



Appendix F CIP



Grants Pass Stormwater Master Plan Capital Improvement Plan

ID#	Priority	Item	Total Estimated Cost (2015)
Priority 1A Improvements (0-15 years)			
<i>Allen Fruitdale</i>			
AF-1	1A	Golf Course	\$ 371,000
AF-2	1A	South Highline Canal near Allen Creek	\$ 1,211,000
AF-3	1A	Harbeck Road, Nebraska Avenue	\$ 200,000
AF-4	1A	Pond Near Calvary Chapel off Harbeck Road	\$ 629,000
AF-5	1A	Grandview Avenue and the Hospital	\$ 611,000
AF-7	1A	Lower Parkdale Drive/Highway 199 Trunkline	\$ 1,590,000
AF-11	1A	Sugar Beet Line, East Park Street	\$ 1,330,000
AF-12	1A	Sunset Way and Tributary Pipes	\$ 2,226,000
AF-13	1A	Harbeck Road and Southridge Way	\$ 1,082,000
AF-14	1A	Highway 238	\$ 661,000
AF-15	1A	Main Gravity Canal Spills and Central Parkdale Drive Trunkline	\$ 889,000
AF-16	1A	Upper Parkdale Drive Trunkline and South Highland Canal Spill	\$ 601,000
AF-17	1A	Highways 238/199/99 Intersection Detention	\$ 959,000
AF-18	1A	Union Avenue	\$ 646,000
AF-19	1A	Meadow Glen	\$ 236,000
AF-20	1A	Liberty Drive	\$ 473,000
<i>Gilbert</i>			
G-1	1A	5th Street, 6th Street	\$ 1,656,000
G-3	1A	G Street, I Street, Alder Street, L Street	\$ 795,000
G-4	1A	Demoray Canal Spills- Southwest	\$ 127,000
G-5	1A	Demoray Canal Spills- Central West	\$ 29,000
G-6	1A	Hilcrest Drive, 6th Street, 7th Street	\$ 1,664,000
G-7	1A	Demoray Spill-South East	\$ 106,000
G-8	1A	Demoray Canal Spills- North Central	\$ 810,000
G-9	1A	Demoray Canal Spills- Northwest	\$ 460,000
G-10	1A	Demoray Canal Spills- Northeast	\$ 438,000
<i>Sand</i>			
S-1	1A	Trunkline from South Main Canal to River along Dowell Road	\$ 3,412,000
S-2	1A	Flow-split Kellenback Avenue to Dowell Road	\$ 691,000
S-3	1A	Expansion of South Main Canal	\$ 583,000
S-6	1A	Leonard Road to Ditch	\$ 926,000
S-7	1A	Willow Lane to Ditch	\$ 975,000
S-8	1A	Willow Court, Estates Lane	\$ 696,000
S-10	1A	Kokanee Lane, Leonard Road	\$ 1,613,000
S-12	1A	Rainwood Lane to Leonard Road	\$ 141,000
S-13	1A	ODOT Pond South of Redwood Highway	\$ 1,353,000
S-14	1A	New Flow Diversion to Sand Creek at Redwood Hwy	\$ 168,000
S-15	1A	Yellowtail Lane to Mary Lynn Lane	\$ 392,000
S-16	1A	Darnelle Lane	\$ 1,138,000
<i>Skunk Jones</i>			
SJ-10	1A	Channel Northwest of Dewey Drive and 10th Street	\$ 3,000
Total Priority 1A Improvements			\$ 31,891,000

Grants Pass Stormwater Master Plan Capital Improvement Plan

ID#	Priority	Item	Total Estimated Cost (2015)
Priority 1B Improvements (15-20 years)			
<i>Allen Fruitdale</i>			
AF-6	1B	West Park Street, Josephine County Yard, Tussing Park	\$ 407,000
<i>Sand</i>			
S-4	1B	Redwood Circle to River	\$ 650,000
<i>Skunk Jones</i>			
SJ-1	1B	F Street	\$ 1,829,000
SJ-8	1B	Spill Northwest of I-5 and Hilcrest Drive to 7th Street	\$ 386,000
SJ-11	1B	Rogue Drive Trunkline	\$ 2,938,000
SJ-12	1B	M Street	\$ 759,000
SJ-13	1B	A Street-West	\$ 1,126,000
Total Priority 1B Improvements			\$ 8,095,000
Priority 2A Improvements (20-25 years)			
<i>Gilbert</i>			
G-2	2A	9th Street	\$ 457,000
<i>Skunk Jones</i>			
SJ-7	2A	Demoray Canal	\$ 61,000
Total Priority 2A Improvements			\$ 518,000
Priority 2B Improvements (20-25 years)			
<i>Skunk Jones</i>			
SJ-2	2B	D Street	\$ 2,181,000
Total Priority 2B Improvements			\$ 2,181,000

Grants Pass Stormwater Master Plan Capital Improvement Plan

ID#	Priority	Item	Total Estimated Cost (2015)
Priority 3A Improvements (25-30 years)			
<i>Allen Fruitdale</i>			
AF-8	3A	Haviland Drive and Grandview Avenue	\$ 3,000
AF-10	3A	Canal spill East of UGB	\$ 306,000
<i>Sand</i>			
S-5	3A	Mesman Drive to River	\$ 240,000
S-9	3A	George Tweed Boulevard and Spurs	\$ 464,000
S-11	3A	Pond South of Redwood Highway	\$ 72,000
<i>Skunk Jones</i>			
SJ-5	3A	Tokay Canal from Savage Street to Dewey Drive	\$ 236,000
SJ-9	3A	Rose Lane to River	\$ 212,000
Total Priority 3A Improvements			\$ 1,533,000
Priority 3B Improvements (25-30 years)			
<i>Skunk Jones</i>			
SJ-3	3B	A Street - East	\$ 526,000
SJ-4	3B	Madrone Street	\$ 631,000
Total Priority 3B Improvements			\$ 1,157,000
Priority 3C Improvements (25-30 years)			
<i>Skunk Jones</i>			
SJ-6	3C	Dewey Drive to 6th Street	\$ 795,000
Total Priority 3C Improvements			\$ 795,000
Priority 4 Improvements (30-35years)			
<i>Allen Fruitdale</i>			
AF-9	4	Spill North of Harpazo Lane	\$ 280,000
Total Priority 4 Improvements			\$ 280,000
TOTAL STORMWATER IMPROVEMENTS COSTS (rounded)			\$ 46,450,000

* All costs in 2015 Dollars. Costs include contractor overhead and profit (OH&P; 15%), contingency (30%), engineering and construction management services (CMS; 20%), and legal, administrative, and permitting services (2%).

** Costs assume open cut construction. Alternative technologies (i.e. pipe bursting) should be explored during pre-design phase.

The cost estimate herein is concept level information only based on our perception of current conditions at the project location and its accuracy is subject to significant variation depending upon project definition and other factors. This estimate reflects our opinion of probable costs at this time and is subject to change as the project design matures. This cost opinion is in 2015 dollars and does not include escalation to time of actual construction. Keller Associates has no control over variances in the cost of labor, materials, equipment, services provided by others, contractor's methods of determining prices, competitive bidding or market conditions, practices or bidding strategies. Keller Associates cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the cost presented herein.

Item	Unit	Unit Price	Estimated Quantity	Item Cost (Rounded)	Total Cost (Rounded)
Priority 1A					
AF-1: Golf Course					
27" Pipe - Excavation, Backfill less than 10' deep	LF	\$138	688	\$94,894	
30" Pipe - Excavation, Backfill less than 10' deep	LF	\$144	218	\$31,500	
Remove Old Pipe - 20" thru 21"	LF	\$16	906	\$14,687	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	1	\$2,000	
Manhole 60"	EA	\$5,690	3	\$17,069	
outfall	EA	\$5,000	1	\$5,000	
Reconnect Laterals	LF	\$17	906	\$15,407	
Existing Utility Protection	LF	\$4	906	\$3,625	
Traffic Control	LF	\$2	688	\$1,377	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	688	\$36,256	
Miscellaneous Surface Repair	LF	\$5	218	\$1,090	
Mobilization - Percent of Item Cost Sum	%	5%		\$11,145	
Contingency - % of construction costs	%	30%		\$70,215	
Total Construction Costs					\$304,264
Engineering and CMS - % of construction costs	%	20%		\$60,853	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$6,085	
Total Project Cost (rounded)					\$371,000
AF-2: South Highline Canal near Allen Creek					
54" Pipe - Excavation, Backfill less than 10' deep	LF	\$305	1986	\$606,126	
Remove Old Pipe - 24" thru 36"	LF	\$19	84	\$1,634	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	2	\$4,000	
Manhole 84"	EA	\$6,219	9	\$55,975	
Manhole 108"	EA	\$9,453	2	\$18,906	
inlet	EA	\$728	1	\$728	
outfall	EA	\$5,000	1	\$5,000	
catch basins for new alignments	EA	\$728	13	\$9,458	
Existing Utility Protection	LF	\$4	1986	\$7,943	
Miscellaneous Surface Repair	LF	\$5	1986	\$9,928	
Concrete Lining	LF	\$500	15	\$7,500	
Mobilization - Percent of Item Cost Sum	%	5%		\$36,360	
Contingency - % of construction costs	%	30%		\$229,067	
Total Construction Costs					\$992,623
Engineering and CMS - % of construction costs	%	20%		\$198,525	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$19,852	
Total Project Cost (rounded)					\$1,211,000
AF-3: Harbeck Road, Nebraska Avenue					
24" Pipe - Excavation, Backfill less than 10' deep	LF	\$135	573	\$77,301	
36" Pipe - Excavation, Backfill less than 10' deep	LF	\$180	606	\$109,316	
Remove Old Pipe - 15" thru 18"	LF	\$13	573	\$7,421	
Remove Old Pipe - 24" thru 36"	LF	\$19	606	\$11,788	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	3	\$6,000	
Manhole 48"	EA	\$3,500	2	\$7,000	
Manhole 60"	EA	\$5,690	1	\$5,690	
control structure	EA	\$12,000	1	\$12,000	
Reconnect Laterals	LF	\$17	1179	\$20,037	
Existing Utility Protection	LF	\$4	1179	\$4,715	
Traffic Control	LF	\$2	1179	\$2,357	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	1179	\$62,086	
Mobilization - Percent of Item Cost Sum	%	5%		\$16,286	
Contingency - % of construction costs	%	30%		\$102,599	
Total Construction Costs					\$444,596
Engineering and CMS - % of construction costs	%	20%		\$88,919	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$8,892	
Total Project Cost (rounded)					\$200,000
AF-4: Pond Near Calvary Chapel off Harbeck Road					
24" Pipe - Excavation, Backfill less than 10' deep	LF	\$135	1	\$135	
Detention Pond Excavation	CF	\$0	567014	\$105,003	
outfall	EA	\$5,000	1	\$5,000	
control structure	EA	\$12,000	1	\$12,000	
Existing Utility Protection	LF	\$4	500	\$2,000	
Water Quality Landscaping	SY	\$10	14520	\$145,200	
Mobilization - Percent of Item Cost Sum	%	5%		\$13,467	
Contingency - % of construction costs	%	30%		\$84,841	
Total Construction Costs					\$367,646
Engineering and CMS - % of construction costs	%	20%		\$73,529	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$7,353	
Easement Purchase Slough, Field	AC	\$60,000	3	\$180,000	
Total Project Cost (rounded)					\$629,000

Item	Unit	Unit Price	Estimated Quantity	Item Cost (Rounded)	Total Cost (Rounded)
Priority 1A					
AF-5: Grandview Avenue and the Hospital					
24" Pipe - Excavation, Backfill less than 10' deep	LF	\$135	866	\$116,910	
27" Pipe - Excavation, Backfill less than 10' deep	LF	\$138	47	\$6,480	
30" Pipe - Excavation, Backfill less than 10' deep	LF	\$144	338	\$48,838	
Remove Old Pipe - 20" thru 21"	LF	\$16	256	\$4,148	
Remove Old Pipe - 24" thru 36"	LF	\$19	129	\$2,509	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	9	\$18,000	
Manhole 48"	EA	\$3,500	2	\$7,000	
Manhole 60"	EA	\$5,690	3	\$17,069	
Manhole 96"	EA	\$7,627	1	\$7,627	
inlet	EA	\$728	1	\$728	
outfall	EA	\$5,000	1	\$5,000	
control structure	EA	\$12,000	2	\$24,000	
catch basins for new alignments	EA	\$728	5	\$3,638	
Reconnect Laterals	LF	\$17	385	\$6,545	
Existing Utility Protection	LF	\$4	1251	\$5,004	
Traffic Control	LF	\$2	1251	\$2,502	
Flow Split Manhole (Does not include control structures)	LS	\$1,000	2	\$2,000	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	1251	\$65,896	
Mobilization - Percent of Item Cost Sum	%	5%		\$17,195	
Contingency - % of construction costs	%	30%		\$108,327	
Total Construction Costs					\$469,416
Engineering and CMS - % of construction costs	%	20%		\$93,883	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$9,388	
Easement Purchase Industrial Downtown	AC	\$200,000	0	\$38,000	
Total Project Cost (rounded)					\$611,000
AF-7: Lower Parkdale Drive/Highway 199 Trunkline					
54" Pipe - Excavation, Backfill less than 10' deep	LF	\$305	685	\$209,241	
83"x53" squash pipe- Excavation, Backfill less than 10' deep	LF	\$130	419	\$54,645	
54" Pipe - Excavation, Backfill 10'-20' deep	LF	\$351	337	\$118,292	
83"x53" squash pipe- Excavation, Backfill 10'-20' deep	LF	\$136	1093	\$148,170	
Regrading Channel to Match Proposed Pipes	EA	\$1,000	1	\$1,000	
Remove Old Pipe - 24" thru 36"	LF	\$19	2535	\$49,297	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	3	\$6,000	
Manhole 84"	EA	\$6,219	3	\$18,658	
Manhole 120"	EA	\$11,278	4	\$45,113	
outfall	EA	\$5,000	1	\$5,000	
Reconnect Laterals	LF	\$17	2535	\$43,088	
Existing Utility Protection	LF	\$4	2535	\$10,138	
Traffic Control	LF	\$2	2535	\$5,069	
Full Lane Pavement Repair (8 ft. wide)	LF	\$84	2535	\$213,613	
Under Highway	LF	\$200	137	\$27,400	
Mobilization - Percent of Item Cost Sum	%	5%		\$47,736	
Contingency - % of construction costs	%	30%		\$300,738	
Total Construction Costs					\$1,303,200
Engineering and CMS - % of construction costs	%	20%		\$260,640	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$26,064	
Total Project Cost (rounded)					\$1,590,000
AF-11: Sugar Beet Line, East Park Street					
21" Pipe - Excavation, Backfill less than 10' deep	LF	\$100	1078	\$107,776	
24" Pipe - Excavation, Backfill less than 10' deep	LF	\$135	3168	\$427,746	
Remove Old Pipe - 15" thru 18"	LF	\$13	1078	\$13,968	
Remove Old Pipe - 24" thru 36"	LF	\$19	3168	\$61,627	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	1	\$2,000	
Manhole 48"	EA	\$3,500	3	\$10,500	
Manhole 72"	EA	\$5,955	1	\$5,955	
outfall	EA	\$5,000	1	\$5,000	
Reconnect Laterals	LF	\$17	4246	\$72,186	
Existing Utility Protection	LF	\$4	4246	\$16,985	
Traffic Control	LF	\$2	1078	\$2,156	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	1078	\$56,771	
Miscellaneous Surface Repair	LF	\$5	3168	\$15,842	
Mobilization - Percent of Item Cost Sum	%	5%		\$39,926	
Contingency - % of construction costs	%	30%		\$251,531	
Total Construction Costs					\$1,089,968
Engineering and CMS - % of construction costs	%	20%		\$217,994	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$21,799	
Total Project Cost (rounded)					\$1,330,000

Item	Unit	Unit Price	Estimated Quantity	Item Cost (Rounded)	Total Cost (Rounded)
Priority 1A					
AF-12: Sunset Way and Tributary Pipes					
15" Pipe - Excavation, Backfill less than 10' deep	LF	\$65	374	\$24,330	
18" Pipe - Excavation, Backfill less than 10' deep	LF	\$75	714	\$53,562	
21" Pipe - Excavation, Backfill less than 10' deep	LF	\$100	472	\$47,200	
24" Pipe - Excavation, Backfill less than 10' deep	LF	\$135	625	\$84,434	
36" Pipe - Excavation, Backfill less than 10' deep	LF	\$180	382	\$68,882	
36" Pipe - Excavation, Backfill 10'-20' deep	LF	\$213	466	\$99,250	
42" Pipe - Excavation, Backfill 10'-20' deep	LF	\$277	396	\$109,513	
48" Pipe - Excavation, Backfill 10'-20' deep	LF	\$310	630	\$195,262	
Remove Old Pipe - 12"	LF	\$10	1088	\$10,885	
Remove Old Pipe - 15" thru 18"	LF	\$13	1007	\$13,055	
Remove Old Pipe - 20" thru 21"	LF	\$16	464	\$7,513	
Remove Old Pipe - 24" thru 36"	LF	\$19	466	\$9,065	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	2	\$4,000	
Manhole 48"	EA	\$3,500	4	\$14,000	
Manhole 60"	EA	\$5,690	1	\$5,690	
Manhole 72"	EA	\$5,955	4	\$23,818	
inlet	EA	\$728	1	\$728	
control structure	EA	\$12,000	1	\$12,000	
catch basins for new alignments	EA	\$728	6	\$4,365	
Reconnect Laterals	LF	\$17	3025	\$51,433	
Existing Utility Protection	LF	\$4	4059	\$16,237	
Traffic Control	LF	\$2	3121	\$6,242	
Bore Long Length (>100feet) - incl casing & carrier pipe	LF	\$750	360	\$270,000	
Flow Split Manhole (Does not include control structures)	LS	\$1,000	1	\$1,000	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	2882	\$151,784	
Full Lane Pavement Repair (8 ft. wide)	LF	\$84	464	\$39,076	
Controlled Density Backfill	LF	\$40	220	\$8,800	
Miscellaneous Surface Repair	LF	\$5	938	\$4,690	
Under Highway	LF	\$0	220		
Mobilization - Percent of Item Cost Sum	%	5%		\$66,841	
Contingency - % of construction costs	%	30%		\$421,096	
Total Construction Costs					\$1,824,751
Engineering and CMS - % of construction costs	%	20%		\$364,950	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$36,495	
Total Project Cost (rounded)					\$2,226,000
AF-13: Harbeck Road and Southridge Way					
21" Pipe - Excavation, Backfill less than 10' deep	LF	\$100	896	\$89,617	
24" Pipe - Excavation, Backfill less than 10' deep	LF	\$135	437	\$58,946	
27" Pipe - Excavation, Backfill less than 10' deep	LF	\$138	61	\$8,420	
30" Pipe - Excavation, Backfill less than 10' deep	LF	\$144	750	\$108,370	
33" Pipe - Excavation, Backfill less than 10' deep	LF	\$162	535	\$86,881	
Remove Old Pipe - 12"	LF	\$10	896	\$8,962	
Remove Old Pipe - 15" thru 18"	LF	\$13	1187	\$15,379	
Remove Old Pipe - 24" thru 36"	LF	\$19	483	\$9,393	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	3	\$6,000	
Manhole 48"	EA	\$3,500	2	\$7,000	
Manhole 60"	EA	\$5,690	6	\$34,138	
control structure	EA	\$12,000	1	\$12,000	
Reconnect Laterals	LF	\$17	2679	\$45,539	
Existing Utility Protection	LF	\$4	2679	\$10,715	
Traffic Control	LF	\$2	2679	\$5,358	
Flow Split Manhole (Does not include control structures)	LS	\$1,000	1	\$1,000	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	2679	\$141,104	
Remove Concrete Plug	EA	\$1,000	1	\$1,000	
Mobilization - Percent of Item Cost Sum	%	5%		\$32,491	
Contingency - % of construction costs	%	30%		\$204,694	
Total Construction Costs					\$887,007
Engineering and CMS - % of construction costs	%	20%		\$177,401	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$17,740	
Total Project Cost (rounded)					\$1,082,000

Item	Unit	Unit Price	Estimated Quantity	Item Cost (Rounded)	Total Cost (Rounded)
Priority 1A					
AF-14: Highway 238					
15" Pipe - Excavation, Backfill less than 10' deep	LF	\$65	1082	\$70,319	
18" Pipe - Excavation, Backfill less than 10' deep	LF	\$75	275	\$20,657	
Remove Old Pipe - 4" thru 10"	LF	\$10	532	\$5,323	
Remove Old Pipe - 12"	LF	\$10	825	\$8,250	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	2	\$4,000	
Manhole 48"	EA	\$3,500	4	\$14,000	
Reconnect Laterals	LF	\$17	1357	\$23,073	
Existing Utility Protection	LF	\$4	1357	\$5,429	
Traffic Control	LF	\$2	825	\$1,650	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	825	\$43,456	
Controlled Density Backfill	LF	\$40	825	\$33,000	
Miscellaneous Surface Repair	LF	\$5	532	\$2,661	
Under Highway	LF	\$200	825	\$165,000	
Mobilization - Percent of Item Cost Sum	%	5%		\$19,841	
Contingency - % of construction costs	%	30%		\$124,998	
Total Construction Costs					\$541,657
Engineering and CMS - % of construction costs	%	20%		\$108,331	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$10,833	
Total Project Cost (rounded)					\$661,000
AF-15: Main Gravity Canal Spills and Central Parkdale Drive Trunkline					
15" Pipe - Excavation, Backfill less than 10' deep	LF	\$65	103	\$6,685	
21" Pipe - Excavation, Backfill less than 10' deep	LF	\$100	188	\$18,793	
42" Pipe - Excavation, Backfill less than 10' deep	LF	\$221	862	\$190,650	
54" Pipe - Excavation, Backfill less than 10' deep	LF	\$305	457	\$139,502	
Regrading Channel to Match Proposed Pipes	EA	\$1,000	1	\$1,000	
Remove Old Pipe - 15" thru 18"	LF	\$13	222	\$2,880	
Remove Old Pipe - 24" thru 36"	LF	\$19	457	\$8,889	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	5	\$10,000	
Manhole 48"	EA	\$3,500	4	\$14,000	
Manhole 60"	EA	\$5,690	2	\$11,379	
Manhole 72"	EA	\$5,955	2	\$11,909	
inlet	EA	\$728	3	\$2,183	
catch basins for new alignments	EA	\$728	6	\$4,365	
Reconnect Laterals	LF	\$17	679	\$11,547	
Existing Utility Protection	LF	\$4	1610	\$6,438	
Traffic Control	LF	\$2	1432	\$2,863	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	975	\$51,339	
Full Lane Pavement Repair (8 ft. wide)	LF	\$84	457	\$38,517	
Miscellaneous Surface Repair	LF	\$5	178	\$890	
Mobilization - Percent of Item Cost Sum	%	5%		\$26,691	
Contingency - % of construction costs	%	30%		\$168,156	
Total Construction Costs					\$728,677
Engineering and CMS - % of construction costs	%	20%		\$145,735	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$14,574	
Total Project Cost (rounded)					\$889,000
AF-16: Upper Parkdale Drive Trunkline and South Highland Canal Spill					
21" Pipe - Excavation, Backfill less than 10' deep	LF	\$100	687	\$68,700	
30" Pipe - Excavation, Backfill less than 10' deep	LF	\$144	308	\$44,544	
36" Pipe - Excavation, Backfill less than 10' deep	LF	\$180	586	\$105,741	
Remove Old Pipe - 15" thru 18"	LF	\$13	895	\$11,593	
Manhole 48"	EA	\$3,500	2	\$7,000	
Manhole 60"	EA	\$5,690	2	\$11,379	
inlet	EA	\$728	1	\$728	
catch basins for new alignments	EA	\$728	4	\$2,910	
Reconnect Laterals	LF	\$17	895	\$15,207	
Existing Utility Protection	LF	\$4	1582	\$6,326	
Traffic Control	LF	\$2	1582	\$3,163	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	1582	\$83,307	
Mobilization - Percent of Item Cost Sum	%	5%		\$18,030	
Contingency - % of construction costs	%	30%		\$113,588	
Total Construction Costs					\$492,215
Engineering and CMS - % of construction costs	%	20%		\$98,443	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$9,844	
Total Project Cost (rounded)					\$601,000

Item	Unit	Unit Price	Estimated Quantity	Item Cost (Rounded)	Total Cost (Rounded)
Priority 1A					
AF-17: Highways 238/199/99 Intersection Detention					
Detention Pond Excavation	CF	\$0	261796	\$48,481	
control structure	EA	\$12,000	1	\$12,000	
Existing Utility Protection	LF	\$4	730	\$2,920	
Water Quality Landscaping	SY	\$10	14520	\$145,200	
Mobilization - Percent of Item Cost Sum	%	5%		\$10,430	
Contingency - % of construction costs	%	30%		\$65,709	
Total Construction Costs					\$284,740
Engineering and CMS - % of construction costs	%	20%		\$56,948	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$5,695	
Easement Purchase Industrial Downtown	AC	20000000%	3	\$612,000	
Easement Purchase Slough, Field					
Total Project Cost (rounded)					\$959,000
AF-18: Union Avenue					
21" Pipe - Excavation, Backfill less than 10' deep	LF	\$100	1981	\$198,103	
Remove Old Pipe - 12"	LF	\$10	586	\$5,860	
Remove Old Pipe - 15" thru 18"	LF	\$13	1395	\$18,079	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	1	\$2,000	
Manhole 48"	EA	\$3,500	4	\$14,000	
Reconnect Laterals	LF	\$17	1981	\$33,678	
Existing Utility Protection	LF	\$4	1981	\$7,924	
Traffic Control	LF	\$2	1981	\$3,962	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	1981	\$104,351	
Mobilization - Percent of Item Cost Sum	%	5%		\$19,398	
Contingency - % of construction costs	%	30%		\$122,206	
Total Construction Costs					\$529,561
Engineering and CMS - % of construction costs	%	20%		\$105,912	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$10,591	
Total Project Cost (rounded)					\$646,000
AF-19: Meadow Glen					
21" Pipe - Excavation, Backfill less than 10' deep	LF	\$100	768	\$76,812	
Remove Old Pipe - 12"	LF	\$10	768	\$7,681	
Manhole 48"	EA	\$3,500	2	\$7,000	
outfall	EA	\$5,000	1	\$5,000	
Reconnect Laterals	LF	\$17	768	\$13,058	
Existing Utility Protection	LF	\$4	768	\$3,072	
Traffic Control	LF	\$2	506	\$1,013	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	506	\$26,675	
Miscellaneous Surface Repair	LF	\$5	262	\$1,309	
Mobilization - Percent of Item Cost Sum	%	5%		\$7,081	
Contingency - % of construction costs	%	30%		\$44,610	
Total Construction Costs					\$193,311
Engineering and CMS - % of construction costs	%	20%		\$38,662	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$3,866	
Total Project Cost (rounded)					\$236,000
AF-20: Liberty Drive					
27" Pipe - Excavation, Backfill less than 10' deep	LF	\$138	1153	\$159,023	
Remove Old Pipe - 15" thru 18"	LF	\$13	1153	\$14,949	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	3	\$6,000	
Manhole 60"	EA	\$5,690	3	\$17,069	
Reconnect Laterals	LF	\$17	1153	\$19,608	
Existing Utility Protection	LF	\$4	1153	\$4,614	
Traffic Control	LF	\$2	1153	\$2,307	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	1153	\$60,757	
Mobilization - Percent of Item Cost Sum	%	5%		\$14,216	
Contingency - % of construction costs	%	30%		\$89,563	
Total Construction Costs					\$388,107
Engineering and CMS - % of construction costs	%	20%		\$77,621	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$7,762	
Total Project Cost (rounded)					\$473,000

Item	Unit	Unit Price	Estimated Quantity	Item Cost (Rounded)	Total Cost (Rounded)
Priority 1A					
G-1: 5th Street, 6th Street					
18" Pipe - Excavation, Backfill less than 10' deep	LF	\$75	278	\$20,883	
24" Pipe - Excavation, Backfill less than 10' deep	LF	\$135	559	\$75,498	
27" Pipe - Excavation, Backfill less than 10' deep	LF	\$138	529	\$72,903	
30" Pipe - Excavation, Backfill less than 10' deep	LF	\$144	546	\$78,922	
36" Pipe - Excavation, Backfill less than 10' deep	LF	\$180	862	\$155,487	
18" Pipe - Excavation, Backfill 10'-20' deep	LF	\$90	343	\$30,900	
36" Pipe - Excavation, Backfill 10'-20' deep	LF	\$213	486	\$103,532	
Remove Old Pipe - 12"	LF	\$10	3604	\$36,042	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	2	\$4,000	
Manhole 48"	EA	\$3,500	3	\$10,500	
Manhole 60"	EA	\$5,690	7	\$39,828	
outfall	EA	\$5,000	2	\$10,000	
Reconnect Laterals	LF	\$17	3604	\$61,272	
Existing Utility Protection	LF	\$4	3604	\$14,417	
Traffic Control	LF	\$2	3604	\$7,208	
Flow Split Manhole (Does not include control structures)	LS	\$1,000	1	\$1,000	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	3604	\$189,852	
Controlled Density Backfill	LF	\$40	343	\$13,720	
Under Highway	LF	\$200	343	\$68,600	
Mobilization - Percent of Item Cost Sum	%	5%		\$49,728	
Contingency - % of construction costs	%	30%		\$313,288	
Total Construction Costs					\$1,357,580
Engineering and CMS - % of construction costs	%	20%		\$271,516	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$27,152	
Total Project Cost (rounded)					\$1,656,000
G-3: G Street, I Street, Alder Street, L Street					
15" Pipe - Excavation, Backfill less than 10' deep	LF	\$65	509	\$33,093	
24" Pipe - Excavation, Backfill less than 10' deep	LF	\$135	315	\$42,536	
30" Pipe - Excavation, Backfill less than 10' deep	LF	\$144	340	\$49,152	
2 ft. x 2 ft. rectangular pipe- Excavation, Backfill less than 10' deep	LF	\$248	547	\$135,677	
Remove Old Pipe - 12"	LF	\$10	509	\$5,091	
Remove Old Pipe - 24" thru 36"	LF	\$19	1202	\$23,382	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	5	\$10,000	
Manhole 48"	EA	\$3,500	5	\$17,500	
Manhole 60"	EA	\$5,690	2	\$11,379	
Reconnect Laterals	LF	\$17	1711	\$29,092	
Existing Utility Protection	LF	\$4	1711	\$6,845	
Traffic Control	LF	\$2	1711	\$3,423	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	1711	\$90,142	
Controlled Density Backfill	LF	\$40	509	\$20,365	
Mobilization - Percent of Item Cost Sum	%	5%		\$23,884	
Contingency - % of construction costs	%	30%		\$150,469	
Total Construction Costs					\$652,031
Engineering and CMS - % of construction costs	%	20%		\$130,406	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$13,041	
Total Project Cost (rounded)					\$795,000
G-4: Demoray Canal Spills- Southwest					
24" Pipe - Excavation, Backfill less than 10' deep	LF	\$135	124	\$16,740	
Repair/Raise Ground Elevations (assume 0.5 ft x 1 ft. per LF the entire leng	cf	\$0	101	\$19	
Remove Old Pipe - 15" thru 18"	LF	\$13	120	\$1,555	
Remove Old Pipe - 24" thru 36"	LF	\$19	851	\$16,552	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	5	\$10,000	
Manhole 48"	EA	\$3,500	3	\$10,500	
inlet	EA	\$728	1	\$728	
control structure	EA	\$12,000	1	\$12,000	
Existing Utility Protection	LF	\$4	124	\$496	
Traffic Control	LF	\$2	124	\$248	
Flow Split Manhole (Does not include control structures)	LS	\$1,000	1	\$1,000	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	124	\$6,532	
Mobilization - Percent of Item Cost Sum	%	5%		\$3,818	
Contingency - % of construction costs	%	30%		\$24,056	
Total Construction Costs					\$104,244
Engineering and CMS - % of construction costs	%	20%		\$20,849	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$2,085	
Total Project Cost (rounded)					\$127,000

Item	Unit	Unit Price	Estimated Quantity	Item Cost (Rounded)	Total Cost (Rounded)
Priority 1A					
G-5: Demoray Canal Spills- Central West					
12" Pipe - Excavation, Backfill 10'-20' deep	LF	\$70	36	\$2,520	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	3	\$6,000	
Manhole 48" outfall	EA	\$3,500	1	\$3,500	
Existing Utility Protection	LF	\$4	36	\$144	
Miscellaneous Surface Repair	LF	\$5	36	\$180	
Mobilization - Percent of Item Cost Sum	%	5%		\$867	
Contingency - % of construction costs	%	30%		\$5,463	
Total Construction Costs					\$23,675
Engineering and CMS - % of construction costs	%	20%		\$4,735	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$473	
Total Project Cost (rounded)					\$29,000
G-6: Hilcrest Drive, 6th Street, 7th Street					
21" Pipe - Excavation, Backfill less than 10' deep	LF	\$100	294	\$29,381	
24" Pipe - Excavation, Backfill less than 10' deep	LF	\$135	30	\$4,050	
27" Pipe - Excavation, Backfill less than 10' deep	LF	\$138	576	\$79,410	
33" Pipe - Excavation, Backfill less than 10' deep	LF	\$162	135	\$21,966	
42" Pipe - Excavation, Backfill less than 10' deep	LF	\$221	68	\$14,982	
48" Pipe - Excavation, Backfill less than 10' deep	LF	\$253	1252	\$316,997	
Remove Old Pipe - 15" thru 18"	LF	\$13	294	\$3,808	
Remove Old Pipe - 24" thru 36"	LF	\$19	1117	\$21,735	
Remove Old Pipe - 42" thru 48"	LF	\$50	913	\$45,778	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	12	\$24,000	
Manhole 48"	EA	\$3,500	3	\$10,500	
Manhole 60"	EA	\$5,690	3	\$17,069	
Manhole 72"	EA	\$5,955	2	\$11,909	
control structure	EA	\$12,000	2	\$24,000	
Reconnect Laterals	LF	\$17	2324	\$39,513	
Existing Utility Protection	LF	\$4	2354	\$9,417	
Traffic Control	LF	\$2	2324	\$4,649	
Bore Short Length (<60feet) - incl casing & carrier pipe	LF	\$800	150	\$120,000	
Flow Split Manhole (Does not include control structures)	LS	\$1,000	1	\$1,000	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	1005	\$52,940	
Full Lane Pavement Repair (8 ft. wide)	LF	\$84	1319	\$111,188	
Controlled Density Backfill	LF	\$40	870	\$34,792	
Miscellaneous Surface Repair	LF	\$5	30	\$150	
Mobilization - Percent of Item Cost Sum	%	5%		\$49,962	
Contingency - % of construction costs	%	30%		\$314,759	
Total Construction Costs					\$1,363,956
Engineering and CMS - % of construction costs	%	20%		\$272,791	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$27,279	
Total Project Cost (rounded)					\$1,664,000
G-7: Demoray Spill-South East					
24" Pipe - Excavation, Backfill less than 10' deep	LF	\$135	13	\$1,755	
2 ft. x 3 ft. rectangular pipe- Excavation, Backfill less than 10' deep	LF	\$319	77	\$24,555	
Open Channel Excavation	CF	\$0	3803	\$1,409	
Regrading Channel to Match Proposed Pipes	EA	\$1,000	2	\$2,000	
Remove Old Pipe - 15" thru 18"	LF	\$13	415	\$5,378	
Remove Old Pipe - 24" thru 36"	LF	\$19	13	\$253	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	2	\$4,000	
Manhole 60"	EA	\$5,690	1	\$5,690	
inlet	EA	\$728	3	\$2,183	
outfall	EA	\$5,000	2	\$10,000	
Reconnect Laterals	LF	\$17	90	\$1,530	
Existing Utility Protection	LF	\$4	90	\$360	
Traffic Control	LF	\$2	77	\$154	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	77	\$4,056	
Miscellaneous Surface Repair	LF	\$5	13	\$65	
Mobilization - Percent of Item Cost Sum	%	5%		\$3,169	
Contingency - % of construction costs	%	30%		\$19,967	
Total Construction Costs					\$86,524
Engineering and CMS - % of construction costs	%	20%		\$17,305	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$1,730	
Total Project Cost (rounded)					\$106,000

Item	Unit	Unit Price	Estimated Quantity	Item Cost (Rounded)	Total Cost (Rounded)
Priority 1A					
G-8: Demoray Canal Spills- North Central					
20" Pipe - Excavation, Backfill less than 10' deep	LF	\$100	18	\$1,800	
30" Pipe - Excavation, Backfill less than 10' deep	LF	\$144	1430	\$206,579	
Open Channel Excavation	CF	\$0	7120	\$2,637	
Regrading Channel to Match Proposed Pipes	EA	\$1,000	2	\$2,000	
Remove Old Pipe - 12"	LF	\$10	835	\$8,350	
Remove Old Pipe - 20" thru 21"	LF	\$16	18	\$292	
Remove Old Pipe - 24" thru 36"	LF	\$19	294	\$5,718	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	3	\$6,000	
Manhole 48"	EA	\$3,500	1	\$3,500	
Manhole 60"	EA	\$5,690	6	\$34,138	
inlet	EA	\$728	1	\$728	
outfall	EA	\$5,000	1	\$5,000	
control structure	EA	\$12,000	1	\$12,000	
catch basins for new alignments	EA	\$728	3	\$2,183	
Reconnect Laterals	LF	\$17	924	\$15,703	
Existing Utility Protection	LF	\$4	1448	\$5,791	
Traffic Control	LF	\$2	818	\$1,636	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	818	\$43,088	
Controlled Density Backfill	LF	\$40	233	\$9,320	
Miscellaneous Surface Repair	LF	\$5	630	\$3,149	
Under Interstate Freeway	LF	\$500	233	\$116,500	
Mobilization - Percent of Item Cost Sum	%	5%		\$24,306	
Contingency - % of construction costs	%	30%		\$153,125	
Total Construction Costs					\$663,542
Engineering and CMS - % of construction costs	%	20%		\$132,708	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$13,271	
Total Project Cost (rounded)					\$810,000
G-9: Demoray Canal Spills- Northwest					
24" Pipe - Excavation, Backfill less than 10' deep	LF	\$135	964	\$130,158	
36" Pipe - Excavation, Backfill less than 10' deep	LF	\$180	125	\$22,546	
1 ft. x 1 ft. rectangular pipe- Excavation, Backfill less than 10' deep	LF	\$136	47	\$6,385	
Regrading Channel to Match Proposed Pipes	EA	\$1,000	1	\$1,000	
Repair/Raise Ground Elevations (assume 0.5 ft x 1 ft. per LF the entire leng	cf	\$0	355	\$66	
Remove Old Pipe - 15" thru 18"	LF	\$13	295	\$3,827	
Remove Old Pipe - 24" thru 36"	LF	\$19	165	\$3,209	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	5	\$10,000	
Manhole 48"	EA	\$3,500	3	\$10,500	
Manhole 60"	EA	\$5,690	2	\$11,379	
inlet	EA	\$728	3	\$2,183	
outfall	EA	\$5,000	2	\$10,000	
control structure	EA	\$12,000	2	\$24,000	
catch basins for new alignments	EA	\$728	4	\$2,910	
Reconnect Laterals	LF	\$17	420	\$7,145	
Existing Utility Protection	LF	\$4	1136	\$4,545	
Traffic Control	LF	\$2	420	\$841	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	420	\$22,139	
Miscellaneous Surface Repair	LF	\$5	716	\$3,579	
Mobilization - Percent of Item Cost Sum	%	5%		\$13,821	
Contingency - % of construction costs	%	30%		\$87,070	
Total Construction Costs					\$377,302
Engineering and CMS - % of construction costs	%	20%		\$75,460	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$7,546	
Total Project Cost (rounded)					\$460,000
G-10: Demoray Canal Spills- Northeast					
Open Channel Excavation	CF	\$0	8833	\$3,271	
Repair/Raise Ground Elevations (assume 0.5 ft x 1 ft. per LF the entire leng	cf	\$0	330	\$61	
Remove Old Pipe - 24" thru 36"	LF	\$19	289	\$5,621	
control structure	EA	\$12,000	1	\$12,000	
Concrete Lining	LF	\$500	484	\$242,000	
Mobilization - Percent of Item Cost Sum	%	5%		\$13,148	
Contingency - % of construction costs	%	30%		\$82,830	
Total Construction Costs					\$358,932
Engineering and CMS - % of construction costs	%	20%		\$71,786	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$7,179	
Total Project Cost (rounded)					\$438,000

Item	Unit	Unit Price	Estimated Quantity	Item Cost (Rounded)	Total Cost (Rounded)
Priority 1A					
S-1: Trunkline from South Main Canal to River along Dowell Road					
48" Pipe - Excavation, Backfill less than 10' deep	LF	\$253	1494	\$378,519	
60" Pipe - Excavation, Backfill less than 10' deep	LF	\$357	2250	\$803,563	
72" Pipe - Excavation, Backfill less than 10' deep	LF	\$490	338	\$165,471	
Regrading Channel to Match Proposed Pipes	EA	\$1,000	1	\$1,000	
Remove Old Pipe - 4" thru 10"	LF	\$10	203	\$2,028	
Remove Old Pipe - 12"	LF	\$10	204	\$2,040	
Remove Old Pipe - 15" thru 18"	LF	\$13	699	\$9,055	
Remove Old Pipe - 20" thru 21"	LF	\$16	389	\$6,304	
Remove Old Pipe - 24" thru 36"	LF	\$19	1818	\$35,360	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	2	\$4,000	
Manhole 72"	EA	\$5,955	4	\$23,818	
Manhole 84"	EA	\$6,219	2	\$12,439	
Manhole 96"	EA	\$7,627	1	\$7,627	
inlet	EA	\$728	1	\$728	
outfall	EA	\$5,000	1	\$5,000	
Reconnect Laterals	LF	\$17	4082	\$69,393	
Existing Utility Protection	LF	\$4	4082	\$16,328	
Traffic Control	LF	\$2	3541	\$7,082	
Bore Long Length (>100feet) - incl casing & carrier pipe	LF	\$750	203	\$152,250	
Flow Split Manhole (Does not include control structures)	LS	\$1,000	1	\$1,000	
Full Lane Pavement Repair (8 ft. wide)	LF	\$84	3541	\$298,452	
Miscellaneous Surface Repair	LF	\$5	338	\$1,690	
Under Highway	LF	\$200	203	\$40,600	
Permit for Work in River	EA	\$5,000	1	\$5,000	
Mobilization - Percent of Item Cost Sum	%	5%		\$102,437	
Contingency - % of construction costs	%	30%		\$645,355	
Total Construction Costs					\$2,796,540
Engineering and CMS - % of construction costs	%	20%		\$559,308	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$55,931	
Total Project Cost (rounded)					\$3,412,000
S-2: Flow-split Kellenback Avenue to Dowell Road					
18" Pipe - Excavation, Backfill less than 10' deep	LF	\$75	205	\$15,375	
21" Pipe - Excavation, Backfill less than 10' deep	LF	\$100	1374	\$137,360	
30" Pipe - Excavation, Backfill less than 10' deep	LF	\$144	485	\$70,121	
Remove Old Pipe - 15" thru 18"	LF	\$13	1197	\$15,513	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	2	\$4,000	
Manhole 48"	EA	\$3,500	6	\$21,000	
Manhole 60"	EA	\$5,690	1	\$5,690	
catch basins for new alignments	EA	\$728	5	\$3,638	
Reconnect Laterals	LF	\$17	1197	\$20,349	
Existing Utility Protection	LF	\$4	2064	\$8,256	
Traffic Control	LF	\$2	2064	\$4,128	
Flow Split Manhole (Does not include control structures)	LS	\$1,000	1	\$1,000	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	2064	\$108,716	
Mobilization - Percent of Item Cost Sum	%	5%		\$20,757	
Contingency - % of construction costs	%	30%		\$130,771	
Total Construction Costs					\$566,673
Engineering and CMS - % of construction costs	%	20%		\$113,335	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$11,333	
Total Project Cost (rounded)					\$691,000
S-3: Expansion of South Main Canal					
3ft.x 6ft. Rectangular Pecast Pipe- Excavation, Backfill less than 10' deep	LF	\$530	506	\$267,978	
3ft.x9ft. Rectangular pipe -two parallel barrels- Excavation, Backfill less th	LF	\$1,345	7	\$9,415	
3ft.x10ft. Rectangular pipe -two parallel barrels- Excavation, Backfill less t	LF	\$1,786	4	\$7,142	
Regrading Channel to Match Proposed Pipes	EA	\$1,000	1	\$1,000	
Repair/Raise Ground Elevations (assume 0.5 ft x 1 ft. per LF the entire leng	cf	\$0	595	\$111	
Remove Old Pipe - 42" thru 48"	LF	\$50	506	\$25,371	
Reconnect Laterals	LF	\$17	506	\$8,602	
Existing Utility Protection	LF	\$4	517	\$2,068	
Traffic Control	LF	\$2	517	\$1,034	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	506	\$26,654	
Full Lane Pavement Repair (8 ft. wide)	LF	\$84	11	\$927	
0	0	\$0	8		
Mobilization - Percent of Item Cost Sum	%	5%		\$17,515	
Contingency - % of construction costs	%	30%		\$110,345	
Total Construction Costs					\$478,162
Engineering and CMS - % of construction costs	%	20%		\$95,632	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$9,563	
Total Project Cost (rounded)					\$583,000

Item	Unit	Unit Price	Estimated Quantity	Item Cost (Rounded)	Total Cost (Rounded)
Priority 1A					
S-6: Leonard Road to Ditch					
27" Pipe - Excavation, Backfill less than 10' deep	LF	\$138	607	\$83,645	
36" parallel pipes (3)- Excavation, Backfill less than 10' deep	LF	\$541	714	\$386,354	
Regrading Channel to Match Proposed Pipes	EA	\$1,000	2	\$2,000	
Remove Old Pipe - 20" thru 21"	LF	\$16	607	\$9,832	
Manhole 60"	EA	\$5,690	1	\$5,690	
outfall	EA	\$5,000	1	\$5,000	
control structure	EA	\$12,000	1	\$12,000	
Reconnect Laterals	LF	\$17	607	\$10,314	
Existing Utility Protection	LF	\$4	1321	\$5,283	
Traffic Control	LF	\$2	607	\$1,213	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	607	\$31,958	
Miscellaneous Surface Repair	LF	\$5	607	\$3,034	
Mobilization - Percent of Item Cost Sum	%	5%		\$27,816	
Contingency - % of construction costs	%	30%		\$175,241	
Total Construction Costs					\$759,380
Engineering and CMS - % of construction costs	%	20%		\$151,876	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$15,188	
Total Project Cost (rounded)					\$926,000
S-7: Willow Lane to Ditch					
21" Pipe - Excavation, Backfill less than 10' deep	LF	\$100	40	\$4,000	
28" Pipe - Excavation, Backfill less than 10' deep	LF	\$144	16	\$2,312	
Open Channel Excavation	CF	\$0	22560	\$8,356	
Regrading Channel to Match Proposed Pipes	EA	\$1,000	2	\$2,000	
Repair/Raise Ground Elevations (assume 0.5 ft x 1 ft. per LF the entire leng	cf	\$0	100	\$19	
Remove Old Pipe - 15" thru 18"	LF	\$13	135	\$1,750	
Remove Old Pipe - 24" thru 36"	LF	\$19	271	\$5,271	
inlet	EA	\$728	2	\$1,455	
outfall	EA	\$5,000	2	\$10,000	
Reconnect Laterals	LF	\$17	56	\$952	
Existing Utility Protection	LF	\$4	56	\$224	
Miscellaneous Surface Repair	LF	\$5	56	\$280	
Mobilization - Percent of Item Cost Sum	%	5%		\$1,831	
Contingency - % of construction costs	%	30%		\$11,535	
Total Construction Costs					\$49,983
Engineering and CMS - % of construction costs	%	20%		\$9,997	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$1,000	
Total Project Cost (rounded)					\$975,000
S-8: Willow Court, Estates Lane					
24" Pipe - Excavation, Backfill less than 10' deep	LF	\$135	844	\$113,952	
27" Pipe - Excavation, Backfill less than 10' deep	LF	\$138	498	\$68,673	
30" Pipe - Excavation, Backfill less than 10' deep	LF	\$144	414	\$59,819	
Remove Old Pipe - 12"	LF	\$10	418	\$4,181	
Remove Old Pipe - 15" thru 18"	LF	\$13	494	\$6,402	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	3	\$6,000	
Manhole 48"	EA	\$3,500	3	\$10,500	
Manhole 60"	EA	\$5,690	3	\$17,069	
Manhole 108"	EA	\$9,453	1	\$9,453	
catch basins for new alignments	EA	\$728	5	\$3,638	
Reconnect Laterals	LF	\$17	912	\$15,506	
Existing Utility Protection	LF	\$4	1756	\$7,025	
Traffic Control	LF	\$2	1756	\$3,512	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	1756	\$92,507	
Mobilization - Percent of Item Cost Sum	%	5%		\$20,912	
Contingency - % of construction costs	%	30%		\$131,745	
Total Construction Costs					\$570,893
Engineering and CMS - % of construction costs	%	20%		\$114,179	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$11,418	
Total Project Cost (rounded)					\$696,000

Item	Unit	Unit Price	Estimated Quantity	Item Cost (Rounded)	Total Cost (Rounded)
Priority 1A					
S-10: Kokanee Lane, Leonard Road					
18" Pipe - Excavation, Backfill less than 10' deep	LF	\$75	818	\$61,346	
24" Pipe - Excavation, Backfill less than 10' deep	LF	\$135	520	\$70,200	
30" Pipe - Excavation, Backfill less than 10' deep	LF	\$144	346	\$49,965	
36" Pipe - Excavation, Backfill less than 10' deep	LF	\$180	2061	\$371,744	
42" Pipe - Excavation, Backfill less than 10' deep	LF	\$221	69	\$15,220	
Remove Old Pipe - 12"	LF	\$10	446	\$4,459	
Remove Old Pipe - 15" thru 18"	LF	\$13	1841	\$23,857	
Remove Old Pipe - 24" thru 36"	LF	\$19	1155	\$22,461	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	5	\$10,000	
Manhole 48"	EA	\$3,500	3	\$10,500	
Manhole 60"	EA	\$5,690	2	\$11,379	
Manhole 84"	EA	\$6,219	3	\$18,658	
control structure	EA	\$12,000	1	\$12,000	
catch basins for new alignments	EA	\$728	2	\$1,455	
Reconnect Laterals	LF	\$17	3442	\$58,506	
Existing Utility Protection	LF	\$4	3814	\$15,254	
Traffic Control	LF	\$2	3814	\$7,627	
Flow Split Manhole (Does not include control structures)	LS	\$1,000	1	\$1,000	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	3745	\$197,255	
Full Lane Pavement Repair (8 ft. wide)	LF	\$84	69	\$5,798	
Mobilization - Percent of Item Cost Sum	%	5%		\$48,434	
Contingency - % of construction costs	%	30%		\$305,136	
Total Construction Costs					\$1,322,256
Engineering and CMS - % of construction costs	%	20%		\$264,451	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$26,445	
Total Project Cost (rounded)					\$1,613,000
S-12: Rainwood Lane to Leonard Road					
24" Pipe - Excavation, Backfill less than 10' deep	LF	\$135	445	\$60,129	
Remove Old Pipe - 12"	LF	\$10	445	\$4,454	
Manhole 48"	EA	\$3,500	1	\$3,500	
outfall	EA	\$5,000	1	\$5,000	
Reconnect Laterals	LF	\$17	445	\$7,572	
Existing Utility Protection	LF	\$4	445	\$1,782	
Miscellaneous Surface Repair	LF	\$5	445	\$2,227	
Mobilization - Percent of Item Cost Sum	%	5%		\$4,233	
Contingency - % of construction costs	%	30%		\$26,669	
Total Construction Costs					\$115,566
Engineering and CMS - % of construction costs	%	20%		\$23,113	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$2,311	
Total Project Cost (rounded)					\$141,000
S-13: ODOT Pond South of Redwood Highway					
42" Pipe - Excavation, Backfill less than 10' deep	LF	\$221	2389	\$528,507	
Manhole 60"	EA	\$5,690	8	\$45,518	
control structure	EA	\$12,000	1	\$12,000	
catch basins for new alignments	EA	\$728	15	\$10,913	
Existing Utility Protection	LF	\$4	2389	\$9,556	
Traffic Control	LF	\$2	2389	\$4,778	
Full Lane Pavement Repair (8 ft. wide)	LF	\$84	2389	\$201,345	
Mobilization - Percent of Item Cost Sum	%	5%		\$40,631	
Contingency - % of construction costs	%	30%		\$255,974	
Total Construction Costs					\$1,109,222
Engineering and CMS - % of construction costs	%	20%		\$221,844	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$22,184	
Total Project Cost (rounded)					\$1,353,000
S-14: New Flow Diversion to Sand Creek at I-5					
18" Pipe - Excavation, Backfill less than 10' deep	LF	\$75	771	\$57,825	
Open Channel Excavation	CF	\$0	14942	\$5,534	
Remove Old Pipe - 4" thru 10"	LF	\$10	771	\$7,710	
Manhole 48"	EA	\$3,500	1	\$3,500	
outfall	EA	\$5,000	1	\$5,000	
Reconnect Laterals	LF	\$17	771	\$13,107	
Existing Utility Protection	LF	\$4	771	\$3,084	
Flow Split Manhole (Does not include control structures)	LS	\$1,000	1	\$1,000	
Miscellaneous Surface Repair	LF	\$5	771	\$3,855	
Mobilization - Percent of Item Cost Sum	%	5%		\$5,031	
Contingency - % of construction costs	%	30%		\$31,694	
Total Construction Costs					\$137,340
Engineering and CMS - % of construction costs	%	20%		\$27,468	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$2,747	
Total Project Cost (rounded)					\$168,000

Item	Unit	Unit Price	Estimated Quantity	Item Cost (Rounded)	Total Cost (Rounded)
Priority 1A					
S-15: Yellowtail Lane to Mary Lynn Lane					
18" Pipe - Excavation, Backfill less than 10' deep	LF	\$75	224	\$16,829	
24" Pipe - Excavation, Backfill less than 10' deep	LF	\$135	825	\$111,393	
Remove Old Pipe - 12"	LF	\$10	224	\$2,244	
Remove Old Pipe - 15" thru 18"	LF	\$13	825	\$10,694	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	2	\$4,000	
Manhole 48"	EA	\$3,500	5	\$17,500	
Reconnect Laterals	LF	\$17	1050	\$17,842	
Existing Utility Protection	LF	\$4	1050	\$4,198	
Traffic Control	LF	\$2	916	\$1,831	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	916	\$48,229	
Miscellaneous Surface Repair	LF	\$5	134	\$670	
Mobilization - Percent of Item Cost Sum	%	5%		\$11,771	
Contingency - % of construction costs	%	30%		\$74,160	
Total Construction Costs					\$321,359
Engineering and CMS - % of construction costs	%	20%		\$64,272	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$6,427	
Total Project Cost (rounded)					\$392,000
S-16: Darnelle Lane					
42" parallel pipes (2) - Excavation, Backfill less than 10' deep	LF	\$442	1159	\$512,845	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	2	\$4,000	
Manhole 84"	EA	\$6,219	3	\$18,658	
Manhole 120"	EA	\$11,278	1	\$11,278	
control structure	EA	\$12,000	1	\$12,000	
Reconnect Laterals	LF	\$17	1159	\$19,705	
Existing Utility Protection	LF	\$4	1159	\$4,636	
Traffic Control	LF	\$2	1159	\$2,318	
Full Lane Pavement Repair (8 ft. wide)	LF	\$84	1159	\$97,689	
Mobilization - Percent of Item Cost Sum	%	5%		\$34,156	
Contingency - % of construction costs	%	30%		\$215,186	
Total Construction Costs					\$932,472
Engineering and CMS - % of construction costs	%	20%		\$186,494	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$18,649	
Total Project Cost (rounded)					\$1,138,000
SJ-10: Channel Northwest of Dewey Drive and 10th Street					
Open Channel Excavation	CF	\$0	120	\$44	
Reconnect Laterals	LF	\$17	120	\$2,043	
Mobilization - Percent of Item Cost Sum	%	5%		\$104	
Contingency - % of construction costs	%	30%		\$658	
Total Construction Costs					\$2,849
Engineering and CMS - % of construction costs	%	20%		\$570	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$57	
Total Project Cost (rounded)					\$3,000
Total Priority 1A Cost (rounded)				\$31,891,000	

*CMS: Construction Management Services

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Item	Unit	Unit Price	Estimated Quantity	Item Cost (Rounded)	Total Cost (Rounded)
Priority 1B					
AF-6: West Park Street, Josephine County Yard, Tussing Park					
21" Pipe - Excavation, Backfill less than 10' deep	LF	\$100	371	\$37,098	
30" Pipe - Excavation, Backfill less than 10' deep	LF	\$144	625	\$90,335	
36" Pipe - Excavation, Backfill less than 10' deep	LF	\$180	111	\$19,990	
Remove Old Pipe - 12"	LF	\$10	625	\$6,252	
Remove Old Pipe - 15" thru 18"	LF	\$13	371	\$4,808	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	5	\$10,000	
Manhole 48"	EA	\$3,500	2	\$7,000	
Manhole 60"	EA	\$5,690	2	\$11,379	
inlet	EA	\$728	1	\$728	
outfall	EA	\$5,000	1	\$5,000	
Reconnect Laterals	LF	\$17	996	\$16,935	
Existing Utility Protection	LF	\$4	1107	\$4,428	
Traffic Control	LF	\$2	482	\$964	
Flow Split Manhole (Does not include control structures)	LS	\$1,000	1	\$1,000	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	482	\$25,379	
Miscellaneous Surface Repair	LF	\$5	625	\$3,126	
Mobilization - Percent of Item Cost Sum	%	5%		\$12,221	
Contingency - % of construction costs	%	30%		\$76,993	
Total Construction Costs					\$333,636
Engineering and CMS - % of construction costs	%	20%		\$66,727	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$6,673	
Total Project Cost (rounded)					\$407,000
S-4: Redwood Circle to River					
20" Pipe - Excavation, Backfill less than 10' deep	LF	\$100	213	\$21,320	
24" Pipe - Excavation, Backfill less than 10' deep	LF	\$135	1218	\$164,430	
27" Pipe - Excavation, Backfill less than 10' deep	LF	\$138	132	\$18,144	
20x28" squash pipe- Excavation, Backfill less than 10' deep	LF	\$69	213	\$14,613	
Remove Old Pipe - 15" thru 18"	LF	\$13	789	\$10,225	
Remove Old Pipe - 20" thru 21"	LF	\$16	429	\$6,952	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	4	\$8,000	
Manhole 48"	EA	\$3,500	3	\$10,500	
Manhole 60"	EA	\$5,690	3	\$17,069	
Reconnect Laterals	LF	\$17	1776	\$30,192	
Existing Utility Protection	LF	\$4	1776	\$7,104	
Traffic Control	LF	\$2	1218	\$2,436	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	1218	\$64,158	
Controlled Density Backfill	LF	\$40	213	\$8,528	
Miscellaneous Surface Repair	LF	\$5	345	\$1,724	
Permit for Work in River	EA	\$5,000	1	\$5,000	
Mobilization - Percent of Item Cost Sum	%	5%		\$19,520	
Contingency - % of construction costs	%	30%		\$122,974	
Total Construction Costs					\$532,889
Engineering and CMS - % of construction costs	%	20%		\$106,578	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$10,658	
Total Project Cost (rounded)					\$650,000

Item	Unit	Unit Price	Estimated Quantity	Item Cost (Rounded)	Total Cost (Rounded)
Priority 1B					
SJ-1: F Street					
24" Pipe - Excavation, Backfill less than 10' deep	LF	\$135	624	\$84,233	
33" Pipe - Excavation, Backfill less than 10' deep	LF	\$162	980	\$159,171	
36" Pipe - Excavation, Backfill less than 10' deep	LF	\$180	502	\$90,469	
42" Pipe - Excavation, Backfill less than 10' deep	LF	\$221	850	\$188,088	
48" Pipe - Excavation, Backfill less than 10' deep	LF	\$253	126	\$32,008	
24" Pipe - Excavation, Backfill 10'-20' deep	LF	\$150	636	\$95,469	
Remove Old Pipe - 24" thru 36"	LF	\$19	1942	\$37,775	
Remove Old Pipe - 42" thru 48"	LF	\$50	516	\$25,868	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	3	\$6,000	
Manhole 48"	EA	\$3,500	5	\$17,500	
Manhole 60"	EA	\$5,690	6	\$34,138	
Manhole 72"	EA	\$5,955	2	\$11,909	
outfall	EA	\$5,000	1	\$5,000	
control structure	EA	\$12,000	1	\$12,000	
catch basins for new alignments	EA	\$728	8	\$5,820	
Reconnect Laterals	LF	\$17	2458	\$41,787	
Existing Utility Protection	LF	\$4	3718	\$14,874	
Traffic Control	LF	\$2	3718	\$7,437	
Flow Split Manhole (Does not include control structures)	LS	\$1,000	2	\$2,000	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	2742	\$144,430	
Full Lane Pavement Repair (8 ft. wide)	LF	\$84	977	\$82,306	
Mobilization - Percent of Item Cost Sum	%	5%		\$54,914	
Contingency - % of construction costs	%	30%		\$345,959	
Total Construction Costs					\$1,499,155
Engineering and CMS - % of construction costs	%	20%		\$299,831	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$29,983	
Total Project Cost (rounded)					\$1,829,000
SJ-8: Spill Northwest of I-5 and Hilcrest Drive to 7th Street					
21" Pipe - Excavation, Backfill less than 10' deep	LF	\$100	596	\$59,634	
27" Pipe - Excavation, Backfill less than 10' deep	LF	\$138	288	\$39,677	
Remove Old Pipe - 15" thru 18"	LF	\$13	884	\$11,458	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	3	\$6,000	
Manhole 48"	EA	\$3,500	1	\$3,500	
Manhole 60"	EA	\$5,690	3	\$17,069	
inlet	EA	\$728	1	\$728	
control structure	EA	\$12,000	2	\$24,000	
Reconnect Laterals	LF	\$17	884	\$15,030	
Existing Utility Protection	LF	\$4	884	\$3,537	
Traffic Control	LF	\$2	2370	\$4,741	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	884	\$46,572	
Mobilization - Percent of Item Cost Sum	%	5%		\$11,597	
Contingency - % of construction costs	%	30%		\$73,063	
Total Construction Costs					\$316,606
Engineering and CMS - % of construction costs	%	20%		\$63,321	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$6,332	
Total Project Cost (rounded)					\$386,000
SJ-11: Rogue Drive Trunkline					
48" Pipe - Excavation, Backfill less than 10' deep	LF	\$253	1219	\$308,710	
54" Pipe - Excavation, Backfill less than 10' deep	LF	\$305	1798	\$548,726	
48" Pipe - Excavation, Backfill 10'-20' deep	LF	\$310	660	\$204,633	
Remove Old Pipe - 24" thru 36"	LF	\$19	2047	\$39,813	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	5	\$10,000	
Manhole 72"	EA	\$5,955	6	\$35,727	
Manhole 84"	EA	\$6,219	5	\$31,097	
outfall	EA	\$5,000	1	\$5,000	
control structure	EA	\$12,000	1	\$12,000	
catch basins for new alignments	EA	\$728	10	\$7,275	
Reconnect Laterals	LF	\$17	2047	\$34,798	
Existing Utility Protection	LF	\$4	3676	\$14,706	
Traffic Control	LF	\$2	3676	\$7,353	
Bore Long Length (>100feet) - incl casing & carrier pipe	LF	\$750	250	\$187,500	
Flow Split Manhole (Does not include control structures)	LS	\$1,000	2	\$2,000	
Full Lane Pavement Repair (8 ft. wide)	LF	\$84	3676	\$309,852	
Permit for Work in River	EA	\$5,000	1	\$5,000	
Mobilization - Percent of Item Cost Sum	%	5%		\$88,210	
Contingency - % of construction costs	%	30%		\$555,720	
Total Construction Costs					\$2,408,120
Engineering and CMS - % of construction costs	%	20%		\$481,624	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$48,162	
Total Project Cost (rounded)					\$2,938,000

Item	Unit	Unit Price	Estimated Quantity	Item Cost (Rounded)	Total Cost (Rounded)
Priority 1B					
SJ-12: M Street					
24" Pipe - Excavation, Backfill less than 10' deep	LF	\$135	386	\$52,065	
30" Pipe - Excavation, Backfill less than 10' deep	LF	\$144	891	\$128,694	
Remove Old Pipe - 15" thru 18"	LF	\$13	386	\$4,998	
Remove Old Pipe - 24" thru 36"	LF	\$19	891	\$17,324	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	3	\$6,000	
Manhole 48"	EA	\$3,500	2	\$7,000	
Manhole 60"	EA	\$5,690	1	\$5,690	
outfall	EA	\$5,000	1	\$5,000	
Reconnect Laterals	LF	\$17	1276	\$21,698	
Existing Utility Protection	LF	\$4	1276	\$5,105	
Traffic Control	LF	\$2	1276	\$2,553	
Bore Long Length (>100feet) - incl casing & carrier pipe	LF	\$750	150	\$112,500	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	1276	\$67,231	
Under Highway	LF	\$200	100	\$20,000	
Mobilization - Percent of Item Cost Sum	%	5%		\$22,793	
Contingency - % of construction costs	%	30%		\$143,595	
Total Construction Costs					\$622,246
Engineering and CMS - % of construction costs	%	20%		\$124,449	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$12,445	
Total Project Cost (rounded)					\$759,000
SJ-13: A Street-West					
3ft.x 5ft. Rectangular Pecast Pipe- Excavation, Backfill less than 10' deep	LF	\$441	1133	\$499,969	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	4	\$8,000	
control structure	EA	\$12,000	5	\$60,000	
catch basins for new alignments	EA	\$728	7	\$5,093	
Existing Utility Protection	LF	\$4	1133	\$4,531	
Traffic Control	LF	\$2	1133	\$2,266	
Flow Split Manhole (Does not include control structures)	LS	\$1,000	1	\$1,000	
Full Lane Pavement Repair (8 ft. wide)	LF	\$84	1133	\$95,477	
Mobilization - Percent of Item Cost Sum	%	5%		\$33,817	
Contingency - % of construction costs	%	30%		\$213,046	
Total Construction Costs					\$923,199
Engineering and CMS - % of construction costs	%	20%		\$184,640	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$18,464	
Total Project Cost (rounded)					\$1,126,000
Total Priority 1B Cost (rounded)				\$7,445,000	

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Item	Unit	Unit Price	Estimated Quantity	Item Cost (Rounded)	Total Cost (Rounded)
Priority 2A					
G-2: 9th Street					
18" Pipe - Excavation, Backfill less than 10' deep	LF	\$75	837	\$62,769	
21" Pipe - Excavation, Backfill less than 10' deep	LF	\$100	629	\$62,902	
Remove Old Pipe - 12"	LF	\$10	281	\$2,807	
Remove Old Pipe - 15" thru 18"	LF	\$13	1185	\$15,360	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	1	\$2,000	
Manhole 48"	EA	\$3,500	5	\$17,500	
Reconnect Laterals	LF	\$17	1466	\$24,921	
Existing Utility Protection	LF	\$4	1466	\$5,864	
Traffic Control	LF	\$2	1466	\$2,932	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	1466	\$77,219	
Mobilization - Percent of Item Cost Sum	%	5%		\$13,714	
Contingency - % of construction costs	%	30%		\$86,397	
Total Construction Costs					\$374,386
Engineering and CMS - % of construction costs	%	20%		\$74,877	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$7,488	
Total Project Cost (rounded)					\$457,000
SJ-7: Demoray Canal					
21" Pipe - Excavation, Backfill less than 10' deep	LF	\$100	40	\$4,000	
28" Pipe - Excavation, Backfill less than 10' deep	LF	\$144	16	\$2,312	
Open Channel Excavation	CF	\$0	22560	\$8,356	
Regrading Channel to Match Proposed Pipes	EA	\$1,000	2	\$2,000	
Repair/Raise Ground Elevations (assume 0.5 ft x 1 ft. per LF the entire length)	cf	\$0	100	\$19	
Remove Old Pipe - 15" thru 18"	LF	\$13	135	\$1,750	
Remove Old Pipe - 24" thru 36"	LF	\$19	271	\$5,271	
inlet	EA	\$728	2	\$1,455	
outfall	EA	\$5,000	2	\$10,000	
Reconnect Laterals	LF	\$17	56	\$952	
Existing Utility Protection	LF	\$4	56	\$224	
Miscellaneous Surface Repair	LF	\$5	56	\$280	
Mobilization - Percent of Item Cost Sum	%	5%		\$1,831	
Contingency - % of construction costs	%	30%		\$11,535	
Total Construction Costs					\$49,983
Engineering and CMS - % of construction costs	%	20%		\$9,997	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$1,000	
Total Project Cost (rounded)					\$371,000
Total Priority 2A Cost (rounded)					\$1,168,000

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Item	Unit	Unit Price	Estimated Quantity	Item Cost (Rounded)	Total Cost (Rounded)
Priority 2B					
SJ-2: D Street					
18" Pipe - Excavation, Backfill less than 10' deep	LF	\$75	751	\$56,333	
21" Pipe - Excavation, Backfill less than 10' deep	LF	\$100	770	\$77,005	
24" Pipe - Excavation, Backfill less than 10' deep	LF	\$135	52	\$7,020	
30" Pipe - Excavation, Backfill less than 10' deep	LF	\$144	1776	\$256,599	
36" Pipe - Excavation, Backfill less than 10' deep	LF	\$180	274	\$49,461	
38"x60" squash pipe- Excavation, Backfill less than 10' deep	LF	\$352	903	\$318,083	
Remove Old Pipe - 4" thru 10"	LF	\$10	52	\$520	
Remove Old Pipe - 12"	LF	\$10	719	\$7,189	
Remove Old Pipe - 15" thru 18"	LF	\$13	1572	\$20,378	
Remove Old Pipe - 24" thru 36"	LF	\$19	1280	\$24,897	
Remove Old Pipe - 42" thru 48"	LF	\$50	902	\$45,226	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	1	\$2,000	
Manhole 48"	EA	\$3,500	4	\$14,000	
Manhole 60"	EA	\$5,690	7	\$39,828	
Manhole 72"	EA	\$5,955	1	\$5,955	
Manhole 84"	EA	\$6,219	1	\$6,219	
Manhole 96"	EA	\$7,627	1	\$7,627	
Reconnect Laterals	LF	\$17	4526	\$76,944	
Existing Utility Protection	LF	\$4	4526	\$18,105	
Traffic Control	LF	\$2	4526	\$9,052	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	3623	\$190,856	
Full Lane Pavement Repair (8 ft. wide)	LF	\$84	903	\$76,094	
Mobilization - Percent of Item Cost Sum	%	5%		\$65,470	
Contingency - % of construction costs	%	30%		\$412,459	
Total Construction Costs					\$1,787,320
Engineering and CMS - % of construction costs	%	20%		\$357,464	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$35,746	
Total Project Cost (rounded)					\$2,181,000
				Total Priority 2B Cost	\$2,181,000

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Item	Unit	Unit Price	Estimated Quantity	Item Cost (Rounded)	Total Cost (Rounded)
Priority 3A					
AF-8: Haviland Drive and Grandview Avenue					
Open Channel Excavation	CF	\$0.37	4312	\$1,597	
Repair/Raise Ground Elevations (assume 0.5 ft x 1 ft. per LF the entire length)	cf	\$0.19	97	\$18	
Mobilization - Percent of Item Cost Sum	%	5%		\$81	
Contingency - % of construction costs	%	30%		\$509	
Total Construction Costs					\$2,205
Engineering and CMS - % of construction costs	%	20%		\$441	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$44	
Total Project Cost (rounded)					\$3,000
AF-10: Canal spill East of UGB					
30" Pipe - Excavation, Backfill 10'-20' deep	LF	\$176	786	\$138,037	
Manhole 48" inlet	EA	\$3,500	2	\$7,000	
outfall	EA	\$728	1	\$728	
catch basins for new alignments	EA	\$5,000	1	\$5,000	
Existing Utility Protection	EA	\$728	5	\$3,638	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$4	786	\$3,143	
Controlled Density Backfill	LF	\$53	60	\$3,161	
Miscellaneous Surface Repair	LF	\$40	60	\$2,400	
Under Highway	LF	\$5	726	\$3,630	
Permit for Work in River	LF	\$200	60	\$12,000	
EA	EA	\$5,000	1	\$5,000	
Mobilization - Percent of Item Cost Sum	%	5%		\$9,187	
Contingency - % of construction costs	%	30%		\$57,877	
Total Construction Costs					\$250,799
Engineering and CMS - % of construction costs	%	20%		\$50,160	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$5,016	
Total Project Cost (rounded)					\$306,000
S-5: Mesman Drive to River					
36" Pipe - Excavation, Backfill less than 10' deep	LF	\$180	559	\$100,881	
Remove Old Pipe - 24" thru 36"	LF	\$19	559	\$10,878	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	1	\$2,000	
Manhole 60" inlet	EA	\$5,690	1	\$5,690	
outfall	EA	\$5,000	1	\$5,000	
Reconnect Laterals	LF	\$17	559	\$9,508	
Existing Utility Protection	LF	\$4	559	\$2,237	
Miscellaneous Surface Repair	LF	\$5	559	\$2,797	
Permit for Work in River	EA	\$5,000	1	\$5,000	
Mobilization - Percent of Item Cost Sum	%	5%		\$7,200	
Contingency - % of construction costs	%	30%		\$45,357	
Total Construction Costs					\$196,548
Engineering and CMS - % of construction costs	%	20%		\$39,310	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$3,931	
Total Project Cost (rounded)					\$240,000
S-9: George Tweed Boulevard and Spurs					
15" Pipe - Excavation, Backfill less than 10' deep	LF	\$65	230	\$14,976	
18" Pipe - Excavation, Backfill less than 10' deep	LF	\$75	196	\$14,700	
21" Pipe - Excavation, Backfill less than 10' deep	LF	\$100	824	\$82,398	
Remove Old Pipe - 12"	LF	\$10	196	\$1,960	
Remove Old Pipe - 15" thru 18"	LF	\$13	1054	\$13,665	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	1	\$2,000	
Manhole 48"	EA	\$3,500	5	\$17,500	
Manhole 60"	EA	\$5,690	2	\$11,379	
Reconnect Laterals	LF	\$17	1250	\$21,256	
Existing Utility Protection	LF	\$4	1250	\$5,002	
Traffic Control	LF	\$2	1250	\$2,501	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	1250	\$65,864	
Controlled Density Backfill	LF	\$40	638	\$25,535	
Mobilization - Percent of Item Cost Sum	%	5%		\$13,937	
Contingency - % of construction costs	%	30%		\$87,802	
Total Construction Costs					\$380,475
Engineering and CMS - % of construction costs	%	20%		\$76,095	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$7,609	
Total Project Cost (rounded)					\$464,000

Item	Unit	Unit Price	Estimated Quantity	Item Cost (Rounded)	Total Cost (Rounded)
Priority 3A					
S-11: Pond South of Redwood Highway					
42" Pipe - Excavation, Backfill less than 10' deep	LF	\$221	74	\$16,260	
Remove Old Pipe - 24" thru 36"	LF	\$19	74	\$1,430	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	3	\$6,000	
Manhole 60"	EA	\$5,690	1	\$5,690	
Manhole 72"	EA	\$5,955	1	\$5,955	
Reconnect Laterals	LF	\$17	74	\$1,250	
Existing Utility Protection	LF	\$4	74	\$294	
Traffic Control	LF	\$2	74	\$147	
Full Lane Pavement Repair (8 ft. wide)	LF	\$84	74	\$6,195	
Mobilization - Percent of Item Cost Sum	%	5%		\$2,161	
Contingency - % of construction costs	%	30%		\$13,614	
Total Construction Costs					\$58,994
Engineering and CMS - % of construction costs	%	20%		\$11,799	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$1,180	
Total Project Cost (rounded)					\$72,000
SJ-5: Tokay Canal from Savage Street to Dewey Drive					
36" Pipe - Excavation, Backfill less than 10' deep	LF	\$180	394	\$71,066	
Open Channel Excavation	CF	\$0.37	4647	\$1,721	
Remove Old Pipe - 24" thru 36"	LF	\$19	394	\$7,663	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	7	\$14,000	
Manhole 60"	EA	\$5,690	2	\$11,379	
control structure	EA	\$12,000	2	\$24,000	
catch basins for new alignments	EA	\$728	2	\$1,455	
Reconnect Laterals	LF	\$17	394	\$6,698	
Existing Utility Protection	LF	\$4	394	\$1,576	
Miscellaneous Surface Repair	LF	\$5	394	\$1,970	
Mobilization - Percent of Item Cost Sum	%	5%		\$7,076	
Contingency - % of construction costs	%	30%		\$44,582	
Total Construction Costs					\$193,187
Engineering and CMS - % of construction costs	%	20%		\$38,637	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$3,864	
Total Project Cost (rounded)					\$236,000
SJ-9: Rose Lane to River					
21" Pipe - Excavation, Backfill less than 10' deep	LF	\$100	607	\$60,682	
Remove Old Pipe - 15" thru 18"	LF	\$13	607	\$7,864	
Manhole 48"	EA	\$3,500	3	\$10,500	
outfall	EA	\$5,000	1	\$5,000	
Reconnect Laterals	LF	\$17	607	\$10,316	
Existing Utility Protection	LF	\$4	607	\$2,427	
Traffic Control	LF	\$2	456	\$913	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	456	\$24,037	
Miscellaneous Surface Repair	LF	\$5	150	\$752	
Permit for Work in River	EA	\$5,000	1	\$5,000	
Mobilization - Percent of Item Cost Sum	%	5%		\$6,375	
Contingency - % of construction costs	%	30%		\$40,160	
Total Construction Costs					\$174,026
Engineering and CMS - % of construction costs	%	20%		\$34,805	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$3,481	
Total Project Cost (rounded)					\$212,000
				Total Priority 3A Cost (\$1,533,000

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Item	Unit	Unit Price	Estimated Quantity	Item Cost (Rounded)	Total Cost (Rounded)
Priority 3B					
SJ-3: A Street - East					
15" Pipe - Excavation, Backfill less than 10' deep	LF	\$65	2138	\$138,954	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	2	\$4,000	
Manhole 48"	EA	\$3,500	7	\$24,500	
control structure	EA	\$12,000	1	\$12,000	
catch basins for new alignments	EA	\$728	14	\$10,185	
Existing Utility Protection	LF	\$4	2138	\$8,551	
Traffic Control	LF	\$2	2138	\$4,276	
Flow Split Manhole (Does not include control structures)	LS	\$1,000	1	\$1,000	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	2138	\$112,606	
Mobilization - Percent of Item Cost Sum	%	5%		\$15,804	
Contingency - % of construction costs	%	30%		\$99,562	
Total Construction Costs					\$431,437
Engineering and CMS - % of construction costs	%	20%		\$86,287	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$8,629	
Total Project Cost (rounded)					\$526,000
SJ-4: Madrone Street					
2 ft. x 3 ft. rectangular pipe- Excavation, Backfill less than 10' deep	LF	\$319	896	\$285,764	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	3	\$6,000	
Manhole 72"	EA	\$5,955	3	\$17,864	
control structure	EA	\$12,000	1	\$12,000	
catch basins for new alignments	EA	\$728	5	\$3,638	
Existing Utility Protection	LF	\$4	896	\$3,584	
Traffic Control	LF	\$2	896	\$1,792	
Flow Split Manhole (Does not include control structures)	LS	\$1,000	1	\$1,000	
1/2 Lane Pavement Repair (5 ft. wide)	LF	\$53	896	\$47,200	
Mobilization - Percent of Item Cost Sum	%	5%		\$18,942	
Contingency - % of construction costs	%	30%		\$119,335	
Total Construction Costs					\$517,119
Engineering and CMS - % of construction costs	%	20%		\$103,424	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$10,342	
Total Project Cost (rounded)					\$631,000
Total Priority 3B Cost				\$1,157,000	

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Item	Unit	Unit Price	Estimated Quantity	Item Cost (Rounded)	Total Cost (Rounded)
Priority 3C					
SJ-6: Dewey Drive to 6th Street					
24" Pipe - Excavation, Backfill less than 10' deep	LF	\$135	1574	\$212,524	
30" Pipe - Excavation, Backfill less than 10' deep	LF	\$144	236	\$34,088	
2 ft. x 3 ft. rectangular pipe- Excavation, Backfill less than 10' deep	LF	\$319	220	\$70,165	
Open Channel Excavation	CF	\$0.37	952	\$353	
Regrading Channel to Match Proposed Pipes	EA	\$1,000	2	\$2,000	
Remove Old Pipe - 15" thru 18"	LF	\$13	147	\$1,905	
Remove Old Pipe - 24" thru 36"	LF	\$19	1878	\$36,535	
Connect/Reconnect Pipes at Manholes	EA	\$2,000	3	\$6,000	
Manhole 48"	EA	\$3,500	2	\$7,000	
Manhole 60"	EA	\$5,690	2	\$11,379	
Manhole 72"	EA	\$5,955	1	\$5,955	
inlet	EA	\$728	1	\$728	
outfall	EA	\$5,000	2	\$10,000	
control structure	EA	\$12,000	2	\$24,000	
Reconnect Laterals	LF	\$17	2025	\$34,431	
Existing Utility Protection	LF	\$4	2030	\$8,121	
Controlled Density Backfill	LF	\$40	50	\$2,000	
Miscellaneous Surface Repair	LF	\$5	2030	\$10,152	
Mobilization - Percent of Item Cost Sum	%	5%		\$23,867	
Contingency - % of construction costs	%	30%		\$150,361	
Total Construction Costs					\$651,562
Engineering and CMS - % of construction costs	%	20%		\$130,312	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$13,031	
Total Project Cost (rounded)					\$795,000
				Total Priority 3C Cost	\$795,000

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Item	Unit	Unit Price	Estimated Quantity	Item Cost (Rounded)	Total Cost (Rounded)
Priority 4					
AF-9: Spill North of Harpazo Lane					
36" Pipe - Excavation, Backfill 10'-20' deep	LF	\$213	667	\$142,043	
Manhole 60"	EA	\$5,690	2	\$11,379	
inlet	EA	\$728	1	\$728	
outfall	EA	\$5,000	1	\$5,000	
catch basins for new alignments	EA	\$728	4	\$2,910	
Existing Utility Protection	LF	\$4	667	\$2,668	
Miscellaneous Surface Repair	LF	\$5	667	\$3,335	
Mobilization - Percent of Item Cost Sum	%	5%		\$8,403	
Contingency - % of construction costs	%	30%		\$52,940	
Total Construction Costs					\$229,406
Engineering and CMS - % of construction costs	%	20%		\$45,881	
Legal, Administration, and Permitting - % of construction costs	%	2%		\$4,588	
Total Project Cost (rounded)					\$280,000
				Total Priority 4 Cost (rounded)	\$280,000

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