ATTACHMENT 5

First Amendment to the Consultant Services Agreement with Mark Thomas & Company, Inc. dated January 9, 2018

FIRST AMENDMENT TO THE AGREEMENT FOR CONSULTANT SERVICES BY AND BETWEEN COUNTY OF HUMBOLDT AND MARK THOMAS & COMPNAY, INC. FOR ON-CALL PROFESSIONAL DESIGN ENGINEERING AND/OR ENVIRONMENTAL SERVICES

This First Amendment to the Agreement for Consultant Services dated January 9, 2018, by and between the County of Humboldt, a political subdivision of the State of California, hereinafter referred to as "COUNTY," and Mark Thomas & Company, Inc., a California corporation, hereinafter referred to as "CONSULTANT," is entered into this 10 day of April, 2018.

WHEREAS, on January 9, 2018, COUNTY and CONSULTANT entered into an Agreement for Consultant Services regarding the provision of on-call professional design engineering and/or environmental services ("Consultant Services Agreement"); and

WHEREAS, the parties now desire to amend the Consultant Services Agreement to increase the maximum amount payable thereunder.

NOW THEREFORE, the parties mutually agree as follows:

1. Article V – Allowable Costs and Payments of the Consultant Services Agreement is hereby amended to read as follows:

ARTICLE V – ALLOWABLE COSTS AND PAYMENTS

A. CONSULTANT will be reimbursed for hours worked at the hourly rates specified in CONSULTANT's Cost Proposal (Attachment B). The specified hourly rates shall include direct salary costs, employee benefits, overhead, and fee. These rates are not adjustable for the performance period set forth in this Contract.

B. In addition, CONSULTANT will be reimbursed for incurred (actual) direct costs other than salary costs that are in the cost proposal and identified in the cost proposal and in the executed Task Order.

C. Specific projects will be assigned to CONSULTANT through issuance of Task Orders.

D. After a project to be performed under this contract is identified by COUNTY, COUNTY will prepare a draft Task Order; less the cost estimate. A draft Task Order will identify the scope of services, expected results, project deliverables, period of performance, project schedule and will designate a COUNTY Project Coordinator. The draft Task Order will be delivered to CONSULTANT for review. CONSULTANT shall return the draft Task Order within ten (10) calendar days along with a Cost Estimate, including a written estimate of the number of hours and hourly rates per staff person, any anticipated reimbursable expenses, overhead, fee if any, and total dollar amount. After agreement has been reached on the negotiable items and total cost; the finalized Task Order shall be signed by both COUNTY and CONSULTANT.

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E. Task Orders may be negotiated for a lump sum (Firm Fixed Price) or for specific rates of compensation, both of which must be based on the labor and other rates set forth in CONSULTANT's Cost Proposal.

F. Reimbursement for transportation and subsistence costs shall not exceed the rates as specified in the approved Cost Proposal.

G. When milestone cost estimates are included in the approved Cost Proposal, CONSULTANT shall obtain prior written approval for a revised milestone cost estimate from the Contract Administrator before exceeding such estimate.

H. Progress payments for each Task Order will be made monthly in arrears based on services provided and actual costs incurred.

I. CONSULTANT shall not commence performance of work or services until this contract has been approved by COUNTY, and notification to proceed has been issued by COUNTY's Contract Administrator. No payment will be made prior to approval or for any work performed prior to approval of this contract.

J. A Task Order is of no force or effect until returned to COUNTY and signed by an authorized representative thereof. No expenditures are authorized on a project and work shall not commence until a Task Order for that project has been executed by COUNTY.

K. CONSULTANT will be reimbursed, as promptly as fiscal procedures will permit upon receipt by COUNTY's Contract Administrator of itemized invoices in triplicate. Separate invoices itemizing all costs are required for all work performed under each Task Order. Invoices shall be submitted no later than 45 calendar days after the performance of work for which CONSULTANT is billing, or upon completion of the Task Order. Invoices shall detail the work performed on each milestone, on each project as applicable. Invoices shall follow the format stipulated for the approved Cost Proposal and shall reference this contract number, project title and Task Order number. Credits due COUNTY that include any equipment purchased under the provisions of Article XI Equipment Purchase of this contract, must be reimbursed by CONSULTANT prior to the expiration or termination of this contract. Invoices shall be mailed to COUNTY's Contract Administrator at the following address:

COUNTY: Humboldt County Department of Public Works
Attention: Tony Seghetti, Contract Administrator
1106 Second Street
Eureka, California 95501

L. The period of performance for Task Orders shall be in accordance with dates specified in the Task Order. No Task Order will be written which extends beyond the expiration date of this Contract.

M. The total amount payable by COUNTY for an individual Task Order shall not exceed the amount agreed to in the Task Order, unless authorized by contract amendment.

N. If the Consultant fails to satisfactorily complete a deliverable according to the schedule set forth in a Task Order, no payment will be made until the deliverable has been satisfactorily completed.

O. Task Orders may not be used to amend this Agreement and may not exceed the scope of work under this Agreement.

P. The total amount payable by COUNTY for all Task Orders resulting from this contract shall not exceed Two Million Five Hundred Thousand Dollars ($2,500,000.00). It is understood and agreed that there is no guarantee, either expressed or implied that this dollar amount will be authorized under this contract through Task Orders.

2. The Consultant Services Agreement is hereby amended to delete Attachment A – Scope of Work ("Attachment A"), and replace it in its entirety with the modified version of Attachment A that is attached hereto and incorporated herein by reference. The modified version of Attachment A attached hereto shall supersede any and all prior versions thereof, as of the effective date of this First Amendment.

3. The Consultant Services Agreement is hereby amended to delete Attachment B – Cost Proposal (Exhibit 10-H) ("Attachment B"), and replace it in its entirety with the modified version of Attachment B that is attached hereto and incorporated herein by reference. The modified version of Attachment B attached hereto shall supersede any and all prior versions thereof, as of the effective date of this First Amendment.

4. Except as modified herein, the Consultant Services Agreement dated January 9, 2018 shall remain in full force and effect. In the event of a conflict between the provisions of this First Amendment and the original Consultant Services Agreement, the provisions of this First Amendment shall govern.

[Signatures on Following Page]

IN WITNESS WHEREOF, the parties hereto have entered into this First Amendment as of the first date written above.

TWO SIGNATURES ARE REQUIRED FOR CORPORATIONS:
(1) CHAIRPERSON OF THE BOARD, PRESIDENT, OR VICE PRESIDENT; AND
(2) SECRETARY, ASSISTANT SECRETARY, CHIEF FINANCIAL OFFICER OR ASSISTANT TREASURER.

MARK THOMAS & COMPANY, INC.:

By: _____ Date: 3-15-18

Name: Robert A. Himes

Title: President

By: _____ Date: 3-15-18

Name: Matt Brogan

Title: Secretary

COUNTY OF HUMBOLDT:

By: _____ Date: 4/10/18

Ryan Sundberg
Chair, Humboldt County Board of Supervisors

INSURANCE REQUIREMENTS APPROVED:

By: _____ Date: 4/2/18

Risk Management

LIST OF ATTACHMENTS:

Attachment A – Scope of Work
Attachment B – Cost Proposal (Exhibit 10-H)

Attachment A – Scope of Work

MARK THOMAS

March 15, 2018

Mr. Tony Seghetti
Humboldt County Dept of Public Works
1106 2nd Street
Eureka, CA 95501

RE: ON CALL DESIGN ENGINEERING SERVICES
FHWA & FEMA STORM DAMAGE DESIGN SERVICES

Dear Mr. Seghetti:

Enclosed is Mark Thomas' cost proposal, scope of work and 10-H Form for the Storm Damage Design Services projects. We appreciate the opportunity to propose on these projects. If you have any questions regarding our proposal, please contact me at (916) 381-9100 or zsiviglia@markthomas.com.

Sincerely,

MARK THOMAS

Zach Siviglia
Project Manager

Attachments

MARK THOMAS

HUMBOLDT COUNTY STORM DAMAGE PROJECT

Scope of Services

Mark Thomas will provide professional design services for FHWA & FEMA Storm Damage projects. In the performance of this scope of services listed below, Mark Thomas will diligently perform this scope of work and will be responsible for items of work under this contract to the extent that issues arising from the performance of these services are within our reasonable control, and that Mark Thomas's obligation to indemnify and defend are limited to the extent actually caused by Mark Thomas in the performance of this scope of work.

1 Project Management

1.1 Project Meetings

Mark Thomas, with input from the County, will establish project meetings for projects. The purpose of the project meetings is to provide a forum to share project information, identify critical issues, make decisions, assign project tasks, identify design criteria, or any other items critical to project delivery. Mark Thomas anticipates the following meetings: one (1) Project Kick-Off, and three (3) meetings per specific site. This work includes the preparation of the meeting agenda in consultation with County's Project Manager and preparing meeting minutes with action items.

1.2 Project Management

Mark Thomas' Project Manager will plan, organize, direct and monitor project work activities and resources in accordance with contracted scope, schedule and budget. This task includes performing ongoing general project management with the County, including preparing contract paperwork, memo's, letters and email, making phone calls and maintaining project files. This activity commences with receiving notice to proceed and continues through submittal of key project deliverables.

Mark Thomas will prepare monthly invoices and progress reports. The progress reports will show the status of each task, the percent complete for each task, and the remaining budget. This will help to monitor project delivery costs and status.

1.3 Quality Assurance/Quality Control

The Mark Thomas Quality Control plan consists of established procedures for performing the work (which are reassessed with each project), which include establishing appropriate levels of design development for intermediate submittals, and methods of project documentation. Mark Thomas will use our QA/QC manual as a guide to ensure the highest engineering quality possible.
Mark Thomas' Project Manager will be responsible for internal and external quality control measures. Some of these measures are summarized as follows:

Internal Quality Control

o Confirm approach for proposed alternatives
o Review project for constructability and cost efficiency
o Check calculations

External Quality Control

o Is the scope of work and cost estimates prepared for projects reimbursable under the funding program requirements?

A record of quality control reviews will be kept in a separate file for documentation/quality audit purposes.

Task 1 Deliverables:

- Agenda and Minutes for each project meeting (4 total)
- Monthly Progress Summary (12 total)
- QA/QC

2 Preliminary Engineering

This task includes preparing the data necessary to select appropriate storm damage repairs as outlined in the FHWA's Damage Assessment Form (DAF), or FEMA's Project Worksheet (PW).

2.1 Data Gathering & Field Visits

Mark Thomas will collect available data information from the County. Data will be collected from County provided survey, DAF, PW and other sources.

A field visit will be conducted to determine extent of storm damage, site constraints, possible causes of damage and other factors that could impact design and construction of the project. One day of field visits have been assumed per site.

2.2 Geotechnical Engineering Services

Crawford and Associates, Inc. will provide geotechnical engineering services as needed. Three geotechnical borings are anticipated for each site. A log of test borings will be prepared to catalog the soils recovered and document subsurface conditions. Geotechnical recommendations for feasible wall types and geotechnical design parameters will be determined and documented in a Geotechnical Report. Slope stability analysis will be prepared as needed to determine long term stability of the storm damage site after proposed improvements.

Task 2 Deliverables:

- Field Notes and Photo Log from Site Visit
- Geotechnical Report and Log of Test Borings
- Preliminary Layouts and Conceptual Details

2.3 Environmental Services by Stantec as needed

3 Final Design

Based on the preliminary results found in Task 2.0, the County will meet with Mark Thomas to discuss the direction and progress of the findings. The goal of this meeting will be to select the storm damage repairs to be implemented and the projects to move forward with.

3.1 65% PS&E

Mark Thomas will prepare a standalone PS&E package for each site. Retaining wall, or other recommended design plans and details will be prepared based on initial design calculations. Technical Specifications for the project will be prepared for inclusion into the County Boilerplate. A draft construction cost estimate will be prepared for each site. After completion, the 65% PS&E package will be submitted to the County for review and comment.

3.2 Independent Check

An engineer separate from the project development team will prepare independent check calculations and review all details. Details will be highlighted when confirmed and marked in red when discrepancies are found or where changes or additions need to be made. The independent check engineer will meet with the designer to reconcile any differences and provide feedback on the design.

3.3 Final PS&E

All comments for the County and updates needed from the independent check will be incorporated into a final plan, specification and engineers estimate for bidding purposes.

Task 3 Deliverables:

- 65% Plans, Specifications and Estimate (11x17 Plans)(3 sets), Electronic Specifications and Estimates
- Design and Independent Check Calculations
- Final PS&E (Full Size and 11x17 Plans)(Unbound Specifications)(Estimate)(3 Sets)

4 Construction Support - Optional

4.1 Construction Support Services - Optional

Review submittals, respond to requests for information, prepare contract change orders and other construction support services as requested by the County. Due to the uncertain nature of construction, a budget of 24 hours is reserved for constructions support. Time will be charged on a time and materials basis.

4.2 Prepare As-Built Drawings - Optional

Field markups and contract change orders will be incorporated into As-Built plans. These plans will be submitted to the County for record keeping.

Task 4 Deliverables:

- As-Built Plans (1 set)

Assumptions

- Field topographic surveys will be prepared by the County
- Right of Way services will not be performed.
- Roadway drainage design, pavement design, staging plans, etc. will be prepared by the County
- Overall DBE goal for the On-Call Design Services for Federal Aid projects is 5%. A separate DBE goal will be determined for each Task Order for a specific project. GFE will be required if goal not met.

MARK THOMAS

March 15, 2018

Mr. Tony Seghetti
Humboldt County Dept of Public Works
1106 2nd Street
Eureka, CA 95501

RE: ON CALL DESIGN ENGINEERING SERVICES
REDWOOD DRIVE COMPLETE STREET PROJECT -

Dear Mr. Seghetti:

Enclosed is Mark Thomas' cost proposal, scope of work and 10-H Form for the Redwood Drive Complete Street project. We appreciate the opportunity to propose on this project. If you have any questions regarding our proposal, please contact me at (916) 381-9100 or zsiviglia@markthomas.com.

Sincerely,

MARK THOMAS

Zach Siviglia
Project Manager

Attachments

MARK THOMAS

HUMBOLDT COUNTY REDWOOD DRIVE COMPLETE STREET PROJECT

Scope of Services

Mark Thomas will provide professional design services for the project.

The scope of work assumes Mark Thomas will build upon the approved PSR for complete street improvements on Redwood Drive (PM 0.00 to PM 0.50) in Garberville. Mark Thomas will develop conceptual alternatives, preliminary engineering designs (30% Plans), and public outreach. Humboldt County will prepare the environmental document and Mark Thomas will provide support. The level of effort is as follows:

1 Project Management

1.1 Project Development Team (PDT) Meetings

Mark Thomas, with input from the County, will establish PDT meetings for this project. The purpose of the PDT meetings is to provide a forum to share project information, identify critical issues, make decisions, assign project tasks, identify design criteria, or any other items critical to project delivery. Mark Thomas anticipates the following meetings: one (1) Project Kick-Off, and fifteen (15) County PDT meetings. This work includes the preparation of the meeting agenda in consultation with County's Project Manager and preparing meeting minutes with action items.

1.2 Project Management

Mark Thomas' Project Manager will plan, organize, direct and monitor project work activities and resources in accordance with contracted scope, schedule and budget. This task includes performing ongoing general project management with the County, including preparing contract paperwork, memo's, letters and email, making phone calls and maintaining project files. This activity commences with receiving notice to proceed and continues through submittal of key project deliverables.

Mark Thomas will prepare monthly invoices and progress reports. The progress reports will show the status of each task, the percent complete for each task, and the remaining budget. This will help to monitor project delivery costs and status.

1.3 Quality Assurance/Quality Control

Mark Thomas Quality Control plan consists 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.

Task 1 Deliverables:

- Agenda and Minutes for each PDT meeting (16 total)
- Project Schedule (monthly)
- QA/QC

2 Preliminary Engineering

2.1 Project Surveying, Mapping and Control

Mark Thomas will review all current site surveys, including control and topographic surveys, and coordinate additional surveys necessary for the design studies with the Humboldt County Public Works Survey Department.

2.2 Utility Coordination

Mark Thomas will prepare and mail (on County letterhead) "A" Utility letters. Using USA North, a list of potential utility companies in the project vicinity will be prepared. Mark Thomas will map the existing utilities based on as-built plans, utility maps, field observation, and topographic surveys of above-ground utilities.

2.3 Geotechnical Design Report

The Mark Thomas team will prepare a Geotechnical/Pavement Design Report including existing pavement conditions, subsurface soil conditions, new structural pavement sections including asphalt and aggregate base and deep lift asphalt, and rehabilitation recommendations (depending on existing section and design constraints).

2.4 Existing Conditions, Issues and Opportunities Memorandum

Mark Thomas will prepare an existing conditions summary memo with attached exhibits. The memo will include identification of the issues, opportunities and gaps that may be addressed with complete street improvements. This report will establish the framework and technical analysis that will form the foundation for developing conceptual alternatives that will be used to engage the public.

2.5 Develop Conceptual Alternatives

Mark Thomas will prepare up to three (3) conceptual design alternatives for transforming Redwood Drive into a Complete Streets. Alternatives will be based upon existing conditions and community input. Consultant will use before and after visualizations and renderings of the proposed alternatives to clearly communicate the impacts of new facilities and develop consensus around desired outcomes. Alternatives will seek to improve facilities to enhance multi-modal options for visitors and residents along Redwood Drive.

The Mark Thomas team will prepare a parking study including inventory of existing on-street and off-street parking, utilization of parking, and projected future parking demand and supply.

2.6 Permit Engineering Evaluation Report (PEER)

Mark Thomas will prepare a PEER for the complete street improvements for approval by Caltrans. It is assumed that one (1) round of plan review will be needed to have the PEER document approved.

2.7 Prepare 30% Plans

Mark Thomas will prepare 30% concept plans and preliminary cost estimate for the Redwood Drive corridor based on Caltrans and County standards. The concept plans will evaluate right of way needs and utility modifications and be shared with the County and Caltrans for feedback and refinements will be made. Plan sheets will be prepared at 1"=20'. It is anticipated that the following sheets will be prepared:

Description:	Number of Sheets
Title Sheet	1
Typical Sections	1
Roadway Layout w/ Plan and Profile	5
Drainage and Utility Plans (Plan view only)	**5**
Pavement Delineation Plans	**5**
Planting Plans	**5**
Total Plan Sheets	**22**

The preliminary cost estimate is based on the preferred alternative and will be completed for "major" construction items. Minor items that are typically shown in a construction contract will be covered within contingencies or other additions. Project development, soft costs, and contingencies will be included as appropriate for planning level estimates and based on a percentage of construction cost. The item unit costs will be estimated by reviewing similar recent project bid summaries, current Caltrans Contract Cost Data and the California Highway Construction Cost Index information.

Task 2 Deliverables:

- Topographic Survey and DTM (By County)
- Right of Way Retracement (By County)
- Utility A letters for County Signature
- Geotechnical Design Report
- Existing Conditions, Issues and Opportunities Memorandum
- Conceptual Alternatives (up to 3)
- Permit Engineering Evaluation Report

- 30% Plans and Estimate

3 Environmental Document Preparation

3.1 Environmental Support

Mark Thomas will provide support to the County staff during the preparation of the environmental documents and technical studies for the project. Mark Thomas will also provide CAD files for the roadway design to the County for the County's use in developing the environmental document and supporting technical studies.

4 Public Outreach

4.1 Public Workshops

Mark Thomas will prepare and facilitate up to two (2) public workshops during the Project Approval and Environmental Document phase of the project. Meetings will be planned during key project development stages. It is assumed the County will assist in identifying stakeholders and lead in notifying the public through various distribution channels.

Assumptions:

This scope of work has been prepared with the following assumptions:

- Field surveys and right of way delineation will be provided by the County.
- No traffic control is included.
- The County will prepare the CEQA document and environmental technical studies. A Phase I or Phase II ISA is not included.
- It is assumed that a traffic study is not needed.

Crawford & Associates, Inc.
Geotechnical Engineering, Design and Construction Services
Sacramento | Modesto | Pleasanton | Rocklin | Ukiah

Corporate Office: 1100 Corporate Drive, Suite 230 | Sacramento, CA 95831 | (916) 455-4225
Modesto: 1165 Scenic Drive, Suite B | Modesto, CA 95350 | (209) 312-7668
Pleasanton: 6200 Stoneridge Mall Road, Suite 330 | Pleasanton, CA 94588 | (925) 401-3515
Rocklin: 4220 Rocklin Road, Suite 1 | Rocklin, CA 95677 | (916) 455-4225
Ukiah: 100 North Pine Street | Ukiah, CA 95482| (707) 240-4400

November 29, 2017

Preliminary Pavement Recommendations
Redwood Drive Complete Streets
Humboldt County, California

Based on our conversations with the design team and review of the project study report, we understand that Humboldt County is planning to improvement the traffic, bike, and pedestrian access along Redwood Drive in downtown Garberville, California. Based on our review of the budget and proposed project we provide the following scope of services to perform a visual inspection of the existing pavement condition and limited pavement coring to provide preliminary pavement rehabilitation options. Our report will address rehabilitation options such as mill and overlay, dig out and repair locations, and use of seal coats.

The above approach is likely appropriate given the available budget for the project, however the limited cores proposed will not reflect the changes in the existing pavement section and therefore limit our ability to provide in-place recycling options and accurately determine the design life of the rehabilitation options provided. If desired, we can update this scope and attached cost to perform additional pavement coring to better define the changes in the existing pavement sections and therefore provide more accurate analysis.

To provide preliminary pavement recommendations CAInc will perform the following scope of services.

Task 1: *Coordination and Preliminary Review*

CAInc will meet with the design team to discuss preliminary design plans, project design needs, issues and schedules. We will perform a visual inspection of the existing pavement by walking the site. We will obtain a County encroachment permit. We will coordinate our fieldwork locations with the County, Garberville, and the design team.

Task 2: *Limited Pavement Coring and Sampling*

To measure the existing structural pavement sections (HMA and AB), CAInc will perform four to five pavement cores along Redwood Drive.

To collect samples of the underlying aggregate base and subgrade soil for R-value and pavement analysis CAInc will hand auger to depths ranging from one to three feet below existing grade within each roadway. An Engineer/Geologist will direct the coring and sampling. The cores will be backfilled with quick setting concrete.

Task 3: *R- value Testing*

We propose to perform an R-value test on a representative soil sample obtained from the core.

Task 4: *Pavement Design Memo*

CAInc will prepare a Pavement Design Memo include:

- Project description;

Corporate Office: 1100 Corporate Drive, Suite 230 | Sacramento, CA 95831 | (916) 455-4225
Modesto: 1165 Scenic Drive, Suite B | Modesto, CA 95350 | (209) 312-7668
Pleasanton: 6200 Stoneridge Mall Road, Suite 330 | Pleasanton, CA 94588 | (925) 401-3515
Rocklin: 4220 Rocklin Road, Suite 1 | Rocklin, CA 95677 | (916) 455-4225
Ukiah: 100 North Pine Street | Ukiah, CA 95482| (707) 240-4400

- Pavement and subsurface conditions including existing pavement section (HMA and AB) and current traffic index;
- New structural pavement sections including traditional asphalt and aggregate base and deep lift asphalt;
- Rehabilitation recommendations (depending on existing section and design constraints) for mill and overlay, dig out locations, and seal coats;
- Risk Management and Limitations;
- Vicinity map;
- Site plan with pavement core locations, and pavement condition notes including dig out locations;
- R-value result.

We will submit a draft Pavement Design Report for review and comment prior to the final submittal.

DELIVERABLES

- Draft Pavement Design Report
- Final Pavement Design Report

ASSUMPTIONS

- The County will waive the encroachment permit fee.
- Traffic control will consist of lane shifts and/or parking closures without flagmen.
- Pavement cores will be backfilled with concrete.
- Traffic index values for the various roadways will be provided by the County.

SCHEDULE

Crawford & Associates, Inc. will initiate our pavement engineering services after receiving a signed agreement and notice-to-proceed. We will schedule and perform our fieldwork within three weeks of receiving a signed agreement provided with have received the required permits. Laboratory testing (R-value) for this project will take approximately two to three weeks to complete. We will submit our report within six to eight weeks of completing our fieldwork. We will complete and submit the initial site assessment within five weeks of our notice-to-proceed.

Attachment B – Cost Proposal (Exhibit 10-H)

COST PROPOSAL FOR PROJECT SCOPE: Humboldt-Storm Damage Design Services

		Mark Thomas							Subconsultants				
		Sr. Engineering Mgr $288	Technical Lead $172	Project Engineer $125	Design Engineer II $111	Sr. Technician $106	Project Coordinator $86	Total Hours	Total MT Cost	Crawford & Associates Non-DBE	Woodward Drilling (sub to Crawford) DBE	Stantec Non-DBE	Cost Per Site	Total Cost (4 Sites)
1.0	**PROJECT MANAGEMENT**													
1.1	Project Meetings	16	20					36	$8,037	-	-	-	$8,037	$32,149
1.2	Project Management		20				40	60	$6,891	-	-	-	$6,891	$27,565
1.3	Quality Control & Quality Assurance	16						16	$4,606	-	-	-	$4,606	$18,423
	Subtotal Phase 1	**32**	**40**	**0**	**0**	**0**	**40**	**112**	**$19,534**	**$0**	**$0**	**$0**	**$19,534**	**$78,137**
2.0	**PRELIMINARY ENGINEERING**													
2.1	Data Gathering & Field Visits		20	20				40	$5,941	-	-	-	$5,941	$23,766
2.2	Geotechnical Engineering Services (Optional)		12	20				32	$4,569	39,000	18,000	-	$61,569	$246,275
2.3	Environmental Services (Optional)	4	2					6	$1,495	-	-	12,000	$13,495	$53,978
	Subtotal Phase 2	**4**	**34**	**40**	**0**	**0**	**0**	**78**	**$12,005**	**$39,000**	**$18,000**	**$12,000**	**$81,005**	**$324,019**
3.0	**FINAL DESIGN**													
3.1	65% PS&E		28	180	40	280		528	$61,591	-	-	-	$61,591	$246,363
3.2	Independent Check		12	120	40			172	$21,541	-	-	-	$21,541	$86,164
3.3	Final PS&E		16	32		80		128	$15,268	-	-	-	$15,268	$61,073
	Subtotal Phase 3	**0**	**56**	**332**	**80**	**360**	**0**	**828**	**$98,400**	**$0**	**$0**	**$0**	**$98,400**	**$393,600**
4.0	**CONSTRUCTION SUPPORT**													
4.1	Construction Support Services (Optional)		40			16		56	$8,565	-	-	-	$8,565	$34,260
4.2	Prepare As-Built Drawings (Optional)		12			16		28	$3,760	-	-	-	$3,760	$15,042
	Subtotal Phase 4	**0**	**52**	**0**	**0**	**32**	**0**	**84**	**$12,325**	**$0**	**$0**	**$0**	**$12,325**	**$49,301**
TOTAL HOURS		**36**	**182**	**372**	**80**	**392**	**40**	**1102**						
OTHER DIRECT COSTS									**$1,224**	**$0**	**$0**	**$0**	**$1,224**	**$4,895**
TOTAL COST		**$10,363**	**$31,229**	**$46,680**	**$8,848**	**$41,686**	**$3,460**		**$143,488**	**$39,000**	**$18,000**	**$12,000**	**$212,488**	**$849,952**

Note: no mark-ups allowed

Form 10H
CONSULTANT COST PROPOSAL

COST PROPOSAL

CLIENT Humboldt County
PROJECT FHWA & FEMA Storm Damage Projects
CONSULTANT Mark Thomas

Date 15-Mar-18

DIRECT LABOR

Classification	Name	Range	Hours	Average Hourly Rate	Total
Sr. Principal		$125 - $135	0.0	@ $ 130	$ -
Principal		$115 - $125	0.0	@ $ 120	$ -
Sr. Engineering Manager		$92 - $111	36.0	@ $ 101	$ 3,653.82
Engineering Manager		$82 - $92	0.0	@ $ 87	$ -
Practice Area Leader		$82 - $92	0.0	@ $ 87	$ -
Sr. Project Manager		$65 - $82	0.0	@ $ 73	$ -
Sr. Technical Lead		$65 - $82	0.0	@ $ 73	$ -
Project Manager		$55 - $66	0.0	@ $ 61	$ -
Technical Lead		$55 - $66	182.0	@ $ 61	$ 11,011.00
Sr. Project Engineer		$47 - $55	0.0	@ $ 51	$ -
Sr. Technical Engineer		$47 - $55	0.0	@ $ 51	$ -
Project Engineer		$42 - $47	372.0	@ $ 44	$ 16,459.14
Design Engineer II		$37 - $41	80.0	@ $ 39	$ 3,119.60
Design Engineer I		$27 - $36	0.0	@ $ 32	$ -
Sr. Technician		$32 - $43	392.0	@ $ 37	$ 14,698.04
Technician		$22 - $32	0.0	@ $ 27	$ -
Intern		$15 - $22	0.0	@ $ 18	$ -
Sr. Survey Manager		$61 - $75	0.0	@ $ 68	$ -
Survey Manager		$55 - $61	0.0	@ $ 58	$ -
Sr. Project Surveyor		$50 - $55	0.0	@ $ 52	$ -
Project Surveyor		$45 - $50	0.0	@ $ 47	$ -
Sr. Surveyor		$37 - $45	0.0	@ $ 41	$ -
Surveyor		$32 - $36	0.0	@ $ 34	$ -
Lead Survey Technician		$42 - $46	0.0	@ $ 44	$ -
Sr. Survey Technician		$31 - $42	0.0	@ $ 36	$ -
Survey Technician		$21 - $31	0.0	@ $ 28	$ -
Survey Intern		$15 - $21	0.0	@ $ 18	$ -
Single Chief		$39 - $44	0.0	@ $ 41	$ -
Single Chainman		$33 - $40	0.0	@ $ 36	$ -
Apprentice		$16 - $33	0.0	@ $ 24	$ -
1 Person Field Crew		$39 - $44	0.0	@ $ 41	$ -
2 Person Field Crew		$78 - $88	0.0	@ $ 83	$ -
3 Person Field Crew		$110 - $127	0.0	@ $ 119	$ -
Sr. LAUD Division Manager		$72 - $81	0.0	@ $ 76	$ -
LAUD Division Manager		$58 - $72	0.0	@ $ 65	$ -
Sr. LAUD Project Manager		$56 - $58	0.0	@ $ 57	$ -
LAUD Project Manager		$48 - $56	0.0	@ $ 52	$ -
Sr. Project Landscape Architect		$36 - $42	0.0	@ $ 39	$ -
Project Landscape Architect		$32 - $36	0.0	@ $ 34	$ -
Landscape Designer		$21 - $32	0.0	@ $ 26	$ -
Intern		$15 - $22	0.0	@ $ 18	$ -
Sr. Inspector		$33 - $43	0.0	@ $ 38	$ -
Inspector		$22 - $33	0.0	@ $ 27	$ -
Expert Witness		$138	0.0	@ $ 138	$ -
Strategic Consulting		$138	0.0	@ $ 138	$ -
Sr. Project Accountant		$36 - $43	0.0	@ $ 39	$ -
Project Accountant		$28 - $35	0.0	@ $ 32	$ -
Sr. Project Coordinator		$36 - $40	0.0	@ $ 38	$ -

Project Coordinator		$25 - $36	40.0	@	$ 30	$ 1,219.80	
Sr. Project Assistant		$27 - $30	0.0	@	$ 28	$ -	
Project Assistant		$14 - $27	0.0	@	$ 20	$ -	
Sr. Technical Writer		$26 - $40	0.0	@	$ 33	$ -	
Technical Writer		$15 - $26	0.0	@	$ 20	$ -	
Sr. Graphic Designer		$31 - $40	0.0	@	$ 35	$ -	
Graphic Designer		$20 - $31	0.0	@	$ 25	$ -	
					Subtotal Direct Labor Costs	$ 50,161.40	
					Anticipated Salary Increases		
						Total Direct Labor Costs	$ 50,161.40
FRINGE BENEFITS					**Rate**	**Total**	
Fringe Benefits					77.79%	$ 39,020.55	
						Total Fringe Benefits	$ 39,020.55
INDIRECT COSTS							
Overhead/General and Administrative					80.04%	$ 40,149.18	
						Total Indirect Costs	$ 40,149.18
FEE @ 10%							$ 12,933.11
OTHER COSTS		**UNIT (S)**	**UNIT COST**			**TOTAL**	
Mileage		750.0	$0.535			$ 401.25	
Overnight Mail/Mail		15.0	$15.00			$ 225.00	
Per Diem		2.0	$260.00			$ 520.00	
Reproductions - full size		25.0	$1.00			$ 25.00	
Reproductions - half size		150.0	$0.35			$ 52.50	
						Total Other Costs	$ 1,223.75
Mark Thomas Total Costs							**$ 143,488.00**
SUBCONSULTANT 10-H TOTAL COSTS							
Crawford & Associates						$ 39,000.00	
Woodwood Drilling (Sub to Crawford)						$ 18,000.00	
Stantec						$ 12,000.00	
Subconsultants Total Costs						$ 69,000.00	
TOTAL COSTS							**$ 212,488.00**
						Total for 4 Sites	**$849,952.01**

COST PROPOSAL FOR PROJECT SCOPE: Humboldt-Redwood Drive Complete Street Project

		Mark Thomas								Subconsultants	TOTAL COST
MARK THOMAS		Sr. Engineering Mgr $288	Project Manager $172	Sr. Project Engineer $145	Design Engineer II $111	Design Engineer I $90	Sr. Technician $106	Project Coordinator $86	Total Hours	Total MT Cost	Crawford & Associates Non-DBE	
1.0	**PROJECT MANAGEMENT**											
1.1	Project Meetings	30		26					56	$12,396	-	$12,396
1.2	Project Management	30						24	54	$10,711	-	$10,711
1.3	Quality Control & Quality Assurance		24						24	$4,118	-	$4,118
	Subtotal Phase 1	**60**	**24**	**26**	**0**	**0**	**0**	**24**	**134**	**$27,226**	**$0**	**$27,226**
2.0	**PRELIMINARY ENGINEERING**											
2.1	Project Surveying, Mapping and Control			4	16				20	$2,348	-	$2,348
2.2	Utility Coordination			4	8	32			44	$4,344	-	$4,344
2.3	Geotechnical Design Report		2	2					4	$632	11,493	$12,125
2.4	Existing Conditions, Issues and Opportunities Memorandum		6	16	40	24			86	$9,928	-	$9,928
2.5	Develop Conceptual Alternatives	4	8	24	60	40			136	$16,233	-	$16,233
2.6	Permit Engineering Evaluation Report (PEER)	4	4	8	40	12			68	$8,499	-	$8,499
2.7	Prepare 30% Plans and Estimate	4	10	40	140	100	80		374	$41,647	-	$41,647
	Subtotal Phase 2	**12**	**30**	**98**	**304**	**208**	**80**	**0**	**732**	**$83,632**	**$11,493**	**$95,124**
3.0	**ENVIRONMENTAL DOCUMENT PREPARATION**											
3.1	Environmental Support	2	4	8	40				54	$6,843	-	$6,843
	Subtotal Phase 3	**2**	**4**	**8**	**40**	**0**	**0**	**0**	**54**	**$6,843**	**$0**	**$6,843**
4.0	**PUBLIC OUTREACH**											
4.1	Public Workshops	8	8	12	40	32			100	$12,716	-	$12,716
	Subtotal Phase 4	**8**	**8**	**12**	**40**	**32**	**0**	**0**	**100**	**$12,716**	**$0**	**$12,716**
TOTAL HOURS		**82**	**66**	**144**	**384**	**240**	**80**	**24**	**1020**			
OTHER DIRECT COSTS										**$11,111**	**$0**	**$11,111**
TOTAL COST		**$23,604**	**$11,325**	**$20,829**	**$42,468**	**$21,608**	**$8,507**	**$2,076**		**$141,527**	**$11,493**	**$153,020**

Note: no mark-ups allowed

Form 10H
CONSULTANT COST PROPOSAL

COST PROPOSAL

CLIENT Humboldt County
PROJECT Redwood Drive Complete Street Project
CONSULTANT Mark Thomas

Date 29-Nov-17

DIRECT LABOR

Classification	Name	Range	Hours	Average Hourly Rate	Total
Sr. Principal		$125 - $135	0.0	@ $ 130	$ -
Principal		$115 - $125	0.0	@ $ 120	$ -
Sr. Engineering Manager		$92 - $111	82.0	@ $ 101	$ 8,322.59
Engineering Manager		$82 - $92	0.0	@ $ 87	$ -
Practice Area Leader		$82 - $92	0.0	@ $ 87	$ -
Sr. Project Manager		$65 - $82	0.0	@ $ 73	$ -
Sr. Technical Lead		$65 - $82	0.0	@ $ 73	$ -
Project Manager		$55 - $66	66.0	@ $ 61	$ 3,993.00
Technical Lead		$55 - $66	0.0	@ $ 61	$ -
Sr. Project Engineer		$47 - $55	144.0	@ $ 51	$ 7,344.00
Sr. Technical Engineer		$47 - $55	0.0	@ $ 51	$ -
Project Engineer		$42 - $47	0.0	@ $ 44	$ -
Design Engineer II		$37 - $41	384.0	@ $ 39	$ 14,974.08
Design Engineer I		$27 - $36	240.0	@ $ 32	$ 7,618.80
Sr. Technician		$32 - $43	80.0	@ $ 37	$ 2,999.60
Technician		$22 - $32	0.0	@ $ 27	$ -
Intern		$15 - $22	0.0	@ $ 18	$ -
Sr. Survey Manager		$61 - $75	0.0	@ $ 68	$ -
Survey Manager		$55 - $61	0.0	@ $ 58	$ -
Sr. Project Surveyor		$50 - $55	0.0	@ $ 52	$ -
Project Surveyor		$45 - $50	0.0	@ $ 47	$ -
Sr. Surveyor		$37 - $45	0.0	@ $ 41	$ -
Surveyor		$32 - $36	0.0	@ $ 34	$ -
Lead Survey Technician		$42 - $46	0.0	@ $ 44	$ -
Sr. Survey Technician		$31 - $42	0.0	@ $ 36	$ -
Survey Technician		$21 - $31	0.0	@ $ 28	$ -
Survey Intern		$15 - $21	0.0	@ $ 18	$ -
Single Chief		$39 - $44	0.0	@ $ 41	$ -
Single Chainman		$33 - $40	0.0	@ $ 36	$ -
Apprentice		$16 - $33	0.0	@ $ 24	$ -
1 Person Field Crew		$39 - $44	0.0	@ $ 41	$ -
2 Person Field Crew		$78 - $88	0.0	@ $ 83	$ -
3 Person Field Crew		$110 - $127	0.0	@ $ 119	$ -
Sr. LAUD Division Manager		$72 - $81	0.0	@ $ 76	$ -
LAUD Division Manager		$58 - $72	0.0	@ $ 65	$ -
Sr. LAUD Project Manager		$56 - $58	0.0	@ $ 57	$ -
LAUD Project Manager		$48 - $56	0.0	@ $ 52	$ -
Sr. Project Landscape Architect		$36 - $42	0.0	@ $ 39	$ -
Project Landscape Architect		$32 - $36	0.0	@ $ 34	$ -
Landscape Designer		$21 - $32	0.0	@ $ 26	$ -
Intern		$15 - $22	0.0	@ $ 18	$ -
Sr. Inspector		$33 - $43	0.0	@ $ 38	$ -
Inspector		$22 - $33	0.0	@ $ 27	$ -
Expert Witness		$138	0.0	@ $ 138	$ -
Strategic Consulting		$138	0.0	@ $ 138	$ -
Sr. Project Accountant		$36 - $43	0.0	@ $ 39	$ -
Project Accountant		$28 - $35	0.0	@ $ 32	$ -
Sr. Project Coordinator		$36 - $40	0.0	@ $ 38	$ -
Project Coordinator		$25 - $36	24.0	@ $ 30	$ 731.88
Sr. Project Assistant		$27 - $30	0.0	@ $ 28	$ -

Project Assistant		$14 - $27	0.0	@ $	20	$ -	
Sr. Technical Writer		$26 - $40	0.0	@ $	33	$ -	
Technical Writer		$15 - $26	0.0	@ $	20	$ -	
Sr. Graphic Designer		$31 - $40	0.0	@ $	35	$ -	
Graphic Designer		$20 - $31	0.0	@ $	25	$ -	
					Subtotal Direct Labor Costs	$ 45,983.95	
					Anticipated Salary Increases		
						Total Direct Labor Costs	$ 45,983.95
FRINGE BENEFITS					**Rate**	**Total**	
Fringe Benefits					77.79%	$ 35,770.91	
						Total Fringe Benefits	$ 35,770.91
INDIRECT COSTS							
Overhead/General and Administrative					80.04%	$ 36,805.55	
						Total Indirect Costs	$ 36,805.55
FEE @ 10%							$ 11,856.04
OTHER COSTS		**UNIT (S)**	**UNIT COST**			**TOTAL**	
Mileage		600.0	$0.535			$ 321.00	
Overnight Mail/Mail		18.0	$15.00			$ 270.00	
Parking Study		1.0	$10,000.00			$ 10,000.00	
Per Diem		2.0	$260.00			$ 520.00	
						Total Other Costs	$ 11,111.00
Mark Thomas Total Costs							**$ 141,527.46**
SUBCONSULTANT 10-H TOTAL COSTS							
Crawford & Associates						$ 11,492.52	
Subconsultants Total Costs						$ 11,492.52	
TOTAL COSTS							**$ 153,019.98**

Cost Proposal

EXHIBIT 10-H COST PROPOSAL (EXAMPLE #1) PAGE 1 OF 2

ACTUAL COST-PLUS-FIXED FEE OR LUMP SUM (FIRM FIXED PRICE) CONTRACTS

(DESIGN, ENGINEERING AND ENVIRONMENTAL STUDIES)

Note: Mark-ups are Not Allowed

Consultant Crawford & Associates, Inc. - Pavement Contract No. Redwood Drive Date 11/29/17

DIRECT LABOR

Classification/Title	Name	hours	Average Hourly Rate	Total
Prinicpal	B. Crawford	6	$60.09	$360.54
Senior Project Manager	TBD	0	$50.48	$0.00
Project Manager	TBD	0	$45.67	$0.00
Project Manager	S. Leyva	22	$36.00	$792.00
Senior Geologist	TBD	0	$36.00	$0.00
Senior Engineer	TBD	0	$33.65	$0.00
Project Engineer II	TBD	30	$31.73	$951.90
Project Engineer I	TBD	8	$28.50	$228.00
Drafter	TBD	4	$28.50	$114.00
Admin.	TBD	4	$23.22	$92.88

LABOR COSTS

a) Subtotal Direct Labor Costs $2,539.32

b) Anticipated Salary Increases (see page 2 for sample) $0.00

c) TOTAL DIRECT LABOR COSTS [(a) + (b)] $2,539.32

FRINGE BENEFITS

d) Fringe Benefits (Rate: 42.00%)

e) Total Fringe Benefits [(c) x (d)] $1,066.51

INDIRECT COSTS

f) Overhead (Rate: 135.00%)

g) Overhead [(e) x (f)] $3,428.08

h) General and Administrative (Rate: 20.00%)

i) Gen & Admin [(e) x (h)] $507.86

j) Total Indirect Costs [(e) + (g) + (i)] $5,002.46

FEE (Profit)

q) (Rate: 10.00%)

k) TOTAL FIXED PROFIT [(e) + (j)] x (q)] $754.18

OTHER DIRECT COSTS (ODC)

Description		Unit(s)	Unit Cost	Total
l)	Travel/Mileage Costs (supported by actual costs)	364	$0.54	$196.56
m)	Pavement Exploration	1	$2,000.00	$2,000.00
n)	Hand Auger Equipment	1	$150.00	$150.00
o)	R-value	1	$350.00	$350.00
p)	Traffic Control - Minor	1	$500.00	$500.00
q)		0	$0.00	$0.00
r)		0	$0.00	$0.00
s)				$0.00

p) Total Other Direct Costs [(l) + (m) + (n) + (o)] $3,196.56

TOTAL COST [(c) + (j) + (k) + (p)] $11,492.52

NOTES:

- Employees subject to prevailing wage requirements to be marked with an *.
- ODC items should be based on actual costs and supported by historical data and other documentation.
- ODC items that would be considered "tools of the trade" are not reimbursable.
- ODC items should be consistently billed directly to all clients, not just when client will pay for them as a direct cost.
- ODC items when incurred for the same purpose, in like circumstances, should not be included in any indirect cost pool or in overhead rate.