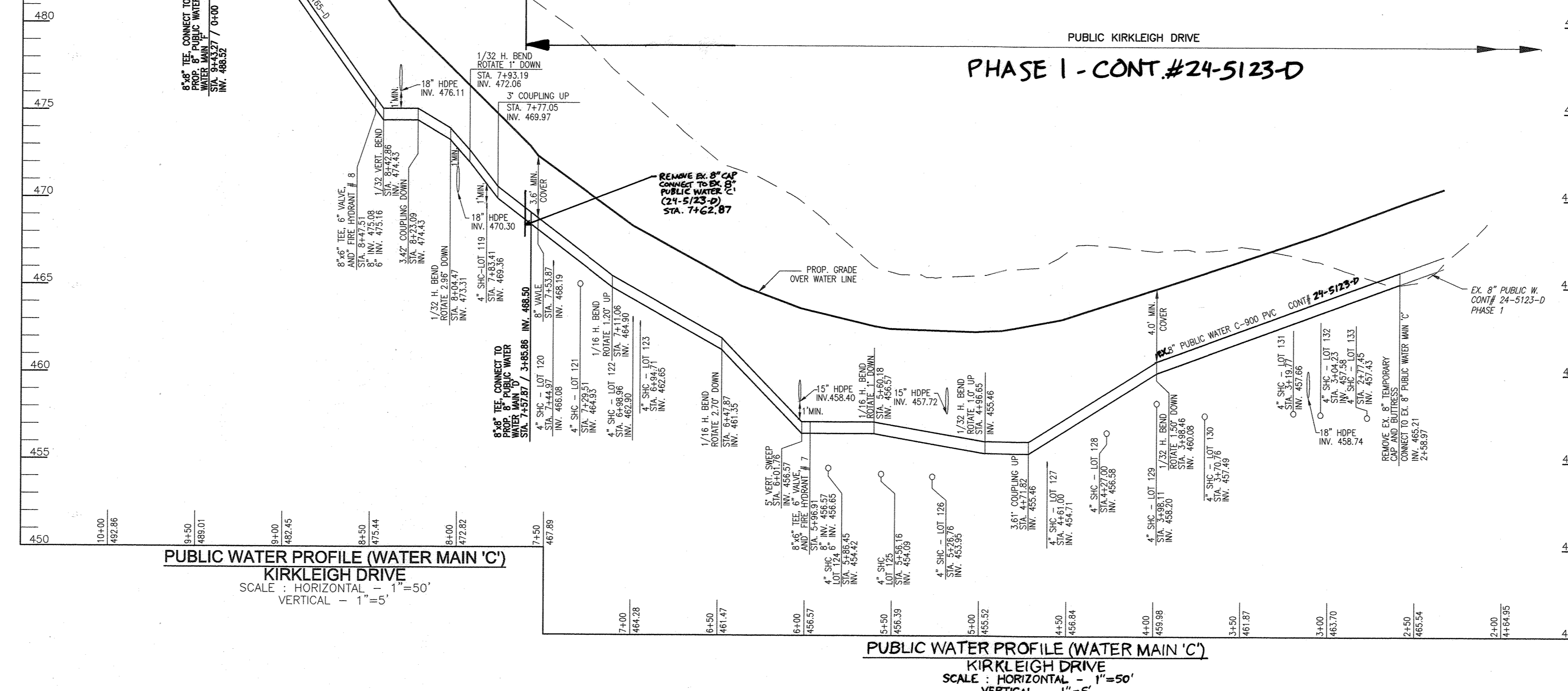
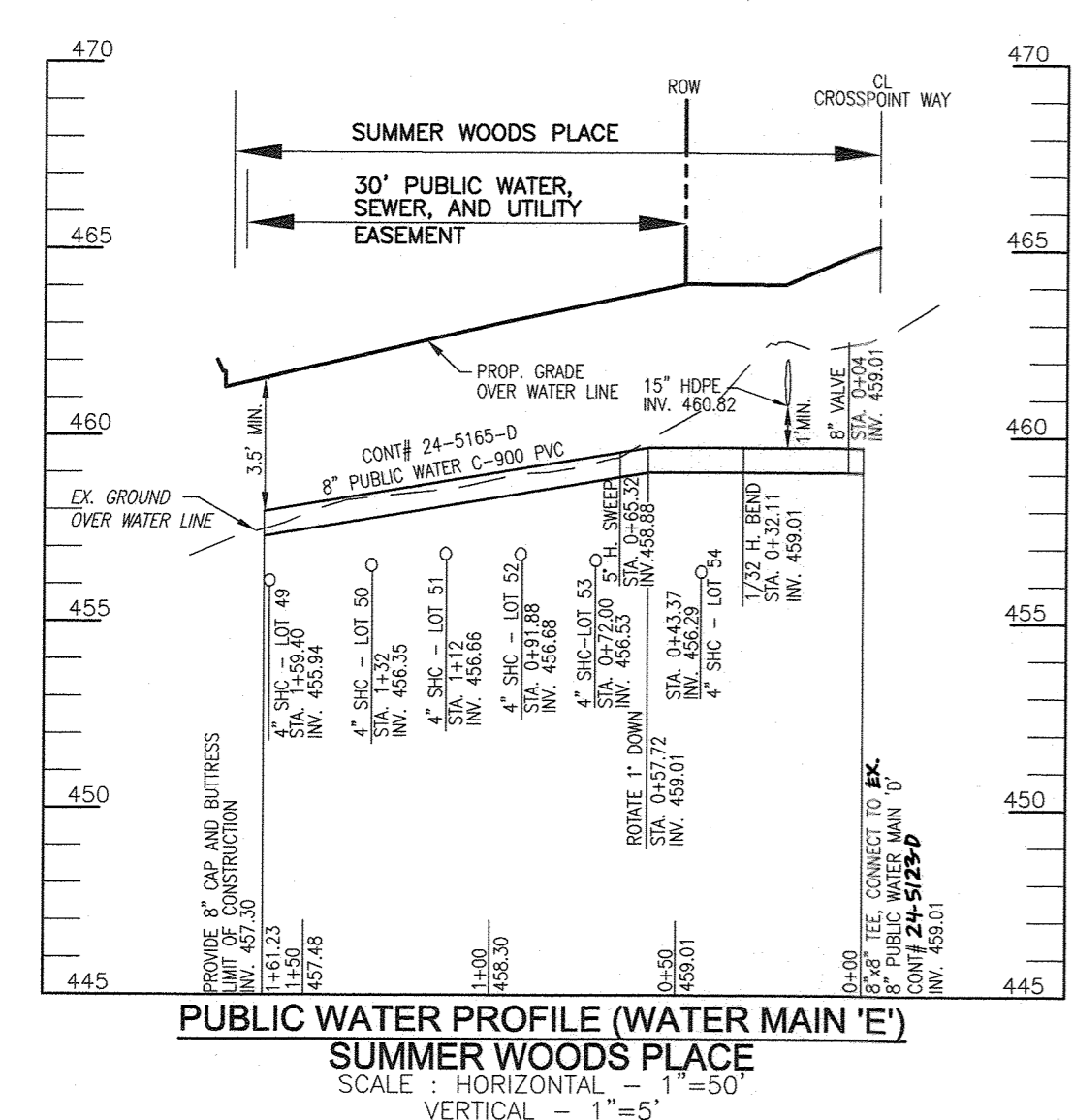
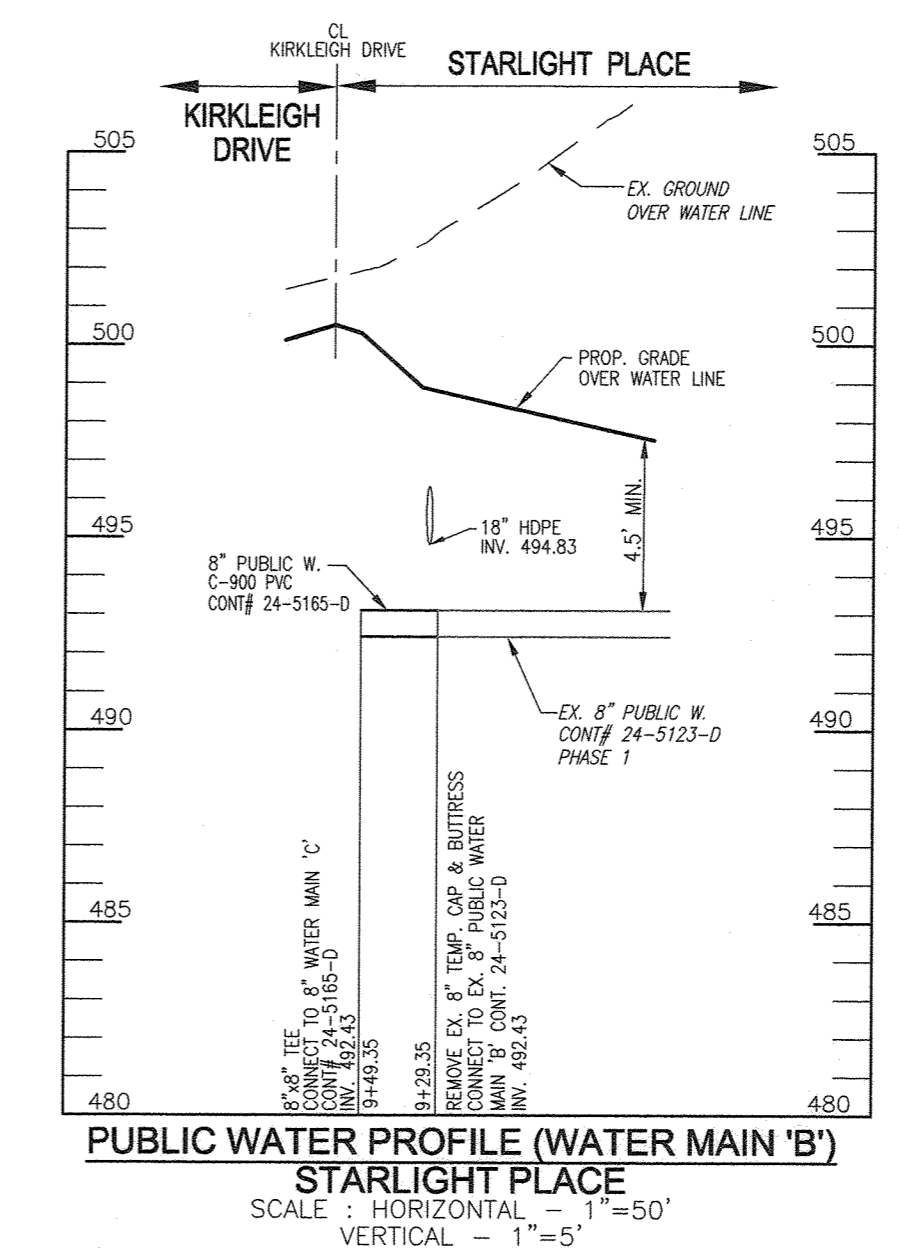
PARCEL 110
PARCEL 21

SHEET 2 OF 5

REPLACEMENT MYLAR - AUGUST 15, 2023



WATER MAIN LOCATION CHART			
STATION	APPURTENANCE	NORTHING	EASTING
WATER LINE 'B'			
STA: 9+29.35	EX. 8" TEMP. CAP & BUTTRISS		
STA: 9+49.35	8" x 8" TEE (WATER LINE 'C')		
WATER LINE 'C'			
STA: 7+58.97	EX. 8" TEMP. CAP & BUTTRISS		
STA: 3+98.26	1/32 H. BEND, ROTATE 1.50° DOWN		
STA: 4+71.82	3.61' COUPLING UP		
STA: 4+96.65	1/32 H. BEND, ROTATE 1.0° UP		
STA: 5+60.18	1/16 H. BEND, ROTATE 1° DOWN		
STA: 5+96.91	8" x 6" FHT & 6" VALVE		
STA: 6+01.76	5' VERT. SWEEP		
STA: 6+47.87	1/16 H. BEND, ROTATE 2.70° DOWN		
STA: 7+11.08	1/16 H. BEND, ROTATE 1.20° UP		
STA: 7+53.87	VALVE		
STA: 7+57.87	8"x8" TEE (WATER LINE 'D')		
STA: 7+77.05	3' COUPLING UP		
STA: 7+83.19	1/32 H. BEND, ROTATE 1° DOWN		
STA: 8+04.47	1/32 H. BEND, ROTATE 2.96° DOWN		
STA: 8+23.09	3.42' COUPLING DOWN		
STA: 8+42.86	1/32 VERT. BEND		
STA: 8+47.51	8" x 6" FHT & 6" VALVE		
STA: 9+39.27	8" VALVE		
STA: 9+43.27	8"x8" TEE (WATER LINE 'F')		
STA: 9+45.27	5' VERT. SWEEP DOWN		
STA: 9+81.75	5' VERT. SWEEP UP		
STA: 9+92.75	8" VALVE		
STA: 9+96.75	8"x8" TEE (WATER LINE 'B')		
STA: 10+50.00	1/32 H. BEND, ROTATE 0.44° DOWN		
STA: 11+51.94	1/32 H. BEND, ROTATE 3.0° DOWN		
STA: 11+61.26	8" VALVE		
STA: 11+57.12	8"x8" TEE (WATER LINE 'C')		
STA: 12+39.93	1/32 H. BEND, ROTATE 1.8° DOWN		
STA: 14+19.75	2.2' COUPLING DOWN		
STA: 14+36.75	8" x 6" FHT & 6" VALVE		
STA: 14+39.75	8" CAP & BUTTRISS		
WATER LINE 'E'			
STA: 0+00	EX. 8"x8" TEE (WATER LINE 'D')		
STA: 0+04	8" VALVE		
STA: 0+32.11	1/32 H. BEND		
STA: 0+57.72	ROTATE 1° DOWN		
STA: 0+85.32	5' H. SWEEP		
STA: 1+61.23	8" CAP & BUTTRISS		



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

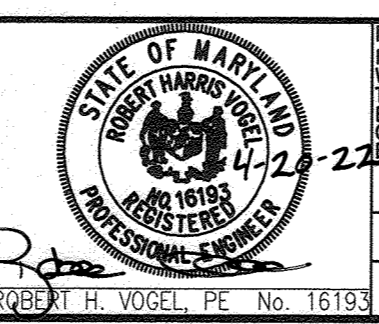
[Signature]
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION

VOGEL ENGINEERING

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PROFESSIONAL CERTIFICATE	DATE: FEBRUARY 2022
DESIGNER: KG	DATE: FEBRUARY 2022
CHECKER: RHV	DATE: FEBRUARY 2022
DATE: FEBRUARY 2022	

FINAL WATER AND SEWER CONSTRUCTION PLAN
CONTRACT 24-5165-D
WATER PROFILES

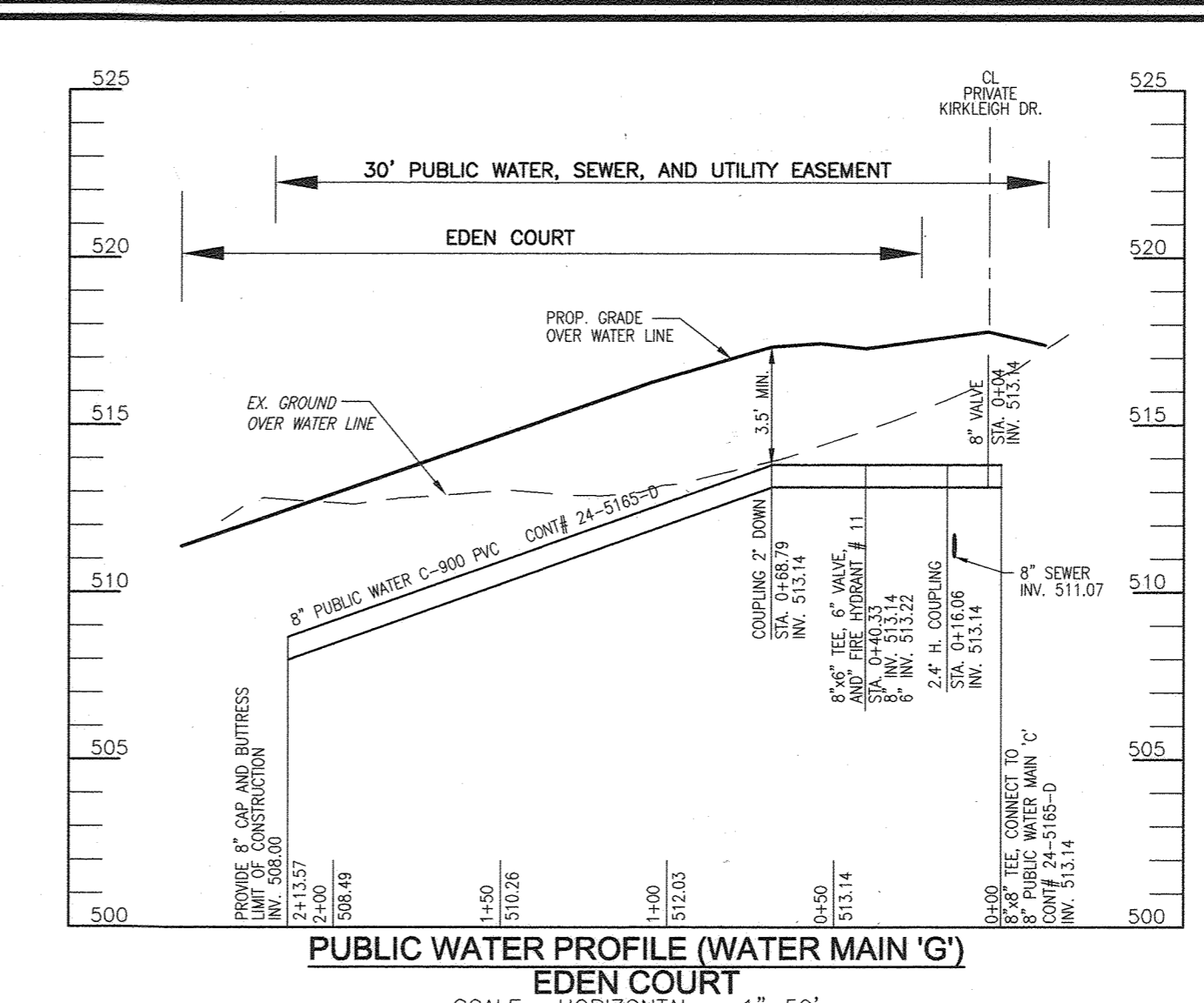
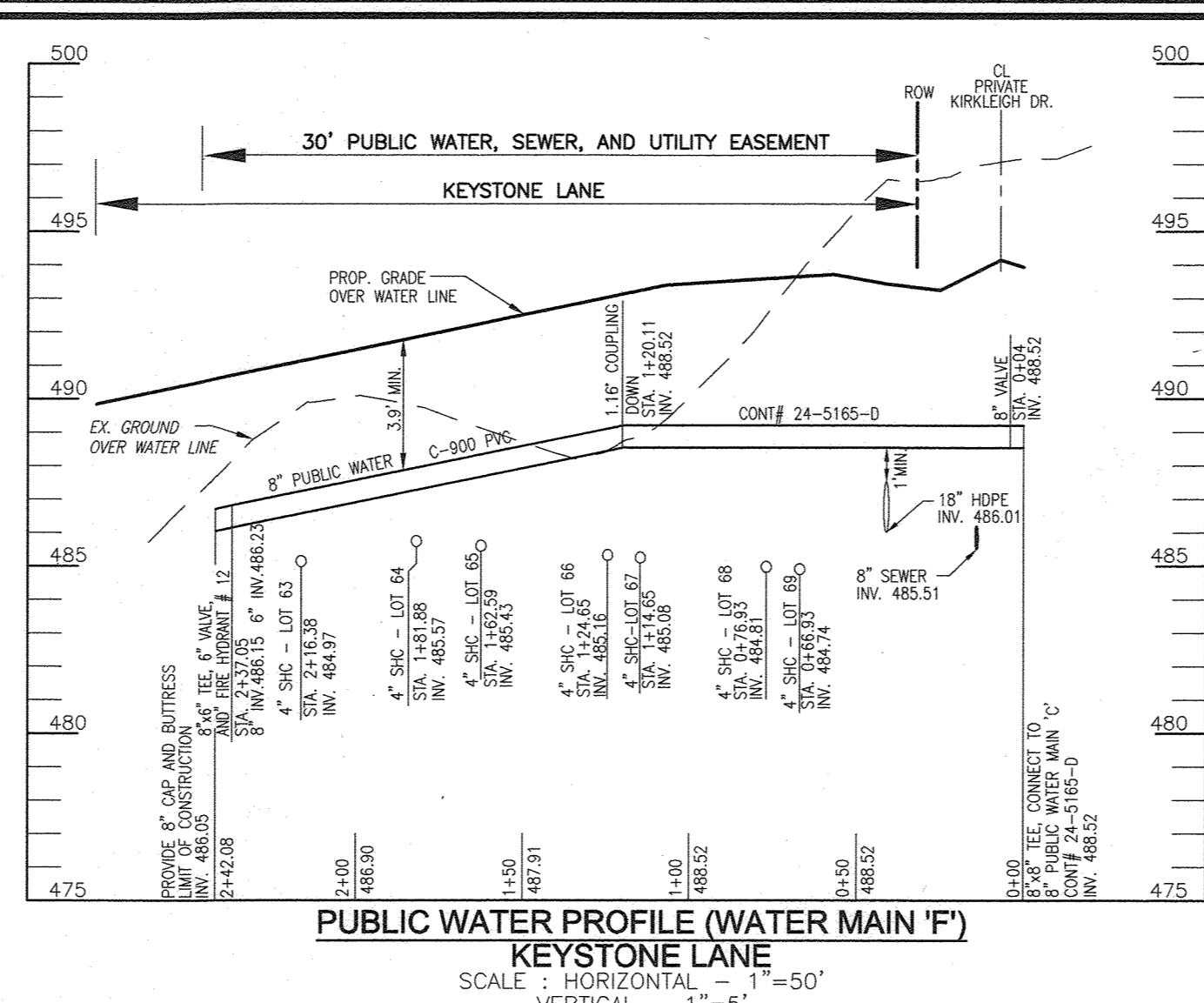
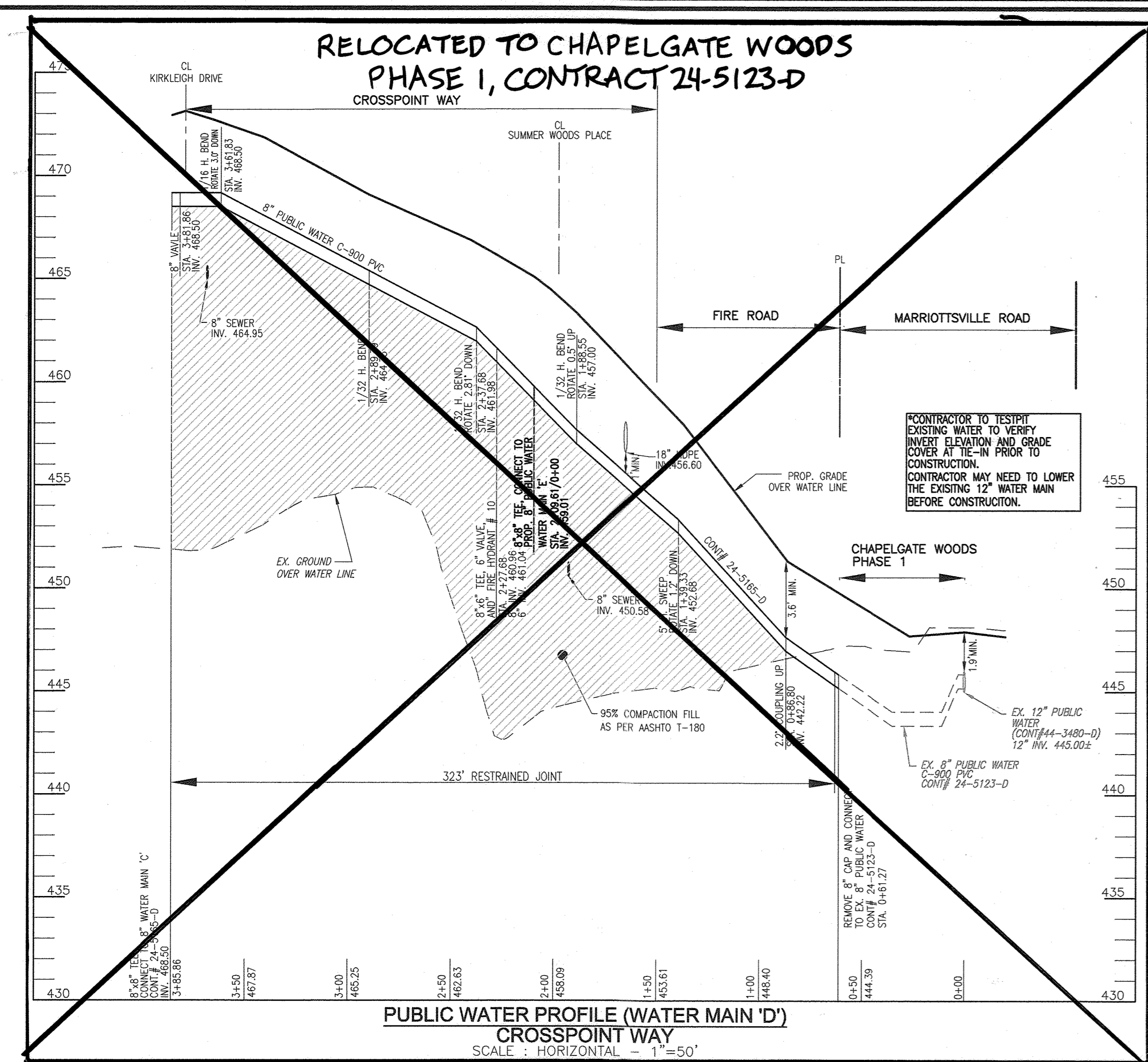
CHAPELGATE WOODS-PHASE 2
 LOTS 114-87 & 119, AND OPEN SPACE LOTS 135-137, PARCEL A AND NON-BUILDABLE PARCELS B & C

OWNER: CHAPELGATE PRESBYTERIAN CHURCH, INC.
 2600 MARRIOTTSTVILLE RD.
 MARRIOTTSTVILLE, MD 21104
 (410) 442-5888

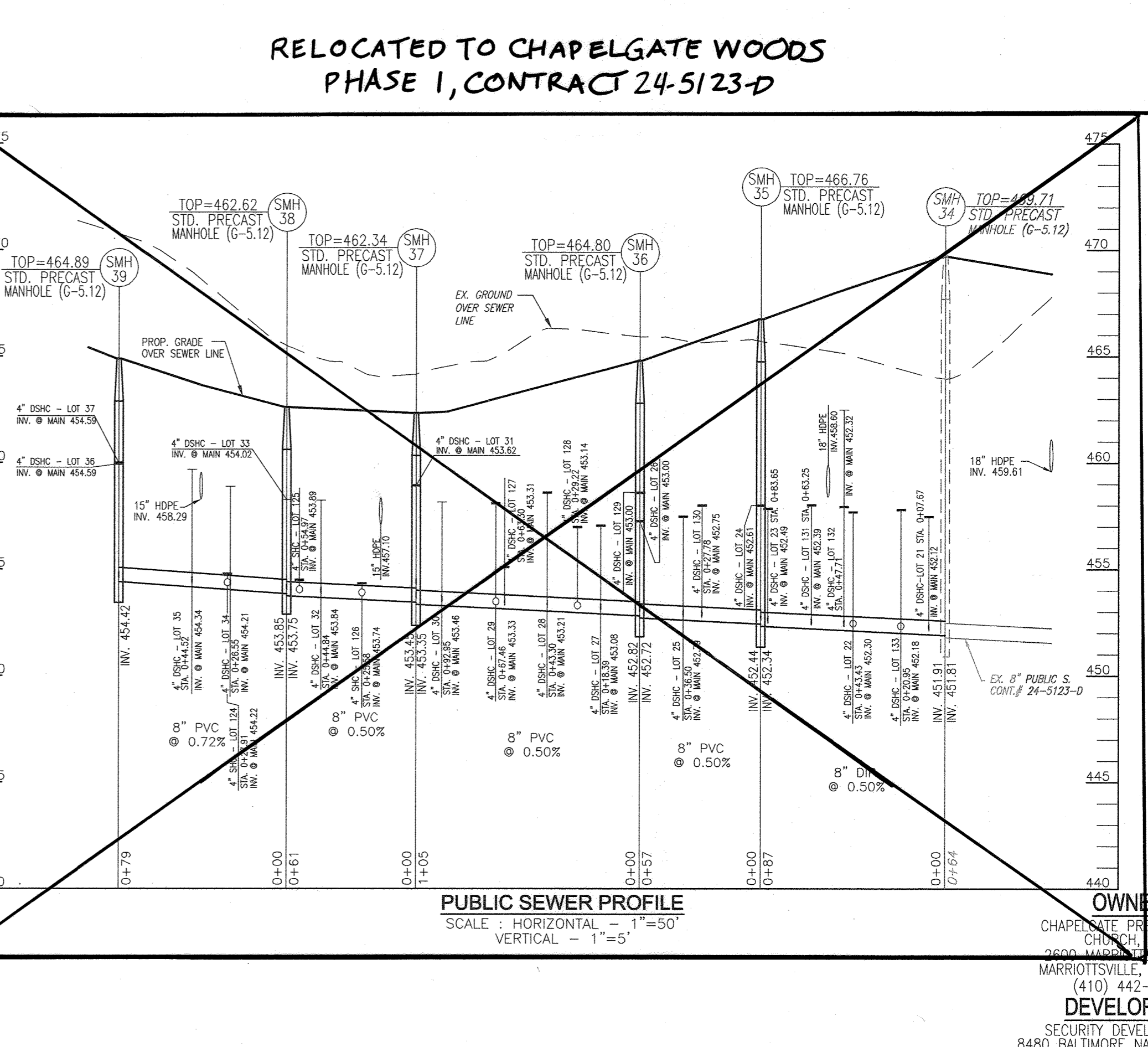
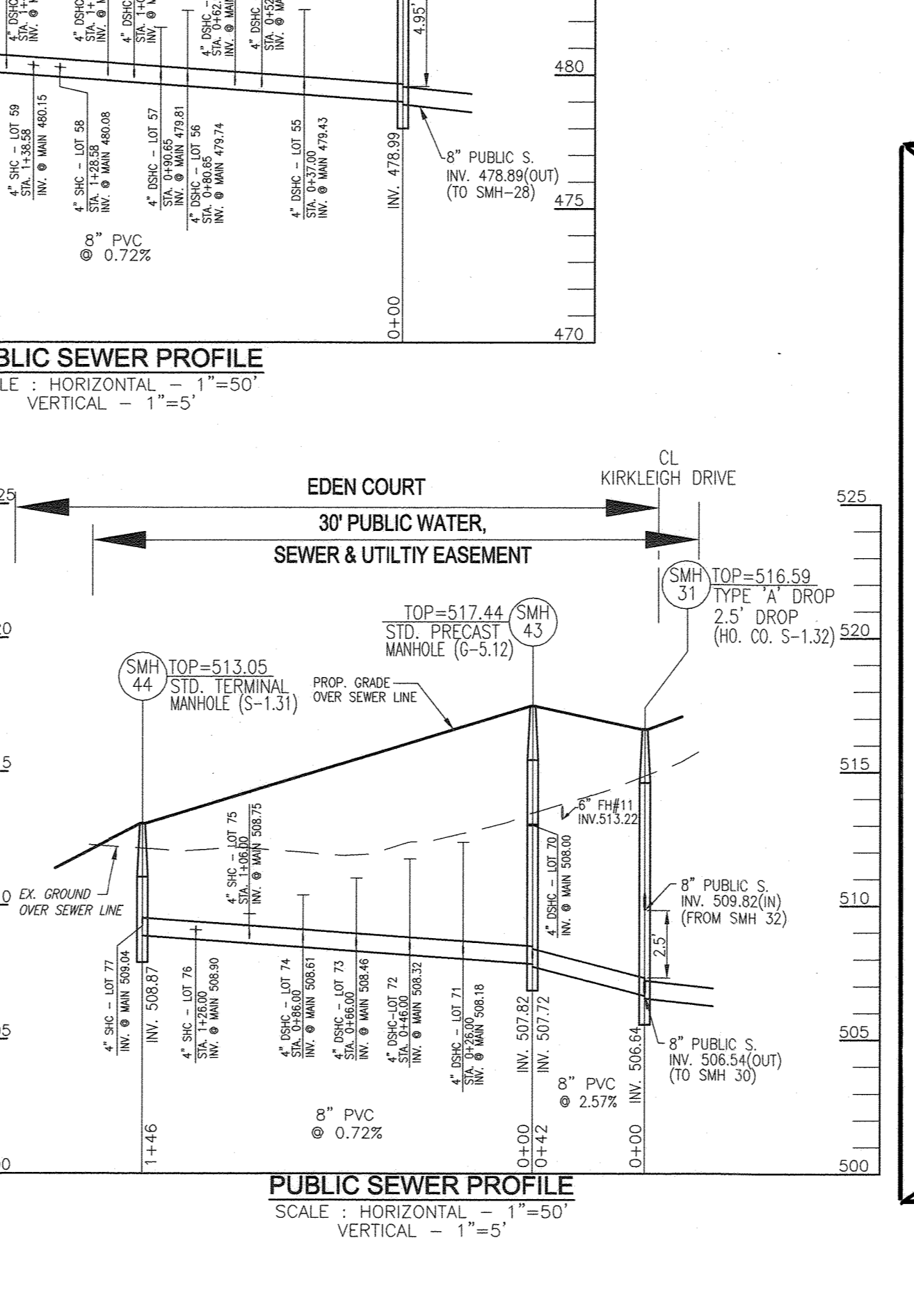
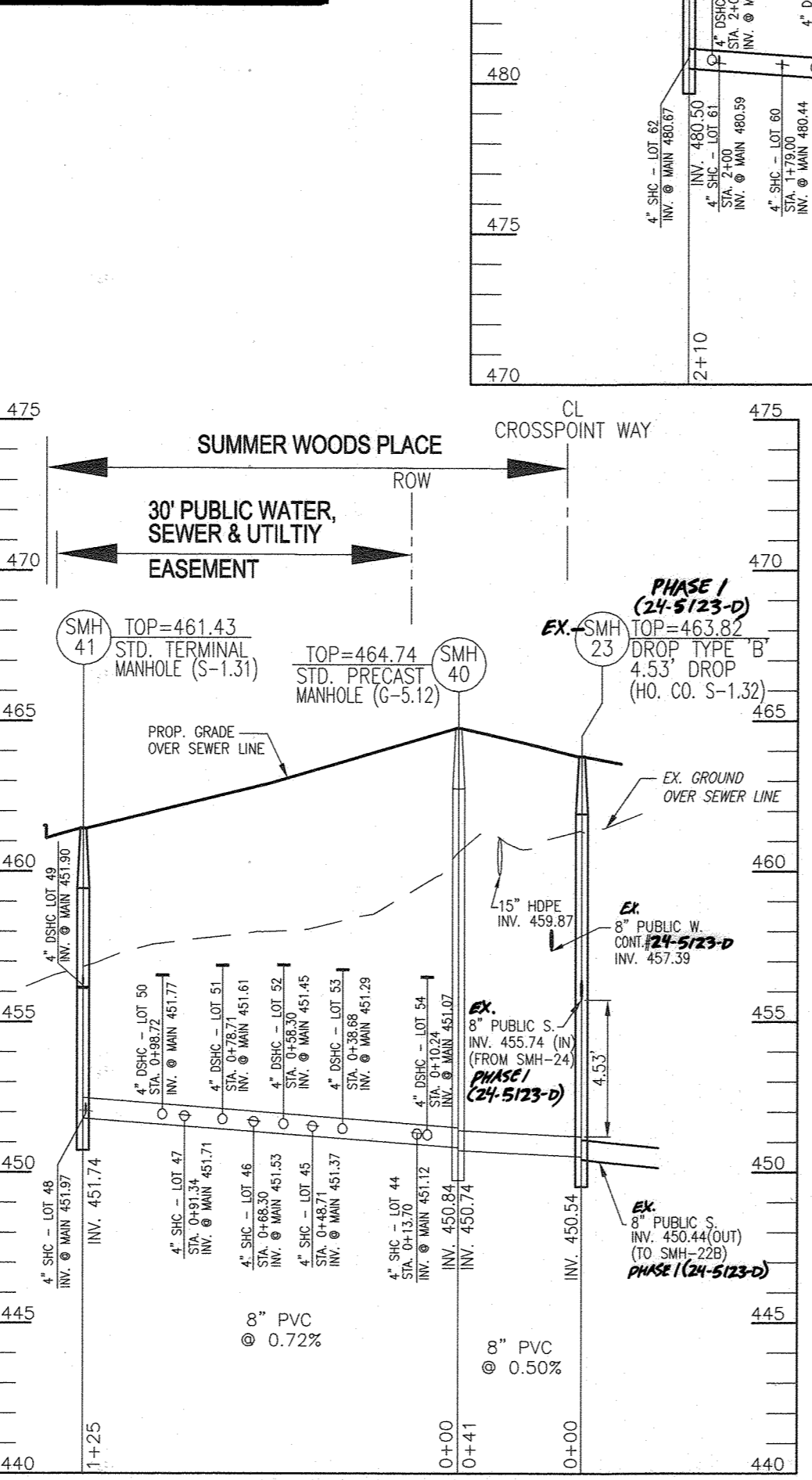
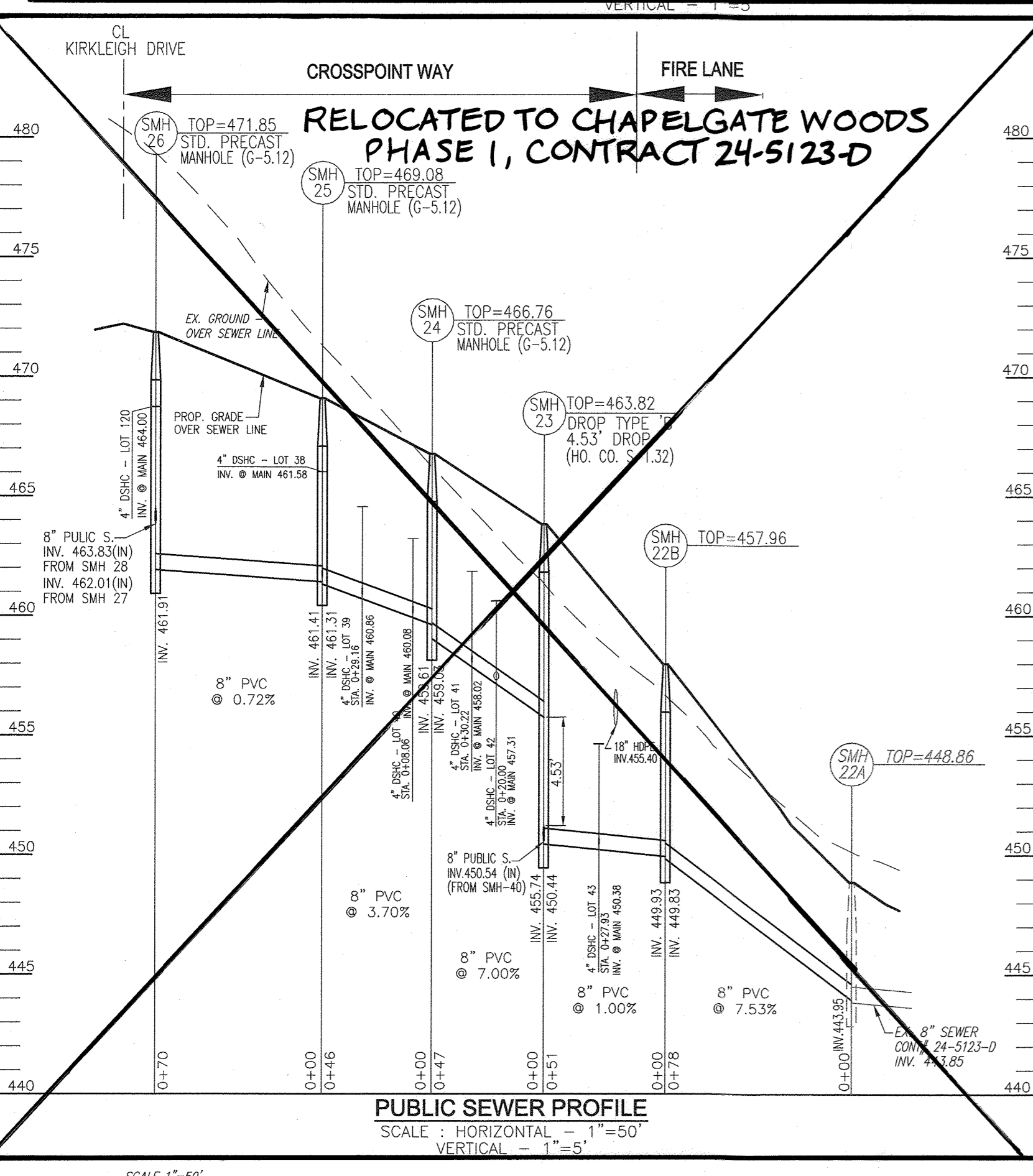
DEVELOPER: SECURITY DEVELOPMENT
 8480 BALTIMORE NATIONAL PIKE
 SUITE 415
 ELLICOTT CITY, MD 21041
 410-465-4244
 SDCPROPERTIES.COM

TAX MAP 16 GRID 10 ZONED: CEF-M PARCEL 110
 TAX MAP 16 GRID 10 ZONED: CEF-M PARCEL 421
 3RD ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 3 OF 5



WATER MAIN LOCATION CHART			
STATION	APPURTENANCE	NORTHING	EASTING
WATER LINE 'D'			
STA. 0+61.27	MOVIE EX. 8" CAP, CONNECT TO EX. 8" PUBLIC WATER		
STA. 0+86.80	2.2' COUPLING UP		
STA. 1+38.33	5" H. SWEEP, ROTATE 1.2' DOWN		
STA. 1+88.55	1/32" H. BEND, ROTATE 0.5' UP		
STA. 2+09.81	8" x 8" TEE (WATER LINE 'E')		
STA. 2+27.68	8" x 6" FHT & 6" VALVE		
STA. 2+37.88	1/32" H. BEND, ROTATE 2.81' DOWN		
STA. 2+89.79	1/16" H. BEND, ROTATE 3.0' DOWN		
STA. 3+61.83	8" VALVE		
STA. 3+81.88	8" VALVE		
STA. 3+85.86	8" x 8" TEE (WATER LINE 'C')		
WATER LINE 'F'			
STA. 0+00	8" x 8" TEE (WATER LINE 'C')		
STA. 0+04	8" VALVE		
STA. 1+20.11	1.16' COUPLING DOWN		
STA. 2+37.05	8" x 6" FHT & 6" VALVE		
STA. 2+42.08	8" CAP & BUTTRESS		
WATER LINE 'G'			
STA. 0+00	8" x 8" TEE (WATER LINE 'C')		
STA. 0+04	8" VALVE		
STA. 0+16.06	2.4" H. COUPLING		
STA. 0+40.33	8" x 6" FHT & 6" VALVE		
STA. 0+68.79	COUPLING 2.0' DOWN		
STA. 2+13.57	8" CAP & BUTTRESS		



**RELOCATED TO CHAPELGATE WOODS
PHASE I, CONTRACT 24-5123-D**

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

5-9-22

VOGEL ENGINEERING
TIMMONS GROUP
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS
WERE PREPARED OR APPROVED BY ME, AND
I AM A DULY LICENSED PROFESSIONAL
ENGINEER IN THE STATE OF MARYLAND.
EXPIRATION DATE: 02-27-2027

DRN: KG DES: KG VTS 3
CHK: RHV VTS 1
DATE: FEBRUARY 2022

**FINAL WATER AND SEWER
CONSTRUCTION PLAN
CONTRACT 24-5165-D
WATER AND SEWER PROFILES**

600' SCALE MAP NO. 16 BLOCK NO. 10

CHAPELGATE WOODS-PHASE 2
LOTS 144-87 & 119, AND OPEN SPACE LOTS 135-137,
PARCEL A AND NON-BUILDABLE PARCELS B & C

OWNER: CHAPELGATE PRESBYTERIAN CHURCH, INC.
3600 WILSONVILLE RD.
MARRIOTTVILLE, MD 21104
(410) 442-4244

DEVELOPER: SECURITY DEVELOPMENT
8480 BALTIMORE NATIONAL PIKE
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410-465-4244
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SCALE AS SHOWN
SHEET 4 OF 5

