



**BUSINESS OF THE CITY COUNCIL  
BONDURANT, IOWA  
AGENDA STATEMENT**

Item No. 5I  
For Meeting of 04/06/2020

**ITEM TITLE:** Resolution for Mud Creek and Ditch #2 Concept Plan and Cost estimates

**CONTACT PERSON:** John Horton, Public Works Director

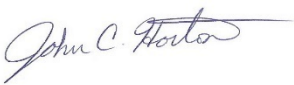
**SUMMARY EXPLANATION:** Staff requested a scope of services contract from EOR for a design concept and cost estimates for Mud Creek and Ditch #2 in the area from just South of 2<sup>nd</sup> St. NW to just South of the retired Wastewater Lagoon Site.

This scope will incorporate a multi-staged, geomorphically appropriate channel design for the section of Mud Creek that runs between the Quail Run Plat and the Webb Property on the West edge of the City. This will also include Floodplain Connection and riparian wetland features, as well as a bank stabilization plan to help protect the NW trunk Sewer Project that is being constructed adjacent to Mud Creek. The plan will also provide guidance for the trail area that is to be constructed along the Creek as well to create a Greenbelt type area for our trail system.

This scope will also include a concept for the Retired Wastewater Lagoon Cell #1 into a constructed wetland complex to help improve water quality along Mud Creek.

This project is a vital piece of the puzzle in the City’s Stormwater Master Plan as the city continues to grow into this area to ensure that development does not negatively impact flooding concerns as well as water quality in the Mud Creek and its tributary basin.

Staff would recommend approval of the Service Contract to EOR for Concept Design Work and Cost Estimates for Mud Creek and Ditch #2 within the City of Bondurant not to exceed \$16,800.

<input checked="" type="checkbox"/> Resolution _____ <input type="checkbox"/> Ordinance ____ <input type="checkbox"/> Contract _____ <input type="checkbox"/> Other (Specify) _____
Funding Source _____ <u>budgeted engineering services</u>
APPROVED FOR SUBMITTAL _____  Public Works Director

**RECOMMENDATION:** Approve resolution on a roll call vote.

CITY OF BONDURANT  
RESOLUTION NO. 200406-XX

RESOLUTION APPROVING SCOPE OF SERVICE CONTRACT PROVIDED BY EMMONS & OLIVER RESOURCES INC. FOR A  
CONCEPT DESIGN AND COST ESTIMATES FOR A SECTION OF MUD CREEK AND DITCH #2

WHEREAS, on March 30<sup>th</sup>, 2020 the City of Bondurant received the proposal for Concept Design Work and Cost Estimates for a portion of Mud Creek and Ditch #2 within the City of Bondurant; AND

WHEREAS, the City of Bondurant accepts the proposal of the work as follows:

1. The City of Bondurant, IA (“City”) has requested concept exhibits and cost estimates for the following improvements:
  - a. “Ditch 2” stream corridor, within the City:
    - i. Streambank improvements such as the following will be considered:
      1. Multiple-staged, geomorphically appropriate channel design
      2. Floodplain connection / riparian wetland features
      3. Stabilization of the corridor with respect to:
        - a. Planned adjacent development / increased hydrologic pressure
        - b. Protection of new sanitary sewer infrastructure
        - c. Additional channel capacity to protect new development with additional low-level conveyance and floodplain storage
    - ii. Additional factors to be considered:
      1. Greenway recreational trail elements and basic trail-based amenities
      2. Current and proposed stormwater management elements
  - b. Former “Cell #1” lagoon
    - i. Reform the abandoned wastewater lagoon at the confluence of Ditch #2 and Mud Creek into a constructed wetland complex

WHEREAS, the City Council approves the Contract for Design work and Cost Estimates; AND

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Bondurant, Iowa, that the Contract for Concept Design Work and Cost Estimates is hereby approved.

Passed this 6<sup>th</sup> day of April 2020,

By: \_\_\_\_\_  
Curt Sullivan, Mayor

ATTEST: I, Shelby Hagan, City Clerk of Bondurant, hereby certify that at a meeting of the City Council held on the above date, among other proceedings the above was adopted.

IN WITNESS WHEREOF, I have hereunto set my hand the day and year above written.

\_\_\_\_\_  
Shelby Hagan, City Clerk

Council Action	Ayes	Nays	Abstain	Absent
Cox				
Peffer				
Enos				
McKenzie				
Elrod				

**Project Name** | Ditch 2 Stream Corridor Plan

**Date** | 3.27.2020

**To / Contact info** | John Horton

**Cc / Contact info** |

**From / Contact info** | Aaron Gwinnup, Pat Conrad

**Regarding** | Scope of Services

**Project Understanding –** EOR (“Consultant”) understands the following details pertinent to the project:

1. The City of Bondurant, IA (“City”) has requested concept exhibits and cost estimates for the following improvements:
  - a. “Ditch 2” stream corridor, within the City:
    - i. Streambank improvements such as the following will be considered:
      1. Multiple-staged, geomorphically appropriate channel design
      2. Floodplain connection / riparian wetland features
      3. Stabilization of the corridor with respect to:
        - a. Planned adjacent development / increased hydrologic pressure
        - b. Protection of new sanitary sewer infrastructure
        - c. Additional channel capacity to protect new development with additional low-level conveyance and floodplain storage
    - ii. Additional factors to be considered:
      1. Greenway recreational trail elements and basic trail-based amenities
      2. Current and proposed stormwater management elements
  - b. Former “Cell #1” lagoon
    - i. Reform the abandoned wastewater lagoon at the confluence of Ditch #2 and Mud Creek into a constructed wetland complex
2. Project Setting:
  - a. The project extents are the Ditch 2 stream corridor (a tributary to Mud Creek) from 2<sup>nd</sup> Avenue at the north end to just south of the wastewater lagoons (south of the Chichaqua Valley Trail), and width-wise within the platted easement and stream buffer boundaries.
  - b. Snyder and Assocs. developed the plat for the east side development
  - c. Veenstra and Kimm is designing the sanitary sewer project along the east bank of the stream
  - d. The area is currently a FEMA “Zone A” floodplain (no detailed study, and no floodway)

**Project Assumptions –**

1. Consultant will base the assessment and general project concepts on:
  - a. Iowa Statewide Urban Design and Specifications (“SUDAS”) 2019
  - b. City of Bondurant Ordinances and Standards
  - c. Regulations set forth in:
    - i. Clean Water Act Sections 401 and 404 (Wetlands and water quality)
    - ii. Iowa Administrative Code Chapter 71 (Floodplain Development)
    - iii. Iowa Stream Mitigation Method and Iowa Administrative Code Chapter 61
  - d. Iowa River Restoration Toolbox practices
2. Based on conversations with Client, there are no known endangered species, archeological concerns, or federally owned land / structures in the immediate or adjacent project areas.
3. The area has already been platted on the east side, and municipal annexation / platting is underway on the west side.
4. The data developed by others (Snyder and V&K) will provide sufficient survey, planimetrics, and associated data for this current phase, additional data may be required later for formal design.

**Subconsultants –**

1. No subconsultants are anticipated for this phase

**Specific Services Included in Scope –**

1. Data Collection - Consultant will collect:
  - a. All pertinent data from the City and other public entities, including:
    - i. Utility, Infrastructure, Parcel, and GIS / AutoCAD data as available
    - ii. Survey and modeling data belonging to the City or other public entities, including reports, data, models, or their output files
    - iii. Geotechnical data, if already developed (e.g. by others for adjacent projects)
2. Kickoff Meeting
  - a. Once Consultant has collected the initial data, reviewed the setting thoroughly, and developed detailed questions for the project Consultant will meet with Client (teleconference) to confirm project goals, constraints, etc.
3. Draft Exhibit Preparation
  - a. Consultant will prepare one plan view rendering of the area of interest, and two representative cross sections (one stream and one wetland) including the details listed below under “deliverables”
  - b. Consultant will prepare concept level cost estimates for the proposed projects
4. Design Review Meeting
  - a. Consultant will meet with Client (in person or by teleconference) to discuss the draft renderings and cost estimates, and get feedback from Client
5. Final Concept Exhibit and Cost Estimates

- a. Consultant will revise the deliverables with the Client's input
- 6. Presentation of Findings
  - a. Consultant will meet with Client (in person or by teleconference) to present and discuss the final renderings and cost estimates

### **Deliverables**

1. Concept-level exhibits will be prepared for the City's use in communicating the general idea and aesthetics of the project with stakeholders. These will include:
  - a. GIS or AutoCAD rendered plan-view drawing of the proposed concept, including:
    - i. Grading (conceptual form of the proposed channel and wetland)
    - ii. Hydraulics (approximate water stages, not model based)
    - iii. Vegetation (primarily native grasses and forbs, with sparse specimen trees and shrubs)
    - iv. Trail and basic trail-related amenities (gathering nodes, benches, crossings, etc.)
    - v. Potential ecological and geomorphic amenities for the riparian corridor
  - b. Two renderings of the proposed design will be provided that conveys the same ideas as the plan view, but in cross section view across the project limits
  - c. The plan and cross sections will include colorful graphics and explanatory notes and callouts. They will be delivered as 11x17 landscape orientation PDF documents.
  - d. A concept level cost estimate will be prepared that includes all major cost elements of the project, based on similar, previous projects

### **Schedule**

Initial kick-off meeting	Within 1 week of NTP
Provide initial drafts and cost estimates	Within 4 weeks of NTP
Meeting to discuss comments on drafts	Within 6 weeks of NTP
Provide final concept exhibits and costs	Within 8 weeks of NTP

### **Fees**

Consultant proposes to provide the services described above as "time and materials" based on the current rate schedule, including labor, equipment, materials, and reasonable expenses (mileage, etc.). The total fee for the scope will not exceed the total dollar amount below, unless the scope is changed in writing, and approved by the Client in advance.

**The total fees for this Scope of Services shall not exceed \$16,800**

**Tasks Requested of Client**

1. Client shall appoint a project manager that will serve as the primary point of contact regarding the project.
2. Delivery of all available and pertinent background materials: reports, plans, survey data, hydraulic modeling, construction drawings, utility information, previous work on the project, regulatory or hazardous materials records, etc. These materials are necessary at the beginning of the project, preferably prior to the kickoff meeting so that they may be discussed at that time.
3. All reviewers from the various departments within Client's organization shall submit comments to the Client's project manager, who will collect and forward them to the Consultant at one time for each submittal process.
4. Provision of all legal and administrative requirements necessary for execution of the project, including preparation of easement legal documents
5. Payment of all permit application fees (none expected)

**Alternative Services** – Not included in this concept design scope unless requested

1. Detailed hydrologic & hydraulic modeling updates
2. Regulatory feasibility discussions / meetings / submittals
3. Formal endangered species habitat assessment
4. Wetland or stream delineation or mitigation planning (mitigation is not expected to be required as our typical methods inherently mitigate impacts with ecological lift)
5. Geotechnical analysis (new)
6. Topographic survey, boundary or right-of-way survey (at this time)