

MEMORANDUM

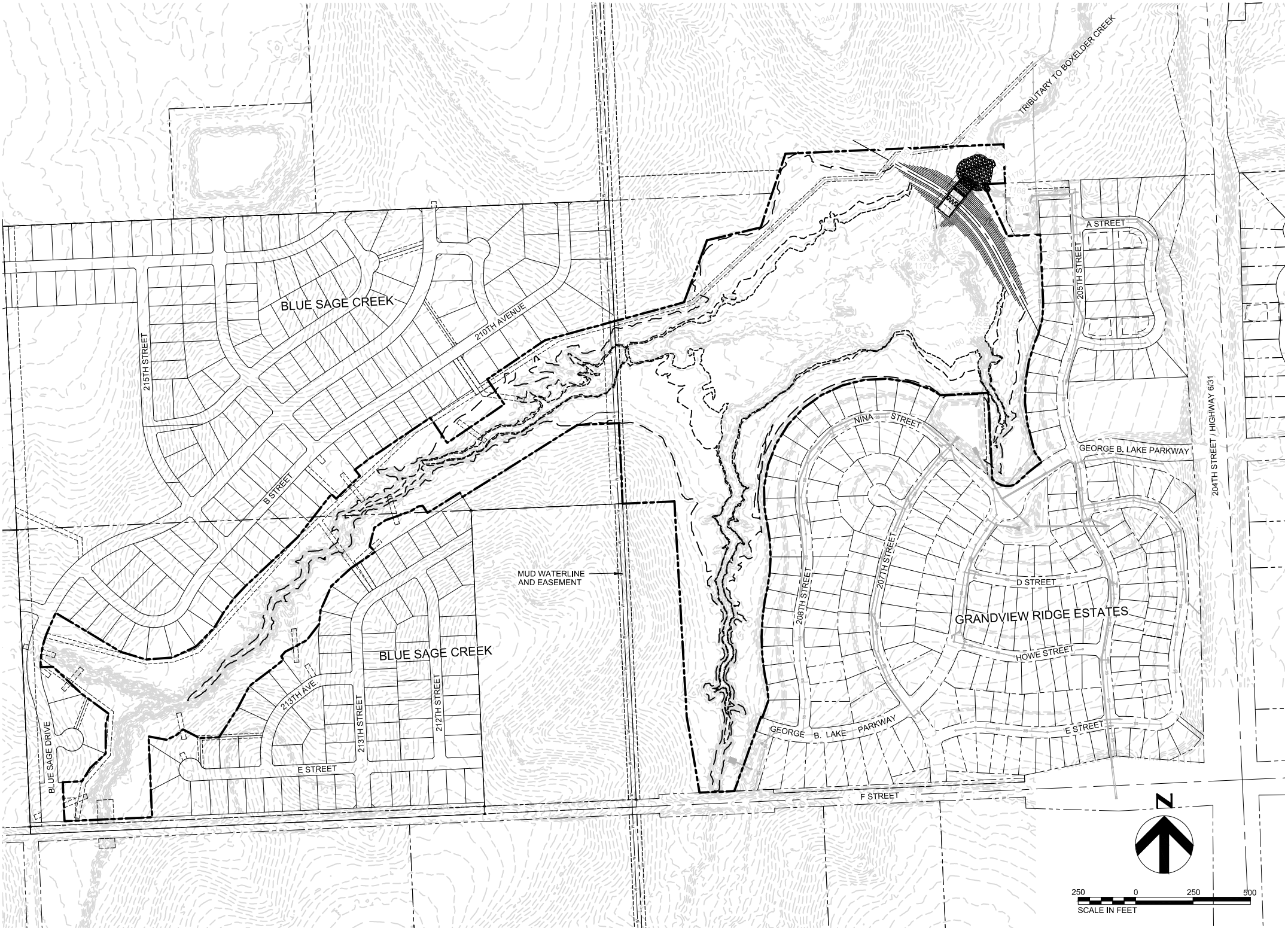
To: PPO Subcommittee
From: Amanda Grint, Water Resources Engineer
Date: September 1, 2020
Re: Amendment No. 6 to Professional Services Contract with HDR Engineering for Zorinsky Basin 2

In 2016, HDR Engineering, Inc. was awarded a professional services contract for the Preliminary Design (Phase 1) of the Zorinsky Basin No. 2 (ZB2) project for a not to exceed amount of \$470,200. Amendment 1 and 2 followed in April and November 2017, for the final design and construction administration as well as additional out of scope items. Amendment 3 was approved in August 2018, to address revisions to the stream mitigation. Amendment 4 and 5 approved in December 2018 and March 2020, extended the schedule and included additional technical assistance for unusually high ground water bringing the total contract not to exceed amount of \$1,929,891. ZB2 is the last of four planned water quality basins identified through a community planning session in 1999 to protect the water quality of Zorinsky Lake. See attached map. Amendment No. 6 addresses the following items:

- Extend the Project Management and SWPPP inspections for an additional eight months to match the updated construction schedule and to monitor site until 70% vegetative cover.
- Additional construction contract administration for up to 100 hours.
- Survey channel cross sections to establish baseline for 404 permit reporting.

A proposed detailed scope of work and cost estimate for Amendment 6 are attached for review. HDR would provide these additional out of scope items on an hourly basis not to exceed the amount of \$43,991, for a total contract not to exceed amount of \$1,973,882.

Management recommends that the Subcommittee recommend to the Board that the General Manager be authorized to execute Amendment No. 6 to the Professional Services Agreement with HDR Engineering, Inc. for the Zorinsky Water Quality Basin Number 2 project in an amount not to exceed \$43,991 bringing the total contract not to exceed amount to \$1,973,882 subject to changes deemed necessary by the General Manager and approval as to form by District Legal Counsel.



LEGEND

	TOP OF DAM ELEV. 1191.0		EASEMENTS
	SPILLWAY ELEV. 1183.0		
	NORMAL POOL ELEV. 1181.5		
	PROPERTY LIMITS		
	PROPERTY PARCELS		

GENERAL NOTES

1. TOP OF DAM AFTER SETTLEMENT SET AT ELEVATION 1191.0.
2. DESIGN SEDIMENT STORAGE AVAILABLE BELOW ELEVATION 1181.5 = 97 ACRE-FT.
3. EXISTING TOPOGRAPHY IS COMBINATION OF JUNE 2016 E&A CONSULTING GROUP, 2010 LIDAR 2-METER DEM FROM NEBRASKA DNR, AND 2016 OLSSON ASSOCIATES PROPOSED GRADING PLAN FOR GRANDVIEW RIDGE SUBDIVISION.
4. COORDINATES ARE MODIFIED STATE PLANE (MODIFIED SCALE FACTOR = 0.99961299)
2. ELEVATIONS ARE NAVD 88, NAD 1983.

STRUCTURE CAPACITY DATA			
ELEVATION (FT)	SURFACE AREA (AC)	INCREMENTAL STORAGE (AC-FT)	CUMULATIVE STORAGE (AC-FT)
DRAWDOWN → 1156	0.0	0	
		0.1	0
1158	0.1	0.3	0
1160	0.2	0.4	0
1162	0.2	0.6	0
1164	0.4	0.9	1
1166	0.5	1.2	2
1168	0.7	1.7	3
1170	1	3	5
1172	2	6	8
1174	4	11	14
1176	7	18	25
1178	11	26.5	43
1180	15.5	26.6	70
NORMAL POOL → 1181.5	20	10.5	97
1182	22	23	108
SPILLWAY CREST → 1183	24	25.5	131
1184	27	58	157
100-YR POOL - 1185.7 →	31	67	215
1186	36	77	282
1188	41	43	359
TOP OF DAM → 1191	45	46.5	402
1192	48	103	449
1194	55	117	552
1196	62		669

NOTE:
1. STRUCTURE CAPACITY DATA BASED ON PRE-PROJECT CONDITIONS.



Date
01-18

TRM

Designed

Date
01-18

TRM

Drawn

Date
01-18

JUE

Checked

Approved

RESERVOIR AREA PLAN AND CAPACITY TABLE

ZORINSKY WATER QUALITY BASIN NO. 2 DAM DOUGLAS COUNTY, NE

PAPIO - MISSOURI RIVER
NATURAL
RESOURCES
DISTRICT

CAD file:
00G-02.dwg

Drawing No.
G-2



Emailed Electronically on September 1, 2020

September 1, 2020

Amanda Grint, PE, CFM
Water Resources Engineer
Papio-Missouri River Natural Resources District
8901 S. 154th Street
Omaha, NE 68138-3621

RE: Zorinsky Water Quality Basin No. 2
Phase III Construction Administration Services Amendment No. 6
Extend Construction Administration Services

Dear Amanda,

HDR Engineering, Inc. is pleased to submit the attached Amendment No. 6 to our Agreement for the Phase III Construction Administration services on the Zorinsky Water Quality Basin #2 project. This amendment extends our construction services schedule to complete construction observation and provide for SWPPP inspection until the vegetative cover has been established. The not to exceed estimate for Amendment No. 6 is \$ 43,991. The amended agreement is not to exceed \$1,973,882.

Please sign the Agreement and provide me with a signed copy for my 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. If you have any questions, please contact me at 402.926.7110 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

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 April 22, 2016.

**AMENDMENT TO OWNER-ENGINEER AGREEMENT
Amendment No. 6**

The Effective Date of this Amendment is: _____.

Background Data

Effective Date of Owner-Engineer Agreement: April 22, 2016

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

Engineer: HDR Engineering, Inc. (HDR)

Project: Zorinsky Water Quality Basin No. 2

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

☐ Additional Services to be performed by Engineer

☒ Modifications to services of Engineer

☒ Modifications to responsibilities of Owner

☒ Modifications of payment to Engineer

☒ Modifications to time(s) for rendering services

☒ Modifications to other terms and conditions of the Agreement

Description of Modifications:

- a. 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. 6" and Enclosure A, Subconsultants Proposals.
 - 2) Exhibit C, "Payments to Engineer for Services and Reimbursable Expenses"
 - i) As modified by Amendments Nos. 1, 2, 3, 4, and 5 change C2.01 as follows:
 1. C2.01.A.1 delete "\$154,744" and replace with "\$143,801" (Accumulated Subconsultants) and delete "\$44,846" and replace with "\$62,552" (Accumulated Direct Expenses). Adjustment made to totals as a result of Amend No. 5 incorrect totals for direct expenses and Subconsultants.
 2. C2.01.A.3 delete "\$1,929,891" and replace with \$1,973,882.

- ii) Amend Appendix 1 to include Attachment 2, "Engineer's Fee Estimate" and Attachment 3 "Engineer's Schedule".
- b. Modify Article 7 – Definitions, 7.01.A.24 Maximum Amount. Remove "one million nine hundred twenty nine thousand eight hundred ninety one dollars (\$1,929,891)" and replace with "one million nine hundred seventy three thousand eight hundred eighty two dollars (\$1,973,882)".

Agreement Summary:

Original agreement amount (Preliminary Design):	\$ 470,200.00
Net change for Amendment No. 1 (Design & Const.):	\$ 858,930.00
Reduction in Phase I Scope and Fees:	\$ (49,470.00)
Net change for Amendment No. 2 (Add. Design):	\$ 56,200.00
Net change for Amendment No. 3 (Stream Mitigation):	\$ 107,700.00
Net change for Amendment No. 4 (Add Design & Const.):	\$ 280,431.00
Net change for Amendment No. 5 (Add Construction):	\$ 205,900.00
This amendment amount (Add Construction):	\$ 43,991.00

Adjusted Agreement amount: \$ 1,973,882.00

Change in time of services: April 15, 2017 to July 1, 2021 (Amendment No. 6)
(Additional 8 months)

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.

OWNER:

Papio-Missouri River Natural Resources District


By: _____
Print
name: John Winkler

Title: General Manager

Date Signed: _____

ENGINEER:

HDR Engineering, Inc.

By: 
Print
name: Matthew Tondl, PIE

Title: Senior Vice President

Date Signed: 9/1/20

Exhibit K – Amendment to Owner-Engineer Agreement.

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

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OMA-440039-1

Page 2

This is **EXHIBIT A1**, consisting of 5 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated April 22, 2016.

AMENDMENT NO. 6

Engineer's Services

PART 1 – BASIC SERVICES

A1.02 Phase III Construction Observation Services

**Zorinsky Water Quality Basin No. 2
for Papio-Missouri River Natural Resources District
Douglas County, NE**



ENGINEERING PROPOSAL – ADDITIONAL DESIGN MODIFICATIONS DURING CONSTRUCTION AND CONSTRUCTION OBSERVATION SERVICES FOR EXTENDED CONSTRUCTION SCHEDULE



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 Zorinsky Basin No. 2 (ZB-2). ZB-2 is a proposed water quality basin to be located upstream of Zorinsky Lake on Boxelder Creek located in Douglas County and is located near 204th and F Streets in Omaha, Nebraska.

To more concisely respond to project requirements, a phased approach was proposed. Phase I, which included preliminary design, is completed. Phase II generally included preparing final design documents and providing bidding assistance is completed. Phase III is currently underway for construction contract administration services.

In Amendment No. 1, where Phase II and III tasks were defined, the duration of the project was 20-1/2 months (begin April 14, 2017 to December 31, 2018). At the time of bidding, the construction schedule was extended to reflect the past construction season's wet weather and higher than normal groundwater conditions, the completion date was established as December 1, 2019. Amendment No. 4 added an additional 4 months to the HDR schedule for the completion of the O&M Manual, extending the contract schedule to April 1, 2020. Amendment No. 5 added an additional 7 months to the HDR schedule for the completion of the O&M Manual, extending the contract schedule to November 1, 2020. The construction contract has a completion date of September 15, 2020. Amendment No. 6 extends the contract an additional 8 months to cover the construction contract extension and closeout activities.

SCOPE OF SERVICES – PHASE III – MODIFICATION TO CONSTRUCTION CONTRACT ADMINISTRATION SERVICES

HDR will perform coordination and design of modifications and provide construction observation and supporting services for the extended construction schedule. The scope of work modifies the following tasks:

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 Deliverables:

- Monthly invoices and progress report

Key Understandings:

- Extend the contract period from November 1, 2020 to July 1, 2021 or adding an additional 8 months of project management.

TASK SERIES 1000 CONSTRUCTION CONTRACT ADMINISTRATIVE SERVICES

Task Objectives: To provide construction contract administration services during the construction schedule.

Task 1010 Records and Reports.

1010.1 Records and Reports. Continue to document construction activities.

Survey channel cross sections to establish baseline conditions for Section 404 stream monitoring. Cross sections to be taken downstream of the water quality dam, within the stream mitigation reach at ZB-2 and within the stream mitigation reach at Flanagan Lake.

Task 1030 Permit Compliance Support.

1030.1 SWPPP Compliance Monitoring. Conduct minimum of weekly site visit to the site and prepare report on BMP performance. Submit to PWCP website. Prepare Notice of Termination (NOT) upon establishment of vegetation.

Task Deliverables:

- Construction Documentation
- SWPPP reports

Key Understandings:

- Contractor period of performance was extended to September 15, 2020 due to high groundwater levels and subsequent sequencing of activities. Previous construction schedule was to be completed by June 1, 2020.
- Amendment No. 5 made assumptions on the level of effort for full-time resident project representative (RPR). Actual hours were less than

estimated. Construction schedule was extended 2-1/2 months. Based on a cost to complete estimate, an additional 100 hours is included in this scope when the Contractor is performing work requiring observation, as determined by HDR.

- E&A to conduct baseline survey for Section 404 stream mitigation.
- SWPPP inspection continues until 70% vegetative cover is established. Seeding is slated for mid- to late-September and growing season starts May 1. Estimate assumes 70% cover achieved by June and then closeout of SWPPP can begin.

ATTACHMENT 2
PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT
PHASE II AND PHASE III: CONSTRUCTION CONTRACT ADMINISTRATION OF ZORINSKY WATER QUALITY BASIN NO. 2
AMENDMENT NO. 6 FEE ESTIMATE - AUGUST 31, 2020

HDR Engineering, Inc. Estimated Hours/Costs										Expenses					HDR				Est. Total Cost
TASKS	Project Manager	Specialist	Principal Staff	Senior Staff	Technical Staff	Tech Support	Admin/ Clerical	Total Hours	Total Labor Cost	Tech. Fee	Printing	Travel	Misc.	Total Expenses	Totals	E&A	Thiele Geotech	Total Sub-Consult.	
TASK SERIES 100 PROJECT MANAGEMENT																			
Task 110	Project Management (8 months)	16					16	32	\$6,000	\$118			\$50	\$168	\$6,168			\$0	\$6,168
	Estimated Task Hours Subtotal	16	0	0	0	0	0	16	32										
	Estimated Task Cost Subtotal	\$4,160	\$0	\$0	\$0	\$0	\$0	\$1,840	\$6,000	\$118	\$0	\$0	\$50	\$168	\$6,168	\$0	\$0	\$0	\$6,168
TASK SERIES 1000 CONSTRUCTION CONTRACT ADMINISTRATION SERVICES																			
Task 1010	Records and Reports			36				136	\$21,180	\$503		\$1,250		\$1,753	\$22,933	\$4,000		\$4,000	\$26,933
Subtask 1010.1	Records and Reports						100												
Task 1030	Permit Compliance Support			2	8	60		70	\$10,330	\$259		\$300		\$559	\$10,889			\$0	\$10,889
Subtask 1030.1	SWPPP Compliance Monitoring																		
	Estimated Task Hours Subtotal	0	0	38	8	60	100	206											
	Estimated Task Cost Subtotal	\$0	\$0	\$9,690	\$1,720	\$8,100	\$12,000	\$0	\$31,510	\$762	\$0	\$1,550	\$0	\$2,312	\$33,822	\$4,000	\$0	\$4,000	\$37,822
	TOTAL HOURS	16	0	38	8	60	100	238											
	TOTAL COST (ROUNDED)	\$ 4,160	\$ -	\$ 9,690	\$ 1,720	\$ 8,100	\$ 12,000	\$ 1,840	\$ 37,510	\$ 881	\$ -	\$ 1,550	\$ 50	\$ 2,481	\$ 39,991	\$ 4,000	\$ -	\$ 4,000	\$ 43,991

ATTACHMENT 3
PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT
PHASE III: CONSTRUCTION CONTRACT ADMINISTRATION OF ZORINSKY WATER QUALITY BASIN NO. 2
SCHEDULE FOR AMENDMENT NO. 6 - AUGUST 31, 2020

Tasks		Dec 2020	Jan 2021	Feb	Mar	Apr	May	Jun	July
TASK SERIES 100 PROJECT MANAGEMENT									
Task 110	Project Management (8 months)								
TASK SERIES 1000 CONSTRUCTION CONTRACT ADMINISTRATION SERVICES									
Task 1010	Records and Reports								
Subtask 1010.1	Records and Reports								
Task 1030	Permit Compliance Support								
Subtask 1030.1	SWPPP Compliance Monitoring								

Enclosure A



E & A CONSULTING GROUP, INC.

Engineering Answers

10909 Mill Valley Road, Suite 100 • Omaha, NE 68154-3950

P 402.895.4700 • F 402.895.3599

www.eacg.com

September 1, 2020

Laurie Carrette P.E.
C/O Papio NRD

Dear Laurie

The purpose of this letter is to explain our existing contract and also future fees for our services on the Dam Site ZB-2 Project.

We have \$8231.25 remaining on our existing contract. The following work still needs to be completed

1. As- built of existing Dam and Spillway
2. As- built of instrumentation

The existing fee remaining (\$8231.25) will be sufficient to cover the above scope. However, E&A has been asked to preform the following that is outside our current contract

1. Survey 9 stream cross sections for 404 monitoring. See exhibit A.

This additional service will exceed our existing contract. In summary we are requesting an additional **\$4000.00** to be added or amended to our existing contract. Please review and feel free to contact me with any questions.

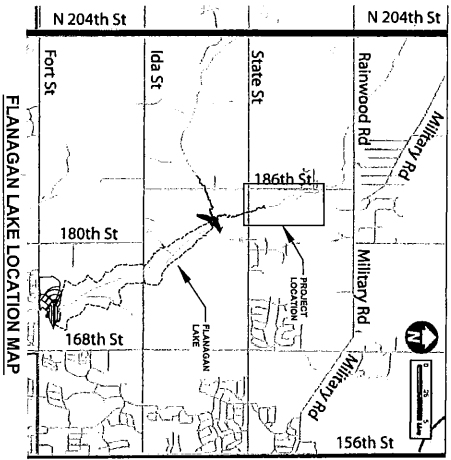
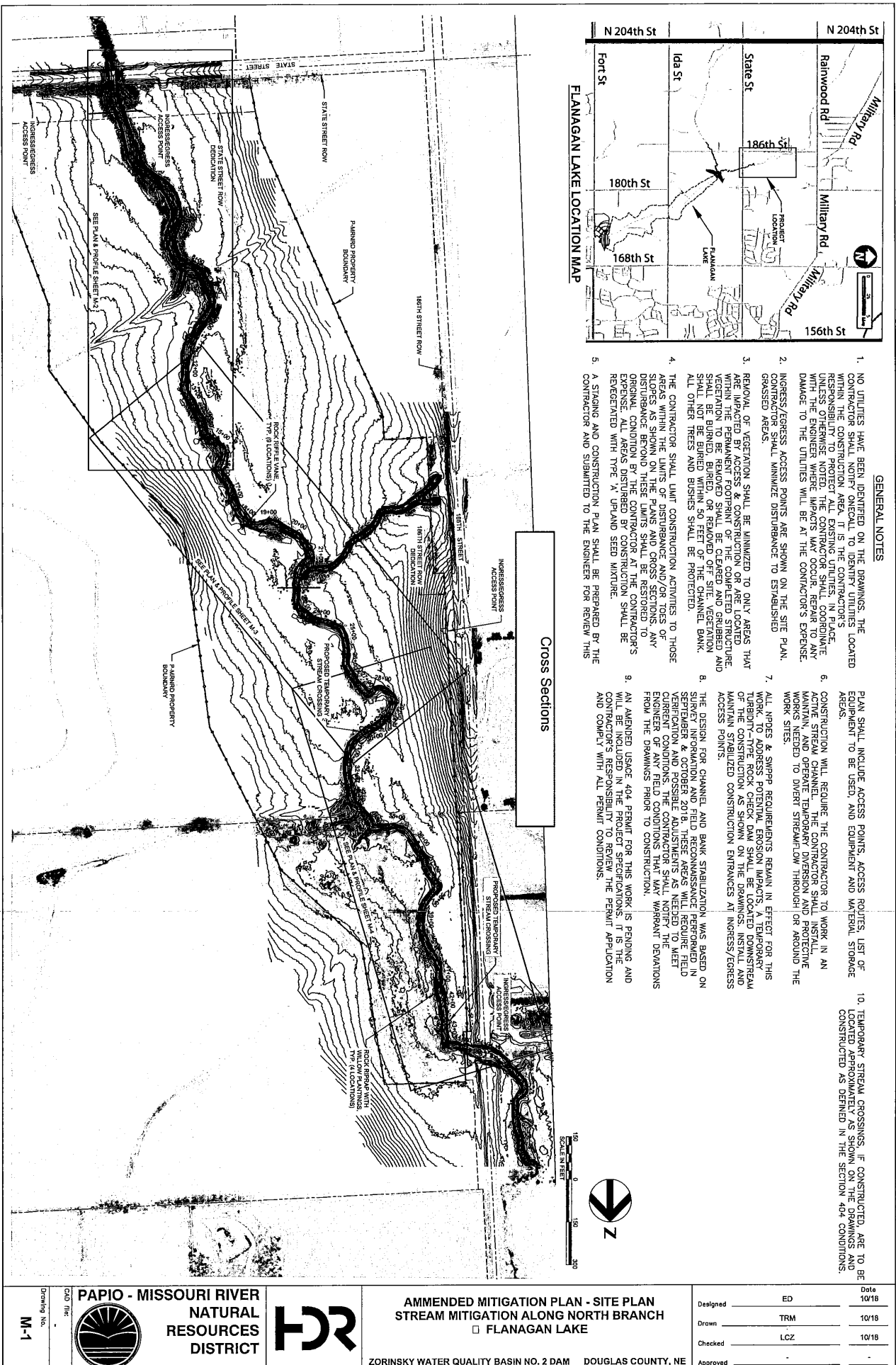
Thank you

Jason Headley RLS

Survey Project Manager

A handwritten signature in black ink, appearing to read 'JH', is written over a horizontal line. The signature is stylized with a large, sweeping 'J' and a sharp, upward-pointing 'H'.

EXHIBIT A - ADDITIONAL SERVICES



GENERAL NOTES

1. NO UTILITIES HAVE BEEN IDENTIFIED ON THE DRAWINGS. THE CONTRACTOR SHALL NOTIFY ONECALL TO IDENTIFY UTILITIES LOCATED WITHIN THE CONSTRUCTION AREA. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES. IN PLACE, UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER WHERE IMPACTS MAY OCCUR. REPAIR TO ANY DAMAGE TO THE UTILITIES WILL BE AT THE CONTRACTOR'S EXPENSE.
2. INGRESS/EGRESS ACCESS POINTS ARE SHOWN ON THE SITE PLAN. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO ESTABLISHED GRASED AREAS.
3. REMOVAL OF VEGETATION SHALL BE LIMITED TO ONLY AREAS THAT ARE IMPACTED BY ACCESS & CONSTRUCTION OR ARE LOCATED WITHIN THE PERMANENT FOOTPRINT OF THE COMPLETED STRUCTURE. VEGETATION TO BE REMOVED SHALL BE CLEARED AND GRUBBED AND SHALL NOT BE BURNED, BURIED, OR REMOVED OFF SITE. VEGETATION SHALL NOT BE BURNED WITHIN 50 FEET OF THE CHANNEL BANK. ALL OTHER TREES AND BUSHES SHALL BE PROTECTED.
4. THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THOSE AREAS WITHIN THE LIMITS OF DISTURBANCE AND/OR TOES OF SLOPES AS SHOWN ON THE PLANS AND CROSS SECTIONS. ANY DISTURBANCE BEYOND THESE LIMITS SHALL BE RESTORED TO ORIGINAL CONDITIONS BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE REVEGETATED WITH TYPE 'A' UPLAND SEED MIXTURE.
5. A STAGING AND CONSTRUCTION PLAN SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR REVIEW THIS
6. PLAN SHALL INCLUDE ACCESS POINTS, ACCESS ROUTES, LIST OF EQUIPMENT TO BE USED, AND EQUIPMENT AND MATERIAL STORAGE AREAS.
7. CONSTRUCTION WILL REQUIRE THE CONTRACTOR TO WORK IN AN AREA OF EXISTING CHANNEL. THE CONTRACTOR SHALL MAINTAIN AND OPERATE TEMPORARY DIVERSION AND PROTECTIVE WORKS NEEDED TO DIVERT STREAMFLOW THROUGH OR AROUND THE WORK SITES.
8. ALL WORKS & SHORE REQUIREMENTS REMAIN IN EFFECT FOR THIS WORK. TO ADDRESS POTENTIAL EROSION IMPACTS, A TEMPORARY TURBIDITY-TYPE ROCK CHECK DAM SHALL BE LOCATED DOWNSTREAM OF THE CONSTRUCTION AS SHOWN ON THE DRAWINGS. INSTALL AND MAINTAIN STABILIZED CONSTRUCTION ENTRANCES AT INGRESS/EGRESS ACCESS POINTS.
9. THE DESIGN FOR CHANNEL AND BANK STABILIZATION WAS BASED ON SURVEY INFORMATION AND FIELD RECONNAISSANCE PERFORMED IN SEPTEMBER & OCTOBER 2018. THESE AREAS WILL REQUIRE FIELD VERIFICATION AND POSSIBLE ADJUSTMENTS AS NEEDED TO MEET CURRENT CONDITIONS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY FIELD OBSERVED CONSTRUCTION VARIATIONS FROM THE DRAWINGS PRIOR TO CONSTRUCTION.
10. AN AMENDED USACE 404 PERMIT FOR THIS WORK IS PENDING AND WILL BE INCLUDED IN THE PROJECT SPECIFICATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE PERMIT APPLICATION AND COMPLY WITH ALL PERMIT CONDITIONS.

Cross Sections

Downstream Channel Monitoring-	3 cross sections - Point A: 100' d/s of energy dissipator - Point B: 100' d/s of transition from graded to undisturbed channel - Point C: 500' d/s from Point B
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EROSION CONTROL BMP SUMMARY		
SEGMENT #	DESCRIPTION	QUANTITY
SP-4	NO BAIN SALT FENCE	326 LF
SP-5	NO BAIN SALT FENCE	292 LF
SP-6	NO BAIN SALT FENCE	407 LF
SP-7	NO BAIN SALT FENCE	569 LF
SP-8	ACCESS DRIVE SALT FENCE	20 LF
SP-9	ACCESS DRIVE SALT FENCE	20 LF
SP-10	ACCESS DRIVE SALT FENCE	350 LF
SP-11	ACCESS DRIVE SALT FENCE	135 LF
EB-4	DEGRADABLE EROSION BLANKET	809 SY
EB-5	DEGRADABLE EROSION BLANKET	424 SY
EB-6	DEGRADABLE EROSION BLANKET	1,111 SY
EB-7	DEGRADABLE EROSION BLANKET	906 SY
EB-8	DEGRADABLE EROSION BLANKET	1,515 SY
SPB-1	STORM DRAIN INLET PROTECTION	1 BACH

