F3

City of Hiawatha

Engineering Department

101 Emmons St., Hiawatha Iowa, 52233-1697
PHONE (319) 393-1515 ext. 511 FAX (319) 393-1516

To: Mayor and City Council

Date: January 31, 2018

From: John C Bender PE, City Engineer

Re: Professional Services Agreement with MSA Professional Services (Attached)

Description: Edgewood Road Sewer Extension and Mitchell Drive Forcemain Replacement

Report:

The selection committee recommends to the City Council that a professional engineering agreement with MSA Professional Services be approved for design of the Edgewood Road Sewer extension and the repair of the Mitchell Drive forcemain, 2018.

The Edgewood Road sewer extension approximately 2000 feet south of Hunt Road was included in a development agreement during the annexation of the Rodney and Vicki Saari property in 2009. As the property was annexed, there was a mutual agreement to extend this sewer as the property within the next few years. The sewer service was not needed as soon as expected; however the approximately 80 acres east of Edgewood Road and west of I-380 can also be served once this sewer line is installed. Now that the paving project of Edgewood Road is progressing, we feel the addition of this sewer will provide shovel ready lots for development in Hiawatha. We have included the funding for this construction in the newly adopted CIP.

The second area of concern is the currently operating pumping station on Mitchell Drive. This station was constructed in the late 1980's and upgraded again in approximately 2008. This station serves a large area of the Hiawatha Tower Commerce area, plus the lots developed in the northwest annexed area are pumped to this station that eventually transfers flows to the Dry Creek interceptor. We have experienced problems with the existing pressure line and had to conduct repairs to the line several times in the last few years. We think the age of the line and the amount of flow to be transferred has reduced the life of this pipe, requiring us to consider replacement.

Because these two projects are similar, we feel we can save cost by combining the two areas into one contract and receive very competitive prices for a contractor to complete both projects. Because the Mitchell Drive project is an emergency repair, we recommend sewer reserve funds be used to replace this line.

The committee has met with the design engineers and has negotiated the attached contract. The contract includes:

- The engineering design and specifications for the sanitary sewer extension along Edgewood Road from the Intersection of Hunt Road to 2000 feet south
- Also included is an engineering study of the Mitchell Drive Pump station
- The engineering design and specifications for the replacement of the existing forcemain from the Mitchell Drive pump station to North Center Point Road
- Required soil borings to determine if unidentified soil conditions exist
- Prepare property plats and easement documents for the needed private property access
- The design fee is not-to-exceed $64,000.00
- The schedule for bidding is anticipated in June 2018
- Construction to take place by fall of 2018
- Total budget is $275,000 funded with LOST and sewer reserve funds

Engineering recommends approval of the final agreement.

SCOPE OF SERVICES

Hiawatha Sanitary Sewer Extension and Forcemain Replacement (2018)

1. General

The Basic Services are premised on the following general scope of professional services:

Engineering Services

MSA Professional Services, Inc. proposes to provide Design and Bidding services including submission of plans and specifications to the Iowa DNR and Linn County of the following:

1) Hiawatha Sanitary Sewer Extension and Forcemain Replacement (2018)

The design services are intended to be completed in conformance with the standards stipulated by the Engineers Joint Contract Documents Committee and published jointly by the American Consulting Engineers Council and National Society of Professional Engineers.

Project is defined further as follows:

Hiawatha Sanitary Sewer Extension and Forcemain Replacement (2018)

The project consists of the design, bidding and construction services of a sanitary sewer extension along Edgewood Road and forcemain replacement along Mitchell Drive.

Sanitary sewer will be extended along Edgewood Road from the existing Edgewood Road Lift Station near Hunt Road to the annexed property approximately 2,000 feet south of the Lift Station.

The forcemain replacement will replace an existing forcemain that has had multiple breaks in recent years. The existing forcemain to be replaced runs along Mitchell Drive from the existing Mitchell Drive Lift Station to North Center Point Road (approximately 1,450 LF).

MSA's engineering services shall include the following:

<u>Hiawatha Sanitary Sewer Extension and Forcemain Replacement (2018):</u>

1. *Administration*
   - *a.* Project Design Administration
     - i. Perform internal quality review to assure compliance with OWNER's intent.
     - ii. Coordinate internal Staff to assure compliance with OWNER's intent
     - iii. Prepare Project Correspondence.
   - *b.* Project Design Meetings
     - i. Conduct design review meeting with City Staff at 50% and 95% completion.

2. *Survey and Mapping*
   - a. Complete topographic survey of proposed improvement area. Topographic survey shall include locating and identifying observable features within the improvement area, as well as research for determining existing property owners, and property lines.
   - b. Perform topographic and boundary survey of project site. MSA will establish horizontal and vertical control for the Project area. Topographic surveys are anticipated to be limited to those areas requiring detailed elevation information for proper construction installation.

c. MSA shall determine the location of utilities within the existing right-of-way for the project. Underground utilities will be incorporated into the project through map requests to the utility companies and drawn into the design file.

3. *Easement Document Preparation*
   a. Preparation of permanent and temporary easement documents in relation to the sanitary sewer extension along Edgewood Road, certified by a Licensed Surveyor.
   b. Documents shall include easement exhibits with legal descriptions.
   c. Conveyance documents and negotiations shall be the responsibility of the City.

4. *ROW Acquisition Document Preparation*
   a. Preparation of acquisition plat documents for ROW to be acquired for the sanitary sewer extension along Edgewood Road.
   b. ROW and property limits to be determined and negotiated by the City.
   c. Conveyance documents and recording fees shall be the responsibly of the City.

5. *Subsurface Investigation and Geotechnical Evaluation*
   a. Coordinate subsurface investigation work with geotechnical subconsultant
   b. Geotechnical subconsultant shall perform field exploration of the project location and develop geotechnical classifications of existing soils, determine groundwater elevations and bedrock elevations.
   c. No more than two (2) soil borings will be included in the project.

6. *Gravity Sewer Design*
   a. Preliminary Design Phase
      i. Prepare existing site plan and pipe routing for existing facilities;
      ii. Prepare proposed site plan, and pipe routing plan for proposed facilities
      iii. MSA shall provide a 50% complete plan set to the City for review and comment and the end of the preliminary design phase.

   b. Final Design Phase
      i. Prepare proposed site plan and pipe routing plan and profiles,
      ii. Prepare necessary plans for boring of sanitary sewer underneath existing road facilities (if applicable);
      iii. Prepare Construction Cost Estimate
      iv. MSA shall provide a 95% complete plan set to the City for review and comment and the end of the final design phase.

7. *Forcemain Design*
   a. Technical Memorandum
      i. Review service area of Mitchell Drive Lift Station
      ii. Review existing capacity of Mitchel Drive Lift Station pumps and piping
      iii. Provide recommended pipe size to be the basis of design of forcemain replacement.
      iv. Prepare technical memorandum (less than 10 pages)
   b. Preliminary Design Phase
      i. Prepare existing site plan and pipe routing for existing facilities;
      ii. Prepare proposed site plan, and pipe routing plan for proposed facilities
      iii. MSA shall provide a 50% complete plan set to the City for review and comment and the end of the preliminary design phase.
   c. Final Design Phase
      i. Prepare proposed site plan and pipe routing plan and profiles,
      ii. Prepare necessary plans for boring of forcemain underneath existing road facilities (if applicable);
      iii. Prepare Construction Cost Estimate
      iv. MSA shall provide a 95% complete plan set to the City for review and comment and the end of the final design phase.

8. *Specifications*
   a. Prepare Specifications in accordance with the Cedar Rapids Metropolitan Area Standard Specifications for Public Improvements.

9. *Permitting*
   a. Prepare DNR and Linn County permit Applications (if applicable).
   b. Submit Plans and Specifications to DNR and Linn County for Review (if applicable).
   c. Prepare NPDES Storm Water Permit Application
   d. All required forms and fillings shall be completed by MSA, however associated permit fees shall be paid for by OWNER.

10. *Bidding Phase*
   a. Printing of bidding Documents (up to 5 sets of plans and specifications)
   b. Uploading plans and specifications to Rapid Reproductions, Inc. City is responsible for fees associated with bidding and printing. Rapid Reproductions will directly invoice the City for their services.
   c. Preparation of Bidding documents for a single contract project
   d. Preparation of Notice to Bidders
   e. Respond to Contractor questions during the bidding process
   f. Attend Bid Opening;
   g. Assist the City in Evaluating bidders and make a recommendation for award
   h. Preparation of construction contract for signature and distribute signed contracts;
   i. Review completed contract, bonds, and insurance and issue Notice to Proceed.

11. Construction Administration Phase
   a. Meet with Owner to determine project construction requirements, provide periodic updates of the project progress, and discuss any relevant issues concerning the project
   b. Conduct a Pre-Construction Conference with all interested parties
   c. Provide one copy of Contractor submittals to Owner
   d. Review and approve Shop Drawings, Samples and other construction related materials
   e. Review and Recommend Contractor's applications for payment
   f. Attend Monthly construction meetings with Contractor for a construction contract length of 6 months
   g. Conduct pre-final walkthrough and establish punch list items.
   h. Conduct final walkthrough to ensure compliance with plans and specifications.
   i. Prepare project closeout documents, including punch list of non- compliant construction features.

12. Post-Construction Phase
   a. Together with Owner, visit the Project to observe any apparent defects in the Work, assist Owner in consultations and discussions with Contractor concerning correction of any such defects, and make recommendations as to replacement or correction of defective Work, if any.
   b. Together with Owner or Owner's representative, visit the Project within one month before the end of the correction period to ascertain whether any portion of the Work is subject to correction.

Items Not Included in Basic Services

1 Additional Meetings

Attendance at any such meetings that are not specially address above shall be considered above and beyond the scope of services as identified herein.

2. Land Acquisition Services

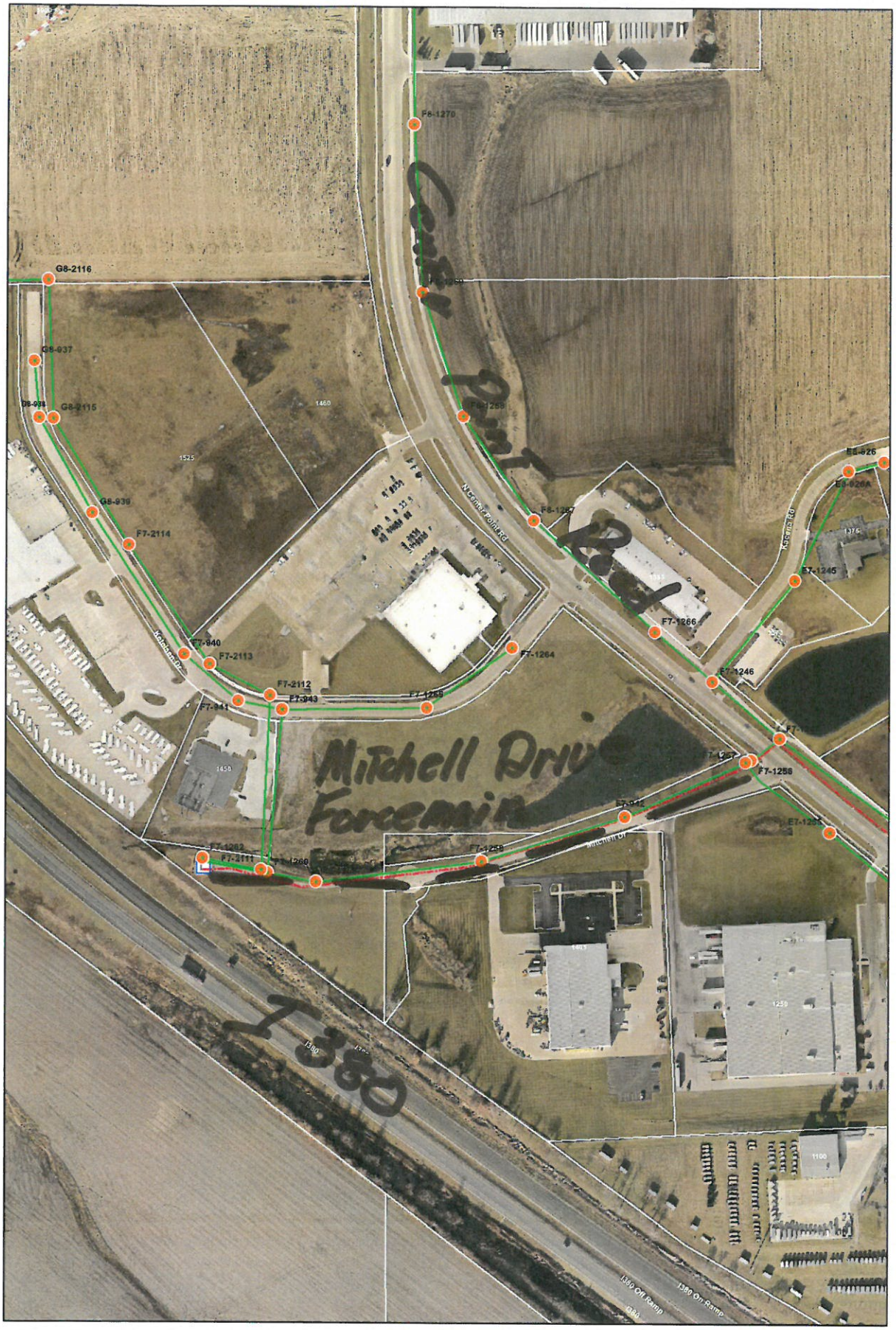
It has been assumed under this agreement that no services are required in association with land acquisition except as described above. As such, any additional work in relation to land acquisition shall be considered out of scope of this agreement.

3. Construction Staking

It has been assumed that staking will be completed by the contractor as part of the bid project.

2. Estimated Fee

1) Soil Borings on Edgewood Road - $4,000
2) Survey, ROW Plat Preparation, Construction Easement Preparation, Lift Station Flow Analysis Memo, Preliminary Design - $30,000
3) Final Design – $19,000
4) Construction Related Services (Construction meeting attendance, shop drawing review, pay application and change order review, final project walkthrough, warrantee review) - $11,000
5) Total T&M NTE pending final review - $64,000.

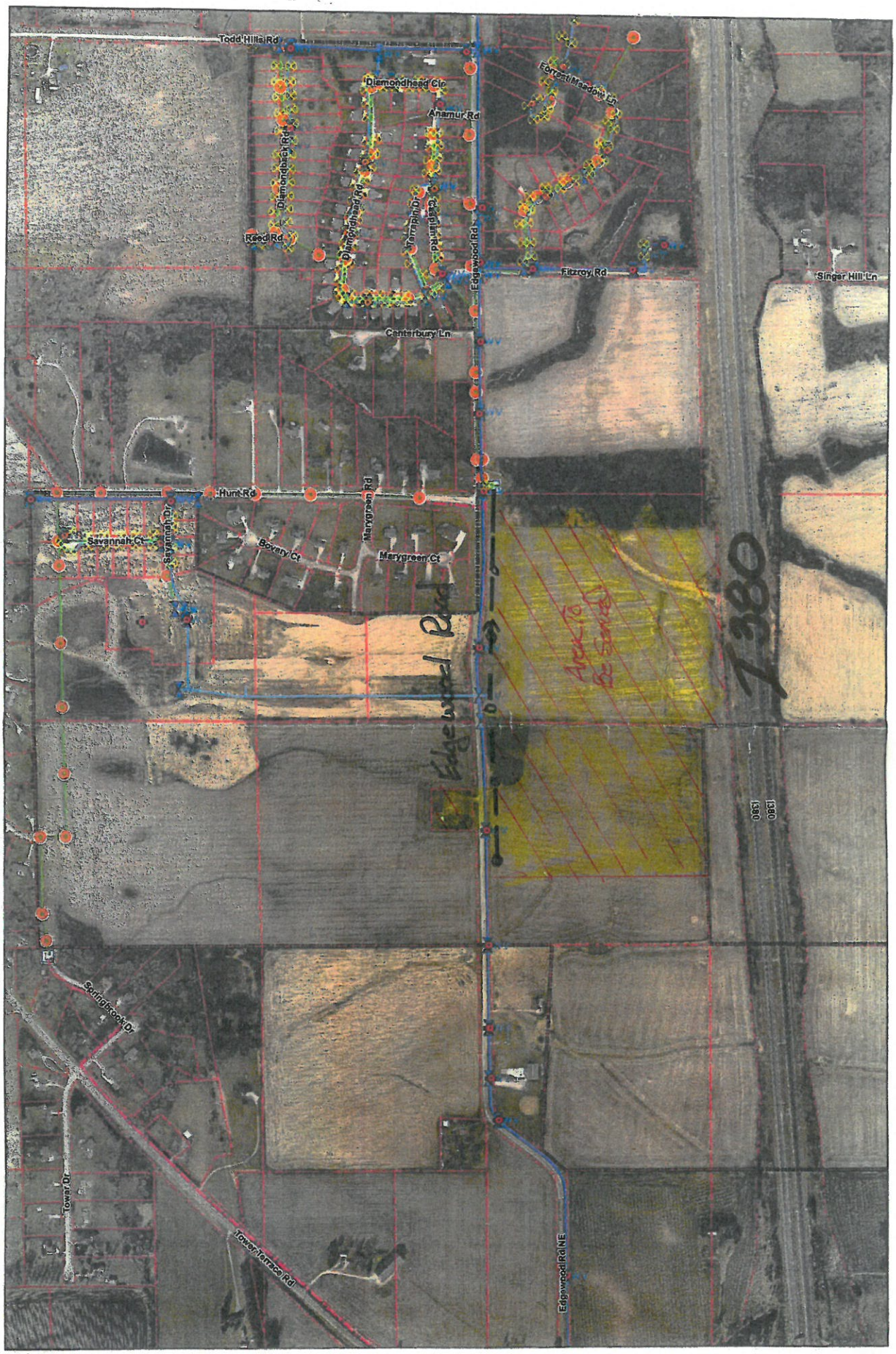


Hiawatha!

1 inch = 200 feet

Hiawatha Sanitary Sewer

January 2017



Hiawatha!

1 inch = 500 feet

DRAFT

RESOLUTION NO. 18-
City Council

RESOLUTION APPROVING A PROFESSIONAL SERVICES AGREEMENT FOR DESIGN WORK IN CONNECTION WITH THE 2018 EDGEWOOD ROAD SEWER EXTENSION AND MITCHELL DRIVE FORCEMAIN REPLACEMENT PROJECT

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF HIAWATHA, IOWA, that the Mayor is hereby authorized to sign a Professional Services Agreement between the City of Hiawatha and MSA Professional Services for the following purposes and under the following terms:

preparation of design work and specifications for the 2018 Edgewood Road Sewer Extension and Mitchell Drive Forcemain Replacement Project, in an amount not to exceed $64,000.00, as shown in the attached Exhibit 'A.'

AYES:
NAYS:
ABSENT:

PASSED AND APPROVED this 7th day of February, 2018.

_____
Bill Bennett, Mayor

ATTEST:

_____
Kelly Kornegor, City Clerk