PSA - 1367A1

AMENDMENT NO. 1

CITY OF CHICO - PROFESSIONAL SERVICES AGREEMENT

AGREEMENT DATED OCTOBER 29, 2015

BETWEEN CITY OF CHICO

AND

M. T. HALL & ASSOCIATES, INC.
Consultant

COMANCHE CREEK GREENWAY: BRIDGE FOUNDATION REPORT
Project Title

300-000-8800/50282-300-4110
Budget Account No.

THIS PROFESSIONAL SERVICES AGREEMENT AMENDMENT (Amendment) is entered into on January 5, 2016, between the City of Chico, a municipal corporation under the laws of the State of California (City), and M. T. Hall & Associates, Inc., a California corporation, (Consultant). On October 29, 2015, City and Consultant entered into "City of Chico - Professional Services Agreement" (Agreement). The provisions of the Agreement are hereby amended as follows:

1. Exhibit A is hereby superseded and replaced by revised Page A-1R1 attached hereto.

2. Exhibit B is hereby superseded and replaced by revised Pages B-1R1 through B-4R1 attached hereto.

3. Exhibit C is hereby superseded and replaced by revised Pages C-1R1 through C-3R1 attached hereto.

4. All other provisions of the Agreement shall remain in full force and effect.

CITY:

Mark Orme

Mark Orme, City Manager*

*Authorized pursuant to Section 3.08.060 of the Chico Municipal Code.

CONSULTANT:

Tom Hall

By: Tom Hall, Principal

APPROVED AS TO FORM:

Vincent C. Ewing, City Attorney*

*Approved pursuant to The Charter of the City of Chico § 906(D)

APPROVED AS TO CONTENT:

Brendan Ottoboni, Public Works Director - Engineering

REVIEWED AS TO CONTENT:

Frank Fields, Administrative Services Director*

*Reviewed by Risk Management, Human Resources, Finance and Information Systems.

AMENDMENT NO. 1

CITY OF CHICO - PROFESSIONAL SERVICES AGREEMENT

M. T. HALL & ASSOCIATES, INC.
Architect/Consultant/Engineer

COMANCHE CREEK GREENWAY: BRIDGE FOUNDATION REPORT
Project Title

300-000-8800/50282-300-4140
Budget Account No.

AMENDED
EXHIBIT A

DESCRIPTION OF PROJECT

The Consultant shall prepare a foundation report for the construction of a 105-foot-by-12-foot prefabricated steel bridge across Comanche Creek in conjunction with the Comanche Creek Greenway (Project). The Consultant's services shall include field exploration and geotechnical laboratory testing as necessary for the preparation of the report.

Amendment No. 1 Services

The Consultant shall provide structural design services to the City for the design of bridge abutments at each end of the Comanche Creek bridge.

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AMENDED
EXHIBIT B

SCOPE OF PROFESSIONAL SERVICES - BASIC; COMPLETION SCHEDULE

Scope of Professional Services - Basic

The Consultant shall provide professional services as follows:

Task 1 – Research and Review

The Consultant shall review all the readily available data, including published geologic maps and information, developed preliminary plans for the Project, and subsurface geotechnical and geological data for the Project site.

Task 2 – Field Exploration

The Consultant shall conduct field exploration and, using a truck-mounted drilling rig equipped with hollow-stem and/or solid-flight augers, shall drill two borings at the Project site. The borings shall be drilled at the vicinity of the proposed new bridge abutments to a maximum depth of 50 feet below ground surface (bgs) or refusal, whichever comes first.

Locating, Marking, and Utility Clearance

The Consultant shall locate and mark the borings, taking all reasonable precautions, including calling Underground Service Alert (USA) for location of any underground utility lines in the Project area.

Drilling Permit

The City will provide the Consultant with a no-fee permit, if required.

Geotechnical Soil Sample Collection

The Consultant shall collect relatively undisturbed ring samples and disturbed Standard Penetration Test (SPT) samples at frequent intervals from the borings. Sampling in the borings shall be done every two feet within the top ten feet and at five-foot intervals thereafter. The Consultant shall record the blow counts to drive the samplers at a fixed distance at each sampling depth in order to estimate the strength and consistency characteristics of the soil stratum being penetrated.

The Consultant shall log the earth materials in the field in accordance with the Unified Soil Classification System Visual/Manual Procedure and shall perform percolation testing. The samples shall be transported to the geotechnical laboratory for testing.

Backfilling of Boreholes

The Consultant shall backfill all the boreholes with the excavated spoils and tamp them. The surface at each paved location shall be restored by patching with cold asphalt or quick-set concrete, as appropriate.

Task 3 – Geotechnical Laboratory Testing

The Consultant shall provide geotechnical laboratory testing on representative samples of soil collected during the field exploration to evaluate the engineering characteristics of the materials. Testing shall include a combination of the following:

- In-situ moisture and density.
- Gradation.
- Atterberg limits and/or Expansion Index tests (if clay-type soils are encountered).
- One-Dimensional Consolidation tests (if compressible plastic soils are encountered).
- Direct Shear tests (for highly weathered rock as well as soils)
- R-value test.
- Corrosion test (Minimum Resistivity, pH, Sulfate Content, and Chloride Content).

Test 4 – Preparation of Draft Foundation Report

The Consultant shall prepare a Draft Foundation Report (DFR) for review by the City. The DFR shall be prepared following the latest available version of "Caltrans Guidelines for Structures Foundation Reports" or "Caltrans Foundation Report Preparation for Bridges".

The DFR shall provide a summary of the geotechnical data obtained during field exploration, with the Consultant's opinions and recommendations regarding the following items:

- Soil and groundwater conditions at the Project site.

- Seismic design parameters for use with Caltrans' current design methods, including closest fault(s), maximum ground acceleration, recommended Acceleration Response Spectra (ARS), and liquefaction potential.
- Recommendation for design of suitable foundation type(s).
- Pile data table using load demands provided by a structure designer, if needed.
- Lateral pile solutions for free-head and fixed-head conditions.
- Lateral earth pressures, and passive pressure resistance for abutment design.
- Settlement estimate based on the loads provided by the City's Project design team.
- Foundation recommendations; bearing capacity of the underlying soils and removal and re-compaction recommendations for wing walls and any retaining walls, both temporary and permanent.
- Stability of any cut slopes adjacent to the proposed roadway.
- Construction considerations, including cast-in-drilled-hole (CIDH) pile construction and temporary excavations.
- Gradation (sieve analysis) test results from a sample of the streambed materials for the City's Project hydraulics and hydrology design team in order to evaluate the scour potential of the streambed.

Task 5 – Preparation of Final Foundation Report

Upon receipt of City comments on the DFR, the Consultant shall address the comments and incorporate them as necessary into the Final Foundations Report (FFR). The FFR shall then be provided to the City.

<u>Amendment No. 1 Services</u>

Task 6 – Structural Design of Bridge Abutments

The Consultant shall provide the following:

- **Structural construction documents and bridge design to the City's Building Division. The construction documents shall include abutment sections, details, and a plan for reference.**
- **Structural calculation package for submittal to the Building Division.**

Assumptions:

- **Preparation of as-built drawings is not included.**
- **Civil engineering design, bridge design, construction drawings, and landscape design shall be performed by others, as necessary.**
- **The bridge design will be similar to the one constructed for the State Route (SR) 99 Corridor Bikeway Facility – Phase 2 project.**
- **The abutment design shall contain wingwalls, caissons, and grade beam similar to the SR 99 bicycle bridge abutment.**

- Seismic design parameters for use with Caltrans' current design methods, including closest fault(s), maximum ground acceleration, recommended Acceleration Response Spectra (ARS), and liquefaction potential.
- Recommendation for design of suitable foundation type(s).
- Pile data table using load demands provided by a structure designer, if needed.
- Lateral pile solutions for free-head and fixed-head conditions.
- Lateral earth pressures, and passive pressure resistance for abutment design.
- Settlement estimate based on the loads provided by the City's Project design team.
- Foundation recommendations; bearing capacity of the underlying soils and removal and re-compaction recommendations for wing walls and any retaining walls, both temporary and permanent.
- Stability of any cut slopes adjacent to the proposed roadway.
- Construction considerations, including cast-in-drilled-hole (CIDH) pile construction and temporary excavations.
- Gradation (sieve analysis) test results from a sample of the streambed materials for the City's Project hydraulics and hydrology design team in order to evaluate the scour potential of the streambed.

Task 5 – Preparation of Final Foundation Report

Upon receipt of City comments on the DFR, the Consultant shall address the comments and incorporate them as necessary into the Final Foundations Report (FFR). The FFR shall then be provided to the City.

<u>Amendment No. 1 Services</u>

Task 6 – Structural Design of Bridge Abutments

The Consultant, with the assistance of subconsultant Russell, Gallaway Associates, Inc. (RGA), shall provide the following:

- **Structural construction documents and bridge design to the City's Building Division. The construction documents shall include abutment sections, details, and a plan for reference.**
- **Structural calculation package for submittal to the Building Division.**

Assumptions:

- **Preparation of as-built drawings is not included.**
- **Civil engineering design, bridge design, construction drawings, and landscape design shall be performed by others, as necessary.**
- **The bridge design will be similar to the one constructed for the State Route (SR) 99 Corridor Bikeway Facility – Phase 2 project.**
- **The abutment design shall contain wingwalls, caissons, and grade beam similar to the SR 99 bicycle bridge abutment.**
- **The Consultant shall provide the original drawings to the City for reproduction.**

Should an unforeseen soil condition be uncovered during the soils investigation which requires an abutment design significantly different from the SR 99 bicycle bridge abutment, a further amendment to this Agreement may be necessary.

Completion Schedule

Following receipt of the City's Notice to Proceed, the Consultant shall complete all services outlined herein in compliance with the following schedule:

Task	Description	Duration (Working Days)	
		Individual Task	Cumulative
Task 1	Research and Review	3	3
Task 2	Field Exploration	2	5
Task 3	Geotechnical Laboratory Testing	10	15
Task 4	Preparation of DFR	15	30
Task 5	Preparation of FFR		
	• Review of DFR by the City*	5	35
	• Preparation of FFR	5	40
Total Duration			40

* Any delay in City review may cause changes in the cumulative working days.

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AMENDED
EXHIBIT C

COMPENSATION

Compensation for the services shall be in accordance with the following schedule of hourly rates. Total maximum compensation for the services outlined herein shall not exceed **$26,015.00**.

Compensation shall be based upon actual invoices received and shall be paid in accordance with the completion of each task as follows:

Task 1 – Research and Review	$ 1,060.00
Task 2 – Field Exploration	$ 5,520.00
Task 3 – Geotechnical Laboratory Testing	$ 3,515.00
Task 4 – Preparation of DFR	$ 8,200.00
Task 5 – Preparation of FFR	$ 1,920.00
Subtotal:	$20,215.00
Amendment No. 1	
Task 6 – Structural Design of Bridge Abutments	**$ 5,800.00**
Total:	**$26,015.00**

M. T. Hall & Associates, Inc.
Hourly Rate Schedule

Principal Engineer	$190.00/Hour
Project Engineer/Geologist	$170.00/Hour
Senior Staff Engineer/Geologist	$130.00/Hour
Construction Service Engineer	$110.00/Hour
Field Tech	$100.00/Hour
Drilling Subcontractor *(w/support vehicle & traffic control)*	$275.00/Hour
In-Situ Moisture & Density	$ 25.00/Each
Gradation (#200 Wash only)	$ 40.00/Each
Gradation (Sieve)	$ 70.00/Each
Atterberg Limits (Multi-point)	$150.00/Each
Direct Shear (3-point)	$300.00/Each
Consolidation (8-load increments)	$200.00/Each
Expansion Index	$150.00/Each
R-Value	$250.00/Each
Corrosivity (pH, resistivity, soluble CL & SO_4)	$165.00/Each

Russell, Gallaway Associates, Inc.
Hourly Rate Schedule

Personnel

Principal Architect/Engineer	**$165.00/Hour**
Licensed Architect/Engineer	**$130.00/Hour**
Designer/Senior Drafter	**$110.00/Hour**
CAD Operator Jr. Engineer	**$. 85.00/Hour**
Jr. CAD Operator	**$. 75.00/Hour**
Clerical $	**$. 60.00/Hour**

Reimbursables

Blueprints & copies printed off site	**Cost + 10%**
Computer Plots/Line Drawings	
24" x 36" Bond	**$ ... 1.80/Each**
30" x 42" Bond	**$ ... 2.65/Each**
36" x 48" Bond	**$ ... 3.60/Each**
Presentation Drawings	
8.5" x 11" Bond – Color	**$ ... 1.00/Each**
11" x 17" Bond – Color	**$ ... 2.00/Each**
24" x 36" Bond – Color	**$. 16.00/Each**
30" x 42" Bond – Color	**$. 24.00/Each**
24" x 36" Bond – Color – Mounted on Foam Core	**$. 27.50/Each**
30" x 42" Bond – Color – Mounted on Foam Core	**$. 35.00/Each**

8.5" x 11" Photo – Color ..... $. 10.00/Each
11" x 17" Photo – Color ..... $. 15.00/Each
24" x 36" Photo – Color ..... $. 40.00/Each
30" x 42" Photo – Color ..... $. 65.00/Each
24" x 36" Photo – Color – Mounted on Foam Core .... $. 50.00/Each
30" x 42" Photo – Color – Mounted on Foam Core .... $. 75.00/Each

Photocopies

8.5" x 11" ..... $ ... 0.10/Each
8.5" x 14" ..... $ ... 0.15/Each
11" x 17" ..... $ ... 0.20/Each

Miscellaneous

Mileage ..... $ ... 0.58/Mile
All Other Project-Related Items ..... Cost + 10%