

COUNCIL ACTION FORM

SUBJECT: 2018/19 SANITARY SEWER REHABILITATION (SIPHON)

BACKGROUND:

This is the annual program for rehabilitation/reconstruction of deficient sanitary sewers and deteriorated manholes at various locations throughout the city. Most of the problem areas are in sewers that can be bundled into a construction package for cost efficiency, or in problem areas deeper than City crews are equipped to handle. This program, therefore, provides for those repairs by outside firms. The goal of this program is to identify and remove major sources of inflow/infiltration as a means of lowering the peak wet weather flow at the treatment plant.

In 2012 the City began a Sanitary Sewer System Evaluation that included a comprehensive and systematic evaluation for identifying the defects that could contribute I/I across the entire, City-wide sanitary sewer system. This evaluation data collection was completed, and it was evident that there were over \$25 million worth of immediate structural improvements needed in the sanitary sewer system.

Current and future CIP projects for the sanitary sewer system are based on the results of this evaluation. Work includes rehabilitation such as the lining of existing mains or spray lining of existing structures, as well as complete removal and replacement of structures and sanitary sewer mains. These projects were shown in the CIP beginning in 2014/15. Funding comes from the State Revolving Fund (SRF), and Sewer Utility Fund. Repayment of the SRF loans will be from revenues generated in the Sanitary Sewer Fund.

This is the sixth rehabilitation project and was selected to have an immediate impact by removing Inflow & Infiltration (I&I) in sewer mains that are older and installed with non-sealed joints, the industry standard at the time. By eliminating I&I in these mains, the sanitary sewer system will regain some capacity. Item of work in the contract include heavy clean, ream, pre- and post – cleaning CCTV, and rehabilitate inlet and outlet structures. The heavy clean is necessary to remove grit, grease, hard deposits, tuberculation and/or rust from sanitary sewer siphon pipes. Reaming would help to restore the pipe full flow capacity. These rehabilitation methods minimize the impact to residents and will reduce the amount of clean water that enters the system, thus reducing the amount of water needing treatment at the plant.

Revenue and expenses associated with this program are estimated as follows:

	Available Revenue	Estimated Expenses
State Revolving Fund (2019/20)	\$ 700,000	
State Revolving Fund (2018/19)	\$ 3,570,000	
Sewer Utility Fund	\$ 250,000	
2018/19 Sanitary Sewer Rehab (Wilson & 15 th) (Awarded)		\$ 2,663,751.50
2018/19 Sanitary Sewer Rehab (Siphon) (this project)		\$ 900,000.00
Engineering/Administration (Est.)		\$ 684,000.00
	\$ 4,520,000	\$ 4,247,751.50

ALTERNATIVES:

1. Approve the 2018/19 Sanitary Sewer Rehabilitation (Siphon) by establishing September 18, 2019, as the date of letting and September 24, 2019, as the date for report of bids.

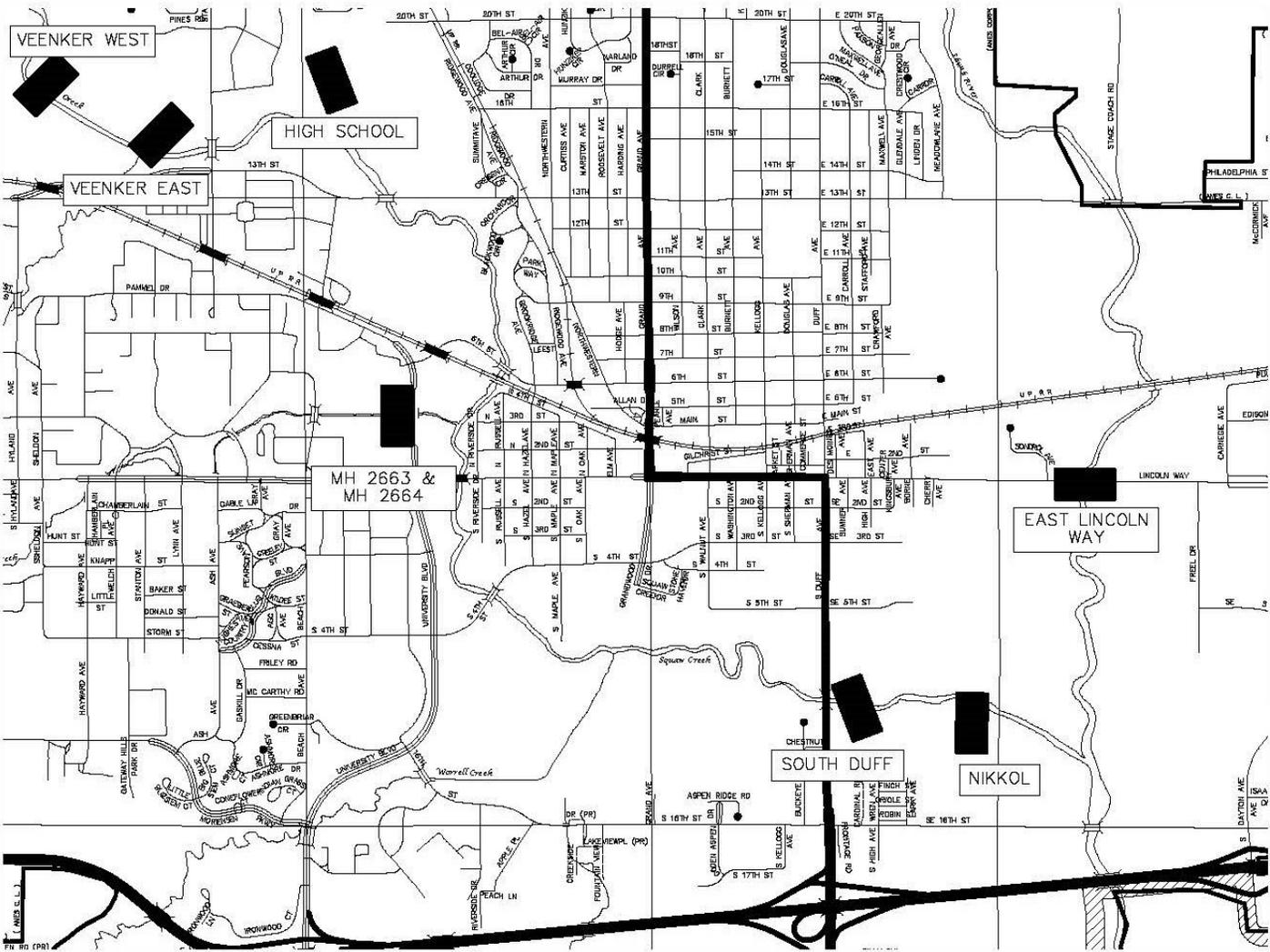
2. Direct staff to revise the project.

MANAGER'S RECOMMENDED ACTION:

This project represents City Council’s commitment to improve the sanitary sewer system. This project to rehabilitate several siphon locations (see attached map) will have an immediate impact by removing Inflow & Infiltration to regain valuable capacity in the City’s existing sanitary sewer mains.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, as noted above.

2018-19 Sanitary Sewer Rehab (Siphon) - Map



LEGEND

■ - SIPHON LOCATIONS

LOCATION MAP - VARIOUS LOCATIONS WITHIN THE CITY OF AMES
(NOT TO SCALE)