

The O&M costs were compiled by using existing database information from existing Donohue databases. Long-term electrical costs were computed on a rate 8¢ per kilowatt-hour. The analysis of O&M costs utilized the current federal return rate factor recommended by USEPA for computing the present worth costs.

Table 1 as shown on page 40 presents a summary of the costs compiled for Phase 1 of the Recommended Solution alternative investigated for this study. Appendix E in the back of the report provides the detailed cost breakdowns for each component of the Recommended Alternative.

VIII. RECOMMENDED PROJECT

The Recommended Solution Alternative evaluated for providing adequate sanitary sewer capacity for the Study Area includes the construction of two pump stations and force mains needed to isolate certain sewers from UCSD's interceptors. In addition, the Recommended Solution proposes pipe bursting several existing under-sized sewers along Green Street, John Street and South First Street.

The cost data within Appendix E computes that the total initial cost of all components of the Recommended Project totals to be \$5,527,000. However, Appendix E proposes that the project be split into three phases. Phase 1 would be the construction of the Fifth Street Pump Station and force main (identified as "Improvement #4). This project will reduce capacity issues on the Green Street sewers (west of Fifth Street only) and it will solve capacity issues on the Fifth Street Sub-Basin as well. *The total project cost for Phase 1 is projected to be \$2,153,800.* The project financing calculations provided in this report are for the Phase 1 project only. It is anticipated that the Phase 1 project will be primarily sourced from the State of Illinois using a low interest loan from the Illinois EPA Water Pollution Control Loan Program (WPCLP).

Phase 2 would be the construction of the South First Street Pump Station and force main. That phase would hydraulically isolate the First Street Sub-Basin from UCSD's Locust Street interceptor and it should resolve the chronic surcharging found in the South First Street sewer, discovered by the SmartCover™ installation program. Phase 2's cost is forecasted to be \$1,765,200 if constructed in 2019. The South First Street Pump Station and force main have been given a secondary priority because, although surcharging does routinely occur, the sewers there are relatively deep, with no SSO's or basement back-ups being reported. If funding concerns cause parts of the overall project to be phased, the South First Street Pump Station and force main may be delayed until after Phase 1 is completed.

Phase 3 of the Recommended Project is the pipe bursting of sanitary sewers in segments along Green Street, John Street, and South First Street. This trenchless sewer work has been given the lowest priority since providing more sewer capacity in the sewer itself has little practical benefit if these sewers are chronically surcharged due to downstream backwater conditions that are likely caused by the mere filling of UCSD's interceptors within their intended capacities.

CITY OF CHAMPAIGN, ILLINOIS
Campustown Sanitary Sewer Improvements

Table 1
Recommended Solution

PROJECT COST OPINION
September 4, 2018

<u>Component Name and Identification No.</u>	Phase 1 Work	Phase 2 Work	Phase 3 Work
Improvement #1: Pipe Bursting - Green Street, Sixth to Wright Street			\$324,000
Improvement #2: Pipe Bursting - Green Street, Fourth Street to Fifth Street			\$310,000
Improvement #3: Pipe Bursting - John Street, Fifth Street to Third Street			\$351,000
Improvement #4 - Proposed Fifth St. Pump Station	\$1,724,400		
Improvement #4 - 10-inch Fifth Street Force Main	\$532,300		
Improvement #5 - Proposed First St. Pump Station		\$1,536,100	
Improvement #5 - 8-inch First Street Force Main		\$317,600	
Improvement #6: Pipe Bursting - First Street, Green Street to Chalmers Street			\$623,000
TOTAL PROJECT COST - PHASE 1 PROJECT =	\$2,256,700		
TOTAL PROJECT COST - PHASE 2 PROJECT =		\$1,853,700	
TOTAL PROJECT COST - PHASE 3 PROJECT =			\$1,608,000
TOTAL VALUE OF ALL PHASES =	\$5,718,400		