

Memorandum

To: Programs, Projects and Operations Subcommittee

Re: Review and Recommendation on the First Contract Amendment with Kirkham Michael for the Washington County Floodplain Remapping Project

Date: September 2, 2009 Updated: September 8, 2009

From: Lori Ann Laster, Stormwater Management Engineer

In December 2008, the Board approved a professional services contract with Kirkham Michael to develop updated flood hazard data for county wide Digital Flood Insurance Rate Map (DFIRM) maps for Washington County, in an amount not to exceed to \$204,483. A federal grant in the amount of \$169,100 had been secured through the Federal Emergency Management Agency (FEMA) for the project. No additional funding would be awarded from FEMA.

In June staff updated the Board on the progress of the Washington County Floodplain Remapping Project. At that time, it was anticipated that a contract amendment would be needed in order to incorporate a previous flood study commissioned by the City of Blair in 2004. This study needed additional work to comply with FEMA standards. The total amount to complete this work was \$3,600.

During the remapping, other problems were encountered by the consultant in matching Missouri River data to updated data on small tributaries to the Missouri River completed by Nebraska Department of Natural Resources. The DNR data did not have cross sections all the way to the confluence with the Missouri River, but instead were modeled only to the backwater for the Missouri River when modeled as an Approximate. This created large gaps between the last cross section for the approximate studies and the detailed cross sections for the Missouri River. For these studies, it was necessary to create the models for these streams to close these gaps. The models begin at the confluence with the Missouri River and extend beyond the first section of the existing Zone AE analysis. The cost to complete the re-delineations was \$34,890.

- **It is management's recommendation that the General Manager be authorized to sign the first contract amendment with Kirkham Michael for the amount of \$38,490, bringing the total contract amount to \$242,973 subject to changes deemed necessary by the General Manager and approval as to form by District Legal Counsel.**

August 27, 2009

RE: Amendment No.1
Papio-Missouri River Natural Resource District
Washington County DFIRM Project
Omaha, Nebraska
KM-0810248

Lori Ann Laster
Stormwater Management Engineer
Papio-Missouri River NRD
8901 South 154th Street
Omaha, Nebraska 68138

Dear Lori:

Kirkham Michael is pleased to submit this Amendment No. 1 for the increased work effort on the Washington County DFIRM project. Within the attached Amendment is the following information:

- Changes to Original Scope
- Request for Additional Funds
- Justification for Request
- Changes to Payment to Engineer

The Kirkham Michael team is committed to ensuring the success of this project. We also thank you for your support and continued business.

If the attached Amendment No. 1 is satisfactory to the Papio-Missouri River Natural Resource District please sign and date both the "original" and the "duplicate" copies of the agreement amendment. Keep the original copy for your files and return the duplicate copy to us for our files. Receipt of this agreement will be considered our notice to proceed with the work. We appreciate the opportunity to provide professional services for the Papio-Missouri River Natural Resource District.

Sincerely,

KIRKHAM, MICHAEL & ASSOCIATES, INC.



Michael R Preston
GIS Manager

MRP/sjt

Enclosure

Copy to: J. Frederiksen – Kirkham Michael Omaha

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AUG 31 2009

**Amendment No. 1
To the
Contract for Engineering Services**

**Papio-Missouri River Natural Resource District
Washington County DFIRM Project
Omaha, Nebraska**

This amendment, entered into as of this _____ day of _____, 2009, amends the Contract for Engineering Services between Owner and Engineer, dated June 30, 2008, between the following parties:

Owner: **Papio-Missouri River Natural Resource District**
8901 154th Street
Omaha, Nebraska 68138-3621

Engineer: **Kirkham, Michael & Associates, Inc.**
12700 West Dodge Road
P.O. Box 542030
Omaha, Nebraska 68154-8030

Changes to the Scope of Services

This amendment modifies the original contract to include additional Digital Flood Insurance Rate Map (DFIRM) and Geographic Information Systems (GIS) services.

Change to original scope

Kirkham Michael previously produced hydrology and hydraulics studies for the City of Blair for a distance of 6.5 miles. AMEC Earth and Environmental agreed to take this data and provide a leverage detailed study by revising it to Federal Emergency Management Agency (FEMA) standards for map modernization, which included conducting a floodway analysis. Considerable additional work was required to enable the approximate studies created under separate contract to be tied into the leverage detailed studies.

Request

Kirkham Michael requests additional funds for revisions to the original scope of work to address the following issues:

1. The addition of the 6.5 miles of new detailed study in the City of Blair.
2. 29.5 miles of re-delineations of existing Zone AE's countywide.
3. Additional work needed to use the Approximate Studies created earlier in the study for Washington County under separate contract.

August 27, 2009



Justification for Request

1. The detailed studies for the City of Blair had no floodway analysis performed which is necessary for use on FEMA maps.
2. The Approximate Studies (Zone AE's) created for Washington County for the 13 tributaries, which confluence with the Missouri River, did not have cross sections all the way to the confluence with the Missouri River, but instead were modeled only to the backwater for the Missouri River when modeled as an Approximate. This created large gaps between the last cross section for the approximate studies and the detailed cross sections for the Missouri River. For these studies, it was necessary to create the models for these streams to close these gaps. The models begin at the confluence with the Missouri River and extend beyond the first section of the existing Zone AE analysis.

Changes to Payment to Engineer

Owner shall pay Engineer for Additional Consulting Services an additional amount of \$38,490 to establish a new maximum contract fee of \$242,973.

Amendment Agreement

The Owner and the Engineer agree to the stipulations set forth herein as an amendment to the Contract. All other provisions of the Contract for Engineering Services between the Owner and Engineer shall remain in full force and effect.

The parties hereto have caused this Amendment No. 1 to the Contract to be executed by their proper officials:

Owner: **Papio-Missouri River Natural Resource District**

Engineer: **KIRKHAM, MICHAEL & ASSOCIATES, INC.**

Rich L. Robinson, P.E.
Senior Vice President