

MEMORANDUM

TO: Programs, Projects, and Operations Subcommittee

FROM: Lori Ann Laster, Stormwater Management Engineer

SUBJECT: WP-4 Contract Amendment with HDR, Inc.

DATE: May 5, 2022

In May 2017, the Board selected HDR Engineering, Inc. (HDR) for the preliminary design of West Papillion Regional Basin Number 4 (WP-4), Dam Site 19 (DS19), and Dam Site 12 (DS12) Projects. Preliminary design was completed in 2018. The contract was amended in May 2021 to add final design and construction administration services for the WP-4 project.

The proposed contract amendment includes revisions to the main dam design and the design report based on new dam safety requirements from NeDNR, additional grading design to balance the earthwork quantities to save haul away costs (estimated savings of \$450,000-\$600,000), additional trail connection design, and additional survey work required for land acquisition.

The proposed amendment, cost estimate and schedule are attached. HDR will provide the professional services on an hourly basis not to exceed the amount of \$51,346 bringing the total contract amount to \$3,598,954.

Management recommends that the Subcommittee recommend to the Board that the General Manager be authorized to execute Amendment #3 with HDR Engineering, Inc. for Professional Engineering Services for modifications to the Final Design of the WP4 Project in an amount not to exceed \$51,346, bringing the total contract amount to \$3,598,954 subject to changes deemed necessary by the General Manager and approval as to form by District Legal Counsel.



Basin WP-4 Preliminary Design

OVERALL SITE PLAN

0 125 250 500



This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plot.

Created By: T. Luebbert
Date: April 2018
Software: ArcMap10.4, Adobe Illustrator, Photoshop, InDesign
Project #: 160089.00

This is **EXHIBIT K**, consisting of 2 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated May 22, 2017.

AMENDMENT TO OWNER-ENGINEER AGREEMENT
Amendment No. 3

The Effective Date of this Amendment is: _____, 2022.

Background Data

Effective Date of Owner-Engineer Agreement: May 22, 2017

Owner: Papio-Missouri River Natural Resources District (P-MRNRD)

Engineer: HDR Engineering, Inc. (HDR)

Project: Preliminary Design of Dam Site 12, Dam Site 19, and Regional Detention Basin WP-4.

Nature of Amendment: [Check those that are applicable and delete those that are inapplicable.]

- ☒ Additional Services to be performed by Engineer
- ☒ Modifications to services of Engineer
- ☐ Modifications to responsibilities of Owner
- ☒ Modifications of payment to Engineer
- ☐ Modifications to time(s) for rendering services
- ☐ Modifications to other terms and conditions of the Agreement

Description of Modifications:

- a. Modify Article 7 – Definitions, 7.01.A.24 Maximum Amount. Remove “three million four hundred seventy-eight thousand six hundred thirty-six dollars (\$ 3,478,636).” and replace with “three million, five hundred ninety-eight thousand, nine hundred and fifty four dollars (\$3,598,954.00).”
- b. 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:
 - 1) Exhibit A, “Engineer’s Services”, shall be amended to include Exhibit A-3, Engineer’s Services for Amendment No. 3 and Attachment 1 to Exhibit A-3.
 - 2) Exhibit C, “Payments to Engineer for Services and Reimbursable Expenses” shall be amended to include Appendix 2 to Exhibit C-3.

Agreement Summary:

Original agreement amount: \$ 2,043,823
Dam Site 12 \$707,140
Dam Site 19 \$717,403
Basin WP-4 \$619,280

Net contract change for Amendment No. 1: \$ 1,434,813
WP-4 Phases II and III Services: \$ 1,498,745
WP-4 Credit for Remaining Phase I Services: -\$ 63,932

Amendment No. 2:
Phase II Services: \$ 68,972

Amendment No. 3:
Phase II Services: \$ 51,346

Adjusted Agreement amount: \$ 3,598,954

Change in time for services (days or date, as applicable): No Change.

The foregoing Agreement Summary is for reference only and does not alter the terms of the Agreement, including those set forth in Exhibits C, C-1, C-2 and C-3.

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.

OWNER:

Papio-Missouri River Natural Resources District

By: _____

Print

Name: John Winkler

Title: General Manager

Date Signed: _____

ENGINEER:

HDR Engineering, Inc.

By: _____

Print

Name: Matthew Tondl, P.E.

Title: Senior Vice President

Date Signed: _____

AMENDMENT NO. 3

Engineer's Services for Amendment No. 3

PART 1 – BASIC SERVICES

A1.03 Final Design Phase

**Papio-Missouri River Natural Resources District
Final Design and Construction Services for WP-4
Papillion Creek Watershed, Sarpy County, NE**



ENGINEERING PROPOSAL

BACKGROUND AND BASIS OF PROPOSAL

The purposes of Amendment No. 3 is to modify the existing Agreement in order to reflect changes in the scope on the evaluation of fill material for the dam embankment and the design of associated improvements to the WP-4 project.

A1.01 Final Design and Construction Phases

This Scope of Services is to document professional services to the P-MRNRD for a final design and construction of regional detention basin WP-4 (Project). The scope is divided into Phase II – Final Design and Phase III – Construction Management Services.

Amendment No. 3 addresses modifications to the following task series included in Phase II:

- Task Series 100 – Project Management
- Task Series 300 – Geotechnical Investigation and Design
- Task Series 400 – Main Dam Design
- Task Series 500 – General and Site Civil Design
- Task Series 700 – Water Sustainability Fund Application
- Task Series 1000 – Survey & ROW

The Team proposes to provide the following professional services within the originally estimated 11 months design period.

TASK SERIES 100 – PROJECT MANAGEMENT

Modify: **Task 110 Project Management.** Additional project management tasks related to oversight of additional design tasks and coordination between HDR and JEO.

TASK SERIES 300 – GEOTECHNICAL INVESTIGATION AND DESIGN

Modify: **Task 330.1 Final Main Dam Geotechnical Design and Analysis.** Review additional Auxiliary Spillway groundwater levels and review 2 additional monitoring wells. Check slope stability impacts due to fishery enhancements at Main Dam and North Water Quality Basin.

Add:

Task 390 NDNR Comment Response

- Update seepage analysis and finger drain sizing calculations.
- Review and perform additional differential settlement calculations.
- Provide drawing redlines documenting design revisions.
- Update and reissue final design geotechnical report.

TASK SERIES 400 – MAIN DAM DESIGN

Modify:

Task 420 Embankment and Spillway Design

Task 430 Structural Design

Task 440 Basis of Design Report

Task 460.2 Technical Specifications

Task 480 Quality Control

- Elements of the main dam required redesign due to DNR Dam Safety review comments. These changes were required due to updates to DNR Dam Safety procedures. This includes revising the Design Report and resubmitting the DNR Dam Safety package.

TASK SERIES 500 – GENERAL AND SITE CIVIL DESIGN

Modify:

Task 560 In-Lake Fisheries

560.2 In-Lake Design

- Multiple pool grading iterations were required to best match NGPC recommendations and overall site earthwork balance requirements. This enabled the site to become balanced for earthwork, eliminating an estimated 35,000 CY of excess soil haul-off.
- Addition of wooden fishing pier to design.

Modify:

Task 570 Recreation and Amenities Design

570.1 Recreational Trail.

- Design new trail alignment to connect the western end to Schram Road, as requested by City of Gretna.

Modify:

Task 575 Seeding and ROW Fencing

575.2 ROW Fence Design

- Add additional gates for landowner access at easement locations.

575.3 Landscaping

- Add tree plantings along fence between Kindbeiter parcel and access area.

Modify:

Task 585 Technical Specifications. Include additional specifications for the tree planting, wooden fisher pier, and incorporation of NGPC funding requirements.

TASK SERIES 700 – WATER SUSTAINABILITY FUND APPLICATION

Modify:

Task 710 Coordination Meetings. Additional coordination meeting with FYRA.

TASK SERIES 1000 – SURVEY & ROW

Modify:

Task 1030 Acquisition and ROW

- Revise project property boundary at western end of North Water Quality basin to a straight alignment.
- Create legal description for landowner access easement over the North Water Quality Basin.
- Create legal description for landowner access easement from Schram Road at the western project property boundary.
- Stake project property boundary for new trail alignment to connect the western edge to Schram Road, as requested by City of Gretna.
- Stake project Property Boundary for landowner negotiations and spring planting limits.

JEO CONSULTING GROUP INC - ESTIMATED HOURS/COSTS
PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT
Amendment #3
FEE ESTIMATE - May 2022

JEO Consulting Group Inc. Estimated Hours/Costs									Est. Total Cost
TASKS	Project Manager	Sr. PE and QC	PE	EIT	CAD/GIS	Surveyor	Admin/ Clerical	Total Hours	Totals
TASK SERIES 100 DESIGN/BIDDING PROJECT MANAGEMENT									
Task 110	Project Management (+2 Months)	8						8	\$1,680
Estimated Task Hours Subtotal		8	0	0	0	0	0	8	
Estimated Task Cost Subtotal		\$1,600	\$0	\$0	\$0	\$0	\$0	\$1,600	\$1,680
TASK SERIES 400 MAIN DAM DESIGN									
Task 420	Embankment and Spillways Design	8		4	30			42	\$6,550
Task 430	Structural Design		2	4	4			10	\$1,540
Task 440	Basis of Design Report	8		8				16	\$2,720
Task 450	Progress Contract Document Preparation								
Subtask 450.2	Technical Specifications	4		8				12	\$1,880
Task 460	Quality Control		1					1	\$220
Estimated Task Hours Subtotal		20	3	0	24	34	0	81	
Estimated Task Cost Subtotal		\$4,000	\$630	\$0	\$2,880	\$4,590	\$0	\$12,100	\$12,910
TASK SERIES 500 GENERAL AND SITE CIVIL DESIGN									
Task 560	In-Lake Fisheries								
Subtask 560.2	In-Lake Design			16	60			76	\$10,780
Task 570	Recreation and Amenities Design								
Subtask 570.1	Recreational Trail			8	24			32	\$4,520
Task 575	Seeding and ROW Fencing								
Subtask 575.2	ROW Fence				2			2	\$290
Subtask 575.3	Tree Plan			3	4			7	\$970
Task 585	Technical Specifications	2		4				6	\$940
Task 595	Quality Control		2					2	\$440
Estimated Task Hours Subtotal		2	2	0	31	90	0	125	
Estimated Task Cost Subtotal		\$420	\$440	\$0	\$4,030	\$13,050	\$0	\$17,940	\$17,940
TASK SERIES 700 WATER SUSTAINABILITY FUND APPLICATION									
Task 710	Coordination Meetings	2		2				4	\$680
Estimated Task Hours Subtotal		2	0	0	2	0	0	4	
Estimated Task Cost Subtotal		\$400	\$0	\$0	\$240	\$0	\$0	\$640	\$680
TASK SERIES 1000 SURVEY AND RIGHT-OF-WAY									
Task 1030	Acquisition and ROW	2			2	36		40	\$4,670
Estimated Task Hours Subtotal		2	0	0	0	2	36	40	
Estimated Task Cost Subtotal		\$420	\$0	\$0	\$0	\$290	\$3,960	\$0	\$4,670
TOTAL HOURS		34	5	0	55	126	36	254	
TOTAL COST (ROUNDED)		\$ 6,840	\$ 1,070	\$ -	\$ 7,150	\$ 17,930	\$ 3,960	\$ -	\$ 37,880

Total Amendment #3 \$37,880

MODIFIED VERSION of

May 2022

Attachment 1 to Exhibit A-3 – Proposed Scope of Services for Amendment No. 3

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Fee Schedule

APPENDIX 2 PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT PHASE II: FINAL DESIGN AND PHASE III: CONSTRUCTION CONTRACT ADMINISTRATION OF WP-4 FEE ESTIMATE - AMENDMENT NO. 3 - MAY 2022																	
HDR Engineering, Inc. Estimated Hours/Costs														Subconsultants			Est. Total Cost
TASKS	Project Manager	Specialist	Principal Staff	Senior Staff	Technical Staff	Tech Support	Admin/ Clerical	Total Hours & Labor Cost	Printing	Travel	Misc.	Total Expenses	Totals	JEO	Thiele Geotech	Total Sub-Consult.	
TASK SERIES 100 DESIGN/BIDDING PROJECT MANAGEMENT																	
Task 110	Project Management (1 months)	2			12		1	15	\$50						\$1,680		\$1,680
Estimated Task Hours Subtotal		2	0	0	12	0	1	15									
Estimated Task Cost Subtotal		\$544	\$0	\$0	\$2,736	\$0	\$0	\$100	\$3,380	\$50	\$0	\$0	\$0	\$0	\$1,680	\$0	\$1,680
\$5,060																	
TASK SERIES 300 GEOTECHNICAL INVESTIGATION AND DESIGN																	
Task 330	Geotechnical Design and Analysis																
Subtask 330.1	Final Main Dam Geotechnical Design and Analysis				4	12		16								\$0	\$0
Task 390	NDNR Comment Response				8	32		40								\$0	\$0
Estimated Task Hours Subtotal		0	0	0	12	44	0	56									
Estimated Task Cost Subtotal		\$0	\$0	\$0	\$2,736	\$6,160	\$0	\$0	\$8,896	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,896
TASK SERIES 400 MAIN DAM DESIGN																	
Task 420	Embankment and Spillways Design														\$6,550		\$6,550
Task 430	Structural Design														\$1,540		\$1,540
Task 440	Basis of Design Report														\$2,720		\$2,720
Task 450	Progress Contract Document Preparation																
Subtask 450.2	Technical Specifications														\$1,880		\$1,880
Task 460	Quality Control														\$220		\$220
Estimated Task Hours Subtotal		0	0	0	0	0	0	0									
Estimated Task Cost Subtotal		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,910	\$0	\$12,910
\$12,910																	
TASK SERIES 500 GENERAL AND SITE CIVIL DESIGN																	
Task 520	Schram Road																
Subtask 520.1	Roadway Design															\$0	\$0
Task 530	Utilities and Sanitary Sewer Improvements																
Subtask 530.2	New Schram Lift Station															\$0	\$0
Subtask 530.3	Covington Lift Station Upgrades & Force Main Modifications															\$0	\$0
Task 560	In-Lake Fisheries																
Subtask 560.2	In-Lake Design														\$10,780		\$10,780
Task 570	Recreation and Amenities Design																
Subtask 570.1	Recreational Trail														\$4,520		\$4,520
Task 575	Seeding and ROW Fencing																
Subtask 575.2	ROW Fence														\$290		\$290
Subtask 575.3	Tree Plan				1										\$970		\$970
Task 585	Technical Specifications				4										\$940		\$940
Task 595	Quality Control														\$440		\$440
Estimated Task Hours Subtotal		0	0	0	5	0	0	5									
Estimated Task Cost Subtotal		\$0	\$0	\$0	\$1,140	\$0	\$0	\$1,140	\$0	\$0	\$0	\$0	\$0	\$0	\$17,940	\$0	\$17,940
\$19,080																	
TASK SERIES 700 WATER SUSTAINABILITY FUND APPLICATION																	
Task 710	Coordination Meetings														\$680		\$680
Estimated Task Hours Subtotal		0	0	0	0	0	0	0									
Estimated Task Cost Subtotal		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$680	\$0	\$680
\$680																	
TASK SERIES 1000 SURVEY AND RIGHT-OF-WAY																	
Task 1030	Acquisition and ROW														\$4,670		\$4,670
Estimated Task Hours Subtotal		0	0	0	0	0	0	0									
Estimated Task Cost Subtotal		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,670	\$0	\$4,670
TOTAL HOURS		2	0	0	29	44	0	76									
TOTAL COST (ROUNDED)		\$ 544	\$ -	\$ -	\$ 6,612	\$ 6,160	\$ -	\$ 100	\$ 13,416	\$ 50	\$ -	\$ -	\$ 50	\$ 13,466	\$ 37,880	\$ -	\$ 37,880
\$51,346																	