

Existing Sanitary Sewer Table							
#	STRUCTURE	WVA#	RIM	INV. OUT	INV. IN(1)	INV. IN(2)	INV. IN(3)
S-1	SSMH	20A-3567.0	932.99'	926.78' (8" TCP)	926.94' (8" TCP)		
S-2	SSMH	20A-3566.0	931.10'	923.00' (8" DI)	923.25' (8" TCP)		
S-3	SSMH	20A-3924.0	930.99'	917.85' (8" DI)	922.67' (8" DI)		
S-4	SSMH	20A-1034.0	923.48'	905.73'	905.98' (48" RCP) NE	913.48' (8" TCP) SE	
S-5	SSMH	20A-0042.0	915.80'	897.80' (66" RCP)	904.94' (48" RCP)		
S-6	SSMH	20A-3572.0	923.60'	917.35' (8" TCP)	917.46' (8" TCP)		
S-7	SSMH	20A-3573.0	925.36'	919.76' (8" TCP)	920.02' (6" TCP) SW	922.54' (6" PVC) W	
S-8	SSMH	20A-3974.9	933.30'	931.23' (6" TCP)	931.43' (6" TCP)		
S-9	SSMH	20A-3577.5	954.01'	948.88' (15" TCP)	949.02' (8" TCP) NE	949.01' (12" TCP) S	
S-10	SSMH	20A-3973.0	936.77'	933.10' (12" TCP)	933.12' (15" TCP) SE	933.48' (8" TCP) S	
S-11	SSMH	20A-3577.0	925.64'	919.91' (12" TCP)	920.01' (12" TCP) E	920.89' (8" TCP) S	
S-12	SSMH	20A-3972.9	948.74'	946.41' (8" TCP)	946.49' (8" TCP)		
S-13	SSMH	20A-3607.9	949.37'	947.72' (6" TCP)	947.83' (6" TCP)		
S-14	SSMH	20A-3607.7	948.79'	946.61' (8" TCP)	946.70' (6" TCP) NE	946.87' (6" TCP) E	
S-15	SSMH	20A-3607.5	945.80'	942.44' (8" TCP)	942.52' (8" TCP)		
S-16	SSMH	20A-3607.0	940.24'	937.30' (8" TCP)	937.34' (8" TCP)		
S-17	SSMH	20A-3606.0	939.50'	936.55' (8" TCP)	936.60' (8" TCP) NE	936.85' (8" TCP) SE	
S-17A	SSMH	20A-3608.0	949.17'	937.64' (8" TCP)	946.35' (6" TCP) NE	944.88' (8" TCP) SE	
S-18	SSMH	20A-3612.0	934.42'	927.99' (12" TCP)	929.89' (8" TCP)		
S-18A	SSCO	NA	934.63'	931.98' (SSCO INV)			
S-19	SSMH	20A-1047.0	927.05'	909.26' (48" RCP)	925.15' (6" PVC) SE	909.36' (48" RCP) SW	
S-20	SSMH	20A-1049.0	925.91'	909.73' (48" RCP)	CAN NOT SEE (8" DI) SE	916.00' (12" CNC) SW	909.91' (48" RCP) W
S-21	SSMH	20A-3130.0	932.95'	923.65' (8" DI)	923.77' (8" DI)		
S-22	SSMH	20A-3967.0	933.69'	925.08' (8" DI)	925.10' (8" DI)		
S-23	SSMH		935.34'	928.63' (8")	931.54' (6" DI)	928.70' (6" TCP)	
S-24	SSMH	20A-3614.0	927.77'	919.08' (12" CONC.)	920.08' (12" DI)	919.40' (12" DI)	
S-25	SSMH	20A-3615.0	929.81'	920.59' (12" DI)	920.66' (8" DI)		921.52' (12" DI)
S-26	SSMH	NA	929.08'	922.35' (12" DI)	925.10' (4" PVC) SE	922.59' (12" DI) SE	
S-27	SSMH	NA	930.07'	923.34' (12" RCP)	923.36' (12" RCP) SE	924.40' (4" PVC) S	

** - Denotes Data Rim and Invert Data taken from the Western Virginia Water Authority GIS

Existing Waterline Valve Table

#	RIM	TOP OF NUT
W-1	930.08'	927.88'
W-2	929.79'	928.14'
W-3	929.76'	Can Not Open
W-4	929.50'	924.93'
W-5	930.28'	927.10'
W-6	930.06'	926.93'
W-7	930.06'	926.56'
W-8	929.89'	925.66'
W-9	922.91'	920.91'
W-10	947.82'	945.97'
W-11	949.86'	948.25'
W-12	941.92'	940.09'
W-13	940.30'	939.23'
W-14	940.22'	938.12'
W-15	935.51'	933.07'
W-16	930.42'	927.06'
W-17	929.22'	925.73'
W-18	929.24'	925.50'
W-19	929.40'	925.76'
W-20	928.78'	925.21'
W-21	928.68'	925.44'
W-22	928.53'	925.27'
W-23	928.27'	924.92'
W-24	928.14'	925.68'
W-25	927.06"	922.62'
W-26	927.19'	922.04'
W-27	927.09'	922.49'
W-28	926.83'	924.12'
W-29	926.76'	924.05'
W-30	929.77'	926.61'
W-31	930.11'	926.81'
W-32	929.99'	926.23'
W-33	930.66'	926.97'
W-34	931.18'	927.59'
W-35	931.01'	926.68'
W-36	933.65'	926.42'
W-37	929.96'	924.22'

PATTERN LEGEND (EXISTING)

	ASPHALT (ROAD/PARKING)
	GRAVEL (ROAD/PARKING)
	CONCRETE
	VEGETATION

SYMBOL LEGEND (EXISTING)

	FO	UNDERGROUND FIBER OPTICS
	T	UNDERGROUND TELEPHONE LINE
	W	WATER LINE
	S	SANITARY SEWER LINE
	D	STORM DRAIN LINE
	R/W AND PROPERTY BOUNDARY	
	G	GAS LINE
	E	UNDERGROUND ELECTRIC LINE
	GUARDRAIL	
	RAILROAD - ACTIVE	
	EXISTING MAJOR CONTOURS	
	EXISTING MINOR CONTOURS	
	UNKNOWN UTILITY	
	PROPERTY CORNER	
	PROPERTY MONUMENT	
	PROPERTY LINE	
	SANITARY SEWER MANHOLE	
	SANITARY SEWER CLEANOUT	
	STORM DRAINAGE MANHOLE	
	UTILITY POLE	
	GUY WIRE	
	STREET LIGHT	
	TREE	
	TREE CONIFER	
	SHRUB	
	BOLLARD	
	TRAFFIC ARROWS	
	MAILBOX	
	SIGN	
	TELEPHONE PEDESTAL	
	BLOW-OFF VALVE	
	GATE VALVE	
	WATER METER	
	WATER MANHOLE	
	WATER VAULT	
	FIRE HYDRANT	
	GAS VALVE	
	PAPER BOX	
	SEWER CLEAN OUT	
	ELECTRIC BOX	
	UTILITY POLE	
	TRAFFIC SIGNAL POLE	
	TELEPHONE MANHOLE	
	TELEPHONE VAULT	
	TRAFFIC SIGNAL CABINET	
	TRAFFIC VAULT	
	AEP	AMERICAN ELECTRIC POWER
	APCO	APPALACHIAN POWER COMPANY
	B.W.L.	BROKEN WHITE LINE
	CNC	CONCRETE PIPE
	C&P	CHESAPEAKE & POTOMAC
	DMH	DRAINAGE MANHOLE
	D.Y.L.	DOUBLE YELLOW LINE
	FO	UNDERGROUND FIBER OPTIC
	GAS	UNDERGROUND GAS
	OE	OVERHEAD ELECTRIC
	OT	OVERHEAD TELEPHONE
	RCP	REINFORCED CONCRETE PIPE
	SS	SANITARY SEWER LINE
	SSMH	SANITARY SEWER MANHOLE
	S.Y.L.	SOLID YELLOW LINE
	S.W.L.	SOLID WHITE LINE
	TCP	TERRA COTTA PIPE
	TS	TRAFFIC SIGNAL WIRE
	UE	UNDERGROUND ELECTRIC
	UT	UNDERGROUND TELEPHONE
	VER	VERIZON
	W	WATERLINE
	X	APPROXIMATE LOCATION

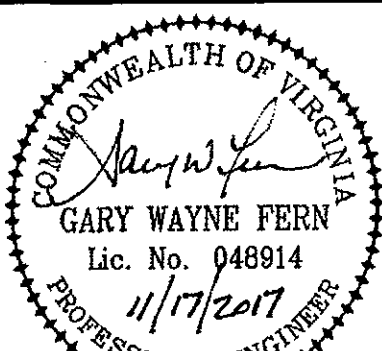
Existing Storm Drainage Table							
#	STRUCTURE	RIM	INV. OUT	INV. IN	INV. IN(2)	INV. IN(3)	THROAT
D-1	Curb Inlet	931.33'	925.07'				12"
D-2	Drop Inlet	929.89'	923.16' (18" RCP)	923.51' (18" RCP) NE	923.62' (18" RCP) S		6"
D-3	Gate Inlet	929.12'	922.42' (18" RCP)	922.80' (18" RCP)			
D-4	Gate	929.16'	921.02' (18" RCP)	921.02' (18" RCP)			
D-5	Drop Inlet	931.75'	920.15' (18" RCP)	920.27' (18" RCP)			6"
D-6	DMH	931.93'	912.21' (36" RCP)	920.08' (18" RCP) NE	914.91' (36" RCP) SE	913.16' (18" RCP) SW	
D-7	DMH	915.96'	BOLTED				
D-8	DMH	930.50'	PAVED OVER				
D-9	DMH	930.19'	918.32' (24" RCP)	918.54' (18" RCP) NE	918.71' (24" RCP) SE		
D-10	DMH	930.50'	920.31' (24" RCP)	925.70' (18" RCP) N	920.35' (24" RCP) SE		
D-11	Drop Inlet	930.35'	926.25' (18" RCP)				4"
D-12	Drop Inlet	924.98'	917.69' (18" RCP)				8"
D-13	DMH	924.81'	917.06' (18" RCP)	917.16' (18" RCP) W	917.22' (18" RCP) E		
D-14	Drop Inlet	924.65'	919.74' (18" RCP)				6"
D-15	DMH	930.57'	916.77'	N/A (Can Not See In)			
D-16	DMH	936.24'	931.08' (18" RCP)	932.15' (8" PVC) NE	931.12' (12" RCP) NE	931.22' (18" STEEL) SE	
D-17	18" RCP		927.52'				
D-18	Drop Inlet	929.98'	926.81' (12" RCP)				
D-19	Drop Inlet	929.34'	924.32' (12" RCP)	924.36' (12" RCP)			6"
D-20	DMH	931.44'	922.88' (18" RCP)	928.15' (12" RCP)			
D-21	DMH	932.59'	929.03' (12" RCP)	929.20' (12" RCP)			
D-22	Drop Inlet	940.63'	926.19' (24" RCP) SW	933.07' (12" RCP) NE	935.23' (18" RCP)		12"
D-23	DMH	937.53'	925.37' (12" RCP)	933.07' (6" DI) SE	925.43' (12" RCP) SE		
D-24	DMH	930.23'	920.37' (24" RCP)	924.98' (24" RCP)			
D-25	Drop Inlet	925.95'	916.9' +/- (Drop Into Creek)				
D-26	Gate	926.86'	923.30' (12" RCP)				
D-27	Gate	925.93'	923.18' (12" RCP)	N/A			
D-28	Drop Inlet	926.86'	921.75' (12" RCP)				2.5'
D-29	DMH	927.12'	920.65' (24" RCP)	921.32' (12" RCP) N	920.90' (24" RCP) W	920.90' (12" RCP) SW	

UTILITY TEST HOLES (TH) - DEPTH TO TOP OF UTILITY			
TH NO.	UTILITY	DEPTH	SHEET
1	24" WATER	30"	9
	ELECTRIC DUCT BANK	3" TO CONCRETE FLOWABLE FILL	
2	24" RCP STORM DRAIN	5'	10
	6" GAS	4'	
3	ELECTRIC DUCT BANK	4'-8"	10

- SURVEY NOTES:
- THIS MAP IS BASED ON A CURRENT FIELD SURVEY.
 - THIS MAP WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT AND THERE MAY EXIST ENCUMBRANCES WHICH EFFECT THE SUBJECT PROPERTY THAT ARE NOT SHOWN HEREON.
 - A PORTION OF THE PROPERTY, AS SHOWN HEREON, LIES WITHIN THE LIMITS OF A SPECIAL FLOOD HAZARD AREA AS DESIGNATED BY FEMA. THIS OPINION IS BASED ON AN INSPECTION OF THE FLOOD INSURANCE RATE MAPS AND HAS BEEN VERIFIED BY ACTUAL FIELD ELEVATIONS. SEE COMMUNITY PANEL #510130 0164 G, MAP #51161C0164G, DATED: SEPTEMBER 28, 2007. ZONE "AC", ZONE "X" (SHADED) & ZONE "X" (UNSHADED).
 - HORIZONTAL (NAD 83) AND VERTICAL CONTROL (NAVD 88) WERE ESTABLISHED BY GPS SURVEY OBSERVATIONS OF THE CITY OF ROANOKE CONTROL MONUMENTS.
 - COORDINATE VALUES AS SHOWN HEREON ARE VIRGINIA STATE PLANE (SOUTH ZONE) SURFACE COORDINATES ESTABLISHED BY SCALING THE GRID COORDINATES AT POINT #15000 (N=3618837.8280, E=11062120.5740, ELEV=933.87') BY A COMBINED SCALE FACTOR OF 1.0000922.
 - CONTOURS AS SHOWN HEREON ARE AT A 2-FOOT INTERVAL.
 - THIS MAP DOES NOT GUARANTEE THE EXISTENCE OR LOCATION OF ANY UNDERGROUND UTILITIES. ALL SURFACE UTILITIES WERE FIELD LOCATED. ALL UNDERGROUND UTILITIES SHOWN WERE ESTABLISHED USING ABOVE GROUND STRUCTURES, AVAILABLE PUBLIC RECORDS AND MARKING ESTABLISHED BY MISS UTILITY OF VIRGINIA TICKETS A636201563, B702001181 AND A708002014. ALL UNDERGROUND UTILITY LINES ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED PRIOR TO THE START OF ANY CONSTRUCTION.
 - SEWER PIPE MATERIALS AND DIAMETERS SHOWN HEREON WERE TAKEN FROM THE WESTERN VIRGINIA WATER AUTHORITY GIS.

This Partial Topographic Survey was completed under the direct and responsible charge of, Larry Thomas Ogle, Jr., LS #2459 from an actual Ground survey made under my supervision; that the original data was obtained February 2, 2017 through April 10, 2017; and that this plot, including metadata meets minimum accuracy standards unless otherwise noted.

Utilities Marked per Miss Utility Ticket A636201563, B702001181 and A708002014				
Company	Contact	Phone Number	Damage Contact Phone Number	Conflict
AEP (AEP111)	USIC Locating Service	(800)778-9140	(800)956-4237	Yes
Roanoke Gas (RGC162)	S & N	(804)608-5640	(540)777-4427	Yes
SLD Sprint (USSP22)	Call Center	(800)521-0579	(800)521-0579	No
Roanoke City Signal (ROA853)	Bob Swain	(540)853-2691	(540)537-8496	No
Verizon (VZN804)	Utilquest	(703)754-2116	(888)483-1233	Yes
Western Virginia Water & Sewer (WVWS3)	Yvonne Doolittle	(540)283-8221	(540)283-2981	Yes
Roanoke Broadband (RVB904)	Yvonne Doolittle	(540)853-2596	(540)853-2792	No
Cox Communications (COX668)	Utilquest	(703)754-2116	(540)915-2803	Yes



Whitman, Requardt & Associates, LLP
1700 Kraft Dr, Suite 1200, Blacksburg, VA 24060

WESTERN VIRGINIA WATER AUTHORITY
601 South Jefferson Street, Suite 300
Roanoke, Virginia 24011

DES: PJM
DRAWN: JES
CHECK: GWF
DATE: 11/17/17

SCALE: N/A
HORIZ: N/A
VERT: N/A

HAMILTON TERRACE WATER MAIN REPLACEMENT

SURVEY SCHEDULES, NOTES, &
EXISTING LEGEND

DRAWING
-
SHEET
3