

Legislation Text

File #: BILL NO. 18-186, **Version:** 1

An Ordinance authorizing the execution of addendum number 5 to an agreement by and between the City of Lee's Summit, Missouri and Olsson Associates Engineering, Inc. for the services related to Tudor Road Pump Station Odor Control in the amount of \$107,500 and authorizing the City Manager to enter into same. (PWC 10/23/18)

Issue/Request:

In the early 1990's studies were performed to address odor and corrosion concerns in the May Brook Drainage Basin in and near the developments around Lakewood. These studies included monitoring of sulfide formation and the release of hydrogen sulfide gas, the comparison of control strategies and recommendation to use ferric chloride to prevent the formation and release of the sulfides. At the time this recommendation was the most effective and best value solution. This strategy worked fairly well until recent years when the reduced flow fixtures and increased service areas began causing increased residence times in the system. These increased residence times allow the sewage to become septic sooner in the system and create conditions for additional sulfide formation which the ferric chloride has had trouble meeting.

This past year we hired Olsson Associates through our on call contract to revisit the study and determine if the ferric chloride feed can be revamped or if a different technology should be used. To do this we resampled the chemistry of the wastewater and monitored the formation of the hydrogen sulfide at varying flows and varying ferric chloride feed rates. This information proved that it would take a large increase in our ferric feed rates to continue this model. While we were reviewing the current system we also review existing and emerging technologies to determine if there was a more efficient better value model for us to use. The study looked at oxygenation, the addition of other types of chemicals, and adding a Vortex system to the outfall of the force main. The final recommendation was to pursue the installation of the Vortex system. The installation of this system ranked highly on efficiency, ease of use, and cost effectiveness. The attached proposal is for the design of this system which will allow us to bid the construction of this work.

Key Issues:

- Tudor Road Pump Station currently uses Ferric Chloride to control the formation and release of hydrogen sulfide downstream of the pump station.
- This method of odor and corrosion control has proven to be somewhat unreliable for our system due to many factors.
- The unreliable nature of this system has cause a series of complaints downstream where the force main from Tudor empties into the gravity system.
- Olsson Associates was hired through the on-call engineering to study the issues with the Ferric Chloride system and review our options for possible replacement of that system.
- This design contract is a follow-up to the above mentioned study for the design of the selected Vortex

System odor and corrosion control.

Proposed City Council Motion:

FIRST MOTION: I move for a second reading of an Ordinance authorizing the execution of addendum number 5 to an agreement by and between the City of Lee's Summit, Missouri and Olsson Associates Engineering, Inc. for the services related to Tudor Road Pump Station Odor Control in the amount of \$107,500 and authorizing the City Manager to enter into the same.

SECOND MOTION: I move for adoption of an Ordinance authorizing the execution of addendum number 5 to an agreement by and between the City of Lee's Summit, Missouri and Olsson Associates Engineering, Inc. for the services related to Tudor Road Pump Station Odor Control in the amount of \$107,500 and authorizing the City Manager to enter into the same.

Impact/Analysis:

This is a budgeted item with the approved CIP. The long term costs should include a reduction in the use of chemical odor control at this site.

Timeline:

Start: January 1, 2019

Finish: July 1, 2019

Jeff Thorn, PE, Assistant Director of Engineering Services

The Public Works Committee voted unanimously 4-0 to recommend to City Council approval of an Ordinance authorizing the execution of addendum number 5 to an agreement by and between the City of Lee's Summit, Missouri and Olsson Associates Engineering, Inc. for the services related to Tudor Road Pump Station Odor Control in the amount of \$107,500 and authorizing the City Manager to enter into the same.