

NETWORK

RELIEF SEWER COST DETAIL - PROJECT

Model Name: BUILD-OUT 5-YEAR STORM

Existing Sewer				Relief Sewer							
Subsystem	Upstream MH	Downstream MH	Lateral Name	Length	Dia.	Percent Overloaded	Relief Type	Relief Diameter	Trench Depth	Relief Cost	Design Flow
				(ft)	(in)	Q/Cap			(ft)	(\$)	(cfs)
Project No.	BO1										
SF05	BO-013	BO-012	0002	252	12	1.574	Parallel	15	10.00	23,857	2.848
SF05	BO-012	BO-011	0002	221	12	1.357	Parallel	15	10.00	20,922	2.834
SF05	BO-011	BO-010	0002	315	12	1.656	Parallel	15	10.00	29,821	2.822
SF05	BO-010	BO-009	0002	400	12	1.207	Parallel	12	10.00	37,868	2.804
Sub Total:				1,188						\$ 112,468	
Project No.	CS1										
JC03	CS-016	CS-015	0004	200	8	2.959	Parallel	15	10.92	20,424	2.332
JC03	CS-015	CS-014	0004	248	8	2.971	Parallel	15	13.36	30,229	2.326
JC03	CS-014	CS-013	0004	205	8	3.342	Parallel	15	13.25	24,805	2.553
JC03	CS-013	CS-012	0004	391	8	2.280	Parallel	12	10.71	34,402	2.547
JC03	CS-012	CS-011	0004	390	8	2.404	Parallel	12	9.05	32,077	2.536
JC03	CS-011	CS-010	0004	391	8	3.309	Parallel	15	7.41	37,016	2.525
JC03	CS-010	CS-009	0004	297	8	3.285	Parallel	15	7.84	28,117	2.513
JC03	CS-009	CS-008	0004	169	8	4.579	Parallel	18	9.19	15,999	3.512
JC03	CS-008	CS-007	0004	292	8	5.684	Parallel	18	8.73	27,644	3.507
JC03	CS-007	CS-006	0004	275	12	1.932	Parallel	18	9.49	26,035	3.499
JC03	CS-006	CS-005	0004	310	12	1.695	Parallel	15	9.87	29,347	3.482
JC03	CS-005	CS-004	0004	310	12	1.806	Parallel	15	8.99	29,347	3.525
JC03	CS-004	CS-003	0004	474	12	1.658	Parallel	15	9.02	44,874	3.506
JC03	CS-003	CS-002	0004	400	12	3.264	Parallel	21	10.39	42,213	8.221
JC03	CS-002	CS-001	0004	400	10	5.913	Parallel	21	12.89	50,424	8.196
JC03	CS-001	JC-008	0004	50	10	2.315	Parallel	15	12.12	5,987	8.178
Sub Total:				4,802						\$ 478,940	
Project No.	CS2										
JC03	LR-001	CS-021	0004	278	8	1.057	Parallel	8	11.66	22,746	2.375
JC03	CS-021	CS-020	0004	60	8	1.157	Parallel	8	11.92	5,032	2.367
JC03	CS-020	CS-019	0004	140	8	1.170	Parallel	8	10.94	10,656	2.365
JC03	CS-019	CS-018	0004	342	8	1.715	Parallel	10	9.83	25,564	2.361

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				(ft)	(in)	Q/Cap		(in)	(ft)	(\$)	(cfs)
JC03	CS-018	CS-017	0004	343	8	1.515	Parallel	10	9.60	25,639	2.351
JC03	CS-017	CS-016	0004	342	8	1.505	Parallel	10	9.70	25,564	2.342
Sub Total:				1,505						\$ 115,201	
Project No.	CS7										
JC03	CS-027	CS-026		400	12	2.041	Parallel	18	10.45	42,409	4.918
JC03	CS-026	CS-025		150	12	2.039	Parallel	18	10.20	15,597	4.891
JC03	CS-025	CS-024		242	12	2.023	Parallel	18	9.60	24,764	4.882
JC03	CS-024	CS-023		157	12	2.017	Parallel	18	9.01	16,066	4.866
JC03	CS-023	CS-022		400	12	2.015	Parallel	18	8.79	40,932	4.855
JC03	CS-022	CS-003		348	12	2.005	Parallel	18	9.10	35,611	4.829
Sub Total:				1,697						\$ 175,379	
Project No.	FM1										
SF41	FM-017	FM-016	0010	116	8	1.681	Parallel	10	9.80	9,541	1.293
SF41	FM-016	FM-015	0010	168	8	1.848	Parallel	12	9.96	13,818	1.290
SF41	FM-015	FM-013	0010	181	8	1.747	Parallel	10	10.75	15,983	1.284
SF41	FM-013	FM-012	0010	182	8	1.647	Parallel	10	11.56	17,262	1.278
SF41	FM-012	FM-010	0010	220	8	3.228	Parallel	15	11.60	20,937	1.488
SF41	FM-003	FM-002	0012	292	8	3.241	Parallel	15	13.38	31,987	2.162
SF41	FM-002	FM-001	0012	118	8	3.368	Parallel	15	11.66	11,287	2.152
Sub Total:				1,277						\$ 120,815	
Project No.	JC1										
JC03	JC-008	JC-007	0005	400	10	24.596	Parallel	42	10.00	71,965	34.090
JC03	JC-007	JC-006	0005	400	10	24.583	Parallel	42	10.00	71,965	34.072
JC03	JC-006	JC-005	0005	400	10	24.569	Parallel	42	10.00	71,965	34.053
JC03	JC-005	JC-004	0005	400	10	24.556	Parallel	42	10.00	71,965	34.035
JC03	JC-004	JC-003	0005	400	10	24.543	Parallel	42	10.00	71,965	34.016
JC03	JC-003	JC-002	0005	98	12	9.447	Parallel	30	10.00	17,632	33.998
WWTP	JC-002	JC-001	0005	97	24	1.283	Parallel	21	10.23	17,645	34.382

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Subsystem	Upstream MH	Downstream MH	Lateral Name	Length	Dia.	Percent Overloaded	Relief Type	Relief Diameter	Trench Depth	Relief Cost	Design Flow	
				(ft)	(in)	Q/Cap		(in)	(ft)	(\$)	(cfs)	
WWTP	JC-001	LR-PS	0005		20	24	0.275	Parallel	0	118.51	22,431	34.357
Sub Total:				2,215						\$	417,533	
Project No.	JC2											
JC03	JC-016	JC-015	0001	401	15	3.976	Parallel	27	10.00	72,146	26.066	
JC03	JC-015	JC-014	0001	402	15	4.187	Parallel	27	10.00	72,325	26.024	
JC03	JC-014	JC-013	0001	398	15	6.014	Parallel	33	10.00	71,606	25.982	
JC03	JC-013	JC-012	0001	401	15	3.985	Parallel	27	10.00	72,146	25.941	
JC03	JC-012	JC-011	0001	157	15	5.616	Parallel	33	10.00	28,246	25.899	
JC03	JC-011	JC-010	0001	245	15	5.608	Parallel	33	10.00	44,079	25.882	
JC03	JC-010	JC-009	0001	400	15	5.808	Parallel	33	10.00	71,965	25.857	
JC03	JC-009	JC-008	0001	245	15	5.230	Parallel	30	10.00	44,079	25.815	
Sub Total:				2,649						\$	476,592	
Project No.	JC3											
JC03	JC-030	JC-029	0001	400	15	6.892	Parallel	33	10.00	71,965	24.591	
JC03	JC-029	JC-028	0001	400	15	7.417	Parallel	36	10.00	71,965	24.550	
JC03	JC-028	JC-027	0001	400	15	7.573	Parallel	36	10.00	71,965	25.188	
JC03	JC-027	JC-026	0001	402	15	7.925	Parallel	36	10.00	72,325	25.147	
JC03	JC-026	JC-025	0001	400	15	7.216	Parallel	36	10.00	71,965	25.106	
JC03	JC-025	JC-024	0001	398	15	8.655	Parallel	36	10.00	71,606	25.065	
JC03	JC-024	JC-023	0001	309	15	6.677	Parallel	33	10.00	55,593	25.024	
JC03	JC-023	JC-022	0001	291	15	7.832	Parallel	36	10.00	52,355	24.992	
JC03	JC-022	JC-021	0001	201	15	5.724	Parallel	33	10.00	36,163	25.153	
JC03	JC-021	JC-020	0001	369	15	7.158	Parallel	36	10.00	66,388	25.132	
JC03	JC-020	JC-019	0001	334	15	7.793	Parallel	36	10.00	60,091	25.094	
JC03	JC-019	JC-018	0001	401	15	8.200	Parallel	36	10.00	72,146	26.190	
JC03	JC-018	JC-017	0001	398	15	7.531	Parallel	36	10.00	71,606	26.148	
JC03	JC-017	JC-016	0001	398	15	7.270	Parallel	36	10.00	71,606	26.107	
Sub Total:				5,101						\$	917,739	

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Subsystem	Upstream MH	Downstream MH	Lateral Name	Length	Dia.	Percent Overloaded	Relief Type	Relief Diameter	Trench Depth	Relief Cost	Design Flow
				(ft)	(in)	Q/Cap			(ft)	(\$)	(cfs)
Project No.	JC4										
JC03	JC-041	JC-040	0001	134	8	13.529	Parallel	24	10.00	16,596	10.282
JC03	JC-040	JC-039	0001	217	8	13.435	Parallel	24	10.00	26,874	10.278
JC03	JC-039	JC-038	0001	363	8	13.444	Parallel	24	10.00	44,956	10.271
JC03	JC-038	JC-037	0001	186	8	14.551	Parallel	24	10.00	23,035	11.161
JC03	JC-037	JC-036	0001	145	8	2.955	Parallel	15	10.00	17,958	11.154
JC03	JC-036	JC-035	0001	450	12	6.136	Parallel	27	10.00	68,263	11.149
JC03	JC-035	JC-034	0001	129	12	6.168	Parallel	27	10.00	19,569	11.115
JC03	JC-034	JC-033	0001	400	12	6.112	Parallel	27	10.00	60,678	11.105
JC03	JC-033	JC-032	0001	400	12	6.095	Parallel	27	10.00	60,678	11.075
JC03	JC-032	JC-031	0001	350	12	5.555	Parallel	24	10.00	53,094	11.044
JC03	JC-031	JC-030	0001	326	15	2.194	Parallel	21	10.00	49,452	11.017
Sub Total:				3,100						\$ 441,153	
Project No.	JC5										
JC03	JC-059B	JC-059A	0001	383	18	1.239	Parallel	18	10.00	39,192	8.198
JC03	JC-059A	JC-059	0001	232	18	1.231	Parallel	18	10.00	23,741	8.141
JC03	JC-059	JC-058	0001	141	18	1.224	Parallel	18	10.00	14,428	8.106
JC03	JC-058	JC-057	0001	387	18	1.040	Parallel	15	10.00	43,302	8.084
JC03	JC-057	JC-056	0001	278	18	1.819	Parallel	21	10.00	31,105	9.311
JC03	JC-056	JC-055	0001	281	18	1.864	Parallel	24	10.00	34,801	9.559
JC03	JC-055	JC-054	0001	400	18	1.910	Parallel	24	10.00	49,538	9.516
JC03	JC-054	JC-053	0001	378	18	1.898	Parallel	24	10.00	46,813	9.454
JC03	JC-053	JC-052	0001	271	18	2.174	Parallel	24	10.00	33,562	10.835
JC03	JC-052	JC-051	0001	323	18	2.176	Parallel	24	10.00	40,002	10.791
JC03	JC-051	JC-050	0001	400	18	2.167	Parallel	24	10.00	49,538	10.738
JC03	JC-050	JC-049	0001	400	18	2.154	Parallel	24	10.00	49,538	10.673
JC03	JC-049	JC-048	0001	400	18	2.141	Parallel	24	10.00	49,538	10.607
JC03	JC-048	JC-047	0001	122	18	2.133	Parallel	24	10.00	15,109	10.540
JC03	JC-047	JC-046	0001	46	18	2.148	Parallel	24	10.00	5,696	10.520
JC03	JC-046	JC-045	0001	165	18	2.113	Parallel	24	10.00	20,435	10.512
JC03	JC-045	JC-044	0001	364	18	2.116	Parallel	24	10.00	45,080	10.484

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				(ft)	(in)	Q/Cap				(\$)	(cfs)
JC03	JC-044	JC-043	0001	279	18	2.105	Parallel	24	10.00	34,553	10.423
JC03	JC-043	JC-042	0001	330	18	2.100	Parallel	24	10.00	40,869	10.376
JC03	JC-042	JC-041	0001	216	18	2.084	Parallel	24	10.00	26,750	10.319
Sub Total:				5,796						\$ 693,590	
Project No. SF2											
WWTP	MISC-01	MISC-06	0016	1,045	24	5.944	Parallel	54	10.00	370,721	37.223
WWTP	MISC-06	MISC-07	0016	70	24	6.099	Parallel	54	10.00	24,833	36.869
WWTP	MISC-07	MISC-08	0016	220	24	5.858	Parallel	54	5.00	78,047	36.845
Sub Total:				1,335						\$ 473,601	
Project No. SF3											
SF05	SF-008	SF-007	0014	330	18	3.438	Parallel	30	9.03	55,320	16.150
SF05	SF-007	SF-006	0014	170	18	2.442	Parallel	27	9.03	28,499	16.103
SF05	SF-006	SF-005	0014	500	18	2.648	Parallel	27	8.56	83,820	16.079
SF05	SF-005	SF-004	0014	220	18	2.527	Parallel	27	6.54	36,881	16.009
WWTP	SF-004	SF-003	0014	38	18	2.344	Parallel	27	6.08	6,370	15.978
WWTP	SF-003	SF-002	0015	163	18	2.157	Parallel	24	5.77	27,326	15.972
WWTP	SF-001	MISC-01	0015	296	24	1.894	Parallel	30	10.13	49,953	15.948
Sub Total:				1,717						\$ 288,169	
Project No. SF4											
SF05	SF-019	SF-018	0013	85	18	1.247	Parallel	18	4.30	8,697	11.364
SF05	SF-018	SF-017	0013	575	18	1.932	Parallel	24	3.89	71,212	11.353
SF05	SF-017	SF-016	0013	380	18	2.044	Parallel	24	5.62	47,061	12.168
SF05	SF-016	SF-015	0013	200	18	1.835	Parallel	24	6.50	24,769	12.116
SF05	SF-015	SF-014	0013	430	18	2.109	Parallel	24	6.65	53,254	12.089
SF05	SF-014	SF-013	0013	352	18	2.068	Parallel	24	7.51	43,594	12.031
SF05	SF-013	SF-012	0013	33	18	1.638	Parallel	21	7.08	4,087	11.982
SF05	SF-012	SF-011	0013	160	18	2.134	Parallel	24	8.02	19,815	12.406
SF05	SF-011	SF-010	0013	500	18	2.396	Parallel	27	12.08	84,681	12.384

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				(ft)	(in)	Q/Cap			(ft)	(\$)	(cfs)
SF05	SF-010	SF-009	0013	499	18	2.339	Parallel	27	14.04	92,818	12.684
SF05	SF-009	SF-008	0013	500	18	1.985	Parallel	24	11.28	81,284	12.615
Sub Total:				3,714						\$ 531,272	
Project No.	SF5										
SF41	SF-042	SF-041	0013	156	12	2.854	Parallel	18	8.94	15,964	7.507
SF05	SF-041	SF-040	0013	510	12	2.153	Parallel	18	9.16	52,188	7.498
SF05	SF-040	SF-039	0013	402	12	1.461	Parallel	15	10.65	43,282	7.469
SF05	SF-039	SF-038	0013	317	12	3.008	Parallel	21	10.64	34,104	7.446
SF05	SF-038	SF-037	0013	89	12	2.872	Parallel	18	9.12	9,107	7.593
SF05	SF-037	SF-036	0013	401	12	2.479	Parallel	18	9.18	41,033	7.588
SF05	SF-036	SF-035	0013	304	12	3.107	Parallel	21	9.65	31,107	7.565
SF05	SF-035	SF-034	0013	79	12	2.112	Parallel	18	10.46	8,382	7.712
SF05	SF-034	SF-033	0013	362	12	2.861	Parallel	18	10.46	38,410	7.707
SF05	SF-033	SF-032	0013	358	12	2.680	Parallel	18	10.00	36,633	7.686
SF05	SF-032	SF-031	0013	358	12	2.487	Parallel	18	10.00	36,633	7.666
SF05	SF-031	SF-030	0013	358	12	2.480	Parallel	18	10.00	36,633	7.645
SF05	SF-030	SF-029	0013	366	12	2.473	Parallel	18	10.00	37,452	7.624
SF05	SF-029	SF-028	0013	366	12	2.299	Parallel	18	10.00	37,452	7.602
SF05	SF-028	SF-027	0013	400	15	1.493	Parallel	18	10.00	40,932	7.581
SF05	SF-027	SF-026	0013	400	15	1.324	Parallel	18	10.00	40,932	7.544
SF05	SF-026	SF-025	0013	400	15	1.314	Parallel	18	10.00	40,932	7.507
SF05	SF-025	SF-024	0013	400	15	1.344	Parallel	18	10.00	40,932	7.470
SF05	SF-024	SF-023	0013	152	15	1.207	Parallel	15	9.12	15,554	8.486
SF05	SF-023	SF-022	0013	400	15	1.286	Parallel	15	6.79	40,932	8.472
SF05	SF-022	SF-021	0013	385	18	1.102	Parallel	18	6.74	39,396	10.782
SF05	SF-020	SF-019	0013	10	18	1.210	Parallel	18	4.04	1,024	11.365
Sub Total:				6,973						\$ 719,014	
TOTAL:				43,069						\$ 5,961,466	