### **QUANTITIES** AS-BUILT ITEMS QUANTITIES MANUF./SUPPLIER ATLANTIC PEPE RECAST CONC. CONTRACTORS PRE ATLANTIC PIPE NAME OF UTILITY CONTRACTOR: UTILITIES UNLIMITED SURVEY AND DRAFTING DIVISION AS-BUILT DATE: 7-1-201

Sewer Manhole Schedule

**Water Appurtenance Schedule** 

N 527320.14 E 1352270.31

GROUND AT-

CL SEWER

GROUND AT-

CL WATER

8"X6" TAPPING SLEEVE & VALVE 5 DEGREE VERTICAL SWEEP

5 DEGREE VERTICAL SWEEP DEGREE VERTICAL HD COUPLING

6" PLUG AND BUTTRESS

Out

- 243.08 255.35

EX. GROUND AT CL WATER

PVC SEWER @ 1.00% 1.40%

PROFILE OF PUBLIC SEWER MAIN SCALE: 1"=50' HORIZ., 1"=5' VERT.

240.14 240.04 250.00 G-5.14

Elevation

Location (NAD '83)

N 527474.09 E 1352501.37 N 527414.41 E 1352423.26

N 527353.40 E 1352343.40

INV. 250.6+/-

SUPPLIER

L.S. WATER

L.D. WATER

HO.CO.STD

G-5.14

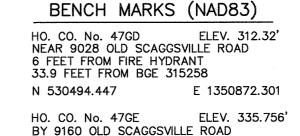
OLD SCAGGSVILLE ROAD

% ₹¤₹

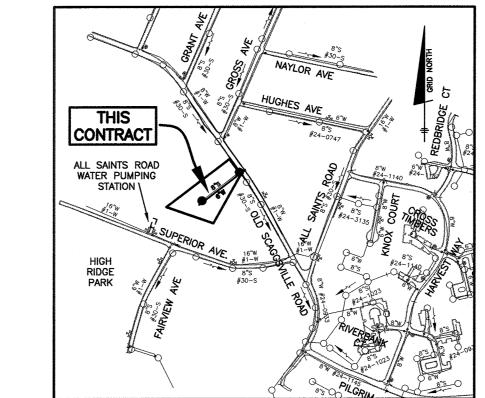
A

230

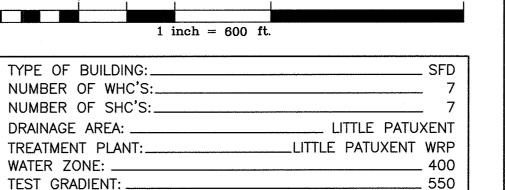
# HIGH RIDGE ESTATES LOTS 1-7 AND OPEN SPACE LOT 8 CONTRACT NO. 24-4952-D



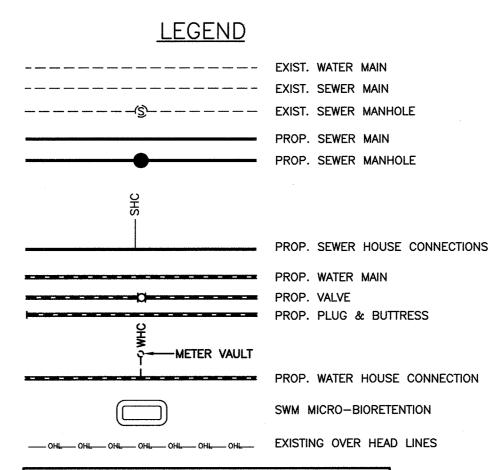
19.8 FEET FROM WATER METER 76.5 FEET FROM BGE 31000 N 529044.964 E 1350854.953



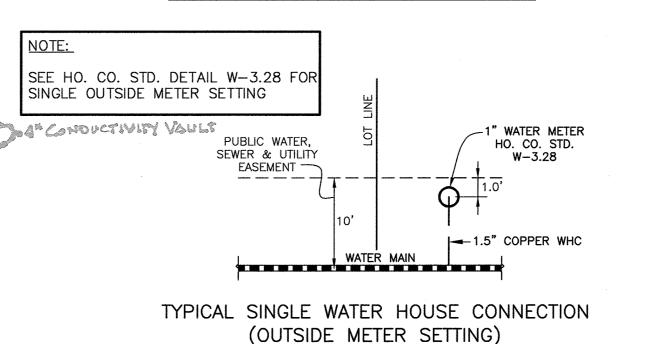
VICINITY MAP



FILE REFERENCES: ECP-15-063, S-15-004, F-16-030



ALL WATER HOUSE CONNECTIONS ARE TO BE 1.5" WITH A 1" METER (OUTSIDE SETTING). ALL SEWER HOUSE CONNECTIONS SHALL BE



NOT TO SCALE

1 inch = 50 ft.

	SHC CHART					
er	Invert @ main	Invert @ R/W	Minimum Cellar			
Ci	I III WITE (W) I II dall	or esmt line	Elevation			
	241.93	242.11	246.29			
	241.89	242.09	245.87			
	242.48	242.68	246.46			
	243.08	243.28	247.06			
	243.41	243.63	247.49			
	243.41	243.83	247.65			
	243.03	243.43	247.05			

Lot Frontage Chart 68.39 4.00 4.00 4.00 4.00

> GREENSIDE LANDING 7.5° TO SMN 2 2 GREENSIDE LANDING 26° TO SMN 2 9219 GREENSIDE LANDING 24.5 7 SMU 2

GREENSIDE LANDING 26.8 TO SMW # 43° to was lot #7 GREENSIDE LANDING | 52 7 TO 5 MH 29' TO WHG LOT #6 GREENSIDE LANDING 44 6 5M4 2 TO SHG LOT # 6 GREENSIDE LANDING 60 TO SMU 2 25° % SDNU # 2 7 9215 CONDUCTIVITY YAULT 4" TO WHE LOT "C . 45.5° To SMU & L SEWER HOUSE CONNECTION AS-BUILT LOCATION TABLE LOCATION DIMENSION 1 LOCATION DIMENSION 2 ADDRESS 1 9304 OLD SCAGGSVILLE ROAD 50° To WHS LOT \$3 GREENSIDE LANDING 65° TO SOMING 2 GREENSIDE LANDING 32 TO SOMU = 2 78,4° to SMU = 2 51 To WHG LOT 49 GREENSIDE LANDING 17.5 TO SON 2

WATER HOUSE CONNECTION AS-BUILT LOCATION TABLE

LOCATION DIMENSION 1

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

# \* Lot 1 shall utilize existing SHC

OWNER/DEVELOPER: DEVELOPMENT PARTNERS, LLC 11807 WOLLINGFORD COURT CLARKSVILLE, MARYLAND 21029

301-490-0388 laws of the State of Maryland, License No. 22390, **BENCHMARK** 

N 527,200

laws of the State of Wat yland, License 140. 22570,				
Expiration Date: 6-30-2017.				
	ST STEFFALLS	Ď		
		D		
		С		
	( 128 10 )	-		

	<b>*</b>						
DES:	DBT						
DRAFT:	DBT				•	PUBLIC WATER A PROFILES, NOTE	
CHK:	CAM					i ROFILES, NOTE	ES AND DETAILS
DATE:	04/2016	BY.	NO.	REVISIONS	DATE	600 SCALE MAP #.	BLOCK: .

## 3. HORIZONTAL AND VERTICAL SURVEY CONTROLS:

**GENERAL NOTES** 

1. 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

2. TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED IN JANUARY, 2015 BY BENCHMARK ENGINEERING

THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM

NAD '83/'91 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 47GD AND NO. 47GE.

ALL VERTICAL CONTROLS ARE BASED ON NAVD '88, VERTICAL CONTROLS PROVIDED ON THE DRAWING

5. CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. CLEAR ALL POLES BY 5'-0" MINIMUM OF TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. THE OWNER HAS CONTACTED THE UTILITY 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 OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.

6. 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 WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL lacksquareAT 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

8. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

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

AT&T	1-800-252-1133
BGE (CONTRACTOR SERVICES)	410-637-8713
BGE (EMERGENCY)	410-685-0123
BUREÀU 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

(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(a) OF THE

#### PART II WATER

2. TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE

3. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES. 4. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS. 5. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL

FIRE HYDRANTS SHALL BE INSTALLED 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. 6. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM. 7. TRACER WIRE AND CONTINUITY TEST STATIONS SHALL BE INSTALLED ON ALL DIP AND PVC WATER

MAINS IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL. 8. 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 TO ALLOW CROSS

REFERENCING OF THE PIPE SUPPLIED TO THE TEST RECORDS RECEIVED. 9. 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

10. 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 INSERTIONLINE SHALL REMAIN VISIBLE, DUAL INSERTION LINES ON GASKETED PVC PIPE INDICATE HE MAXIMUM AND MINIMUM DEPTH OF INSERTION OF THE

11. ALL CHANGES IN HORIZONTAL AND VERTICAL DIRECTION OF PVC WATER PIPE SHALL BE MADE WITH STANDARD BENDS, 5-DEGREE SWEEPS OR HIGH DEFLECTION (HD) 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

PVC HIGH DEFLECTION COUPLINGS SHALL BE LIMITED TO A TOTAL DEFLECTION OF 3-DEGREES (1 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 CERTAINTEED PVC HIGH DEFLECTION (HD) STOP COUPLINGS OR EQUAL.

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 (IPEX) BLUE BRUTE DR18 OR EQUAL. 12. 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 DEVICESFOR 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.

#### PART III SEWER

- 1. ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
- 2. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- 3. FORCE MAINS SHALL BE D.I.P. ONLY.

4. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY. 5. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVER, STANDARD DETAIL G5.52. WHERE WATERTIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.

6. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED. AS BUILT + 7-01-2019

# **HIGH RIDGE ESTATES**

LOTS 1-7 AND OPEN SPACE LOT 8

TAX MAP: 50 - BLOCK: 2 - PARCEL: 75 AND 258 - ZONED: R-SC - ELECTION DISTRICT: 6

SHEET NO. 1 OF 1

SCALE:

AS SHOWN

DEPARTMENT OF PUBLIC WORKS

HOWARD COUNTY, MARYLAND

SPECIFICATIONS AND AS PER SDP-16-07%

THIS PLAN IS APPROVED FOR SOIL EROSION AND

DISTRICT

J:\2667 Grimes\dwg\6000.dwg, 4/25/2016 8:55:16 PM

SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED

IN ACCORDANCE WITH SECTION 308 OF THE HOWARD COUNTY STANDARD

HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING

 ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS ENGINEERING, INC. 8480 BALTIMORE NATIONAL PIKE & SUITE 315 & ELLICOTT CITY, MARYLAND 21043 (P) 410-465-6105 (F) 410-465-6644 WWW.BEI-CIVILENGINEERING.COM

9304 OLD SCAGGSVILLE ROAD 50.5 TO SHIP

GREENSIDE LANDING 13.5 TO SDMN

GREENSIDE LANDING 35 TO SDMH 2

LOCATION DIMENSION 2

30' TO WHE LOT#3

26' TO WHG LOT #5

34' TO CONDUCTIVITY VAUL 30' TO WHE LOT \$7

88.4° TO SMU • Z

CONTRACT NO. 24-4952-D