

Agenda Item: 8.

Memorandum

To: PPO Subcommittee
From: Amanda Grint, Water Resources Engineer
Date: June 7, 2012
Re: Glacier Creek Wetland/Stream Mitigation Bank Professional Services Contract – Amendment #2

The Glacier Creek property was purchased by the District and UNO in June 2009 and is shown in the attached map. In April 2010, a professional services contract was approved with HWS for design of the Glacier Creek stream and wetland mitigation bank for a not to exceed fee of \$106,800. Since that time HWS has merged with Alfred Benesch & Company creating a name change although the individuals working on the project remain the same. In April 2011, an amendment was approved for the professional services contract to bring the contract to a not to exceed amount of \$133,264.00.

The proposed contract amendment #2 mainly includes construction administration and observation but also includes two new tasks and some additional design that was out of scope work from the previous contract. Details are provided in the attached letter amendment dated May 4, 2012 from Benesch. A summary of the proposed tasks are:

- Construction Observation Services – Benesch will provide periodic site visits, construction administration services, materials testing and stormwater pollution prevention plan monitoring.
- Enhancement of Sloped Wetlands – this task includes instruction from the engineer to the contractor during construction to restore wetland areas that have been impacted by farming activities and thereby create additional credits for the wetland bank.
- Structural Analysis of the Baffle Structures – Benesch would provide a structural analysis for the concrete baffle structures at the outfall of Glacier Creek and the North Tributary.
- Additional design services- this task includes the redesign of the area where the Glacier Creek mitigation bank ties in to Allwine Prairie along with associated measures to analyze and design to control velocity and bank stabilization through that stretch.

This amendment is estimated at \$43,280 and brings the total not to exceed contract amount to \$176,544.00. Plans are anticipated to be complete in June and the project will be ready to bid pending approval from the US Army Corps of Engineers and the Interagency Review Team.

Staff recommends that the Subcommittee recommend to the Board that the General Manager be authorized to execute the proposed Professional Services Agreement Amendment #2 between the District and Alfred Benesch & Company for the Glacier Creek stream and wetland mitigation bank project, bringing the total not to exceed contract amount to \$176,544, subject to changes deemed necessary by the General Manager and approval as to form by District Legal Counsel.



Alfred Benesch & Company
14748 W. Center Road, Suite 200
Omaha, NE 68144-2029
www.benesch.com
P 402-333-5792
F 402-333-2248

May 4, 2012

\Papio-Missouri River Natural Resources District
Attn: Ms. Amanda Grint, P.E.
8901 S. 154th Street
Omaha, NE 68138-3621

RE: Glacier Creek Wetland/Stream Bank Project

Dear Ms. Grint:

Based on our previous discussion on April 23, 2012 regarding additional services related to structural design analysis of baffle structures at the end of each stream channel, design-build components of the project, construction observation services and out of scope work, Benesch is requesting a supplement to the original contract. Additional detail along with the associated estimate of hour and fee about services not covered in the original agreement is provided below.

Item 1- Construction Observation Services-

Benesch will provide periodic, but not full time, construction observations services during the construction phase of the project to ensure the project get built to plan specifications. The total scope of services is limited those services requested that may be performed within the budget estimated below unless additional fee is authorized. Construction services shall consist of onsite inspection for major activities, periodic onsite inspections during the remainder of the project, construction administration services (progress reports, pay estimates, etc.), SWPPP monitoring and construction materials testing.

A qualified individual will observe and document the wetland and stream construction conforms to the requirements of the contract documents. We anticipate this task will include field sheets, photographs, elevation spot checks, and seed and plant stock inspections completed during construction. Furthermore, at least three site visits by project engineer and/or scientist will be conducted to verify construction activities.

Estimated hours-212
Estimated fee-\$24,280.00

Item 2- Enhancement of Sloped Wetlands-

During the February 10, 2012 30% plan review the group decided to enhance existing sloped wetlands and prairie on the site. These areas are identified on Figure 3 of the Site Development Plan (attached). These areas are degraded from farming activities and if restored would add wetland credits to the bank. Benesch proposes a design-build approach to restore these areas. The potential plan would be to assess areas in the field, develop a preliminary restoration plan and carry out construction with contractor. This approach will also be utilized to incorporate natural features in the newly created wetlands and streams. These items consist of rock piles, dead trees, vegetation incorporation of organic materials, scallops, etc.

Estimated hours-40
Estimated fee-\$4,000

Item 3-Structural Analysis of Baffle Structures-

During the project conceptual phase restoration of Glacier Creek and Unnamed Tributary to that similar of a prairie stream, which required elevating the stream bed elevation near the floodplain for as much of the channel

as possible would require a large structure at the downstream end of Glacier Creek and the unnamed tributary. A structural analysis of these structures was not originally scoped but is recommended due to the size and proposed stresses from upgradient and downgradient forces. Benesch proposes to conduct a structural analysis by a structural engineer and present results in a Technical Memorandum.

Estimated hours- 40
Estimated fee- \$5,000

Item 4- Additional Services-

Out of scope work was identified after the 30% design review meeting with the NRD and UNO regarding the re-design of Glacier Creek at the low-water crossing. The original design reduced the vertical elevation difference between Glacier Creek at Allwine and the proposed bank site from 14 feet to 4-5 feet. The 4-5 foot elevation was based on the structure elevation at the Big Papio and a stable stream slope of 0.5-2%. UNO indicated a contiguous channel from Allwine Prairie with no drops via a structure was absolutely necessary. Benesch evaluated several alternatives balancing stream gradients and stream modifications to the original segment on the Allwine site before selecting a design that is suitable. Additional grading and hydraulic analysis was required to come up with current design which has a contiguous channel. Due to the steep gradient through this segment (10%) additional time is still necessary to identify stream bed protection measures and bank stability countermeasures to withstand high velocities. Additional effort was also associated with reinforced berm designs to protect structures at the Big Papio. Finally, these changes plus unforeseen communication, meetings and verification of stream assessment values with the Corps caused additional input and revisions to the Site Development Plan. Furthermore, an additional meeting is also anticipated.

Estimated hours-100
Estimated fee-\$10,000

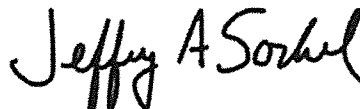
Based on the changes to the scope of services, the total amount of additional fee required to complete these changes is approximately 320 hours at a cost of \$43,280.

Please acknowledge your acceptance of the Amendment Scope and Fee By signing in the signature block provided below and returning one copy to this office for our records
If you have any questions, please contact me at 402-333-5792.

Sincerely,



Andrew Miller
Project Manager



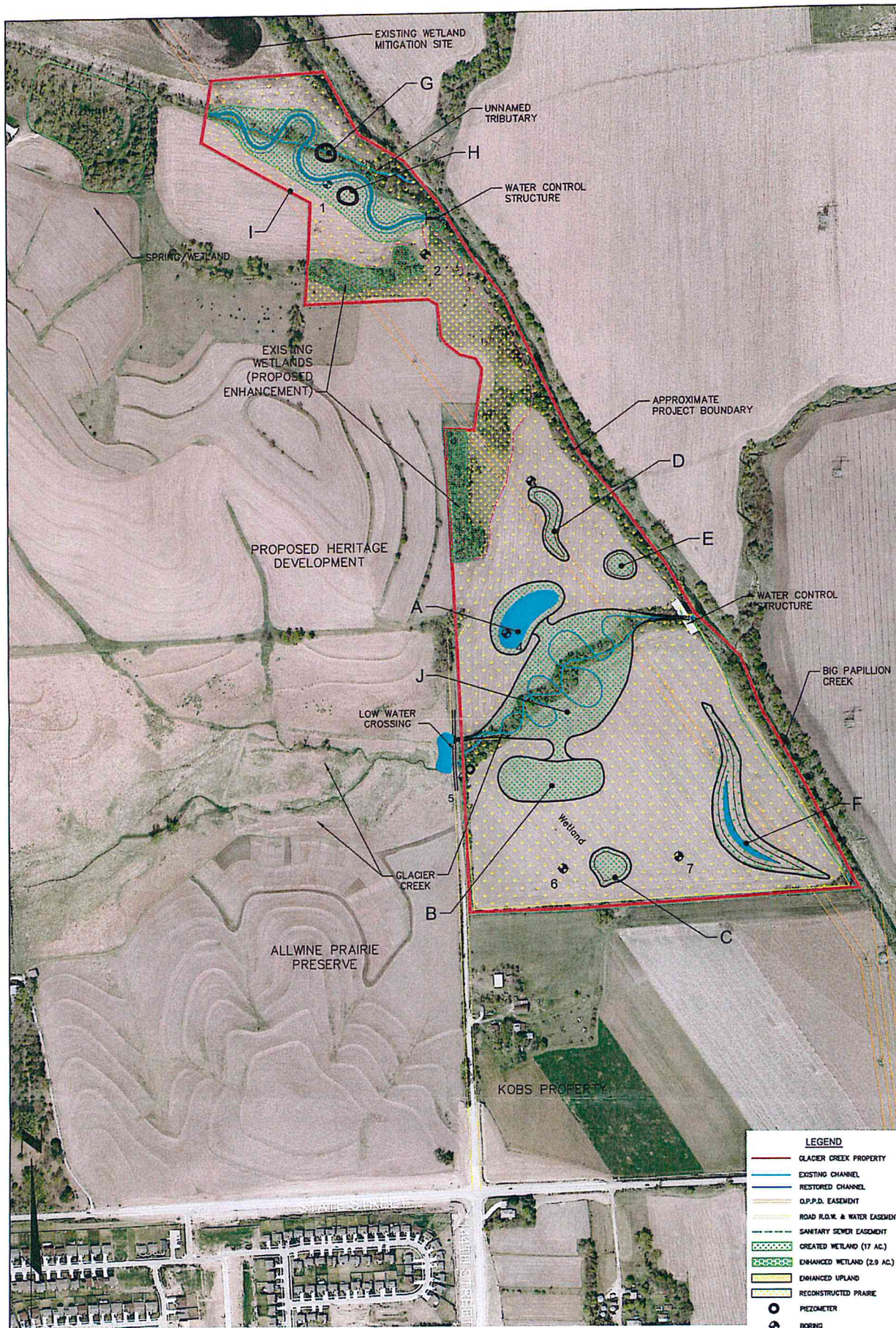
Jeffery A. Sockel, P.E.
Vice President – Omaha Division Manager

Accepted By Papio-Missouri River NRD

Signature

Date

Printed Name & Title



GLACIER CREEK STREAM AND WETLAND BANK CONCEPT



2010 AERIAL