QUANTITIES ' WATER(PVC C900 DR18) 2.470 L.F. ' WATER(PVC C900 DR18) 227 L.F. 16 EACH 8" VALVE 5 EACH NAME OF UTILITY CONTRACTOR:

> HORIZONTAL WATER APPURTENANCE CHART WATER MAIN 'A

> > STATION

WL STA. 0+00.0

WL STA. 0+80.4

WL STA. 2+05.5

WL STA. 3+58.6

WL STA. 4+12.4

WL STA, 4+34.2

WL STA. 4+95.1

WL STA. 6+30.3

" 1/32 HORIZONTAL BEND | WL STA. 11+44.4 | 561074.8029 | 1373272.9847 REMOVE 8" CAP & BUTTRESS | WL STA. 11+54.2 | 561069.6109 | 1373300.7313

6011 OTTERBEIN LANE

6001 OTTERBEIN LANE

6021 OTTERBEIN LANE

6081 OTTERBEIN LANE

6031 OTTERBEIN LANE

6041 OTTERBEIN LANE

6071 OTTERBEIN LANE

6051 OTTERBEIN LANE

6061 OTTERBEIN LANE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND

SEMMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE

DATE

IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE

HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER

APPROVED DEVELOPMENT PLANS (SDP-18-029)

CHIEF, BUREAU OF UTILITIES

560565.3804 1372818.216

560820.6284 1372681.1911

560864.1819 1372723.7654

560961.3895 1372817.391

561020.6215 1372876.687

561092.1278 | 1372974.995

WATER HOUSE CONNECTION AS-BUILT LOCATION TABLE

LOCATION DIMENSION 1

OFFSET 16.4' RT | 560949.3244 | 1372829.898

OFFSET 17.9' LT | 561102.1975 | 1373018.6106

WL STA, 10+21.0 | 561060.5900 | 1373150.9265

SURVEY AND DRAFTING DIVISION AS-BUILT DATE:

EMOVE 8" CAP & BUTTRESS

1/8 HORIZONTAL BEND

1/8 HORIZONTAL BEND

1/32 HORIZONTAL BEND

1/16 HORIZONTAL BEND

8" 1/16 HORIZONTAL BEND WL STA. 8+13.3

8" 1/16 HORIZONTAL BEND WL STA. 8+42.0

" 2" DEFLECTION

8"x 8" TEE

FIRE HYDRANT 2

TRE HYDRANT 3

8" 1/32 HORIZONTAL BEND

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)

HORIZONTAL WATER APPURTENANCE CHART

WATER MAIN 'B'

STATION

WL STA. 0+94.3

WL STA. 4+02.7

WL STA. 4+14.1

WL STA. 6+37.7

" REMOVE CAP & BUTTRESS | WL STA. 8+95.7 | 560977.1983 | 1373428.6718

HORIZONTAL WATER APPURTENANCE CHART

WATER MAIN 'C'

STATION

WL STA. 0+65.8

WL STA. 1+19.5

WL STA. 2+94.6

WL STA. 3+18.7

OFFSET 19.0' LT

8" REMOVE CAP & BUTTRESS | WL STA. 3+11.0 | 560405.9715 | 1374145.478

LOCATION DIMENSION 2

EXIST. WATER MAIN

EXIST. SEWER MAIN

EXIST. SEWER MANHOLE

EXIST. STORM DRAIN

PROP. FIRE HYDRANT

PROP. WATER MAIN

PROP. VALVE

WL STA. 7+57.2 | 560874.8607

TRE HYDRANT

TRE HYDRANT S

FIRE HYDRANT 6

TRE HYDRANT 7

1/8 HORIZONTAL BEND

' 1/8 HORIZONTAL BEND

1/8 HORIZONTAL BEND 1/8 HORIZONTAL BEND

APPURTENANCE

' 1/16 HORIZONTAL BEND

' REMOVE CAP & BUTTRESS | WL STA. 0+00.0

NORTHING

560745.1560 1372939.2324

560852.9875 | 1373037.7535

1373065.9634

WL STA. 0+00.0 | 560586.5818 | 1372794.9178

OFFSET 14.6' RT. | 560735.6312 | 1372950.3337

560884.4041

560893.9496

560786.5862

NORTHING

560303.4591 1373748.045

560319.2663 | 1373811.912

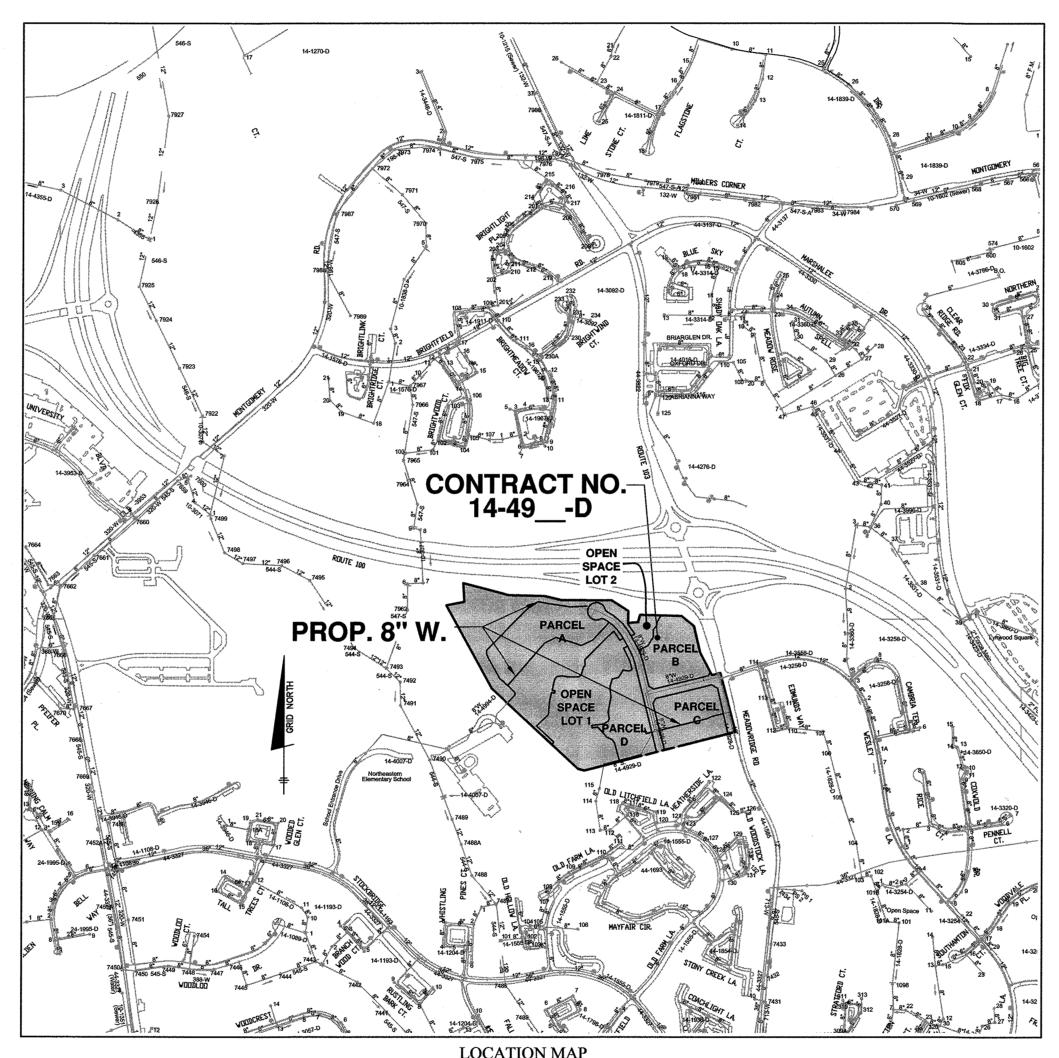
560332.1574 | 1373863.9981

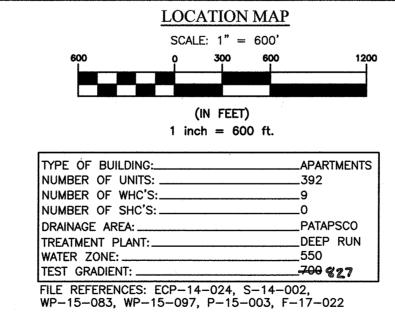
560380.0342 1374057.439 560388.8053 | 1374076.120

560414.6215 | 1374101.1850

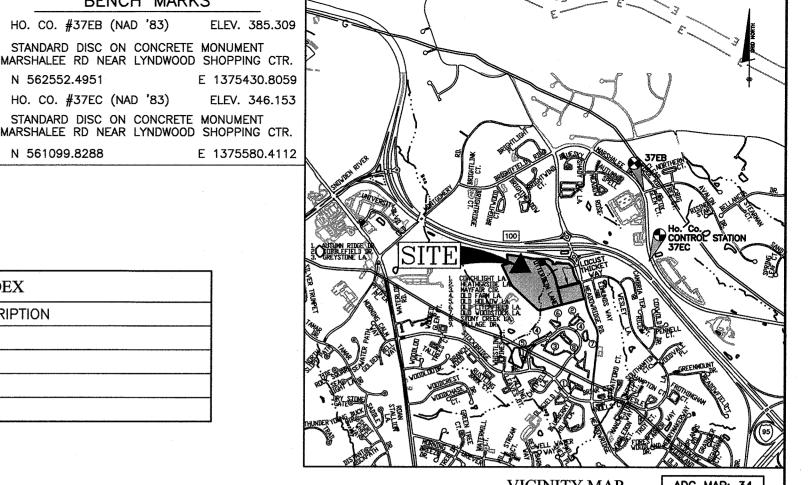
FINAL WATER EXTENSIONS THE WEXLEY AT 100 - PH II

PARCELS A, C & D 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT NO.: 14-5045-D





SHEET INDEX DESCRIPTION TITLE SHEET PUBLIC WATER PLAN PUBLIC WATER PLAN PUBLIC WATER PROFILES



GENERAL NOTES

HO. CO. #37EB (NAD '83)

HO. CO. #37EC (NAD '83)

O 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.

PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 37EB AND 37EC. ALL VERTICAL CONTROLS ARE BASED ON NAVD 88. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE HO.CO. GEODETIC CONTROL STA. 37EB & 37EC

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 BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONIES OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES

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

WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL 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 HALL 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 BEFOR BG&E (CONSTRUCTION SERVICES
BG&E (EMERGENCY).....

THE CONTRACTOR SHALL REMOVE TREES STUMPS AND ROOTS ALONG LINE OF EXCAVATION PAYMENT FOR SUCH REMOV SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.

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(a) OF THE HOWARD COUNTY CODE.

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. 4. 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.

6. 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 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 HARNESSES. TWELVE (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

10. 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 SPIGOT INTO THE BELL. AFTER ASSEMBLY OF THE JOINT, THE INSERTION LINE SHALL REMAIN VISIBLE. DUAL INSERTION LINES ON GASKETED P.V.C. PIPE INDICATE THE MAXIMUM AND MINIMUM DEPTH OF INSERTION INTO THE SPIGOT BELL. THE CONTRACTOR SHALL NOT OVER INSERT OR OVER HOME THE SPIGOT INTO THE BELL. THE CONTRACTOR SHALL NOT OVER INSERT OR OVER HOME THE SPIGOT INTO THE BELL OF THE

11. ALL CHANGES IN HORIZONTAL AND VERTICAL DIRECTION OF P.V.C. WATER PIPE SHALL BE MADE WITH STANDARD 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 ONE FULL PIPE LENGTH (20-FOOT LONG) ON EITHER SIDE OF THE HIGH-DEFLECTION (HD) COUPLINGS OR 5-DEGREE SWEEP. THE CONTRACTOR SHALL USE A VIBRATORY PLATE COMPACTOR OR OTHER APPROVED MEANS TO THOROUGHLY COMPACT THE THE #57 STONE ON BOTH SIDES OF THE HIGH-DEFLECTION (HD) COUPLING OR 5-DEGREE SWEEP, TAKING CARE NOT TO USE COMPACTION 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 LÉNGTH OF 9-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 SPIGOT, RATED FOR A MINIMUM 225-PSI, DR-18 MEETING THE REQUIREMENTS OF AWWA-C900, AND SHALL BE MULTI-FITTING (IPEX) BLUE BRUTE DR-18 OR EQUAL.

12. 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 THE P.V.C. SPIGOTS 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 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 EQUAL.

CONTRACT 14-4994 MUST BE PLACED IN SERVICE PRIOR TO THE IN-SERVICE DATE OF THIS CONTRACT.

OWNER/DEVELOPER LOCUST THICKET INVESTORS LLC 5836 MEADOWRIDGE ROAD ELKRIDGE, MD 21075 410-465-4244

THE WEXLEY AT 100

PHASE II WATER TAX MAP 37, GRID 9, PARCEL A, C & D 1st ELECTION DISTRICT

1 OF 4

AS SHOWN

DEPARTMENT OF PUBLIC WORKS DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND HOWARD COUNTY, MARYLAND WWW.BEI-CIVILENGINEERING.COM CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE MA

BENCHMARK ENGINEERS & LAND SURVEYORS & PLANNERS ENGINEERING, INC 8480 BALTIMORE NATIONAL PIKE A SUITE 315 A ELLICOTT CITY, MARYLAND 21043 (P) 410-465-6105 (F) 410-465-6644

manages internations recommended recommendation rec

PROFESSIONAL CERTIFICATION:

engineer under the laws of the State of Maryland License No. 28376; Expiration Date: 01.01.19

I hereby certify that these documents were prepare

DES. A	AIVIJICO					F
DRN:	LD/JCO					-
СНК:	AAM		-			7
DATE: J	ULÝ 2018	BY	NO.	REVISIONS	DATE	600 SCALE MAPS: 37

FINAL PUBLIC **WATER** TITLE SHEET

HOWARD COUNTY, MARYLAND

CONTRACT No. 14-5045-D

SHEET NO.

SCALE:

