

Agenda Item: 7

## Memorandum

**To:** Papio-Missouri River Natural Resources District  
Programs Projects and Operations Subcommittee

**From:** Paul W. Woodward PE, Groundwater Management Engineer

**Date:** June 30, 2015

**Re:** Phase IV Amendment to Missouri River R-613/R-616 Federal Levee Certification Professional Services

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FYRA Engineering is currently under contract with the District to provide consulting services for the FEMA accreditation of the Missouri River Levee System Units R-613 and R-616 (Levees). The hourly, not to exceed amount of the existing contract is \$1,835,898. Prior phases of the professional services provided for this project are:

Phase and Description	Effective Date	Contract or Amendment Fee
Phase I – Investigative Phase (Tetra Tech Contract)	Nov. 12, 2009	\$330,878
Phase II – Alternatives Analysis (Tetra Tech Addendum 1)	Sept. 9, 2010	\$696,376
Phase II Amendment – Mo River Flooding and Platte and Papio H&H (Tetra Tech Amendment 1)	March 2, 2012	\$207,567
Phase III – Final Design and Permitting (new FYRA contract)	July 12, 2012	\$1,835,898

In April 2015, Mike Sotak, of FYRA Engineering, prepared the attached letter dated 31 March 2015 which outlines additional services FYRA has provided since July 2014. These services have utilized the remainder of the existing budget and have taken the project design up through 90%, where it is currently under review by the USACE District Office and the Independent External Project Review team.

The remaining process requires design services to complete responses and revisions to 90% comments, then submit 100% design documents. The 100% submittal will have to be reviewed and approved at the USACE District, Division and Headquarters level as part of the 408 Permit process. At the same time, final coordination on the USACE 404 permit, securing project funding, and acquisition of land rights will be ongoing. These tasks are expected to occur through the remainder of this year with the acquisition of land rights before spring of next year.

Once design review and permitting is approved, the remaining professional services required for this project include construction bidding, construction inspection, and final documentation required for FEMA Levee Certification. It is also anticipated that the P-MRNRD will hire a

contractor to remove excess material along the benches of the Papillion Creek to be stockpiled and later used as fill for the seepage berms and replace timber piles and riprap within the Papi channel based on construction plans and specs from FYRA. These activities are done separately from the main construction contract to comply with USACE 404 permit requirements as part of the NRD's typical maintenance program.

FYRA Engineering has prepared a written scope, fee estimate, and contract amendment for these new services and they are attached. A summary of the tasks included in this amendment and their respective fee estimates are summarized in the following table. The total cost of this Phase IV amendment is \$1,835,586, making the total not to exceed amount of the FYRA Engineering contract \$3,671,484.

Item	Proposed Amendment Fee
Project Management During Design and Permitting	\$48,360
USACE 408 Permit	\$103,680
404 Permit	\$57,210
Design Completion R-616-613	\$313,420
Design Completion R-613	\$185,376
Water Sustainability Fund Application	\$50,400
Bid Phase R-616-613	\$12,580
Bid Phase R-613	\$12,580
Construction Phase R-616-613	\$481,980
Construction Phase R-613	\$481,980
Bid Phase – Maintenance Projects	\$12,580
Construction Phase – Maintenance Projects	\$45,880
Final FEMA Levee Certification	\$29,560
<b>TOTAL</b>	<b>\$1,835,586</b>

**Management recommends that the subcommittee recommend to the Board of Directors that the General Manager be authorized to execute the proposed amendment to the Professional Services Contract with FYRA Engineering, Inc. for the P-MRNRD Missouri River R-613/R-616 Federal Levee Certification Project, making the maximum not to exceed contract amount \$3,671,484, subject to changes deemed necessary by the General Manager and approval as to form by District Legal Council.**



9 July 2015

Mr. John Winkler  
c/o Papio-Missouri River NRD  
**via email**

Re: Proposed Missouri River Federal Levees R-613/616-613 Contract Amendment

John and Board of Directors:

Please find attached the contract documents to amend our contract dated 12 July 2012. During the life of this project, in periodic updates to the Board and in my most recent letter updating the Board on the project/contract status dated 31 March 2015 (all above-referenced correspondence attached for your convenience), I have attempted to document the many changes to the project scope as required by design decisions and by the requirements of project stakeholder agencies.

This proposed contract amendment takes us through final design, permitting, construction and levee certification. The schedule for the services will be a function of available funding and permitting schedules, but will occur in FY16, FY17 and possibly FY18. The details of the work are contained within the attached contractual documents.

We look forward to continuing our work with your staff, assisting the Board in obtaining the much-deserved funding assistance and constructing the planned improvements to implement this project.

As always, I am available to answer any questions you might have.

For the Firm,

A handwritten signature in black ink, appearing to read "Michael K. Sotak".

Michael K. Sotak, P.E.

## **P-MRNRD R-613 & R-616 Levee Certification Task Descriptions – Plan and Permitting Completion, Bidding, and Construction Services**

### **Project Management During Design and Permitting Services**

Project Management During Design and Permitting Services – Meetings and communication between consultant team project manager and client representative(s) to review progress and work ahead for the coming weeks. May also include representation at desired stakeholder meetings by client. Note: This task is not intended to include project management during construction. That is included in construction-specific tasks below.

Project Management – Monthly Invoice/Schedule Update – Monthly preparation of consultant invoice including incorporation of internal and subconsultant invoices, description of services rendered and update of Project schedule.

Final Cost Estimate and Updates - Prepare detailed cost estimates for both systems and update as required by any changes occurring in ATR/IEPR review, or land rights negotiations.

### **USACE 408 Permit**

ATR/IEPR Documentation & Coordination – Prepare written trail of correspondence with ATR/IEPR members through the preparation of the 408 review process. This will include processing, review and responses in DrChecks for the 90% and 100% ATR/IEPR reviews.

IEPR Team Meetings – Preparation for and attendance of two meetings with the IEPR team or representatives during the plan review process.

USACE ATR Meetings - Preparation for and attendance of four meetings with the USACE ATR team or representatives during the plan review process.

OMR&R Manual Updating (Pre-Construction) – Updating of manual as required to document changes attributable to changes in design related hydrology, hydraulics, etc. Additional updates to be made during construction phase services that will reflect materials, products, etc. used during construction, as-built drawings, etc.

Real Estate – Prepare (minimal) discussion, and update as necessary, of how exiting and additional real estate requirements for the project are procured.

Administrative Record - Prepare (minimal) discussion, and update as necessary, of any legal requirements for execution of the project plan.

Discussion of Executive Order - Prepare (minimal) discussion of anticipated approvals for 408 permitting process.

Environmental Compliance (NEPA) – Document in the 408 permit the NEPA-related documents (EA, BA, 404(b)1, etc.) that fulfill all environmental requirements of the project.

Report Preparation and Printing – Assembly, printing and distribution of hard copies of 100% and FINAL (post 100% review) 408 permit report and referenced appendices.

### **404 Permit Application**

Biological Assessment Correspondence/Completion – Continued correspondence with USACE ATR/Regulatory on the requirements of BA for the project, and completion of the document.

Environmental Assessment Correspondence/Completion – Continued correspondence with USACE ATR/Regulatory on the requirements of EA for the project, and completion of the document.

Correspondence with USFWS – Continued correspondence with USFWS regarding their initial comments on the project's EA for inclusion in the final documents.

Correspondence with USACE – Continued correspondence with USACE ATR/Regulatory regarding their requirements for this parallel 404/408 environmental review.

404 Application Completion – Preparation of completed application for entire 404 permitting package as required by USACE ATR/Regulatory.

Mitigation Planning – USACE coordination, identification, documentation and design of wetland mitigation/offset site for project impacts.

### **Design Completion – R-616-613 Levee System**

Update Plans After 90% & 100% Review – Make required modifications to plans and specifications after IEPR and ATR comments are received for the last two review milestones.

Alignment Control & Staking Points Sheet – Upon final design completion, prepare control sheet for all project layout.

Utility Coordination – Correspondence and plan preparation for relocation of electric and other utilities along levee corridor and at Haworth Park residence to accommodate seepage berm construction.

Coordination with City of Omaha (PCWWTF) – Survey, design and preparation of plans to relocate utilities located inside of PCWWTF property where conflicts with planned seepage berm construction exist.

UPRR Coordination for Hwy 370 Closure Section – Continued coordination and design development for the relocated hard closure section at Hwy 370.

Offutt AFB Design Coordination – Continued design, coordination and funding assistance for drainage improvements, levee modifications and other related items for levee system within OAFB land.

Bench Stripping Plan Set Completion – Completion of stand alone set of plans to strip and stockpile Papillion Creek bench strippings.

Rip Rap / Pile Bent Maintenance Plan Set Completion – Completion of stand alone set of plans for maintenance repairs of penetration outlets.

Levee Penetration Modifications – Completion of plans for extension of R-13 levee penetration and grading required as a part of penetration R-1.

Title Search and Review – Title search updates by contractor and review and summary of any changes from previous title review.

Easement Preparation – Prepare documents temporary/permanent easements or fee title acquisition (or combination thereof) required to complete construction modifications to the levee system and provide long term real estate (access/ownership) to operate and maintain the levees.

Easement Review – Internal team review of easements prepared by subconsultant.

Land Rights Documents Drawing Preparations – Preparation of AutoCAD drawings for easement/acquisition boundaries by each parcel.

Land Rights Appraisals and Negotiations – Land appraisals for easement documents and negotiations by agent for NRD easement or acquisition.

### **Design Completion – R-613 Levee System**

Update Plans After 90% & 100% Review – Make required modifications to plans and specifications after IEPR and ATR comments are received for the last two review milestones.

Alignment Control & Staking Points Sheet – Upon final design completion, prepare control sheet for all project layout.

Utility Coordination – Correspondence and plan preparation for relocation of electric and other utilities along levee corridor to accommodate seepage berm construction.

Tregaron Coordination – Survey, design and preparation of plans to accommodate levee raise and access berm within Tregaron Golf Course property.

UPRR and BNSF Coordination at La Platte Road Closure Section – Continued coordination and design development for the improved sand bag closure section at La Platte Road.

Title Search and Review – Title search updates by contractor and review and summary of any changes from previous title review.

Easement Preparation – Prepare documents temporary/permanent easements or fee title acquisition (or combination thereof) required to complete construction modifications to the levee system and provide long term real estate (access/ownership) to operate and maintain the levees.

Easement Review – Internal team review of easements prepared by subconsultant.

Land Rights Documents Drawing Preparations – Preparation of AutoCAD drawings for easement/acquisition boundaries by each parcel.

Land Rights Appraisals and Negotiations – Land appraisals for easement documents and negotiations by agent for NRD easement or acquisition.

### **WSF Application Preparation**

Project Background – Compile existing information to summarize the project background for the preparation of this section in a WSF application, assuming the format will be similar to past NRDF applications.

Technical Feasibility – Preparation of application section related to technical feasibility. It is assumed that the work done to date will more than suffice what is required and just needs to be organized to meet WSF guidelines (yet to come) which are anticipated to be similar to past NRDF application preparation guidelines.

Economic Feasibility – Preparation of application section related to economic feasibility. It is assumed that the work done to date will more than suffice what is required and just needs to be organized to meet WSF guidelines (yet to come) which are anticipated to be similar to past NRDF application preparation guidelines.

Environmental Feasibility – Preparation of application section related to technical feasibility. It is assumed that the work done to date will more than suffice what is required and just needs to be organized to meet WSF guidelines (yet to come) which are anticipated to be similar to past NRDF application preparation guidelines.

Application Printing / Preparation – Self explanatory

Commission Meeting Preparation/Attendance – Preparation for and attendance of two Natural Resources Commission meetings to present information related to the WSF application and address any Commission questions.

**Bid Phase Services (All project phases)**

Preparation of Bid Documents – Preparation of all bid-related front end documents in current EJCDC format in the project specifications including all required notices, forms, etc.

Pre-Bid Meeting – Preparation for and attendance of a pre-bid meeting to discuss the project with interested contractors, and preparation of meeting minutes.

Contractor Coordination – Correspondence and preparation of clarifications with contractors during the bidding process.

Attend Bid Letting – Preparation for and attendance of bid letting.

Review Bids / Make Recommendation – Review contractor bids for responsiveness and summarize all bids. Work with apparent low contractor to ensure all bid requirements are met and make recommendation to NRD Board of Directors to award bid.

Contract Execution – Preparation of all documents related to legal contract between NRD and Contractor including all required bonds, assurances, schedules, etc. as detailed in the project specifications.

**Construction Phase Services (All project phases)**

Construction Kickoff Meeting – Preparation for and attendance of construction services kickoff meeting with NRD, Contractor, Utilities and other stakeholders, and preparation and distribution of minutes.



Weekly Construction Administrative Services – RPR duties as specifically defined in NRD/FYRA EJCDC Professional Services Contract including on-site observation, preparation of reports, processing of submittals, pay requests, change orders and any other required correspondence.

Preparation of As-Builts – Modification of final drawings to include all changes and details as noted in the field during construction observation duties.

OMR&R Documentation – Modification of project OMR&R Manual to reflect all specifics of construction materials, as-built drawings, and the required future maintenance for improvements.

### **Final FEMA Levee Certification Package**

Coordination with FEMA STARR Team – Continued correspondence with FEMA and FEMA Contractor that required contents of certification package is met.

H&H Documentation for FEMA Submittal – completion of all FEMA-specific forms for levee certification package.

Repackaging of 408 TMs into FEMA Package – organization of all technical info and USACE review/approval for submittal to FEMA for levee certification package.

SUGGESTED FORMAT  
(for use with E-500, 2002 Edition)

This is **EXHIBIT K**, consisting of 2 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated 12 July, 2012.

**AMENDMENT TO OWNER-ENGINEER AGREEMENT**

1. Background Data:

- a. **Effective Date of Owner-Engineer Agreement:** 12 July 2012 \_\_\_\_\_
- b. **Owner:** Papio-Missouri River Natural Resources District \_\_\_\_\_
- c. **Engineer:** FYRA Engineering  
: \_\_\_\_\_
- d. **Project:** P-MRNRD Missouri River R-613/616 Federal Levee Certification \_\_\_\_\_

2. Nature of Amendment

- Additional Services to be performed by Engineer
- Modifications to Services of Engineer
- Modifications to Responsibilities of Owner
- Modifications to Payment to Engineer
- Modifications to Time(s) for rendering Services
- Modifications to other terms and conditions of the Agreement

3. Description of Modifications

Attachment 1, "Modifications" includes additional services related to the remaining design completion, permitting, bidding, construction and FEMA Certification submittal phases. Attachments include a table of detailed tasks and professional services fee estimates and detailed task descriptions.

**Owner and Engineer hereby agree to modify the above-referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this or previous Amendments remain in effect. The Effective Date of this Amendment is 9 July, 2015.**

OWNER:  
Papio-Missouri River NRD

ENGINEER:  
FYRA Engineering

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By: John Winkler

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By: Michael K. Sotak, P.E.

Title: General Manager

Title: Owner/Principal Engineer

Date Signed: \_\_\_\_\_

Date Signed: \_\_\_\_\_

**Modifications**

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1. Engineer shall perform the following Additional Services:

**See attached professional services task list and fee estimate and task descriptions.**

2. The Scope of Services currently authorized to be performed by Engineer in accordance with the Agreement and previous amendments, if any, is modified as follows:

**See attached professional services task list and fee estimate and task descriptions.**

3. The responsibilities of Owner are modified as follows:

**n/a**

4. For the Additional Services or the modifications to services set forth above, Owner shall pay Engineer the following additional or modified compensation:

**A total fee of \$1,835,586 as detailed on the professional services fee estimate.**

5. The schedule for rendering services is modified as follows:

**The project schedule is highly variable depending on the USACE review/approval process and available funding for the project. Generally, the current schedule being worked towards is:**

<b>Summer, 2015:</b>	<b>Completion of Final Plans, Submittal of Final USACE 408 Permit</b>
<b>Fall/Winter, 2015:</b>	<b>Coordination of 408 Permit Review, Preparation of WSF Application, bidding and construction of two maintenance projects.</b>
<b>Summer, 2016:</b>	<b>Begin year long construction of R-616-613 levee system improvements</b>
<b>Summer, 2017:</b>	<b>Begin year long construction of R-613 levee system improvements</b>
<b>Summer, 2018:</b>	<b>Prepare and submit FEMA Levee Certification package.</b>

6. Other portions of the Agreement (including previous amendments, if any) are modified as follows:

**n/a**



Subtotal Hours	58	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0
<b>Bid Phase Services - R-613</b>																			
Preparation of Bid Documents	16						20												\$4,340
Pre-Bid Meeting	8																		\$1,520
Contractor Coordination	16																		\$3,040
Attend Bid Letting	4																		\$760
Review Bids/Make Recommendation	8						4												\$1,780
Contract Execution	6																		\$1,140
Subtotal Hours	58	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	\$12,580
<b>Construction Phase Services - R-616-613</b>																			
Construction Kickoff Meeting	8	12																	\$3,140
Weekly Construction Administrative Services (52 weeks)	416	2080								500								\$21,000	\$453,340
Preparation of As-Builts		40				80													\$10,200
OMR&R Manual Documentation	60						60												\$15,300
Subtotal Hours	484	2132	0	0	0	80	60	0	0	500	0	0	0	0	0	0	0	0	\$481,980
<b>Construction Phase Services - R-613</b>																			
Construction Kickoff Meeting	8	12																	\$3,140
Weekly Construction Administrative Services (52 weeks)	416	2080								500								\$21,000	\$453,340
Preparation of As-Builts		40				80													\$10,200
OMR&R Manual Documentation	60						60												\$15,300
Subtotal Hours	484	2132	0	0	0	80	60	0	0	500	0	0	0	0	0	0	0	0	\$481,980
<b>Bid Phase Services - Maintenance Projects</b>																			
Preparation of Bid Documents	16						20												\$4,340
Pre-Bid Meeting	8																		\$1,520
Contractor Coordination	16																		\$3,040
Attend Bid Letting	4																		\$760
Review Bids/Make Recommendation	8						4												\$1,780
Contract Execution	6																		\$1,140
Subtotal Hours	58	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	\$12,580
<b>Construction Phase Services - Maintenance Projects</b>																			
Construction Kickoff Meeting	1	2			4														\$860
Weekly Construction Administrative Services (8 weeks)	40				320													\$2,400	\$42,000
Preparation of As-Builts	2				8														\$1,180
OMR&R Documentation	4	8																	\$1,840
Subtotal Hours	111	10	0	332	0	0	24	0	0	0	0	0	0	0	0	0	0	0	\$45,880
<b>Final FEMA Levee Certification Package</b>																			
Coordination with FEMA STARR Team	6	8	30				20											\$2,400	\$9,370
H&H Documentation for FEMA Submittal	8	8	30				20												\$7,350
Repackaging of 408 TMs into FEMA package	30	16	32				20												\$12,840
Subtotal Hours	44	32	92	0	0	0	60	0	0	0	0	0	0	0	0	0	0	0	\$29,560
<b>Total Hours</b>	<b>1691</b>	<b>5053</b>	<b>712</b>	<b>608</b>	<b>726</b>	<b>334</b>	<b>508</b>	<b>12</b>	<b>32</b>	<b>1060</b>	<b>120</b>	<b>360</b>	<b>180</b>	<b>720</b>	<b>495</b>	<b>86</b>	<b>258</b>		<b>\$1,835,586</b>