WORK ORDER FORM

PURSUANT TO A MASTER AGREEMENT BETWEEN
THE CITY OF FORT COLLINS
AND
MICHAEL BAKER INTERNATIONAL

WORK ORDER NUMBER: 400903822-BAKER-2020-01

PROJECT TITLE: Siphon Pedestrian Overpass – Existing Truss Bridge Inspection

ORIGINAL BID/RFP NUMBER & NAME: 8331 Bridge Inspection, Maintenance, Repair & Replacement Program

MASTER AGREEMENT EFFECTIVE DATE: September 16, 2016

WORK ORDER COMMENCEMENT DATE: June 1, 2020

WORK ORDER COMPLETION DATE: October 31, 2020

MAXIMUM FEE: (time and reimbursable direct costs): $19,597.50

PROJECT DESCRIPTION/SCOPE OF SERVICES: See attached

Service Provider agrees to perform the services identified above and on the attached forms in accordance with the terms and conditions contained herein and in the Master Agreement between the parties. In the event of a conflict between or ambiguity in the terms of the Master Agreement and this Work Order (including the attached forms) the Master Agreement shall control.

The attached forms consisting of four (4) page(s) are hereby accepted and incorporated herein, by this reference, and Notice to Proceed is hereby given after all parties have signed this document.

SERVICE PROVIDER: DocuSigned by: Mike Orlowsky — Date: 7/29/2020
Mike Orlowsky — PM

ACCEPTANCE: DocuSigned by: Caleb Feaver — Date: 7/29/2020
Caleb Feaver — Civil Engineer II

REVIEWED: DocuSigned by: Dan Woodward — Date: 7/29/2020
Dan Woodward — Engineering - Capital Projects

REVIEWED: DocuSigned by: Elliot Dale — Date: 8/7/2020
Elliot Dale — Sr Buyer

ACCEPTANCE: _____ — Date: _____
Gerry Paul, Purchasing Director
(if greater than $60,000)

Exhibit "A"

WORK ORDER FORM
PURSUANT TO AN AGREEMENT BETWEEN
THE CITY OF FORT COLLINS
AND
MICHAEL BAKER INTERNATIONAL, INC.

DATED: July 15, 2020

Work Order No. _____14_____

Purchase Order No. _____

Project title: Mulberry Pedestrian Truss Relocation Study

Commencement Date: June 1, 2020

Completion Date: October 31, 2020

Maximum Fee: $19,597.50 (See attached Fee Schedule)

PROJECT DESCRIPTION:

The project is to investigate the feasibility of re-using the previous Mulberry Pedestrian Truss Bridge for use as a pedestrian crossing on the Power Trail at Mail Creek over the adjacent railroad tracks.

CONTRACT TYPE:

This contract will be Time & Materials (Not to Exceed) contract type. Rates will follow the job category rate table established with the Master Contract Renewal.

TEAM RESPONSIBILITIES AND AUTHORITY:

Michael Baker is the prime engineering consultant and will be responsible for managing all consultant related activities for this project, as authorized and directed by the City. There are no subconsultants included on the Michael Baker Team at this time, but weld testing performed by a Testing Laboratory may be required, as directed by the City. This will be performed separate from this contract.

All deliverables will be in the following current software platforms:

- PDF, Microsoft Word, Excel, and Access
- Others as applicable

GUIDELINES AND REFERENCES (CURRENT VERSION UNLESS NOTED OTHERWISE):

Applicable standards include:

- AASHTO LRFD Bridge Design Specifications, 8th edition
- AASHTO Manual for Bridge Evaluation, 2nd edition
- FHWA Bridge Inspector's Reference Manual (Publication No. FHWA NHI 12-049)
- CDOT Bridge Rating Manual

- CDOT Bridge Design Manual
- CDOT Standard Specifications for Road and Bridge Construction
- Any other applicable documents as approved by the City

SCOPE OF SERVICES

The primary elements that will be completed as part of this project are as follows:

I. Project Management / Administration and QC
II. Initial Inspection and Report
III. Additional Inspections and Reports
IV. Weld Testing & Evaluation and Jacking/Construction Scoping/Observation
V. Final Recommendations

I. Project Management / Administration and QC

Upon notice to proceed, Baker will perform project administration duties throughout the length of the contract.

- Invoices will be provided to the City monthly and will include a billing summary for work performed during the current billing period and project to date.
- All project deliverables will receive a quality assurance and quality control (QA/QC) review, in accordance with the Michael Baker Quality Controls Procedures prior to submittal.
- The following meetings are anticipated:
    - Field site visit with the City and AECOM (completed June 26, 2020).
    - Field Site visit with Testing Laboratory may be required, if weld indications are found.
    - Additional meetings as requested by the client.

II. Initial Inspection and Report

Michael Baker performed initial structural inspection and reporting at the direction of City of Fort Collins on June 26, 2020. Report was provided on to the City via email on July 15, 2020. The purpose of this inspection and report was to serve as a first step to determine if the structure should be considered for reuse and included:

- Visual inspection of all welds.
- Visual inspection of superstructure and floor system for patina and/or section loss.
- Visual inspection of truss splices.
- Visual inspection of member alignment.
- Visual inspection of other structure components, including lighting system and deck remnants.

III. Additional Inspections and Reports

At the direction of the City, Michael Baker will perform a second inspection of the structure which will include D-meter/cross section measurements of all floorbeams and a sampling of truss members to check for section loss and compliance with design drawings. Truss spacing and panel measurements will also be verified. Field measurements will be summarized in a table and forwarded to the City for use in updating any available load rating calculations or for use in a new load rating analysis, performed by AECOM.

IV. Weld Testing and Evaluation and Jacking/Construction Scoping/Observation

At the direction of the City, Michael Baker will provide a scope for testing of welds along the trusses and floor system members to be passed along to a vendor hired by the city. These welds will be tested by a Testing Laboratory using appropriate methods (magnetic particle testing, ultrasonic testing, etc.). The Testing Laboratory will be hired by the City and will forward their findings, including a summary, to Michael Baker. Michael Baker will review these field findings/summary and meet with a Testing Laboratory representative and a representative of the City in the field, if required. The findings/summary from this testing will be incorporated into the Final Recommendations (Section V below).

It is highly recommended that the south end of the structure be jacked up and leveled prior to weld testing. We anticipate this jacking would be performed as part of a separate work order by a Contractor hired by the City. This jacking should provide enough clearance for possible future application of protective coating to the floor system in this area. The Stay-in-Place forms (SIP's), longitudinal deck channels, and deck end plates should also be removed prior to weld testing. Baker will provide a short scope of work for the jacking and removal of these deck items. Baker will be on-site during the jacking.

V. Final Recommendations.

Michael Baker will summarize their findings and make a Final Recommendation to the City regarding possible reuse of this structure for a pedestrian crossing of the Power Trail at Mail Creek over the adjacent railroad tracks. Baker's Final Recommendation will take into consideration general superstructure condition, section loss, weld test results and future maintenance considerations. This Final Recommendation will also include any suggested modifications and/or suggested maintenance to the existing structure, prior to relocation. This Final Recommendation will be based on the condition of the structure of the structure "as-it-sits" in storage on Mulberry Street. AECOM will use these findings in concert with their in-house and/or manufacturer-provided load rating/fatigue analyses to make the final determination as to whether this truss will be re-used.

DELIVERABLES

The following is an estimate of the deliverables required for this project. As the project develops, the type and number of deliverables may vary. Refer to the detailed discussions above for further information. All information shall be compiled onto a single CD and delivered to the City at the end of the project.

- Monthly invoices, as required depending on schedule
- Meeting and telephone conversation documentation
- Inspection report findings from the initial inspection performed June 26, 2020
- Scope of work for weld testing
- Scope of work for jacking and removal of deck items (SIP's and deck channels/plates).
- Inspection report findings from subsequent field inspections.
- Weld Testing Findings and Summary.
- Final Recommendations

SCHEDULE

Start: Work has already begun.

Completion: All work will be completed by October 31, 2020.

Attachments:

- Fee Proposal

City of Fort Collins
Mulberry Pedestrian Truss Bridge Relocation Study (Work Order 14)

Description:

Date: 7/27/2020

Mulberry Pedestrian Truss Bridge Relocation Study (Work Order 14)

PRIMARY DESIGN TASK ELEMENTS					
LABOR	Group Manager	Senior Project Manager	Civil Associate II	TOTAL HOURS	FEE
Per hour rates	$220	$185	$115		
I. Project Management / Administration & QC	8			8	$1,760.00
II. Initial Inspection and Report	6	20		26	$5,020.00
III. Additional Inspections and Reports	2	16	14	32	$5,010.00
IV. Weld Testing & Evaluation and Jacking/Constr Scoping/ Observation	3	20	4	27	$4,820.00
V. Final Recommendations	2	8	2	12	$2,150.00
Invoicing/billing ($80/hr)				4	$320.00
Subtotal				**109**	**$19,080.00**
REIMBURSABLE EXPENSES: (Approximate)					
Mileage (6 trips x 150 mi x $0.575 / mi) <-- since each individual must travel separately.				--	$517.50
Subtotal				**--**	**$517.50**
SUBCONSULTANTS:					
				0	$0.00
Subtotal				**0**	**$0.00**

WORK ORDER TOTAL	**Fee**
	$19,597.50

II = Group Man….est'd hrs already spent by TR + rev of initial findings. TL = 16 hrs already charged to prev mtings, field insp & draft report….say (20) after rev. comments, add' meetings

III = Say field insp for 2 people x 10 hrs for D-meter msmts w travl. TL w/ add'l (6) hours for summary/bkcheck excel. ATL (4) hours field sheet prep and dump into xcel

IV = Say TL 6 hrs for scope, 2 hrs to rev. testing summ & 12 hrs for jack'g/test'g field visits (assumes 2 part day visits); ATL - say (2) hours to create location plans/sketches for weld tests.

V = Say TL 8 hours for draft/corrections to summary. (2) hours ATL for back-check of corrections.

II, III, IV, V - Group manager to do QC