 <p style="text-align: center;"><b>Council Communication</b> Office of the City Manager</p>	<b>Date:</b>	May 7, 2018
	<b>Agenda Item No.</b>	<b>8</b>
	<b>Roll Call No.</b>	<b><u>18-749</u></b>
	<b>Communication No.</b>	<b><u>18-224</u></b>
	<b>Submitted by:</b>	<b>Steven L. Naber, P.E., City Engineer</b>

**AGENDA HEADING:**

Approving the following three (3) Professional Service Agreements (PSA) related to Des Moines Levee Alterations:

- Approving a PSA with Stantec Consulting Services Inc. for design phase services for Des Moines Levee Alterations – Phase A, not to exceed \$952,300.
- Approving a PSA with Stantec Consulting Services Inc. for design phase services for Des Moines Levee Alterations – Phase B, not to exceed \$1,363,700.
- Approving a PSA with Barr Engineering Company for design phase services for Des Moines Levee Alterations – Phase C, not to exceed \$1,020,800.

**SYNOPSIS:**

Recommend approval of the PSA with Stantec Consulting Services Inc., John S. Montgomery, Senior Vice President, 1859 Bowles Avenue, Suite 250, St. Louis, Missouri, 63026, for a total cost not to exceed \$952,300, based on hourly rates, to provide design phase services for Des Moines Levee Alterations – Phase A.

Recommend approval of the PSA with Stantec Consulting Services Inc., John S. Montgomery, Senior Vice President, 1859 Bowles Avenue, Suite 250, St. Louis, Missouri, 63026, for a total cost not to exceed \$1,363,700, based on hourly rates, to provide design phase services for Des Moines Levee Alterations – Phase B.

Recommend approval of the PSA with Barr Engineering Company, Scott Sobiech, Vice President, 4300 Market Pointe Drive, Suite 200, Minneapolis, MN, 55435, for a total cost not to exceed \$1,020,800, based on hourly rates, to provide design phase services for Des Moines Levee Alterations – Phase C.

**FISCAL IMPACT:**

Amount: \$952,300 for Des Moines Levee Alterations – Phase A  
\$1,363,700 for Des Moines Levee Alterations – Phase B  
\$1,020,800 for Des Moines Levee Alterations – Phase C

Funding Source: 2018-2019 CIP, Page Storm Water-6, Flood Mitigation Improvements, SM087,  
Being: State Flood Mitigation funds

**ADDITIONAL INFORMATION:**

- Following the 2008 Midwest flood, the United States Army Corps of Engineers (USACE) conducted the Des Moines River Regulated Flow Frequency Study (DMRRFFS) to estimate the frequency and magnitude of future reservoir outflows and downstream river flows. Completed in November 2010 and released in January 2011, the results of the DMRRFFS showed flood flow frequencies have increased over previous USACE estimates and floods like the 1993 and 2008 events are more likely to occur than previously estimated. In addition to identifying the higher risk of flooding, the DMRRFFS showed that the existing levees in downtown Des Moines do not meet the standards for Federal Emergency Management Agency (FEMA) accreditation of levees provided in Title 44 of the Code of Federal Regulations (44 CFR) Section 65.10 of the National Flood Insurance Program regulations impacting FEMA flood hazard mapping.
- In March 2011, the City initiated professional services to begin responding to the USACE DMRRFFS by working through the USACE Section 408 requirements to improve the levee system to satisfy FEMA accreditation requirements. The City has worked closely with the USACE Rock Island District staff to prepare a Section 408 Concept Submittal to improve the levee system to meet accreditation requirements with City and Iowa Flood Mitigation Program funding. The Section 408 Concept Submittal was submitted to the USACE in May 2017 and is currently being reviewed by USACE. USACE estimates the City could receive approval of the Section 408 Concept Submittal by fall 2018. Individual (detailed) Section 408 submittals will be required for individual projects.
- Phase 1 Analyses have been conducted and documented to identify deficiencies relative to 44 CFR 65.10 accreditation requirements. The City plans to address these deficiencies by implementing various projects along the levee systems. These projects include levee raises, modification of gatewell and closure structures, pump station modifications, installation of embankment protection, and embankment and foundation stability mitigating features such as cutoff trenches or seepage berms. In accordance with the Flood Mitigation Program Agreement (RC 15-1094, 6/22/2015), the project completion date is December 31, 2024. As projects move forward, the terms of the agreement will be reconciled to match project schedules. The projects will be constructed in multiple phases, generally from upstream to downstream along the system and the phases are identified as Phases A thru H.
- Phase A incorporates the upstream reaches of the DM-I and DM-II levee systems along the Des Moines River upstream of the confluence with the Raccoon River. Phase A construction is estimated to cost \$3,720,000.
- Phase B incorporates reaches of the DM-II and DM-III levee systems along the Raccoon River upstream of SW 3<sup>rd</sup> Street. Phase B construction is estimated to cost \$11,515,000.
- Phase C incorporates the downstream reaches of the DM-I and DM-III levee systems along the Des Moines River from approximately the confluence with Raccoon River to just downstream of SE 14<sup>th</sup> Street. Phase C construction is estimated to cost \$6,650,000.
- A Request for Proposals (RFP) for professional services for the Des Moines Levee Alterations Phases A thru C was issued, posted on the City's website, and printed in the newspaper. A selection committee of Engineering and Public Works staff reviewed and rated the seven (7)

proposals received in response to the RFP. Stantec Consulting Services Inc. was selected for Phases A and B, and Barr Engineering Company was selected for Phase C based on the selection criteria in the RFP and their extensive understanding of the project objectives and area.

- City staff has negotiated a PSA for Phase A with Stantec Consulting Services Inc. for a total cost not to exceed \$952,300, based on hourly rates, to provide design phase services.
- City staff has negotiated a PSA for Phase B with Stantec Consulting Services Inc. for a total cost not to exceed \$1,363,700, based on hourly rates, to provide design phase services.
- City staff has negotiated a PSA for Phase C with Barr Engineering Company for a total cost not to exceed \$1,020,800, based on hourly rates, to provide design phase services.

#### **PREVIOUS COUNCIL ACTION(S):**

Date: February 19, 2018

Roll Call No.: [18-0251](#)

Action: [Approving](#) the Programmatic Agreement for levee system alterations implemented under the Des Moines Levee System, Des Moines and Raccoon Rivers, Iowa, Section 408 Permission Application. ([Council Communication No. 18-084](#)) Moved by Gatto to adopt. Motion Carried 7-0.

#### **BOARD/COMMISSION ACTION(S): NONE**

#### **ANTICIPATED ACTIONS AND FUTURE COMMITMENTS:**

- City staff anticipates three (3) Supplemental Agreements for the Consultants to provide construction phase services for a total amount in the range of \$300,000 to \$375,000 for Phase A, \$920,000 to \$1,150,000 for Phase B, and \$530,000 to \$670,000 for Phase C.
- Professional services for Phases D-H shown in the below figure will be presented for future Council consideration.

For more information on this and other agenda items, please call the City Clerk's Office at 515-283-4209 or visit the Clerk's Office on the first floor of City Hall, 400 Robert D Ray Drive. Council agendas are available to the public at the City Clerk's Office on Thursday afternoon preceding Monday's Council meeting. Citizens can also request to receive meeting notices and agendas by email by calling the Clerk's Office or sending their request via email to [cityclerk@dmgov.org](mailto:cityclerk@dmgov.org).



**LEGEND**

(TARGETED CONSTRUCTION YEAR  
SUBJECT TO CORPS OF  
ENGINEER'S APPROVAL)

**LEVEE ALTERATIONS**

**PROPOSED PHASING**

- A (2019)
- B (FALL 2019-2020)
- C (2021-EARLY 2022)
- D (2022)
- E (2023)
- F (2024-EARLY 2025)
- G (2022-2023)
- H (2024-2025)

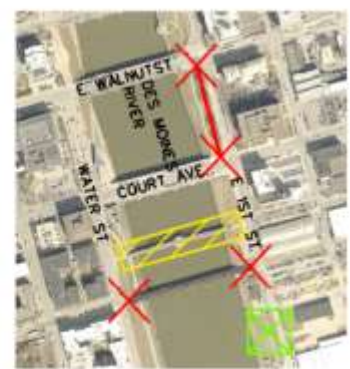
✗ USACE DOWNTOWN  
CLOSURE  
(2016-2018)

✗ NEW STORM WATER  
PUMP STATION  
(2018-2019)

▨ RIVERWALK RED  
MULTI-USE TRAIL  
BRIDGE ELEVATION  
(2017)



DETAIL 'A'  
SCALE- 1"=30,000'



DETAIL 'B'  
SCALE-1"=15,000'



DETAIL 'C'  
SCALE- 1"=30,000'



DETAIL 'D'  
SCALE- 1"=30,000'