

X. Capital Improvements Program

A. Summary of Improvement Needs

The finalization of this master plan concludes the study of the Leavenworth stormwater management system's capabilities and needs, and the planning phase of a comprehensive, stormwater capital improvements program to address these needs. It is recommended that Leavenworth proceed with the design and construction of the projects identified and prioritized in Chapters VIII and IX of this master plan as financing permits. In addition to these capital improvements projects, it is recommended that the City address the following:

- Current City policy prevents construction within the FEMA designated 100-year flood plain on Three Mile Creek, Three Mile Creek South Branch, and Five Mile Creek. Flood plain limits should be defined for the tributaries of Three Mile and Five Mile Creeks not delineated in FEMA mapping. The "no construction in flood plain" policy should be extended to tributaries to prevent flooding which may occur if development is allowed to occur in the 100-year flood plain.
- Roadside ditches should be regularly cleared of brush and debris and graded to maintain positive drainage.
- The entire City should be aerially surveyed and remapped on a regular basis. The database of stormwater facilities should be regularly updated and maintained.
- Stormwater management needs in greater Leavenworth County should be determined, and drainage improvements to control erosion and silt deposition in agricultural areas should be coordinated with the City's program.
- Control of erosion and of silt from construction sites to the storm sewer system should be enforced.

B. City and Private Funding of Projects

A precedent has been established regarding funding of projects. Generally, improvements along or under City streets and unnamed alleys are paid for with City funds, while improvements through backyards, in creeks, or in other open channels are the financial responsibility of private interests or non-local government agencies. The individual conduits and junctions that comprise the capital improvements projects were categorized as "city funding" or "private funding", depending on their location relative to streets. The projected costs for these improvements were assigned to one category, or to

both categories, if more than half the length of the improvement is in private property. The resulting distribution of funding for each project is summarized in Table X-1. "Rank" is the prioritization order of the project, "CIP ID" is the project identification, and "PIN" is the prioritization index number.

Capital Improvements Projects Funding Distribution Summary		Total		Projected Cost		Funding	
Rank	CIP ID	City	Private	Funding	Project Description	Funding	PIN
1	3MC-Main-B-way			\$120,000	Install new open channel to divert Subsystem 2R flows	\$120,000	391
2	3MC-8L			\$134,384	from Cherokee St. to Broadway bridge (Larkin project)	\$111,619	322
3	5MC-7L			\$358,888	proposed detention pond north of Metropolitan	\$98,380	296
4	3MC-S1L			\$64,162	13th & 14th & Shawnee & Delaware: 3mc South Branch	\$33,930	265
5	5MC-5L			\$541,038	Subsystem 51L	\$37,760	261
6	5MC-Main-10th			\$40,500	Install parallel 8' x 7' RCB at Tenth Avenue on 5mc	\$0	253
7	5MC-5R			\$120,311	Hughes Road & McDonald Road Subsystem 5R	\$9,744	248
8	5MC-2L			\$623,319	Santa Fe & 2nd Street Subsystem 2L	\$144,746	242
9	3MC-5L			\$46,590	Broadway & 3mc Subsystem 5L	\$0	231
10	5MC-4L			\$798,976	West of Shrine Park Rd to Goddard Cir Subsystem 4L	\$10,991	228
11	5MC-Main-Limit			\$504,200	Elevate bridge and road at junction of Limit St and 2nd	\$2,200	226
12	3MC-2R			\$1,208,858	Ave on 5mc: install berm around low-lying structure	\$345,883	224
12	3MC-SB-Cherokee			\$267,000	Replace existing Cherokee St arch on 3mc South	\$0	224
12	3MC-Main-6th St			\$274,000	Remove 6th St bridge and replace w/ 4-16' x 16' RCBS	\$0	224
15	3MC-6R			\$1,096,472	Shawnee & 20th to 18th & Osage Subsystem 6R	\$379,333	223
15	3MC-7R			\$205,455	Ottawa & 20th Street Subsystem 7R	\$0	223
17	3MC-Main-13th St			\$216,000	Replace 13th St bridge on 3mc with 3-12' x 12' RCBS	\$0	222
17	5MC-3R			\$175,724	4th Street Subsystem 3R	\$0	222
17	3MC-4L			\$98,191	Ohio to Spruce & Broadway Subsystem 1R	\$457,932	219
19	3MC-1R			\$885,086	Metropolitan & Broadway Subsystem 4L	\$842,466	214
20	3MC-4L			\$940,657	Replace 18th St arch on South Branch w/ 10' x 10' RCB	\$0	213
21	3MC-SB-18th St			\$65,300	Install parallel 8' x 8' RCB at New Lawrence Rd on 5mc	\$0	210
22	5MC-Main-N-Lawr			\$47,000	Metropolitan & 18th Street Subsystem 9L	\$0	210
22	3MC-5R			\$18,919	West Leavenworth Hwy & 5mc Subsystem 10R	\$0	197
22	3MC-6L			\$221,174	West Leavenworth Hwy to 20th & Spruce: 3mc South	\$0	198
24	3MC-5R			\$18,919	4th Street to V.A. Entrance Drive Subsystem 2R	\$704,677	198
24	5MC-8R			\$437,517	Branch Subsystem 56R	\$0	198
24	5MC-8R			\$287,075	Parallel conduits from 19th to 20th St with new RCBS	\$258,000	197
32	5MC-10R			\$38,439	West Leavenworth Hwy & 5mc Subsystem 10R	\$0	197
32	3MC-SB-19th St			\$372,000	14th & Limit Street Subsystem 6L	\$71,452	197
32	5MC-6L			\$482,575	West of Tenth Ave to 13th St Subsystem 9R	\$0	195
35	5MC-9R			\$368,879	Metropolitan & 11th St to 12th St Subsystem 7L	\$21,850	191
36	3MC-7L			\$75,549	Manion, Evergreen, Pennsylvania & 4th St Subsystem 1L	\$71,260	188
37	5MC-1L			\$523,062	22nd & Spruce: 3mc South Branch Subsystem 58R	\$56,111	185
38	3MC-58R			\$56,111	Replace Ottawa St bridge with 4-11' x 11' RCBS	\$0	180
39	3MC-Main-Ottawa			\$455,000	and increase bridge top elevation	\$1,200,000	176
40	5MC-2R			\$2,137,000	Replace bridge at 2nd St and elevate top deck of bridge	\$1,200,000	176
40	3MC-SSR			\$13,215	Install new flood wall at WWTP	\$0	176
42	5MC-1R			\$214,104	18th, 19th & Spruce: 3mc South Branch Subsystem 55R	\$0	176
43	5MC-6R			\$28,222	Marion Street Subsystem 1R	\$0	172
44	5MC-7R			\$54,888	East of Shrine Park Rd to Lakeview Dr Subsystem 6R	\$20,027	170
45	3MC-S1R			\$17,412	Deerfield St & Garland Ave Subsystem 7R	\$0	168
45	3MC-S1R			\$17,412	10th & Cherokee: 3mc South Branch Subsystem 51R	\$0	165
46	5MC-10L			\$33,353	22nd St, Limit St, & Vias St Subsystem 10L	\$0	162
47	3MC-S7R			\$42,734	21st & Kenton: 3mc South Branch Subsystem 57R	\$21,460	161
48	3MC-1L			\$1,278,472	4th Street Subsystem 1L	\$286,295	159
49	5MC-3L			\$2,374,545	Tenth Ave & Thomson Subsystem 3L	\$65,815	158
50	3MC-Main-Osage			\$5,200	Install flood levee for two structures east of 3mc	\$5,200	151
50	3MC-Main-10th			\$3,500	Install flood levee for two structures south of 3mc	\$3,500	151
52	5MC-8L			\$43,646	Candlewood & Tudor Drive Subsystem 8L	\$0	136
53	3MC-8R			\$9,022	20th & Dakota & Ottawa Subsystem 8R	\$0	134
54	5MC-11L			\$47,106	Hebbeln Drive & 23rd St Subsystem 11L	\$0	115
55	3MC-S4L			\$19,521	21st & Choctaw: 3mc South Branch Subsystem S4L	\$0	99
56	3MC-Main-Outlet			\$6,379,000	Line 3mc from Shawnee St to mouth of Missouri River	\$6,379,000	79
SUM OF COSTS:		\$26,159,125	\$13,873,743	\$12,285,382			

Table X-1