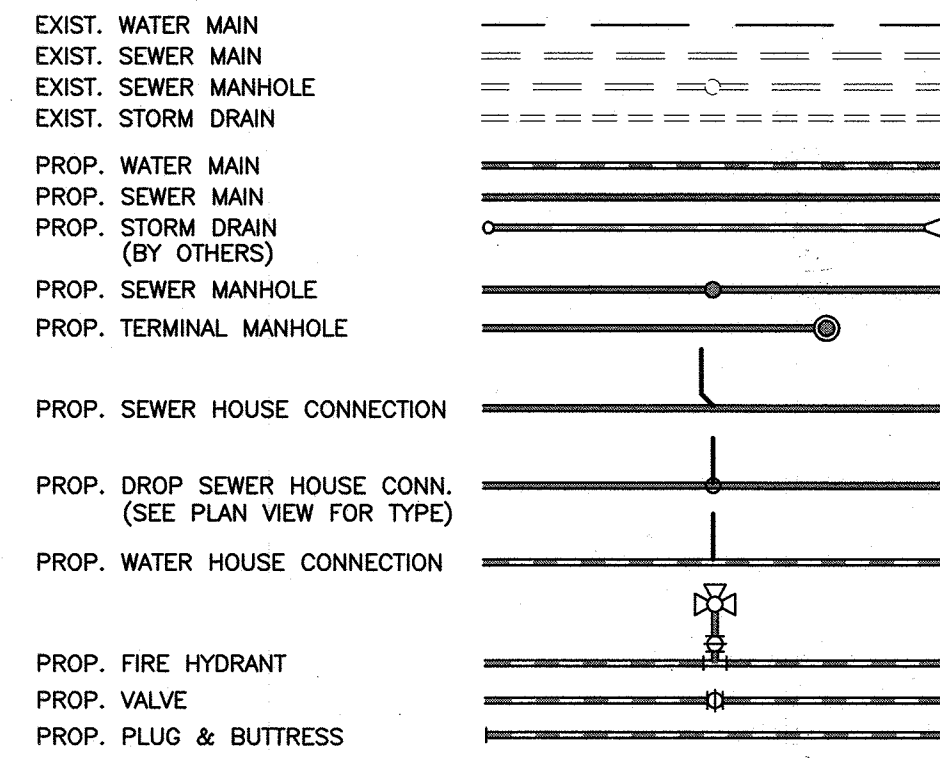


ITEMS	ESTIMATED QUANTITIES	AS-BUILT		MANUF./SUPPLIER
		QUANTITIES	TYPE	
8" WATER (PVC C900 DR-18)	193 LF.	205	C-900	JM EAGLE
1.5" TWNC	44 LF.	94	TYPE K	CAMBRIDGE
1.5" TWNC	3 EACH	3		
1" OUTSIDE METER VAULT	3 EACH	3	PRECAST	HORN-CON.
8" CAP & BUTRESS	1 EACH	1		STAR PIPE
8" WATER VALVE	1 EACH	1	MJ	MUELLER
8" SEWER (PVC)	197 LF.	243	PVC	JM EAGLE
MH (G-5.12)	2 EACH	2		PRECAST
TERMINAL (S-1.31)	1 EACH	1		PRECAST
DROP-B (S-1.32)	1 EACH	1		PRECAST
EX. DROP CONNECTION (S-1.32)	1 EACH	1		EX.
4" SHC	60 LF.	55	PVC	JM EAGLE
4" SHC	6 EACH	6		
NAME OF UTILITY CONTRACTOR:		BOSLEY		
SURVEY AND DRAFTING DIVISION AS-BUILT DATE:		4-23-2020		

LEGEND



PUBLIC WATER AND SEWER CONSTRUCTION PLANS

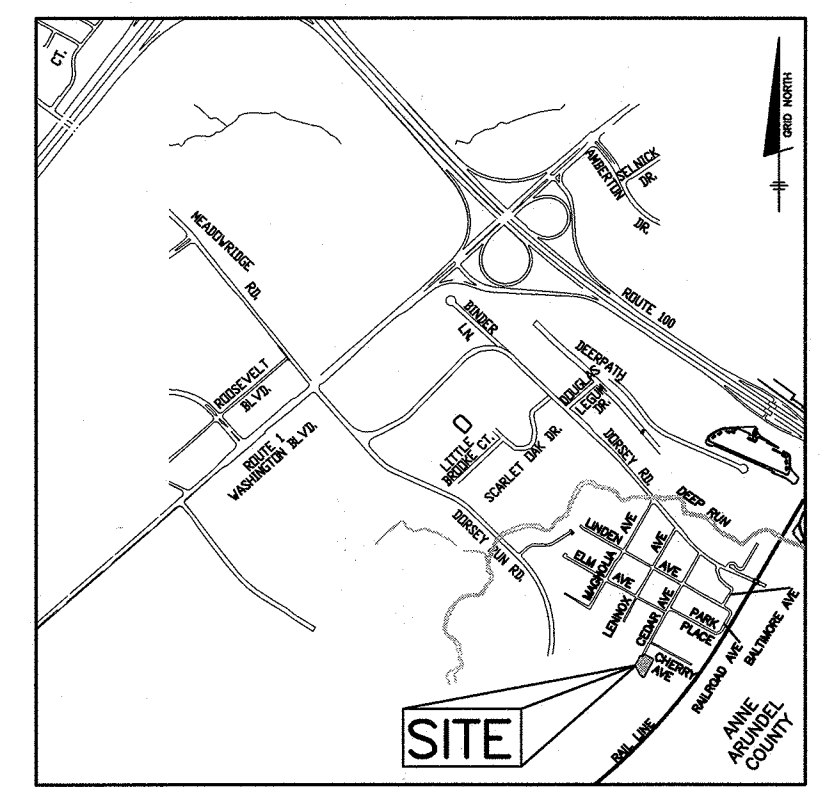
LENNOX PARK CROSBY PROPERTY

LOTS 458 - 465

1st ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

CONTRACT NO.14-5040-D



VICINITY MAP
SCALE: 1" = 2000'
ADC MAP NO. 35 GRID B6

LENNOX PARK - 14-5040-D				
ADDRESS - ITEM	LOCATION 1	MEASUREMENT	LOCATION 2	MEASUREMENT
458 CEDAR AVE. SHC	11'-6"		SMH#102	130'
459 CEDAR AVE. SHC		32'	SMH#102	99'
460 CEDAR AVE. SHC		51'	SMH#102	79'
461 CEDAR AVE. SHC		81'	SMH#102	50'
462 CEDAR AVE. SHC		102'	SMH#102	30'
463 CEDAR AVE. SHC		129'	SMH#102	11'-6"
458 CEDAR AVE. WHC		66'	WHC 460	17'
459 CEDAR AVE. WHC		66'	WHC 460	17'
460 CEDAR AVE. WHC		66'	WHC 458	51'
461 CEDAR AVE. WHC		66'	WHC 458	51'
462 CEDAR AVE. WHC		17'	SMH#101	45'
463 CEDAR AVE. WHC		17'	SMH#101	45'

GENERAL NOTES

- PART 1 - GENERAL**
- 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.
 - TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED ON FEBRUARY 2003 BY WINGS AERIAL MAPPING AND SUPPLEMENTED BY TOPOGRAPHIC SURVEY PERFORMED BY MILDBERG BENDER & ASSOCIATES IN DECEMBER 2007 AND ARE SHOWN AT 2' INTERVALS.
 - THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM, NAD 83/91 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 4381 AND 4382. ALL VERTICAL CONTROLS ARE BASED ON NAVD 83. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE 10.00, GEODETIC CONTROL STA. 4381 & 4382.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON PLANS.
 - CLEAR ALL UTILITIES BY A MINIMUM OF 12". CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. THE OWNER HAS CONTRACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OR 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 OPERATIONS AT HIS OWN EXPENSE.
 - 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
 BOBE (CONSTRUCTION SERVICES) 410-837-8713
 BOBE (EMERGENCY) 410-885-0123
 HO. CO. DPW - BUREAU OF UTILITIES 410-313-4000
 COLONIAL PIPELINE CO. 410-795-1390
 MESS 1-800-257-7777
 STATE HIGHWAY ADMINISTRATION 410-513-5533
 VERIZON 1-800-743-8333
 - TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO 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 LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR 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/ANCHORING 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 2 - WATER**
- ALL WATER MAINS TO BE PVC C900 DR18 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 INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
 - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
 - TRACE WIRE AND CONTINUITY TEST STATIONS SHALL BE INSTALLED ON ALL D.I.P. AND P.V.C. WATER MAINS IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL.
 - FOR PVC WATER MAINS, ALL RECORDS FOR THE QUANTITY CONTROL AND QUALIFICATION TEST REQUIREMENTS NOTED IN SECTION 5.1 OF AWWA STANDARD C900 FOR PVC PRESSURE PIPE SHALL BE SUBMITTED WITH THE PIPE MATERIAL CERTIFICATIONS OR SHOP DRAWINGS PRIOR TO APPROVAL OF MATERIAL FOR USE. 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 RECORD RECEIVED.
 - UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS, SACRIFICIAL ANODES SHALL BE INSTALLED ON ALL VALVES AND METALIC 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 VALVES AND DUCTILE IRON FITTINGS INCLUDING RESTRAINTS AND HARNESSES, TWELVE (12) POUND ZINC ANODES SHALL BE INSTALLED ON ALL STAINLESS STEEL FITTINGS AND SADDLES USED WITH PVC MAINS. ALL TESTS USED WITH PVC MAINS SHALL BE DUCTILE IRON.
 - PROPER ASSEMBLY OF GASKETED P.V.C. PIPE JOINTS: THE MANUFACTURER'S INSERTION LINE OF GASKETED PVC PIPE JOINTS INDICATES THE MAXIMUM DEPTH OF INSERTION OF THE SPOUT INTO THE BELL. AFTER ASSEMBLY OF THE JOINT, THE INSERTION LINE SHALL REMAIN VISIBLE. DUCTILE IRON FITTINGS ON GASKETED P.V.C. PIPE INDICATE THE MAXIMUM AND MINIMUM DEPTH OF INSERTION INTO THE SPOUT. THE CONTRACTOR SHALL NOT OVER INSERT OR OVER HOME THE SPOUT INTO THE BELL. THE CONTRACTOR SHALL NOT OVER INSERT OR OVER HOME THE SPOUT INTO THE BELL OF THE P.V.C. PIPE.
 - ALL CHANGES IN HORIZONTAL AND VERTICAL DIRECTION OF P.V.C. WATER PIPE SHALL BE MADE WITH BELL BENDS. 5-DEGREE SWEEPS OR HIGH-DEFLECTION (HD) COUPLINGS. NO BENDING OF THE PIPE OR DEFLECTING OF P.V.C. PIPE JOINTS IS PERMITTED. WHERE HIGH-DEFLECTION (HD) COUPLINGS OR 5-DEGREE SWEEPS ARE PERMITTED, THE CONTRACTOR SHALL PROVIDE 20'-00" (LONG) ON EITHER SIDE OF THE HIGH-DEFLECTION (HD) COUPLINGS OR 5-DEGREE SWEEPS OR 5-DEGREE SWEEPS. 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 (HD) COUPLING OR 5-DEGREE SWEEP, TAKING CARE NOT TO USE COMPACTOR EQUIPMENT DIRECTLY OVER THE FITTING.
 - P.V.C. HIGH-DEFLECTION (HD) COUPLINGS SHALL BE LIMITED TO A TOTAL DEFLECTION OF 3-DEGREES (1-1/2 DEGREES ON EITHER END OF THE COUPLING). SHALL BE RATED FOR A MINIMUM OF 200-PSI MEETING THE REQUIREMENTS OF AWWA-C900. SHALL HAVE A MINIMUM LAY LENGTH OF 8-INCHES AND SHALL HAVE CENTER STOPS. P.V.C. HIGH-DEFLECTION (HD) COUPLINGS SHALL BE CERTAIN-TEED P.V.C. HIGH-DEFLECTION (HD) COUPLINGS OR EQUAL.
 - 5-DEGREE SWEEPS SHALL BE BELL BY SPOUT, RATED FOR A MINIMUM 225-PSI, DR-18 MEETING THE REQUIREMENTS OF AWWA-C900, AND SHALL BE BELL-TO-BELL (25') BLUE BRUTE 18-IN OR EQUAL.
 - WHEN P.V.C. HIGH-DEFLECTION (HD) COUPLINGS OR P.V.C. 5-DEGREE SWEEPS ARE USED TO FACILITATE CHANGES IN HORIZONTAL OR VERTICAL ALIGNMENTS OF AWWA-C900 P.V.C. PIPELINES, THE CONTRACTOR SHALL INSTALL DEVICES FOR THE PREVENTION OF OVER-INSERTION OF PVC SPOUTS OR PLAIN ENDS INTO THE PUSH ON BELL JOINT ON BOTH SIDES OF THE HIGH DEFLECTION (HD) COUPLINGS AND 5-DEGREE SWEEPS. BELL STOPS SHALL BE PLACED AT THE PROPER INSERTION LINE FOR THE FITTING. THE BELL STOP SHALL BE MANUFACTURED BY 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 EDAA IRON, INC. OR EQUAL.
 - FIRE SPRINKLER SYSTEMS FOR ALL SINGLE FAMILY DWELLINGS SHALL HAVE A MINIMUM OF A 1-1/2" CONNECTION WITH A 1" OUTSIDE METER SETTING.
- PART 3 - SEWER**
- ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
 - ALL MANHOLES SHALL BE 4' - 0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
 - FORCE MAINS SHALL BE D.I.P. ONLY.
 - MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
 - MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER-TIGHT FRAME AND COVER, STANDARD DETAIL G-3.32. WHERE WATER-TIGHT FRAME AND COVERS ARE USED, SET TOP OF FRAME 1'-8" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 - HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

THIS LIST INCLUDES, BUT IS NOT LIMITED TO, ALL PARCELS/LOTS SERVICED FROM THE CONNECTION OF CONTR. #14-1207 TO CONTR. #24-W-153 BY AN 8" WATER VALVE LOCATED AT THE INTERSECTION OF CEDAR AVENUE AND DORSEY ROAD

PARCEL	LOT(S)	STREET ADDRESS
270	540-542	6754 DORSEY ROAD
281	244	6722 CEDAR AVENUE
289	245	6720 CEDAR AVENUE
306	570-571	7010 CEDAR AVENUE
306	570-571	7018 CEDAR AVENUE
654	218	7031 CEDAR AVENUE
307	209-211	7032 CEDAR AVENUE
343		7040 CEDAR AVENUE
316	179-201	7041 CEDAR AVENUE
314	176-178	7045 CEDAR AVENUE
317	1	7053 CEDAR AVENUE
315	184-186	7055 CEDAR AVENUE
319	177-178	7065 CEDAR AVENUE
619		7064 CEDAR AVENUE
319	165-167	7075 CEDAR AVENUE
654	220	6702 PARK PLACE
309	223-224	6912 PARK PLACE
311	225	6916 PARK PLACE
311	226	6918 PARK PLACE
312	227-228	6920 PARK PLACE
430	204	7100 BALTIMORE AVENUE
315	189	7007 CHERRY AVENUE
315	190	7009 CHERRY AVENUE
315	191	7011 CHERRY AVENUE
430	192	7013 CHERRY AVENUE
723	193	7015 CHERRY AVENUE
723	194	7017 CHERRY AVENUE
320	184	7018 CHERRY AVENUE
723	195	7019 CHERRY AVENUE
320	185	7022 CHERRY AVENUE
698	428	7103 BERWYN LANE
698	429	7105 BERWYN LANE
698	424	7107 BERWYN LANE
698	422	7109 BERWYN LANE
698	430	7110 BERWYN LANE
698	431	7111 BERWYN LANE
698	432	7112 BERWYN LANE
698	433	7113 BERWYN LANE
698	434	7114 BERWYN LANE
698	435	7115 BERWYN LANE
698	436	7116 BERWYN LANE
698	437	7117 BERWYN LANE
698	438	7119 BERWYN LANE

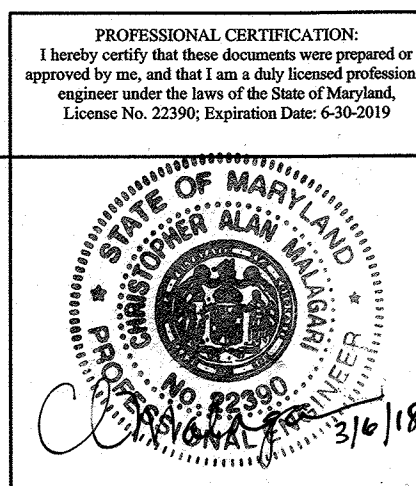
NOTE: USE TRAFFIC LOAD BEARING COVERS FOR WATER METER VAULTS AND SEWER CLEANOUT CAPS IN PAVED AREAS. THIS WILL BE NEEDED ON ALL CONNECTIONS EXCEPT SHC FOR LOT-459

NOTE: USE HO. CO. STD. DETAILS W-3.32 FOR TWIN AND W-3.28 FOR SINGLE OUTSIDE METER SETTINGS

NOTE: ALL JOINTS AND CONNECTIONS LOCATED WITHIN STRUCTURAL FILL AREAS SHALL BE MECHANICALLY RESTRAINED IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION)

OWNER
7075 CEDAR, LLC
6800 DEERPATH ROAD
SUITE 100
ELKRIDGE, MARYLAND 21075

DEVELOPER
H&H ROCK COMPANIES
6800 DEERPATH ROAD
SUITE 100
ELKRIDGE, MARYLAND 21075



NO.	DESCRIPTION
1	TITLE SHEET PUBLIC WATER & SEWER MAINS
2	PUBLIC WATER & SEWER MAINS PLAN & PROFILES

TYPE OF BUILDING:	SFSD	NUMBER OF SHC'S:	6
NUMBER OF UNITS:	6	NUMBER OF SHC'S (EXISTING):	0
NUMBER OF UNITS (EXISTING):	0	NUMBER OF TSHC'S (EXISTING):	0
TOTAL NUMBER OF UNITS:	6	TOTAL NUMBER OF SHC'S:	6
DRAINAGE AREA:	PATAPSCO	NUMBER OF WHC'S:	0
TREATMENT PLANT:	PATAPSCO WASTEWATER TREATMENT PLANT	NUMBER OF WHC'S (EXISTING):	0
WATER ZONE:	400	NUMBER OF TWHC'S:	3
TEST GRADIENT:	550	NUMBER OF TWHC'S (EXISTING):	0
		TOTAL NUMBER OF WHC'S:	3

LOCATION PLAN
SCALE: 1" = 600'

THE HOWARD SOIL CONSERVATION DISTRICT STANDARD EROSION AND SEDIMENT CONTROL PLAN FOR ANY EARTH DISTURBANCE WILL BE USED TO OBTAIN A GRADING PERMIT FOR THIS WORK SINCE THE LIMIT OF DISTURBANCE PER THE UTILITY INSTALLATION IS LESS THAN 1,000 S.F.

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND	BENCHMARK ENGINEERS & LAND SURVEYORS & PLANNERS 8480 BALTIMORE NATIONAL PIKE SUITE 315 ELLCOTT CITY, MARYLAND 21043 (P) 410-485-6105 (F) 410-485-8644 WWW.BD-CVLENGINEERING.COM	DES: MCR DRN: MCR CHK: CAM DATE: 2/20/18	ADDED AS-BUILT INFORMATION	6-26-20	PUBLIC WATER AND SEWER TITLE SHEET AND DETAILS	SCALE: AS SHOWN
CHIEF, BUREAU OF UTILITIES DATE: 3-23-18	CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 4/21/18		BY: NO.	REVISIONS	DATE	600 SCALE MAPS: 43 BLOCK: 6	SHEET NO. 1 OF 2

