

## Memorandum

**To:** Programs, Projects, and Operations Subcommittee  
**From:** Lori Ann Laster, Stormwater Management Engineer  
**Date:** April 2, 2015  
**Re:** Papio Dam Site 15A Amendments 3 and 4 to HDR Professional Services Contract

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In October 2009, the Board approved a contract with HDR Engineering, Inc. to provide professional services for the planning, permitting, design and construction of Papio Dam Site 15A. The work was planned to be completed in three phases. Phase 1 (original contract) provided the feasibility and preliminary design of Papio Dam Site 15A and was amended to include additional work on the 404 permit (Amendment 1) in February of 2011. Phase 2 (Amendment 2) was approved in August 2012 and consisted of final design, permitting and bidding services. Phase 3 services would involve construction administration.

HDR and the staff are proposing two amendments to the current professional services contract. The first, Amendment 3, involves a change in scope of work items in Phase 2. The second, Amendment 4, incorporates the final Phase 3 construction services into the contract. The scope of work and the fee estimates for both amendments to the contract are attached.

One of the items in the Phase 2 scope of work was the development of a community-based watershed management plan. The development of the plan would make the project and other projects in the watershed contributing to the planned reservoir eligible for funding through the EPA 319 program. Due to community disinterest in developing a plan, it was put on hold. This effort will now be incorporated in the District-wide 319 Water Quality Management Plan.

The unused funds for the 319 planning process (\$52,693) were used to cover additional services provided by HDR during the Phase 2 contract. The Phase 2 tasks were originally planned to be completed by August 2013, however due to land rights and permitting complications the final design and bidding were not completed until April 1, 2015 which added to overall project management costs. Additional costs were also incurred to finalize the fisheries improvement plans and grant application to Nebraska Game and Parks Commission, and redesign of recreational features in order to avoid wetland impacts. Amendment 3 incorporates these modifications to the Phase 2 effort for no additional fee, thus a no-cost contract amendment.

Proposed Amendment 4 adds the Phase 3 construction administration services to the contract. The tasks included in Phase 3 are Project Management, Completion of Final Design and Permitting, Construction Contract Administration, and development of the Operation and Maintenance Manual and Emergency Operation Plan. The proposed hourly not to exceed fee for these services is \$1,713,111.

Phase 1 of the contract, as amended, totaled \$722,879. Phase 2, as amended, totals \$1,274,762. Phase 3 services are estimated at \$1,713,111. This brings the proposed total not to exceed contract amount to \$3,710,752. The contract scope of work and fee estimates for both amendments are attached.

**Management recommends that the Subcommittee recommend to the Board that the General Manager be authorized to execute the proposed Amendments 3 and 4 to the Professional Services Contract with HDR Engineering, Inc. for the Papio Dam Site 15A Project, bringing the total not to exceed contract amount to \$3,710,752, subject to changes deemed necessary by the General Manager and approval as to form by District legal counsel.**



Sent Electronically on April 1, 2015

April 1, 2015

John Winkler  
General Manager  
Papio-Missouri River Natural Resources District  
8901 S. 154th Street  
Omaha, NE 68138-3621

RE: Dam Site 15A Design Services  
Agreement for Professional Services  
Amendment No. 3

Dear John:

Enclosed is Amendment No. 3 that outlines modified professional services performed in connection with the development of the design of Dam Site 15A. The amended agreement reallocates funds from a deleted task to cover additional design and project time through the end of March 2015. The amended agreement is not to exceed the original Agreement (dated January 14, 2010) in the amount of \$1,274,762. The purpose of Amendment No. 3 is to reallocate funds to accommodate the desires of the P-MRNRD.

Please print two copies of the Agreement, sign both copies, retain one copy for your records and return the other signed copy for our files.

If you have any questions, please contact me at 926-7110 at your convenience.

Very truly yours,  
HDR ENGINEERING, INC.

A handwritten signature in black ink, appearing to read 'John Engel'.

John Engel, P.E.  
Project Manager

Enclosure

This is **EXHIBIT K**, consisting of 2 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated January 14, 2010.

**AMENDMENT TO OWNER-ENGINEER AGREEMENT  
Amendment No. 3**

**1. Background Data:**

- a. Effective Date of Owner-Engineer Agreement: January 14, 2010
- b. Owner: Papio-Missouri River Natural Resources District (P-MRNRD)
- c. Engineer: HDR Engineering, Inc. (HDR)
- d. Project: Dam Site 15A and Associated Improvements

**2. Description of Modifications:**

- a. 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 A1, "Engineer's Services for Amendment No. 3"
  - 2) Exhibit C, "Payments to Engineer for Services and Reimbursable Expenses", Appendix 1, shall be amended to include Attachment C1, "Engineer's Fee Estimate". This amendment does not change the previously authorized amount.
- b. The schedule for rendering services is September 1, 2013 to April 1, 2015.

**3. Agreement Summary (Reference only)**

- a. Original Agreement amount: \$ 620,300
- b. Amendment No. 1: \$ 102,579
- c. Amendment No. 2: \$ 1,274,762
- d. Amendment No. 3 (No Cost Change) \$ 0
- d. Adjusted Agreement amount: \$ 1,274,762

The foregoing Agreement Summary is for reference only and does not alter the terms of the Agreement, including those set forth in Exhibit C.

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 \_\_\_\_\_.

OWNER:

ENGINEER:

Papio-Missouri River Natural Resources District

HDR Engineering, Inc.

By: \_\_\_\_\_

Print

name: John Winkler

Title: General Manager

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

By: \_\_\_\_\_

Print

name: Matthew Tondl, P.E.

Title: Senior Vice President

Date Signed: April 1, 2015

**Exhibit K – Amendment to Owner-Engineer Agreement.**

**EJCDC® E-500, Agreement Between Owner and Engineer for Professional Services.**

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**Page 2**

This is **EXHIBIT A1**, consisting of 3 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated January 14, 2010.

## **Engineer's Services**

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### **PART 1 – BASIC SERVICES**

#### **Amendment No. 3 Scope of Work**

##### **BACKGROUND AND BASIS OF PROPOSAL**

The purpose of Amendment No. 3 is to modify the existing Agreement and eliminate Task Series 300 Community based Watershed Plan Development and reallocate said fee to project management, other design task series where additional work was completed. Additional project management, boat access and fisheries enhancements, and recreational features.

##### **SCOPE OF SERVICES**

The basic objectives of this Project are:

- Prepare final design documents and provide bidding assistance

Dam Site 15A design was originally segmented into the following task series:

- Task Series 100 – Project Management
- Task Series 200 – Permitting
- Task Series 300 – Community Based Watershed Plan Development
- Task Series 400 – Basis of Design Report
- Task Series 500 – General and Site Civil Design
- Task Series 600 – Geotechnical Design
- Task Series 700 – Structural Design
- Task Series 800 – Main Dam Design
- Task Series 900 – Water Quality Basin Design
- Task Series 1000 – Sanitary Sewer Design
- Task Series 1100 – Ida Street Bridge and Roadway Design
- Task Series 1200 – Boat Access and Fisheries Enhancements
- Task Series 1300 – Recreational Features
- Task Series 1400 – Non-Technical Specifications (Front End Documents)
- Task Series 1500 – 60% Design ITR and Submittal
- Task Series 1600 – Pre-Final Design ITR and Submittal
- Task Series 1700 – Survey and Right of Way
- Task Series 1800 – Bidding Services

Amendment No. 3 addresses the modified services necessary to prepare the final design of Dam Site 15A and its associated improvements. The tasks described below are modified to their respective task series.

#### **TASK SERIES 100 – PROJECT MANAGEMENT**

Modify: **Task 100 Project Management.** The professional services for Phase II was to be conducted over an anticipated 12-month project period or until August 21, 2013. Amendment No. 3 extends the contract 19 months to April 1, 2015. Changes in schedule due to land acquisition, permitting, and design have resulted in an extension of the project.

#### **TASK SERIES 300 – COMMUNITY BASED WATERSHED PLAN DEVELOPMENT**

Delete: Delete Task Series 300, expect for Subtask 340.2.2 Sediment Loading. During the design of Dam Site 15A, P-MRNRD decided to create a community-based watershed plan for the entire Papillion Creek Watershed; thereby, eliminating the need for an individual community-based watershed plan for Dam Site 15A. As part of the design for the Main Dam, sediment loading was completed for approximately \$5,000 of effort.

#### **TASK SERIES 1200 – BOAT ACCESS AND FISHERIES ENHANCEMENTS**

Modify: **Task 1210 Project Coordination. Subtask 1210.1 Coordination with NGPC.** The draft grant application was modified to reflect changes to the location and type of fishery enhancements.

**Task 1240 Final Final Design. Subtask 1240.1 Final Design** HDR worked closely with NGPC staff on modifying the type, size, and location of the fishery enhancement based on lessons learned from the WP-5 project. Additional details were designed, edits were made to specifications, and cost estimates modified.

#### **TASK SERIES 1300 – RECREATIONAL FEATURES**

Modify: **Task 1300 Trail System and Basic Access Area Features.** As a result to the contract schedule extension beyond the October 14, 2013 date, Vireo, as a sub-consultant to HDR, experienced unanticipated work stoppage and restarting. The bidding date continued to slip as delays in the property acquisition process.

The masterplan developed during preliminary design, noted there would be no sidewalk or trail along Ida Street and no trail access from Ida Street to the recreational trail encircling the lake. Vireo and HDR coordinated several iterations of trail access alignments up to Ida Street to cross the bridge and connect with the loop trail on both sides of the lake.

Modify: **Task 1310 35% Design of Community Park Area #26(CP26)**. Redesigns of CP26 and associated trail alignments were required to avoid delineated wetlands after the layout was initially approved, and property acquisition changes that shifted the centerline of the entry driveway thereby affecting the entire park layout. Shifting the driveway required redesign of the parking lot and the parking lot's relationship to the park elements to facilitate ADA accessibility and appropriate room for drainage swales. There were two shifts of the driveway after the second/revised CP26 layout approval.

### Fee Summary

Task Series	Amount
100 – Project Management	\$11,152
300 – Community Based Watershed Plan Development	-\$52,693
1200 – Boat Access and Fisheries Enhancements	\$18,629
1300 – Recreational Features	\$22,912
Net Change	\$0

### Schedule

This schedule extends the project to April 1, 2015.



**ATTACHMENT C1  
PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT  
FINAL DESIGN OF DAMSITE 15A - AMENDMENT NO. 3  
FEE ESTIMATE - APRIL 1, 2015**

TASKS	HDR Engineering, Inc. Estimated Hours/Costs								Expenses					HDR Totals	Sub-Consultant Estimated Costs					Est. Total Cost
	Project Manager	Specialist	Senior Staff	MH-Level	Junior	Tech Support	Clerical	Total Hours	Total Labor Cost	Tech Fee	Printing	Travel	Misc.		Total Expenses [1]	BAE	Vireo	Thiele Guehr	R. Donovan	
TASK SERIES 100 PROJECT MANAGEMENT																				
Task 100 Project Management	24		27					24	\$10,500	\$232	\$75	\$200	\$149	\$1,156					\$0	\$11,163
Estimated Task Hours Subtotal	24		27					24												
Estimated Task Cost Subtotal	\$4,500	\$0	\$4,100	\$0	\$0	\$0	\$0	\$12,700	\$10,500	\$232	\$75	\$200	\$149	\$1,156	\$0	\$0	\$0	\$0	\$0	\$11,744
TASK SERIES 300 COMMUNITY BASED WATERSHED PLAN DEVELOPMENT																				
Task 310 Coordination Meetings	0		0					0	\$1,040	\$0				\$1,040					\$0	\$1,040
Task 320 Watershed Committee																				
Subtask 320.1 Committee Meetings	0		0					0	\$190	\$4				\$194					\$0	\$194
Subtask 320.2 Citizen Watershed Committee Communication and Meetings	0		10	10				0	\$7,360	\$163	\$100	\$50		\$7,673					\$0	\$7,673
Subtask 320.3 Technical Advisory Team and Meetings	0		10	10				0	\$7,360	\$163	\$100	\$50		\$7,673					\$0	\$7,673
Task 330 Alternative Strategies Development	0		12	12	12	0	0	0	\$8,780	\$200	\$800			\$1,080					\$0	\$2,960
Task 340 Watershed Evaluation																				
Subtask 340.1 Resource Inventory	0		0	12			20	0	\$4,240	\$124				\$4,364					\$0	\$4,364
Subtask 340.2 Water Quality Evaluation																				
Subtask 340.2.1 Riverine Hydrologic Budget	0		0	0				0	\$2,470	\$63				\$2,533					\$0	\$2,533
Subtask 340.2.2 Sediment Loading	0		0	0				0	\$2,470	\$63				\$2,533					\$0	\$2,533
Subtask 340.2.3 Nutrient Loading	0		0	0		0		0	\$2,470	\$70				\$2,540					\$0	\$2,540
Subtask 340.2.4 Reservoir Response Modeling	0		0	0				0	\$2,470	\$63				\$2,533					\$0	\$2,533
Subtask 340.2.5 Reservoir Water Quality Evaluation	0		0	0		12		0	\$2,490	\$78				\$2,568					\$0	\$2,568
Subtask 340.3 Alternative BMP Evaluation	0		0	0		0		0	\$2,470	\$63				\$2,533					\$0	\$2,533
Task 350 Watershed Management Plan																				
Subtask 350.1 Draft Community Based Watershed Management Plan	0		0	0	0	0	0	0	\$5,620	\$124	\$300			\$6,044					\$0	\$6,044
Subtask 350.2 Final Community Based Watershed Management Plan	0		0	0	0	0	0	0	\$2,620	\$55	\$500			\$3,175					\$0	\$3,175
Estimated Task Hours Subtotal	24	0	49	24	48	20	0	24	\$48,270	\$1,173	\$1,000	\$1,000	\$0	\$51,443	\$0	\$0	\$0	\$0	\$0	\$51,443
Estimated Task Cost Subtotal	\$4,500	\$0	\$13,100	\$19,200	\$6,400	\$12,000	\$0	\$48,270	\$48,270	\$1,173	\$1,000	\$1,000	\$0	\$51,443	\$0	\$0	\$0	\$0	\$0	\$51,443
TASK 1200 BOAT ACCESS AND FISHERIES ENHANCEMENTS																				
Task 1210 Project Coordination	2		10	10				2	\$5,900	\$120				\$6,020					\$0	\$6,020
Subtask 1210.1 Coordination with LG/HC	2		10	10				2	\$5,900	\$120				\$6,020					\$0	\$6,020
Task 1240 Final Final Design	2		20	20		10	0	2	\$12,300	\$300				\$12,600					\$0	\$12,600
Subtask 1240.1 Final Design	2		20	20		10	0	2	\$12,300	\$300				\$12,600					\$0	\$12,600
Estimated Task Hours Subtotal	4	0	30	30	0	10	0	4	\$18,200	\$420		\$0	\$0	\$18,620					\$0	\$18,620
Estimated Task Cost Subtotal	\$750	\$0	\$4,800	\$6,800	\$0	\$1,000	\$0	\$12,300	\$18,200	\$420		\$0	\$0	\$20,420					\$0	\$20,420
TASK 1300 RECREATIONAL FEATURES																				
Task 1310 TRAIL SYSTEM AND ACCESS AREA RECREATIONAL FEATURES																				
Subtask 1310.2 Trail Design	2		12	40			12	65	\$10,000	\$244				\$10,244					\$4,000	\$14,244
Task 1320 75% Design of Community Park Area #26																				
Subtask 1320.1 Preliminary Design	2		0	12	48	0	20	0	\$2,420	\$67	\$100			\$2,587					\$2,000	\$4,587
Estimated Task Hours Subtotal	4	0	12	48	0	20	0	65	\$12,420	\$311	\$100	\$0	\$0	\$12,831	\$0	\$0	\$0	\$0	\$2,000	\$22,661
Estimated Task Cost Subtotal	\$750	\$0	\$2,880	\$7,440	\$0	\$2,000	\$0	\$12,420	\$12,420	\$311	\$100	\$0	\$0	\$13,231	\$0	\$0	\$0	\$0	\$2,000	\$22,661
TOTAL COST (ROUNDED)	\$1,000	\$0	\$10,000	\$23,200	\$6,400	\$12,000	\$12,000	\$12,420	\$48,270	\$1,173	\$1,000	\$1,000	\$0	\$51,443	\$0	\$0	\$0	\$0	\$2,000	\$57,143

[1] Includes administrative fee for drawings (except title, fee \$0)

[1] Includes administrative fee for expenses (except tech. fee) @

10%



Sent Electronically on April 1, 2015

April 1, 2015

John Winkler  
General Manager  
Papio-Missouri River Natural Resources District  
8901 S. 154th Street  
Omaha, NE 68138-3621

RE: Dam Site 15A  
Phase III - Construction Administration Services Amendment No. 4

Dear John:

HDR Engineering, Inc. is pleased to submit the attached Amendment No. 4 to our Agreement to provide Phase III construction administration services on the Dam Site 15A project. The amended agreement is not to exceed the original Agreement (dated January 14, 2010) in the amount of \$1,713,111.

Please print two copies of the Agreement, sign both copies, retain one copy for your records and return the other signed copy for our files. Our receipt of your signed acceptance will constitute our Notice to Proceed.

We look forward to continue working with you on this very important project and continuing our working relationship with the P-MRNRD. If you have any questions, please contact me at 402-399-1078 at your convenience.

Very truly yours,  
HDR ENGINEERING, INC.

A handwritten signature in cursive script that reads 'Laurie Carrette Zook'.

Laurie Carrette Zook, P.E.  
Project Manager

Enclosures

This is **EXHIBIT K**, consisting of 2 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated January 14, 2010.

**AMENDMENT TO OWNER-ENGINEER AGREEMENT  
Amendment No. 4**

1. *Background Data:*

- a. Effective Date of Owner-Engineer Agreement: January 14, 2010
- b. Owner: Papio-Missouri River Natural Resources District (P-MRNRD)
- c. Engineer: HDR Engineering, Inc. (HDR)
- d. Project: Dam Site 15A and Associated Improvements

2. *Description of Modifications:*

- a. 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 A4, "Engineer's Services for Amendment No. 4" and Enclosure A, Subconsultants Proposals.
  - 2) Exhibit C, "Payments to Engineer for Services and Reimbursable Expenses", Appendix 1, shall be amended to include Attachment C4, "Engineer's Fee Estimate".
  - 3) Include Exhibit D, Duties, Responsibilities and Limitations of Authority of Resident Project Representative.
  - 4) Include Exhibit E, Notice of Acceptability of Work.
- b. For the Phase III services set forth above, Owner shall pay Engineer the following additional compensation:
  - 1) An amount equal to Engineer's Direct Labor Costs times a factor of 3.15 for the services of Engineer's employees engaged on the Project, plus Reimbursable Expenses, provided however, and notwithstanding anything to the contrary contained in this Agreement, the total amount of money due to ENGINEER for such services and for Reimbursable Expenses and Engineer's

Consultant's charges shall not exceed the amount of \$1,713,111 under this Amendment for Phase III services.

c. The schedule for rendering services is April 1, 2015 to May 1, 2017.

3. *Agreement Summary (Reference only)*

a. Original Agreement amount:	\$ 620,300
b. Amendment No. 1	\$ 102,579
c. Amendment No. 2	\$ 1,274,762
d. Amendment No. 3 (No Cost Change)	\$ 0
e. This Amendment No. 4 amount	<u>\$ 1,713,111</u>
d. Adjusted Agreement amount:	\$ 3,710,752

The foregoing Agreement Summary is for reference only and does not alter the terms of the Agreement, including those set forth in Exhibit C.

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 \_\_\_\_\_.

OWNER:

ENGINEER:

Papio-Missouri River Natural Resources District

HDR Engineering, Inc.

By: \_\_\_\_\_

By: 

Print

Print

name: John Winkler

name: Matthew Tondl, P.E.

Title: General Manager

Title: Senior Vice President

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

Date Signed: April 1, 2015

This is **EXHIBIT A**, consisting of 19 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated January 14, 2010.

## **Engineer's Services**

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### **AMENDMENT NO. 4**

#### **PART 1 – BASIC SERVICES**

##### **A1.05 Construction Phase**

- A. Upon successful completion of the Bidding and Negotiating Phase, and upon written authorization from Owner, Engineer shall:
1. *General Administration of Construction Contract:* Consult with Owner and act as Owner's representative as provided in the Construction Contract. The extent and limitations of the duties, responsibilities, and authority of Engineer shall be as assigned in EJCDC® C-700, Standard General Conditions of the Construction Contract (2013 Edition), prepared by the Engineers Joint Contract Documents Committee, or other construction general conditions specified in this Agreement. If Owner, or Owner and Contractor, modify the duties, responsibilities, and authority of Engineer in the Construction Contract, or modify other terms of the Construction Contract having a direct bearing on Engineer, then Owner shall compensate Engineer for any related increases in the cost to provide Construction Phase services. Engineer shall not be required to furnish or perform services contrary to Engineer's responsibilities as a licensed professional. All of Owner's instructions to Contractor will be issued through Engineer, which shall have authority to act on behalf of Owner in dealings with Contractor to the extent provided in this Agreement and the Construction Contract except as otherwise provided in writing.
  2. *Resident Project Representative (RPR):* Provide the services of an RPR at the Site to assist the Engineer and to provide more extensive observation of Contractor's work. Duties, responsibilities, and authority of the RPR are as set forth in Exhibit D. The furnishing of such RPR's services will not limit, extend, or modify Engineer's responsibilities or authority except as expressly set forth in Exhibit D.
  3. ~~*Not Used. Selection of Independent Testing Laboratory:* Assist Owner in the selection of an independent testing laboratory to perform the services identified in Exhibit B, Paragraph B2.01.~~
  4. *Pre-Construction Conference:* Participate in a pre-construction conference prior to commencement of Work at the Site.

5. *Electronic Transmittal Protocols:* If the Construction Contract Documents do not specify protocols for the transmittal of Project-related correspondence, documents, text, data, drawings, information, and graphics, in electronic media or digital format, either directly, or through access to a secure Project website, then together with Owner and Contractor jointly develop such protocols for transmittals between and among Owner, Contractor, and Engineer during the Construction Phase and Post-Construction Phase.
6. *Original Documents:* If requested by Owner to do so, maintain and safeguard during the Construction Phase at least one original printed record version of the Construction Contract Documents, including Drawings and Specifications signed and sealed by Engineer and other design professionals in accordance with applicable Laws and Regulations. Throughout the Construction Phase, make such original printed record version of the Construction Contract Documents available to Contractor and Owner for review.
7. *Schedules:* Receive, review, and determine the acceptability of any and all schedules that Contractor is required to submit to Engineer, including the Progress Schedule, Schedule of Submittals, and Schedule of Values.
8. *Baselines and Benchmarks:* As appropriate, establish baselines and benchmarks for locating the Work which in Engineer's judgment are necessary to enable Contractor to proceed.
9. *Visits to Site and Observation of Construction:* In connection with observations of Contractor's Work while it is in progress:
  - a. Make visits to the Site at intervals appropriate to the various stages of construction, as Engineer deems necessary, to observe as an experienced and qualified design professional the progress of Contractor's executed Work. Such visits and observations by Engineer, and the Resident Project Representative, if any, are not intended to be exhaustive or to extend to every aspect of the Work or to involve detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in this Agreement and the Construction Contract Documents, but rather are to be limited to spot checking, selective sampling, and similar methods of general observation of the Work based on Engineer's exercise of professional judgment, as assisted by the Resident Project Representative, if any. Based on information obtained during such visits and observations, Engineer will determine in general if the Work is proceeding in accordance with the Construction Contract Documents, and Engineer shall keep Owner informed of the progress of the Work.
  - b. The purpose of Engineer's visits to the Site, and representation by the Resident Project Representative, if any, at the Site, will be to enable Engineer to better carry out the duties and responsibilities assigned to and

undertaken by Engineer during the Construction Phase, and, in addition, by the exercise of Engineer's efforts as an experienced and qualified design professional, to provide for Owner a greater degree of confidence that the completed Work will conform in general to the Construction Contract Documents and that Contractor has implemented and maintained the integrity of the design concept of the completed Project as a functioning whole as indicated in the Construction Contract Documents. Engineer shall not, during such visits or as a result of such observations of the Work, supervise, direct, or have control over the Work, nor shall Engineer have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by any Constructor, for security or safety at the Site, for safety precautions and programs incident to any Constructor's work in progress, for the coordination of the Constructors' work or schedules, nor for any failure of any Constructor to comply with Laws and Regulations applicable to furnishing and performing of its work. Accordingly, Engineer neither guarantees the performance of any Constructor nor assumes responsibility for any Constructor's failure to furnish or perform the Work, or any portion of the Work, in accordance with the Construction Contract Documents.

10. *Defective Work:* Reject Work if, on the basis of Engineer's observations, Engineer believes that such Work is defective under the terms and standards set forth in the Construction Contract Documents. Provide recommendations to Owner regarding whether Contractor should correct such Work or remove and replace such Work, or whether Owner should consider accepting such Work as provided in the Construction Contract Documents. However, neither Engineer's authority to reject Work nor Engineer's decision to exercise or not exercise such authority shall give rise to a duty or responsibility of the Engineer to Contractors, Subcontractors, material and equipment suppliers, their agents or employees, or any other person(s) or entities performing any of the Work, including but not limited to any duty or responsibility for Contractors' or Subcontractors' safety precautions and programs incident to the Work.
11. *Compatibility with Design Concept:* If Engineer has express knowledge that a specific part of the Work that is not defective under the terms and standards set forth in the Construction Contract Documents is nonetheless not compatible with the design concept of the completed Project as a functioning whole, then inform Owner of such incompatibility, and provide recommendations for addressing such Work.
12. *Clarifications and Interpretations:* Accept from Contractor and Owner submittal of all matters in question concerning the requirements of the Construction Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Construction Contract Documents. With reasonable promptness, render a

written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Construction Contract Documents.

13. *Non-reviewable Matters:* If a submitted matter in question concerns the Engineer's performance of its duties and obligations, or terms and conditions of the Construction Contract Documents that do not involve (1) the performance or acceptability of the Work under the Construction Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer will not provide a decision or interpretation.
14. *Field Orders:* Subject to any limitations in the Construction Contract Documents, Engineer may prepare and issue Field Orders requiring minor changes in the Work.
15. *Change Proposals, Change Orders and Work Change Directives:* Recommend Change Proposals, Change Orders and Work Change Directives to Owner, as appropriate, and prepare Change Orders and Work Change Directives as required.
16. *Differing Site Conditions:* Respond to any notice from Contractor of differing site conditions, including conditions relating to underground facilities such as utilities, and hazardous environmental conditions. Promptly conduct reviews and prepare findings, conclusions, and recommendations for Owner's use.
17. *Shop Drawings, Samples, and Other Submittals:* Review and approve or take other appropriate action with respect to Shop Drawings, Samples, and other required Contractor submittals, but only for conformance with the information given in the Construction Contract Documents and compatibility with the design concept of the completed Project as a functioning whole as indicated by the Construction Contract Documents. Such reviews and approvals or other action will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions and programs incident thereto. Engineer shall meet any Contractor's submittal schedule that Engineer has accepted.
18. *Substitutes and "Or-equal":* Evaluate and determine the acceptability of substitute or "or-equal" materials and equipment proposed by Contractor, but subject to the provisions of Paragraph A2.02.A.2. of this Exhibit A.
19. *Inspections and Tests:*
  - a. Receive and review all certificates of inspections, tests, and approvals required by Laws and Regulations or the Construction Contract Documents. Engineer's review of such certificates will be for the purpose of determining that the results certified indicate compliance with the Construction Contract



Documents and will not constitute an independent evaluation that the content or procedures of such inspections, tests, or approvals comply with the requirements of the Construction Contract Documents. Engineer shall be entitled to rely on the results of such inspections and tests.

- b. As deemed reasonably necessary, request that Contractor uncover Work that is to be inspected, tested, or approved.
  - c. Pursuant to the terms of the Construction Contract, require special inspections or testing of the Work, whether or not the Work is fabricated, installed, or completed.
20. *Change Proposals and Claims:* (a) Review and respond to Change Proposals. Review each duly submitted Change Proposal from Contractor and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer will not resolve the Change Proposal. (b) Provide information or data to Owner regarding engineering or technical matters pertaining to Claims.
21. *Applications for Payment:* Based on Engineer's observations as an experienced and qualified design professional and on review of Applications for Payment and accompanying supporting documentation:
- a. Determine the amounts that Engineer recommends Contractor be paid. Recommend reductions in payment (set-offs) based on the provisions for set-offs stated in the Construction Contract. Such recommendations of payment will be in writing and will constitute Engineer's representation to Owner, based on such observations and review, that, to the best of Engineer's knowledge, information and belief, Contractor's Work has progressed to the point indicated, the Work is generally in accordance with the Construction Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Construction Contract Documents, and to any other qualifications stated in the recommendation), and the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work. In the case of unit price Work, Engineer's recommendations of payment will include final determinations of quantities and classifications of the Work (subject to any subsequent adjustments allowed by the Construction Contract Documents).

- b. By recommending payment, Engineer shall not thereby be deemed to have represented that observations made by Engineer to check the quality or quantity of Contractor's Work as it is performed and furnished have been exhaustive, extended to every aspect of Contractor's Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in this Agreement. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment including final payment will impose on Engineer responsibility to supervise, direct, or control the Work, or for the means, methods, techniques, sequences, or procedures of construction or safety precautions or programs incident thereto, or Contractor's compliance with Laws and Regulations applicable to Contractor's furnishing and performing the Work. It will also not impose responsibility on Engineer to make any examination to ascertain how or for what purposes Contractor has used the money paid to Contractor by Owner; to determine that title to any portion of the Work, including materials or equipment, has passed to Owner free and clear of any liens, claims, security interests, or encumbrances; or that there may not be other matters at issue between Owner and Contractor that might affect the amount that should be paid.
22. *Contractor's Completion Documents:* Receive from Contractor, review, and transmit to Owner maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance required by the Construction Contract Documents, certificates of inspection, tests and approvals, and Shop Drawings, Samples, and other data approved as provided under Paragraph A1.05.A.17. Receive from Contractor, review, and transmit to Owner the annotated record documents which are to be assembled by Contractor in accordance with the Construction Contract Documents to obtain final payment. The extent of Engineer's review of record documents shall be to check that Contractor has submitted all pages.
23. *Substantial Completion:* Promptly after notice from Contractor that Contractor considers the entire Work ready for its intended use, in company with Owner and Contractor, visit the Site to review the Work and determine the status of completion. Follow the procedures in the Construction Contract regarding the preliminary certificate of Substantial Completion, punch list of items to be completed, Owner's objections, notice to Contractor, and issuance of a final certificate of Substantial Completion. Assist Owner regarding any remaining engineering or technical matters affecting Owner's use or occupancy of the Work following Substantial Completion.
24. ~~Not Used. Other Tasks: Perform or provide the following other Construction Phase tasks or deliverables:~~

25. *Final Notice of Acceptability of the Work:* Conduct a final visit to the Project to determine if the Work is complete and acceptable so that Engineer may recommend, in writing, final payment to Contractor. Accompanying the recommendation for final payment, Engineer shall also provide a notice to Owner and Contractor in the form attached hereto as Exhibit E ("Notice of Acceptability of Work") that the Work is acceptable (subject to the provisions of the Notice and Paragraph A1.05.A.21.b) to the best of Engineer's knowledge, information, and belief, and based on the extent of the services provided by Engineer under this Agreement.
26. *Standards for Certain Construction-Phase Decisions:* Engineer will render decisions regarding the requirements of the Construction Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth in the Construction Contract for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.
- B. *Duration of Construction Phase:* The Construction Phase will commence with the execution of the first Construction Contract for the Project or any part thereof and will terminate upon written recommendation by Engineer for final payment to Contractors. If the Project involves more than one prime contract as indicated in Paragraph A1.03.D, then Construction Phase services may be rendered at different times in respect to the separate contracts. Subject to the provisions of Article 3, Engineer shall be entitled to an equitable increase in compensation if Construction Phase services (including Resident Project Representative services, if any) are required after the original date for completion and readiness for final payment of Contractor as set forth in the Construction Contract.

## **PART 2 – ADDITIONAL SERVICES**

### **A2.01 Additional Services Requiring Owner's Written Authorization**

- A. If authorized in writing by Owner, Engineer shall provide Additional Services of the types listed below. These services are not included as part of Basic Services and will be paid for by Owner as indicated in Exhibit C.
1. Preparation of applications and supporting documents (in addition to those furnished under Basic Services) for private or governmental grants, loans, or advances in connection with the Project; preparation or review of environmental assessments and impact statements; review and evaluation of the effects on the design requirements for the Project of any such statements and documents prepared by others; and assistance in obtaining approvals of authorities having jurisdiction over the anticipated environmental impact of the Project.

2. Services to make measured drawings of existing conditions or facilities, to conduct tests or investigations of existing conditions or facilities, or to verify the accuracy of drawings or other information furnished by Owner or others.
3. Services resulting from significant changes in the scope, extent, or character of the portions of the Project designed or specified by Engineer, or the Project's design requirements, including, but not limited to, changes in size, complexity, Owner's schedule, character of construction, or method of financing; and revising previously accepted studies, reports, Drawings, Specifications, or Construction Contract Documents when such revisions are required by changes in Laws and Regulations enacted subsequent to the Effective Date or are due to any other causes beyond Engineer's control.
4. Services resulting from Owner's request to evaluate additional Study and Report Phase alternative solutions beyond those agreed to in Paragraph A1.01.A.1 and 2.
5. Services required as a result of Owner's providing incomplete or incorrect Project information to Engineer.
6. Providing renderings or models for Owner's use, including services in support of building information modeling or civil integrated management.
7. Undertaking investigations and studies including, but not limited to:
  - a. detailed consideration of operations, maintenance, and overhead expenses;
  - b. the preparation of feasibility studies (such as those that include projections of output capacity, utility project rates, project market demand, or project revenues) and cash flow analyses, provided that such services are based on the engineering and technical aspects of the Project, and do not include rendering advice regarding municipal financial products or the issuance of municipal securities;
  - c. preparation of appraisals;
  - d. evaluating processes available for licensing, and assisting Owner in obtaining process licensing;
  - e. detailed quantity surveys of materials, equipment, and labor; and
  - f. audits or inventories required in connection with construction performed or furnished by Owner.
8. Furnishing services of Consultants for other than Basic Services.
9. Providing data or services of the types described in Exhibit B, when Owner retains Engineer to provide such data or services instead of Owner furnishing the same.

10. Providing the following services:
  - a. Services to arrange for performance of construction services for Owner by contractors other than the principal prime Contractor, and administering Owner's contract for such services.
11. Services during out-of-town travel required of Engineer, other than for visits to the Site or Owner's office as required in Basic Services ~~(Part 1 of Exhibit A)~~.
12. Preparing for, coordinating with, participating in and responding to structured independent review processes, including, but not limited to, construction management, cost estimating, project peer review, value engineering, and constructibility review requested by Owner; and performing or furnishing services required to revise studies, reports, Drawings, Specifications, or other documents as a result of such review processes.
13. Preparing additional bidding-related documents (or requests for proposals or other construction procurement documents) or Construction Contract Documents for alternate bids or cost estimates requested by Owner for the Work or a portion thereof.
14. Assistance in connection with bid protests, rebidding, or renegotiating contracts for construction, materials, equipment, or services. ~~except when such assistance is required to complete services required by Paragraph 5.02.A and Exhibit F.~~
15. Preparing conformed Construction Contract Documents that incorporate and integrate the content of all Addenda and any amendments negotiated by Owner and Contractor.
16. Providing Construction Phase services beyond the original date for completion and readiness for final payment of Contractor, but only if such services increase the total quantity of services to be performed in the Construction Phase, rather than merely shifting performance of such services to a later date.
- ~~17. Preparing Record Drawings, and furnishing such Record Drawings to Owner.~~
18. Supplementing Record Drawings with information regarding the completed Project, Site, and immediately adjacent areas obtained from field observations, Owner, utility companies, and other reliable sources.
- ~~19. Conducting surveys, investigations, and field measurements to verify the accuracy of Record Drawing content obtained from Contractor, Owner, utility companies, and other sources; revise and supplement Record Drawings as needed.~~
- ~~20. Preparation of operation, maintenance, and staffing manuals.~~

21. Protracted or extensive assistance in refining and adjusting of Project equipment and systems (such as initial startup, testing, and balancing).
22. Assistance to Owner in training Owner's staff to operate and maintain Project equipment and systems.
23. Assistance to Owner in developing systems and procedures for (a) control of the operation and maintenance of Project equipment and systems, and (b) related recordkeeping.
24. Preparing to serve or serving as a consultant or witness for Owner in any litigation, arbitration, lien or bond claim, or other legal or administrative proceeding involving the Project.
25. Overtime work requiring higher than regular rates.
26. Providing construction surveys and staking to enable Contractor to perform its work other than as required under Paragraph A1.05.A.8; any type of property surveys or related engineering services needed for the transfer of interests in real property; and providing other special field surveys.
27. Providing more extensive services required to enable Engineer to issue notices or certifications requested by Owner.
28. Extensive services required during any correction period, or with respect to monitoring Contractor's compliance with warranties and guarantees called for in the Construction Contract (except as agreed to under Basic Services).
29. Other additional services performed or furnished by Engineer not otherwise provided for in this Agreement.

#### *A2.02 Additional Services Not Requiring Owner's Written Authorization*

- B. Engineer shall advise Owner that Engineer is commencing to perform or furnish the Additional Services of the types listed below. For such Additional Services, Engineer need not request or obtain specific advance written authorization from Owner. Engineer shall cease performing or furnishing such Additional Services upon receipt of written notice to cease from Owner.
  1. Services in connection with Work Change Directives, Change Proposals and Change Orders to reflect changes requested by Owner.
  2. Services in making revisions to Drawings and Specifications occasioned by the acceptance of substitute materials or equipment other than "or equal" items; services after the award of the Construction Contract in evaluating and determining the acceptability of a proposed "or equal" or substitution which is found to be inappropriate for the Project; evaluation and determination of an

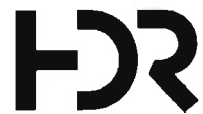
excessive number of proposed "or equals" or substitutions, whether proposed before or after award of the Construction Contract.

3. Services resulting from significant delays, changes, or price increases occurring as a direct or indirect result of materials, equipment, or energy shortages.
4. Additional or extended services arising from (a) the presence at the Site of any Constituent of Concern or items of historical or cultural significance, (b) emergencies or acts of God endangering the Work, (c) damage to the Work by fire or other causes during construction, (d) a significant amount of defective, neglected, or delayed Work, (e) acceleration of the progress schedule involving services beyond normal working hours, or (f) default by Contractor.
5. Services (other than Basic Services during the Post-Construction Phase) in connection with any partial utilization of the Work by Owner prior to Substantial Completion.
6. Evaluating unreasonable or frivolous requests for interpretation or information (RFIs), Change Proposals, or other demands from Contractor or others in connection with the Work, or an excessive number of RFIs, Change Proposals, or demands.
7. Reviewing a Shop Drawing or other Contractor submittal more than three times, as a result of repeated inadequate submissions by Contractor.
8. While at the Site, compliance by Engineer and its staff with those terms of Owner's or Contractor's safety program provided to Engineer subsequent to the Effective Date that exceed those normally required of engineering personnel by federal, State, or local safety authorities for similar construction sites.

**Dam Site 15A  
for Papio-Missouri River Natural Resources District  
Douglas County, NE**



**ENGINEERING PROPOSAL – PHASE III CONSTRUCTION  
CONTRACT ADMINISTRATION SERVICES**



**BACKGROUND AND BASIS OF PROPOSAL**

HDR Engineering, Inc. was selected by the P-MRNRD to provide planning, permitting, preliminary and final design and construction contract administration services for Dam Site 15A. Dam Site 15A is a proposed regional detention basin to be located on the North Branch West Papillion Creek located in Douglas County and is located near 168<sup>th</sup> and Fort Streets in Omaha, Nebraska.

To more concisely respond to project requirements, a phased approach was proposed. In Phase I, a feasibility study and preliminary design were conducted to define the details of the project. Phase II

generally including preparing final design documents and providing bidding assistance, while Phase III consists of construction contract administration services.

This Scope of Services is to document Phase III professional services to the Papio-Missouri River NRD (P-MRNRD) for the construction administration services for Dam Site 15A (Project).

### **SCOPE OF SERVICES – PHASE III – CONSTRUCTION CONTRACT ADMINISTRATION SERVICES**

HDR will act as P-MRNRDs representative regarding construction contract administration of the Project elements. P-MRNRD will be kept informed of contractual matters and will make the final decision on matters that have a cost or schedule implication. HDR will furnish a full-time resident project representative (RPR), and other field staff in observing performance of Contractor's work. Duties, responsibilities, and authority of the RPR are as set forth in Exhibit D of the Agreement.

HDR will perform construction administration services. The Phase III scope of work is segmented into five (5) task series:

- Task Series 100 – Project Management
- Task Series 200 – Completion of Phase II Services
- Task Series 300 – Meetings and Conferences
- Task Series 400 – Construction Contract Administration Services
- Task Series 500 – Operation and Maintenance Manual and Emergency Action Plan

The HDR Team proposes to provide the following professional services for Phase III over an anticipated 24-month project period from the time of contract authorization.

#### **TASK SERIES 100 PROJECT MANAGEMENT**

**Task Objectives:** Confirm that Project elements are being completed.

**HDR Activities:** **Task 110 Project Management.** Includes Project scheduling, administration and coordination activities on the Project. Internal HDR Project Team meetings will be conducted to discuss tasks, provide Project updates and review deliverables. Prepare monthly invoices and progress report.

**Task 120 Coordination Meetings.** Coordination meetings will be conducted with P-MRNRD during the Project. An agenda will be prepared prior to the meeting and meeting notes prepared after the meeting.

- 120.1 **P-MRNRD Coordination Meetings.** Meet with P-MRNRD personnel to review and discuss Project progress. Assume a total of two (2) meetings.
- 120.2 **Elected Official Presentation.** Conduct one (1) presentation to either Douglas County or P-MRNRD Board/Subcommittee to provide an overview of the construction. A PowerPoint presentation will be prepared. One preparation meeting for the presentation is assumed.

**Task Deliverables:**

- Monthly invoices and progress report
- Meeting agenda and notes
- PowerPoint Presentation

**Key Understandings:**



- The duration of the project is 24 months.
- Meetings will be held at the offices of the P-MRNRD and attended by 2 HDR professionals.
- Two (2) coordination meetings are assumed.
- One (1) Elected official presentation is assumed.

#### **TASK SERIES 200 COMPLETION OF PHASE II SERVICES**

**Task Objectives:** Design services to complete Phase II Services

**HDR Activities:** **Task 210 Permitting.** Additional Section 404 and NDNR permitting.

- 210.1 **Section 404 Permit.** The Section 404 permit application was submitted to USACE on September 21, 2012. HDR submitted an amendment to the permit on September 30, 2014 to reflect design changes and mitigation which impacted the stream and wetlands. The amendment include updating the stream assessment calculations, documentation for a Vollmer access road over a regulated stream, revised stream mitigation plan and an updated wetland and tree planning plan for specific areas around the perimeter of the pool.
- 210.1 **NDNR Permit Preparation.** Comments from NDNR on the pre-final drawings requested a map showing the return flow path to the valley floor for maximum auxiliary spillway flows during the freeboard hydrograph (FBH) storm. This required 2-D modeling to verify the flow path. Five (5) different scenarios were modeled in addition to the selected fuseplug design. The NRCS SITES model was evaluated for three alternatives. A WinDam model was developed for the fuseplug. Design drawings and technical specifications were revised to incorporate the fuseplug.

**Task 220 Task 550 Final Design.** Additional coordination and design was needed to address 1) access to the Vollmer and Kuker properties and the 2) impact of alignment/profile changes of HWS Cleveland. Three access roads alignments were evaluated for the Vollmer property. Relocation of the Kuker driveway required several iterations. The proposed Lakeview Pointe subdivision would share the HWS Cleveland access. HDR met with the developer's engineer and evaluated the impact of HWS's alignment and grade on the Dam Site 15A project.

**Task 230 Task 960 Water Quality Basin Final Design.** During the design process, the water quality basin outlet works changed from a labyrinth weir, to a drop inlet with twin box culverts, to a single pipe. Design details were developed for each outlet works configuration

**Task 240 Task 1750 Legal Description and Documentation.** P-MRNRD was required to purchase 23 parcels and negotiate easements with representatives of Douglas County and City of Omaha. Additional coordination with Douglas County required 3D modelling and adjustment to the dedicated right-of-way limits for Fort, State, Ida, 180<sup>th</sup>, and 186<sup>th</sup> Streets.

## TASK SERIES 300 – MEETINGS AND CONFERENCES

**Task Objectives:** Attend and conduct periodic meetings and conferences.

**HDR Activities:** **Task 310 Pre-Construction Conference.** HDR will assist P-MRNRD with organizing and holding a pre-construction meeting. Representatives from HDR, P-MRNRD, Contractor, and other interested parties will attend this meeting. The main purposes of this meeting will be to establish lines of communication, discuss areas of responsibility, establish operational constraints, and to discuss and clarify items. An agenda will be prepared by HDR prior to the conference and conference notes will be prepared by HDR after the conference.

**Task 320 Interim Conferences.** Interim conferences may be scheduled to discuss construction issues at any time. These conferences may be schedule outside the normal bi-weekly construction conferences. It is anticipated most issues will be addressed informally on the project site. It is assumed that 2 interim conferences will be required. Agenda will be prepared by the HDR Team prior to the conference and conference notes will be prepared by the HDR Team after the conference.

**Task 330 Substantial Completion Inspection.** HDR to conduct a substantial completion inspection and submit a list of observed items requiring completion or correction.

**Task 340 Final Inspection.** HDR to conduct a final inspection and submit a list of observed items requiring completion or correction. The Final Inspection will be attended by the HDR, RPR, and P-MRNRD. Any deficiencies noted shall be addressed by HDR. P-MRNRD will be notified when the deficiencies have been corrected. After items on list have been completed or corrected, HDR to review final payment application.

**Task 350 Letter of Certification.** HDR will prepare a certification letter signed by the Engineer stating the work is in compliance with the plans and specifications in the construction contract for submittal with the Nebraska Department of Natural Resources – Dam Safety Division.

**Task Deliverables:**

- Pre-construction conference agenda and notes
- Interim conferences agenda and conference notes
- Substantial Completion Inspection and Final Inspection Report
- Certification Letter

**Key Understandings:**

- Conferences will be held at the Engineer's field office established by the Contractor.
- Conference notes will be prepared by HDR after the conference. P-MRNRD will provide comments on notes.

## TASK SERIES 400 CONSTRUCTION CONTRACT ADMINISTRATIVE SERVICES

**Task Objectives:** To provide construction contract administration services.

**HDR Activities:** **Task 410 Records and Reports.** Document construction activities.

- 410.1 Field Book. Maintain field book as the official Construction Contract Document and readily accessible by P-MRNRD. HDR to maintain field book to record weather conditions; daily activities; decisions; and general observations.
- 410.2 Weekly Report Summaries. HDR will prepare a weekly report summarizing the daily activities.
- 410.3 Maintain Quantities. HDR will estimate and record daily quantities of installed items and keep cumulative quantities in a quantity book. These quantities will be reviewed and reconciled with the construction contractor. In addition, the adequacy and quantity of materials delivered, but not installed will be verified and noted.
- 410.4 Payment Application Verification. Contractor will prepare payment application and HDR to verify quantities. HDR will review and recommend payment. The schedule of values will be used to estimate the percentage of work completed for lump sum items.
- 410.5 Maintain QC Test Results. Contractor documentation of all testing will be provided to the P-MRNRD. This includes, but is not limited to, testing and sampling of earth fill, concrete, and drainfill.
- 410.6 Maintain Photographic Documentation. A photographic documentation record of construction activities will be maintained using a digital camera. A Word document will be created and a tabular format used to describe each photograph.
- 410.7 Project Filing. HDR to maintain files of correspondence, shop drawings and samples, change orders and other project related documents.
- 410.8 As-Built Drawings. HDR to prepare electronic as-built drawings corrected to reflect observed field conditions and changes made during the construction period. The Contractor will be responsible for marking up a set of drawings as changes are identified. The HDR Team will be responsible for coordinating with and reviewing the construction contractor's as-built drawings.

### **Task 420 Construction Contract Support.**

- 420.1 Contract Document Clarification. HDR to provide clarifications and interpretations of Contract Documents requested by Contractor in the form of requests for information (RFI).
- 420.2 Survey Control and Verification Checks. E&A Consulting Group, as a subconsultant to HDR, will provide survey control and verification checks for the Project. See Enclosure A for description of survey work.
- 420.3 Material QA Testing. Thiele Geotech, Inc. as a subconsultant to HDR, will provide conduct Quality Assurance (QA) material testing for earthwork, drainfill, and concrete. HDR will conduct QA field moisture and density testing. See Enclosure A for description of material testing work.

- 420.4 Material Shop Drawing Review. HDR to review shop drawings and samples submitted by Contractor for compliance with contract documents.
- 420.5 Submittal Reviews. HDR will review and recommend approval of required submittals meeting contract document requirement including but not limited to Water Control and Diversion Plan Temporary Waterway Crossing, Material Certifications, Concrete Mix Design, Reinforced Concrete Pipe Shop Drawings, 3-edge bearing strength and shop drawings for substitutions of "or equivalent" items.
- 420.6 Construction Meetings. HDR to facilitate periodic construction conferences with the Construction Contactor to discuss schedule, planned activities and other related work. It is assumed that the Engineer will attend the bi-weekly construction meetings (40 conferences are assumed) at the same time that Engineer visits the site for observations. Agenda will be prepared by the HDR prior to the conference and conference notes will be prepared by the HDR.
- 420.7 Change Order Negotiations. HDR to assist in negotiating change orders.
- 420.8 Technical Field Observation. Engineer and other technical personnel also will make periodic visits to the site to observe the construction.
- 420.9 Instrumentation Data Interpretation. HDR to read and review the Main Dam and Ida Street instrumentation data and coordinate with Contractor.
- 420.10 Design Modifications. HDR will prepare drawings, details, cost estimates and specifications needed to prepare construction contract modifications due to changes in site conditions. Design changes are to be made upon direction of P-MRNRD to HDR.

**Task 430 Permit Compliance Support.**

- 430.1 SWPPP Compliance Monitoring. Conduct minimum of weekly site visit to the site and prepare report on BMP performance. Submit on PWCP website.
- 430.2 USACE Section 404 Compliance Baseline Monitoring and Notifications. HDR to prepare notifications to USACE for the commencement of work and for the completion of work.
  - 430.2.2 Baseline Downstream Channel Monitoring. Identify the 3 points downstream of the dam to evaluate potential erosion impacts in the channel and provide survey prior and after construction.
  - 430.2.3 Wetland Mitigation. Document paulustrine and forested wetland construction. Provide documentation to USACE on completion.
  - 430.2.4 Stream Mitigation. Provide documentation to USACE on completion.
  - 430.2.5 Stream Functional Assessment. Provide documentation to USACE on completion.
- 430.3 Migratory Bird Survey. Provide bird survey for tree removal within the nesting season for migratory birds (April 1 to July 15). Conduct an initial survey and then every 3 to 4 days until the Contractor clears the trees. It is assumed that the an initial survey and 13 additional visits.
- 430.4 NDNR Approval to Store Water. HDR to provide documentation to NDNR for administration of State Permit to Store Water.

430.5 NDEQ Wastewater Works Construction Completion. HDR to documentation to NDEQ completion of the sanitary sewer work.

**Task Deliverables:**

- Field Book and Quantity Book
- Shop drawing review submittals
- Weekly construction reports
- Material testing reports
- Contractor Test Results
- Photographic Documentation
- Change order documentation
- As-Built drawings (1 hard copy and electronic copy)
- Construction Certification Form
- Design modifications
- SWPPP reports
- USACE reporting
- NDNR approval to store water documentation
- NDEQ wastewater works construction completion card
- Construction conference agenda and notes

**Key Understandings:**

- Anticipated duration of construction is 18 months from approximately May 1, 2015 to to December 1, 2016.
- E&A Consulting Group, as a subconsultant to HDR, will provide survey control and verification checks during and after construction. Contractor will be responsible for cost of reestablishing survey control or rechecking nonconforming elevations.
- Thiele Geotech, as a subconsultant to HDR, will conduct QA material testing by conducting random testing on earthwork (Proctor and Atterberg), concrete (air, temperature, slump, and casting and breaking cylinders), and drainfill material. Thiele will conduct QC testing to verify concrete pavement thickness.
- Contractor will be responsible for construction survey and staking. Contractor will be responsible to survey final cross sections and other grading work for record drawings.
- Full-time resident project representative (RPR) will provide construction quality assurance for the Project. A minimum of 1 RPR will be on site at all times and additional RPR will be used when multiple activities are under construction. For estimating purposes, it is assumed that 1.5 RPRs will be needed for the duration of the Project. The level of construction observation effort included in this scope equates to 6,928 hours for the RPR commencing with start of Contractor's field activities and during the period when the Contractor is performing work requiring observation, as determined by HDR. A 55-hour per week for 83 weeks for 1.5 RPRs plus 2 weeks (80 hours) after project completion. Reasonable variations in work days and schedules are anticipated, but no protracted overtime, work stoppages or extended work schedules are assumed. At critical times, the Engineer and other technical personnel will be provided.
- HDR's RPR will not authorize any deviation from the Contract Documents.

- RPR will not exceed the limitations of ENGINEER's authority as set forth in the Agreement or the Contract Documents. RPR will not undertake any of the responsibilities of the Contractors, subcontractors, suppliers, or Contractor's superintendents.
- HDR will not supervise, direct or manage the Contractor's forces or Contractor's means and methods. HDR will not assume responsibility for health and safety of Contractor's personnel.
- The HDR Team will not assume responsibility for health and safety of contractor's personnel. If, while at the Site, Engineer or RPR observes what Engineer or RPR suspects to be an unsafe condition, Engineer or RPR will inform Contractor's Superintendent and P-MRNRD of such suspected unsafe condition, and request Contractor's safety representative respond to P-MRNRD with an assessment of the condition and, if appropriate, an explanation of safety measures and precautions to be implemented. Upon notification to the Contractor's Superintendent, Engineer or RPR will leave the site until the Contractor's safety representative has appropriately responded to the P-MRNRD. Engineer's or RPR's failure to recognize or discover an unsafe condition will not relieve Contractor of any responsibility Contractor has for job site safety for the Project, which shall remain Contractor's sole responsibility.
- P-MRNRD will make all decisions on contractual matters and will process and take appropriate action on performance and payment bonds approval, construction subcontractor's approval, Contractor pay requests, change orders, and other administrative matters.
- Photographic documentation will be provided in digital format only.
- Administrative activities for a total of 6 change orders are assumed.
- Design changes are limited to basic changes to the original design and limited to the hours shown in the proposal. Modifications due to change in site conditions or additional work will be conducted as Additional Services.
- HDR will not conduct any inspection or material testing at the pre-cast material plant, riprap quarry, or other off-site locations. Riprap and concrete materials to be supplied from an approved NDOR supplier.

#### **TASK SERIES 500 OPERATION AND MAINTENANCE MANUAL AND EMERGENCY ACTION PLAN**

An Operation and Maintenance (O&M) Manual containing information regarding the operation and maintenance of equipment will be prepared. In addition, instructions related to the emergency action plan will be prepared.

**Task Objectives:** To prepare documentation on equipment.

**HDR Activities:** **Task 510 Operation and Maintenance Manual.** HDR will prepare an O&M Manual documenting the equipment purchased, agreements, permitting, and other general O&M activities.

**Task 520 Emergency Action Plan.** HDR will update the emergency action plan created during the design phase. Edits will be made to incorporate current contact information and NDNR updates.

**Task Deliverables:**

- Operation and Maintenance Manual
- Emergency Action Plan

**Key Understandings:**

- Two (2) hard copies and an electronic copy of the O&M Manual will be provided.
- EAP plan will be provided electronically.

ENCLOSURE A

**Revised Material Testing Proposal  
Papio-Missouri River Natural Resources District  
Dam Site 15A Dam and Associated Improvements  
Douglas County, Nebraska  
March 31, 2015**

Thiele Geotech, Inc. is pleased to submit our revised proposal for material testing services for the Dam Site 15A Project. The following sections detail our proposed scope of services. A breakdown of estimated costs and listing of applicable unit rates is attached in Exhibit A and the contract terms are attached in Exhibit B.

**SCOPE OF SERVICES**

Material testing on this project will consist of the following services:

1. Installation and decommissioning of instrumentation
2. Test concrete materials and make cylinders
3. Core and measure concrete pavement
4. Appurtenant laboratory tests on soil, concrete, and aggregate materials
5. Engineering consultation, reports, and project management

Test procedures and requirements will be as set forth in the plans and specifications. The frequency and locations of tests will be in accordance with the contract documents or as directed by the Architect/Engineer or field representative. Testing will be conducted on an "on-call" basis.

**ESTIMATED COST & BILLING**

Testing services will be billed monthly at the unit rates listed in Exhibit A. Any tests not listed will be billed at our normal fee schedule rates in effect at the time of the test. Based on the number of tests in Exhibit A, the total cost for testing services is estimated at \$65,134. This cost estimate is intended as a not-to-exceed cost without prior written authorization.

**EXHIBITS**

Exhibit A - Cost Estimate

**THIELE GEOTECH, INC.**

By: 

Robert E. Matlock, P.E.

13478 Chandler Road

Omaha, Nebraska 68138-3716

402/556-2171 Fax 402/556-7831

T h i e l e   G e o t e c h   I n c



## ENCLOSURE A

Material Testing Proposal

March 31, 2015

Exhibit A

## REVISED COST ESTIMATE

Papio-Missouri River Natural Resources District Dam Site 15A &amp; Associated Improvements

Description	Estimated Quantity	Unit Rate	Estimated Cost
<b>Earthwork</b>			
Standard Proctor (ea.)	12.0	150.00	1,800.00
Atterberg Limits (/set)	12.0	75.00	900.00
Sieve Analysis of Aggregate (ea.)	2.0	70.00	140.00
Relative Density Test (ea.)	2.0	195.00	390.00
Compaction Test (ea.)	24.0	31.00	744.00
Trip Charge - Zone 1 (/trip)	20.0	55.00	1,100.00
<b>Concrete</b>			
Concrete Test Set (slump/air/temp/cast 4-4"x8" OR 3-6"x12" cyl)	25.0	74.00	1,850.00
Compressive Strength of Cylinder (ea.)	100.0	15.00	1,500.00
Trip Charge - Zone 1 (/trip)	38.0	55.00	2,090.00
Pavement Core (includes patch) (ea.)	10.0	64.00	640.00
Measured Length of Core (ea.)	10.0	8.00	80.00
Trip Charge - Zone 1 (/trip)	2.0	55.00	110.00
<b>Piezometers</b>			
Piezometer Installation (ea.)	7.0	1,200.00	8,400.00
Piezometer Extension Supplies (lump sum)	1.0	2,100.00	2,100.00
Piezometer Surface Completion (ea.)	3.0	550.00	1,650.00
Piezometer Decommissioning (ea.)	4.0	300.00	1,200.00
<b>Settlement Gages</b>			
Settlement Gauge Installation (ea.)	6.0	2,400.00	14,400.00
Settlement Gauge Extension Supplies (lump sum)	1.0	1,200.00	1,200.00
Settlement Gauge Surface Completion (ea.)	4.0	550.00	2,200.00
Settlement Gauge Decommissioning (ea.)	2.0	300.00	600.00
<b>Monitoring Wells</b>			
Toe Monitoring Well Installation (ea.)	3.0	1,300.00	3,900.00
Ridge Monitoring Well Installation and Extensions (ea.)	3.0	2,100.00	6,300.00
Monitoring Well Surface Completion (ea.)	6.0	550.00	3,300.00
Monitoring Well Decommissioning (ea.) <i>If Required</i>		300.00	-
<b>Miscellaneous</b>			
Senior Engineer (/hr.)	10.0	155.00	1,550.00
Project Engineer (/hr.)	10.0	107.00	1,070.00
		SubTotal	59,214.00
<b>Contingency</b>			
discretionary tests, retests, and other tests not listed		10%	5,920.00
		Total	65,134.00

**Other Services**

Any item or category not listed will be billed at our normal Fee Schedule rate in effect at the time of service.

T h i e l e G e o t e c h I n c



Engineering Answers

E & A CONSULTING GROUP, INC.

PLANNING • ENGINEERING • ENVIRONMENTAL & FIELD SERVICES

330 NORTH 117TH STREET  
OMAHA, NE 68154-2509

www.eacg.com

PHONE 402.895.4700  
FAX 402.895.3599

March 31, 2015

Laurie Carrette-Zook  
HDR

**RE: Dam Site 15a – Construction Staking**  
E&A Project Number #M2009.336.004

Dear Laurie,

Thank you for providing E & A Consulting Group, Inc. ("E&A") the opportunity to provide you a proposal for land surveying services. We understand the objectives of this project and are prepared to complete the tasks below. Our fees are based off conversations with you and our experience in this form of work.

- **Control** – Set three control points at six locations (main dam, auxiliary spillway, Ida Street, north and south access areas, water quality basin and embankment area) throughout the project. Points will be 5/8" X 24" rebar on same data as plans. For the Main Dam and Ida Street, said rebar will be set in concrete or on a permanent structure.
- **Easements** – Provide drawing and legal descriptions for sanitary sewer, mitigation of wetland areas, HWS Cleveland Blvd. Dedications and Verizon easement. Approximately 12 total.
- **Stake ROW** – Re-mark all property corners and set points on line to illustrate the new areas owned by the NRD. These stakes will also be used as a limits to farming.

#### Verification Surveys

- **Grading for Lake** – four trips to site to verify grading as per field inspector or HDR project manager.
- **Main Dam and auxiliary spillway** – verify and provide an as-built drawing of the entire structure including the inlet and outlet structures, top of dam elevation, crest elevation, etc.
- **Ida Street and Ida Street Bridge** – verify grading on Ida Street before paving. Check centerline every 50 foot and provide cross sections every 100 foot. Collect and deliver as-built information on bridge (abutment, piers, bearing seats, etc.)
- **Access areas (north and south)** – verify grading and paving horizontally and vertically. Provide as-built drawing
- **Sanitary Sewer** – verify sanitary sewer horizontally and vertically. Provide as-built drawing.
- **Water Quality Basin and Embankment** – verify and provide as built drawing of entire structure.

E&A Project #M2009.336.004

## ENCLOSURE A

- **Instrumental Survey, Piezometers (7), Settlement Plates (6), and Monitoring Wells (6).** – Survey at installation, after completion, Monitoring and closure. 10 total trips.
- **Verification of final construction** – assemble all of the above as built drawings. Add recreational trail and any other structure to create the final drawing.
- **On-Call Survey during construction** – six ½ day trips to aid field inspector on miscellaneous verifications.

Our services will be based off our hourly rates. We propose a not to exceed cost of **\$78,715.00**. If this proposal is acceptable, please sign both this proposal and the attached Terms & Conditions (see Appendix "A") as indicated and return one copy to E&A.

Again, thank you for the opportunity to present our proposal for professional land surveying services. We look forward to working with you to complete this project.

Sincerely,

E & A Consulting Group, Inc.



Jason Headley, RLS 604  
Project Manager

Enclosures:  
Appendix "A" – Terms & Conditions

I have received and read Appendix "A" and agree to all of the terms & conditions as outlined in Appendix "A" and in this proposal for professional services. By signing, this proposal for professional services becomes the agreement and is executed.

Date: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Name: \_\_\_\_\_  
Client: \_\_\_\_\_  
Address: \_\_\_\_\_  
City, State, ZIP: \_\_\_\_\_  
Phone: \_\_\_\_\_

E&A Project #M2009.336.004

**AMENDMENT 4 - ATTACHMENT C4  
PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT  
CONSTRUCTION CONTRACT ADMINISTRATION  
FEE ESTIMATE - APRIL 1, 2015**

TASKS	HDR Engineering, Inc. Estimated Hours/Costs										Expenses					HDR				Sub-Consultant Estimated Costs	Est. Total Cost
	Project Manager	Specialist	Senior Staff	Resource Specialist	Resource Support	Resource Project Rep.	Tech Support	Clerical	Total Hours	Total Labor Cost	Tech. Fee	Printing	Travel	Misc.	Total Expenses [1]	Totals	EEA	Thiele Geotech	R. Damsch	Total Sub-Consult.	
	\$ 265.10	\$ 227.80	\$ 208.10	\$ 143.10	\$ 124.30	\$ 85.80	\$ 22.80	\$ 88.00													
<b>TASK SERIES 100 PROJECT MANAGEMENT</b>																					
Task 110 Project Management	200		24	60				64	348	\$67,232	\$1,204	\$500		\$200	\$2,054	\$69,286					\$0
Subtask 110.1 Coordination Meetings	12			12				4	28	\$4,762	\$104			\$104	\$500	\$2,370					\$0
Subtask 110.2 Planning/Construction Meetings	8							8	12	\$2,051	\$44			\$17	\$63	\$2,275					\$0
Subtask 110.3 Biweekly Subcommittee Presentation	200		24	72	0	0	4	68	388												\$0
Estimated Task Hours Subtotal	220	0	24	72	0	0	4	68	388												\$0
Estimated Task Cost Subtotal	\$45,122	\$0	\$4,920	\$17,736	\$0	\$0	\$376	\$5,544		\$68,004	\$1,434	\$500	\$137	\$250	\$2,397	\$70,389	\$0	\$0	\$0	\$0	\$70,389
<b>TASK SERIES 200 COMPLETION OF PHASE 8 SERVICES</b>																					
Task 210 Task 200 Permitting																					
Subtask 210.1 Task 210 Section 404 Permit	8		20	40	40		20	4	132	\$19,831	\$488		\$60		\$555	\$20,584					\$0
Subtask 210.2 Task 210 NDNR Permit Preparation	4		32	160			16	4	216	\$38,562	\$873				\$390	\$40,435					\$0
Task 220 Task 200 Final Design			20	60	16		16		80	\$12,255	\$260				\$607	\$13,122					\$0
Task 230 Task 200 Water Quality Basin Design			16	60	16		8		100	\$15,557	\$370				\$436	\$16,363					\$0
Task 240 Task 1700 Survey and Right of Way			4	20			4	2	60	\$9,518	\$220				\$222	\$10,060	\$2,000			\$2,000	\$11,740
Estimated Task Hours Subtotal	12	0	82	370	72	0	44	10	428												\$0
Estimated Task Cost Subtotal	\$2,481	\$0	\$18,468	\$60,247	\$8,870	\$0	\$5,476	\$160		\$88,133	\$2,284	\$0	\$137	\$0	\$2,860	\$93,414	\$2,000	\$0	\$0	\$2,000	\$97,414
<b>TASK SERIES 300 MEETINGS AND CONFERENCES</b>																					
Task 310 Pre-Construction Conference	4		20	16			4	8	52	\$8,167	\$190		\$60		\$230	\$8,557					\$0
Task 320 Interim Conference			16	16			4	2	32	\$5,434	\$141				\$181	\$5,756					\$0
Task 330 Subcontractor Completion Inspections	8		32	8			2	8	60	\$9,641	\$165				\$165	\$9,806					\$0
Task 340 Final Inspection	2		12	8			2	2	24	\$4,340	\$89				\$133	\$4,562					\$0
Task 350 Letter of Certification	2						2	4	4	\$562	\$15				\$55	\$597					\$0
Estimated Task Hours Subtotal	16	0	80	40	0	4	4	16	168												\$0
Estimated Task Cost Subtotal	\$3,380	\$0	\$18,468	\$7,870	\$0	\$342	\$220	\$176		\$29,807	\$432	\$0	\$178	\$0	\$197	\$30,417	\$0	\$0	\$0	\$0	\$30,417
<b>TASK SERIES 400 CONSTRUCTION CONTRACT ADMINISTRATIVE SERVICES</b>																					
Task 410 Records and Reports																					
Subtask 410.1 Field Book						6000			6000	\$103,037	\$20,834		\$31,720	\$8,500	\$68,801	\$163,931					\$0
Subtask 410.2 Weekly Report Summaries (RPRs included in Subtask 410.1)			40	80					120	\$21,292	\$444				\$444	\$21,736					\$0
Subtask 410.3 Material Quantities (RPRs included in Subtask 410.1)			8	16					24	\$4,290	\$88				\$88	\$4,378					\$0
Subtask 410.4 Payment Application Verification (RPRs included in Subtask 410.1)			24	72					108	\$19,127	\$400				\$400	\$19,527					\$0
Subtask 410.5 Material QC Test Results (RPRs included in Subtask 410.1)			8	24					32	\$5,350	\$118				\$118	\$5,468					\$0
Subtask 410.6 Material Photographic Documentation (RPRs included in Subtask 410.1)				16					16	\$6,738	\$237				\$237	\$6,975					\$0
Subtask 410.7 Project Close (RPRs included in Subtask 410.1)				40					40	\$10,652	\$226				\$226	\$10,878					\$0
Subtask 410.8 As-Built Drawings			40	80		87	692		859	\$13,920	\$3,152	\$50			\$3,220	\$17,190					\$0
Task 420 Construction Contract Support		88	40	80					188	\$32,181	\$622				\$622	\$32,803				\$1,000	\$33,803
Subtask 420.1 Contract Document Clarification		16		40					56	\$13,510	\$355				\$355	\$13,865	\$18,715				\$18,715
Subtask 420.2 Survey Control and Verification Checks		16		40					56	\$12,888	\$287				\$287	\$13,175	\$65,134				\$65,134
Subtask 420.3 Material QA Testing		16	24	16			20		76	\$12,888	\$287				\$287	\$13,175					\$0
Subtask 420.4 Material Shop Drawing Review			160	120	180		48		508	\$81,007	\$1,692				\$1,692	\$82,699					\$0
Subtask 420.5 Subcontract Review			12	48	36		24		100	\$14,664	\$300				\$300	\$14,964					\$0
Subtask 420.6 Construction Meetings			160	160			40		360	\$12,352	\$1,332			\$800	\$2,132	\$14,484					\$0
Subtask 420.7 Change Order Negotiations		16	80	80			20		196	\$34,822	\$728				\$728	\$35,550					\$0
Subtask 420.8 Technical Field Observation		64	80	120	80		24		344	\$67,710	\$1,273			\$704	\$69,687					\$0	
Subtask 420.9 Instrumentation Data Interpretation		16			40		4		64	\$9,018	\$207				\$207	\$9,225					\$0
Subtask 420.10 Design Modifications		12	40	60			40		152	\$24,429	\$502				\$502	\$24,931					\$0
Task 430 Permit Compliance Support																					
Subtask 430.1 SWPPP Compliance Monitoring	8			40	800				244	\$101,638	\$2,253				\$2,253	\$103,891					\$0
Subtask 430.2 SWPPP Section 404 Baseline Monitoring and Inspections	4		16	24	16		80	8	128	\$14,409	\$474				\$474	\$14,883					\$0
Subtask 430.3 Migratory Bird Survey			4	60			80	8	132	\$14,850	\$488				\$488	\$15,338					\$0
Subtask 430.4 NDWR Approval to Store Water	2			16			16	2	36	\$4,873	\$131				\$131	\$5,004					\$0
Subtask 430.5 NDWR Waste Water Compliance	2			16			16	2	36	\$4,873	\$131				\$131	\$5,004					\$0
Estimated Task Hours Subtotal	48	104	748	1215	1024	8815	1016	174	11,402												\$0
Estimated Task Cost Subtotal	\$9,445	\$35,252	\$153,475	\$198,187	\$732,060	\$400,484	\$9,682	\$15,134		\$1,244,741	\$42,183	\$40	\$14,844	\$7,560	\$11,142	\$1,335,863	\$18,715	\$45,134	\$1,000	\$144,649	\$1,480,731
<b>TASK SERIES 500 - OPERATION AND MAINTENANCE MANUAL AND EMERGENCY ACTION PLAN</b>																					
Task 510 Operation and Maintenance Manual			20	100			40	20	180	\$75,838	\$568	\$500			\$1,068	\$77,406					\$0
Task 520 Emergency Action Plan			2				2	12	12	\$1,837	\$44				\$44	\$1,881					\$0
Estimated Task Hours Subtotal	0	0	22	100	0	0	40	32	192												\$0
Estimated Task Cost Subtotal	\$0	\$0	\$4,512	\$16,310	\$1,074	\$0	\$2,704	\$1,892		\$27,402	\$718	\$500	\$0	\$100	\$1,370	\$30,812	\$0	\$0	\$0	\$0	\$30,812
TOTAL COST	\$68,779	\$35,553	\$198,127	\$294,219	\$146,804	\$800,824	\$104,403	\$25,114		\$1,467,880	\$17,249	\$1,040	\$27,484	\$7,660	\$10,282	\$1,544,282	\$18,715	\$45,134	\$1,000	\$144,649	\$1,712,117

[1] Includes administrative fee for expenses beyond 10%.

This is **EXHIBIT D**, consisting of 5 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated January 14, 2010.

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**Duties, Responsibilities, and Limitations of Authority of Resident Project Representative**

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Article 1 of the Agreement is supplemented to include the following agreement of the parties:

**ARTICLE 1 - SERVICES OF ENGINEER**

**D1.01 Resident Project Representative**

- A. Engineer shall furnish a Resident Project Representative ("RPR") to assist Engineer in observing progress and quality of the Work. The RPR may provide full time representation or may provide representation to a lesser degree. RPR is Engineer's representative at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions.
- B. Through RPR's observations of the Work, including field checks of materials and installed equipment, Engineer shall endeavor to provide further protection for Owner against defects and deficiencies in the Work. However, Engineer shall not, as a result of such RPR observations of the Work, supervise, direct, or have control over the Work, nor shall Engineer (including the RPR) have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by any Constructor, for security or safety at the Site, for safety precautions and programs incident to the Work or any Constructor's work in progress, for the coordination of the Constructors' work or schedules, or for any failure of any Constructor to comply with Laws and Regulations applicable to the performing and furnishing of its work. The Engineer (including RPR) neither guarantees the performances of any Constructor nor assumes responsibility for any Constructor's failure to furnish and perform the Work, or any portion of the Work, in accordance with the Construction Contract Documents. In addition, the specific terms set forth in Exhibit A, Paragraph A1.05, of this Agreement are applicable.
- C. The duties and responsibilities of the RPR are as follows:
  - 1. *General:* RPR's dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. RPR's dealings with Subcontractors shall only be through or with the full knowledge and approval of Contractor. RPR shall generally communicate with Owner only with the knowledge of and under the direction of Engineer.
  - 2. *Schedules:* Review the progress schedule, schedule of Shop Drawing and Sample submittals, schedule of values, and other schedules prepared by Contractor and consult with Engineer concerning acceptability of such schedules.
  - 3. *Conferences and Meetings:* Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings (but not including Contractor's safety meetings), and as appropriate prepare and circulate copies of notes thereof.

4. *Safety Compliance:* Comply with Site safety programs, as they apply to RPR, and if required to do so by such safety programs, receive safety training specifically related to RPR's own personal safety while at the Site.
5. *Liaison:*
  - a. Serve as Engineer's liaison with Contractor. Working principally through Contractor's authorized representative or designee, assist in providing information regarding the provisions and intent of the Construction Contract Documents.
  - b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.
  - c. Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.
6. *Clarifications and Interpretations:* Receive from Contractor submittal of any matters in question concerning the requirements of the Construction Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Construction Contract Documents. Report to Engineer regarding such RFIs. Report to Engineer when clarifications and interpretations of the Construction Contract Documents are needed, whether as the result of a Contractor RFI or otherwise. Transmit Engineer's clarifications, interpretations, and decisions to Contractor. ,
7. *Shop Drawings and Samples:*
  - a. Record date of receipt of Samples and Contractor-approved Shop Drawings.
  - b. Receive Samples that are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.
  - c. Advise Engineer and Contractor of the commencement of any portion of the Work requiring a Shop Drawing or Sample submittal, if RPR believes that the submittal has not been received from Contractor, or has not been approved by Contractor or Engineer.
8. *Proposed Modifications:* Consider and evaluate Contractor's suggestions for modifications to the Drawings or Specifications, and report such suggestions, together with RPR's recommendations, if any, to Engineer. Transmit Engineer's response (if any) to such suggestions to Contractor.
9. *Review of Work; Defective Work:*
  - a. Report to Engineer whenever RPR believes that any part of the Work is defective under the terms and standards set forth in the Construction Contract Documents, and provide recommendations as to whether such Work should be corrected, removed and replaced, or accepted as provided in the Construction Contract Documents.

- b. Inform Engineer of any Work that RPR believes is not defective under the terms and standards set forth in the Construction Contract Documents, but is nonetheless not compatible with the design concept of the completed Project as a functioning whole, and provide recommendations to Engineer for addressing such Work. ; and
- c. Advise Engineer of that part of the Work that RPR believes should be uncovered for observation, or requires special testing, inspection, or approval.

10. *Inspections, Tests, and System Start-ups:*

- a. Consult with Engineer in advance of scheduled inspections, tests, and systems start-ups.
- b. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.
- c. Observe, record, and report to Engineer appropriate details relative to the test procedures and systems start-ups.
- d. Observe whether Contractor has arranged for inspections required by Laws and Regulations, including but not limited to those to be performed by public or other agencies having jurisdiction over the Work.
- e. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Work, record the results of these inspections, and report to Engineer.

11. *Records:*

- a. Maintain at the Site orderly files for correspondence, reports of job conferences, copies of Construction Contract Documents including all Change Proposals, Change Orders, Field Orders, Work Change Directives, Addenda, additional Drawings issued subsequent to the execution of the Construction Contract, RFIs, Engineer's clarifications and interpretations of the Construction Contract Documents, progress reports, approved Shop Drawing and Sample submittals, and other Project-related documents.
- b. Prepare a daily report or keep a diary or log book, recording Contractor's hours on the Site, Subcontractors present at the Site, weather conditions, data relative to questions of Change Proposals, Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, deliveries of equipment or materials, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer.
- c. Upon request from Owner to Engineer, photograph or video Work in progress or Site conditions.
- d. Record and maintain accurate, up-to-date lists of the names, addresses, fax numbers, e-mail addresses, websites, and telephone numbers (including mobile

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Exhibit D - Resident Project Representative.

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numbers) of all Contractors, Subcontractors, and major Suppliers of materials and equipment.

- e. Maintain records for use in preparing Project documentation.
- f. Upon completion of the Work, furnish original set of all RPR Project documentation to Engineer.

12. *Reports:*

- a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the progress schedule and schedule of Shop Drawing and Sample submittals.
- b. Draft and/or recommend to Engineer ~~proposed~~ Change Proposals, Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.
- c. Furnish to Engineer and Owner copies of all inspection, test, and system start-up reports.
- d. Immediately inform Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, possible force majeure or delay events, damage to property by fire or other causes, or the discovery of any potential differing site condition or Constituent of Concern.

13. *Payment Requests:* Review applications for payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the schedule of values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.

14. *Certificates, Operation and Maintenance Manuals:* During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Contract Documents to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.

15. *Completion:*

- a. Participate in Engineer's visits to the Site regarding Substantial Completion, assist in the determination of Substantial Completion, and prior to the issuance of a Certificate of Substantial Completion submit a punch list of observed items requiring completion or correction.
- b. Participate in Engineer's visit to the Site in the company of Owner and Contractor, to determine completion of the Work, and prepare a final punch list of items to be completed or corrected by Contractor.



- c. Observe whether all items on the final punch list have been completed or corrected, and make recommendations to Engineer concerning acceptance and issuance of the Notice of Acceptability of the Work (Exhibit E).

D. Resident Project Representative shall not:

1. Authorize any deviation from the Construction Contract Documents or substitution of materials or equipment (including "or-equal" items).
2. Exceed limitations of Engineer's authority as set forth in this Agreement.
3. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers, or any Constructor.
4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of the Work, by Contractor or any other Constructor.
5. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.
8. Authorize Owner to occupy the Project in whole or in part.

This is **EXHIBIT E**, consisting of 2 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated January 14, 2010.



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**NOTICE OF ACCEPTABILITY OF WORK**

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**PROJECT:**

**OWNER:**

**CONTRACTOR:**

**OWNER'S CONSTRUCTION CONTRACT IDENTIFICATION:**

**EFFECTIVE DATE OF THE CONSTRUCTION CONTRACT:**

**ENGINEER:**

**NOTICE DATE:**

---

To: \_\_\_\_\_  
Owner

And To: \_\_\_\_\_  
Contractor

From: \_\_\_\_\_  
Engineer

The Engineer hereby gives notice to the above Owner and Contractor that Engineer has recommended final payment of Contractor, and that the Work furnished and performed by Contractor under the above Construction Contract is acceptable, expressly subject to the provisions of the related Contract Documents, the Agreement between Owner and Engineer for Professional Services dated \_\_\_\_\_, and the following terms and conditions of this Notice:

## CONDITIONS OF NOTICE OF ACCEPTABILITY OF WORK

The Notice of Acceptability of Work ("Notice") is expressly made subject to the following terms and conditions to which all those who receive said Notice and rely thereon agree:

1. This Notice is given with the skill and care ordinarily used by members of the engineering profession practicing under similar conditions at the same time and in the same locality.
2. This Notice reflects and is an expression of the Engineer's professional opinion.
3. This Notice is given as to the best of Engineer's knowledge, information, and belief as of the Notice Date.
4. This Notice is based entirely on and expressly limited by the scope of services Engineer has been employed by Owner to perform or furnish during construction of the Project (including observation of the Contractor's work) under Engineer's Agreement with Owner, and applies only to facts that are within Engineer's knowledge or could reasonably have been ascertained by Engineer as a result of carrying out the responsibilities specifically assigned to Engineer under such Agreement.
5. This Notice is not a guarantee or warranty of Contractor's performance under the Construction Contract, an acceptance of Work that is not in accordance with the related Contract Documents, including but not limited to defective Work discovered after final inspection, nor an assumption of responsibility for any failure of Contractor to furnish and perform the Work thereunder in accordance with the Construction Contract Documents, or to otherwise comply with the Construction Contract Documents or the terms of any special guarantees specified therein.
6. This Notice does not relieve Contractor of any surviving obligations under the Construction Contract, and is subject to Owner's reservations of rights with respect to completion and final payment.

By: \_\_\_\_\_

Title: \_\_\_\_\_

Dated: \_\_\_\_\_