CITY MANAGER APPROVAL TO PROCEED ON PROFESSIONAL SERVICES CONTRACTS

(NOTE: THIS FORM MUST BE SUBMITTED AND PROJECT APPROVED BEFORE CONTACTING CONSULTANTS)

NAME OF PROJECT/STUDY: Grand Prairie Landfill Gas Control and Collection System

Operations and Maintenance Contract

TYPE OF CONTRACT:		
_x Professional Services*		
Other Consultant		
ESTIMATED COST \$235,000 SOURCE OF FUNDS: Solid Waste Operating Budget	303510 – 61405 Surveys	and Studies
BRIEF EXPLANATION/DESCRIPTION OF PROJECT This contract will provide for 1 year and the possibility of maintenance of the gas control and collection system at the 1996-C. This includes monthly routine monitoring, quarter liquid level and pressure readings and annual pump clean	4 renewals for operation, he City of Grand Prairie Typ rly probe monitoring and r	oe I Landfill, Permit
DO YOU INTEND TO PREPARE:		
Request for Qualifications.**		
Request for Proposals (Required if not a profession	ial service and more than	\$50,000).**
**If neither of the above is answered yes, attach an expl and/or proposals are not sought. If either is answered y to contact.	anation as to why requests s, attach a list of consulte	s for qualifications Ints you propose
SUBMITTED BY: Patricia D. B. Redfearn	DATE: <u>2/15/2019</u>	
APPROVED:	DATE: Z-Zo-6 CITY MANAGE	NDEPUTY CM
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*(Professional Services only includes engineer, architect, certified public accountant, land surveying, physician, medicine, optometrist, surgeon, surveyor, lawyer, insurance broker or consultant, construction manager, financial advisors, artist, teachers, appraisers, landscape architectural and geoscientific,

The City has had a landfill gas control and collection system (GCCS) since 2000, in order to address methane migration. Methane is a gas, which is produced at dry-entombment landfills when biodegradable waste is buried. It is explosive in concentrations of 5% to 15% and must be managed carefully. The monitoring and adjustments to the GCCS are an essential part of both ongoing compliance as well as the design of the next GCCS expansion. Any methane exceedance requires not only notification to the TCEQ but may also require notification to all neighbors and interested parties.

During well-field monitoring, gases from each well and probe are sampled and conditions are examined under the direction of design engineer. The engineering technician collects readings on pressure, temperature, flow and gas quality (ratios of components in the gas). This information is then used by the GCCS engineer to design additional construction phases of the GCCS and to advise about areas that need more immediate troubleshooting and repair. The involvement of staff engineers in this project has increased dramatically with the long-term startup of the gas to energy plant, located on the property.

The work of the technician is more than simply collection data. The engineering technician must have an understanding of engineering design principles such as friction losses, relationships between pressure and flow, methanogenic decomposition, pump curves, condensate generation and combustion mechanisms. As Weaver Consultants is the GCCS design engineer for the City of Grand Prairie Landfill, they have the knowledge and understanding of how this particular system operates. WCG is the permit writer for the facility. As a part of that responsibility, they serve as the environmental engineers for air and landfill gas compliance. This includes preparing the visible emissions report twice per year, the landfill gas inventory reporting once per year and the 5-year Air Permit for the landfill. The tasks involved with monitoring and adjusting the GCCS are compliance requirements that have to be carefully evaluated with state and federal regulations as well as the site's permits and an evolving regulatory environment. The ongoing support with monitoring and adjusting the system is true extension of the engineering services for not only the design of the system but the reporting obligations associated with the permit. This combination of factors makes Weaver Consultants the most qualified firm to provide this professional service.

SC. Dw	03/20/2019_
Approved	Date