



Roll Call Number

22-0302

Agenda Item Number

13

Date March 7, 2022

**APPROVING SUPPLEMENTAL AGREEMENT NO. 1 TO THE
PROFESSIONAL SERVICES AGREEMENT (PSA) WITH
McCLURE ENGINEERING CO. d/b/a McCLURE ENGINEERING COMPANY, FOR
ADDITIONAL PROFESSIONAL SERVICES FOR
McKINLEY AVENUE RECONSTRUCTION,
NOT TO EXCEED \$201,200**

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DES MOINES, IOWA: That Supplemental Agreement No. 1 between the City of Des Moines and McClure Engineering Co. d/b/a McClure Engineering Company, Dennis Folden, President, 1360 N.W. 121st Street, Clive, Iowa, 50325, for an additional amount not to exceed \$201,200, based on hourly labor rates and reimbursable costs, to provide additional professional services for McKinley Avenue Reconstruction, a copy of which is on file in the office of the City Clerk, is hereby approved as to form and content.

BE IT FURTHER RESOLVED: That the Mayor and City Clerk are hereby authorized and directed to execute and attest, respectively, said Supplemental Agreement No. 1 for and on behalf of the City of Des Moines, Iowa.

(City Council Communication Number 22-074 attached)
Activity ID 01-2021-005

Moved by Gatto to adopt. Second by Boesen.

FORM APPROVED: s/Kathleen Vanderpool
Kathleen Vanderpool
Deputy City Attorney

SLN
pw

Funding Source: 2021-2022 CIP, Page 110, McKinley Avenue Improvements, ST212, G.O. Bonds



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COUNCIL ACTION	YEAS	NAYS	PASS	ABSENT
COWNIE	✓			
BOESEN	✓			
GATTO	✓			
MANDELBAUM	✓			
SHEUMAKER	✓			
VOSS	✓			
WESTERGAARD	✓			
TOTAL	7			

CERTIFICATE

I, P. KAY CMELIK, City Clerk of said City hereby certify that at a meeting of the City Council of said City of Des Moines, held on the above date, among other proceedings the above was adopted.

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

MOTION CARRIED

APPROVED

J. M. Franklin Cownie Mayor

P. Kay Cmelik

City Clerk

**CITY OF DES MOINES
SUPPLEMENTAL AGREEMENT NO. 1
TO AGREEMENT FOR PROFESSIONAL SERVICES
McKINLEY AVENUE RECONSTRUCTION (S. UNION-SW 9th)
Activity ID 01-2021-005**

WHEREAS, on November 23, 2020, by Roll Call No. 20-1854, the City of Des Moines, Iowa, hereinafter referred to as the "City", and McClure Engineering Co. d/b/a McClure Engineering Company, Dennis Folden, President, 1360 NW 121st Street, Clive, IA 50325, hereinafter referred to as the "Consultant", entered into a Professional Services Agreement (the Agreement) in connection with the McKinley Avenue Reconstruction (S. Union - SW 9th), not to exceed \$331,970; and

WHEREAS, the City staff has negotiated a Supplemental Agreement No. 1 for additional professional services with the Consultant for additional survey, geotechnical exploration, and roadway, storm sewer, and traffic signal design ; and

NOW, THEREFORE, IT IS MUTUALLY AGREED, that the Agreement for Professional Services, McKinley Avenue Reconstruction (S. Union - SW 9th) is amended as follows:

SECTION 2 - SCOPE OF SERVICES, Paragraph A, SERVICES PROVIDED BY CONSULTANT, is amended by adding the following:

"Consultant shall provide additional survey, geotechnical exploration, and roadway, storm sewer, and traffic signal design services as set forth in Attachment 1 to this Supplemental Agreement."

SECTION 3 - COMPENSATION, Paragraph A, is amended by adding the following:

"Compensation for services under this Supplemental Agreement shall be in accordance with the terms of said original Professional Services Agreement for an additional not-to-exceed amount of \$201,200.00 to be paid on the basis of hourly labor rates and reimbursable costs as shown in Attachment 2 to this Supplemental Agreement."

SECTION 4 - COMPLETION OF WORK, is amended by adding the following:

"The Consultant shall complete all services outlined in Supplemental Agreement No. 1 on or before December 2, 2022, providing no unforeseen delays are experienced beyond the control of the Consultant."

BE IT FURTHER AGREED, that all other terms and conditions of the original November 23, 2020 Agreement shall remain in full effect except as modified by this Supplemental Agreement No. 1.

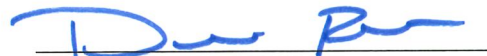
IN WITNESS WHEREOF, the parties hereto have executed this Agreement, in triplicate, as of this 7th day of March, 2022.

CITY OF DES MOINES, IOWA




T.M. Franklin Cownie, Mayor

McCLURE ENGINEERING CO. d/b/a
McCLURE ENGINEERING COMPANY



Dennis Folden, President

 Form Approved:



Kathleen Vanderpool, Deputy City Attorney

Attest:



P. Kay Cmelik, City Clerk

ATTACHMENT NO. 1

SCOPE OF SERVICES FOR SUPPLEMENTAL AGREEMENT NO. 1

MCKINLEY AVENUE RECONSTRUCTION SOUTH UNION STREET TO SW 9TH STREET Activity ID 01-2021-005

The Scope of Services to be performed by the **CONSULTANT** under Supplemental Agreement No. 1 shall encompass and include detailed work, services, materials, equipment and supplies to complete the following tasks:

1. Geotechnical Exploration and Testing
2. Topographic, Utility, and Right-of-Way Survey
3. Lighting Design
4. Project Drainage Report
5. Retaining Wall Design
6. Conceptual Design
7. Traffic Signal Design

1. GEOTECHNICAL EXPLORATION AND TESTING

The **CONSULTANT** shall prepare a soil boring layout and coordinate with its geotechnical drilling and testing subconsultant for eight (8) soil borings including five (5) borings at 20-ft deep and three (3) borings at 10-ft deep. Soil samples shall be obtained during the drilling process. The borings shall be backfilled with auger cuttings and patched with rapid setting cement grout, where required.

The **CONSULTANT** shall review field data and perform various laboratory tests, which shall consist of:

- Water Content
- Atterberg Limits
- Dry Unit Weight
- Grain size distribution (sieve analyses)
- Standard Proctor Test
- California Bearing Ratio (CBR)
- Direct Shear Test

The field and laboratory results shall be evaluated by the **CONSULTANT** and summarized in a written engineering report submitted to the **CITY**. The report shall include a spreadsheet with laboratory results and soil classifications (USCS). The report shall also include soil boring logs showing the field and laboratory data, soil profile fence diagram, stratification based on visual soil description, and groundwater levels observed during, shortly after, and approximately 1 day after drilling.

The **CONSULTANT** shall include the pavement design thickness for Portland Cement Concrete and recommendations for soil treatments, if needed, on construction plans. The construction plan and profile sheets shall show available geotechnical information and construction notes.

All permits, utility locates, and temporary traffic control required for exploration are included with the work item.

2. TOPOGRAPHIC, UTILITY, AND RIGHT-OF-WAY SURVEY

The **CONSULTANT** shall perform additional topographic, utility, and right-of-way survey and staking including up to nine (9) mobilizations to survey utility potholes, including one (1) mobilization to mark pothole locations and eight (8) mobilizations to survey potholed utilities. The work item includes survey download and Cadd drafting for potholed utility elevations and coordination with the **CITY** and Contractor to

perform the work. The City's on-call potholing contractor shall perform all potholes.

The **CONSULTANT** shall perform additional survey of existing storm sewer structures at the following locations:

1. Storm sewer structures along Titus Avenue from 800' east of SW 5th Street to South Union Street.
2. Storm sewer structures located downstream of the Titus Avenue storm network which outlets to Yeader Creek.
3. Storm sewer structures along S. Union Drive from the intersection with Titus Avenue south to Yeader Creek.

The additional survey information will be used for alternative drainage analysis to review stormwater issues at 205 and 209 Titus Avenue. Topographic and right-of-way surveys at 205 and 209 Titus Avenue are not included in the work item.

The **CONSULTANT** shall make up to five (5) additional site visits to mark property corners, retaining wall limits, and construction limits to aid in right-of-way discussions with adjacent property owners.

The **CONSULTANT** shall complete topographic, right-of-way survey, and utility surveys as needed for traffic signal design and plan development. The survey shall include all elements which are required to develop traffic signal design plans at the following locations:

1. SW 9th Street and McKinley Avenue: full traffic signal replacement.
2. South Union Street and McKinley Avenue: signal modifications which are necessary due to the McKinley Avenue reconstruction project.
3. Fiber interconnect between SW 9th Street and South Union Street.

The **CONSULTANT** previously made four (4) additional field visits to survey marked utilities due to poor locates and unmarked utilities by USIC (Iowa One Call) and utility company locators. The additional utility surveys required extra work for utility coordination, survey downloads and Cadd drafting.

3. ROADWAY LIGHTING PHOTOMETRIC DESIGN

The **CONSULTANT** shall perform a photometric analysis and prepare a lighting layout for the corridor utilizing utility poles and supplemental streetlights, as required, to ensure that adequate lighting is provided by the relocated streetlights. The design shall utilize MidAmerican fixtures and lights to meet SUDAS lighting design standards. One (1) meeting with the **CITY** and one (1) meeting with MidAmerican Energy is assumed. The work item includes preliminary and final design submittals to the **CITY** and MidAmerican Energy for approval.

4. PROJECT DRAINAGE REPORT

The **CONSULTANT** shall produce a project drainage report which includes the following:

1. Site Characteristics: Pre- and Post-development Conditions; Contributing Off-site Drainage; and Location Map
2. Post-Development Runoff Analysis: Watershed Area; Time of Concentration; Precipitation Model; Rainfall Loss Method; Summary of Post-development Runoff. The 10-year storm event will be used for design.
3. Stormwater Conveyance Design: Design Information References; Storm Sewer; Storm Drainage Outlets and Downstream Analysis; Hydraulic Model. The 10-year storm event will be used for design
4. Potential alternatives and associated construction costs (up to five (5) alternatives) for handling potential outlet issues at 200 McKinley Avenue (including impacts to 205 and 209 Titus Avenue). This includes review of the existing conditions and post development analysis of up to five (5) alternatives. Alternatives include:
 - a) Installing a swale between existing outlet at 200 McKinley Avenue and downstream intake at 205 Titus Avenue.
 - b) Installing large storm sewer between the existing outlet at 200 McKinley Avenue and downstream intake at 205 Titus Avenue to allow for underground storage.
 - c) Installing additional storm sewer along Titus Avenue to S Union Drive. This storm sewer would convey the additional flow when the mainline along Titus Avenue is above capacity.

- d) Combining options 'b' and 'c' above.
 - e) **CITY** to acquire 205 and/or 209 Titus Avenue and convert the properties into detention basins.
5. Appendix: Soils Report; Land Use Map; Drainage Basin Map (Proposed System); Time of Concentration Worksheets; Drainage Area and Discharge Summary; Storm Sewer Design – On-Grade Inlet Computation Summary; Storm Sewer Design – Sag Inlet Computation Summary; Storm Sewer Design – Pipe Design Hydraulic Calculation Summary; Storm Sewer Plan and Profile Sheets (M-Sheet).

5. SANITARY SEWER DESIGN

The **CONSULTANT** shall design and prepare plan and profile sheets for the sanitary sewer. Due to the depth and location of the sewer adjacent to private property, it is expected that some of the sewer requires trenchless construction while other portions will be trenched with connections to existing services. All other sanitary sewer located along project corridor are expected to be lined by the **CITY** via a separate project.

6. RETAINING WALL DESIGN

The **CONSULTANT** shall perform design for up to eight (8) retaining walls, including plan and profile sheets, description of material (modular block walls for less than or equal to 4-ft tall and segmental block walls (i.e. Redi-Rock or equal) for greater than 4-ft tall), and associated design notes. Four (4) walls are expected to need railings, which will be designed by the **CONSULTANT** and approved by the **CITY**. The work item includes necessary geotechnical analyses and recommendations. The **CONSULTANT** shall perform structural design per SUDAS for walls greater than 4-feet tall.

7. CONCEPTUAL DESIGN

The work item includes alignment, profile, typical section, modeling, design line work, coordination, and other work associated with revisions to design and typical sections per **CITY** request. The work item includes preparation and coordination for one (1) additional public information meeting, one (1) additional virtual City Council check-in meeting after the second public information meeting, one (1) additional City Council on-site walkthrough, and associated preparation and survey staking.

8. TRAFFIC SIGNAL DESIGN

A. Project Coordination

1. Project Review Meetings

The **CONSULTANT** shall meet with the **CITY** or its designated representative to review progress and to discuss specific elements of the traffic signal design. The meetings will also serve to develop project goals, establish design parameters, promote a dialog between the various entities, improve the decision-making process, and expedite design development. The **CONSULTANT** shall document and distribute minutes for all meetings.

The following meetings are included with the scope of work:

1. Traffic Signal Design Kick-Off Meeting (review project locations, design components, and Cadd standards)
2. Preliminary Design (60% level)
3. Check Design (90% level)

2. Accessible Pedestrian Signal (APS) Analysis

The **CONSULTANT** shall complete the Accessible Pedestrian Signal (APS) spreadsheet tool for each of the eight crosswalks at signalized intersections along the project to determine the applicability of accessible pedestrian signal accommodations. As part of the completion of the spreadsheet tool, traffic volume data made available by the **CITY** will be utilized for the "Off-Peak Traffic Presence" category. The **CONSULTANT** shall consult with the **CITY** to determine the distance to alternative APS crosswalk locations and the history of the number of requests for APS at the project intersection.

B. Site Review and Field Exam

The **CONSULTANT** shall perform a site review to verify existing infrastructure and assure acquired topographic base CAD file information matches existing infrastructure. One (1) site visit will be required to review actual conditions in the field and improve the accuracy, thoroughness, and constructability of the design.

The site review will consist of a visual level review of existing conditions, including items such as existing overhead utility lines, potential power source location, signage, crosswalks, lighting, vegetation, pavement, sidewalks and adjacent land uses. The **CONSULTANT** shall take existing condition pictures of the site and provide those pictures to the **CITY** for the project file.

C. Plan Design Development

1. Design Sheet Criteria

All plan sheets shall include the project Activity ID and Plan File Number. Unless otherwise noted, the **CONSULTANT** shall provide the following sheets for permanent traffic control and traffic signal design:

K-Sheets	Pavement Markings and Signage Plan
N.01	Traffic Signal General Notes & Symbols Legend
N.02	Traffic Signal Removal and Maintenance Plan (if needed)
N.03	Traffic Signal Layout – Intersection
N.04	Traffic Signal Layout – Advanced Approaches to Intersection
N.05	Traffic Signal Wiring Diagram
N.06	Traffic Signal Information Tables
N.07	Traffic Signal Tabulations
N.08-N.09	Traffic Signal Details
N.10	Traffic Signal Fiber Details
S-Sheets	Accessible Sidewalk Details at SW 9 th Street and McKinley Avenue

2. Preliminary Plans (60%)

The **CONSULTANT** shall develop Preliminary Design Plans for traffic signal facilities at the following locations:

1. SW 9th Street and McKinley Avenue: design to include complete intersection signal replacement and ADA-accessible sidewalks at intersection corners.
2. South Union Street and McKinley Avenue: design to include any modifications to the existing traffic signal which are required due to the McKinley Avenue reconstruction project, including but not limited to pole replacement(s) due to trail, sidewalk, or pedestrian ramp modifications, push-button adjustments due to grade changes, etc.
3. Fiber interconnect between SW 9th Street and South Union Street.

The preliminary plans shall include traffic signal pole, push button, and major equipment layout. This task also includes gathering information on the type of equipment to be used for the project using available City design standards and the Manual on Uniform Traffic Control Devices (MUTCD).

Preliminary Plans shall be completed to provide the **CITY** the detail necessary to evaluate and budget for ultimate project improvement goals, as well as provide an understanding of property impacts. The following specific design items shall be included:

- i. Identify Right-of-Way needs
- ii. Layout of new traffic signal poles, handholes, cabinet/controller, luminaire arms, and detection zones
- iii. Identify signal head locations
- iv. Signal signage needs
- v. Pedestrian pushbutton and pedestrian signal head locations
- vi. Identify power service connection location
- vii. Identify any potential utility conflict
- viii. Pavement marking and ground signage plan

- ix. Preliminary Traffic Control needs
- x. Preliminary fiber interconnect design from SW 9th Street to South Union Street
- xi. Layout of sidewalk, including ADA compliant sidewalk ramp locations as required by traffic signal system construction

The **CONSULTANT** shall submit the following deliverables to the **CITY**:

- i. *Electronic set of Preliminary (60%) Plans*
- ii. *Completed APS Spreadsheet*
- iii. *Draft Traffic Signal Design Checklist*

3. Check Plans (90%)

After **CITY**'s review of the 60% Preliminary Plans and upon authorization from the **CITY**, the **CONSULTANT** shall proceed with the development of Check Plans. Upon completion, the design plans shall be approximately 90% complete. The submittal of Check Plans shall be completed on or before the schedule as outlined in the "SCHEDULE" section of this document.

Check Plans shall be completed in preparation of the letting. Plan set shall be biddable with only minor changes expected after this submittal.

a. Incorporate Comments from Preliminary Plan Review and Field Exam

The **CONSULTANT** shall respond to comments resulting from **CITY** Preliminary Plan (60%) Review. Recommended modifications shall be incorporated into the plan set.

b. Draft Special Provisions

The **CONSULTANT** shall submit any draft special provisions for the project.

c. Opinion of Probable Construction Cost

The **CONSULTANT** shall prepare an opinion of probable construction cost for the projects. The cost estimates shall be based on representative major project elements and recent bid information. The **CONSULTANT** shall budget and review bid items and quantities for associated with the project.

The **CONSULTANT** shall submit the following deliverables to the **CITY**:

- i. *Electronic set of 90% plans*
- ii. *Electronic copy of City 60% design comments and how each comment was addressed*
- iii. *Completed Traffic Signal Design Checklist*
- iv. *Opinion of Probable Construction Costs*
- v. *Draft Special Provisions*

4. Final Plans (100%)

After **CITY**'s review of the Check Plans and upon authorization from the **CITY**, the **CONSULTANT** shall proceed with the development of Final Plans for the project as set forth in Items 1-4 below. Upon completion, the design plans shall be 100% complete. The submittal of final plans shall be completed on or before the schedule as outlined in the "SCHEDULE" section of this document.

a. Incorporate Comments from Check Plan Review

The **CONSULTANT** shall respond to comments resulting from the Check Plan Review. Recommended modifications shall be incorporated into the final plan set.

b. Draft Special Provisions

The **CONSULTANT** shall submit final special provisions incorporating any comments resulting from the Check Plan Review.

c. Opinion of Probable Construction Cost

Prepare opinion of probable construction cost for the project. Final cost opinion shall include all project elements. Published cost opinion should be rounded to the nearest \$1,000.

The **CONSULTANT** shall submit the following deliverables to the **CITY**:

- i. *Complete set of Final Plan Sheets, in PDF format*
- ii. *Signed, sealed, and dated cover sheet, hardcopy (coordinate with City Project Manager)*
- iii. *Final quantities, tabulations, and cost estimate, in Excel format*
- iv. *Special Provisions, in Word format*
- v. *All CADD drawings, in Microstation format with Iowa DOT symbology*

9. SCHEDULE

A. Revised Schedule for Project Milestones

- 1) Notice to Proceed – November 2020 (*complete*)
- 2) Design Concepts Complete – August 2021 (*complete*)
- 3) ROW Easement Exhibits Complete – April 2022
- 4) 60% Design Completion – March 2022
- 5) 90% Design Completion – September 2022
- 6) 100% Design Completion – October 2022
- 7) Bid Letting – November 2022
- 8) Commence Construction – March 2023

ATTACHMENT 2
 McCLURE ENGINEERING COMPANY
 HOURLY RATE SCHEDULE
 (Effective through December 31, 2022*)

<u>PERSO NNEL</u>	<u>HO URLY RATE</u>
Principal.....	\$270 - \$295
Project Manager	\$185 - \$230
Senior Professional.....	\$185 - \$285
Professional.....	\$155 - \$185
Junior Professional	\$125 - \$155
Senior Technician.....	\$135 - \$175
Technician.....	\$115 - \$135
Landscape Architect.....	\$120 - \$155
On-Site Representative	\$115 - \$155
Client/Project Liaison.....	\$135 - \$185
Administrative	\$65 - \$85
3 Member Survey Crew	\$270
2 Member Survey Crew	\$200
1 Member Survey Crew	\$135

EQ UIPMENT

3D Scanner per Scan.....	\$30.00
UAV per Flight	\$125.00
Sonar Boat	\$125.00

MISCELLANEO US EXPENSES

Survey Vehicle Mileage	\$0.70/Mile
Automobile Mileage (at current IRS rate)	Current IRS Rate
Printing.....	Per Contract
Survey Supplies (Hubs, Lath, Paint, Nails, etc.).....	Per Contract
Out-of-Pocket Expenses (Meals, Hotels, etc.)	Per Contract

*Rates are subject to change based on billing rates for future years

