

AMENDMENT NO. 4

CITY OF CHICO - PROFESSIONAL SERVICES AGREEMENT

AGREEMENT DATED AUGUST 11, 2020

BETWEEN CITY OF CHICO

AND

MARK THOMAS & COMPANY, INC.
Architect/Consultant/Engineer

COHASSET ROAD WIDENING PHASE 3
Project Title

300-000-8801/12066-300-4140
Budget Account Number

THIS PROFESSIONAL SERVICES AGREEMENT AMENDMENT (Amendment) is entered into on APRIL 13, 2022, between the City of Chico, a municipal corporation under the laws of the State of California (City), and Mark Thomas & Company, Inc., (Consultant). On August 11, 2020, City and Consultant entered into "City of Chico - Professional Services Agreement" (Agreement). The provisions of the Agreement are hereby amended as follows:

1. Exhibit B is hereby superseded and replaced by revised Pages B1-R4 through B9-R4 attached hereto.
2. Exhibit C is hereby superseded and replaced by revised Pages C1-R4 through C3-R4 attached hereto.
3. All other provisions of the Agreement shall remain in full force and effect.

CITY:



Matthew Madden, Interim City Manager*

CONSULTANT:



By: R. Matt Brogan, Principal/Vice President
Title

*Authorized pursuant to Section 3.08.060
of the Chico Municipal Code

APPROVED AS TO FORM:



Vincent C. Ewing, City Attorney*

*Pursuant to The Charter of the
City of Chico, Section 906(D)

REVIEWED AS TO CONTENT:

Scott Dowell, Administrative Services Director*

*Reviewed by Finance and Information Systems

APPROVED AS TO CONTENT:



Leigh Ann Sutton, Public Works Director,
Engineering

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EXHIBIT B

SCOPE OF PROFESSIONAL SERVICES - BASIC; COMPLETION SCHEDULE

Amendment No. 4 Services in Bold:

Scope of Professional Services - Basic

The Consultant shall provide professional services as follows:

TASK 1. PROJECT MANAGEMENT

Task 1.1. Project Management

Consultant shall provide management of subconsultants in the performance of their work. Management activities shall also include development and maintenance of a critical path method (CPM) design schedule and progress reports to be distributed monthly. The schedule and billings shall be submitted in the form and in enough detail to track the project status and contract expenditures as outlined by the City at the beginning of the project.

Task 1.2. Meetings

A total of four (4) meetings shall be proposed with this scope of work. The proposed meetings are listed below. Consultant shall facilitate the meetings, prepare agendas, and meeting minutes. It is assumed that a representative from California – Nevada Cement Association shall be included as part of the project team, and no additional focus meetings regarding pavement structural section design shall be required.

- Kick-Off Meeting (Web Based) (1)
- Field Visit (1)

- Bi-Weekly Check-In Meetings (Web Based) (4)

Task 1.3. Quality Assurance / Quality Control

Consultant's Control plan shall consist of established procedures for performing the work (which are reassessed with each project), including methods for design calculations, establishing appropriate levels of design development for intermediate submittals, identification of required plan checks (who, what, when), design checklists, and methods of project documentation. Consultant shall implement and maintain these quality control procedures during the preparation of plans and documents throughout design.

TASK 1 DELIVERABLES

- *Meeting Agendas & Minutes for 6 meetings*
- *Critical Path Method (CPM) schedule*
- *QC/QA Set of plans and Response Matrix*

TASK 2. SUPPLEMENTAL SURVEYS

Task 2.1. Verify Existing Control Network

Consultant surveyors shall verify the presence of control points in the field. New control points shall be reestablished if they have been disturbed or damaged. The project control sheet in the construction plans shall be updated to reflect the new control points in the field.

Task 2.2. Supplemental Topographic Survey (~~Optional Task~~)

Task 2.2.1. Creek Cross-Sections

Supplemental topographic surveys shall be prepared to support the final design. The Sycamore Creek Channel shall be surveyed approximately 300-feet north and south of the existing structure at Cohasset Road. It is assumed two (2) crew days shall be required for the creek survey. A surveying technician shall prepare 3D surface model from the field topography. The creek sections shall contain enough accuracy for the hydraulic modeling to be verified.

Task 2.2.2. Miscellaneous Topographic Surveys

It is assumed that two (2) shall be reserved for miscellaneous needs required by the civil design engineers.

Task 2.2.3. Sheep Hollow Bridge Structure

Supplemental topographic data centered on the Sheep Hollow Bridge structure shall be gathered. The data shall be used to verify final design grades from the Phase 1 project and shall be shown on the plans.

TASK 2 DELIVERABLES

- *Project Control Sheet (PDF)*
- *Creek Cross-Sections and 3D Surface (ACAD Civil 3D) (~~Optional Task~~)*
- *CSV Files for Miscellaneous Topographic Survey Needs*

TASK 3. HYDRAULIC STUDIES (OPTIONAL TASK)

This scope is for the Sycamore Creek at Cohasset Road Flood Mitigation Alternatives Study in the City of Chico. The City and nearby residents have indicated that there is a history of flooding problems immediately northeast of the Cohasset Road crossing of Sycamore Creek. It is thought that this flooding is a result of high waters in Sycamore creek either inundating this area or causing local drainage from the area to pond. The Consultant shall evaluate the site conditions and proposed roadway improvements to identify and evaluate options to reduce the risk of this flooding and propose potential alternatives in a summary memorandum.

Task 3.1. Verify Existing Hydraulic Findings

Consultant shall attend kickoff meeting with Consultant to identify and discuss Project status and historic flooding, design alternatives, and focus on reviewing work done to date in analyzing flood mitigation options. Consultant shall coordinate with the Project team and shall participate in up to two (2) conference calls with the City of Chico (City) and Project Team staff. On a monthly basis, Consultant shall provide the Project Team with invoices and progress reports for the Project.

Consultant shall also visit the project site to visually inspect the current configuration of the roadway and railroad bridges and the configuration and condition of the waterway. The river channel shall be measured from the bridge deck using a hanging tape.

Consultant shall coordinate with the California Department of Water Resources (DWR), the City, and the Project team to obtain the DWR's most recent hydraulic model. Consultant shall review the model and additional project information provided, such as the Cohasset Road Bridge at Sycamore Creek as-built plans, available information for the downstream railroad bridge, and any historic stream flow or hydraulic information.

If available (provided by the City), Consultant shall compare the FEMA effective Flood Insurance Study (FIS) hydraulic model of Sycamore Creek with the DWR model for key changes in geometry and flows in the vicinity of Cohasset Road.

Task 3.2. Update Technical Memorandum

Consultant shall update the DWR model with current survey (provided by the Project Team) and further evaluate flood mitigation measures designed to alleviate flooding northeast of the Cohasset Road crossing of Sycamore Creek. It is anticipated that this effort shall include updated analyses of up to five (5) different mitigation options, including variations of bypass-culverts, channel vegetation removal, and raising of the northeast levee. This effort shall include preliminary hydraulic evaluation and rough cost estimates.

Consultant shall document the effort and the various alternatives evaluated in a summary report, discussing data sources, hydrology and hydraulics, observed channel morphology, costs, maintenance issues, as well as recommendations, review analysis of a bypass culvert under Cohasset Road, located just north of the existing Sycamore Creek Bridge. Other alternatives (to a maximum of three) identified in the initial project meetings shall be

evaluated in the feasibility analysis. The hydraulic analysis shall consider the current morphology of the creek, historic morphology, aggradation and degradation, and bridge/channel maintenance issues.

TASK 3 DELIVERABLES

- *Draft Sycamore Creek at Cohasset Road Flood Mitigation Alternatives Study Memorandum (PDF)*
- *Final Sycamore Creek at Cohasset Road Flood Mitigation Alternatives Study Memorandum (PDF)*

Task 3.3. Dimensional Modeling

Consultant shall develop a 2-D hydraulic model using the Intellisolve ICM or the ACOE HEC-RAS 2D unsteady state software. The model shall be developed using available surface data, and the proposed grading provided by Consultant. The model shall be limited to the area indicated roughly by the dashed red line in the figure below and run using a hypothetical 24-hour hydrograph following a USGS NRCS Type 1A distribution matched to the peak flows from DWR. The 2-dimensional hydrodynamic modeling shall allow for evaluation of the effectiveness of the proposed improvements in reducing inundation limits, and drawdown times.

TASK 4. DESIGN UPDATES

Task 4.1. Convert Design Files to ACAD Civil 3D

The Cohasset Road Widening Project was designed in previous versions of AutoCAD that are no longer compatible with the industry standard. In order to advance Phase 3 of the project, Consultant shall need to convert all design files and sheets to AutoCAD Civil 3d. This includes re-inputting all alignments, profiles and redesign of the corridors for surface creation and quantities. This task shall ensure that all files are upgraded and compatible with current versions of Civil 3d and we are using the latest industry standard tools.

Task 4.2. Update Geometry to City of Chico Standards

The project geometrics shall be revised for consistency with current City of Chico and Caltrans Design Standards (HDM Last Updated 3/20/2020). Where Caltrans Standard Plans and Specifications were used, these items shall be updated to meet the 2018 Standard Plans and Specifications. Caltrans is currently using their 2015 version of the HDM standards and specifications. Consultant shall need to review the 65% geometric design and compare it to the latest version of Caltrans standards. All substandard design features shall be brought up to meet current Caltrans standards.

Task 4.3. Cross-Sections

Consultant shall update the cross sections and corridor design of the project per all updates needed. This shall be used to create general cross-sections to be used during the bidding period and construction support phases.

Task 4.4. Resource Agency Permitting Support

Consultant shall review the current project design in relationship to the updated wetland mapping to determine if new impacts can be avoided. Consultant shall provide technical design information to the permitting lead so the impact areas can be calculated.

Task 4.5. Pavement Rehabilitation (Expanded Limits)

The pavement reconstruction limits shall be extended to include the Phase 1 project, which is shown on the plans from station 34+00 to 46+00. The roller compacted concrete pavement shall be shown on the typical sections and layout sheets, and the engineers estimate shall be updated.

Task 4.6. Bridge Deck Refinishing PS&E

Consultant shall prepare structural calculations as necessary and bridge plans for bridge preventive maintenance and repair work on the Sheep Hollow Bridge. At the 90% submittal, Consultant shall submit a complete set of bridge plans. The structure design shall be performed in accordance with AASHTO LRFD Bridge Design Specifications, 8th Edition with California Amendments. The latest versions of the Caltrans Bridge Design Manuals shall be used. It shall be anticipated that two General Plan sheets and a Structure Details sheet shall be prepared. Structure special provisions and a construction cost estimate shall be provided. At the 100% submittal, Consultant shall address the City's comments on the previous submittal, independently check the bridge plans and designs, and shall provide a bid ready set to the City.

Task 4.7. Lighting Analysis and Revised Layout

Consultant shall revise the lighting and analysis as directed with the different lighting fixture requested by the City. The light output of these fixtures is lower, so the spacing between lights must be reduced to maintain the desired lighting levels. This change shall result in the need to update the photometric analysis, revise the lighting design, coordinate the new light locations with the project team, update the special provisions, and update the engineer's estimate of probable cost.

TASK 4 DELIVERABLES

- *Finished Grade 3D Surface (ACAD Civil 3D)*
- *General Cross-Sections (ACAD Civil 3D and PDF)*
- *Revised Civil Plan Sheets (PDF)*
- *Structure Plans for Deck Refinishing (PDF)*
- *Revised Lighting Analysis and Layout (PDF)*

TASK 5. PLANS, SPECIFICATIONS, AND ESTIMATE

Task 5.1. Revise Final PS&E

Task 5.1.1. Roadway Plans

Consultant shall finalize the roadway plans using the updated designs produced in Task 4. The plan sheets shall be consistent with the previously bid project. Per the direction of the City, alternative bid plans for roller compacted concrete pavement shall be prepared.

Task 5.1.2. Draft Storm Water Pollution Prevention Plan (SWPPP) (Optional Task)

Consultant shall prepare a draft SWPPP and upload data to the State Water Board's SMART database. The purpose of the draft SWPPP is to submit the NOI and obtain a WDID number prior to construction. The SWPPP shall be prepared using the CASQA template.

Task 5.1.3. Update Street Lighting Plans

Consultant shall update our five street lighting plan sheets and specifications for the Cohasset Road Phase 3 Widening Project to conform to current standards. Consultant shall update the cost estimate to correspond with the plan updates. Consultant shall show all new street lighting conduit for this design. Consultant shall assume that no other design elements will change with this update. Consultant shall also restart the PG&E service application process to confirm the service points as previously shown on the plans. This scope of work includes addressing up to one round of minor review comments before submitting final PS&E. This scope of work does not include bidding and construction support services, which we can provide at our current billing rates if authorized separately.

Task 5.1.4. Landscape Plans

Brian Firth Landscape Architects, Inc. shall prepare the final planting and irrigation plans. This task shall include updating outdated Standards, including MWELo State Water Conservation, City irrigation standards, closeout submittals, coordination with subs, administration. Repackage with new dates, company name, and revision clouds.

Task 5.1.5. Estimate

The project team shall prepare a revised cost estimate based on the revised design and current construction costs. The estimate shall be developed based on standard Caltrans BEES items and format. This task shall also include background research for developing bid prices for key items. This scope assumes that cost estimates for roller compacted concrete pavement shall be provided by the CNCA.

Task 5.1.6. Technical Specifications

Consultant shall prepare an outline of Technical Specifications following Caltrans 2018 Standard Specifications, and current City boilerplate specifications. This scope assumes that technical specifications for roller compacted concrete pavement shall be provided by the CNCA.

Task 5.1.7. RE Pending File

Consultant shall prepare a file containing all necessary design files, reports, cross sections, plans, estimates, agreements and any additional information that the resident engineer might need while out in construction.

TASK 5 DELIVERABLES

- *Revised Final Plans (PDF)*
- *Revised Cost Estimate (PDF)*

- *Revised Final Technical Specifications (PDF, MS Word)*
- *Draft SWPPP (PDF)*
- *RE Pending File (PDF)*

TASK 6. PAVEMENT DESIGN MEMORANDUM

Task 6.1. Pavement Design Memorandum

Consultant shall review the existing geotechnical information and roller compacted pavement design, verify the design, and prepare a brief geotechnical design memorandum. Consultant understands the City requested assistance from the CNCA to provide a preliminary Roller Compacted Concrete (RCC) design for a Traffic Index of 10 and a R-Value of 17. Consultant reviewed provided geotechnical information for the site which consists of a Draft Roadway Geotechnical Report dated October 6, 2005 by Taber Consultants (Taber), Pavement Deflection Testing/Analysis for Cohasset Road revised dated January 31, 2006 completed by CHEC Engineering Consultants, and a Pavementdesigner.org printout dated September 24, 2020. Consultant shall utilize existing information to verify and provide RCC recommendations.

Consultant shall meet with the design team to review the preliminary plans and discuss the project design needs, goals, and schedule. Consultant shall propose to review the existing data and perform RCC analysis to verify CNCA RCC recommendations.

Consultant shall prepare a Pavement Design Memorandum including the following: Project description, New structural RCC pavement sections, Risk Management and Limitations, Vicinity Map.

TASK 6 DELIVERABLES

- *Draft and Final Geotechnical Design Memorandum (Draft and Final)*

TASK 7. RIGHT OF WAY UPDATES

Task 7.1. Update Legal Descriptions and Plats

Consultant shall update up to two (2) legal description(s) with 8-1/2" x 11" plats, verifying current ownership using Parcelquest, updating plat and legal descriptions with ownership information and previously acquired Right of Way along with adjustments to the limits. It shall be assumed that the recorded documents of the previously acquired Right of Way shall be provided by the City. If acquiring and/or reviewing of Title Reports shall be required a fee shall be negotiated. Consultant shall prepare up to two (2) legal description(s) with 8-1/2" x 11" plats for Temporary Construction Easement purposes. One plat and legal description for 016-220-072 (Lindquist) and one plat and legal description for 047-280-039 (Everett). If acquiring and/or reviewing of Title Reports shall be required a fee shall be negotiated. If additional legal descriptions shall be required a fee shall be negotiated.

Task 7.2. Obtain Temporary Construction Easements

Consultant shall provide right of way services consisting of securing two (2) temporary

construction easements from two (2) ownerships (APN: 016-220-072 Lindquist and APN: 047-280-039 Everett). The following outlines the right of way services that shall be performed:

Right of Way Program Management

Consultant shall assign a Project Manager to oversee performance of the tasks involved in delivery of the Right of Way.

Valuation Services

Consultant shall develop a complete valuation for the client utilizing a Waiver Valuation Format described in Caltrans Appraisal Manual Chapter Seven at 7.02.13.01. An appraisal is not considered to be required because the valuation problem is uncomplicated, and the fair market value is estimated at less than \$10,000 based on a review of available data. The \$10,000 amount can and shall include severance damages but shall exclude any insignificant construction contract work. The Client shall acknowledge that a Waiver Valuation is not an appraisal and is to be used merely for documentation in support of the estimated compensation used to develop Just Compensation by the City, to be paid to the property owner.

Acquisition Services

Consultant shall develop all acquisition and conveyance documents to be approved by the City for use in acquiring real property interest. Consultant shall develop purchase agreements, temporary construction easement documents and escrow instructions, etc. prior to the commencement of acquisition negotiations with grantors. Consultant shall use all necessary documents developed as stated necessary to make offers based on Client's process and specifications. Consultant shall meet in person, if possible, and shall make up to six (6) contacts in the first sixty (60) days.

TASK 7 DELIVERABLES

- *Two (2) Updated Plats and Legals for TCE's (PDF)*
- *Two (2) Waiver Valuations delivered electronically; hard copies to be provided upon request by Client*
- *Acquisition of two temporary construction easements*

TASK 8. DESIGN SUPPORT DURING CONSTRUCTION

If requested, Consultant shall provide construction support services during the construction of the project. Construction support services include but are not limited to responding to questions about the plans and special provisions for the Resident Engineer (RE) or the contractor, assisting and advising the RE to minimize construction conflicts and to expedite project completion, preparing Contract Change Order (CCO) plans, responding to Request for Information (RFIs) and review shop drawings, and providing final Record Drawings to the City based on red-lined "as-builts provided by the contractor. Consultant shall also have staff available for field reviews to identify recommendations for corrections. Construction staking is not included in the scope of this task.

TASK 8 DELIVERABLES

- *Contract Change Order Plans if requested (11x17 PDF)*
- *Record Drawings if requested (11x17 PDF)*

TASK 9. ADDITIONAL DESIGN SUPPORT DURING CONSTRUCTION

Consultant shall provide construction support services during construction of the project that shall include responding to questions about the Plans and special provisions from the Resident Engineer (RE) or the contractor. During the construction phase, Consultant shall assist and advise the RE to minimize construction conflicts and to expedite project completion. Consultant shall prepare Contract Change Order (CCO) plans, respond to Request for Information (RFIs) and review shop drawings, if necessary. Consultant shall provide final Record Drawings to the City based on red-lined “as-builts” provided by the contractor. Consultant shall not provide construction staking.

TASK 9 DELIVERABLES

- *Contract Change Order Plans if needed (11x17 PDF)*
- *Record Drawings (11x17 PDF)*

Completion Schedule

The Consultant shall complete all services outlined herein by October 31, 2022.

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EXHIBIT C

COMPENSATION


Compensation for the services shall be in accordance with the following schedule of hourly rates attached as page C-2. Total maximum compensation for the services outlined herein shall not exceed ~~\$95,252.00~~ ~~\$132,962.00~~ ~~\$219,945.00~~ ~~\$249,945.00~~ **\$274,952.00.**

Tasks 1, 2.1, 4 & 5:	\$ 89,280.00
Optional Task 5.1.2:	\$ 5,972.00
Original Agreement Total:	<u>\$ 95,252.00</u>
Amendment No. 1 Services:	
Optional Tasks:	
Task 2.2 Supplemental Topographic Survey:	\$ 13,768.00
Task 3 Hydraulic Studies:	\$ 23,592.00
Other Direct Costs (Optional)	\$ 350.00
Amendment No. 1 Services:	<u>\$ 37,710.00</u>
Amended Total:	<u>\$132,962.00</u>

Amendment No 2. Services:	
Task 1 Project Management:	\$ 1,800.00
Task 2 Supplement Surveys:	\$ 3,025.00
Task 4 Design Updates:	\$ 49,386.00
Task 6 Pavement Design Memorandum:	\$ 11,286.00
Task 7 Right of Way Updates	\$ 20,746.00
Other Direct Costs:	\$ 740.00
Amendment No. 2 Services:	<u>\$ 86,983.00</u>
New Amended Total:	<u>\$219,945.00</u>
Amendment No. 3 Services:	
Task 8 Design Support During Construction	\$ 30,000.00
Amendment No. 3 Services Total:	<u>\$ 30,000.00</u>
New Amended Total:	<u>\$249,945.00</u>
Amendment No. 4 Services:	
Task 9 Additional Design Support During Construction	\$ 25,007.00
Amendment No. 4 Services Total:	<u>\$ 25,007.00</u>
New Amended Total:	<u>\$274,952.00</u>

Compensation shall be based upon actual invoices received.

COST PROPOSAL FOR PROJECT SCOPE: Chico-Cohasset Rd Widening Ph 3 (AM #4)

								Subconsultants		TOTAL COST	
		Sr. Project Manager	Project Engineer	Design Engineer I	Sr. Project Accountant	Sr. Project Coordinator	Total Hours	Total MT Cost	Crawford & Associates		Fehr & Peers
		\$270	\$173	\$121	\$165	\$154					
1.0	ADDITIONAL DESIGN SUPPORT DURING CONSTRUCTION										
1.1	Additional Design Support During Construction	4	16	88	2	4	114	\$15,442	6,320	1,205	\$22,967
1.2	Additional Comcast Revisions						0	\$0	-	2,040	\$2,040
	Subtotal Phase 1	4	16	88	2	4	114	\$15,442	\$6,320	\$3,245	\$25,007
	TOTAL HOURS	4	16	88	2	4	114				
	OTHER DIRECT COSTS							\$0	\$0	\$0	\$0
	TOTAL COST	\$1,080	\$2,768	\$10,648	\$330	\$616		\$15,442	\$6,320	\$3,245	\$25,007