



Legislation Details (With Text)

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Title: Consider and take action on a resolution authorizing a professional services agreement with ARKK Engineering for design work related to drainage improvements for the Oaks of Clear Creek Detention Pond Project (DR2101B) in an amount not to exceed \$423,020 (Director of Engineering)

Sponsors:

Indexes:

Code sections:

Attachments: 1. Data Sheet, 2. Proposed Resolution, 3. Exhibit A - Agreement with ARKK Engineering, 4. Project Aerial Map

Date	Ver.	Action By	Action	Result
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Consider and take action on a resolution authorizing a professional services agreement with ARKK Engineering for design work related to drainage improvements for the Oaks of Clear Creek Detention Pond Project (DR2101B) in an amount not to exceed \$423,020 (Director of Engineering)

Approval of this resolution will authorize the City Manager to enter into an agreement with ARKK to design detention pond and related drainage improvements within and near the Oaks of Clear Creek Subdivision for an amount not to exceed \$423,020.

In the aftermath of the Hurricane Harvey flooding, City Staff had a Hydrologic & Hydraulic (H&H) Study of areas within the Benson Bayou Watershed and the Oaks of Clear Creek Subdivision performed. In March 2018, a public meeting was held to go over the preliminary findings of the study and to discuss potential improvements to help reduce flooding within this area. In August 2018, the final report was presented to City Council during a Council Work Session. One of the areas of concern discussed during the public meeting and again when presenting to Council was the lack of detention within the area and specifically for the Oaks of Clear Creek Subdivision where structural inundation can occur during 1% exceedance rainfall events.

Based on the H&H Study, City Staff created a potential drainage improvement project. This project was included as part of a list of potential drainage projects outlined on the City’s 2019 General Obligation Bond Referendum.

For this contract, ARRK will provide engineering services for detention and related drainage improvements specifically within the Oaks of Clear Creek Subdivision and the potential for another detention pond in the vicinity of the subdivision.

The executed PSA will allow for the following:

- H&H Study for the northern detention pond and an assessment of surrounding areas where an 2nd detention pond could provide benefit for the area.
- Design Phase which will include the production of a detailed set of plans including tree delineation and cost estimates (at 60% and 90%), coordination with utility owners on conflicts, project manuals including SW3P manuals and the final preparations for getting the project ready to bid. This phase will also include sub-contracted work for Topographic Surveys, Geotechnical Investigation, and Environmental Assistance.
- Bidding Phase which will allow for ARRK to assist the City during the bidding of the project by issuing any

- needed Addendums, evaluating received Bids, and recommendation on award of the construction contract.
- Construction Administration Phase which will allow for ARRK to assist the City during the construction of the project by reviewing material submittals, testing reports, contractor pay applications, and make change order recommendations if the need arises. ARRK will also make site visits, attend and contribute to the final acceptance field inspection and prepare Record Drawings (As-Builts) once the project is completed.
- Project Management and Coordination Services including coordination meetings with the City, field visits, public and private utility coordination work, and 2 public meetings.

These base services result in a total cost of \$298,492.

The PSA will also allow for some additional services to be performed on an as needed basis:

1. Land Acquisition Services for the proposed northern detention pond site will be needed. This work can include boundary surveying services, platting services, and easement description (metes and bounds). The proposed cost for this additional service is not to exceed \$19,250.
2. Depending on the location and amount of land needed for the northern detention pond site, the following Environmental Additional Service items could be required: Environmental Assessment Phase 2, Threatened and Endangered Species Habitat Assessment, and Cultural Resources Assessment. The proposed cost for this additional service is not to exceed \$20,625.
3. Depending on the location and amount of land needed for the northern detention pond site, a nationwide USACE permit could be needed. The proposed cost for this additional service is not to exceed \$9,625.
4. If a suitable site for a 2nd pond can be found, then an H&H Study, Design, Bid, and Construction phases along with Land Acquisition Services and Environmental and Permitting will be added to this project so that a 2nd detention pond can be constructed. The proposed cost for this additional service is not to exceed \$50,878.
5. If a 2nd pond is added to the project, one property acquisition could take longer to acquire than the other. With that in mind, ARRK has provided a cost to split this project into 2 separate construction projects so that one site does not hold up the other site. The cost for this additional service is \$11,770.
6. Staff requested ARRK to provide a proposal for an additional public meeting should more than the 2 meetings in the base proposal be needed. The cost associated with this additional meeting is \$1,440.
7. Depending on construction project schedules, it is conceivable that City Inspectors could be engaged with other projects when this project moves into construction. ARRK has provided a proposal for additional construction phase support in an amount not to exceed \$9,500.

Staff recommends executing the attached PSA with ARRK for the engineering services in an amount not to exceed \$423,020, but only providing a Notice to Proceed for the Basic Services (\$298,492) and Additional Services for Item 1 (\$19,250) at this time. As work on the project continues, Staff can then make a decision on whether to proceed with the other additional service items or remove them from the PSA.

Because of the complexities associated with the project area and the amount of outside coordination needed, the design phase of this project is estimated to take approximately 12 months to complete.

This project received some grant funding. While the City will make the initial payments related to the items in the PSA, it is anticipated that once the grant reimbursements have been made the total costs for the project will be broken down as follows:

Total Program Totals	CDBG-DR	FEMA-HMGP	Bond Funding	Total Funding
Oaks of C.C. Detention Pond	\$2,507,976.2	\$250,893.75	\$ 2,541,130	\$5,300,000

This represents anticipated savings of \$962,390 from Bond Funds allocated for these projects.

Attachments:

1. Data Sheet
2. Proposed Resolution
3. PSA for Oaks of Clear Creek Detention Pond and Drainage Improvements

4. Project Aerial Map

CONTRACT ORIGINATION:

FUNDING

{X} Total funding in the amount of \$423,020 is available as follows:

Base Service (less direct services in base funded directly by CDBG-DR):

Funding in the amount of \$334,525 is available from a 75%/25% split from FEMA HMGP (75%) \$250,893.75 and CDBG-DR (25%) \$83,631.25; with expenses charged to project expense strings (\$250,893.75) DR2101B-PLAN DESIGN-DESIGN-HMGP and (\$83,631.25) DR2101B-PLAN DESIGN-DESIGN-CDBG-DR.

Direct CDBG-DR:

Funding in the amount of \$64,345 is available directly from CDBG-DR with expenses charged to project expense string DR2101B-PLAN DESIGN-DESIGN-CDBG-DR.

Direct Bond Funding:

Funding in the amount of \$24,150 is available directly from GO Bonds with expenses charged to project expense string DR2101B-PLAN DESIGN-DESIGN-GO Bond.

STRATEGIC PLANNING

{X} Addresses Strategic Planning Critical Success Factor #1 - Develop & Maintain our Infrastructure