



City of Oelwein Request for Proposals for Project Scoping of Flood Mitigation Efforts for Dry Run Creek

February 2023

The City of Oelwein is requesting proposals from firms for engineering and other services for developing a flood mitigation project to submit application to FEMA for HMA funding for construction costs. The flood mitigation is for Otter Creek which runs through Oelwein from the east, cuts through town, and exits on the south end of Oelwein into Lake Oelwein.

Upon selection of the qualified firm(s), contract negotiation with the City will take place to develop a contract with the firm for engineering services at a fair and reasonable price to complete all work necessary for the phase and shall include not-to-exceed amounts for broad categories of work within the phase.

After the firm is selected by the City, the City will host a public meeting solicit input on the project.

The scope of work for such engineering and other services include:

Scope of Work and Budget Narrative

The scope of work includes pre-application work as it relates to helping the city develop and prepare an application for submittal to Iowa HSEMD for state or FEMA funding opportunities. The city anticipates that this work will include preparation of preliminary concept drawings, preliminary design, cost estimates, and other engineering and design work pre-requisite to development of a cost benefit analysis (BCA). The BCA determines the difference between likely pre- and post-mitigation flood damages to the City's infrastructure and/or residents and businesses, and compares that difference (aka losses avoided, or "the benefit") to the cost of the project. The scope of work includes:

- Selection and procurement of an engineering firm
- Meetings with engineering firm, City Council, and stakeholders
- Engagement of engineering firm to complete analysis tasks 1-4 below and provide a report that documents the analysis

Engineering Analysis Tasks

1. Document and list all buildings that would flood at the determined elevations, and for each building determine and list how many feet above finished floor elevation would be inundated with floodwater for each determined flood elevation.
2. Based on current hydrology and hydraulics, document the recurrence intervals at which floodwaters reach the elevations determined in task 1 (the elevations at which floodwaters inundate buildings with one foot or more of floodwaters).
3. Determine:
 - a. How much storage is technically feasible and available in upstream areas. While this will necessitate some engineering design work, full design is not anticipated in the scope of work for this first phase; the engineer need only provide enough design



details in order to perform the calculations and analysis for the next item and to write the report with elements listed below.

- b. How proposed culverts and storm sewer improvements will lower the water surface elevations and/or change the recurrence intervals of flood events,
4. [Either a or b]:
- a. Calculate the new recurrence intervals, after construction of proposed storage basins and other structures, at which floodwaters will reach that same elevations determined in task 1 that flood buildings with one foot or more of water over the finished floor elevation.
 - b. For the same recurrence intervals at which flooding occurs in the pre-mitigation scenario (as determined in task 2), calculate the new flood elevations after construction of proposed storage basins and other structures. For each recurrence interval, document how much lower (in feet) flood inundation will be for each building that floods in the pre-mitigation situation.

Deliverables:

- A. Engineering Analysis Report
 1. The selected firm must provide a report that documents the analysis to make the above determinations and calculations, as well as proposes one or more projects to mitigate flooding and identifies for such project(s):
 1. A scope of work for potential flood mitigation project(s);
 2. All parties and agreements necessary to complete the project ;
 3. The applicable model codes/edition and engineering standards used that are required and how a proposed project will satisfy these accepted engineering practices.
 4. Any deviation from standard procedures, methods, techniques, technical provisions of the applicable codes or best practices.
 5. A proposed activity completion timeframe, and description of all anticipated phases of a project schedule, with explanation of how all timeframes are reasonable and consistent with the scope of work.
 6. Summary and enumeration of past damages and risk(s) to people, structures or infrastructure that the planned mitigation activity is designed to avoid in the future.
 7. Ways that the risks of damage or harm will be reduced or eliminated and explanation of the residual risk
 8. Estimate and description of anticipated initial project costs, how they are consistent with the scope of work; and an estimate of operations and maintenance costs, annualized over the project's useful life.
- B. Benefit Cost Analysis completed on FEMA's BCA Toolkit 6.0
- C. Other Deliverables:
 2. Included as part of this work is any related work to ensure adequate engineering and design, which may include, but are not limited to: development of biological evaluation,



property or cultural resource assessments, Phase 1 and 2 Environmental Site Assessment for hazardous materials presence or contamination, soil borings, Archeological Phase 1 services, permit acquisition as needed, and other testing, monitoring, modeling, or subconsultant type work.

Project Budget: Line-Item Budget Breakdown

	Estimated Hours	Estimated \$/Hr	Total Estimate
Engineering for Engineering Analysis Report:			
Benefit Cost Analysis:			
Environmental and other assessments			

Procurement Process:

The city sends out request for proposals on February 1.

Proposals from firms are to be emailed to Dylan Mulfinger at dmulfinger@cityofuelwein.org by March 1.

A group of city employees review and score the proposals and interview the top two firms.

A recommendation is provided to City Council on March 20.

The selected firm is notified by the city and is required to start with 30 days of notification.



Scoring Criteria

The city will use the following scoring criteria to determine the top two firms to interview for the project.

Experience on FEMA projects specifically project scoping	40	
Experience with flood plain management	20	
Experience working on FEMA funded projects	20	
Experience working with the City of Oelwein	10	
Experience with flood mitigation efforts	10	
Total	100	