

GENERAL NOTES

DEPARTMENT OF PUBLIC WORKS - BUREAU OF ENGINEERING - UTILITY DESIGN DIVISION

- 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.
- TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED ON OCTOBER, 2015 BY ACCURATE INFRASTRUCTURE DATA.
- HORIZONTAL AND VERTICAL SURVEY CONTROLS
THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM NAD '83/M' AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 36FC, NO. 36FI, NO. 37DA, AND NO. 37DB. ALL VERTICAL CONTROLS ARE BASED ON NAVD'83. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE DISCS IN CONCRETE.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. CLEAR ALL POLES BY 5' - 0" MINIMUM OR TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES ANY COST INCURRED BY THE OWNER FOR THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONIES OWNED BY THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
- FOR DETAILS NOT SHOWN ON THE DRAWING, 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 "T". 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.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

AT&T.....	800-252-1133
BGE (CONSTRUCTION SERVICES).....	410-631-8713
BGE (EMERGENCY).....	410-685-0123
BUREAU OF UTILITIES.....	410-318-4400
COLONIAL PIPELINE COMPANY.....	410-718-1940
MISSG UTILITY.....	800-257-7777
STATE HIGHWAY ADMINISTRATION.....	410-531-5533
VERIZON.....	800-743-0093
- 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 CONSTRUCTION OF THE PROJECT.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410)318-1450 AT LEAST FIVE WORKING DAYS BEFORE OPEN CUTTING OR BORING/LACKING OF ANY COUNTY ROAD FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DFM REQUIREMENTS PER SECTION 18.14(A) OF THE HOWARD COUNTY CODE.

- PART II WATER**
1. ALL WATER MAINS SHALL BE D.I.P. CLASS 54 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO 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 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 10.00 AND 10.03 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 ANNA STANDARD C900 FOR PVC PRESSURE PIPES 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, 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. IT ROUND MAGNESIUM ANODES SHALL BE INSTALLED ON ALL VALVES AND DUCTILE IRON FITTINGS INCLUDING RESTRAINTS AND HARNESSSES. 12 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.

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE SPECIFICATIONS AND AS SHOWN ON SDF-16-053

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 PID# 4, - - - SDF-4, SDF-16-053

APPROVED
John Robertson 11/3/16
 HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
Steve Conner 11/4/16
 BUREAU OF UTILITIES, CHIEF DATE

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND
Chad Edmonson 11/14/16
 DEVELOPMENT ENGINEERING DIVISION, CHIEF MG DATE

- 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 THE 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 BENDINGS 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 ON 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 #1 STONE ON BOTH SIDES OF THE HIGH DEFLECTION COUPLING OF 5-DEGREE SWEEP, TAKING CARE NOT TO USE COMPACTION 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 ANNA C900, SHALL HAVE A MINIMUM LAY LENGTH OF 4-INCHES AND SHALL HAVE CENTER STOPS. PVC HIGH DEFLECTION COUPLINGS SHALL BE CERTAINTED PVC HIGH DEFLECTION (HD) STOP COUPLINGS OR EQUAL.
- FIVE DEGREE SWAPS SHALL BE BELL BY SPIGOT, RATED FOR A MINIMUM 225 PSI, DR 18 MEETING THE REQUIREMENTS OF ANNA C900 AND SHALL BE MULTI FITTINGS (IFEX) 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 ANNA C-900 PVC PIPE LINES, 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.

NOTE

AS-BUILT PLANS AND CERTIFICATION ARE REQUIRED FOR WATER AND SEWER CONSTRUCTION. THESE MUST BE PREPARED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER. HOWARD COUNTY WILL NOT PERFORM THE INSPECTION OR PREPARE THE AS-BUILT PLANS OR CERTIFICATION. THE WATER & SEWER PERMIT SECURITY WILL NOT BE RELEASED UNTIL THE AS-BUILT PLAN AND CERTIFICATION ARE APPROVED BY HOWARD COUNTY.

IT IS THE CONTRACTOR'S RESPONSIBILITY, ON BEHALF OF THE OWNER, TO ENGAGE A LICENSED PROFESSIONAL ENGINEER TO CERTIFY THE WATER & SEWER CONSTRUCTION AND TO PREPARE AND SUBMIT AS-BUILT DRAWINGS. "CERTIFY" MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED ON SUFFICIENT AND APPROPRIATE ONSITE OBSERVATIONS AND/OR INSPECTIONS AT CRUCIAL MILESTONES DURING CONSTRUCTION OF THE FACILITY, MATERIAL TESTS CONDUCTED DURING CONSTRUCTION, AND POST-CONSTRUCTION SURVEYING AND VERIFICATION. VERIFICATION SHALL INCLUDE PHOTODOCUMENTATION CONSISTING OF AT LEAST TEN (10) PHOTOS AT EACH STAGE OF CONSTRUCTION PROGRESS.

TYPE OF BUILDING: ENCLOSED TENNIS FACILITY

NUMBER OF LOTS: 1

NUMBER OF SH.G.S: 1

NUMBER OF H.H.G.S: 1

AREA OF PARCEL: 11.80 AC.

SEWER SHA: 1

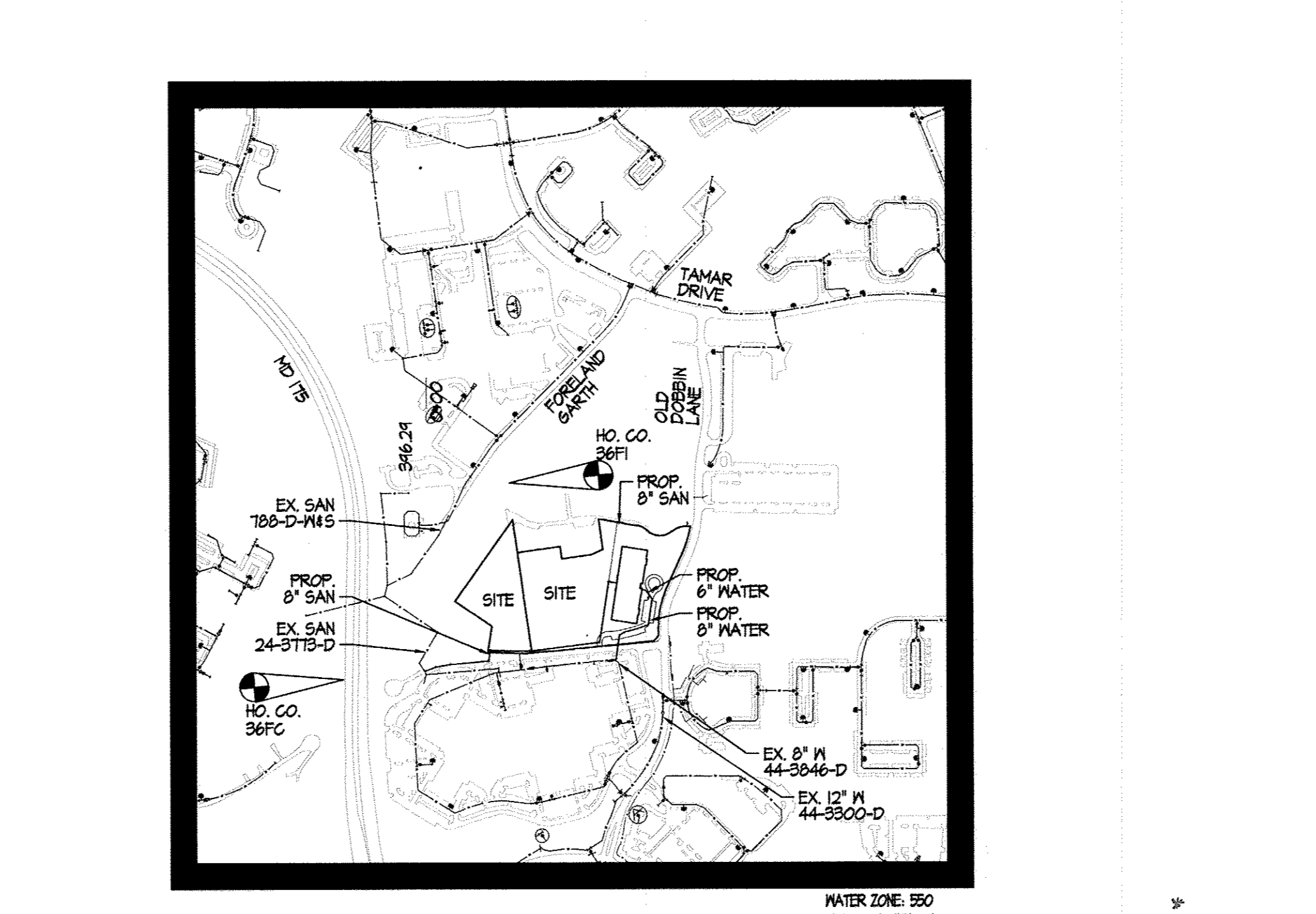
TREATMENT PLANT: 5.38 AC.

DISTURBED AREA:

LONG REACH TENNIS CLUB

HOWARD COUNTY, MARYLAND

CONTRACT NO. 24-4971-D



AS BUILTS BY: DFI DATE: 7-13-17		
DES: A_M		
DRN: RSW/AMH		
CHK: J_LH		
DATE: 09/30/16	BY NO.	REVISION
TAX MAP NO. 37	BLOCK NO. N/A	SCALE: AS SHOWN

HOWARD COUNTY GEODETIC SURVEY CONTROL NUMBERS

DESCRIPTION BENCH MARK: 36FI ALSO KNOWN AS: 25-42001 NSG PID: N/A GENERAL LOCATION: TRANSMISSION LINE 5 OF TAMAR DR. DESCRIPTION: DISC IN CONCRETE N: 560287.912 E: 1364530.216 NAVD83 ELEVATION: 124.91 mts. / 426.213 ft.	<p style="text-align: center;">VICINITY MAP 1" = 2000'</p>
DESCRIPTION BENCH MARK: 36FC ALSO KNOWN AS: N/A GENERAL LOCATION: SOUTH SIDE OF RT-175, WEST OF DOBBIN RD. DESCRIPTION: DISC IN CONCRETE N: 559512.594 E: 1363698.217 NAVD83 ELEVATION: 114.528 mts. / 375.141 ft.	
DESCRIPTION BENCH MARK: 37DA ALSO KNOWN AS: N/A GENERAL LOCATION: ISLE SNOWDEN RIVER PKWY. # APRIL BROOK CIRC. DESCRIPTION: DISC IN CONCRETE N: 559661.508 E: 1366891.542 NAVD83 ELEVATION: 115.161 mts. / 374.193 ft.	
DESCRIPTION BENCH MARK: 37DB ALSO KNOWN AS: N/A GENERAL LOCATION: SNOWDEN RIVER PKWY. 0.2 MI S OF TAMAR DR. DESCRIPTION: DISC IN CONCRETE N: 560301.349 E: 1366849.240 NAVD83 ELEVATION: 120.54 mts. / 395.412 ft.	

OWNER/DEVELOPER

COLUMBIA ASSOCIATION
 6310 HILLSIDE COURT, SUITE 100
 COLUMBIA, MD 21046
 410-715-3000

SITE DATA

ADDRESS: 6180 OLD DOBBIN LANE	SECTION / AREA: N/A	LIBER/FOLIO: 05244-0015	05245-02514
ZONE: NT	TAX MAP No.: 37	PARCEL No.: 06B7, LOT 96	PARCEL 0521, LOT 2
600 SCALE MAP No.: 36	BLOCK No.: N/A	CONGRESS DISTRICT: 3	CENSUS TRACT: 6066.01

PIPE CRIMP DATA

START POINT	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE	END POINT
PG STA 1+56.06 N: 559546.26 E: 1365102.31	123.90'	124.11'	124.56'	N13° 03' 04"	4° 52' 15"	PT STA 2+80.18 N: 559582.35 E: 1365221.55

WATER FITTING COORDINATES

STA.	FITTING TYPE	NORTHING	EASTING
0+00	PUBLIC 8"x8" TAPPING SLEEVE & VALVE	554405.96	1365058.06
0+07	PUBLIC 8" 1/32 UPPER VERTICAL BEND	554411.48	1365061.55
0+10	PUBLIC 8" 1/8 HORIZONTAL BEND	554414.03	1365063.05
1+24	PUBLIC 8" 1/8 HORIZONTAL BEND	554532.02	1365071.54
1+56	PUBLIC 8" 1/8 HORIZONTAL BEND	554546.23	1365102.31
2+81	PUBLIC 8" 1/32 HORIZONTAL BEND	554582.55	1365221.53
2+83	PUBLIC 8" 1/8 HORIZONTAL BEND	554593.83	1365225.03
4+11	PUBLIC 8" 1/8 HORIZONTAL BEND	554710.15	1365232.14
4+20	PUBLIC 8"x6" TEE	554723.92	1365232.50
4+40	PRIVATE 8"x6" REDUCER	554738.71	1365221.55
4+62	PRIVATE 8" 1/8 HORIZONTAL BEND	554751.45	1365212.21

SEWER QUANTITIES

ITEM	ESTIMATED QUANTITY	AS-BUILT QUANTITY	TYPE	MANUFACTURER/SUPPLIER
PUBLIC 8" SEWER PIPE (PVC SDR-35)	1230 L.F.	962 L.F.	SDR-35	3M EAGLE / LB WATER
PUBLIC 6" SEWER PIPE (PVC SDR-35)	10 L.F.	10 L.F.	SDR-35	3M EAGLE / LB WATER
PRIVATE 6" SEWER PIPE (PVC SDR-35)	30 L.F.	30 L.F.	SDR-35	3M EAGLE / LB WATER

NAME OF UTILITY CONTRACTOR: C.S. MILLER
 SURVEY AND DRAFTING DIVISION AS-BUILT DATE: 7-13-17

WATER QUANTITIES

ITEM	ESTIMATED QUANTITY	AS-BUILT QUANTITY	TYPE	MANUFACTURER/SUPPLIER
PUBLIC 8" WATER PIPE (PVC C900)	440 L.F.	440 L.F.	CL54 DIP	US PIPE / LB WATER
PUBLIC 6" WATER PIPE (PVC C900)	20 L.F.	20 L.F.	CL54 DIP	US PIPE / LB WATER
PRIVATE 8" WATER PIPE (PVC C900)	10 L.F.	10 L.F.	CL54 DIP	US PIPE / LB WATER
PRIVATE 6" WATER PIPE (PVC C900)	30 L.F.	30 L.F.	CL54 DIP	US PIPE / LB WATER
PUBLIC FIRE HYDRANT (BURY 5'-6")	1 EA.	1 EA.	5 84 15	AMERICAN FLOW / LB WATER
PUBLIC 8" X 8" TAPPING SLEEVE & VALVE	1 EA.	1 EA.	2500 RW	AMERICAN FLOW / LB WATER
PUBLIC 8" X 6" TEE	1 EA.	1 EA.	FR TEE	TYLER UNION / LB WATER
PRIVATE 8" X 6" REDUCER	1 EA.	1 EA.	M5	TYLER UNION / LB WATER
PUBLIC 8" VALVE	2 EA.	2 EA.	2500 RW	AMERICAN FLOW / LB WATER
PUBLIC 6" VALVE	1 EA.	1 EA.	2500 RW	AMERICAN FLOW / LB WATER

NAME OF UTILITY CONTRACTOR: C.S. MILLER
 SURVEY AND DRAFTING DIVISION AS-BUILT DATE: 7-13-17

DRAWING INDEX

SHEET #	DRAWING TITLE
1 OF 4	COVER SHEET
2 OF 4	WATER AND SEWER PLAN
3 OF 4	SEWER PROFILES
4 OF 4	WATER PROFILE

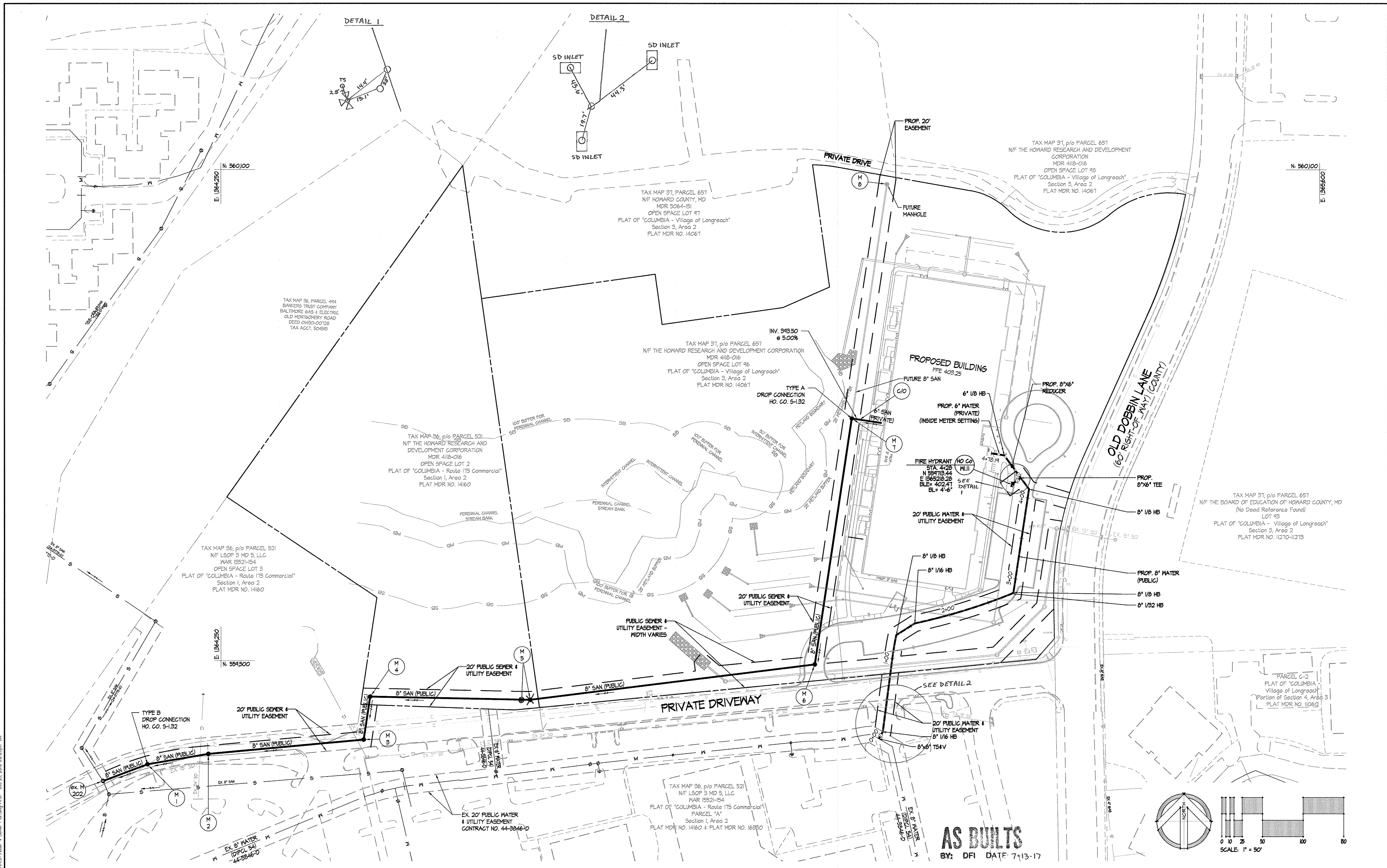
AS BUILTS
 BY: DFI DATE: 7-13-17

FINAL WATER AND SEWER CONSTRUCTION PLAN

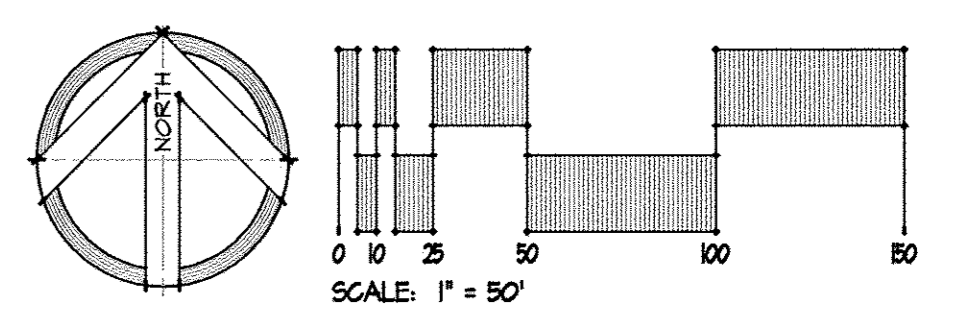
LONG REACH TENNIS CLUB
 HOWARD COUNTY, MARYLAND
 CONTRACT NO. 24-4971-D
 6180 OLD DOBBIN LANE
 3rd ELECTION DISTRICT

SCALE: AS SHOWN
 SHEET 1 OF 4

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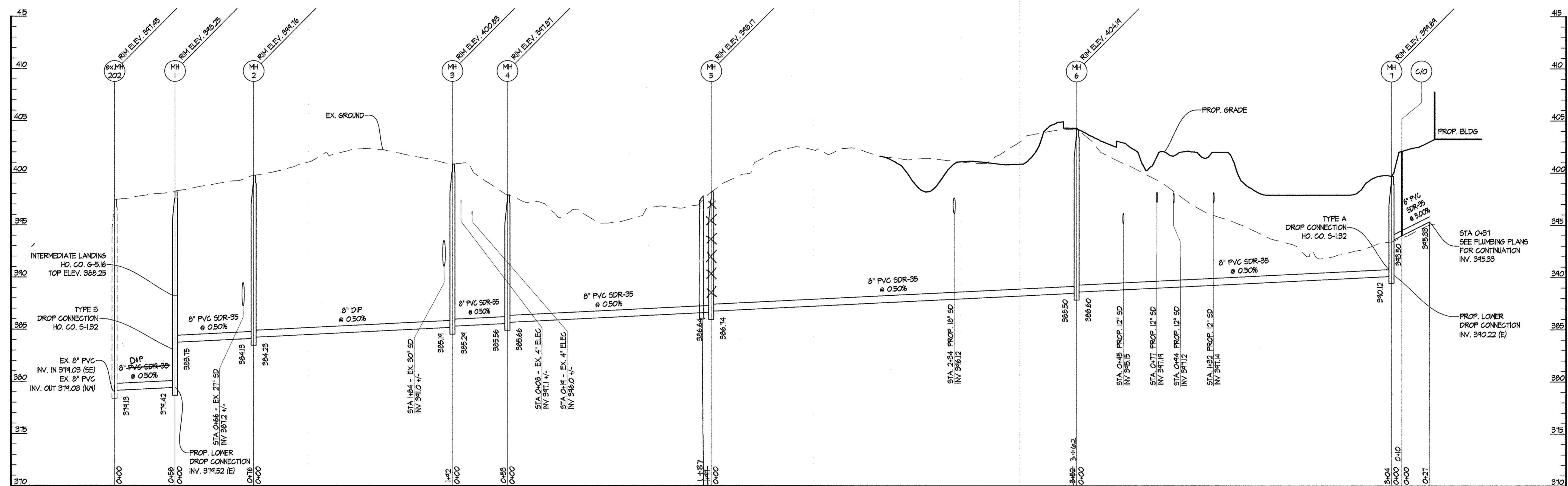
AS BUILT
BY: DFI DATE: 7-13-17



<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>John C. Gen</i> 11/16 BUREAU OF UTILITIES, CHIEF DATE</p>	<p>DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND</p> <p><i>Chris Edmonson</i> 11-14-16 DEVELOPMENT ENGINEERING DIVISION CHIEF DATE</p>	<p>SITE RESOURCES INCORPORATED Comprehensive Land Planning & Site Design Services</p> <p>14115 Annapolis Pike • Poolesville, Maryland 21121 (410) 885-3300 • Fax (410) 885-3309</p> <p><i>John D. Thompson</i> 10/25/16 PROFESSIONAL CERTIFICATION 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. 2084 EXPIRATION DATE 07/31/2020</p>	<p>DES: A/M ERN: RSW/AMH CHK: JLH DATE: 09/30/16</p>	<table border="1"> <thead> <tr> <th>BY</th> <th>NO.</th> <th>REVISION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	BY	NO.	REVISION	DATE					<p>WATER AND SEWER PLAN</p> <p>TAX MAP NO. 31 BLOCK NO. N/A</p>	<p>LONG REACH TENNIS CLUB HOWARD COUNTY, MARYLAND CONTRACT NO. 24-4971-D 6100 OLD DOBBIN LANE 3rd ELECTION DISTRICT</p>	<p>SCALE: 1"=50'</p> <p>SHEET 2 OF 4</p>
BY	NO.	REVISION	DATE												

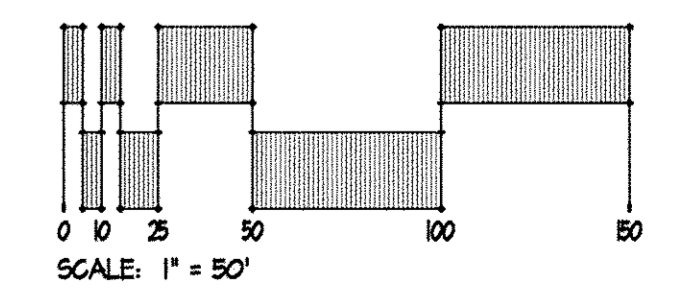
SANITARY STRUCTURE TABLE

STRUCTURE ID	DESCRIPTION	TOP ELEV.	INV. IN	INV. OUT	COORDINATES
M-1	48" PRECAST STANDARD MANHOLE Howard Co 6-5.12	RIM 398.25	8" PVC SDR-35 (E) 388.75 8" PVC SDR-35 (E) 379.52	8" PVC SDR-35 (N) 379.42	N: 559,374.08 E: 1,264,594.64
M-2	48" PRECAST STANDARD MANHOLE Howard Co 6-5.12	RIM 399.76	8" DIP (E) 384.23	8" PVC SDR-35 (N) 384.13	N: 559,386.78 E: 1,264,234.48
M-3	48" PRECAST STANDARD MANHOLE Howard Co 6-5.12	RIM 400.83	8" PVC SDR-35 (N) 385.29	8" DIP (N) 385.19	N: 559,404.17 E: 1,264,425.37
M-4	48" PRECAST STANDARD MANHOLE Howard Co 6-5.12	RIM 397.87	8" PVC SDR-35 (E) 385.66	8" PVC SDR-35 (S) 385.56	N: 559,456.71 E: 1,264,433.34
M-5	48" PRECAST STANDARD MANHOLE Howard Co 6-5.12	RIM 398.17	8" PVC SDR-35 (E) 386.74	8" PVC SDR-35 (N) 386.64	N: 559,452.75 E: 1,264,629.87
M-6	48" PRECAST STANDARD MANHOLE Howard Co 6-5.12	RIM 404.19	8" PVC SDR-35 (N) 388.60	8" PVC SDR-35 (N) 388.50	N: 559,496.15 E: 1,264,979.45
M-7	48" PRECAST STANDARD MANHOLE Howard Co 6-5.12	RIM 397.90	6" PVC (E) 393.50 6" PVC (E) 390.22	8" PVC SDR-35 (S) 390.12	N: 559,796.52 E: 1,265,024.94



1 SANITARY PROFILE: MH-8 TO ex. MH-1

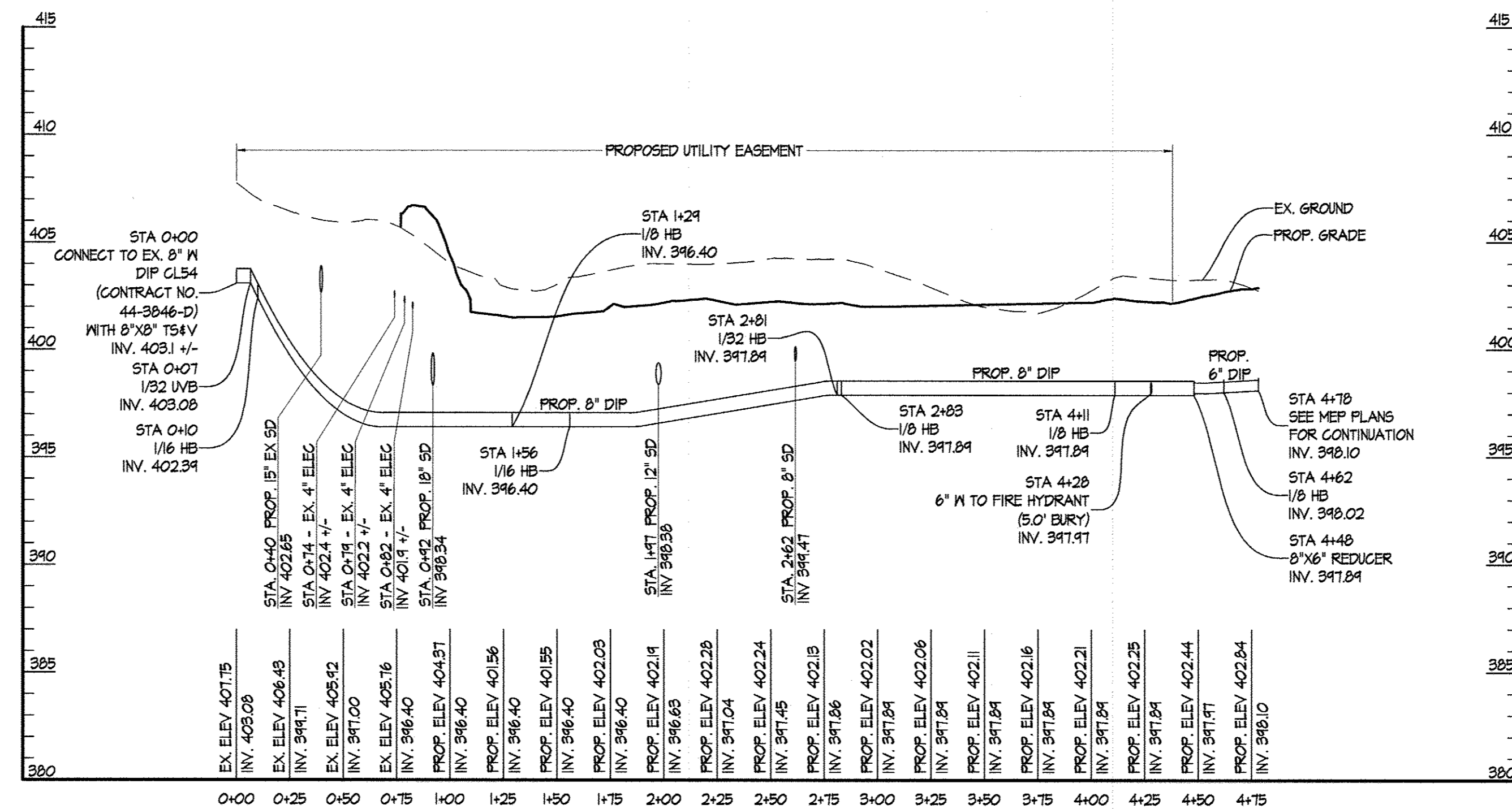
SCALES: HORIZ. 1" = 50'
VERT. 1" = 5'



AS BUILT
BY: DFI DATE: 7-13-17

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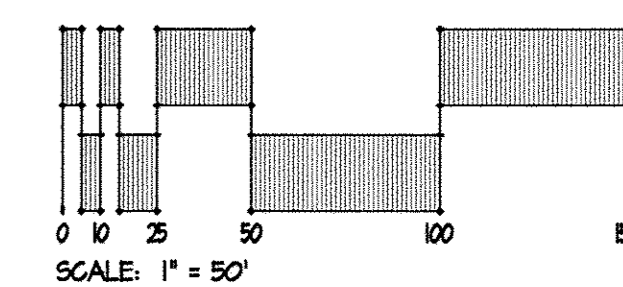
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>Steve C. Green</i> BUREAU OF UTILITIES, CHIEF	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND <i>Charles E. ...</i> DEVELOPMENT ENGINEERING DIVISION, CHIEF	SITE RESOURCES INCORPORATED Comprehensive Land Planning & Site Design Services 14815 Armetville Pike • Pikesville, Maryland 21111 (410) 835-3388 • Fax (410) 835-3389	PROFESSIONAL ENGINEER MARYLAND 10,2516 DATE: 09/30/16	DES: A_M DRN: RSW/AMH CHK: JLH DATE: 09/30/16	SEWER PROFILES	LONG REACH TENNIS CLUB HOWARD COUNTY, MARYLAND CONTRACT NO. 24-4971-D 6180 OLD DOBBIN LANE 3rd ELECTION DISTRICT	SCALE: AS NOTED SHEET 3 OF 4
BUREAU OF UTILITIES, CHIEF DATE: 11/4/16		DEVELOPMENT ENGINEERING DIVISION, CHIEF DATE: 11/4/16		BY NO. REVISION DATE TAX MAP NO. 37 BLOCK NO. N/A			



① WATER PROFILE

SCALES: HORIZ. 1" = 50'
VERT. 1" = 5'

AS BUILT
BY: DFI DATE: 7-13-17



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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

H. C. Carr
BUREAU OF UTILITIES, CHIEF DATE: 11/4/16

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

Chad E. Chamberlain
DEVELOPMENT ENGINEERING DIVISION, CHIEF DATE: 11/14/16

SITE RESOURCES
INCORPORATED
Comprehensive Land Planning & Site Design Services
14115 Arrettsville Pike • Pikesville, Maryland 21113
(410) 651-3300 • Fax (410) 651-3300

John J. Thompson
PROFESSIONAL CORPORATION
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. 2266 EXPIRES DATE: 07/01/2021

DES: A_M					
DES: RSW/AMH					
CHK: JLH					
DATE: 09/30/16					
BY	NO.	REVISION	DATE	TAX MAP NO.	BLOCK NO.

WATER PROFILE

TAX MAP NO. 3T BLOCK NO. N/A

LONG REACH TENNIS CLUB
HOWARD COUNTY, MARYLAND
CONTRACT NO. 24-4971-D
6100 OLD DOBBIN LANE
3rd ELECTION DISTRICT

SCALE:
AS NOTED

SHEET
4 OF 4