

PROJECT MANAGER: Mohammad Zaid, PE (540) 387-5374 (Salem)
SURVEYED BY: Blahard Zlams, L.S. (203) 631-5325 (Burgess & Niple)
DESIGN SUPERVISED BY: J. Scott Hodge, PE (540) 857-3322 (AECOM)
DESIGNED BY: Craig Riddle, PE (540) 857-3369 (AECOM)

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.	//	0081-011-120, PE-102 RW-202, C-502	18B

DESIGN FEATURES RELATING TO CONSTRUCTION
OR TO REGULATION AND CONTROL OF TRAFFIC
MAY BE SUBJECT TO CHANGE AS DEEMED
NECESSARY BY THE DEPARTMENT

AECOM TECH. SERV., INC.
ROANOKE, VIRGINIA
UTILITY ENGINEER

THESE PLANS ARE UNFINISHED
AND UNAPPROVED AND ARE NOT
TO BE USED FOR ANY TYPE
OF CONSTRUCTION.

QUANTITIES (WATER AND SANITARY SEWER)

SUMMARY OF WATER FACILITIES

SHEET NO.	1" WATER METER BOX AND YOKE	2" WATER METER BOX AND YOKE	1" WATER SERVICE LINE	2" WATER SERVICE LINE	6" D.I. WATER MAIN	8" D.I. WATER MAIN	12" D.I. WATER MAIN	8" INSERTING VALVE AND BOX	12" INSERTING VALVE AND BOX	6" GATE VALVE AND BOX	8" GATE VALVE AND BOX	12" GATE VALVE AND BOX	FIRE HYDRANT	1" AIR RELEASE VALVE AND BOX	12"x12" TAPPING SLEEVE VALVE AND BOX	8"x8" TAPPING SLEEVE VALVE AND BOX	24" JACKED STEEL ENCASEMENT PIPE
	EA	EA	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	LF
18(3)	2		221		5		280			1		1	1				
18(4)	1		128	73	5	27	814	1		1	1	6	1	1			197
18(4D)		2		82			689										
18(4H)					5	10	177			1		1	1			1	
18(6)							594		1			2		1	2		136
18(9)							223										84
TOTAL	3	2	349	155	15	37	2777	1	1	3	1	10	3	2	2	1	417

* Service lines for single business connections are assumed to be 1" diameter, and service lines for double business connections are assumed to be 2" diameter. Meter box and yoke for double business connections priced as 2" water meter box and yoke.

** Jacked Steel Encasement Pipe Item to include price for casing pipe and all work as required to install carrier and casing pipe.

SUMMARY OF SANITARY SEWER FACILITIES

SHEET NO.	8" D.I. SANITARY SEWER PIPE	12" D.I. SANITARY SEWER PIPE	SANITARY SEWER MANHOLE	SANITARY SEWER MANHOLE FRAME AND COVER, F&C-1	24" JACKED STEEL ENCASEMENT PIPE
	LF	LF	LF	EA	LF
18(6)	273	1006	141	14	118
18(6E)		676	24	2	216
TOTAL	273	1682	165	16	334

* Jacked Steel Encasement Pipe Item to include price for casing pipe and all work as required to install carrier and casing pipe.

NOTE:

1. ALL QUANTITIES ARE ESTIMATED. CONTRACTOR SHALL PROVIDE BID TO COVER ALL COMPONENTS OF THE WORK AS DESCRIBED IN THE CONTRACT DOCUMENTS, EVEN IN CASES WHERE SPECIFIC LINE ITEMS ARE NOT IDENTIFIED.