



CITY OF NORMAN, OK STAFF REPORT

MEETING DATE: 02/13/2024

REQUESTER: Nathan Madenwald, Utilities Engineer

PRESENTER: Nathan Madenwald, Utilities Engineer

ITEM TITLE: CONSIDERATION OF APPROVAL, ACCEPTANCE, REJECTION, AMENDMENT AND/OR POSTPONEMENT OF CONTRACT K-2324-132: A CONTRACT BY AND BETWEEN THE NORMAN UTILITIES AUTHORITY AND VODA, INC., IN THE AMOUNT OF \$55,800 FOR CONSULTING SERVICES FOR DESKTOP WATER LINE CONDITION ASSESSMENT AND LEAD SERVICE LINE MODELING SERVICES.

BACKGROUND:

The Utilities Department, serving as staff of the Norman Utilities Authority (NUA), operates and maintains approximately 650 miles of water lines within the NUA distribution system. Approximately half of the existing lines are made of cast or ductile iron, which has shown a higher rate of failure than other pipe materials in the system due to corrosion from the aggressive soils. Water line replacement projects are regularly programmed based on past experiences of failure which can be a good predictor of future performance but incorporating other factors that impact the likelihood of failure plus accounting for the consequence of failure will allow staff to better prioritize projects. As technology has improved, incorporating machine learning and artificial intelligence into this effort has been done by other municipal utilities with positive results.

Request for Proposal 2324-22 was issued on November 2, 2023, and three proposals were received. The review committee of City staff evaluated the proposals and selected Voda, Inc. at the most qualified consultant for the project.

DISCUSSION:

This proposed contract would provide for Voda to complete a “desktop condition assessment” of the water lines within the distribution system. Each segment of water line within the City’s database will be evaluated and scored for both likelihood and consequence of failure using information from GIS databases such as pipe age, material, soil conditions, and other factors relevant to pipe reliability. To prove their model’s validity for our system, the model will be set up using historical data and the analysis will then be performed and compared against actual results for a test year.

Additionally, Voda will also be performing an evaluation of the water services for lead probability based on field-verified lead lines, to allow staff to better focus inventory and replacement efforts.

The fee for the water line condition assessment is \$44,800 and the fee for the lead service modeling is \$11,000 for a total estimated fee of \$55,800. Funding for this work is recommended to be allocated as following:

1. Water line condition assessment - \$44,800 –Asset Management, Design (Account 31999942-46201; Project WA0337) which has an available balance of \$91,459.11.
2. Lead service line modeling - \$11,000 – Lead Service Line, Design (Account 31996684-46201; Project WA0384) which has an available balance of \$400,000.

RECOMMENDATION:

Staff recommends that NUA approve Contract K-2324-132 between NUA and Voda, Inc., in the amount of \$55,800 for consulting services for Water Line Condition Assessment and Lead Service Line Modeling Services.