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MEMORANDUM

WATER & RESOURCE RECOVERY FACILITY

To: Gregg Mandsager, City Administrator

CC: Nancy Lueck, Finance Director
Cinda Hilger, Secretary

From: Jon Koch, WRRF Director

Date: June 25, 2019

Re: Nutrient Reduction Alternate Study

INTRODUCTION: The City solicited proposals for the Non-Point Source Nutrient Reduction Alternative Study and Muscatine Slough Drainage Area Master Plan (NRAS) and received seven submissions. The City steering committee scored and selected Bolton and Menk from designated criteria to lead the study. They have proposed a contract in the amount of \$125,324.00 for this study. \$90,000.00 was budgeted.

BACKGROUND: The Water and Resource Recovery Facility (WRRF) is required by the DNR to propose a nutrient reduction strategy in their latest issued permit. This means that the treatment facility is required to reduce effluent discharge of nitrogen by 66% and phosphorus by 75%. A study done in 2016 by Stanley Consultants recommended projects ranging from \$1,143,000.00 to \$4,827,000.00 to comply with the permit requirements. Both alternatives come with an estimated \$357,000.00 annual cost. These systems are also prone to failure during rain events when the treatment plant receives large flows.

An alternative is available and spelled out in the permit. If the City were to install certain practices within their watershed or adjoining watersheds, credit may be given for permit compliance. These practices can include stormwater projects in cities or on agricultural land as well as multiple other projects that reduce nitrogen and phosphorus discharges to the environment. The DNR set up the program through which these credits can be received early in 2019. This study will explore the cost savings that are anticipated by doing these practices instead of expensive construction at the plant.

While a smaller scope was budgeted for when building this proposal in 2018 (\$90,000.00), an expanded scope is being proposed that will solve several problems in town. Bolton and Menk was asked to include work at the Iowa Field to be added to help with property flooding that would be included as a nutrient reduction practice and alleviate a long standing issue of flooding homes in the area. The City has also identified several locations along Mad Creek before it enters town that would have large phosphorus reduction potential and possibly minimize local flooding.

The additional \$35,324 for the expanded scope of the project would need to be taken from the operating fund. While it could be done later as a separate project, it is less expensive to do now with the team assembled and other project costs spread out over the other targeted areas.

RECOMMENDATION/RATIONALE: City staff recommends approving the contract with Bolton and Menk for \$125,324.00 as an expanded scope project with additional funds to be used from the operating fund.

BACKGROUND:

1. Bolton and Menk Contract

**AGREEMENT FOR PROFESSIONAL SERVICES
NON-POINT NUTRIENT REDUCTION ALTERNATIVES STUDY
AND MUSCATINE SLOUGH DRAINAGE AREA MASTER PLAN**

CITY OF MUSCATINE, IOWA

This Agreement, made this ____ day of June, 2019, by and between the City of Muscatine, hereinafter referred to as CLIENT, and Bolton & Menk, Inc., 855 Wright Brothers Blvd SW, Ste 2A, Cedar Rapids, IA 52404, hereinafter referred to as CONSULTANT.

WITNESS, whereas the CLIENT intends to employ professional services required in conjunction with the Non-point Nutrient Reduction Alternatives Study and Muscatine Slough Drainage Area Master Plan, and

WHEREAS, the CONSULTANT agrees to furnish the various professional services required by the CLIENT.

NOW, THEREFORE, in consideration of the mutual covenants and promises between the parties hereto, it is agreed:

SECTION I - CONSULTANT'S SERVICES

- A. The CONSULTANT agrees to perform the various Basic Services and Construction Phase Services as requested in connection with the specific project as described in Section I.A and Section I.B. of Exhibit I.
- B. Upon mutual agreement of the parties hereto, Additional Services may be authorized as described in Section I.C. of Exhibit I.
- C. The CONSULTANT shall serve as the CLIENT'S professional engineering representative as described herein.

SECTION II - THE CLIENT'S RESPONSIBILITIES

- A. The CLIENT shall promptly compensate the CONSULTANT in accordance with Section III of this Agreement.
- B. The CLIENT shall place any and all previously acquired information in its custody at the disposal of the CONSULTANT for its use. Such information shall include but shall not be limited to boundary surveys, topographic surveys, preliminary sketch plan layouts, building plans, soil surveys, abstracts, deed descriptions, tile maps and layouts, aerial photos, utility agreements, environmental reviews, zoning limitation. The CONSULTANT may rely upon the accuracy and sufficiency of all such information in performing services unless otherwise instructed, in writing, by CLIENT.
- C. The CLIENT will assist in providing access to and make all provisions for entry upon both public and private portions of the project and pertinent adjoining properties.
- D. The CLIENT will give prompt notice to the CONSULTANT whenever the CLIENT observes or otherwise becomes aware of any defect in the proposed project.

- E. The CLIENT shall designate a liaison person to act as the CLIENT'S representative with respect to services to be rendered under this Agreement. Said representative shall have the authority to transmit instructions, receive instructions, receive information, interpret and define the CLIENT'S policies with respect to the project and CONSULTANT'S services.
- F. The CLIENT shall provide such legal, accounting, independent cost estimating and insurance counseling services as may be required for completion of contract documents and other CONSULTANT services not included in this Agreement.
- G. The CLIENT will hire, when requested by the CONSULTANT, an independent testing company to perform laboratory and material testing services, and soil investigations that can be justified for the proper design of the project. The CONSULTANT shall assist the CLIENT in selecting a testing company. Payment for testing services shall be made directly to the testing company by the CLIENT and is not part of this Agreement.
- H. The CLIENT shall give prompt and thorough consideration of all reports, sketches, estimates, drawings, specifications, proposals and other documents submitted to the CLIENT by the CONSULTANT, and shall inform the CONSULTANT of all decisions within a reasonable time so as not to delay the work.
- I. The CLIENT shall be responsible for issuing all legal notices, holding all required special meetings, receiving and acting upon protests, and fulfilling all requirements necessary in legal development of the projects as well as paying all costs incidental thereto.

SECTION III - COMPENSATION FOR SERVICES

A. SCHEDULE OF FEES

- 1. The following schedule of fees is based upon competent and responsible engineering and surveying services, and are the minimum rates, below which adequate professional standards cannot be maintained. It is, therefore, to the advantage of both the CONSULTANT and CLIENT that fees be commensurate with the service rendered.

Sr. Project Manager-Principal Engineer/Surveyor.....	\$130-275/Hour
Sr. Project Manager - Associate Engineer/Surveyor	\$100-150/Hour
Project Manager (incl. Landscape Architect)	\$100-145/Hour
Project/Design Engineer/Planner/Landscape Architect.....	\$60-135/Hour
Licensed Surveyor	\$70-135/Hour
Project Surveyor	\$60-100/Hour
Specialist (Nat. Resources, GIS, Traffic, Other).....	\$70-120/Hour
Senior Technician (incl. Survey ¹)	\$70-145/Hour
Technician (incl. Survey ¹)	\$50-90/Hour
Administrative Support & Clerical	\$35-80/Hour
GPS/Robotic Survey Equipment	No Charge
AutoCAD/Computer Time	No Charge
Office Supplies.....	No Charge
Photo Copying/Reproduction	No Charge
Field Supplies/Survey Stakes & Equipment.....	No Charge
Mileage.....	No Charge

¹ No separate charges will be made for GPS or robotic total stations. The cost of this equipment is included in the rates for Survey Technician.

Charges are based on hours spent at hourly rates in effect for the individuals performing the work. The hourly rates for principals, associates and members of the staff vary according to skill and experience.

These rates include an overhead factor that accounts for federal and state taxes and required benefits, as well as insurance, office expenses and profit. In addition, the overhead factor includes vehicle and personal expenses, stakes and supplies as noted above. Unusual expenses, such as large quantities of prints, outside professional assistance and other items of this general nature, will be billed out separately. Overtime shall not result in additional costs to the CLIENT, but shall be billed at normal hourly rates.

2. Total cost for the Basic Services, as itemized under Section I.A. of EXHIBIT I shall not exceed \$125,324.00.
3. The payment to the CONSULTANT will be made by the CLIENT upon billing at intervals not more often than monthly.

SECTION IV - GENERAL

A. STANDARD OF CARE

Professional services provided under this Agreement will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the Consultant's profession currently practicing under similar conditions. No warranty, express or implied, is made.

B. CHANGE IN PROJECT SCOPE

In the event the CLIENT changes or is required to change the scope of the project from that described in Section I and/or the applicable addendum, and such changes require Additional Services by the CONSULTANT, the CONSULTANT shall be entitled to additional compensation at the applicable hourly rates. Changes requested by the CLIENT will be communicated to the CONSULTANT in writing. The CONSULTANT shall give written notice to the CLIENT of any Additional Services, prior to furnishing such additional services. The CLIENT may request an estimate of additional cost from the CONSULTANT, and upon receipt of the request, the CONSULTANT shall furnish such, prior to authorization of the changed scope of work.

C. LIMITATION OF LIABILITY

CONSULTANT shall indemnify, defend, and hold harmless CLIENT and its officials, agents and employees from any loss, claim, liability, and expense (including reasonable attorneys' fees and expenses of litigation) arising from, or based in the whole, or in any part, on any negligence act or omission by CONSULTANT'S employees, agents, or subconsultants. In no event shall CLIENT be liable to CONSULTANT for consequential, incidental, indirect, special, or punitive damages.

CLIENT shall indemnify, defend, and hold harmless CONSULTANT and its employees from any loss, claim, liability, and expense (including reasonable attorneys' fees and expenses of litigation) arising from, or based in the whole, or in any part, on any negligence act or omission by CLIENT'S employees, agents, or consultants. In no event shall CONSULTANT be liable to CLIENT for consequential, incidental, indirect, special, or punitive damages.

Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the CLIENT or the CONSULTANT. The CONSULTANT'S

services under this Agreement are being performed solely for the CLIENT'S benefit, and no other entity shall have any claim against the CONSULTANT because of this Agreement or the performance or nonperformance of services hereunder. The CLIENT agrees to include a provision in all contracts with contractors and other entities involved in this project to carry out the intent of the paragraph.

D. INSURANCE

The CONSULTANT agrees to maintain, at the CONSULTANT'S expense, statutory worker's compensation coverage.

The CONSULTANT also agrees to maintain, at CONSULTANT'S expense, general liability insurance coverage insuring CONSULTANT against claims for bodily injury, death or property damage arising out of CONSULTANT'S general business activities (including automobile use). The liability insurance policy shall provide coverage for each occurrence in the minimum amount of \$1,000,000.

During the period of design and construction of the project, the CONSULTANT also agrees to maintain, at CONSULTANT'S expense, Professional Liability Insurance coverage insuring CONSULTANT against damages for legal liability arising from an error, omission or negligent act in the performance of professional services required by this agreement, providing that such coverage is reasonably available at commercially affordable premiums. For purposes of this agreement, "reasonably available" and "commercially affordable" shall mean that more than half of the design professionals practicing in this state in CONSULTANT'S discipline are able to obtain coverage. The professional liability insurance policy shall provide coverage for each occurrence in the amount of \$1,000,000 and annual aggregate of \$1,000,000 on a claims-made basis.

Upon request of CLIENT, CONSULTANT shall provide CLIENT with certificates of insurance, showing evidence of required coverages.

E. OPINIONS OR ESTIMATES OF CONSTRUCTION COST

Where provided by the CONSULTANT as part of Exhibit I or otherwise, opinions or estimates of construction cost will generally be based upon public construction cost information. Since the CONSULTANT has no control over the cost of labor, materials, competitive bidding process, weather conditions and other factors affecting the cost of construction, all cost estimates are opinions for general information of the CLIENT and the CONSULTANT does not warrant or guarantee the accuracy of construction cost opinions or estimates. The CLIENT acknowledges that costs for project financing should be based upon contracted construction costs with appropriate contingencies.

F. CONSTRUCTION SERVICES

It is agreed that the CONSULTANT and its representatives shall not be responsible for the means, methods, techniques, schedules or procedures of construction selected by the contractor or the safety precautions or programs incident to the work of the contractor.

G. USE OF ELECTRONIC/DIGITAL DATA

Because of the potential instability of electronic/digital data and susceptibility to unauthorized changes, copies of documents that may be relied upon by CLIENT are limited to the printed copies (also known as hard copies) that are signed or sealed by CONSULTANT. Except for electronic/digital data which is specifically identified as a project deliverable by this AGREEMENT or except as otherwise explicitly provided in this AGREEMENT, all electronic/digital data developed by the CONSULTANT as part of the PROJECT is acknowledged to be an internal working document for the CONSULTANT'S purposes solely and any such information provided to the CLIENT shall be on an "AS IS" basis strictly for the convenience of the CLIENT without any warranties of any kind. As such, the CLIENT is advised and acknowledges that use of such information may require substantial modification and independent verification by the CLIENT (or its designees). Provision of electronic/digital data, whether required by this Agreement or provided as a convenience to the Client, does not include any license of software or other systems necessary to read, use or reproduce the information. It is the responsibility of the CLIENT to verify compatibility with its system and long-term stability of media. CLIENT shall indemnify and hold harmless CONSULTANT and its Subconsultants from all claims, damages, losses, and expenses, including attorneys' fees arising out of or resulting from third party use or any adaptation or distribution of electronic/digital data provided under this AGREEMENT, unless such third party use and adaptation or distribution is explicitly authorized by this AGREEMENT.

H. REUSE OF DOCUMENTS

Drawings and Specifications and all other documents (including electronic and digital versions of any documents) prepared or furnished by CONSULTANT pursuant to this AGREEMENT are instruments of service in respect to the Project and CONSULTANT shall retain an ownership interest therein. Upon payment of all fees owed to the CONSULTANT, the CLIENT shall acquire an ownership interest in all identified deliverables, including Plans and Specifications, for any reasonable use relative to the Project and the general operations of the CLIENT. CLIENT may make and disseminate copies for information and reference in connection with the use and maintenance of the Project by the CLIENT. However, such documents are not intended or represented to be suitable for reuse by CLIENT or others on extensions of the Project or on any other project and any reuse other than that specifically intended by this AGREEMENT will be at CLIENT'S sole risk and without liability or legal exposure to CONSULTANT.

I. CONFIDENTIALITY

CONSULTANT agrees to keep confidential and not to disclose to any person or entity, other than CONSULTANT'S employees and subconsultants any information obtained from CLIENT not previously in the public domain or not otherwise previously known to or generated by CONSULTANT. These provisions shall not apply to information in whatever form that comes into the public domain through no fault of CONSULTANT; or is furnished to CONSULTANT by a third party who is under no obligation to keep such information confidential; or is information for which the CONSULTANT is required to provide by law or authority with proper jurisdiction; or is information upon which the CONSULTANT must rely for defense of any claim or legal action.

J. PERIOD OF AGREEMENT

This Agreement will remain in effect for the longer of a period of two years or such other explicitly identified completion period, after which time the Agreement may be extended upon mutual agreement of both parties.

K. PAYMENTS

If payment on any of the CONSULTANT'S invoices is not received within thirty days after date of the invoice, a service charge of two-third of one percent (0.67%) per month will be charged on any unpaid balance.

L. TERMINATION

This Agreement may be terminated by either party for any reason or for convenience by either party upon seven (7) days written notice.

In the event of termination, the CLIENT shall be obligated to the CONSULTANT for payment of amounts due and owing including payment for services performed or furnished to the date and time of termination, computed in accordance with Section III of this Agreement. Consultant shall provide data completed up until date of termination.

M. CONTINGENT FEE

The CONSULTANT warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT to solicit or secure this Contract, and that it has not paid or agreed to pay any company or person, other than a bona fide employee, any fee, commission, percentage, brokerage fee, gift or any other consideration, contingent upon or resulting from award or making of this Agreement.

N. NON-DISCRIMINATION

The provisions of any applicable law or ordinance relating to civil rights and discrimination shall be considered part of this Agreement as if fully set forth herein.

The CONSULTANT is an Equal Opportunity Employer and it is the policy of the CONSULTANT that all employees, persons seeking employment, subcontractors, subconsultants and vendors are treated without regard to their race, religion, sex, color, national origin, disability, age, sexual orientation, marital status, public assistance status or any other characteristic protected by federal, state or local law.

O. CONTROLLING LAW

This Agreement is to be governed by the law of the State of Minnesota.

P. DISPUTE RESOLUTION

CLIENT and CONSULTANT agree to negotiate all disputes between them in good faith for a period of 30 days from the date of notice of dispute prior to proceeding to formal dispute resolution or exercising their rights under law. Any claims or disputes unresolved after good faith negotiations shall first be submitted to mediation by Minnesota General Rules of Practice 114 prior to exercising their rights of law.

Q. SURVIVAL

All obligations, representations and provisions made in or given in Section IV of this Agreement will survive the completion of all services of the CONSULTANT under this Agreement or the termination of this Agreement for any reason.

R. SEVERABILITY

Any provision or part of the Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon CLIENT and CONSULTANT, who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

The remainder of this page is intentionally left blank.

SECTION V - SIGNATURES

THIS INSTRUMENT embodies the whole agreement of the parties, there being no promises, terms, conditions or obligation referring to the subject matter other than contained herein.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed in their behalf.

CLIENT: City of Muscatine, Iowa

CONSULTANT: Bolton & Menk, Inc.

By: _____
Printed Name

By: Matthew Ferrier, P.E.
Printed Name

Signature: _____

Signature: _____

Title: _____

Title: Principal

Date: _____

Date: _____

And: _____
Printed Name

Signature: _____

Title: _____

Date: _____

EXHIBIT I

PROJECT RELATED SERVICES BY CONSULTANT

NON-POINT NUTRIENT REDUCTION ALTERNATIVES STUDY AND MUSCATINE SLOUGH DRAINAGE AREA MASTER PLAN

CITY OF MUSCATINE, IOWA

DESCRIPTION OF PROPOSED PROJECT

The scope of services is based on the following project description:

The project consists of a study to evaluate non-point nutrient reduction alternatives for the Muscatine Water and Resource Recovery Facility (WRRF) and create a Master Plan for City owned properties in the Muscatine Slough drainage area.

Nutrient Reduction

The City's NPDES permit requires nutrient reduction in the WRRF plant effluent or comparable reductions within the watershed. The study will attempt to identify watershed projects to affect greater nutrient reduction than would be attained only through processes at the WRRF while reducing capital costs as compared to WRRF treatment process nutrient reduction. Ideally, the study will reveal adequate alternatives so that no process work needs to be done at the WRRF.

The City desires to send treated effluent through existing pipe to the biosolids storage lagoon area for irrigating the fields on the surrounding land. The study will analyze pumping requirements, application capacity and what new equipment may be needed. The City is looking to use this as the main nutrient reduction requirement for their permit. A new storage lagoon may be necessary and will be part of the cost estimate. The proposed land currently has biosolids applied to it and the land owners have been asked if irrigation to these lands is desirable. They have all agreed to accept irrigation to this land.

Projects that would be eligible for nutrient trading and reduce capital costs will be explored. This will include edge of field practices for tiled fields in the area. WRRF effluent quality data and biosolids data is available for use during the study.

Mad Creek Watershed

Partnership opportunities may exist with Muscatine County, drainage districts, and private landowners within the Mad Creek watershed to create nutrient reduction structures. These projects may provide multiple benefits including recreation, natural resource enhancement, and source water protection. The City desires to identify projects within the Mad Creek watershed surrounding Muscatine. Priority will be given to projects that are well-suited for large-scale water quality improvements. We will then evaluate these potential projects by quantifying the expected nutrient removal and estimating the capital costs. Selection of projects will be coordinated with previous work completed by the NRCS/SWCD as shown in Figure 3 below.

Muscatine Slough Drainage Area Master Plan

The Muscatine Slough is a natural drainage system located in southern Muscatine. The slough system drains approximately 1,350 acres upstream of the US61 Bypass. The City of Muscatine owns and maintains most of the drainage features in the portions of the slough that are within corporate limits. A preliminary study of the hydrology of the Muscatine Slough area and potential for jurisdictional wetlands has been completed and will be used as the basis for further development of projects. This report outlines several opportunities for stormwater improvements including reduction of nuisance flooding, removal of accumulated sediment in an un-named drainage ditch, and enhancement of two existing wetlands in the Pollinator Park.

A Stormwater Master Plan will be developed for this area which outlines stormwater improvement projects with an emphasis on reduction of maintenance and nutrient reduction opportunities for nutrient reduction exchange with the WRRF. The master plan will further develop the projects outlined in the preliminary study, analyze opportunities for additional nutrient reduction projects, estimate the cost of proposed improvements, and outline potential savings compared to reducing nutrients in the WRRF outflow. Other areas around the city that can be briefly explored for nutrient reduction exchange will be studied as well.

Very limited stormwater nutrient data is available. Typical literature values will be used for the study. A recommended sampling program will be developed as part of the plan.

The City shall assign a steering committee comprised of the WRRF Director, the City Engineer and other representatives from City staff to work with the selected consultant.

I.A. BASIC SERVICES

For purposes of this specific project, Basic Services to be provided by the CONSULTANT are as follows:

Task 1 – Project Initiation and Project Management

- A. Up to three (3) In-person meetings will be held with the CONSULTANT and the CLIENT after the initial scope definition meeting. These meetings will discuss findings, issues, schedule, and needs to keep the project progressing.
- B. The CONSULTANT will provide project and contract administration services throughout the duration of the project.
- C. The CONSULTANT will facilitate project communication throughout the duration of the project.

Task 2 – Review Previously Prepared Plans and Reports

- A. The CONSULTANT will complete an in depth review of the previously completed Slough Drainage Area study among other available information pertinent to the slough area stormwater project design. The review will validate the plan's strengths, identify discrepancies and technical issues, and develop a road map that, along with city input, will form the basis for preliminary design documentation.

Task 3 – Survey and Mapping

- A. The CONSULTANT will collect topographic survey of the slough project areas including survey of wetland and ditch cross-sections, driveways, and culverts for development of hydraulic calculations and proposed improvements as shown on Figure 1 below.
- B. The CONSULTANT will complete a wetland delineation of the slough project areas to determine potential for wetland impacts and project costs as shown on Figure 2 below.

Task 4 – Slough Area Drainage Project Preliminary Design

- A. Preliminary design of projects, each to include EPA-SWMM calculations to determine size/dimensions, 1 AutoCAD concept drawing and cost estimate:
- B. Developing a regional silt basin in sub-basin S4 with equipment access features to allow USACE approved removal of sediment
- C. Redirecting stormwater flows from the industrial area in sub-basin S1 to the constructed wetland in sub-basin S5
- D. Pumping supplemental water from S3 or S4 to the constructed wetland in sub-basin S5
- E. Removal of sediment from sub-basin S6 and creation of meandering channel and possible oxbow features
- F. Reduction of flood frequency over the driveway for the dog park and pollinator park public areas
- G. Development of storm water project at Iowa Field

Task 5 – Mad Creek Watershed Nutrient Reduction

- A. Screening of potential projects and summary of nutrient reduction potential
- B. Mad Creek drainage area evaluation
 - 1. Desktop assessment of prioritization of potential structures: Gather GIS data, previous project data, delineate watersheds, develop simplistic watershed model to simulate potential size/benefits, develop prioritized list of alternatives.
 - 2. Concept level development of high priority structures (up to 3) to 25% design development level. Does not include field/topo survey.

Task 6 – Effluent Irrigation

- A. Effluent irrigation plan development including average, wet, dry year water balances, N, P, loading rates with consideration of biosolids loadings and crop uptake rates.
- B. Determine cost of construction and equipment to direct effluent to the biosolids lagoons for irrigation
- C. Determination of pounds annually that are anticipated to be applied through effluent land irrigation application

Task 7 – Master Plan Report and Deliverables

- A. Determination of pounds of N/P annually that are anticipated to be reduced from known and/or estimated runoff N/P levels in the proposed nutrient reduction projects
- B. Development of a Master Plan for City owned properties within the study area
- C. Development of a Master Plan for drainage areas at a planning level
- D. As part of the master planning, determine wetland requirements to close any gaps between effluent irrigation and required reductions.
- E. Master plan should include proposed wetland creation and enhancements to reduce overall nutrients entering the environment.
- F. Summarize the findings and recommendations in a report to be reviewed with the City in both

- draft and final format
- G. Prepare planning level construction cost estimates for the selected watershed nutrient reduction alternatives and other watershed projects
- H. Create exhibits for use at public meetings
- I. Present findings to Muscatine City Council and City's Project Steering Committee
- J. Create display board graphics for the City's use in creating display boards at public sites

I.B HOURLY RATE SERVICES

The following services are outside the scope of work basic scope of work and may be provided at the CONSULTANT's standard hourly rate and a fee estimate shall be developed and mutually agreed upon prior to commencement of work:

A. Funding Assistance

Throughout the project, our team will consider future funding opportunities to leverage project resources. This task allows our team to provide assistance or leadership to the city in identifying and pursuing funding opportunities as requested. The CONSULTANT will develop a funding matrix of potential grant sources and maintain a funding plan that will aid in the development of commitments and identification of the possibilities to close the funding gaps.

B. Final Design and Construction Bidding:

- 1. The CONSULTANT will create final design plans and assist the city in public bidding for proposed drainage improvements and/or nutrient reduction practices.

I.C. ADDITIONAL SERVICES – NOT IN CONTRACT BUT CAN BE PROVIDED

Engineering services performed other than those authorized under Section I.A and I.B shall be considered not part of the Basic Services or Construction Phase Services and may be authorized by the CLIENT as Additional Services. Additional Services consist of those services that are not generally considered to be Basic Services or Construction Phase Services or are not definable prior to the commencement of the project or vary depending on the technique, procedures or schedule of the project contractor. Additional services may consist of the following:

- A. Construction observation or administration.
- B. STRUCTURAL ENGINEERING DESIGN. Any structural engineering design associated with cast-in-place retaining walls, temporary shoring, or other structures.
- C. PROPERTY OR RIGHT OF WAY ACQUISITION SERVICES. Includes any property or right of way acquisition services, preparation of easement agreements, or preparation of right-of-way plats.
- D. GEOTECHNICAL AND MATERIAL TESTING SERVICES. Geotechnical services and material testing services, including borings, other subsurface investigations, and material testing for quality control.
- E. ENVIRONMENTAL SERVICES. Environmental services associated environmental clearances, archeological investigations, and identification or mitigation of hazardous materials leaks and contaminated soils.
- F. Project funding and assessments.
- G. All other services not specifically identified in Section I.A. or I.B.

- H. Location of existing utilities other than those which are readily visible.
- I. Work within railroad right of way may require separate agreement with RAILWAY.

I.D. FIGURES

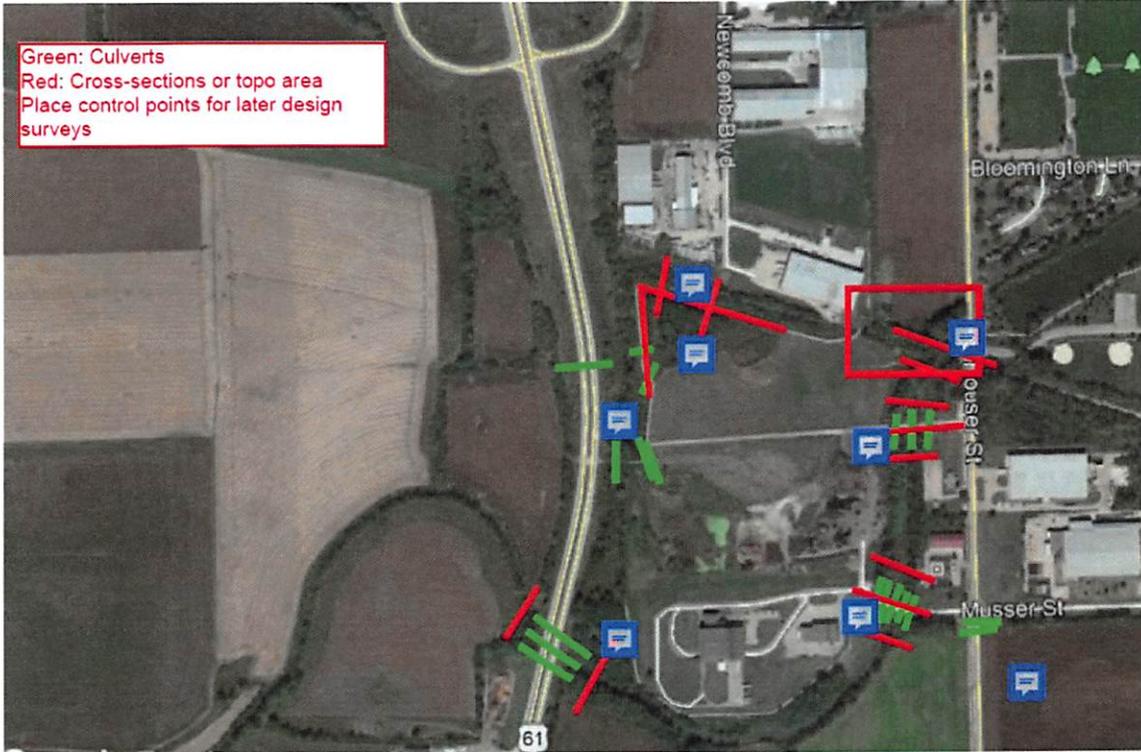


Figure 1: Topographic Survey

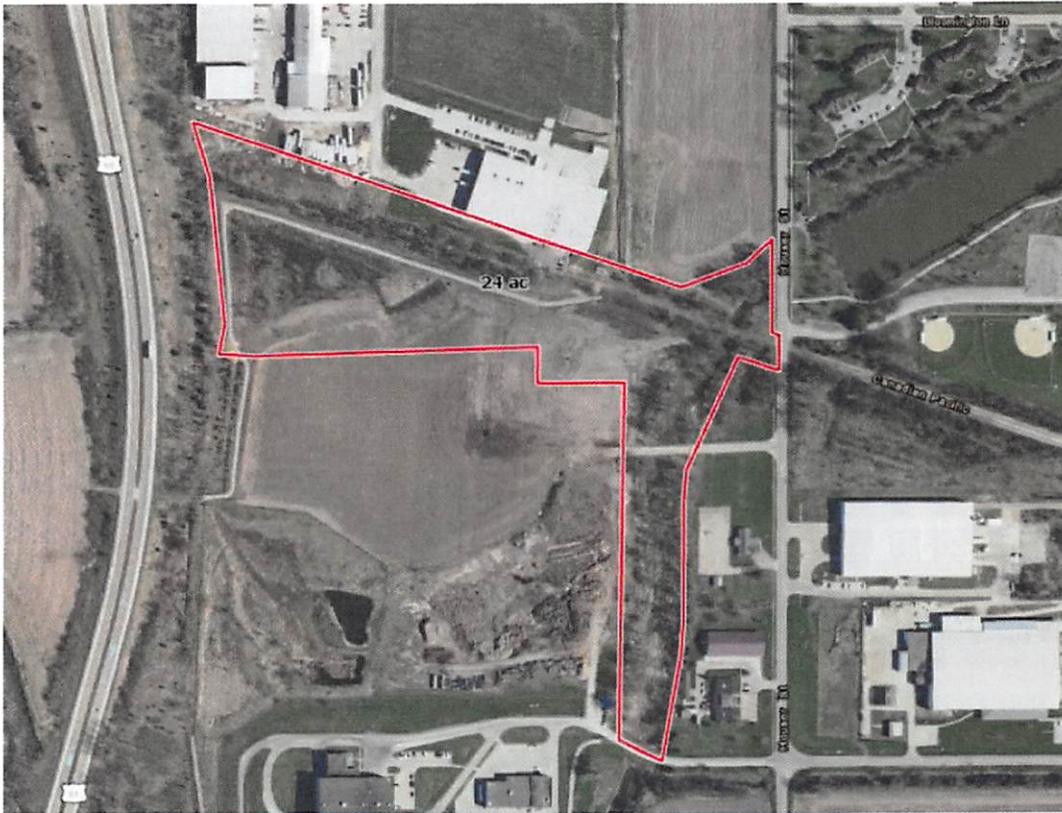


Figure 2: Wetland Delineation Area (Outlined in Red)

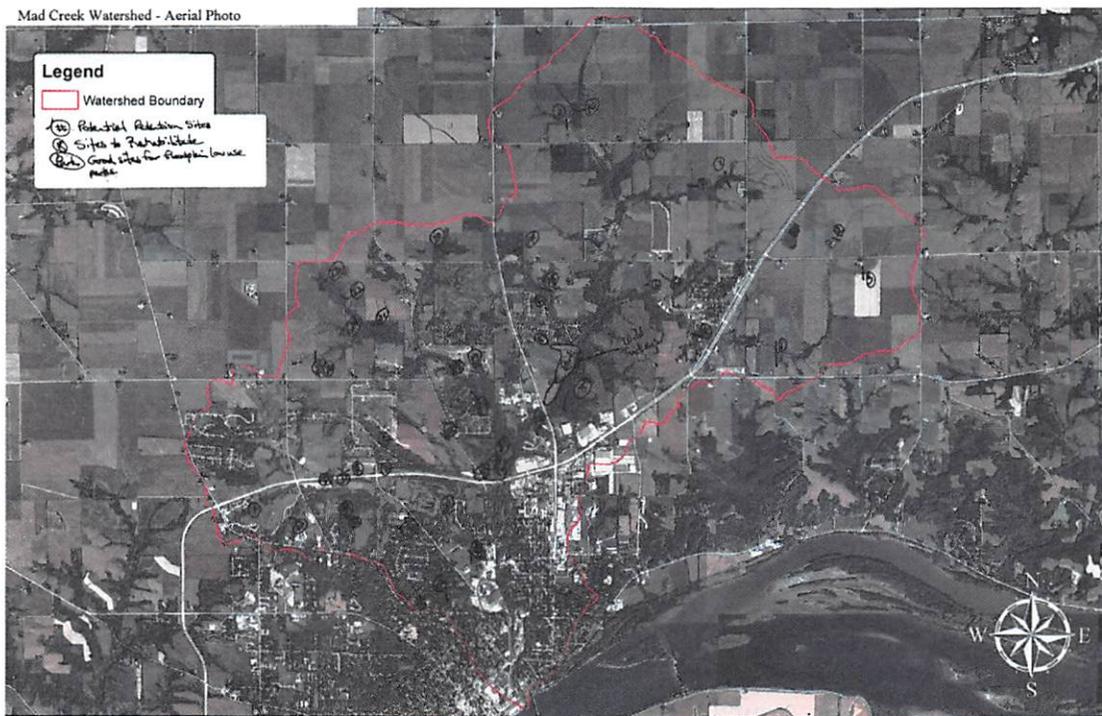


Figure 3: Mad Creek Drainage Area (Outlined in Red)

