MEMORANDUM

To: Mayor and City Council

From: Mike Garza, P.E., Director of Public Works

Date: May 14, 2024

Reference: Consider approval to enter into a professional engineering services contract with LJA Engineering, Inc., to provide design services for a drainage study in the Northlake Woodlands subdivision, in the amount of $157,275.00, as budgeted in the Drainage Utility District fund and Drainage Utility District fund balance; and authorizing the City Manager to sign any necessary documents.

2040: Sustainable Government

Introduction:
The purpose of this agenda item is to request approval to enter into a professional services contract with LJA Engineering, Inc. to provide design services for a drainage study in the Northlake Woodlands Subdivision.

Background:
In 2016, the city hired a consultant to update the 1991 storm water management study. From the 2016 study, 10 priority areas were identified that would need detailed study and design for improvements to drainage. In 2023, City Council approved a design contract for Stream G-3, the Arborbrook Channel, which is the first of the drainage improvements in this subdivision and is expected to begin construction in late summer 2024. Approval of this contract would lead to a continuation of these drainage improvements.

Analysis:
The Northlake Woodlands subdivision, established in the early to mid-1970s, occupies an area south of Bethel School Road between Denton Tap and Moore Road. It encompasses several streets, including Meadowcreek Road, Arborbrook Lane, Leavalley Lane, Rocky Branch Lane, and Rolling Hills. Initially, the subdivision featured bar ditches alongside a 20-foot asphalt roadway, designed to manage up to a 10-year storm event.

However, due to inadequate maintenance over the years, these ditches have been filled in or covered up. Consequently, during substantial rainfall events, several properties experience flooding inside homes or on their property. Given that our current design standard requires storm drain systems capable of handling up to a 100-year storm, it's evident that the existing infrastructure is insufficient.

To address these issues, a comprehensive study will be conducted to analyze runoff patterns affecting the neighborhood. This study aims to identify the causes of flooding, identify viable solutions for flood relief, and estimate the potential conceptual construction costs associated with implementing these solutions. Staff plans to meet with the community and impacted residents after options are developed and before any project decisions are made. After completion of this study, the next steps would be to design and construct the selected solutions.

Benefit to the Community:
This project will identify potential solutions to improve the drainage in the Northlake Woodlands Subdivision to reduce the flooding impacts.

Legal Review:
The City Attorney has reviewed the professional services contract.

Fiscal Impact:
The fiscal impact of this item is $157,275.00 funded from the DUD Fund.

Recommendation:
The Public Works recommends approval of this contract.