

SECOND AMENDMENT TO
AGREEMENT FOR SERVICES OF INDEPENDENT CONTRACTOR
E. MOUNTAIN DRIVE LOW WATER CROSSING REPLACEMENT
PROJECT NUMBER 862357

THIS AMENDMENT ("Second Amendment") is made by and between the County of Santa Barbara, a political subdivision of the State of California ("COUNTY") and Drake Haglan & Associates, having its principal place of business at 11060 White Rock Road, Suite 200, Rancho Cordova, CA 95670 ("CONSULTANT") (hereinafter collectively, the "Parties").

WHEREAS, the Parties entered into an Agreement for Services of Independent Contractor signed into effect on February 14, 2017 ("Agreement") in connection with the E. Mountain Drive Low Water Crossing Replacement Project ("Project"); and

WHEREAS, the initial Agreement amount for services was up to but not to exceed \$423,987 with a contingency of \$42,399 for a total contract amount of \$466,386; and

WHEREAS, after the Agreement was executed, the Thomas Fire Debris Flow Incident of January 9, 2018 destroyed the project site, changing the landscape and washing away the low water crossing. However, the proposed project and task goals remain identical; and

WHEREAS, on January 22, 2019 the Parties executed a First Amendment to address mitigation tasks related to tree replanting by replacing Exhibit A (Statement of Work) of the Agreement in its entirety with Exhibit 2; and

WHEREAS, after further evaluation the County has determined some of the work product completed prior to the Thomas Fire Debris Flow Incident needs to be re-evaluated and revised which will incur additional costs estimated not to exceed \$97,052; and

WHEREAS, the Parties desire to amend the Agreement to add additional services, specifically tasks 1.3, 5.5, 6.2.1, 6.3.1, 7.1.1, 8.1.1, 8.2.1.1, 8.2.2.1, 8.2.3.1, 8.2.6.1, and 8.2.10.1; and

WHEREAS, the Parties desire to amend the Agreement to reflect changes in the compensation to subcontractors Applied Earthworks, Inc. and Parikh Consultants, Inc. for services and clarify the scope of services of the subcontractors in the associated Cost Proposal tables; and

WHEREAS, to reflect the Parties desired amendments Exhibit B is being deleted and replaced in its entirety and the Statement of Work is being deleted and replaced in its entirety as Exhibit A2.

NOW THEREFORE, in consideration of the mutual covenants and conditions contained herein, COUNTY and CONSULTANT agree to amend the Agreement as follows:

1. **Amendment.** Exhibit 2 (Statement of Work) attached to the First Amendment is hereby deleted in its entirety and replaced with Exhibit A2 attached hereto and incorporated herein by reference.
2. **Amendment.** Exhibit B is deleted and replaced in its entirety as attached hereto and incorporated herein by reference.
3. **Ratifications.** The terms and provisions set forth in this Second Amendment shall modify and supersede all inconsistent terms and provisions set forth in the First Amendment and Agreement.

The terms and provisions of the First Amendment and Agreement, except as expressly modified and superseded by this Second Amendment, are ratified and confirmed and shall continue in full force and effect, and shall continue to be legal, valid, binding, and enforceable obligations of the Parties.

4. **Counterparts.** This Second Amendment may be executed in several counterparts, all of which taken together shall constitute a single agreement between the parties.

IN WITNESS WHERE OF, the Parties have executed this Second Amendment to the Agreement for Services of Independent Contractor to be effective on the date executed by COUNTY.

ATTEST:

Mona Miyasato
County Executive Officer
Clerk of the Board

By: Sheila de la Guerra
Deputy Clerk

County of Santa Barbara:

By: Steve Davagnino
Steve Davagnino, Chair
Board of Supervisors

Date: 5-14-19

RECOMMENDED FOR APPROVAL:
Public Works

By: Scott D. McGolpin
Scott D. McGolpin
Director of Public Works

APPROVED AS TO FORM:

Michael C. Ghizzoni
County Counsel

By: Michael C. Ghizzoni
Deputy County Counsel

APPROVED AS TO ACCOUNTING FORM:

Betsy M. Schaffer, CPA
Auditor-Controller

By: Betsy M. Schaffer
Deputy

APPROVED AS TO FORM:

Ray Aromatorio
Risk Manager

By: Ray Aromatorio

IN WITNESS WHERE OF, the Parties have executed this Second Amendment to the Agreement for Services of Independent Contractor to be effective on the date executed by COUNTY.

CONTRACTOR:

Drake Haglan and Associates

By: 
Authorized Representative

Name: KEVIN ROSS

Title: SENIOR VICE PRESIDENT

EXHIBIT "A2"
Second Amendment
COUNTY OF SANTA BARBARA
DEPARTMENT OF PUBLIC WORKS
TRANSPORTATION DIVISION
EAST MOUNTAIN DRIVE LOW WATER CROSSING
REPLACEMENT PROJECT (BRLO-NBIL(526))

PROJECT WORK PLAN

In accordance with the County of Santa Barbara's (COUNTY) Request for Proposal, this Scope of Work is to provide Professional Structural Design, Geotechnical Design, and Environmental Services for the East Mountain Drive Low Water Crossing Replacement Project (BRLO-NBIL(526)) (County Project No. 862357). This Exhibit A2 replaces any and all previously attached Statement of Work to the Agreement or First Amendment.

Items of Work

The following CONSULTANT services are needed to environmentally clear, engineer, and produce the final construction documents for the East Mountain Drive Low Water Crossing Replacement Project. CONSULTANT services will include structural engineering, geotechnical engineering, environmental services, and coordination with the COUNTY on COUNTY performed tasks.

The CONSULTANT will prepare construction plans, structure technical specifications, and engineer's cost estimate in English units and in accordance with the latest editions from the following design standards and design criteria:

- AASHTO "A Policy on Geometric Design of Highways and Streets"
- Santa Barbara County Standards
- Caltrans Standard Plans and Specifications (2015)
- Caltrans Standard Special Provisions (2015)
- AASHTO LRFD Bridge Design Specifications 6th Edition w/ Caltrans Amendments
- Caltrans Seismic Design Criteria
- Caltrans Bridge Details Manual
- Caltrans Bridge Design Aids Manual
- Caltrans Bridge Memos To Designers
- Caltrans Local Assistance Procedures and Guidelines Manuals

The primary structural and geotechnical design standard will be the AASHTO LRFD Bridge Design Specifications 6th Edition w/ Caltrans Amendments.

The CONSULTANT will prepare the environmental/technical studies associated with the National Environmental Policy Act (NEPA) in accordance with the Caltrans' Local Assistance Procedures Manual (LAPM) and the Standard Environmental Reference (SER). It is anticipated that the NEPA environmental documentation for the project

will be a Categorical Exclusion (CE) supported by technical studies with no significant environmental impacts. Caltrans will prepare the CE document. The CONSULTANT will prepare the California Environmental Quality Act (CEQA) document which is anticipated to be an IS/MND. The COUNTY will develop the permit documents with assistance from the CONSULTANT.

All deliverables/products below will be provided in PDF format, electronic source file, as well as hard copy per COUNTY and Caltrans practice. Electronic files (MS Word, Excel, AutoCAD Civil 3D, MS Project, etc.) will include supporting files and will be provided in a readily usable format. Plans will be prepared in AutoCAD Civil 3D.

For each submittal review, the COUNTY will prepare a consolidated written list of comments and notations on the plan sheets. The CONSULTANT will address comments, changes and/or corrections obtained from the COUNTY review comments on the subsequent submittals. If the comments are not incorporated, the CONSULTANT will address why the comments were not incorporated.

Plan hard copies will be half size at 11x17. The CONSULTANT will provide half size hard copies for submittals in the number that is requested by COUNTY in accordance with the cost and rates set forth in the Contract fee schedule. Full size drawings will be submitted electronically and will be 22x34.

Scope Assumptions:

- Project duration through Final PS&E is 59 months (4/17 to 2/22).
- COUNTY will be responsible for coordinating directly with State or Federal agencies.
- The actual costs may differ from task to task from that proposed in the fee, but the overall fee will not be exceeded unless additional work is requested and approved by the COUNTY. Fee for any such additional work will be negotiated prior to the additional work being performed.
- The COUNTY will waive COUNTY encroachment permits for services to be performed as part of this project.
- To establish a baseline estimate, all plans, specifications, estimates, reports, and applications include two rounds of review/resubmit for each deliverable made to the COUNTY, Caltrans, and regulatory agencies.
- No asbestos containing materials, naturally occurring asbestos, or aerially deposited lead are present at the site. Lead based paint is assumed to be present in the traffic stripes at the site.
- No Extended Phase I (XPI) or Phase II (P2) archaeological investigations are included in this scope.

- The cultural resource record form will be updated for the portion of the Cold Spring Trail within the APE. No archaeological resources will be found.
- The project APE will include project activities proposed at the creek.
- No more than two rounds of comments will be needed to finalize the cultural resource compliance documents.
- A Memorandum of Agreement (MOA) and 4(f) document will not be needed for this project.
- There will be one standing structure on APN 013-040-013 near the Area of Direct Impacts (ADI) which will be assessed for its potential historical significance and potential impacts.
- AB-52 support will consist of drafting one correspondence letter only. AEA assumes they will not be required to attend a meeting with Santa Barbara County or any tribes. We also assume that no follow-up will be required.
- No utilities are located at the project site.
- Bridge length and width is set as shown in the most recent CAD files provided by the COUNTY. The proposed bridge is in a similar location and on a similar alignment to the previously proposed bridge but is on a lower profile and is narrower in width.
- Hydraulic design will be based on the County's current proposed bridge layout. It is assumed the proposed bridge will not pass the Q100 or Q50 + 2ft floods.
- Fish passage will not be required.
- The scope and fee were based on the design and check of three retaining walls. Two being standard plan retaining walls supported on spread footings and the third being a soldier pile wall with cast-in-place concrete facing. Architectural treatment consisting of standard formliner treatment is assumed. Standard soldier piles without tiebacks in drilled holes are assumed.

Services to be Provided by County:

The services to be provided by the COUNTY will include, but not necessarily be limited to:

- Lead correspondence and coordination with Caltrans and Federal agencies.
- Providing general direction to the CONSULTANT Project Manager/Project Engineer through the COUNTY Project Manager.

- All topographic, base mapping, and boundary surveys.
- Roadway plans, specifications, and estimate.
- Hydraulic design.
- Public noticing and attendance at any meetings or public hearings for the architectural review board and IS/MND approvals.
- Lead public outreach (CONSULTANT to assist in preparation of renderings, exhibits, and noticing).
- Preparation of appraisal maps, plats and legal descriptions, and any required appraisals and acquisition services.
- Utility coordination and potholing (not anticipated to be necessary).
- AB-52 consultation (CONSULTANT will perform Section 106 consultation and assist with AB-52 consultation).
- Environmental permitting (CONSULTANT will provide required information and assist with the development of an HMMP and RWQCB PCR compliance package). County anticipates only a CDFW permit will be required.
- Preparation of a Stormwater Pollution Prevention Plan (SWPPP) or Water Pollution Control Plan (WPCP) with Rainfall Erosivity Waiver.
- County will arrange property access permissions for parcels intersected by and adjacent to the project.
- County will arrange property access permissions for all parcels situated in the Caltrans approved APE.

Services to be Provided by Consultant:

PHASE 1: PRELIMINARY ENGINEERING & ENVIRONMENTAL CLEARANCE

Task 1: Project Management

Task 1.1: Project Management

CONSULTANT will manage the project by tracking the schedule, budget and value of the products produced. CONSULTANT will also manage the sub-consultant project team, the project workflow, and coordination between the COUNTY and CONSULTANT team. CONSULTANT will work with the COUNTY in making critical project decisions to keep the project progressing on-schedule. Monthly project invoices will be prepared for the COUNTY which will highlight work performed for that invoice period, anticipated work to be performed in the next invoice period, and a list of critical issues and decisions required.

Task 1.2: Progress Meetings

CONSULTANT Project Manager and appropriate staff will meet with the COUNTY Project Manager and others to manage and deliver this project. Team meetings will be scheduled via telephone monthly to keep the COUNTY informed of the status of the project and to gain timely decisions from the COUNTY. For the purposes of this scope and fee, 8 conference calls are assumed.

Deliverables:

- Monthly Progress Reports with Issues Log
- Regularly Updated Project Schedule
- 8 conference calls including Meeting Agendas and Notes
- One (1) Meeting at County Office

Task 1.3: Additional Project Management Meetings, Amendment 2

Additional Project Management and Meeting budget for two meetings that will be held since the project has been extended due to the 2018 flood damage.

Task 2: Project Initiation

Task 2.1: Kick-Off Meeting

CONSULTANT will coordinate with the COUNTY to hold a project kick-off meeting for the project at the County Office and will include the CONSULTANT, COUNTY, and other identified stakeholders. The project background, scope, concepts, schedule, management, and previously completed work will be thoroughly discussed. The meeting will result in an understanding by the parties involved of the scope, schedule, and a consensus on direction for the design and environmental clearance of the project to begin.

Deliverables:

- Kick-Off Meeting Agenda and Notes

Task 3: Surveys and Mapping (By County)

Task 3.1: Topographic, Base Mapping, and Boundary Surveys

COUNTY will perform the topographic, base mapping, and boundary surveys for the project and provide them to CONSULTANT for use in design. The topographic survey will be at a contour interval adequate for design and will use the NAD83 and NAVD88 datums. The topographic survey will also include a detailed tree survey and include dbh tree sizes and species. The boundary survey provided to CONSULTANT will include existing COUNTY right-of-way limits, property lines, and easements. A geo-referenced orthophoto will be provided to CONSULTANT by the COUNTY for use in plan and exhibit development.

All files from the COUNTY will be provided to CONSULTANT in the AutoCAD Civil 3D format and include a digital terrain model (AutoCAD Civil 3D Surface).

Deliverables:

- AutoCAD Civil 3D file of orthophoto and topographic survey
- AutoCAD Civil 3D digital terrain model (AutoCAD Civil 3D Surface)
- AutoCAD Civil 3D file of boundary survey

Task 4: Hydrologic, Hydraulic, and Bridge Scour (By County)

Task 4.1: Hydrologic, Hydraulic, and Bridge Scour

The COUNTY and the COUNTY's consultants will perform the hydrologic, hydraulic, bridge scour, and provide relevant information to CONSULTANT. CONSULTANT will also coordinate with the COUNTY and the COUNTY's consultants to incorporate channel grading, bridge and bank scour protection into the structure's designs. It is assumed this coordination will take place at the regularly scheduled PDT meetings and other task specific conference calls. No in-person meetings at the COUNTY's offices are scoped for this task. It is assumed the bridge will not pass the Q100 or Q50 + 2 ft flows.

Deliverables:

- Draft and Final Bridge Design Hydraulic Report

Task 5: Geotechnical Engineering

Task 5.1: Project Initiation and Data Review

CONSULTANT will review information provided by the COUNTY including all preliminary plans, existing data, and other available information including published geologic maps and studies.

CONSULTANT will develop a field exploration plan and provide it to the COUNTY to coordinate the required field work. The field exploration plan will include proposed subsurface exploration and soil sampling locations. CONSULTANT will coordinate closely with COUNTY staff, COUNTY consultants, and other members of the PDT throughout the project during the regularly scheduled PDT meetings.

Deliverables:

- Preliminary plans, existing data, and other relevant project information (BY COUNTY)
- Field exploration plan

Task 5.2: Preliminary Foundation Report

Using information provided by the COUNTY, existing available geological and geotechnical data, as well as any subsequent site visits or preliminary geotechnical subsurface investigations, CONSULTANT will prepare a Preliminary Foundation Report. The Preliminary Foundation Report will provide a summary of the existing data reviewed, results of any field investigations and laboratory analyses to date, initial recommendations regarding preferred foundation alternatives, and recommended retaining wall types.

Deliverables:

- Preliminary Foundation Report

Task 5.3: Geotechnical Investigations and Lab Testing

When performing the geotechnical investigations, CONSULTANT will comply with

COUNTY permit requirements. It is assumed the COUNTY will grant a no fee encroachment permit for the geotechnical investigations in COUNTY right-of-way and coordinate rights of entry with other property owners if required. CONSULTANT will perform 5 total borings and as necessary to design the bridge abutments and retaining walls. All boring locations will be marked and USA will be called for clearances. Borings will be performed by a truck mounted mud-rotary drill rig and it is anticipated that diamond coring into rocky material will be required. One lane of traffic will remain open during boring activities. Traffic control will consist of cautionary signage and flagmen on the approach roadways.

For each boring, CONSULTANT will classify and continuously log subsurface soil conditions encountered at each location. CONSULTANT will obtain relatively undisturbed and bulk samples of substrata from the borings for laboratory testing. The borings will be backfilled and capped when complete. Boring hole locations will be approximated using field measurements then referenced on the Log Of Test Boring Sheets using approximate station and offset dimensions. Spoils from the borings will be disposed of off-site. CONSULTANT will collect soil samples for roadway R-value testing from the bridge borings or additional shallow hand samples along the proposed roadway alignment.

CONSULTANT will also perform 2 field percolation tests to provide data for COUNTY use in designing storm water mitigation elements. CONSULTANT will follow guidelines provided in the COUNTY's storm water management guidelines. The holes will be set up with PVC casing, gravel pack, and soaked for 24 hours prior to testing.

CONSULTANT will perform laboratory tests on representative soil/rock samples such as moisture density, unconfined compression, gradation analyses, R-value tests, corrosion tests, and Plasticity Index tests as necessary.

Deliverables:

- Field logs, soil classifications, and digital photos of sampled materials
- Laboratory testing schedule and testing results

Task 5.4: Draft Foundation Report and Engineering Analysis

CONSULTANT will perform engineering analyses based on the information collected in the borings and results from the laboratory tests to develop design recommendations for the proposed bridge foundation system and retaining walls. Pavement design will be based on R-value test results and the Traffic Index that will be provided by the COUNTY.

CONSULTANT will prepare a Draft Foundation Report following the latest available version of the Caltrans "Foundation Report for Bridges" manual. The report will summarize the results of the previous studies and the site seismic considerations, as well as evaluate the liquefaction potential at the site. The report will also discuss soil and groundwater at the site, foundation design data, earth pressures for abutment and retaining wall designs, corrosion potential, scourability of the existing

soil, soil infiltration rates, and other factors in accordance with Caltrans geotechnical standards and Bridge Memo to Designers. Detailed liquefaction and lateral spreading analyses for design are not included in this scope of services, only the evaluation for their potential at the site. Information related to Caltrans Seismic design criteria will follow the SDC version 1.7. The seismic ARS curve will be developed in accordance with Caltrans' current ARS On-line tool. The report will also include the Draft Log of Test Borings sheet. CONSULTANT will coordinate the scourability of the existing soil with the Hydraulic Engineer and provide this information for use in developing their design and reports.

Deliverables:

- Draft Foundation Report
- Draft Log of Test Borings

Task 5.5: Additional Borings, Amendment 2

Consultant will perform two additional days of borings. Parikh will try and bore two holes per side per day if possible, but a minimum of one hole per side will be performed. Due to the difficult drilling encountered during the initial boring work done in June/July, 2017, Parikh Consultants is recommending the new borings be done using a Sonic Drill that is better equipped to penetrate the subsurface materials. One day of exploration for each abutment is proposed. Additionally, the Foundation Report and Log of Test Borings will be updated to incorporate the additional information obtained from the additional field work. By using Sonic Drilling methods, there will not be a large amount of spoils generated, thus the fee assumes these spoils will be dispersed onsite and will not require offsite disposal. It is assumed no traffic control will be required and the County will provide a no fee encroachment permit.

Task 6: Preliminary Engineering

Task 6.1: Concept Development and Alternatives Analysis

CONSULTANT will review the work performed by the COUNTY to date including roadway alignments, structure type considerations, and hydraulic analyses. CONSULTANT will evaluate potential structural alternatives and coordinate different options with the COUNTY prior to beginning detailed investigations. Ultimately, the COUNTY and CONSULTANT will determine 2 bridge design alternatives to be analyzed in detail.

Task 6.2: 35% Plans and Estimates

For each of the 2 bridge design alternatives chosen, CONSULTANT will prepare a General Plan and General Plan Estimate. The General Plans shall be prepared in conformance with COUNTY format and CAD standards.

Task 6.2.1: Revise 35% Plans & Estimate, Amendment 2

Using the updated alignment and profile information that will be provided by the County, CONSULTANT will revise the 35% Plans and Estimate to reflect the changes to the bridge alignment, bridge width, barrier rail, and aesthetic features such as the sacrificial arch member.

Task 6.3: Type Selection Report

CONSULTANT will prepare a Type Selection Report to summarize the results of the concept development and alternatives analysis, and make a recommendation in regard to the selected structure type for the bridge replacement as well as a recommendation for the proposed retaining walls. The report will include discussion of the restrictions of the existing narrow roadway and materials transportation to the site, preliminary hydraulic, and geotechnical studies, and will consider environmental, right-of-way, constructability, and construction cost impacts. The format and content of the type selection memo shall be as described in Caltrans Bridge Memos to Designers Manual.

The General Plans and General Plan Estimates for the 2 bridge design alternatives and retaining wall alternatives will be included in the Type Selection Report. The chosen alternative, once reviewed and approved by the COUNTY and Caltrans Local Assistance, shall be the basis for the final design of the structure.

Task 6.3.1: Revise Type Selection Report, Amendment 2

Given the changes to the site, CONSULTANT will revise the Type Selection Report to reflect the changes to the bridge alignment, bridge width, barrier rail, and aesthetic features such as the sacrificial arch member.

Task 6.4: 35% Submittal

A submittal of the Draft 35% plans, estimates, and Type Selection Report will be made to the COUNTY. Upon receipt of COUNTY comments, CONSULTANT will review and incorporate applicable revisions into the design and will resubmit the Final 35% package for Caltrans review.

Deliverables:

- Draft and Final General Plans for 2 bridge design alternatives
- Draft and Final General Plan Estimates for 2 bridge design alternatives
- Draft and "Draft" Final and Final Type Selection Reports

Task 7: Aesthetic Design and Renderings

Task 7.1: Aesthetic Design and Renderings

CONSULTANT will prepare 4 renderings for the proposed project. Renderings shall clearly illustrate aesthetic options and ideas that fit the surrounding environment. It is assumed that 2 renderings will be of the proposed bridge in elevation view and 1 will be of the proposed bridge from street level view and 1 will be of a proposed retaining wall visible from the street.

Deliverables:

- Renderings of proposed project (4 Total)

Task 7.1.1: Architectural Option Exhibits, Amendment 2

CONSULTANT will prepare exhibits showing potential architectural options for the

sacrificial arch member.

Task 7.2: Public Outreach and ARB Meeting Assistance

CONSULTANT will assist the COUNTY with implementation of its public outreach plan for Public Outreach and ARB meetings. CONSULTANT will prepare exhibits (the 4 four renderings) to be used for 1 public meeting and 1 ARB meeting. This scope does not include attendance of the CONSULTANT team at these meetings. The COUNTY will be responsible for preparing and mailing all notifications, as well as preparing other materials/exhibits required for the presentations.

Deliverables:

- Four (4) renderings for use in Public Outreach and ARB meetings.

Task 8: Environmental Document

Since the project is federally funded and the funding will be administered by Caltrans, the project is subject to FHWA and Caltrans requirements. Thus, the CONSULTANT will follow the Caltrans Local Assistance Procedures Manual (LAPM) and Standard Environmental Reference (SER) guidelines.

It is anticipated that the NEPA environmental documentation will be a Categorical Exclusion (CE) supported by technical studies if no significant environmental impacts are determined to result from the proposed project. This scope assumes Caltrans will prepare the NEPA document (i.e., CE) based on the technical studies prepared by the CONSULTANT.

The COUNTY will be the lead CEQA agency during the preparation of the CEQA environmental document. It is anticipated that the necessary environmental document will be an Initial Study/Mitigated Negative Declaration (IS/MND). The CONSULTANT will prepare the environmental document based on the technical studies previously prepared for Caltrans and meet all requirements under CEQA and local regulation.

Task 8.1: Purpose and Need/Project Description

The COUNTY is the lead agency under CEQA for all discretionary actions related to the proposed Project. Caltrans has project oversight linked to the project funding with federal monies. The CONSULTANT will prepare a purpose and need statement that addresses the discretionary actions for both lead agencies. The purpose and need will provide the basis for the appropriate regulatory guidance documentation for compliance with both NEPA and CEQA. In coordination with the COUNTY, the CONSULTANT will also draft a project description which will be used in the following technical studies and the CEQA clearance documentation.

Deliverables:

- Draft and Final Purpose and Need/Project Description

Task 8.1.1: Rewrite Project Description, Amendment 2

CONSULTANT will rewrite the Project Description to reflect the changes to the site, new structure width, elimination of fish passage, revised trail impacts, and revised tree removal.

Task 8.2: Technical Studies

The CONSULTANT will prepare both the draft and final environmental documents in compliance with CEQA and NEPA procedures per the Caltrans SER, as well as Caltrans District 5 and FHWA guidelines.

Task 8.2.1: Area of Potential Effect Map

CONSULTANT will prepare an APE map for the Project based on GIS shape file data and base layer(s) which will depict the area that will be affected during Project construction, including staging and access areas. The map will be plotted on a base map at a scale of 1"=100' or 1"=200' with a bar scale and will depict existing and proposed rights-of-way, the location of any known cultural resources, areas of direct and indirect impact, roads and bridges, and will include a signature and date block.

Deliverables:

- Draft and Final APE Map

Task 8.2.1.1: Revise Area of Direct Impacts, Amendment 2

CONSULTANT will revise the Area of Direct Impacts limits to reflect the changes to the project limits. The revised Area of Direct Impacts will be the basis for the revised APE Map previously prepared by Applied Earthworks.

Task 8.2.2: Archaeological Survey Report (ASR)/Historic Property Survey Report (HPSR)/ Historic Resources Evaluation Report (HRER)

CONSULTANT will prepare the following documents meeting FHWA, Caltrans, and the County's reporting standards:

- Historic Properties Survey Report (HPSR)
- Area of Potential Effects (APE) Maps
- Archaeological Survey Report (ASR)
- Historic Resources Evaluation Report (HRER)

Tasks required for Section 106 compliance documentation include (1) background research, (2) archaeological surface survey of the ADI, (3) architectural study of the low water crossing and trail within the APE, and (4) preparation of draft and final technical reports as defined above. Because the 35 percent design depicts relocation of a segment of the Cold Spring Trail, a MOA, and/or a 4(f) document may be required. This requirement would depend on the Trail rising to National Register level significance as the project site is immediately adjacent to the Los Padres National Forest, which is utilized as a publicly-owned recreational facility. Because it is assumed that the Trail will not be nationally significant, a budget for completing MOA and/or 4(f) is offered as an optional task. Efficient communication and coordination will be necessary for successful technical document completion. This scope assumes that at most, one cultural resource will require recordation which includes the trail. This scope assumes that no archaeological resources will be found.

(1) Background Research. This entails research at local and regional archives, historical society, and coordination with local Native American groups and individuals. Information relevant to the project and vicinity will be gathered from the Central Coast Information Center and the Map and Imagery Laboratory at UC Santa Barbara; Los Padres National Forest cultural resources office; local trails organizations and historical societies; local libraries; and County government offices. CONSULTANT will request a search of the Sacred Lands Files at the California Native American Heritage Commission (NAHC) and request information from individuals and groups listed in the NAHC response letter. Research results will refine expectations for cultural resources that may be encountered during field survey. Much of this research will be from the desk top and does not include time to visit all facilities.

(2) Archaeological Survey. CONSULTANT will complete systematic pedestrian survey of the ADI using transects spaced no more than 10 meters apart covering all areas proposed for project-related activities, including direct earth-disturbance, staging/laydown, and access routes. Accessible rock exposures and boulders within the ADI will be inspected for evidence of modification (e.g., cupules, pictographs, petroglyphs). Ground surface visibility and any archaeological materials encountered will be described and documented with photographs and in field notes. Because the project lies in a narrow upstream location, we do not anticipate Caltrans will require subsurface testing to assess presence of buried archaeological deposits lacking surface expression.

(3) Built Environment Survey. The project ADI will be inventoried to identify the age of each structure or any built-environment features (including historic landscapes) visible from the East Mountain Drive right-of-way, and to record and evaluate the significance of those exceeding 45 years of age. Fieldwork will include photographic and written documentation detailing structural design, architectural detail, and other relevant associated cultural traits. This includes evaluating the significance of the standing structure located on APN 013-040-013.

(4) Evaluate Offsite Mitigation Site. CONSULTANT will research, survey, and document findings at the County proposed offsite mitigation site located in the San Marcos Foothills Preserve. Discussion of the findings will be included in the ASR.

(5) Draft and Final ASR, HRER, and HPSR. Section 106 technical documents will be prepared according to the current (November 2016) Caltrans Standard Environmental Reference (Vol. 2 Cultural Resources). The HPSR is the primary document used to fulfill Caltrans compliance requirements under 36 CFR 800. It summarizes the findings of the cultural resources studies (ASR, HRER), documents the adequacy of the site identification and evaluation efforts, and offers recommendations for further evaluation or treatment, as necessary. It also includes the results of Native American consultation and contacts

with local historical societies. Attached to the HPSR are the ASR (reporting the methods and results of background and field survey for archaeological resources) and the HRER (describing methods and results of the architectural/built-environment investigation, including the existing low water crossing structure and Cold Spring Trail).

Deliverables:

- Draft and Final ASR, HRER, and HPSR

Task 8.2.2.1: Re-evaluate Area, Amendment 2

The CONSULTANT will re-evaluate the area given the damage that has occurred at the site. Applied Earthworks will make another field visit to document the changes that have occurred and potentially revise conclusions previously made. Applied Earthworks will no longer evaluate an off-site mitigation area since now all mitigation will be able to be done within the project limits near the bridge. A revised HPSR/ASR/HRER study will be prepared and sent to the County and Caltrans for approval. Since it is assumed that the damage to the Gebhard house will preclude it from historical eligibility an MOA, FOE, and 4(f) documents will not be required. Applied Earthworks previous optional budget for this work is re-distributed to Task 8.2.2.

Task 8.2.3: Natural Environment Study (NES)

CONSULTANT will prepare a draft and final Natural Environment Study (NES), according to the current format guidelines from Caltrans. This document will compile and integrate data and information from a literature review and current database records, include a description of field methods and results of the field studies and protocol surveys, address sensitive plant and animal species that are known or have potential to occur, assess site physical and hydrological conditions, and calculate impacts and mitigation in an appropriate regulatory context.

The NES will update the results of a literature review of federal and State lists of sensitive species and current database records (e.g., CNDDDB), a description of the field methods, and the results of the directed surveys. Field work will be conducted by a qualified biologist in order to document the presence/absence of sensitive biological resources (e.g., species or habitats), or to determine the potential for occurrence of such resources that may not be detectable when the field work is conducted. The results of these surveys will be included in the NES. The NES will follow the latest template in the Caltrans SER. The NES will also include discussion on how the proposed project will comply with federal laws, acts and Executive Orders (EO) including but not limited to:

- EO 13112 Invasive Species (including avoidance and minimization measures to prevent the spread of invasive species both in and out of the project site),
- EO 11990 Protection of Wetlands,
- EO 11988 Floodplain Management (Natural and Beneficial Floodplain Values),
- Migratory Bird Treaty Act, and
- Section 7 of the Federal Endangered Species Act.

Additional work to support the NES includes acquisition/review of CAD and/or GIS files for the project, impact calculations and analysis, and coordination with the project team on design considerations and BPs for the construction and post-construction phases.

Deliverables:

- Draft and Final NES

Task 8.2.3.1: Revise NES, Amendment 2

CONSULTANT will revise the NES to reflect the changes to the project site, revised project limits, and overall project impact area. CONSULTANT will make a site visit to document changes from what was originally documented, update the NES, and resubmit to the County and Caltrans for approval.

Task 8.2.4: Biological Assessment (BA)

CONSULTANT will prepare a draft and final Biological Assessment (BA) to support Section 7 consultation with the United States Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service (NMFS) to determine the potential for the replacement of the bridge to impact federal listed threatened and endangered species. The BA will follow the latest template in the Caltrans SER. The Biological Assessment will describe the action area and the species and critical habitat considered. The project will be evaluated for the potential to impact certain listed species that occur in the region. The BA will include an effects analysis and determination as to the potential for the project to affect the protected resources.

Deliverables:

- Draft and Final BA

Task 8.2.5: Jurisdictional Wetland and Waters Delineation Report

CONSULTANT will conduct a wetland delineation, identifying boundaries, types, and acreages of all aquatic resources that are under the jurisdiction of the U.S. Army Corps of Engineers, Regional Water Quality Control Board, California Department of Fish and Wildlife, and California Coastal Commission. Prior to field work, the CONSULTANT will review project-specific hydrological feature data and publicly available information from the U.S. Fish and Wildlife Service National Wetlands Inventory, U.S. Geological Survey Blue-Line data, Natural Resource Conservation Service soil survey maps, aerial imagery, and topographic maps. Potential Federal and State waters contained within the survey area will be evaluated using the methodology set forth in the U.S. Army Corps of Engineers Wetland Delineation Manual (1987) and the Arid West Regional Delineation Supplement (2008).

Deliverables:

- Draft and Final Jurisdictional Wetland and Waters Delineation Report

Task 8.2.6: Hazardous Waste ISA Memorandum

CONSULTANT will conduct a Phase 1 ISA in accordance with Caltrans' procedures. A field reconnaissance to visually assess the existing conditions in the vicinity of the

project site with respect to the potential for hazardous materials/hazardous materials impacts to the proposed project will be performed. It is assumed that there are no ACMs, NOA, or ADL at the project site. It is assumed lead based paint is at the project site (pavement striping). Rather than perform expensive testing, all paint materials, including roadway striping paint on the approaches, are assumed to contain heavy metals and will be required to be disposed of in compliance with the Caltrans Standard Specifications.

Deliverables:

- Draft and Final Hazardous Waste ISA Memorandum

Task 8.2.6.1: Revise Hazardous Waste Memorandum, Amendment 2

CONSULTANT will revise the work previously completed to reflect the changes to the project site, revised project limits, and overall project impact area.

Task 8.2.7: 4(f) Memorandum

Construction activities that encroach on Forest Service land, specifically the public trails near the project, will require a Section 4(f) De minimis evaluation. CONSULTANT will work with Caltrans to provide information for the de minimis documentation, including a detailed description of the Section 4(f) property, construction methods, and avoidance and minimization measures. CONSULTANT will also coordinate with the agency with jurisdiction over the 4(f) property, and coordinate the public circulation of the de minimis documentation with Caltrans and the COUNTY.

Deliverables:

- Draft and Final 4(f) Memorandum with public circulation documents

Task 8.2.8: Land Use and Community Impact Memorandum

CONSULTANT will prepare a land use and community impact memorandum to assess the project impacts to surrounding residents, hikers, and the general public. The memorandum will discuss visual, traffic, noise, staging, property easements/acquisitions, and parking impacts. The technical memorandum will include information such as parcel numbers and sizes, property owners, zoning and duration of use and size of areas potentially impacted by easements. The memorandum will also describe impacts to the community for access to properties, trails, and roadways, as well as temporary traffic detours, and the potential for encroachment onto Federal lands.

Deliverables:

- Draft and Final Land Use and Community Impact Memorandum

Task 8.2.9: Water Quality Memorandum

CONSULTANT will prepare a Water Quality Technical Memorandum in accordance with Caltrans guidelines and requirements. The report will evaluate potential short-term and long-term water quality impacts on Cold Springs Creek. Potential causes

of erosion, and siltation, and sources of pollutants and the effects of these substances on the quality of receiving waters will be evaluated. Mitigation measures, including Best Management Practices will be identified for any significant water quality impacts that may occur during construction and/or operation of the new bridge structure.

Deliverables:

- Prepare and submit One (1) Water Quality Memorandum in PDF format to County and Caltrans for review and approval

Task 8.2.10: Visual Impact Memorandum

CONSULTANT will complete a visual checklist and technical memorandum. The work will follow methodologies and protocols developed by FHWA and adopted by Caltrans.

Deliverables:

- Prepare and submit One (1) visual checklist and technical memorandum in PDF format to County and Caltrans for review and approval

Task 8.3: Prepare CEQA Documentation

To comply with the California Environmental Quality Act (CEQA) it is anticipated that an Initial Study/Mitigated Negative Declaration (IS/MND) will be required. The IS/MND will include, but is not limited to analysis of the following issue areas:

Aesthetics/Visual Resources; Agricultural Resources; Air Quality; Biological Resources; Cultural Resources; Energy; Fire Protection; Geological Resources; Hazardous Materials; Historic Resources; Land Use; Noise; Public Facilities; Recreation; Transportation/Circulation; and Water Resources including Surface and Storm Water Quality.

CONSULTANT will prepare the IS/MND document and public notices. COUNTY will mail the public notices.

Task 8.3.1: Prepare Administrative Draft IS/MND

CONSULTANT will prepare an Initial Study (IS) for the project. It is the goal of the IS to support adoption of a Mitigated Negative Declaration (MND) by the COUNTY. Several technical reports and memorandums will be prepared in the previous task of the project to support the conclusions of the IS/MND. To ensure that the final product is acceptable to the COUNTY, an outline of the document will be submitted to the project team for review before document preparation begins.

Deliverables:

- Administrative Draft IS/MND

Task 8.3.2: Prepare and Submit Public Draft IS/MND

After review and approval by the COUNTY, CONSULTANT will prepare a screen check IS/MND for final approval before public circulation and review. CONSULTANT

will deliver an electronic copy of the screen check for review and approval. We are assuming a total of 30 copies of the public review IS/MND will be sent to the COUNTY for distribution.

Deliverables:

- Public Circulation and Review of IS/MND
- Notice of Completion (NOC) to the State Clearing House and deliver it with 15 bound copies of the draft IS/MND

Task 8.3.3: Prepare and Submit Administrative Final IS/MND

At the conclusion of the 30 day public comment period, CONSULTANT will meet with the project development team to discuss the comments received and the preparation of the final document. In addition, a Mitigation Monitoring and Reporting Program (MMRP) for CEQA will be prepared as part of the final document.

Deliverables:

- Draft-Final IS/MND with response to comments and MMRP

Task 8.3.4: Prepare and Submit Final IS/MND

After the project development team and COUNTY Policy and Consistency Review has reviewed the draft-final IS/MND and draft MMRP, CONSULTANT will incorporate the necessary revisions into the document and submit the Final IS/MND and MMRP. CONSULTANT will draft a Notice of Determination (NOD) for the COUNTY to file with the COUNTY Recorder's Office within 5 days of approval of the IS/MND (pursuant to CEQA guidelines).

Deliverables:

- Final IS/MND and MMRP
- Notice of Determination
- Memo of concurrence of bid package with environmental and regulatory compliance

Task 9: 65% Structures Design

Task 9.1: 65% Structures Design and Detailing

The bridge design will be in accordance with the "AASHTO LRFD Bridge Design Specifications", with the latest version of Caltrans amendments and applicable sections of the Caltrans Bridge Memos to Designers and Bridge Design Aids manuals. The design will meet COUNTY, Caltrans and FHWA standards in effect as of the date of Notice to Proceed. Seismic design will be performed in accordance with latest edition of the Caltrans Seismic Design Criteria. Detailing of plans will be in accordance with Caltrans Bridge Design Details manual. Both the design and detailing will be based on the use of the latest COUNTY Standards and Caltrans Standard Plans and Standard Specifications. The bridge general plan construction cost estimate will also be updated from the 35% design and will follow the Caltrans Standard Bid Items list.

Task 9.2: 65% Roadway Design Coordination and Review

CONSULTANT will coordinate with the COUNTY and their consultants to ensure the

latest information is being reflected on the structures plans. The CONSULTANT will also share the latest structural designs with the COUNTY for incorporation into the roadway plans. Additionally, CONSULTANT will review the latest roadway designs to identify any design features that would conflict with the structure elements.

Task 9.3: Stormwater Control Plan (SWCP) (By County)

A Stormwater Control Plan (SWCP) will be prepared by the COUNTY in accordance with COUNTY of Santa Barbara Post-Construction Stormwater Requirements. East Mountain Drive is the northern border for the COUNTY's NPDES permit area therefore the project is anticipated to be a Tier 3 or Tier 4 level project depending on the amount of roadway approach work required. CONSULTANT assumes all work will be completed by the COUNTY. CONSULTANT will provide 65% bridge plans for use in preparing the SWCP and design of the PCR's.

Task 9.4: 65% Submittal

CONSULTANT will electronically submit the 65% Structures Plans and Estimate to the COUNTY. CONSULTANT will perform an independent QA/QC review of the 65% structures plans and incorporate appropriate revisions prior to submittal to the COUNTY. Upon receipt of COUNTY comments on the 65% submittal, CONSULTANT will review and incorporate applicable revisions into the 95% design.

Deliverables:

- Electronic 65% Structures Plans and Updated General Plan Estimate

Task 10: Quality Controls Review

Task 10.1: Quality Controls Review

Quality control reviews will be conducted before the following submittals:

- 35% Submittal (Plans, Estimate, and Type Selection Report)
- 65% Submittal (Plans and Updated Estimate)

The structures plans will be reviewed for compatibility between portions of work and other design disciplines. CONSULTANT will perform an independent QA/QC review prior to the submittals listed above being transmitted to the COUNTY.

PHASE 2: FINAL DESIGN

Task 11: Project Management

This task is an extension of the Project Management and Progress Meetings task from Phase I.

Task 11.1: Project Management

CONSULTANT will manage the project by tracking the schedule, budget and value of the products produced. CONSULTANT will also manage the sub-consultant project team, the project workflow, and coordination between the COUNTY and CONSULTANT team. CONSULTANT will work with the COUNTY in making critical project decisions to keep the project progressing on-schedule. Monthly project

invoices will be prepared for the COUNTY which will highlight work performed for that invoice period, anticipated work to be performed in the next invoice period, and a list of critical issues and decisions required.

Task 11.2: Progress Meetings

CONSULTANT Project Manager and appropriate staff will meet with the COUNTY Project Manager to manage and deliver this project. Team meetings will be scheduled via telephone to keep the COUNTY informed of the status of the project and to gain timely decisions from the COUNTY. For purposes of the scope, 6 conference calls are assumed for this phase.

Deliverables:

- Monthly Progress Reports with Issues Log
- Regularly Updated Project Schedule
- Six (6) Conference Calls including Meeting Agendas and Notes

Task 12: Regulatory Agency Permitting (By County)

Task 12.1: Regulatory Agency Permitting Assistance

The COUNTY will prepare all permit applications for the project including permits from the Army Corps, CDFW, and RWQCB. A habitat mitigation and monitoring plan will be developed by the COUNTY that includes mitigation requirements from the NES, BA and IS/MND. The COUNTY will also prepare the post-construction Stormwater control and treatment package for the RWQCB permit. CONSULTANT will review the permits for consistency with engineering design, assist County with their development of the HMMP.

Task 13: Right-of-Way (By County)

Task 13.1: Right-of-Way Assessment

The COUNTY will perform required right-of-way tasks including but not limited to preparation of right-of-way exhibits, appraisal maps, plats and legals, appraisals, and acquisition services. CONSULTANT will review the COUNTY's right-of-way exhibits and appraisal maps and assess if sufficient right-of-way is being temporarily and/or permanently acquired for temporary construction access as well as permanent improvements.

Task 14: Structures Design Check

Task 14.1: Structures Design Check

Upon completion of the 65% submittal and after NEPA certification, CONSULTANT will perform an independent design check of the 65% bridge plans in conformance with usual Caltrans bridge design procedures. A bridge engineer will develop their own calculations, computer runs, etc., to check the bridge layout and structural integrity. A plan set is marked indicating approved items and those that may require modification. The checker and designer then will work jointly to resolve discrepancies. The needed plan changes will then be revised resulting in the Checked Details.

Deliverables:

- Independent check calculations and comments
- Comment resolution verification

Task 15: Final Geotechnical Engineering

Task 15.1: Final Foundation Report and Engineering Analysis

Once COUNTY comments on the Draft Foundation Report have been received and the structures design check has been performed, CONSULTANT will incorporate the necessary revisions into the design and Final Foundation Report.

Deliverables:

- Final Foundation Report
- Final Log of Test Borings

Task 16: Draft Structures PS&E (95%)

Task 16.1: 95% Structures Plans

CONSULTANT will develop the bridge design to the 95% level and resolve any outstanding design issues from the 65% design and independent structures design check. Additional notes and details will be added as necessary to clarify the design. Also, the plans will be updated to reflect any changes in the roadway design.

Task 16.2: 95% Structures Technical Specifications

CONSULTANT will compile the structures technical specifications using the latest Caltrans Standard Special Provisions (SSP's). CONSULTANT will also prepare other required structures technical special provisions as necessary. The basis of the specifications will be the Caltrans Standard Specifications, 2015 edition or later. It is assumed that the COUNTY will prepare the "boiler plate" documents, including the notice to bidders, proposal, bond forms, and agreement as well as the roadway technical specifications. Required mitigation measures and permitting requirements from the environmental permits should be included by the COUNTY in the specifications if they are available at the time. The COUNTY will assemble the final project contract documents.

Task 16.3: 95% Structures Engineer's Estimate

Two independent sets of bridge quantity calculations will be prepared by individuals experienced in this work. The quantity calculations will be organized and detailed for use by field inspectors during construction. Standard Caltrans summary sheets will be used for bridge quantity calculations, aiding in facilitating the review process and use by the construction personnel. Bridge quantity estimators will agree within tolerances prescribed in Chapter 11 of the Caltrans Bridge Design Aids Manual. Any deviations will be resolved and the Marginal Estimate sheet will be prepared.

Unit prices will be applied by CONSULTANT to each structures contract item resulting in the Engineer's Estimate of Probable Construction Cost (Estimate). Prices used will be based on the latest available data from the COUNTY and Caltrans, reflecting the location of the project and the quantity of each item. Non-participating costs, if any, will be segregated in the estimate.

Task 16.4: Draft Roadway PS&E (95%) Coordination and Review

CONSULTANT will coordinate with the COUNTY and their consultants to ensure the latest information is being reflected on the structures plans. The CONSULTANT will also share the latest structural designs with the COUNTY for incorporation into the roadway plans. Additionally, CONSULTANT will review the latest roadway designs to identify any design features that would conflict with other disciplines.

Task 16.5: Draft Structures PS&E (95%) Submittal

CONSULTANT will electronically submit the 95% Structures Plans, Technical Specifications, and Estimate to the COUNTY. CONSULTANT will perform an independent QA/QC review of the 95% package and incorporate appropriate revisions prior to submittal to the COUNTY. Upon receipt of COUNTY comments on the 95% submittal, CONSULTANT will review and incorporate applicable revisions into the Final design.

Deliverables:

- One (1) hard copy of 95% Structures Plans on 22"x34" bond paper.
- One (1) hard copy of 95% Structures Plans on 11"x17" bond paper.
- One (1) electronic copy of 95% Structures Plans in PDF format.
- One (1) hard copy of the design calculations stamped by an Engineer Registered in the State of California.
- One (1) hard copy of the independent check calculations stamped by an Engineer Registered in the State of California.
- One (1) copy of design files in AutoCAD format 2015 Version or earlier.
- One (1) electronic copy of reconciled design and check quantity calculations in PDF format.
- One (1) electronic copy of Draft Structures Technical Specifications in MS Word format.
- One (1) hard copy of Draft Structures Technical Specifications with "Strike and Hide" text printed. Editing to use Caltrans "Red/Blue" editing format.
- One (1) electronic copy of 95% Engineer's Estimate of Probable Costs in PDF format.

Task 17: Permit Compliance

Task 17.1: Permit Compliance

Once all permits have been received the COUNTY will develop an environmental commitments record (ECR) and provide it to CONSULTANT. CONSULTANT will review the ECR and ensure the permit requirements are fully incorporated into the Final Structures PS&E package.

Task 18: Final PS&E

Task 18.1: Final Structures Plans Revisions

CONSULTANT will develop the bridge design to the Final level and resolve any outstanding design issues from the 95% design. Additional notes and details will be added as necessary to clarify the design. Also, the plans will be updated to reflect any changes in the roadway design.

Task 18.2: Final Structures Technical Specifications Revisions

Based on COUNTY comments, the ECR, and final review of the project documents, CONSULTANT will make final revisions to the structures technical specifications.

Task 18.3: Final Structures Engineer's Estimate Revisions

Based on any changes to the design and/or specifications as well as a final review of the project documents, CONSULTANT will make final revisions to the structures estimate.

Task 18.4: Final Roadway PS&E Coordination and Review

CONSULTANT will coordinate with the COUNTY and their consultants to ensure the latest information is being reflected on the structures plans. The CONSULTANT will also share the latest structural designs with the COUNTY for incorporation into the roadway plans. Additionally, CONSULTANT will review the latest roadway designs to identify any design features that would conflict with other disciplines.

Task 18.5: Final Structures PS&E Submittal

CONSULTANT will electronically submit the Final Structures Plans, Technical Specifications, and Estimate to the COUNTY. The submittal will also include the AutoCAD files for the structures portion of the project. CONSULTANT will perform an independent QA/QC review of the Final package and incorporate appropriate revisions prior to submittal to the COUNTY. Additionally, CONSULTANT will prepare a resident's engineer file for the structures portion of the work.

Deliverables:

- One (1) copy Final Structures Plans signed and sealed by an Engineer Registered in the State of California on 22"x34" bond paper.
- One (1) copy Final Structures Plans signed and sealed by an Engineer Registered in the State of California on 11"x17" bond paper.
- One (1) electronic copy of Final Structures Plans in PDF format
- One (1) copy of Final Structures Technical Specifications along with a Signature Page signed and sealed by an Engineer Registered in the State of California in MS Word format.
- One (1) hard copy of Structures Technical Specifications with "Strike and Hide" text printed. Editing to use Caltrans "Red/Blue" editing format.
- One (1) electronic copy of Final Cost Estimate in PDF format
- One (1) electronic copy of design and check sets of structure quantity calculations in PDF format.
- Resident Engineer's File for Structures
- AutoCAD Electronic Project Files in AutoCAD format (2015 Version or earlier)

Task 19: Quality Controls Review

Task 19.1: Quality Controls Review

Quality control reviews will be conducted before the following submittals:

- 95% Submittal (Plans, Specifications, and Estimate)
- Final Submittal (Plans, Specifications, and Estimate)

The structures plans will be reviewed for compatibility between portions of work and other design disciplines. CONSULTANT will perform an independent QA/QC review prior to the submittals listed above being transmitted to the COUNTY.

Deliverables:

- Signed QA/QC review documentation

Task 20: Bidding Assistance

Task 20.1: Bidding Assistance

CONSULTANT will provide bidding assistance to the COUNTY. This will include consultation and interpretation of the contract documents, answering questions from prospective bidders, and assisting the COUNTY in preparing addenda to the PS&E during the advertisement period.

Deliverables:

- Prepare Addenda as required
- Respond to RFI's as required
- Pre-Bid Meeting attendance

Task 21: Construction Support Assistance (Optional)

Given the project unknowns, it is difficult to estimate the amount of construction support that will be required. Thus, CONSULTANT recommends negotiating this task once the design is finalized and level of effort required is clearly defined. For budget purposes, the optional fee provided is based on providing the following services:

- Review post-tensioning shop drawings
- Respond to RFI's
- Prepare structural and geotechnical portions of CIDH Pile Anomaly summary sheet if required.
- Prepare Contract Change Order plans and quantities (if requested). For budget purposes, up to two (2) change orders to address changed field conditions are assumed.
- Prepare Bridge As-Built Drawings

Hours Breakdown (A2 Only)

Scope of Work Task		DHA Staff															
		Craig Drake	Kevin Ross	Mike Pugh	Howard Zabell	Matt Burgard	Jennifer Grant-Martinez	Joe Demartini	Keith Dresbach	Alan Hyde	Jennifer Hildebrandt	Leslie Haglan	Lindsay Tisch	Zachary Cornejo	Rebecca Nielon	Rosina Florez	DHA Total
1.0	PROJECT MANAGEMENT	0	14	0	0	34	0	0	0	0	0	0	0	0	0	0	48
1.1	Project Management																0
1.2	Progress Meetings																0
1.3	Additional Project Management Meetings, Amendment 2		14			34											48
2.0	PROJECT INITIATION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.1	Kick-Off Meeting																0
3.0	SURVEYS AND MAPPING (BY COUNTY)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.1	Topographic, Base Mapping, and Boundary Surveys																0
4.0	HYDRAULICS AND FISH PASSAGE (BY COUNTY)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.1	Hydraulics and Fish Passage																0
5.0	GEOTECHNICAL ENGINEERING	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
5.1	Project Initiation and Data Review																0
5.2	Preliminary Foundation Report					2											2
5.3	Geotechnical Investigations and Lab Testing																0
5.4	Draft Foundation Report and Engineering Analysis																0
6.0	PRELIMINARY ENGINEERING	0	0	0	0	12	0	40	24	0	0	0	0	0	0	0	76
6.1	Concept Development and Alternatives Analysis																0
6.2	35% Plans and Estimates					4		16	24								44
6.3	Type Selection Report					8		24									32
6.4	35% Submittal																0
7.0	AESTHETIC DESIGN AND RENDERINGS	0	0	0	0	2	0	8	12	0	0	0	0	0	0	0	22
7.1	Aesthetic Design and Renderings					2		8	12								22
7.2	Public Outreach and ARB Meeting Assistance																0
8.0	ENVIRONMENTAL DOCUMENT	0	0	0	0	17	0	0	0	0	0	27	30	110	0	0	184
8.1	Purpose and Need/Project Description					8						2					10
8.2.1	Area of Potential Effect Map					2								4			6
8.2.2	ASR/HPSR/HRER																0
8.2.3	Natural Environment Study (NES)					2						8	30	20			60
8.2.4	Biological Assessment (BA)																0
8.2.5	Jurisdictional Wetland and Waters Delineation Report																0
8.2.6	Hazardous Waste ISA Memorandum					1						1		6			8
8.2.7	4(f) Memorandum																0
8.2.8	Land Use and Community Impact Memorandum																0
8.2.9	Water Quality Memorandum					2						8		40			50
8.2.10	Visual Impact Memorandum					2						8		40			50
8.3.1	Prepare Administrative Draft IS/MND																0
8.3.2	Prepare and Submit Public Draft IS/MND																0
8.3.3	Prepare and Submit Administrative Final IS/MND																0
8.3.4	Prepare and Submit Final IS/MND																0
9.0	65% STRUCTURES DESIGN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9.1	65% Structures Design and Detailing																0
9.2	65% Roadway Design Coordination and Review																0
9.3	Stomwater Control Plan (SWP) Assistance																0
9.4	65% Submittal																0
10.0	QUALITY CONTROLS REVIEW	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Phase 1

Hours Breakdown (Original + A1 + A2)

Scope of Work Task		DHA Staff																
		Craig Drake	Kevin Ross	Mike Pugh	Howard Zabel	Matt Burgard	Jennifer Grant-Martinez	Thomas Mar	Joe Demartini	Keith Dresbach	Alan Hyde	Jennifer Hildebrandt	Leslie Haglan	Lindsay Tisch	Zachary Cornejo	Rebecca Nielon	Rosina Florez	DHA Total
1.0	PROJECT MANAGEMENT	0	130	0	0	62	0	0	0	0	0	12	0	8	0	0	0	212
1.1	Project Management	0	104	0	0	16	0	0	0	0	0	0	0	0	0	0	0	120
1.2	Progress Meetings	0	12	0	0	12	0	0	0	0	0	12	0	8	0	0	0	44
1.3	Additional Project Management Meetings, Amendment 2	0	14	0	0	34	0	0	0	0	0	0	0	0	0	0	0	48
2.0	PROJECT INITIATION	0	8	0	0	16	0	0	0	0	0	8	0	0	0	0	0	32
2.1	Kick-Off Meeting	0	8	0	0	16	0	0	0	0	0	8	0	0	0	0	0	32
3.0	SURVEYS AND MAPPING (BY COUNTY)	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4
3.1	Topographic, Base Mapping, and Boundary Surveys	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4
4.0	HYDRAULICS AND FISH PASSAGE (BY COUNTY)	0	0	0	0	16	0	0	0	0	12	0	0	24	0	0	0	52
4.1	Hydraulics and Fish Passage	0	0	0	0	16	0	0	0	0	12	0	0	24	0	0	0	52
5.0	GEOTECHNICAL ENGINEERING	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	10
5.1	Project Initiation and Data Review	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.2	Preliminary Foundation Report	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	6
5.3	Geotechnical Investigations and Lab Testing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.4	Draft Foundation Report and Engineering Analysis	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4
6.0	PRELIMINARY ENGINEERING	0	4	0	0	116	16	28	40	72	56	0	0	0	0	0	0	332
6.1	Concept Development and Alternatives Analysis	0	2	0	0	64	0	16	0	8	12	0	0	0	0	0	0	102
6.2	35% Plans and Estimates	0	0	0	0	10	16	12	16	64	40	0	0	0	0	0	0	158
6.3	Type Selection Report	0	2	0	0	40	0	0	24	0	0	0	0	0	0	0	0	66
6.4	35% Submittal	0	0	0	0	2	0	0	0	0	4	0	0	0	0	0	0	6
7.0	AESTHETIC DESIGN AND RENDERINGS	0	0	0	0	12	0	0	8	12	8	0	0	0	0	0	0	40
7.1	Aesthetic Design and Renderings	0	0	0	0	10	0	0	8	12	8	0	0	0	0	0	0	30
7.2	Public Outreach and ARB Meeting Assistance	0	0	0	0	2	0	0	0	0	8	0	0	0	0	0	0	10
8.0	ENVIRONMENTAL DOCUMENT	0	0	0	0	27	0	0	0	0	36	94	327	262	110	0	0	856
8.1	Purpose and Need/Project Description	0	0	0	0	16	0	0	0	0	0	4	14	12	0	0	0	46
8.2.1	Area of Potential Effect Map	0	0	0	0	4	0	0	0	0	4	2	0	4	4	0	0	18
8.2.2	ASR/HPSR/HRER	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8
8.2.3	Natural Environment Study (NES)	0	0	0	0	2	0	0	0	0	4	8	24	70	20	0	0	128
8.2.4	Biological Assessment (BA)	0	0	0	0	0	0	0	0	0	4	8	16	40	0	0	0	68
8.2.5	Jurisdictional Wetland and Waters Delineation Report	0	0	0	0	0	0	0	0	16	4	8	24	0	0	0	0	52
8.2.6	Hazardous Waste ISA Memorandum	0	0	0	0	1	0	0	0	0	0	8	17	40	6	0	0	72
8.2.7	4(f) Memorandum	0	0	0	0	0	0	0	0	0	4	8	24	4	0	0	0	40
8.2.8	Land Use and Community Impact Memorandum	0	0	0	0	0	0	0	0	0	4	8	24	4	0	0	0	40
8.2.9	Water Quality Memorandum	0	0	0	0	2	0	0	0	0	0	8	0	40	0	0	0	50
8.2.10	Visual Impact Memorandum	0	0	0	0	2	0	0	0	0	0	8	0	40	0	0	0	50
8.3.1	Prepare Administrative Draft IS/MND	0	0	0	0	0	0	0	0	0	0	16	80	24	0	0	0	120
8.3.2	Prepare and Submit Public Draft IS/MND	0	0	0	0	0	0	0	0	0	0	8	40	16	0	0	0	64
8.3.3	Prepare and Submit Administrative Final IS/MND	0	0	0	0	0	0	0	0	0	0	8	40	16	0	0	0	64
8.3.4	Prepare and Submit Final IS/MND	0	0	0	0	0	0	0	0	0	4	24	8	0	0	0	0	36
9.0	65% STRUCTURES DESIGN	0	4	0	0	34	140	202	0	40	184	0	0	0	0	0	0	604
9.1	65% Structures Design and Detailing	0	2	0	0	24	140	200	0	40	180	0	0	0	0	0	0	586
9.2	65% Roadway Design Coordination and Review	0	2	0	0	8	0	0	0	0	0	0	0	0	0	0	0	10
9.3	Stomwater Control Plan (SWP) Assistance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9.4	65% Submittal	0	0	0	0	2	0	2	0	0	4	0	0	0	0	0	0	8
10.0	QUALITY CONTROLS REVIEW	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	24
10.1	Quality Controls Review	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	24
11.0	PROJECT MANAGEMENT	0	56	0	0	24	0	0	0	0	0	0	0	0	0	0	0	80
11.1	Project Management	0	48	0	0	16	0	0	0	0	0	0	0	0	0	0	0	64
11.2	Progress Meetings	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	16
12.0	REGULATORY AGENCY PERMITTING (BY COUNTY)	0	0	0	0	0	0	0	0	0	16	8	0	24	0	0	0	48

Phase 1

Phase 2	12.1	Regulatory Agency Permitting Assistance	0	0	0	0	0	0	0	0	0	16	8	0	24	0	0	0	48	
	13.0	RIGHT-OF-WAY (BY COUNTY)	0	0	0	0	6	0	0	0	0	4	0	0	0	0	0	0	10	
	13.1	Right-of-Way Assessment	0	0	0	0	6	0	0	0	0	4	0	0	0	0	0	0	0	10
	14.0	STRUCTURES DESIGN CHECK	0	0	0	0	8	0	16	0	0	0	0	0	0	0	0	0	0	24
	14.1	Structures Design Check	0	0	0	0	8	0	16	0	0	0	0	0	0	0	0	0	0	24
	15.0	FINAL GEOTECHNICAL ENGINEERING	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	4
	15.1	Final Foundation Report and Engineering Analysis	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	4
	16.0	DRAFT STRUCTURES PS&E (95%)	0	24	0	0	18	22	82	0	16	28	0	0	0	0	0	0	0	190
	16.1	95% Structures Plans	0	0	0	0	8	16	16	0	16	24	0	0	0	0	0	0	0	80
	16.2	95% Structures Technical Specifications	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
	16.3	95% Structures Engineer's Estimate	0	0	0	0	4	6	60	0	0	0	0	0	0	0	0	0	0	70
	16.4	Draft Roadway PS&E (95%) Coordination and Review	0	0	0	0	6	0	2	0	0	0	0	0	0	0	0	0	0	8
	16.5	Draft Structures PS&E (95%) Submittal	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	8
	17.0	PERMIT COMPLIANCE	0	0	0	0	4	0	0	0	0	4	0	4	0	0	0	0	0	12
	17.1	Permit Compliance	0	0	0	0	4	0	0	0	0	4	0	4	0	0	0	0	0	12
	18.0	FINAL PS&E	0	8	0	0	10	16	28	0	12	20	0	0	0	0	0	0	0	94
	18.1	Final Structures Plans Revisions	0	0	0	0	4	12	12	0	12	16	0	0	0	0	0	0	0	56
	18.2	Final Structures Technical Specifications Revisions	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	18.3	Final Structures Engineer's Estimate Revisions	0	0	0	0	2	4	12	0	0	0	0	0	0	0	0	0	0	18
	18.4	Final Roadway PS&E Coordination and Review	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	4
	18.5	Final Structures PS&E Submittal	0	0	0	0	2	0	2	0	0	4	0	0	0	0	0	0	0	8
	19.0	QUALITY CONTROLS REVIEW	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
	19.1	Quality Controls Review	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
	20.0	BIDDING ASSISTANCE	0	8	0	0	12	0	0	0	8	0	0	0	0	0	0	0	0	28
	20.1	Bidding Assistance	0	8	0	0	12	0	0	0	8	0	0	0	0	0	0	0	0	28
			Totals:	0	242	40	0	377	194	358	48	164	364	126	327	322	110	0	0	2,672
	21.0	CONSTRUCTION SUPPORT ASSISTANCE (OPTIONAL TASK)	0	8	0	0	60	12	0	0	16	24	0	0	0	0	0	0	0	120
	21.1	Construction Support Assistance	0	8	0	0	60	12	0	0	16	24	0	0	0	0	0	0	0	120
		Totals:	0	8	0	0	60	12	0	0	16	24	0	0	0	0	0	0	120	

Hours Breakdown (Original + A1)

Scope of Work Task		DHA Staff														
		Craig Drake	Kevin Ross	Mike Pugh	Howard Zabell	Matt Burgard	Jennifer Grant-Martinez	Thomas Mar	Keith Dresbach	Alan Hyde	Jennifer Hildebrandt	Leslie Haglan	Lindsay Tisch	Rebecca Nielon	Rosina Florez	DHA Total
1.0	PROJECT MANAGEMENT	0	116	0	0	28	0	0	0	0	12	0	8	0	0	164
1.1	Project Management		104			16										120
1.2	Progress Meetings		12			12				12		8				44
1.3	Additional Project Management Meetings, Amendment 2															0
2.0	PROJECT INITIATION	0	8	0	0	16	0	0	0	0	8	0	0	0	0	32
2.1	Kick-Off Meeting		8			16					8					32
3.0	SURVEYS AND MAPPING (BY COUNTY)	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
3.1	Topographic, Base Mapping, and Boundary Surveys								4							4
4.0	HYDRAULICS AND FISH PASSAGE (BY COUNTY)	0	0	0	0	16	0	0	0	12	0	0	24	0	0	52
4.1	Hydraulics and Fish Passage					16				12			24			52
5.0	GEOTECHNICAL ENGINEERING	0	0	0	0	8	0	0	0	0	0	0	0	0	0	8
5.1	Project Initiation and Data Review															0
5.2	Preliminary Foundation Report					4										4
5.3	Geotechnical Investigations and Lab Testing															0
5.4	Draft Foundation Report and Engineering Analysis					4										4
6.0	PRELIMINARY ENGINEERING	0	4	0	0	104	16	28	48	56	0	0	0	0	0	256
6.1	Concept Development and Alternatives Analysis		2			64	16	16	8	12						102
6.2	35% Plans and Estimates					6	16	12	40	40						114
6.3	Type Selection Report		2			32										34
6.4	35% Submittal					2				4						6
7.0	AESTHETIC DESIGN AND RENDERINGS	0	0	0	0	10	0	0	0	8	0	0	0	0	0	18
7.1	Aesthetic Design and Renderings					8										8
7.2	Public Outreach and ARB Meeting Assistance					2				8						10
8.0	ENVIRONMENTAL DOCUMENT	0	0	0	0	10	0	0	0	36	94	300	232	0	0	672
8.1	Purpose and Need/Project Description					8					4	12	12			36
8.2.1	Area of Potential Effect Map					2				4	2		4			12
8.2.2	ASR/HPSR/HRER										8					8
8.2.3	Natural Environment Study (NES)									4	8	16	40			68
8.2.4	Biological Assessment (BA)									4	8	16	40			68
8.2.5	Jurisdictional Wetland and Waters Delineation Report									16	4	8	24			52
8.2.6	Hazardous Waste ISA Memorandum										8	16	40			64
8.2.7	4(f) Memorandum									4	8	24	4			40
8.2.8	Land Use and Community Impact Memorandum									4	8	24	4			40
8.2.9	Water Quality Memorandum															0
8.2.10	Visual Study															0
8.3.1	Prepare Administrative Draft IS/MND										16	80	24			120
8.3.2	Prepare and Submit Public Draft IS/MND										8	40	16			64
8.3.3	Prepare and Submit Administrative Final IS/MND										8	40	16			64
8.3.4	Prepare and Submit Final IS/MND										4	24	8			36
9.0	65% STRUCTURES DESIGN	0	4	0	0	34	140	202	40	184	0	0	0	0	0	604
9.1	65% Structures Design and Detailing		2			24	140	200	40	180						586
9.2	65% Roadway Design Coordination and Review		2			8										10
9.3	Stomwater Control Plan (SWP) Assistance															0

Phase 1

Phase 2	9.4	65% Submittal					2		2		4					8	
	10.0	QUALITY CONTROLS REVIEW	0	0	24	0	0	0	0	0	0	0	0	0	0	0	24
	10.1	Quality Controls Review			24												24
	11.0	PROJECT MANAGEMENT	0	56	0	0	24	0	0	0	0	0	0	0	0	0	80
	11.1	Project Management		48			16										64
	11.2	Progress Meetings		8			8										16
	12.0	REGULATORY AGENCY PERMITTING (BY COUNTY)	0	0	0	0	0	0	0	0	16	8	0	24	0	0	48
	12.1	Regulatory Agency Permitting Assistance									16	8		24			48
	13.0	RIGHT-OF-WAY (BY COUNTY)	0	0	0	0	6	0	0	0	4	0	0	0	0	0	10
	13.1	Right-of-Way Assessment					6				4						10
	14.0	STRUCTURES DESIGN CHECK	0	0	0	0	8	0	16	0	0	0	0	0	0	0	24
	14.1	Structures Design Check					8		16								24
	15.0	FINAL GEOTECHNICAL ENGINEERING	0	0	0	0	2	0	2	0	0	0	0	0	0	0	4
	15.1	Final Foundation Report and Engineering Analysis					2		2		0	0	0	0	0	0	4
	16.0	DRAFT STRUCTURES PS&E (95%)	0	24	0	0	18	22	82	16	28	0	0	0	0	0	190
	16.1	95% Structures Plans					8	16	16	16	24						80
	16.2	95% Structures Technical Specifications		24													24
	16.3	95% Structures Engineer's Estimate					4	6	60								70
	16.4	Draft Roadway PS&E (95%) Coordination and Review					6		2								8
	16.5	Draft Structures PS&E (95%) Submittal							4		4						8
	17.0	PERMIT COMPLIANCE	0	0	0	0	4	0	0	0	0	4	0	4	0	0	12
	17.1	Permit Compliance					4					4		4			12
	18.0	FINAL PS&E	0	8	0	0	10	16	28	12	20	0	0	0	0	0	94
	18.1	Final Structures Plans Revisions					4	12	12	12	16						56
	18.2	Final Structures Technical Specifications Revisions		8													8
	18.3	Final Structures Engineer's Estimate Revisions					2	4	12								18
	18.4	Final Roadway PS&E Coordination and Review					2		2								4
	18.5	Final Structures PS&E Submittal					2		2		4						8
	19.0	QUALITY CONTROLS REVIEW	0	0	16	0	0	0		0	0	0	0	0	0	0	16
	19.1	Quality Controls Review			16												16
	20.0	BIDDING ASSISTANCE	0	8	0	0	12	0		8	0	0	0	0	0	0	28
20.1	Bidding Assistance		8			12			8							28	
	Totals:	0	228	40	0	310	194	358	128	364	126	300	292	0	0	2,340	
21.0	CONSTRUCTION SUPPORT ASSISTANCE (OPTIONAL TASK)	0	8	0	0	60	12		16	24	0	0	0	0	0	120	
21.1	Construction Support Assistance		8			60	12		16	24						120	
	Totals:	0	8	0	0	60	12	0	16	24	0	0	0	0	0	120	

EXHIBIT 10-H COST PROPOSAL (Amendment 2 Only)

LUMP SUM (FIRMED FIXED PRICE)

Prime Consultant - Engineering and Environmental Services

Consultant Drake Haglan and Associates

Contract No _____

Date 3/12/2019

DIRECT LABOR

Classification/Title	Name	Hours	Actual Hourly Rate	Total
Principle-In-Charge	Craig Drake	0	\$107.00	\$0.00
Project Manager	Kevin Ross	14	\$102.00	\$1,428.00
QA/QC Manager	Mike Pugh	0	\$95.50	\$0.00
Constructibility Review	Howard Zabell	0	\$97.50	\$0.00
Bridge Design Engineer	Matt Burgard	67	\$64.00	\$4,288.00
Bridge Design Engineer	Jennifer Grant-Martinez	0	\$58.00	\$0.00
Bridge Design Engineer	Joe Demartini	48	\$47.50	\$2,280.00
CADD Manager	Keith Dresbach	36	\$51.00	\$1,836.00
CADD	Alan Hyde	0	\$30.00	\$0.00
Senior Environmental Planner, Level 2	Jennifer Hildebrandt	0	\$55.00	\$0.00
Environmental Services Manager	Leslie Haglan	27	\$67.00	\$1,809.00
Senior Environmental Planner, Level 1	Lindsay Tisch	30	\$40.00	\$1,200.00
Environmental Planner, Level 1	Zachary Comejo	110	\$29.00	\$3,190.00
Project Controls	Rebecca Nielon	0	\$53.00	\$0.00
Administrator	Rosina Florez	0	\$25.50	\$0.00
		332		\$16,031.00

LABOR COSTS

Subtotal Direct Labor Costs	\$16,031.00
Anticipated Salary Increases	\$0.00
TOTAL DIRECT LABOR COSTS	\$16,031.00

INDIRECT COSTS

Overhead	Rate: 90.95%	\$14,580.19
Fringe Benefits	Rate: 52.67%	\$8,443.53
General and Administrative	Rate: 0.00%	\$0.00
Total:	143.62%	
TOTAL INDIRECT LABOR COSTS		\$23,023.72

FIXED FEE

Fixed Fee	Rate: 10.00%	TOTAL FIXED FEE	\$3,905.47
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OTHER DIRECT COSTS (ODC)

Description	Unit(s)	Unit Cost	Total
Travel (Airfare, Rental Car, Mileage, etc.)	3	\$400.00	\$1,200.00
Lodging	3	\$175.00	\$525.00
EDR Record Search	1	\$400.00	\$400.00
Print Full Size Bond (24"x36")	0	\$2.00	\$0.00
Print Half Size (11"x17")	0	\$0.40	\$0.00
Print Letter Size (8.5"x11")	0	\$0.25	\$0.00
Overnight Delivery (10 packages)	0	\$25.00	\$0.00
Visual Renderings (AH Graphic Design)	0	\$1,875.00	\$0.00
Conference Call Charges	0	\$20.00	\$0.00
TOTAL ODCs			\$2,125.00

SUBCONSULTANTS

Parikh Consultants, Inc	\$41,436.06
Rende Consulting Group, Inc	\$0.00
Applied Earthworks	\$10,531.22
TOTAL SUBCONSULTANTS	\$51,967.28

TOTAL COST \$97,052.47

AUTHORIZED CONTINGENCY WORK

Applied Earthworks	\$0.00
TOTAL AUTHORIZED CONTINGENCY AMOUNT	\$0.00

TOTAL COST \$97,052.47

NON-AUTHORIZED CONTINGENCY WORK

Drake Haglan and Associates (Optional Tasks)	\$0.00
Applied Earthworks (Optional Tasks)	\$0.00
Parikh Consultants (Optional Tasks)	\$0.00

TOTAL COST (Including Optional Tasks) \$97,052.47

EXHIBIT 10-H COST PROPOSAL (Original + Amendment 1)

LUMP SUM (FIRMED FIXED PRICE)

Prime Consultant - Engineering and Environmental Services

Consultant Drake Haglan and Associates Contract No. _____ Date 11/8/2017

DIRECT LABOR				
Classification/Title	Name	Hours	Actual Hourly Rate	Total
Principle-In-Charge	Craig Drake	0	\$101.55	\$0.00
Project Manager	Kevin Ross	228	\$92.00	\$20,976.00
QA/QC Manager	Mike Pugh	40	\$87.50	\$3,500.00
Constructibility Review	Howard Zabell	0	\$90.50	\$0.00
Bridge Design Engineer	Matt Burgard	310	\$57.00	\$17,670.00
Bridge Design Engineer	Jennifer Grant-Martinez	194	\$50.00	\$9,700.00
Bridge Design Engineer	Thomas Mar	358	\$34.00	\$12,172.00
CADD Manager	Keith Dresbach	128	\$47.60	\$6,092.80
CADD	Alan Hyde	364	\$25.00	\$9,100.00
Environmental Manager	Jennifer Hildebrandt	126	\$48.50	\$6,111.00
Environmental Planner	Leslie Haglan	300	\$33.00	\$9,900.00
Environmental Planner	Lindsay Tisch	292	\$34.65	\$10,117.80
Project Controls	Rebecca Nielon	0	\$47.00	\$0.00
Administrator	Rosina Florez	0	\$19.00	\$0.00
		2,340		\$105,339.60

LABOR COSTS		
Subtotal Direct Labor Costs		\$105,339.60
Anticipated Salary Increases (see next page)		\$1,929.51
TOTAL DIRECT LABOR COSTS		\$107,269.11

INDIRECT COSTS		
Overhead	Rate: 90.95%	\$97,561.26
Fringe Benefits	Rate: 52.67%	\$56,498.64
General and Administrative	Rate: 0.00%	\$0.00
Total:	143.62%	
TOTAL INDIRECT LABOR COSTS		\$154,059.90

FIXED FEE		
Fixed Fee	Rate: 10.00%	\$26,132.90
TOTAL FIXED FEE		\$26,132.90

OTHER DIRECT COSTS (ODC)			
Description	Unit(s)	Unit Cost	Total
Travel (Airfare, Rental Car, Mileage, etc.)	9	\$400.00	\$3,600.00
Lodging	9	\$175.00	\$1,575.00
EDR Record Search	1	\$400.00	\$400.00
Print Full Size Bond (24"x36")	0	\$2.00	\$0.00
Print Half Size (11"x17")	40	\$0.40	\$16.00
Print Letter Size (8.5"x11")	2,250	\$0.25	\$562.50
Overnight Delivery (10 packages)	10	\$25.00	\$250.00
Visual Renderings (AH Graphic Design)	4	\$1,875.00	\$7,500.00
Conference Call Charges	14	\$20.00	\$280.00
TOTAL ODCs			\$14,183.50

SUBCONSULTANTS		
Parikh Consultants, Inc.		\$69,169.58
Rende Consulting Group, Inc.		\$24,255.00
Applied Earthworks		\$28,916.93
TOTAL SUBCONSULTANTS		\$122,341.51

TOTAL COST \$423,986.92

AUTHORIZED CONTINGENCY WORK		
Applied Earthworks		\$12,030.47
TOTAL AUTHORIZED CONTINGENCY AMOUNT		\$12,030.47

TOTAL COST \$436,017.39

NON-AUTHORIZED CONTINGENCY WORK		
Drake Haglan and Associates (Optional Tasks)		\$16,394.07
Applied Earthworks (Optional Tasks)		\$4,760.38
Parikh Consultants (Optional Tasks)		\$5,742.44

TOTAL COST (Including Optional Tasks) \$462,914.28

EXHIBIT 10-H COST PROPOSAL

**LUMP SUM (FIRMED FIXED PRICE)
CALCULATIONS FOR ANTICIPATED SALARY INCREASES**

Consultant Drake Haglan and Associates Contract No. _____ Date 11/7/2016

1. Calculate Average Hourly Rate for 1st year of the contract (Direct Labor Subtotal divided by total hours)

Direct Labor <u>Subtotal</u> per Cost Proposal	=	Avg Hourly Rate	5 Year Contract Duration
\$105,339.60	=	\$45.02	Year 1 Avg Hourly Rate
Total Hours per Cost Proposal			
2,340			

2. Calculate hourly rate for all years (Increase the Average Hourly Rate for a year by proposed escalation %)

Avg Hourly Rate	+	Proposed Escalation	=	
Year 2 \$45.02	+	2%	=	\$45.93 Year 2 Avg Hourly Rate
Year 3 \$45.93	+	2%	=	\$46.85 Year 3 Avg Hourly Rate

3. Calculate estimated hours per year (Multiply estimate % each year by total hours)

Estimated % Completed Each Year	*	Total Hours per Cost Proposal	=	Total Hours per Year	
Year 1 35.00%	*	2,340	=	819	Estimated Hours Year 1
Year 2 40.00%	*	2,340	=	936	Estimated Hours Year 2
Year 3 25.00%	*	2,340	=	585	Estimated Hours Year 3
Total 100%		Total	=	2,340	

4. Calculate Total Costs including Escalation (Multiply Average Hourly Rate by the number of hours)

Avg Hourly Rate (calculated above)	*	Estimated hours (calculated above)	=	Cost per Year	
Year 1 \$45.02	*	819	=	\$36,871.38	Estimated Hours Year 1
Year 2 \$45.93	*	936	=	\$42,990.48	Estimated Hours Year 2
Year 3 \$46.85	*	585	=	\$27,407.25	Estimated Hours Year 3
		Total Direct Labor Cost with Escalation	=	\$107,269.11	
		Direct Labor Subtotal before Escalation	=	\$105,339.60	
		Estimated Total of Direct Labor Salary Increase	=	\$1,929.51	

EXHIBIT 10-H COST PROPOSAL (Original + A1 + A2)

LUMP SUM (FIRMED FIXED PRICE)

Prime Consultant - Engineering and Environmental Services

Consultant Drake Haglan and Associates

Contract No. _____

Date 3/12/2019

DIRECT LABOR

Classification/Title	Name	Hours	Actual Hourly Rate	Total
Principle-In-Charge	Craig Drake	0	\$101.55	\$0.00
Project Manager	Kevin Ross	228	\$92.00	\$20,976.00
Project Manager	Kevin Ross*	14	\$102.00	\$1,428.00
QA/QC Manager	Mike Pugh	40	\$87.50	\$3,500.00
Constructibility Review	Howard Zabell	0	\$97.50	\$0.00
Bridge Design Engineer	Matt Burgard	310	\$57.00	\$17,670.00
Bridge Design Engineer	Matt Burgard*	67	\$64.00	\$4,288.00
Bridge Design Engineer	Jennifer Grant-Martinez	194	\$50.00	\$9,700.00
Bridge Design Engineer	Thomas Mar	358	\$34.00	\$12,172.00
Bridge Design Engineer	Joe Demartini	48	\$47.50	\$2,280.00
CADD Manager	Keith Dresbach	128	\$47.60	\$6,092.80
CADD Manager	Keith Dresbach*	36	\$51.00	\$1,836.00
CADD	Alan Hyde	364	\$25.00	\$9,100.00
Senior Environmental Planner, Level 2	Jennifer Hildebrandt	126	\$48.50	\$6,111.00
Environmental Services Manager	Leslie Haglan	300	\$33.00	\$9,900.00
Environmental Services Manager	Leslie Haglan*	27	\$67.00	\$1,809.00
Senior Environmental Planner, Level 1	Lindsay Tisch	292	\$34.65	\$10,117.80
Senior Environmental Planner, Level 1	Lindsay Tisch*	30	\$40.00	\$1,200.00
Environmental Planner, Level 1	Zachary Cornejo	110	\$29.00	\$3,190.00
Project Controls	Rebecca Nielon	0	\$53.00	\$0.00
Administrator	Rosina Florez	0	\$25.50	\$0.00

Note: * indicates updated rate for amendment 2,672 \$121,370.60

LABOR COSTS

Subtotal Direct Labor Costs	\$121,370.60
Anticipated Salary Increases (From Original Contract)	\$1,929.51
TOTAL DIRECT LABOR COSTS	\$123,300.11

INDIRECT COSTS

Overhead	Rate: 90.95%	\$112,141.45
Fringe Benefits	Rate: 52.67%	\$64,942.17
General and Administrative	Rate: 0.00%	\$0.00
Total:	143.62%	\$177,083.62
TOTAL INDIRECT LABOR COSTS		\$177,083.62

FIXED FEE

Fixed Fee	Rate: 10.00%	TOTAL FIXED FEE	\$30,038.37
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OTHER DIRECT COSTS (ODC)

Description	Unit(s)	Unit Cost	Total
Travel (Airfare, Rental Car, Mileage, etc.)	12	\$400.00	\$4,800.00
Lodging	12	\$175.00	\$2,100.00
EDR Record Search	2	\$400.00	\$800.00
Print Full Size Bond (24"x36")	0	\$2.00	\$0.00
Print Half Size (11"x17")	40	\$0.40	\$16.00
Print Letter Size (8.5"x11")	2,250	\$0.25	\$562.50
Overnight Delivery (10 packages)	10	\$25.00	\$250.00
Visual Renderings (AH Graphic Design)	4	\$1,875.00	\$7,500.00
Conference Call Charges	14	\$20.00	\$280.00
TOTAL ODCs			\$16,308.50

SUBCONSULTANTS

Parikh Consultants, Inc	\$110,605.64
Rende Consulting Group, Inc.	\$24,255.00
Applied Earthworks	\$39,448.15
TOTAL SUBCONSULTANTS	\$174,308.79

TOTAL COST **\$521,039.39**

AUTHORIZED CONTINGENCY WORK

Applied Earthworks	\$12,030.47
TOTAL AUTHORIZED CONTINGENCY AMOUNT	\$12,030.47

TOTAL COST **\$533,069.86**

NON-AUTHORIZED CONTINGENCY WORK

Drake Haglan and Associates (Optional Tasks)	\$16,394.07
Parikh Consultants (Optional Tasks)	\$5,742.44

TOTAL COST (Including Optional Tasks) **\$555,206.37**

EXHIBIT 10-H1 COST PROPOSAL (Signature Page)

Certification of Direct Costs:

I, the undersigned, certify to the best of my knowledge and belief that all direct costs identified on the cost proposal(s) in this contract are actual, reasonable, allowable, and allocable to the contract in accordance with the contract terms and the following requirements:

1. Generally Accepted Accounting Principles (GAAP)
2. Terms and conditions of the contract
3. [Title 23 United States Code Section 112](#) - Letting of Contracts
4. [48 Code of Federal Regulations Part 31](#) - Contract Cost Principles and Procedures
5. [23 Code of Federal Regulations Part 172](#) - Procurement, Management, and Administration of Engineering and Design Related Service
6. [48 Code of Federal Regulations Part 9904 - Cost Accounting Standards Board](#) (when applicable)

All costs must be applied consistently and fairly to all contracts. All documentation of compliance must be retained in the project files and be in compliance with applicable federal and state requirements. Costs that are noncompliant with the federal and state requirements are not eligible for reimbursement.

Local governments are responsible for applying only cognizant agency approved or Caltrans accepted Indirect Cost Rate(s).

Prime Consultant or Subconsultant Certifying:

Name: Kevin Ross Title*: Principal

Signature: *Kevin Ross* Date of Certification (mm/dd/yyyy): 4/22/2019

Email: kross@drakehaglan.com Phone Number: (916) 363-4210

Address: 11060 White Rock Road, Suite 200 | Rancho Cordova, CA 95670

*An individual executive or financial officer of the consultant's or subconsultant's organization at a level no lower than a Vice President or a Chief Financial Officer, or equivalent, who has authority to represent the financial information utilized to establish the cost proposal for the contract.

List services the consultant is providing under the proposed contract:

Structures design services.

EXHIBIT B

PAYMENT ARRANGEMENTS

Lump Sum Contracts

- A. The method of payment for this contract will be based on lump sum. The total lump sum price paid to CONTRACTOR will include compensation for all work and deliverables, including travel and equipment described in Exhibit A, Statement of Work of this contract. No additional compensation will be paid to CONTRACTOR, unless there is a change in the scope of the work or the scope of the project. In the instance of a change in the scope of work or scope of the project, adjustment to the total lump sum compensation will be negotiated between CONTRACTOR and COUNTY. Adjustment in the total lump sum compensation will not be effective until authorized by contract amendment and approved by COUNTY.
- B. Progress payments may be made monthly in arrears based on the percentage of work completed by CONTRACTOR. If CONTRACTOR fails to submit the required deliverable items according to the schedule set forth in the Statement of Work, COUNTY shall have the right to delay payment or terminate this Contract in accordance with the provisions of Section 28 Termination.
- C. CONTRACTOR 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 of any work, or for any work performed prior to approval of this contract.
- D. CONTRACTOR will be reimbursed, as promptly as fiscal procedures will permit, upon receipt by COUNTY'S Contract Administrator of itemized invoices. Invoices shall be submitted no later than 45 calendar days after the performance of work for which CONTRACTOR is billing. Invoices shall detail the work performed on each milestone, on each project as applicable. Invoices shall follow the format stipulated for the Cost Proposal and shall reference this contract number and project title. Final invoice must contain the final cost and all credits due COUNTY that include any equipment purchased under the provisions of Section 11 Equipment Purchase of this contract. The final invoice should be submitted within 60-calendar days after completion of CONTRACTOR's work. Invoices shall be mailed to COUNTY's Contract Administrator at the following address:
- County of Santa Barbara
Public Works Department – Transportation Engineering
123 E. Anapamu St.
Santa Barbara, CA 93101
- E. The total amount payable by COUNTY shall not exceed \$573,143 inclusive of contingencies.
- F. All subcontracts in excess of \$25,000 shall contain the above provisions.