



Legislation Text

File #: Res. 2019-250R, **Version:** 1

AGENDA CAPTION:

Consider approval of Resolution 2019-250R, approving a Change in Service to the Engineering Services agreement with Lockwood, Andrews & Newnam, Inc. (contract no. 218-307), relating to the Purgatory Creek Improvement Project, to provide for 30 percent design phase engineering services in the estimated amount of \$1,694,774; authorizing the city manager or his designee to execute the appropriate documents to implement the change in service; and declaring an effective date.

Meeting date: December 3, 2019

Department: Engineering & CIP, Laurie Moyer, Director (by Lynda Williams, Purchasing Manager)

Amount & Source of Funding

Funds Required: \$1,694,774

Account Number: C679

Funds Available: \$3,000,000

Account Name: CIP-Purgatory Creek Improvements Phase 1

Fiscal Note:

Prior Council Action: June 5, 2019: Awarded professional engineering contract 218-307 to Lockwood, Andrews & Newnam, Inc. for an estimated amount of \$467,440 for preliminary engineering services. LAN, Inc. was selected from a previously approved On-call Engineering List of qualified firms.

City Council Strategic Initiative: [Please select from the dropdown menu below]

Multi Modal Transportation

Choose an item.

Choose an item.

Comprehensive Plan Element (s): [Please select the Plan element(s) and Goal # from dropdown menu below]

☐ Economic Development - Choose an item.

☐ Environment & Resource Protection - Choose an item.

☐ Land Use - Choose an item.

☐ Neighborhoods & Housing - Choose an item.

☒ Parks, Public Spaces & Facilities - Choose an item.

☒ Transportation - Choose an item.

☐ Not Applicable

Master Plan: *[Please select the corresponding Master Plan from the dropdown menu below (if applicable)]*

Choose an item.

Background Information:

The objective of the Purgatory Creek Improvement project is to reduce flooding along Purgatory from the San Marcos River to the discharge from the NRCS Flood Control Dam #5 at Wonder World Drive. Due to the extent of the work, multiple projects will be constructed beginning at the San Marcos River and working upstream. The Purgatory Creek Improvement Project Phase I project limits will be from the San Marcos River to Johnson Avenue.

Last year the City awarded a contract to LAN to develop conceptual designs to address multiple goals along the Purgatory Creek corridor. Their work considered channel modifications for flood control, greenway trails for transportation connectivity, water quality, natural stream stability design for erosion prevention, replacement of road crossings, utility modifications, permitting and approval requirements, and construction cost estimates. Adopted master plans and significant staff and public input were used in defining a concept to meet the City's various goals. The results of this Preliminary Report were presented to Council on May 21, 2019.

The next step for the estimated \$25M Phase I project is to begin detailed design. The typical design fee for this significant of a project would be over \$3 million. In order to control costs and design scope, this authorization for \$1.69 million will cover the development of construction plans to 30% design and complete permitting on the project.

The scope for 30% design consists of:

- Project management including development of a project work plan, quality assurance/quality control plan, monthly status reports, performing monthly project administrative activities, and meeting with the city on a monthly basis to review project status.
- Conduct stakeholder and public meetings to refine design
- Data collection effort including design and boundary survey, a geotechnical investigation, a geomorphic assessment of the existing channel, environmental field assessments, a landscape and ecological assessment, a soil and geologic assessment, and an archeological field survey.
- Environmental investigations and preparation of documentation for regulatory approval.
- Hydrologic & hydraulic modeling.
- Purgatory channel improvements will include natural channel design with pilot a channel for low flows and varying side slopes. At the San Marcos River, high flows will be diverted through a spillway providing a park amenity for river access. The natural channel will include pool complexes at strategic locations, invasive species management, soils management to maximize infiltration capabilities, tree protection, and selective native plantings to establish a stable, natural channel.
- Bridge modifications or replacements include S. Mitchell Street, Jackman Street, S. LBJ Drive, S. CM Allen and Comal Street.

- Trail, sidewalk, and pedestrian connectivity improvements to be designed include a concrete pedestrian path extending from S. CM Allen Parkway to S. Mitchell Street, including a connection to Dunbar Park. The path will be designed to be pedestrian and bike friendly, will include access for maintenance vehicles along the trail, and is expected to be designed with trailheads at three (3) crossings. One pedestrian creek crossing between S. Mitchell Street and S. CM Allen Parkway is expected. Trail design will include wayfinding and illumination. Connectivity of the trail along the San Marcos River will be maintained with the installation of the spillway/outfall to include an ADA-compliant access point to the San Marcos River trail at Children's Park through the spillway. This may include a pedestrian bridge over the spillway or some other configuration allowing the continuity of the trail over the spillway.
- Sidewalks will be replaced for the crossings at S. Mitchell Street, Jackman Street, and S. LBJ Drive on both sides of the crossing. Sidewalks on S. CM Allen Parkway will be added on the Children's Park side of the crossing. Sidewalks at S. CM Allen Parkway and S. LBJ Drive will extend further than the crossing and will be designed to an appropriate endpoint considering the roadway tie-ins for the crossing upgrades to bridge structures. Approximately 4000 LF of sidewalk is anticipated.

LAN's subconsultants will be performing the following services:

- **Hicks & Company** - environmental and permitting services
- **Asakura Robinson Company** - landscape architecture services
- **Lady Bird Johnson Wildflower Center** - work with the design team in identifying vegetation to optimize the ecosystem
- **Jeffrey L Bruce & Company** - agronomic assessments to be used to determine soil stability requirements
- **Balcones Geotechnical** - geotechnical investigations
- **McGray & McGray** - topographic surveying services

The estimated schedule to complete the 30% Design phase is 11 months. With the 30% plans the City will have a more defined cost and scope to move forward with final design plans and construction. Staff will pursue multiply funding sources to assist with project costs. The Purgatory Creek Phase I Improvement project was also identified as a potential 2022 bond election project.

Council Committee, Board/Commission Action:

NA

Alternatives:

NA

Recommendation:

Staff recommends approval of these design contract services to LAN, Inc.