

Meeting Agendas/Info

**CITY COUNCIL
COMMUNICATION:**

ITEM _____

**OFFICE OF THE CITY MANAGER
CITY OF DES MOINES, IOWA**

01-277

SYNOPSIS -

AGENDA:

MAY 21, 2001

SUBJECT:

SUPPLEMENTAL
AGREEMENT NO.
18- CONSULTANT
SERVICES FOR
BRIDGE
STRUCTURES IN
CONJUNCTION
WITH MARTIN
LUTHER KING, JR.
PARKWAY

Supplemental Agreement No. 18 with Earth Tech, Inc. (Diane Creel, CEO, 100 W Broadway, Suite 5000, Long Beach, CA) provides for final design services for bridge structures in conjunction with the Martin Luther King, Jr. Parkway project. Included in this agreement is the East/West Arch Bridge over Raccoon River together with approach spans and exit ramp to Fleur Drive; the Pedestrian/Bikeway Bridge over Raccoon River; the North/South Arch Bridge over Raccoon River together with approach spans and the viaduct intersection structure of Martin Luther King, Jr. Parkway and Fleur Drive.

TYPE:

Supplemental Agreement No. 18 also provides for release of \$230,595 of unused contingency funds from Supplemental Agreement Nos. 15, 16, and 17. Those supplemental agreements contain \$598,200 of unused contingency. Neither the City or Earth Tech, Inc. anticipates their need in conjunction with the previous supplemental agreements; therefore, they are being released. This action will ensure that these funds are utilized for the Martin Luther King, Jr. Parkway project, and the federal portion not revert back to the Iowa Department of Transportation (IDOT).

RESOLUTION
ORDINANCE
RECEIVE/FILE

FISCAL IMPACT -

SUBMITTED BY:

FLOYD BENTZ, P.E.
CITY ENGINEER

Compensation to the consultant shall be actual cost plus fixed fees as follows:

East/West Segment compensation not to exceed \$725,800 plus a fixed fee of \$23,000 for a total not to exceed \$748,800. North/South Segment compensation not to exceed \$1,317,400 plus a fixed fee of \$23,000 for a total of \$1,340,400. Total Compensation under terms of this agreement not to exceed \$2,089,200. The estimated construction cost of the structures to be designed is \$27,000,000.

East/West Portion 50 percent state funding (\$374,400) - 50 percent Local Tax Increment Financing (TIF) (\$374,400). North/South Portion 80 percent federal funding (\$1,072,320) - 20 percent local match (\$268,080).

The October 4, 1999, total design budget for the Martin Luther King, Jr. Parkway project was \$9,466,700. Previously approved design agreement total is \$7,608,095, which includes \$598,200 of unused design contingency. Total cost including Supplemental Agreement No. 18 is \$9,697,295 less the unused contingency of \$598,200, which results in a total of \$9,099,095 or \$367,605 under budget. Supplemental Agreement No. 18 completes the design agreements for the Martin Luther King, Jr. Parkway project.

RECOMMENDATION -

Approval.

BACKGROUND -

The type, size, and location drawings on the structures covered by this Supplemental Agreement No. 18 have now been approved by IDOT.

Following are several areas associated with preliminary design review of these structures that have resulted in increased engineering costs for the structures over the 1999 estimate. They are as follows:

As a result of the long and arduous process regarding the shoulder width on the bridges, now there are a number of variable width structures that require additional design and detailing. The North/South Bridge is made up of four different deck widths as a result of the shoulder determination. The East/West Bridge and Ramp FB to Fleur Drive are still all based on a single standard width. Ramp FC Bridge consists of the westbound lanes turning northbound and is now a variable width curved section. It was originally anticipated that this section would be a standard width curved section.

The original proposed signature bridges were estimated to be an 85

meter clear span on the North/South leg of Martin Luther King, Jr. Parkway, and be a 75 meter clear span on the East/West leg of Martin Luther King, Jr. Parkway. As a result of the review process, it has been determined that the optimum length for these two bridges is a 108 meter clear span on the North/South Bridge and an 85 meter clear span on the East/West Bridge. This additional length of clear span results in a more complex design.

The amount and number of soil borings have been increased as a result of coordination with IDOT. It is recommended that a soil boring be taken at each drilled shaft column at each pier and abutment. This is approximately double the number of borings that we had originally anticipated.

As a result of the longer clear span on the East/West Bridge, the bridge section of the East/West Bridge has been lengthened by approximately 40 meters. The additional span is required as part of the overall design for the 85 meter arch bridge section. This results in an additional pier location of the Dico site.

The coordination and alignment changes that will be required to minimize the impact to the Des Moines Water Works require design, additional hydraulic modeling, and coordination with the Des Moines Water Works and the Corps of Engineers that what was originally anticipated for the intersection of Martin Luther King, Jr. Parkway and Fleur Drive. This is a result of the realignment of Ramp FA (northbound Fleur Drive) and Ramp RD (southbound Fleur Drive) to miss major Water Works facilities. These realignments require the evaluation of the location of the south abutment to the North/South Bridge and additional hydraulic modeling of the Raccoon River.

Supplemental Agreement No. 18 has been submitted to IDOT for their review and pre-audit evaluation. IDOT has provided a pre-audit evaluation of the proposed agreement, and subsequently Supplemental Agreement No. 18 has been revised based upon the suggestions of IDOT's review and pre-audit report.

On October 4, 1999, by Roll Call No. 99-3147, the City Council approved Supplemental Agreement No. 16 for preparation of the construction plans for the paving of Martin Luther King, Jr. Parkway and for the type, size, and location drawings for the bridge structures related to the project. IDOT requires submittal and approval of type, size, and location drawings on all structures prior to authorizing final design. Supplemental Agreement No. 16 also provided that the design of the bridge structures, in conjunction with the Martin Luther King, Jr. Parkway project would be provided for by Supplemental

Agreement after approval of the type, size, and location drawings by IDOT. On October 16, 2000, by Roll Call No. 00-3988, the City Council approved Supplemental Agreement No. 17, for design of the Grand Avenue Bridge over Martin Luther King, Jr. Parkway. This agreement provides for the subconsultant, J. Muller International of Chicago, IL, to provide the majority of the bridge design.
