# AGREEMENT FOR SERVICES OF INDEPENDENT CONTRACTOR

**THIS AGREEMENT** (hereafter Agreement) is made by and between the County of Santa Barbara, a political subdivision of the State of California (hereafter COUNTY) and Cornerstone Structural Engineering Group, Inc. with an address at 986 W. Alluvial Avenue, Suite 201, Fresno, CA 93711, (hereafter CONTRACTOR) wherein CONTRACTOR agrees to provide and COUNTY agrees to accept the services specified herein.

**WHEREAS**, COUNTY requires special services for the development of plans, specifications, and estimates for the replacement of the Floradale Avenue Bridge over the Santa Ynez River (Bridge No. 51C-006);

**WHEREAS**, CONTRACTOR represents that it is specially trained, skilled, experienced, and competent to perform the special services required by COUNTY and COUNTY desires to retain the services of CONTRACTOR pursuant to the terms, covenants, and conditions herein set forth;

**NOW, THEREFORE,** in consideration of the mutual covenants and conditions contained herein, the parties agree as follows:

## 1. DESIGNATED REPRESENTATIVE

Philip Gaston at phone number 805-739-8770 is the representative of COUNTY and will administer this Agreement for and on behalf of COUNTY. Todd M. Goolkasian at phone number 559-320-3200 is the authorized representative for CONTRACTOR. Changes in designated representatives shall be made only after advance written notice to the other party. The designated representative may also be referred to herein as the "Contract Administrator".

## 2. NOTICES

Any notice or consent required or permitted to be given under this Agreement shall be given to the respective parties in writing, by personal delivery or facsimile, or with postage prepaid by first class mail, registered or certified mail, or express courier service, as follows:

To COUNTY: Philip Gaston, County of Santa Barbara Public Works, 620 West Foster Road, Santa Maria, CA 93455, 805-739-8753

To CONTRACTOR: Todd M. Goolkasian, Cornerstone Structural Engineering Group, Inc.986 W. Alluvial Avenue, Suite 201, Fresno, CA 93711, 559-320-3201

or at such other address or to such other person that the parties may from time to time designate in accordance with this Notices section. If sent by first class mail, notices and consents under this section shall be deemed to be received five (5) days following their deposit in the U.S. mail. This Notices section shall not be construed as meaning that either party agrees to service of process except as required by applicable law.

## 3. SCOPE OF SERVICES

CONTRACTOR agrees to provide services to COUNTY in accordance with EXHIBIT A attached hereto and incorporated herein by reference.

## 4. PERFORMANCE PERIOD

A. This contract shall go into effect on July 25, 2017 contingent upon approval by COUNTY, and CONTRACTOR shall commence work after notification to proceed by COUNTY'S Contract Administrator. The contract shall end on June 30, 2019 unless extended by contract amendment or unless earlier terminated.

B. CONTRACTOR is advised that any recommendation for contract award is not binding on COUNTY until the contract is fully executed and approved by COUNTY.

## 5. COMPENSATION OF CONTRACTOR

In full consideration for CONTRACTOR's services, CONTRACTOR shall be paid for performance under this Agreement in accordance with the terms of EXHIBIT B attached hereto and incorporated herein by reference.

## 6. FEDERAL AND STATE PREVAILING WAGE RATES

A. CONTRACTOR shall comply with the State of California's General Prevailing Wage Rate requirements in accordance with California Labor Code, Section 1770, and all Federal, State, and local laws and ordinances applicable to the work.

B. Any subcontract entered into as a result of this contract shall contain all of the provisions of this Article.

C. When prevailing wages apply to the services described in the scope of work, transportation and subsistence costs shall be reimbursed at the minimum rates set by the Department of Industrial Relations (DIR) as outlined in the applicable Prevailing Wage Determination. See http://www.dir.ca.gov.

D. No contractor or subcontractor may be listed on a bid proposal for a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code § 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code § 1771.1(a)]; no contractor or subcontractor may be awarded a contract for public work on a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code § 1725.5; and this project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

## 7. COST PRINCIPLES AND ADMINISTRATIVE REQUIREMENTS

A. CONTRACTOR agrees that the Contract Cost Principles and Procedures, 48 CFR, Federal Acquisition Regulations System, Chapter 1, Part 31.000 et seq., shall be used to determine the allowable cost(s) of individual items.

B. CONTRACTOR also agrees to comply with federal procedures in accordance with 2 CFR Part 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Super or Omni Circular)

C. Any costs for which payment has been made to CONTRACTOR that are determined by subsequent audit to be unallowable under applicable Federal Regulations, are subject to repayment by CONTRACTOR to COUNTY.

D. All subcontracts shall contain the above provisions.

## 8. INDEPENDENT CONTRACTOR

It is mutually understood and agreed that CONTRACTOR (including any and all of its officers, agents, and employees), shall perform all of its services under this Agreement as an independent contractor as to COUNTY and not as an officer, agent, servant, employee, joint venturer, partner, or associate of COUNTY. Furthermore, COUNTY shall have no right to control, supervise, or direct the manner or method by which CONTRACTOR shall perform its

work and function. However, COUNTY shall retain the right to administer this Agreement so as to verify that CONTRACTOR is performing its obligations in accordance with the terms and conditions hereof. CONTRACTOR understands and acknowledges that it shall not be entitled to any of the benefits of a COUNTY employee, including but not limited to vacation, sick leave, administrative leave, health insurance, disability insurance, retirement, unemployment insurance, workers' compensation and protection of tenure. CONTRACTOR shall be solely liable and responsible for providing to, or on behalf of, its employees all legally-required employee benefits. In addition, CONTRACTOR shall be solely responsible and save COUNTY harmless from all matters relating to payment of CONTRACTOR's employees, including compliance with Social Security withholding and all other regulations governing such matters. It is acknowledged that during the term of this Agreement, CONTRACTOR may be providing services to others unrelated to the COUNTY or to this Agreement.

## 9. STANDARD OF PERFORMANCE

CONTRACTOR represents that it has the skills, expertise, and licenses/permits necessary to perform the services required under this Agreement. Accordingly, CONTRACTOR shall perform all such services in the manner and according to the standards observed by a competent practitioner of the same profession in which CONTRACTOR is engaged. All products of whatsoever nature, which CONTRACTOR delivers to COUNTY pursuant to this Agreement, shall be prepared in a manner consistent with the standards normally observed by a person practicing in CONTRACTOR's profession. CONTRACTOR shall correct or revise any errors or omissions, at COUNTY'S request without additional compensation. Permits and/or licenses shall be obtained and maintained by CONTRACTOR without additional compensation.

## 10. SUBCONTRACTING

A. Nothing contained in this contract or otherwise, shall create any contractual relation between COUNTY and any subcontractor(s), and no subcontract shall relieve CONTRACTOR of its responsibilities and obligations hereunder. CONTRACTOR agrees to be as fully responsible to COUNTY for the acts and omissions of its subcontractor(s) and of persons either directly or indirectly employed by any of them as it is for the acts and omissions of persons directly employed by CONTRACTOR. CONTRACTOR's obligation to pay its subcontractor(s) is an independent obligation from COUNTY'S obligation to make payments to the CONTRACTOR.

B. CONTRACTOR shall perform the work contemplated with resources available within its own organization and no portion of the work pertinent to this contract shall be subcontracted without written authorization by COUNTY's Contract Administrator, except that, which is expressly identified in the approved Cost Proposal.

C. CONTRACTOR shall pay its subcontractors within ten (10) calendar days from receipt of each payment made to CONTRACTOR by COUNTY.

D. Any subcontract entered into as a result of this contract shall contain all the provisions stipulated in this contract to be applicable to subcontractors.

E. Any substitution of subcontractor(s) must be approved in writing by COUNTY's Contract Administrator prior to the start of work by the subcontractor(s).

## 11. SUBCONTRACTORS

CONTRACTOR is authorized to subcontract with BKF Engineering, Earth Mechanics, Avila & Associates, Rincon, Praxis and Hamner Jewel as identified in Exhibit A-1 Contractor's Proposal. CONTRACTOR shall be fully responsible for all services performed by its subcontractor. CONTRACTOR shall secure from its subcontractor all rights for COUNTY in this Agreement, including audit rights. CONTRACTOR shall ensure subcontractor's compliance with California Labor Code, including but not limited to the payment of prevailing wage when required.

## 12. EQUIPMENT PURCHASES

A. Prior authorization in writing, by COUNTY's Contract Administrator shall be required before CONTRACTOR enters into any unbudgeted purchase order, or subcontract exceeding $5,000 for supplies, equipment, or CONTRACTOR services. CONTRACTOR shall provide an evaluation of the necessity or desirability of incurring such costs.

B. For purchase of any item, service or consulting work not covered in CONTRACTOR's Cost Proposal and exceeding $5,000 prior authorization by COUNTY's Contract Administrator; three competitive quotations must be submitted with the request, or the absence of bidding must be adequately justified.

Any equipment purchased as a result of this contract is subject to the following: "CONTRACTOR shall maintain an inventory of all nonexpendable property. Nonexpendable property is defined as having a useful life of at least two years and an acquisition cost of $5,000 or more. If the purchased equipment needs replacement and is sold or traded in, COUNTY shall receive a proper refund or credit at the conclusion of the contract, or if the contract is terminated, CONTRACTOR may either keep the equipment and credit COUNTY in an amount equal to its fair market value, or sell such equipment at the best price obtainable at a public or private sale, in accordance with established COUNTY procedures; and credit COUNTY in an amount equal to the sales price. If CONTRACTOR elects to keep the equipment, fair market value shall be determined at CONTRACTOR's expense, on the basis of a competent independent appraisal of such equipment. Appraisals shall be obtained from an appraiser mutually agreeable to by COUNTY and CONTRACTOR, if it is determined to sell the equipment, the terms and conditions of such sale must be approved in advance by COUNTY."

C. All subcontracts shall contain the above provisions.

## 13. DEBARMENT AND SUSPENSION

A. CONTRACTOR's signature affixed herein shall constitute a certification under penalty of perjury under the laws of the State of California, that CONTRACTOR has complied with Title 2 CFR, Part 180, "OMB Guidelines to Agencies on Government wide Debarment and Suspension (nonprocurement)", which certifies that he/she or any person associated therewith in the capacity of owner, partner, director, officer, or manager, is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency; has not been suspended, debarred, voluntarily excluded, or determined ineligible by any federal agency within the past three (3) years; does not have a proposed debarment pending; and has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three (3) years. Any exceptions to this certification must be disclosed to COUNTY.

B. Exceptions will not necessarily result in denial of recommendation for award, but will be considered in determining CONTRACTOR responsibility. Disclosures must indicate to whom exceptions apply, initiating agency, and dates of action.

C. Exceptions to the Federal Government Excluded Parties List System maintained by the General Services Administration are to be determined by the Federal Highway Administration.

D. CONTRACTOR's signature affixed herein shall constitute a certification under penalty of perjury under the laws of the State of California, which certifies that CONTRACTOR or any person associated therewith in the capacity of owner, partner, director, officer, or manager, is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility for participation in any state or local government agency contracts. CONTRACTOR certifies that it shall not contract with a subcontractor that is so debarred or suspended.

## 14. TAXES

CONTRACTOR shall pay all taxes, levies, duties, and assessments of every nature due in connection with any work under this Agreement and shall make any and all payroll deductions required by law. COUNTY shall not be responsible for paying any taxes on CONTRACTOR's behalf, and should COUNTY be required to do so by state, federal, or local taxing agencies, CONTRACTOR agrees to promptly reimburse COUNTY for the full value of such paid taxes plus interest and penalty, if any. These taxes shall include, but not be limited to, the following: FICA (Social Security), unemployment insurance contributions, income tax, disability insurance, and workers' compensation insurance.

## 15. CONFLICT OF INTEREST

A. CONTRACTOR shall disclose in writing any financial, business, or other relationship with COUNTY that may have an impact upon the outcome of this contract, or any ensuing COUNTY construction project. CONTRACTOR shall also list current clients who may have a financial interest in the outcome of this contract, or any ensuing COUNTY construction project, which will follow.

B. CONTRACTOR hereby certifies that it does not now have, nor shall it acquire any financial or business interest that would conflict with the performance of services under this contract.

C. Any subcontract entered into as a result of this contract, shall contain all of the provisions of this Section.

D. CONTRACTOR hereby certifies that neither CONTRACTOR, nor any firm affiliated with CONTRACTOR will bid on any construction contract, or on any contract to provide construction inspection for any construction project resulting from this contract. An affiliated firm is one, which is subject to the control of the same persons through joint-ownership, or otherwise.

E. Except for subcontractor whose services are limited to providing surveying or materials testing information, no subcontractor who has provided design services in connection with this contract shall be eligible to bid on any construction contract, or on any contract to provide construction inspection for any construction project resulting from this contract.

## 16. OWNERSHIP OF DOCUMENTS AND INTELLECTUAL PROPERTY

COUNTY shall be the owner of the following items incidental to this Agreement upon production, whether or not completed: all data collected, all documents of any type whatsoever, all photos, designs, sound or audiovisual recordings, software code, inventions, technologies, and other materials, and any material necessary for the practical use of such items, from the time of collection and/or production whether or not performance under this Agreement is completed or terminated prior to completion. CONTRACTOR shall not release any of such items to other parties except after prior written approval of COUNTY.

Unless otherwise specified in Exhibit A, CONTRACTOR hereby assigns to COUNTY all copyright, patent, and other intellectual property and proprietary rights to all data, documents, reports, photos, designs, sound or audiovisual recordings, software code, inventions, technologies, and other materials prepared or provided by

CONTRACTOR pursuant to this Agreement (collectively referred to as "Copyrightable Works and Inventions"). COUNTY shall have the unrestricted authority to copy, adapt, perform, display, publish, disclose, distribute, create derivative works from, and otherwise use in whole or in part, any Copyrightable Works and Inventions. CONTRACTOR agrees to take such actions and execute and deliver such documents as may be needed to validate, protect and confirm the rights and assignments provided hereunder. CONTRACTOR warrants that any Copyrightable Works and Inventions and other items provided under this Agreement will not infringe upon any intellectual property or proprietary rights of any third party. CONTRACTOR at its own expense shall defend, indemnify, and hold harmless COUNTY against any claim that any Copyrightable Works or Inventions or other items provided by CONTRACTOR hereunder infringe upon intellectual or other proprietary rights of a third party, and CONTRACTOR shall pay any damages, costs, settlement amounts, and fees (including attorneys' fees) that may be incurred by COUNTY in connection with any such claims. This Ownership of Documents and Intellectual Property provision shall survive expiration or termination of this Agreement.

## 17. NO PUBLICITY OR ENDORSEMENT

CONTRACTOR shall not use COUNTY's name or logo or any variation of such name or logo in any publicity, advertising or promotional materials. CONTRACTOR shall not use COUNTY's name or logo in any manner that would give the appearance that the COUNTY is endorsing CONTRACTOR. CONTRACTOR shall not in any way contract on behalf of or in the name of COUNTY. CONTRACTOR shall not release any informational pamphlets, notices, press releases, research reports, or similar public notices concerning the COUNTY or its projects, without obtaining the prior written approval of COUNTY.

## 18. COUNTY PROPERTY AND INFORMATION

All of COUNTY's property, documents, and information provided for CONTRACTOR's use in connection with the services shall remain COUNTY's property, and CONTRACTOR shall return any such items whenever requested by COUNTY and whenever required according to the Termination section of this Agreement. CONTRACTOR may use such items only in connection with providing the services. CONTRACTOR shall not disseminate any COUNTY property, documents, or information without COUNTY's prior written consent.

## 19. RETENTION OF RECORDS/AUDIT

For the purpose of determining compliance with Public Contract Code 10115, et seq. and Title 21, California Code of Regulations, Chapter 21, Section 2500 et seq., when applicable and other matters connected with the performance of the contract pursuant to Government Code 8546.7; CONTRACTOR, subcontractors, and COUNTY shall maintain and make available for inspection all books, documents, papers, accounting records, and other evidence pertaining to the performance of the contract, including but not limited to, the costs of administering the contract. All parties shall make such materials available at their respective offices at all reasonable times during the contract period and for three years from the date of final payment under the contract. The state, State Auditor, COUNTY, FHWA, or any duly authorized representative of the Federal Government shall have access to any books, records, and documents of CONTRACTOR and its certified public accountants (CPA) work papers that are pertinent to the contract and indirect cost rates (ICR) for audit, examinations, excerpts, and transactions, and copies thereof shall be furnished if requested. Subcontracts shall contain this provision.

If federal, state or COUNTY audit exceptions are made relating to this Agreement, CONTRACTOR shall reimburse all costs incurred by federal, state, and/or COUNTY governments associated with defending against the audit exceptions or performing any audits or follow-up audits, including but not limited to: audit fees, court costs, attorneys' fees based upon a reasonable hourly amount for attorneys in the community, travel costs, penalty assessments and all other costs of whatever nature. Immediately upon notification from COUNTY, CONTRACTOR shall reimburse the amount of the audit exceptions and any other related costs directly to COUNTY as specified by COUNTY in the notification.

## 20. AUDIT REVIEW PROCEDURES

A. Any dispute concerning a question of fact arising under an interim or post audit of this contract that is not disposed of by agreement, shall be reviewed by COUNTY'S Deputy Director - Finance and Administration for Public Works.

B. Not later than 30 days after issuance of the final audit report, CONTRACTOR may request a review by COUNTY'S Chief Financial Officer of unresolved audit issues. The request for review will be submitted in writing.

C. Neither the pendency of a dispute nor its consideration by COUNTY will excuse CONTRACTOR from full and timely performance, in accordance with the terms of this contract.

D. CONTRACTOR and subcontractor contracts, including cost proposals and ICR, are subject to audits or reviews such as, but not limited to, a contract audit, an incurred cost audit, an ICR Audit, or a CPA ICR audit work paper review. If selected for audit or review, the contract, cost proposal and ICR and related work papers, if applicable, will be reviewed to verify compliance with 48 CFR, Part 31 and other related laws and regulations. In the instances of a CPA ICR audit work paper review it is CONTRACTOR's responsibility to ensure federal, state, or local government officials are allowed full access to the CPA's work papers including making copies as necessary. The contract, cost proposal, and ICR shall be adjusted by CONTRACTOR and approved by COUNTY contract manager to conform to the audit or review recommendations. CONTRACTOR agrees that individual terms of costs identified in the audit report shall be incorporated into the contract by this reference if directed by COUNTY at its sole discretion. Refusal by CONTRACTOR to incorporate audit or review recommendations, or to ensure that the federal, state or local governments have access to CPA work papers, will be considered a breach of contract terms and cause for termination of the contract and disallowance of prior reimbursed costs.

## 21. INDEMNIFICATION AND INSURANCE

CONTRACTOR agrees to the indemnification and insurance provisions as set forth in EXHIBIT C attached hereto and incorporated herein by reference.

## 22. NONDISCRIMINATION

A. COUNTY hereby notifies CONTRACTOR that COUNTY's Unlawful Discrimination Ordinance (Article XIII of Chapter 2 of the Santa Barbara County Code) applies to this Agreement and is incorporated herein by this reference with the same force and effect as if the ordinance were specifically set out herein and CONTRACTOR agrees to comply with said ordinance.

B. STATEMENT OF COMPLIANCE:

1. CONTRACTOR's signature affixed herein, and dated, shall constitute a certification under penalty of perjury under the laws of the State of California that CONTRACTOR has, unless exempt, complied with, the nondiscrimination program requirements of Government Code Section 12990 and Title 2, California Administrative Code, Section 8103.

2. During the performance of this Contract, CONTRACTOR and its subcontractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (e.g., cancer), age (over 40), marital status, and denial of family care leave. CONTRACTOR and subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment.

CONTRACTOR and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code §12990 (a-f) et seq.) and the applicable regulations promulgated there under (California Code of Regulations, Title 2, Section 7285 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Contract by reference and made a part hereof as if set forth in full. CONTRACTOR and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other Agreement.

3. The CONTRACTOR shall comply with regulations relative to Title VI (nondiscrimination in federally-assisted programs of the Department of Transportation – Title 49 Code of Federal Regulations, Part 21 - Effectuation of Title VI of the 1964 Civil Rights Act). Title VI provides that the recipients of federal assistance will implement and maintain a policy of nondiscrimination in which no person in the state of California shall, on the basis of race, color, national origin, religion, sex, age, disability, be excluded from participation in, denied the benefits of or subject to discrimination under any program or activity by the recipients of federal assistance or their assignees and successors in interest.

4. The CONTRACTOR, with regard to the work performed by it during the Agreement shall act in accordance with Title VI. Specifically, the CONTRACTOR shall not discriminate on the basis of race, color, national origin, religion, sex, age, or disability in the selection and retention of Subcontractors, including procurement of materials and leases of equipment. The CONTRACTOR shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the U.S. DOT's Regulations, including employment practices when the Agreement covers a program whose goal is employment.

## 23. REBATES, KICKBACKS OR OTHER UNLAWFUL CONSIDERATION

CONTRACTOR warrants that this contract was not obtained or secured through rebates, kickbacks or other unlawful consideration, either promised or paid to any COUNTY employee. For breach or violation of this warranty, COUNTY shall have the right in its discretion; to terminate the contract without liability; to pay only for the value of the work actually performed; or to deduct from the contract price; or otherwise recover the full amount of such rebate, kickback or other unlawful consideration.

## 24. PROHIBITION OF EXPENDING COUNTY, STATE OR FEDERAL FUNDS FOR LOBBYING

A. CONTRACTOR certifies to the best of his or her knowledge and belief that:

1. No state, federal or COUNTY appropriated funds have been paid, or will be paid by-or-on behalf of CONTRACTOR to any person for influencing or attempting to influence an officer or employee of any state or federal agency; a Member of the State Legislature or United States Congress; an officer or employee of the Legislature or Congress; or any employee of a Member of the Legislature or Congress, in connection with the awarding of any state or federal contract; the making of any state or federal grant; the making of any state or federal loan; the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any state or federal contract, grant, loan, or cooperative agreement.

2. If any funds other than federal appropriated funds have been paid, or will be paid to any person for influencing or attempting to influence an officer or employee of any federal agency; a Member of Congress; an officer or employee of Congress, or an employee of a Member of Congress; in connection with this federal contract, grant, loan, or cooperative agreement; CONTRACTOR shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions.

B. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

C. CONTRACTOR also agrees by signing this document that he or she shall require that the language of this certification be included in all lower-tier subcontracts which exceed $100,000, and that all such sub recipients shall certify and disclose accordingly.

## 25. CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT.

CONTRACTOR shall comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q.) and pursuant to the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). The CONTRACTOR shall promptly disclose, in writing, to the COUNTY office, to the Federal Awarding Agency, and to the Regional Office of the Environmental Protection Agency (EPA), whenever, in connection with the award, performance, or closeout of this contract or any subcontract thereunder, the Contractor has credible evidence that a principal, employee, agent, or subcontractor of the Contractor has committed a violation of the Clean Air Act (42 U.S.C. 7401-7671q.) or the Federal Water Pollution Control Act (33 U.S.C. 1251-1387).

## 26. PROCUREMENT OF RECOVERED MATERIALS

CONTRACTOR must comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds $10,000 or the value of the quantity acquired during the preceding fiscal year exceeded $10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

## 27. NONEXCLUSIVE AGREEMENT

CONTRACTOR understands that this is not an exclusive Agreement and that COUNTY shall have the right to negotiate with and enter into contracts with others providing the same or similar services as those provided by CONTRACTOR as the COUNTY desires.

## 28. NON-ASSIGNMENT

CONTRACTOR shall not assign, transfer or subcontract this Agreement or any of its rights or obligations under this Agreement without the prior written consent of COUNTY and any attempt to so assign, subcontract or transfer without such consent shall be void and without legal effect and shall constitute grounds for termination.

## 29. TERMINATION

A. COUNTY reserves the right to terminate this contract for convenience upon thirty (30) calendar days written notice to CONTRACTOR with the reasons for termination stated in the notice. During the thirty (30) day period, CONTRACTOR shall, as directed by COUNTY, wind down and cease its services as quickly and efficiently as reasonably possible, without performing unnecessary services or activities and by minimizing negative effects on COUNTY from such winding down and cessation of services.

B. COUNTY may terminate this contract with CONTRACTOR should CONTRACTOR fail to perform the covenants herein contained at the time and in the manner herein provided. In the event of such termination, COUNTY may proceed with the work in any manner deemed proper by COUNTY. If COUNTY terminates this contract

with CONTRACTOR, COUNTY shall pay CONTRACTOR the sum due to CONTRACTOR under this contract prior to termination, unless the cost of completion to COUNTY exceeds the funds remaining in the contract. In which case the overage shall be deducted from any sum due CONTRACTOR under this contract and the balance, if any, shall be paid to CONTRACTOR upon demand.

C. Should COUNTY fail to pay CONTRACTOR all or any part of the payment set forth in EXHIBIT B, CONTRACTOR may, at CONTRACTOR's option, terminate this Agreement if such failure is not remedied by COUNTY within thirty (30) days of written notice to COUNTY of such late payment.

D. The maximum amount for which the COUNTY shall be liable if this contract is terminated is $927,410 dollars.

E. Upon termination, CONTRACTOR shall deliver to COUNTY all data, estimates, graphs, summaries, reports, and all other property, records, documents or papers as may have been accumulated or produced by CONTRACTOR in performing this Agreement, whether completed or in process, except such items as COUNTY may, by written permission, permit CONTRACTOR to retain. CONTRACTOR shall furnish to COUNTY such financial information as in the judgment of COUNTY is necessary to determine the reasonable value of the services rendered by CONTRACTOR. In the event of a dispute as to the reasonable value of the services rendered by CONTRACTOR, the decision of COUNTY shall be final. The foregoing is cumulative and shall not affect any right or remedy which COUNTY may have in law or equity.

## 30. SECTION HEADINGS

The headings of the several sections, and any Table of Contents appended hereto, shall be solely for convenience of reference and shall not affect the meaning, construction or effect hereof.

## 31. SEVERABILITY

If any one or more of the provisions contained herein shall for any reason be held to be invalid, illegal or unenforceable in any respect, then such provision or provisions shall be deemed severable from the remaining provisions hereof, and such invalidity, illegality or unenforceability shall not affect any other provision hereof, and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.

## 32. REMEDIES NOT EXCLUSIVE

No remedy herein conferred upon or reserved to COUNTY is intended to be exclusive of any other remedy or remedies, and each and every such remedy, to the extent permitted by law, shall be cumulative and in addition to any other remedy given hereunder or now or hereafter existing at law or in equity or otherwise.

## 33. TIME IS OF THE ESSENCE

Time is of the essence in this Agreement and each covenant and term is a condition herein.

## 34. NO WAIVER OF DEFAULT

No delay or omission of COUNTY to exercise any right or power arising upon the occurrence of any event of default shall impair any such right or power or shall be construed to be a waiver of any such default or an acquiescence therein; and every power and remedy given by this Agreement to COUNTY shall be exercised from time to time and as often as may be deemed expedient in the sole discretion of COUNTY.

## 35. ENTIRE AGREEMENT AND AMENDMENT

In conjunction with the matters considered herein, this Agreement contains the entire understanding and agreement of the parties and there have been no promises, representations, agreements, warranties or undertakings by any of the parties, either oral or written, of any character or nature hereafter binding except as set forth herein. This Agreement may be altered, amended or modified only by an instrument in writing, executed by the parties to this Agreement and by no other means. Each party waives their future right to claim, contest or assert that this Agreement was modified, canceled, superseded, or changed by any oral agreements, course of conduct, waiver or estoppel.

## 36. IMMATERIAL CHANGES

CONTRACTOR and COUNTY agree that immaterial changes to this Agreement such as time frame and mutually agreeable work program changes which will not result in a change to the total contract amount or to the scope of the Statement of Work may be authorized by the Public Works Director, or designee in writing, and will not constitute an amendment to the Agreement.

## 37. SUCCESSORS AND ASSIGNS

All representations, covenants and warranties set forth in this Agreement, by or on behalf of, or for the benefit of any or all of the parties hereto, shall be binding upon and inure to the benefit of such party, its successors and assigns.

## 38. COMPLIANCE WITH LAW

CONTRACTOR shall, at its sole cost and expense, comply with all County, State and Federal ordinances and statutes now in force or which may hereafter be in force with regard to this Agreement. The judgment of any court of competent jurisdiction, or the admission of CONTRACTOR in any action or proceeding against CONTRACTOR, whether COUNTY is a party thereto or not, that CONTRACTOR has violated any such ordinance or statute, shall be conclusive of that fact as between CONTRACTOR and COUNTY.

## 39. CALIFORNIA LAW AND JURISDICTION

This Agreement shall be governed by the laws of the State of California. Any litigation regarding this Agreement or its contents shall be filed in the County of Santa Barbara, if in state court, or in the federal district court nearest to Santa Barbara County, if in federal court.

## 40. EXECUTION OF COUNTERPARTS

This Agreement may be executed in any number of counterparts and each of such counterparts shall for all purposes be deemed to be an original; and all such counterparts, or as many of them as the parties shall preserve undestroyed, shall together constitute one and the same instrument.

## 41. AUTHORITY

All signatories and parties to this Agreement warrant and represent that they have the power and authority to enter into this Agreement in the names, titles and capacities herein stated and on behalf of any entities, persons, or firms represented or purported to be represented by such entity(ies), person(s), or firm(s) and that all formal requirements necessary or required by any state and/or federal law in order to enter into this Agreement have been fully complied with. Furthermore, by entering into this Agreement, CONTRACTOR hereby warrants that it shall not have breached the terms or conditions of any other contract or agreement to which CONTRACTOR is obligated, which breach would have a material effect hereon.

## 42. SURVIVAL

All provisions of this Agreement which by their nature are intended to survive the termination or expiration of this Agreement shall survive such termination or expiration.

## 43. PRECEDENCE

In the event of conflict between the provisions contained in the numbered sections of this Agreement and the provisions contained in the Exhibits, the provisions of the Exhibits shall prevail over those in the numbered sections.

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Agreement for Services of Independent Contractor between the **County of Santa Barbara** and Cornerstone Structural Engineering Group, Inc.

**IN WITNESS WHEREOF,** the parties have executed this Agreement to be effective on the date executed by COUNTY.

**ATTEST:**

Mona Miyasato
County Executive Officer
Clerk of the Board

By: _____
Deputy Clerk

**COUNTY OF SANTA BARBARA:**

By: _____
Chair, Board of Supervisors

Date: 7/25/17

**RECOMMENDED FOR APPROVAL:**

Scott McGolpin, PE

By: _____
Director of Public Works

**CONTRACTOR:**

Cornerstone Structural Engineering Group, Inc.

By: _____
Authorized Representative

Name: Todd M. Goolkasian

Title: Principal-in-Charge

**APPROVED AS TO FORM:**

Michael C. Ghizzoni
County Counsel

By: _____
Deputy County Counsel

**APPROVED AS TO ACCOUNTING FORM:**

Theodore A. Fallati, CPA
Auditor-Controller

By: _____
Deputy

**APPROVED AS TO FORM:**

Risk Management

By: _____
Risk Management

**EXHIBIT A**

**STATEMENT OF WORK**

**See Attachment A-1 for agreed upon statement of work.**

The individuals specified in Attachment A-1 shall be the individual(s) personally responsible for providing all services hereunder. CONTRACTOR may not substitute other persons without the prior written approval of COUNTY's designated representative.

**Suspension for Convenience.** COUNTY may, without cause, order CONTRACTOR in writing to suspend, delay, or interrupt the services under this Agreement in whole or in part for up to __ days. COUNTY shall incur no liability for suspension under this provision and suspension shall not constitute a breach of this Agreement.

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**EXHIBIT B**

**PAYMENT ARRANGEMENTS**
**Actual Cost Plus Fixed Fee**

A. The method of payment for this contract will be based on actual cost plus a fixed fee. COUNTY will reimburse CONTRACTOR for actual costs (including labor costs, employee benefits, travel, equipment rental costs, overhead and other direct costs) incurred by CONTRACTOR in performance of the work. CONTRACTOR will not be reimbursed for actual costs that exceed the estimated wage rates, employee benefits, travel, equipment rental, overhead, and other estimated costs set forth in the approved CONTRACTOR'S Cost Proposal, unless additional reimbursement is provided for by contract amendment. In no event, will CONTRACTOR be reimbursed for overhead costs at a rate that exceeds COUNTY's approved overhead rate set forth in the Cost Proposal. In the event, that COUNTY determines that a change to the work from that specified in the Cost Proposal and contract is required, the contract time or actual costs reimbursable by COUNTY shall be adjusted by contract amendment to accommodate the changed work. The maximum total cost as specified in Paragraph "H" shall not be exceeded, unless authorized by contract amendment.

B. In addition to the allowable incurred costs, COUNTY will pay CONTRACTOR a fixed fee of $ 34,890.16 The fixed fee is nonadjustable for the term of the contract, except in the event of a significant change in the scope of work and such adjustment is made by contract amendment.

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

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

E. Progress payments will be made monthly in arrears based on services provided and allowable incurred costs. A pro rata portion of CONTRACTOR's fixed fee will be included in the monthly progress payments. 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.

F. No payment will be made prior to approval of any work, nor for any work performed prior to approval of this contract.

G. 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 and each project as applicable. Invoices shall follow the format stipulated for the approved Cost Proposal and shall reference this contract number and project title. Final invoice must contain the final cost and all credits due COUNTY including 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:

Philip Gaston, County of Santa Barbara Public Works, 620 West Foster Road, Santa Maria, CA 93455

H. The total amount payable by COUNTY including the fixed fee shall not exceed $ 927,410.

I. Salary increases will be reimbursable if the new salary is within the salary range identified in the approved Cost Proposal and is approved by COUNTY's Contract Administrator.

For personnel subject to prevailing wage rates as described in the California Labor Code, all salary increases, which are the direct result of changes in the prevailing wage rates are reimbursable.

J. All subcontracts shall contain the above provisions.

CORNERSTONE structural engineering group

www.cseg.com

# EXHIBIT A

## COUNTY OF SANTA BARBARA DEPARTMENT OF PUBLIC WORKS

Floradale Avenue Bridge Project

County Project No. 862032

Federal Project No.: BRLSZD-5951(060)

Bridge No.: 51C-0006

## SCOPE OF WORK – BASE SERVICES

June 23, 2017

## TASK 1 MANAGEMENT AND QUALITY CONTROL

This Task commences with receiving the Notice-to-Proceed and concludes with the submittal of the Final PS&E at the completion of the project. Key aspects of the Project Management program include attending the project kick-off meeting and Project Delivery Team (PDT) meetings; coordination with the COUNTY's Project Manager, Caltrans Local Assistance; developing and maintaining a project delivery schedule; providing Quality Assurance/Quality Control, and general coordination and communications.

CONSULTANT's Principal and Project Manager will direct and monitor project work activities in accordance with the contracted scope, schedule, and budget.

### 1.1 Project Meetings

CONSULTANT will prepare for and attend the project kick-off/field review meeting and meetings at least every two months with COUNTY staff to discuss project progress.

#### 1.1.1 Kick-off Meeting

CONSULTANT will prepare for and attend the project kick-off meeting at the COUNTY's offices. The goal of the kick-off meeting is to introduce staff, discuss project background and scope, establish communication and procedure guidelines, and discuss the project schedule.

#### 1.1.2 Project Meetings

CONSULTANT will prepare for and attend up to eighteen (18) Project Development Team (PDT) meetings. The PDT meetings will broken out to include six (6) in-person meetings at the COUNTY's offices and twelve (12) phone conference meetings. Meetings will initially be held monthly unless project status dictates otherwise or at the discretion of the COUNTY and CONSULTANT. The goal of the meetings is to discuss project status, schedule, and budget; to discuss critical project information and status across team disciplines and make decisions that could potentially affect the project design, scope, schedule, and budget. CONSULTANT will prepare meeting minutes documenting the discussions, conclusions and meeting action items and the responsible party.

986 West Alluvial Avenue – Suite 201 | tel (559) 320-3200
Fresno, CA 93711 | fax (559) 320-3201

**Deliverables:**

- Meeting Agendas (sent to all invitees a minimum of 5 days in advance of the scheduled meeting)
- Meeting Minutes and Sign In Sheets (provided to all invitees a maximum of 5 days after the meeting)

## 1.2 Project Status Reports & Delivery Schedule

CONSULTANT will prepare monthly project status reports and maintain a project delivery schedule.

### 1.2.1 Monthly Progress Reports

CONSULTANT will prepare monthly status reports addressing the progress of the project, project design schedule, decisions that must be made to keep the project on schedule, and a list of work that has been accomplished in the previous month and work forecasted for the upcoming month. The reports will also include summary reports including the project budget and the budget expenditure to date for each of the major task items.

### 1.2.2 Project Delivery Schedule

CONSULTANT will provide a critical path project delivery schedule for the tasks identified within this scope of services. The schedule will identify the major tasks to be completed, durations, and project milestones. CONSULTANT will provide a baseline project delivery schedule after the kick-off meeting and will provide monthly updates to the schedule noting percentages complete for each task. The project delivery schedule will be prepared in Microsoft Project format.

**Deliverables:**

- Monthly Progress Reports
- Project Delivery Schedule and Updates

## 1.3 Quality Control/Quality Assurance (QC/QA)

CONSULTANT will utilize a QC/QA plan/process for this project whereby deliverables are reviewed for uniformity, compatibility and constructability as well as general conformance with the Caltrans and FHWA HBP program requirements. QC/QA Manager will be assigned to the project whose responsibility will be to ensure the proper quality control procedures are in place and followed. The QC/QA plan will include procedures for reviewing deliverables including, but not limited to, conceptual plans, technical memorandums and reports, and cost estimates. Supporting documentation demonstrating that the QC/QA plan/process is being followed will be submitted to the COUNTY. This documentation may include copies of review comment forms, red-marked plans, QC/QA meeting minutes, etc.

# TASK 2 ENVIRONMENTAL REVIEW UNDER CEQA AND UPDATE OF NES

Separate sections for each environmental topic area will be prepared, incorporating information from the technical studies prepared for the NEPA CE where applicable. Each section will present the significance criteria for the evaluated resource areas and will provide avoidance, minimization, and mitigation measures, where applicable, for potential environmental impacts of the project. These sections will be formatted so that the impact statements and any corresponding mitigation measures shall stand out from the text for clarity and easy reference.

Findings will be made as to the level of significance of each impact before and after any potential mitigation. Additional methodology for specific sections is provided below.

Aesthetics: The aesthetics/visual resources section of the IS-MND will include an evaluation of the site's existing visual setting, including the project site's physical attributes, relative visibility, and relative uniqueness. The impact analysis will entail an evaluation of the modification of visual resources located on-site and on views in the vicinity, as well as the change in visual character of the site and surrounding area as a result of the project. This will include a discussion of the change in the aesthetics of the site with development of the project, including the proposed grading, infrastructure, structural development, and landscaping. Minimization and mitigation measures will be discussed, as applicable.

Agriculture: Agricultural impacts will be evaluated following CEQA impact guidelines, reviewing the State Important Farmlands Mapping, Williamson Act if applicable, and addressing impacts based on the Santa Barbara County Agricultural Resources Guidelines. The agricultural analysis, conclusions, and any recommended mitigation measures will be summarized in a section formatted for incorporation into the project IS-MND.

Air Quality: The air quality analysis will be prepared using the methodologies described in SBCAPCD's Scope and Content of Air Quality Sections in Environmental Documents (updated April 2015) and the significance thresholds that have been recommended by the SBCAPCD for projects within the South Central Coast Air Basin. The air quality analysis, conclusions, and any recommended mitigation measures will be summarized in a section formatted for incorporation into the project IS-MND.

Both temporary construction impacts and long-term operational impacts will be addressed. The evaluation of temporary construction impacts will employ standard methodologies and include an assessment of fugitive dust impacts as well as emissions associated with heavy construction equipment. Estimates of cut and fill, a general construction schedule, and a list of likely construction equipment will be provided by CONSULTANT.

Greenhouse Gas Emissions: The SBCAPCD has not yet adopted thresholds of significance for GHG emissions from land use projects. However, Santa Barbara County has recommended the use of the recently-adopted San Luis Obispo Air Pollution Control District (SLOAPCD) GHG thresholds for land use projects. It is assumed that these thresholds will also be the most appropriate available thresholds for use in this analysis. The GHG analysis will evaluate the proposed project's potential contribution to cumulative impacts related to climate change and will include:

- Overview of the types of GHGs and sources and potential environmental effects of GHGs and climate change;
- Overview of the current regulatory framework around GHGs/climate change;
- Quantification of carbon dioxide equivalent (CO2e) units associated with project construction and long-term operation using the latest version of CalEEMod;
- Comparison of annual CO2e emissions to the recommended SLOAPCD GHG thresholds; and
- Development of mitigation measures for any identified significant impacts.

The GHG analysis, conclusions, and any recommended mitigation measures will be summarized in a section formatted for incorporation into the project IS-MND.

Biology. This analysis will be adapted from the existing Natural Environment Study (NES). The section will include an analysis of the project's impacts to local biological resources, including sensitive habitats, sensitive species, and wildlife movement corridors. The analysis will be based on: search and review of the California Natural Diversity Data Base (CNDDB) and other published information; review of aerial photographs and soils surveys; and coordination with County resource staff, Caltrans, USFWS, NMFS, USACE, RWQCB, and CDFW, as applicable. The

project's contribution to cumulative biological resources will also be evaluated. Avoidance, minimization, and mitigation measures will be described for any identified impacts.

Noise Analysis: Because this is a bridge replacement project, the project will not affect operational noise because it is not a capacity increasing project. In addition there are no sensitive receptors immediately adjacent to the project site. Rincon proposes to conduct a general assessment of potential construction noise and identify any mitigation measures that may be necessary.

Cultural-Historical Resources: This analysis will be adapted from the existing Cultural Resources Studies and will be based on research, including a records search at the Central Coast Information Center at UCSB, and evaluation of historic resources based on National and California Register criteria, as well as locally adopted criteria for the designation of local landmarks. The cultural resources section will include a discussion of the applicable regulatory framework for archaeological impacts, including applicable state and local regulations and standards; describe the criteria for determining the project's impact on archaeological resources; identify and describe the potential project-specific impacts to such resources and assess the significance level of each identified impact; describe the project's contribution to cumulative impacts on historical and archaeological resources; and identify feasible mitigation measures, if needed, that are capable of reducing any potentially significant project impacts to less than significant levels.

Hazards and Hazardous Materials: This section will be adapted from the Phase I Initial Site Assessment already prepared and the Hazardous Materials Survey dated 11/22/2010 conducted by Forbess Consulting Group and will include an analysis of impacts relating to hazardous materials performed under the direction of Rincon's Registered Geologist/Certified Hydrogeologist. The hazards analysis will examine the potential for hazardous materials to be present on the site and the effects that such materials may have on the project, including potential contamination during demolition. The effect of any residual contaminants will be discussed in reference to current standards administered by the California Department of Toxic Substances Control or other oversight agencies. The potential for impacts related to conflicts with underground utilities and potential fire impacts will be described. Minimization and mitigation measures will be described for any identified impacts.

Geological Resources: The geological and soil hazards of the project site and surrounding area will be evaluated. The analysis will describe the geologic setting of the project area and will include a discussion of potential hazards that could affect the project alternatives. The baseline conditions discussion will be based on information available from the County Comprehensive Plan, the California Geological Survey, Southern California Earthquake Data Center, United States Geological Survey, the California Division of Mines and Geology, the United States Department of Agriculture Soil Conservation Service Soil Surveys for Santa Barbara County, and any geotechnical or soils engineering reports prepared for the project. Minimization and mitigation measures will be described for identified impacts, if any.

Water Resources: This section will be partially based on the water quality technical memorandum, and will also address issues related to flood hazards and drainage. The hydrologic evaluation will be based on drainage information to be provided by the County and/or Caltrans through the project design process. The analysis will also be based on review of all pertinent FEMA and Santa Barbara County Flood Control District Maps, Central Coast Regional Water Quality Control Board data on the water quality of any existing surface water bodies within the watershed. The analysis will include an assessment of impacts to water resources and flooding associated with project construction and operation, including water quality, flood hazards, and long-term hydrological changes, for each alternative. Minimization and mitigation measures necessary to reduce impacts will be identified as appropriate. The analysis will also address cumulative impacts to water resources and flooding and identify the project's contribution to those impacts

Other Issues: Additional CEQA Appendix G impacts, not specifically listed above, will be addressed directly within the IS-MND. These impacts, such as public facilities, are assumed to have a less than significant impact and require minimal analysis.

Impacts Found to have No Impact. Based on the type of project, bridge replacement, it is assumed that the project will have no impact on land use.

## 2.1 Project Initiation - Review Existing Environmental Documentation

This task includes the steps needed to initiate the CEQA environmental review process. As part of this task, CONSULTANT will undertake ongoing environmental coordination with the County, which will include the following:

- Prepare the project description, and describe the Environmental Setting.
- Review the APE map and environmental technical studies.

CONSULTANT will review existing relevant literature maps and inventories, including resource inventories and environmental and land use studies for the project vicinity. The existing technical studies will be used as much as possible, but will be independently verified for accurate representation of current existing conditions. CONSULTANT will identify any potential areas of concern, through coordination with resource and regulatory agencies. A site review will be conducted to verify the findings of this research.

The project description will be adapted from the existing documentation and will fully describe the action to be undertaken, including, as applicable, the project limits (logical termini/independent utility), construction activities, including staging areas and facilities, utility relocations, and construction activities that may require temporary facilities such as roads, detours, or ramp closures. Any state or federal permit or consultation requirements will be noted. A brief discussion of the environmental setting will also be provided.

**Deliverables:**

- Digital copy via e-mail of memorandum describing conclusions of peer review of existing technical studies, and recommendations for additional/updated environmental studies.

## 2.2 Update Technical Studies

This task involves updating the technical environmental studies as necessary to ensure accurate characterization of existing conditions, project impacts, and avoidance, minimization and mitigation measures. CONSULTANT will complete updated environmental records searches for biological resources and cultural resources, and will field-verify the technical studies. The review and update of the Natural Environment Study (NES) will be conducted. Special Status Species records, habitat area and regulatory agency jurisdictional calculations, and impact conclusions will be evaluated. A draft revised and updated version of the NES, or a memorandum addendum to the NES explaining minor revisions, will be submitted for County review. Upon incorporation of revisions based on County comments, the NES or addendum thereto will be submitted for Caltrans review and comment.

**Deliverables:**

- Digital copy via e-mail of updated NES or memorandum addendum to NES

## 2.3 Initial Study-Mitigated Negative Declaration (IS-MND)

To the extent feasible, existing environmental documentation will be applied to the environmental analysis for the proposed project. This scope of work assumes that the completed technical studies will be adaptable for use in the IS-MND with only minor revision.

### 2.3.1 Administrative Draft IS-MND

CONSULTANT will prepare the Administrative Draft IS-MND in conformance with County CEQA Thresholds Manual and Caltrans' SER. The Administrative Draft IS-MND will contain all required components and will address on-site and off-site impacts of the project. All CEQA thresholds will be evaluated, but the technical analysis will be based on completed technical studies and focused as described Task 3.2 below.

The IS-MND will identify the direct, indirect, and cumulative environmental effects resulting from the project and project alternatives. It will provide the nature, magnitude, and extent and direction of adverse and beneficial impacts, as well as adverse impacts pertaining to environmental issues.

The environmental information from the existing technical studies regarding biological resources, cultural resources, and hydrology/water quality will be supplemented with records review and impact analysis focused on Aesthetics, Air Quality, Geologic Resources, Greenhouse Gas Emissions, Hazardous Materials, Noise, and Transportation.

In addition, effective in October 2016, a new Tribal Cultural Resources section has been added to the recommended initial study checklist in Appendix G of the CEQA Guidelines. We will include this section in the IS-MND, and incorporate a brief description of the consultation procedures and results for this project, based on information provided by the COUNTY.

**Deliverables:**

- Digital copy via e-mail of Administrative Draft IS-MND

### 2.3.2 Draft IS-MND

CONSULTANT will revise the Administrative Draft IS-MND based on the comments received from County staff and the Caltrans staff peer review process. This scope of work assumes that Caltrans and the County will each provide one set of consolidated comments for each round of review.

Upon receiving clearance, CONSULTANT will print and deliver the Draft IS-MND. CONSULTANT will prepare the Notice of Completion (NOC) and Notice of Intent to Adopt (NOI) of the Draft IS-MND for distribution. The COUNTY will be responsible for developing a distribution list, circulating the document, and paying newspaper noticing fees.

**Deliverables:**

- One reproducible unbound copy and thirty (30) bound copies of the Draft IS-MND
- One copy of the NOI and NOC.

### 2.3.3 Administrative Final IS-MND and Responses to Comments

The final formal stages of the IS-MND and project review process involve responding to comments, public hearings, and final publication tasks. At this point, the IS-MND is brought forward for final public governmental scrutiny leading to decisions regarding approval. Through this process, final changes and policy decisions concerning the project are made.

CONSULTANT will discuss and modify, as necessary, information in the IS-MND that requires such modification. Along with the responses to comments, CONSULTANT will submit a draft mitigation monitoring and reporting program (MMRP) that outlines how implementation of adopted mitigation measures will be monitored.

CONSULTANT will submit one reproducible copy via e-mail of the proposed Administrative Final IS-MND with responses to comments for COUNTY and Caltrans review.

**Deliverables:**

- Digital copy via e-mail of Administrative Final IS-MND

#### 2.3.4 Publication of Final IS-MND

Following public hearings and final project decisions, CONSULTANT will make any final revisions to the IS-MND and submit the Final IS-MND. CONSULTANT will assist in filing of the IS-MND, including preparation of the Notice of Determination. The COUNTY will pay all required filing fees.

**Deliverables:**

- One reproducible unbound copy and ten (10) bound copies of the Final IS-MND
- One copy of NOD

## TASK 3 SUPPLEMENTAL SURVEY FOR BASE MAPPING

### 3.1 Title Reports

CONSULTANT will secure vesting deeds, back up documents, property profiles, and tax maps for each property and secure preliminary title reports (paid for directly by COUNTY) for each property which will remain valid for a minimum of 6 months or until there is an ownership change and copies of recorded back-up documents as needed. CONSULTANT will also prepare a list of title exceptions to be cleared; confirm manner of disposition is consistent with approved project plan.

### 3.2 Boundary Surveys

The Floradale Avenue Bridge is located just south of the dividing line between the Rancho Lompoc and the Rancho Mission la Purisima. Establishing the rancho line, along with the alignment of Floradale Avenue and the location of the grant deeds to the federal government, are key to locating the existing right of way and acquiring new right of way. There is no recorded survey of this portion of the rancho line since it was surveyed in the late 1890's. The grant deeds have probably never been surveyed, and the last recorded survey of Floradale Avenue in this area is from 1973. The boundary survey will be challenging and will require a high level of effort.

CONSULTANT will conduct right of way research and conduct field surveys of existing right of way and affected property lines within the proposed footprint. CONSULTANT will search for and tie existing monumentation of property corners and/or right-of-way control as needed to define the existing right-of-way and property boundaries within the project footprint. The property corner monuments and right-of-way monuments will be tied into the project control. Analysis of the surveyed monumentation, with record maps and deeds, will be performed to resolve the existing land net and right-of-way configurations. All surveying will be based on the California Coordinate System North American Datum of 1983, Zone III and in full compliance with applicable State codes including the Land Surveyors Act, the Business and Professions Code, and the Public Resources Code.

## TASK 4 FINAL MATERIALS AND FOUNDATION REPORT

CONSULTANT will provide supplemental foundation studies for the selected bridge site. This task includes site review, geologic reconnaissance, drilling and sampling of test borings, laboratory testing, engineering evaluation, and

analysis. A Foundation Report will be prepared in general conformance with the Caltrans Guidelines for Structure Foundation Report dated December 2009.

## 4.1 Supplemental Geotechnical Field Exploration and Laboratory Testing

Twelve soil borings and eleven cone penetrometer tests (CPTs) have been performed along the existing bridge alignment. Based on the preliminary foundation report prepared on May 1, 2009, four supplemental soil borings are proposed. This supplemental program assumes that the existing subsurface data along the current bridge alignment can be extrapolated and used for foundation design along the new alignment. These explorations will provide an evaluation of subsurface soils/rock conditions for the proposed structure.

CONSULTANT will drill a total of five (5) borings including:

Two (2) borings, one at each abutment of the new bridge up to 100 ft. in depth

Two (2) borings within the channel up to 130 ft. in depth

One (1) boring below the new roadway up to 5 ft. in depth

The two abutment borings will be drilled along the new bridge alignment, and the two bent borings will be drilled from the existing bridge deck. The two borings in the channel will be located at approximately the location of two of the new bridge piers. A truck-mounted rotary-wash drilling rig will be used to perform the field exploration. Soil samples will be collected for laboratory testing, including bulk samples of near surface soils and small disturbed and relatively undisturbed ring samples of deeper soils. The small disturbed and relatively undisturbed soil samples will be collected using split-spoon samplers at a vertical interval of about 5 to 10 feet, alternating between the Standard Penetration Test (SPT) sampler and the Modified California Drive (MCD) sampler. Samples of subsurface soils will be logged during the field investigation, secured in their containers or collected in plastic bags.

Representative soil samples will be selected for laboratory testing. Various laboratory tests will be performed to determine or derive physical and engineering characteristics of soils. Anticipated laboratory soil tests include: moisture content, density, grain size distribution, direct shear, unconsolidated-undrained triaxial tests, R-value and soil corrosion tests. Tests will be conducted in general accordance with California Test methods or ASTM standards.

## 4.2 Geotechnical Engineering Analyses

Results obtained from the field investigation and laboratory testing will be used to characterize subsurface soils and conditions and create idealized profiles for design purposes.

The following analyses will be performed:

- Evaluation of seismicity, estimation of peak ground acceleration based on the Caltrans Seismic Design Criteria and Caltrans ARS Online, and recommendations of an ARS curve for the bridge structural design
- Evaluation of liquefaction potential, lateral spreading and liquefaction induced settlement
- Design of bridge foundations based on Caltrans LRFD design methodologies
- Assessment of global stability and settlement of approach roadway embankments
- Evaluation of soil corrosivity, and provide recommendations for mitigation measures, if required
- Design of pavement structural sections in accordance with the Caltrans Highway Design Manual method

## 4.3 Foundation Report

CONSULTANT will prepare and submit a Draft Foundation Report. The report will present results of engineering analyses and design and construction recommendations for the bridge foundations and will be in general

conformance with the Caltrans Guidelines for Structure Foundation Report dated December 2009. Copies of the existing soil boring logs will be included "as-is" in one of the appendices and the existing CPT logs will be drafted in LOTB format. Supplemental borings will also be drafted in LOTB format. The draft Foundation Report will be submitted with the 65% PS&E. COUNTY and Design Team comments to the draft report will be incorporated into the final Foundation Report.

**Deliverables:**

- PDF and (1) printed copy of Draft Foundation Report including Log of Test Borings (LOTB)
- PDF and (2) printed copies of Final Foundation Report including Log of Test Borings (LOTB)

## TASK 5 FINAL HYDROLOGY AND HYDRAULICS STUDY

### 5.1 Update Bridge Hydraulics

CONSULTANT will update the existing conditions HEC-RAS model with additional overbank areas by adding Lidar data to the existing conditions model. CONSULTANT will finalize the HEC-RAS model and update the hydraulics report for the final bridge design, incorporating any changes to the project incorporated into the Type Selection Update Design Memorandum from Task 7.

### 5.2 Complete Local Scour and Bank Protection Analysis

CONSULTANT will review maintenance records for the existing and adjacent bridges to determine if the stream has aggraded or degraded over time. Pier and contraction scour will be estimated using the methods described in the Federal Highway Administration (FHWA) Publication HEC-18, Evaluating Scour at Bridges. Scour estimates and bank protection parameters will be incorporated into the hydraulics report.

### 5.3 Design Hydraulic Report

CONSULTANT will prepare a draft design hydrology, hydraulics and scour report for the bridge replacement project, including the results from Task 5.1 and 5.2, for submittal to the COUNTY during the Type Selection Phase. COUNTY comments will be incorporated into the final Design Hydraulic Report that will be submitted during the 65% PS&E phase.

**Deliverables:**

- PDF and (1) printed copy of Draft Design Hydraulic Report
- PDF and (2) printed copies of Final Design Hydraulic Report

## TASK 6 PERMITTING SUPPORT

All regulatory permits for the project will be obtained by the COUNTY. The following permits are anticipated:

- US Army Corps of Engineers (ACOE) Nationwide 404 Permit
- Regional Water Quality Control Board (RWQCB) 401 Certification
- California Department of Fish and Wildlife (CDFW) 1602 Streambed Alteration Agreement(SAA)
- Santa Barbara County Air Pollution Control District Permit

CONSULTANT will coordinate with and generally assist the COUNTY with the preparation of the permit applications by providing the following tasks:

### 6.1 Permit Coordination Meeting

CONSULTANT will attend one (1) field meeting at the project site with the COUNTY and the regulatory agencies to discuss the proposed project and permitting issues. The COUNTY will be responsible for coordinating and scheduling the meeting with the regulatory agencies and for providing the agenda and meeting minutes.

### 6.2 Support for Permitting Process

CONSULTANT will coordinate with the COUNTY and provide support for the project permit task by answering questions regarding the proposed project alternatives, provide project-specific technical information, providing potential construction techniques that may be employed by the contractor, providing potential construction schedules, and generally assisting the COUNTY as required to support the permitting phase of work.

## TASK 7 65% PS&E (ROADWAY & STRUCTURE)

### 7.1 Data Collection and Site Review

CONSULTANT will assess available information on the project, including existing drawings, AutoCAD base files, and previous studies and reports.

### 7.2 Project Type Selection (35% PS&E)

This task includes the development of a Project Type Selection Design Memorandum. CONSULTANT will complete a Type Selection Report based on information provided in the previously completed Structure Type Selection Report, the updated project Design Hydraulic Study, the updated Foundation Report, and CONSULTANT'S recommendations that are approved by the COUNTY. CONSULTANT will prepare a Project Type Selection Design Memorandum that includes:

- General summary of updated project constraints including updated design criteria, constructability considerations, stakeholder impacts, environmental impacts, design exceptions (if required), right-of-way impacts, impacts to the travelling public, traffic handling requirements.
- Summary of any proposed revisions to the alignment and preferred bridge alternative
- List of design decisions needed by the COUNTY
- List of issues that will be resolved during final design
- Bridge General Plan
- Geometric Approval Drawings
- Estimated Construction Cost

A draft version of the Project Type Selection Design Memorandum will be provided to the COUNTY for review and COUNTY requested changes will be incorporated into the Final version of the document.

**Deliverables:**

- PDF of Draft Type Selection Update Design Memorandum
- Final Type Selection Update Design Memorandum
    - PDF and Three (3) printed copies

## 7.3 Unchecked Details (65% PS&E)

Upon approval of the Type Selection Update Design Memorandum, CONSULTANT will prepare and submit the draft Plans, Specifications, and Estimate to the COUNTY. This submittal represents a complete set of "unchecked" plans. The CONSULTANT will prepare a complete set of construction plans in accordance with COUNTY's standards. The content will represent a biddable plan set but it has not been through our QC checklist.

Design Criteria

The design will be performed in general accordance with the following:

- Caltrans Local Assistance Procedures Manual (LAPM) Chapter 11: Design Guidance
- Caltrans LAPM Chapter 12: Plans, Specifications, and Estimates
- Caltrans Highway Design Manual
- AASHTO's Policy on Geometric Design of Highways and Streets, 6th Edition
- County of Santa Barbara Department of Public Works Engineering Design Standards
- AASHTO LRFD Bridge Design Specifications
- Caltrans Seismic Design Criteria, Version 1.7
- Caltrans Bridge Design & Detailing Manuals
- Caltrans 2015 Standard Plans & Specifications

Plan Sheets

This scope of work is based on the approximate sheet count listed below. Plans will be prepared in 2017 AutoCAD Civil 3D format in accordance with CONSULTANTS and COUNTY (where applicable) drafting standards. Plans will be prepared in English units. AutoCAD Civil 3D files will be provided to the COUNTY after COUNTY has agreed to CONSULTANT'S limit of liability for electronic documents.

| | |
|---|---|
| Title Sheet | 1 Sheet |
| | |
| Road Plans | |
| Typical Sections | 1 Sheet |
| Plan and Profile | 2 Sheet |
| Construction Details | 1 Sheet |
| Composite Utility Plans | 2 Sheets |
| Drainage Improvement Plans | 1 Sheet |
| Erosion and Sedimentation Plans | 1 Sheet |
| Stormwater Treatment Plans | 1 Sheet |
| Pavement Delineation and Signing Plans | 2 Sheets |
| Construction Area Sign Plans | 1 Sheet |
| Construction Staging Plans | 2 Sheets |
| Subtotal Road Plans | 14 Sheets |

| | |
|---|---|
| Bridge Plans | |
| (Cast-In-Place Reinforced Concrete Box Girder Bridge assumed) | |
| General Plan No. 1 | 1 Sheet |
| General Plan No. 2 | 1 Sheet |
| Deck Contours | 1 Sheet |
| Foundation Plan | 1 Sheet |
| Abutment Layout | 1 Sheet |
| Abutment Details | 1 Sheet |
| Pier Layout | 1 Sheet |
| Pier Details | 2 Sheets |
| Typical Section | 1 Sheet |
| Girder Layout | 2 Sheets |
| Additional Deck & Soffit Reinforcing | 2 Sheets |
| Joint Seal Assembly Details | 2 Sheets |
| Structure Approach Details | 1 Sheet |
| Structure Approach Drainage Details | 1 Sheet |
| Utility Details | 1 Sheet |
| Log of Test Borings | 2 Sheets |
| Subtotal Bridge Plans | 21 Sheets |
| | |
| **Total Sheet Count** | **36 sheets** |

### 7.3.1 Bridge Design

CONSULTANT will prepare structural calculations and bridge plans for the bridge type and configuration agreed upon during the 35% PS&E. This submittal will represent complete, unchecked set of bridge construction documents to be submitted to the COUNTY.

### 7.3.2 Approach Roadway Design

CONSULTANT will prepare the approach roadway design in general conformance with COUNTY Standards, AASHTO "A Policy on Geometric Design of Highways and Streets, the Caltrans Highway Design Manual, Caltrans Standard Specifications and Standard Plans. Final grading will be developed as well as new/existing roadway conformance details, as required. A key element of this plan submittal is completion of the utility relocation plans which will be prepared by Utility companies, but included in the plan set for information only.

### 7.3.3 Engineer's Estimate of Probable Construction Cost

CONSULTANT will provide cost estimates at the 65% PS&E design submittal. CONSULTANT will prepare detailed quantities in accordance with Caltrans standard specifications and payment items. The engineer's estimate of probable construction cost ("Marginal Estimate") for the project will be prepared using the most recent and relevant Caltrans Cost Data, CONSULTANTS cost data, as well as the COUNTY's cost data.

#### 7.3.4 Contract Specifications/Special Provisions

CONSULTANT will prepare the contract technical Special Provisions for the project based in General on Caltrans' 2015 Standard Special Provisions and Standard Specifications, and COUNTY construction contract standards. CONSULTANT will assist the COUNTY with combining the technical specifications with the COUNTY's Special Provisions Sections 1 through 9 Boiler Plate provisions, Notice to Contractors, and the Proposal and Agreement Sections. The COUNTY will be responsible for the content of Sections 1 through 9 Special Provisions. CONSULTANT will review, comment and/or make recommendations to County on the form and content of the Front-End Specifications and bid documents as they apply to the project.

#### 7.3.5 Design Exception Fact Sheets

CONSULTANT will identify all non-standard design features and prepare Design Fact Sheets in accordance with Chapter 11 – Design Guidance of the Caltrans Local Assistance Procedures Manual once the COUNTY selects a preferred design alternative. CONSULTANT will prepare draft Design Fact Sheets for COUNTY review and incorporate COUNTY requested revisions. Final Design Fact Sheets will be prepared by CONSULTANT for COUNTY approval and signature. It is assumed that a maximum of two design exceptions will be required and that Caltrans will not be involved in the design exceptions approval process.

**Deliverables:**

- Up to six (6) full-size sets of 65% plans (22 x 34)
- Up to six (6) half-size set of 65% plans (11 x 17)
- Up to six (6) sets of annotated Technical Special Provisions
- Up to six (6) copies of Cost Estimate
- One (1) set of all draft (unchecked) Design Calculations
- Responses to 35% Design COUNTY comments
- 1 CD with electronic copy in PDF format of all 65% submittal items
    - Copy of Special Provisions in Word format
    - Copy of Cost Estimate in Excel format

## TASK 8 95% PS&E (ROADWAY & STRUCTURE)

This submittal represents a complete set of "checked" plans that has been through CONSULTANTS Quality Control checklist.

### 8.1 Bridge Independent Check

Following completion of the 65% PS&E, an independent bridge design check will be completed. An independent engineer who was not involved in the design will re-analyze the bridge, verify member capacities, and review the special provisions for the bridge. The checker will provide a list of comments and a set of "red-marked" plans that communicate issues uncovered during the preparation of the independent check. Issues raised by the checker will be discussed with and resolved by the designer and checker. The final design will reflect agreement between the two engineers.

### 8.2 95% (Draft) PS&E

CONSULTANT will provide written responses to Independent Check comments, COUNTY comments, and Caltrans comments to the 65% PS&E. CONSULTANT will update the PS&E based on the agreement and resolution of

comments for final submittal to the COUNTY. The COUNTY will be responsible for submitting the updated PS&E to Caltrans.

**Deliverables:**

- Response to COUNTY Comments
- Three(3) full-size sets of 95% Plans (24 x 36)
- Three (3) half-size set of 95% Plans (11 x 17)
- Three (3) sets of annotated Technical Special Provisions
- Three (3) copies of Cost Estimate
- One (1) set of updated Bridge Design Calculations
- One (1) set of Independent Check Bridge Design Calculations
- One (1) set of Checked Bridge Quantity CalculationsOne (1) set of Checked Roadway Quantity Calculations
- Responses to 65% Design COUNTY comments
- 1 CD with electronic copy in PDF format of all 95% submittal items
    - Copy of Special Provisions in Word format
    - Copy of Cost Estimate in Excel format

## TASK 9 FINAL BID PACKAGE AND RE FILE

### 9.1 100% PS&E

Following the reviews by the COUNTY and CONSULTANTS QC team, agreed-upon revisions will be made to the 95% PS&E. The specifications, plans, and other bid documents will be submitted to the COUNTY for final approval.

**Deliverables:**

- Response to COUNTY Comments
- Three (3) full-size sets of 100% Plans (24 x 36)
- Three (3) half-size set of 100% Plans (11 x 17)
- Three (3) sets of Technical Special Provisions
- Three (3) copies of Cost Estimate
- 1 CD with electronic copy in PDF format of all 95% submittal items
    - Copy of Special Provisions in Word format
    - Copy of Cost Estimate in Excel format

### 9.2 Final PS&E

After receipt of final approval, an original set of stamped and signed plans, two camera ready copies of the bidding documents and an engineer's estimate will be submitted to the COUNTY for its use in soliciting construction bids. The CONSULTANT shall provide the quantity calculations to the COUNTY for use in administering the contract.

**Deliverables:**

- One (1) set of signed Final plans on Film

- Two (2) sets of signed Final plans on Bond
- One (1) copy of signed Technical Special Provisions
- One (1) copy of Cost Estimate
- One (1) copy each of signed Design and Check Quantity Calculations
- 1 CD with electronic copy in PDF format of all submittal items
    - Copy of Special Provisions in Word format
    - Copy of Cost Estimate in Excel format

### 9.3 RE Pending File

CONSULTANT will prepare the Resident Engineer's Pending File which will include the following:

- Roaday Cross Sections at approximately 50 ft. intervals
- Bridge As-Built Plans and Bridge Inspection Reports
- Bridge Joint Movement Calculation Sheet
- Bridge Four-Scales
- Design Engineer Notes to the Resident Engineer

## TASK 10 RIGHT-OF-WAY ENGINEERING

There appear to be four parcels that could be impacted by the project. Two of these parcels are owned by the Federal Government and are part of the Federal Correctional Complex; one is owned by the County of Santa Barbara; and one is privately owned. It is assumed that right-of-way engineering will only be required for the two Federal Government parcels and the privately owned parcel.

### 10.1 Right of Way Engineering

CONSULTANT will prepare a Right-of-Way Requirements Map along with a comprehensive matrix for the selected alignment alternative identified in the Type Selection Design Memorandum. Matrix information will include: type and size of acquisition, duration for temporary acquisitions, affected parcel owner, APN numbers and parcel addresses.

After the limits of the Right-of-Way acquisitions have been delineated and approved by the COUNTY, CONSULTANT will prepare plats and legal descriptions for permanent right-of-way acquisitions and temporary construction easements with closure calculations. It is assumed that for the two Federal Government parcels, plats and legals will only be required for permanent right-of-way takes. It is assumed that plats and legals for both permanent right-of-way takes and temporary construction easements will be required for the private parcel. No plats and legals will be prepared for the COUNTY parcel.

### 10.2 Right of Way Preliminary Engineering Support

CONSULTANT will analyze and research the right of way impacts of the proposed project assessing any temporary and permanent easement and permanent fee impacts for one unique Assessor's Parcel Numbers including the following:

- Take an inventory of the affected properties. Secure preliminary parcel information from online database sources and investigate current ownerships. Utilizing this information and Assessor's Roll information, determine other valuation considerations such as zoning, lot size, current usage, and other relevant factors.
- Visually inspect each property (exterior street view) and note the effects of all proposed acquisitions.

- Sort each property into product types to determine the set of real estate data to be researched and create valuation data sets for each product type.
- Prepare an estimate of the probable cost of each partial acquisition, as well as permanent and temporary easement interests, including (for partial acquisitions) damages to the remaining parcel, using created data sets from various real estate value databases.

### 10.3 Record of Survey

CONSULTANT will prepare a Record of Survey map to document land net and right of way survey as required by PLS Act. Coordinate with county surveyor during review process and make corrections as required. Set monuments sufficient to enable retracement of survey as required by PLS Act.

## TASK 11 RIGHT-OF-WAY APPRAISALS

While the project will be of great benefit to the Federal Correctional Complex and the Vandenberg Air Force Base, it is assumed that the Federal Government will continue to require the appraisal process required for federally funded projects. No appraisal and acquisition will be required for the COUNTY owned parcel. Therefore, a total of three parcels are included in the appraisal process. Furthermore, there appears to be no significant impacts from the current project design that would require relocation services at this time.

### 11.1 Appraisal Services

- CONSULTANT will mail a notification letter and acquisition policies brochure to the property owner requesting permission to conduct an on-site inspection of the property, advising them of their right to accompany the appraiser at the time of the inspection, and requesting information regarding the property appraised which could influence the appraised value.
- Appraiser will review title information pertaining to respective ownerships and will review drawings and other pertinent information relative to the parcel.
- Appraiser will inspect each property personally with the owner (if possible) and document the inspection with photographs for use in the report.
- Appraiser will inventory all improvements affected by the proposed taking, including notes on their manner of disposition (i.e., pay-for and remove vs. move back).
- Appraiser will perform market research to support the selected appraisal methodologies and will document and confirm comparable sales information.
- Appraiser will prepare a narrative appraisal report that conforms to the Uniform Standards of Professional Appraisal Practice (USPAP). The appraisal study and report are intended to serve as an acquisition appraisal and will be prepared in a summary format consistent with the specifications for narrative appraisal reports.
- Upon completion of the fee appraisal, CONSULTANT will conduct a formal review by an independent appraiser in accordance with federal regulations and Caltrans procedures manual.
- CONSULTANT will receive and analyze the completed appraisal reports accordingly.

## TASK 12 RIGHT-OF-WAY ACQUISITION

### 12.1 Negotiate Right of Way Settlement/Prepare Acquisition Documents

- Establish and maintain a complete and current record file of all ownerships in a form acceptable to the client.

- Receive and analyze title information, approved appraisal reports, and legal descriptions in sufficient detail to negotiate with property owners and other parties.
- Prepare all offer letters, summary statements, and lists of compensable items of fixtures and equipment, in accordance with state or federal regulations and the approval of the client.
- Present written purchase offers to owners or their representatives in person, when possible. Secure receipt of delivery of offer as practical and present and secure tenant information statements, as applicable.
- Follow-up and negotiate with each property owner, as necessary; prepare and submit recommended settlement justifications to client for review and approval; review any independent appraisal secured by property owner; and coordinate reimbursement of appraisal fees (up to $5,000) with client. Ongoing negotiations and settlement discussions will continue after the initial offer or until we reach settlement or impasse, as dictated by the overall Project Schedule.
- Prepare and assemble acquisition contracts, deeds, and related acquisition documents required for the acquisition of necessary property interests.
- Maintain a diary report of all contacts made with property owners or representatives and a summary of the status of negotiations indicating attitude of owners, problem areas, and other pertinent information. Copies of all applicable written correspondence will be maintained in files.
- Prepare an impasse letter for any parcel where, after diligent attempts to settle by negotiation, it appears eminent domain will be needed or prudent to acquire the needed interest.
- Transmit executed acquisition documents to client. Each transmittal package shall include a fully executed and properly notarized deed(s), fully executed acquisition contract with attachments, and a brief settlement memorandum which summarizes the pertinent data relative to the transaction.

### 12.2 Title Clearance Services

- Work in conjunction with escrow officer to facilitate the clearance of title matters as set forth in the settlement memorandum and escrow instructions.
- Coordinate payment of taxes due and release of liens.
- Secure full or partial reconveyance instruments from lien holders of record.
- Coordinate lost instrument bonds as may be necessary.
- Coordinate and facilitate recordation of corrective deeds to clear vesting issues.
- Secure subordination agreements from conflicting easement holders, as needed.

### 12.3 Escrow Coordination

If by Negotiated Settlement: Assist the escrow/title company with the following:

- Open escrow and coordinate execution of closing instructions providing for title insurance coverage at the settlement amount.
- Provide escrow officer with fully executed acquisition contract and notarized deed.
- Review settlement statement for accuracy.
- Coordinate deposit of acquisition price and estimated closing costs with escrow.
- After the closing, review the title insurance policy for accuracy.
- Prepare and mail a letter to County Assessor requesting cancellation of taxes if appropriate.

## TASK 13 UTILITY COORDINATION AND RELOCATIONS

During the development of the PS&E, CONSULTANT will incorporate potential utility impacts into the analysis. These utilities will need to be accurately located during the initial phase of the Project ensuring they are considered in the final design since both the costs and relocation scheduling can be a major Project element. I

### 13.1 Utility Coordination

CONSULTANT will lead the effort for Utility Coordination and will at a minimum conduct the following items:

#### 13.1.1 Utility Verification

Data Review
CONSULTANT will review the survey information to determine what utility mapping information has already been obtained. It is assumed that all visible utilities within the project footprint have already been mapped during the previous topographic surveying effort. It is also assumed that all gravity lines with accessible manholes/grates, have been surveyed to obtain accurate invert elevations.

Utility Identification
CONSULTANT will conduct research using Underground Services Alert (USA) database of utilities and coordinate with the COUNTY and local purveyors to accurately assemble utilities within and adjacent to the Project. It is important to document utilities outside of the proposed alignments to ensure that if an alignment outside those originally proposed is developed, utilities are documented.

Utility Documentation
CONSULTANT will prepare Utility 'A' letters requesting record mapping, block maps, inspection reports from previous construction (installation/repair), and any prior rights the utility owners may have for their existing facilities. It is important to gather these rights, if necessary, to ensure any relocations costs with prior rights be captured in the Project costs. These letters will be formatted to be printed on COUNTY letterhead.

#### 13.1.2 Utility Conflict Maps and Coordination

Utility Confirmation
CONSULTANT will prepare Utility Conflict Maps and Utility 'B' letters requesting the utility companies confirm their facilities are mapped correctly; identify and confirm whether their utilities are located within franchise or under prior rights, request the utility's relocation strategies, costs (for federal reimbursement if they are not franchise), and relocation schedule.

Utility Coordination
CONSULTANT will coordinate and incorporate any utility agency's future needs, if any, in and around the bridge improvement. CONSULTANT will coordinate the relocation and protection of the existing utilities for the project based on the information obtained from the COUNTY and various affected utilities. The Design Team will also provide adequate openings for future utilities in the bridge if needed. It is assumed that the utility companies will prepare their own relocation plans. Relocation of utilities will be shown in the PS&E documents and will be based on the utility owner's relocation plans.

Utility Meeting
CONSULTANT will hold a utility coordination meeting with those utility owners having significant relocation efforts. The purpose of this meeting will be to come to consensus on the scope, level of effort, and

approximate cost of the required relocations. It is assumed only one utility coordination meeting will be required.

#### 13.1.3 Notice to Owner and Support for Utility Agreements

Following the COUNTY's review and approval of the utility conflict resolution plan and the liability determination, CONSULTANT will prepare a Notice to Owners (NTO) letter to each of the utility owners requiring relocation. The letters will include agreed upon relocation plan, relocation schedule commitments, and financial responsibilities necessary for utility relocation work. CONSULTANT will provide the letters to the COUNTY, who will send the letters on County letterhead to the affected utility companies. Issuance of the NTO letters will complete the utility coordination task.

**Deliverables:**

- Utility Verification Letters
- Utility Conflict Maps and Conflict Letters
- Utility Coordination Meeting Agenda and Sign In Sheets
- Utility Coordination Meeting Minutes (Draft and Final)
- Utility Notice to Owner Letters

## TASK 14 CONTRACT BIDDING AND AWARD ASSISTANCE

The COUNTY will advertise the project for bidding and distribute the plans to prospective bidders. The COUNTY's project manager will be the designated person to receive contractor inquiries.

### 14.1 Bid Assistance

The CONSULTANT will assist the COUNTY as requested during bidding. The work may include answering questions, providing consultation and interpretation of the construction documents, assisting the COUNTY in preparation of addenda to the PS&E during the advertisement period, and assisting the COUNTY in the evaluation of the bids received.

### 14.2 Pre-Bid Meeting

CONSULTANT will attend the pre-bid meeting at the COUNTY's offices. CONSULTANT will prepare a check list of pertinent items of work and construction items critical to the proper construction of the project to be discussed at the pre-bid meeting

## WORK PERFORMED BY THE COUNTY

In addition to those services already identified to be provided by the COUNTY, the following additional services will be performed by the COUNTY:

- Provide copies of previous reports, survey documents, utility information, and any other documents completed on the project to CONSULTANT.
- Provide project base files, including topographic data, control data, and boundary data previously completed in AutoCAD Civil 3D format.
- Examine documents submitted to COUNTY by CONSULTANT and timely render decisions pertaining thereto.

- Coordinate with Caltrans Local Assistance including submitting required LAPM forms and paperwork for Caltrans approval. CONSULTANT will assist with preparing the forms and paperwork.
- Prepare copies of the previously completed NEPA CE and technical studies to CONSULTANT.
- Complete and submit applications, assisted by the CONSULTANT, to obtain all required permits from all affected regulatory agencies.
- Prepare the project Mitigation and Monitoring Plan in accordance with the regulatory agency requirements
- Pay all fees for required agency reviews and permits.
- Obtain Right-of-Entries
- Combine CONSULTANT's technical specifications with COUNTY's Special Provisions Sections 1 through 9, COUNTY's Road Design Specs, Notice to Contractor's calling for bids, the Proposal and Agreement Sections, to create a complete set of documents for advertising.
- Attend and participate in meetings with the CONSULTANT and other agencies required.
- Provide COUNTY Standard Special Provisions in Caltrans 2015 Specification format to be edited as appropriate by CONSULTANT.
- Review and return comments on reports within ten business days of receipt from CONSULTANT.
- Review and return comments on PS&E within twenty business days of receipt from CONSULTANT.
- Arrange for and pay the reproduction costs of printing the final bidding and construction documents.
- Advertise, process bids, and award construction contract.
- Distribute any required addenda.

## ASSUMPTIONS

In addition to the assumptions previously discussed, the following additional assumptions were made in generating this proposal.

1. A replacement bridge will consist of a 575 ft. long cast-in-place, post-tensioned box girder bridge on a new westerly alignment.
2. Utility design and construction of all utility relocation is to be performed by the utility companies. CONSULTANT will coordinate with the impacted utility companies for any require relocation work resulting from the project. Relocated utilities will be shown on the improvement plans. COUNTY is responsible for obtaining final utility agreements.
3. Potholing of existing utilities is not included.
4. CONSULTANT will design all bridge components to accommodate two relocated sewer lines within the cells of the replacement bridge. Additional utilities within the bridge may require additional budget.
5. It is assumed that hazardous materials will not be encountered during geotechnical explorations. If hazardous materials are encountered during our field investigation, we will immediately terminate our work and notify the COUNTY. Soil cuttings are assumed to be non-hazardous for disposal purposes.
6. Geotechnical drilling will be completed in 6 consecutive days and drilling will be allowed from sunrise to sunset.It is assumed that existing mapping is related to known/defined horizontal and vertical datums and that there is an existing survey control network tied to the known datums. It is assumed that the control monuments are in good condition and easily accessible.
7. It is assumed that the previously completed survey data and base mapping provided by the COUNTY is accurate and reliable for engineering purposes. It is also assumed that the previously completed utility mapping is accurate and complete.

8. Existing embankment slopes are assumed to be stable and there are no pre-existing landslides and/or unstable geologic features. Our scope of work does not include stability evaluations to address adverse geologic conditions.
9. No degradation or impact of gravel mining operations is included. Additional budget will be necessary if the degradation caused by adjacent gravel mining operators needs to be included.
10. It is assumed that the Area of Potential Effect and Area of Direct Impact will not change compared to the previous studies completed in support of the NEPA process. It is assumed that the remaining environmental studies will be determined to be adequate without revision. If the review process leads to a determination that additional issues are required for examination or that particular issues require a greater depth of analysis than proposed, additional budget will be required.
11. To the extent feasible, existing environmental documentation will be applied to the environmental analysis for the IS-MND for the proposed project. This scope of work assumes that the completed technical studies will be adaptable for use in the IS-MND with only minor revision.
12. It is assumed that the bridge will not cause a significant encroachment into the floodplain or a change in the water surface elevation; if a significant encroachment into the floodplain or change in water surface elevation is found, additional budget will be necessary.
13. It is assumed that the additional fill within the floodway will be acceptable to the Santa Barbara County Flood Control District.
14. No Conditional Letter of Map Revision (CLOMR) will be required; if a CLOMR is required, additional budget will be necessary.
15. A Streambed Alteration Agreement (SAA) from CDFW will not be required for the geotechnical field exploration. If a SAA is required, additional budget will be necessary to provide the SAA application.
16. No electrical or street lighting will be provided due to the rural location of the bridge.
17. The schedule is driven by timely receipt of all project and design information necessary to prepare complete application packages. The schedule cannot accurately depict agency review times or the timing of permit issuance as these items are outside the control of a consultant or the County.
18. COUNTY will arrange unlimited access to the project area for purposes of field investigations and any on-site meetings with agency staff.
19. CONSULTANT will be retained by COUNTY to provide construction administration support, shop drawing review, etc.via a scope and budget change to be determined at a later date.

# COUNTY OF SANTA BARBARA DEPARTMENT OF PUBLIC WORKS

Floradale Avenue Bridge Project

County Project No. 862032

Federal Project No.: BRLSZD-5951(060)

Bridge No.: 51C-0006

# SCOPE OF WORK - OPTIONAL SERVICES

June 23, 2017

## TASK 1 - MANAGEMENT AND QUALITY CONTROL

### Optional Task 1.3 - Assistance with Caltrans Programming and Local Assistance

CONSULTANT will assist the COUNTY in the preparation of the paperwork necessary to comply with the requirements of the HBP program and Local Assistance Procedures Manual (LAPM) for the COUNTY to submit to Caltrans District 5 Local Assistance. The documents will include (but not be limited to):

- HBP Scope/Cost/Schedule Change Request (Exhibit 6D) as required
- Request for Authorization to Proceed with Construction Certification
- Finance Letters

**Deliverables:**

- LAPM Forms

## TASK 3 - SUPPLEMENTAL SURVEY FOR BASE MAPPING

### Optional Task 3.3 – Supplemental Survey

#### 3.3.1 Recover Control Survey

CONSULTANT will recover survey control monuments established by Santa Barbara County in 2007 and verify and extend survey control as needed for supplemental surveying.

#### 3.3.2 Supplemental Topographic Mapping

CONSULTANT will perform field survey to supplement existing topographic mapping as needed and update the topographic mapping. Allocate 1 day of field crew time and 1 day of surveying associate time.

#### 3.3.3 Supplemental Utility Mapping

CONSULTANT will perform field survey of visible surface utility features including manholes, valve covers, exposed lines, poles, paint marks, signs, etc. Compute alignments of subsurface utilities from record maps and atlases. Subsurface alignments will be oriented and adjusted to the topographic mapping.

**Assumptions**

- If topographic survey is required within the river channel, it is assumed that vegetation clearing will be allowed for survey purposes.

## TASK 14 - CONTRACT BIDDING AND AWARD ASSISTANCE

### Optional Task 14.3 – Attend Bid Opening

CONSULTANT will attend the bid opening at the request of the COUNTY.

# COST PROPOSAL - BASE SERVICES
# SANTA BARBARA COUNTY - DEPARTMENT OF PUBLIC WORKS
# FLORADALE AVENUE BRIDGE REPLACEMENT

County Project No. 862032
Federal Project No. BRLSZD-5951(060)
June 23, 2017

| TASK | | Cornerstone Structural Engineering Group | | | | | | | | | | Sub-Consultants | | | | | | Total Fee |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Design Team | | | | QC/QA Team | | | | | | | | | | | |
| | | T. Goolkasian Principal-in-Charge | S. Cullers Project Manager | B. Zermeno Project Engineer | C. Ingle Bridge Engineer | T. Eaton Bridge Engineer | T. Swayze QC/QA Manager | M. Weaver QC/QA Engineer | T. West QC/QA Engineer | Total Hours | Total Dollars | BKF Civil | Earth Mechanics Geotechnical DBE | Avila Hydraulics DBE | Rincon Environmental | Praxis Survey | Hamner Jewel Right-of-Way | |
| | Rate | $217.83 | $145.22 | $117.84 | $102.90 | $86.30 | $214.35 | $127.80 | $102.90 | | | | | | | | | |
| **TASK 1 - MANAGEMENT AND QUALITY CONTROL** | | **46.50** | **102.50** | **69.50** | **-** | **12.00** | **24.00** | **-** | **-** | **254.50** | **39,384** | **32,369** | **-** | **1,297** | **6,664** | **-** | **-** | **79,714** |
| 1.1 | Project Meetings | | | | | | | | | - | - | | | | | | | - |
| 1.1.1 | Kick-off Meeting | 8.00 | 8.00 | | | 12.00 | | | | 28.00 | 3,940 | | | | | | | 3,940 |
| 1.1.2 | Project Meetings | 20.00 | 72.00 | 48.00 | | | | | | 140.00 | 20,469 | 15,097 | | | 2,756 | | | 38,322 |
| 1.2 | Project Status Reports & Delivery Schedule | | | | | | | | | - | - | | | | | | | - |
| 1.2.1 | Monthly Progress Reports | 4.50 | 18.00 | | | | | | | 22.50 | 3,594 | | | | | | | 3,594 |
| 1.2.2 | Project Delivery Schedule | 2.00 | 4.50 | 21.50 | | | | | | 28.00 | 3,623 | | | | | | | 3,623 |
| 1.3 | Quality Control/Quality Assurance (QC/QA) | 12.00 | | | | | 24.00 | | | 36.00 | 7,758 | 17,272 | | 1,297 | 3,908 | | | 30,235 |
| | | | | | | | | | | - | - | | | | | | | - |
| **TASK 2 - ENVIRONMENTAL REVIEW UNDER CEQA AND UPDATE OF NES** | | **2.00** | **16.00** | **12.00** | **-** | **-** | **-** | **-** | **-** | **30.00** | **4,173** | **-** | **-** | **-** | **26,496** | **-** | **-** | **30,669** |
| 2.1 | Project Initiation - Review Existing Environmental Documentation | | 2.00 | | | | | | | 2.00 | 290 | | | | 1,488 | | | 1,778 |
| 2.2 | Update Technical Studies | | 4.00 | 12.00 | | | | | | 16.00 | 1,995 | | | | 3,976 | | | 5,971 |
| 2.3 | Initial Study-Mitigated Negative Declaration (IS-MND) | | | | | | | | | - | - | | | | | | | - |
| 2.3.1 | Administrative Draft IS-MND | 2.00 | 8.00 | | | | | | | 10.00 | 1,597 | | | | 13,762 | | | 15,359 |
| 2.3.2 | Draft IS-MND | | | | | | | | | - | - | | | | 3,786 | | | 3,786 |
| 2.3.3 | Administrative Final IS-MND and Responses to Comments | | 2.00 | | | | | | | 2.00 | 290 | | | | 2,638 | | | 2,928 |
| 2.3.4 | Publication of Final IS-MND | | | | | | | | | - | - | | | | 846 | | | 846 |
| | | | | | | | | | | - | - | | | | | | | - |
| **TASK 3 - SUPPLEMENTAL SURVEY FOR BASE MAPPING & HYDRAULICS** | | **-** | **4.00** | **12.00** | **-** | **-** | **-** | **-** | **-** | **16.00** | **1,995** | **-** | **-** | **-** | **-** | **21,079** | **2,200** | **25,274** |
| 3.1 | Title Reports | | | | | | | | | - | - | | | | | | 2,200 | 2,200 |
| 3.2 | Boundary Surveys | | 4.00 | 12.00 | | | | | | 16.00 | 1,995 | | | | | 21,079 | | 23,074 |
| | | | | | | | | | | - | - | | | | | | | - |
| **TASK 4 - FINAL MATERIALS AND FOUNDATION REPORT** | | **2.00** | **16.00** | **40.00** | **-** | **-** | **-** | **-** | **-** | **58.00** | **7,473** | **-** | **97,394** | **-** | **-** | **-** | **-** | **104,866** |
| 4.1 | Supplemental Geotechnical Field Exploration and Laboratory Testing | | | | | | | | | - | - | | 56,748 | | | | | 56,748 |
| 4.2 | Geotechnical Engineering Analyses | | | | | | | | | - | - | | 20,283 | | | | | 20,283 |
| 4.3 | Foundation Report | 2.00 | 16.00 | 40.00 | | | | | | 58.00 | 7,473 | | 20,363 | | | | | 27,835 |
| | | | | | | | | | | - | - | | | | | | | - |
| **TASK 5 - FINAL HYDROLOGY AND HYDRAULICS STUDY** | | **1.00** | **12.00** | **24.00** | **-** | **-** | **-** | **-** | **-** | **37.00** | **4,789** | **-** | **-** | **14,434** | **-** | **-** | **-** | **19,223** |
| 5.1 | Update Bridge Hydraulics | | 8.00 | 16.00 | | | | | | 24.00 | 3,047 | | | 6,086 | | | | 9,133 |
| 5.2 | Complete Local Scour and Bank Protection Analysis | | | | | | | | | - | - | | | 3,193 | | | | 3,193 |
| 5.3 | Design Hydraulic Report | 1.00 | 4.00 | 8.00 | | | | | | 13.00 | 1,741 | | | 5,155 | | | | 6,896 |
| | | | | | | | | | | - | - | | | | | | | - |
| **TASK 6 - PERMITTING SUPPORT** | | **20.00** | **52.00** | **12.00** | **-** | **-** | **-** | **-** | **-** | **84.00** | **13,322** | **-** | **-** | **-** | **-** | **-** | **-** | **13,322** |
| 6.1 | Permit Coordination Meeting | 4.00 | 12.00 | 12.00 | | | | | | 28.00 | 4,028 | | | | | | | 4,028 |
| 6.2 | Support for Permitting Process | 16.00 | 40.00 | | | | | | | 56.00 | 9,294 | | | | | | | 9,294 |
| | | | | | | | | | | - | - | | | | | | | - |
| **TASK 7 - 65% PS&E (ROADWAY & STRUCTURE)** | | **30.00** | **216.00** | **368.00** | **480.00** | **400.00** | **-** | **-** | **-** | **1,494.00** | **165,180** | **65,535** | **-** | **-** | **-** | **1,704** | **-** | **232,418** |
| 7.1 | Data Collection and Site Review | 2.00 | 8.00 | 24.00 | | | | | | 34 | 4,426 | | | | | 1,704 | | 6,129 |
| 7.2 | Update Project Type Selection (35% PS&E) | | 20.00 | 80.00 | 80.00 | 80.00 | | | | 260 | 27,468 | 16,199 | | | | | | 43,667 |
| 7.3 | Unchecked Details (65% PS&E) | | | | | | | | | - | - | | | | | | | - |
| 7.3.1 | Bridge Design | 24.00 | 120.00 | 240.00 | 320.00 | 320.00 | | | | 1,024 | 111,480 | | | | | | | 111,480 |
| 7.3.2 | Approach Roadway Design | | | | | | | | | - | - | 35,629 | | | | | | 35,629 |
| 7.3.3 | Engineers Estimate of Probable Construction Cost | | 8.00 | 24.00 | 80.00 | | | | | 112 | 12,222 | 7,268 | | | | | | 19,490 |
| 7.3.4 | Contract Specifications/Special Provisions | 4.00 | 60.00 | | | | | | | 64 | 9,585 | 6,439 | | | | | | 16,024 |
| | | | | | | | | | | - | - | | | | | | | - |
| **TASK 8 - 95% PS&E (ROADWAY & STRUCTURE)** | | **8.00** | **60.00** | **80.00** | **80.00** | **80.00** | **16.00** | **160.00** | **265.00** | **749.00** | **86,165** | **52,294** | **-** | **-** | **-** | **-** | **-** | **138,459** |
| 8.1 | Bridge Independent Check | | 20.00 | 40.00 | | | 16.00 | 160.00 | 265.00 | 501 | 58,764 | | | | | | | 58,764 |
| 8.2 | 95% (Draft) PS&E | 8.00 | 40.00 | 40.00 | 80.00 | 80.00 | | | | 248 | 27,401 | 52,294 | | | | | | 79,695 |
| | | | | | | | | | | - | - | | | | | | | - |
| **TASK 9 - FINAL BID PACKAGE AND RE FILE** | | **3.00** | **28.00** | **64.00** | **-** | **80.00** | **-** | **-** | **-** | **175.00** | **19,165** | **25,252** | **-** | **-** | **-** | **-** | **-** | **44,417** |
| 9.1 | 100% PS&E | 2.00 | 12.00 | 20.00 | | 40.00 | | | | 74 | 7,987 | 14,727 | | | | | | 22,714 |
| 9.2 | Final PS&E | 1.00 | 12.00 | 20.00 | | 40.00 | | | | 73 | 7,769 | | | | | | | 7,769 |
| 9.3 | RE Pending File | | 4.00 | 24.00 | | | | | | 28 | 3,409 | 10,525 | | | | | | 13,934 |
| | | | | | | | | | | - | - | | | | | | | - |
| **TASK 10 - RIGHT-OF-WAY ENGINEERING** | | **3.00** | **18.00** | **40.00** | **-** | **-** | **-** | **-** | **-** | **61.00** | **7,981** | **-** | **-** | **-** | **-** | **9,831** | **13,030** | **30,843** |
| 10.1 | Right of Way Engineering | 2.00 | 12.00 | 40.00 | | | | | | 54 | 6,892 | | | | | 1,865 | | 8,757 |
| 10.2 | Right-of-Way Preliminary Engineering Support | 1.00 | 4.00 | | | | | | | 5 | 799 | | | | | | 13,030 | 13,829 |
| 10.3 | Record of Survey | | 2.00 | | | | | | | 2 | 290 | | | | | 7,966 | | 8,256 |
| | | | | | | | | | | - | - | | | | | | | - |
| **TASK 11 - RIGHT-OF-WAY APPRAISALS** | | **1.00** | **8.00** | **-** | **-** | **-** | **-** | **-** | **-** | **9.00** | **1,380** | **-** | **-** | **-** | **-** | **-** | **13,100** | **14,480** |
| 11.1 | Appraisal Services | 1.00 | 8.00 | | | | | | | 9 | 1,380 | | | | | | 13,100 | 14,480 |
| | | | | | | | | | | - | - | | | | | | | - |
| **TASK 12 - RIGHT-OF-WAY ACQUISITION** | | **5.00** | **20.00** | **-** | **-** | **-** | **-** | **-** | **-** | **25.00** | **3,994** | **-** | **-** | **-** | **-** | **-** | **24,470** | **28,464** |
| 12.1 | Negotiate Right of Way Settlement/Prepare Acquisition Documents | 4.00 | 16.00 | | | | | | | 20 | 3,195 | | | | | | 19,270 | 22,465 |
| 12.2 | Title Clearance Services | | | | | | | | | - | - | | | | | | 5,200 | 5,200 |
| 12.3 | Escrow Coordination | 1.00 | 4.00 | | | | | | | 5 | 799 | | | | | | | 799 |
| | | | | | | | | | | - | - | | | | | | | - |
| **TASK 13 - UTILITY COORDINATION AND RELOCATIONS** | | **4.00** | **36.00** | **48.00** | **-** | **-** | **-** | **-** | **-** | **88.00** | **11,756** | **33,080** | **-** | **-** | **-** | **-** | **-** | **44,836** |
| 13.1 | Utility Coordination | | | | | | | | | - | - | | | | | | | - |
| 13.1.1 | Utility Verification | | 4.00 | 8.00 | | | | | | 12 | 1,524 | 3,086 | | | | | | 4,610 |
| 13.1.2 | Utility Conflict Maps and Coordination | 2.00 | 24.00 | 40.00 | | | | | | 66 | 8,635 | 26,396 | | | | | | 35,031 |
| 13.1.3 | Notice to Owner and Support for Utility Agreements | 2.00 | 8.00 | | | | | | | 10 | 1,597 | 3,598 | | | | | | 5,195 |
| | | | | | | | | | | - | - | | | | | | | - |
| **TASK 14 - CONTRACT BIDDING AND AWARD ASSISTANCE** | | **12.00** | **28.00** | **24.00** | **-** | **-** | **-** | **-** | **-** | **64.00** | **9,508** | **3,742** | **-** | **-** | **-** | **-** | **-** | **13,250** |
| 14.1 | Bid Assistance | 4.00 | 16.00 | 24.00 | | | | | | 44 | 6,023 | 3,742 | | | | | | 9,765 |
| 14.2 | Pre-Bid Meeting | 8.00 | 12.00 | | | | | | | 20 | 3,485 | | | | | | | 3,485 |
| | | | | | | | | | | - | - | | | | | | | - |
| **REIMBURSABLES** | | | | | | | | | | **-** | **4,600** | **2,950** | **125** | **-** | **2,409** | **-** | **-** | **10,084** |
| | Travel/Mileage | | | | | | | | | | 2,600 | 1,350 | | | 514 | | | 4,464 |
| | Supplies & Miscellaneous | | | | | | | | | | | 600 | 125 | | 995 | | | 1,720 |
| | Printing | | | | | | | | | | 2,000 | 1,000 | | | 900 | | | 3,900 |
| **ALLOWANCE FOR SALARY INCREASE** | | | | | | | | | | | **7,525** | **4,272** | **982** | **-** | **-** | **-** | **-** | **12,779** |
| | Future Salary Increases | | | | | | | | | | 7,525 | 4,272 | 982 | - | - | - | - | 12,779 |
| | | | | | | | | | **TOTALS** | **3144.5** | **$ 388,389** | **$ 219,494** | **$ 98,501** | **$ 15,731** | **$ 35,569** | **$ 32,614** | **$ 52,800** | **$ 843,098** |

**TOTAL FEE $ 843,098**

**TOTAL DBE $ 114,232**

* SEE SCOPE OF WORK FOR ASSUMPTIONS

CORNERSTONE structural engineering group

## COST PROPOSAL - OPTIONAL SERVICES
## SANTA BARBARA COUNTY - DEPARTMENT OF PUBLIC WORKS
## FLORADALE AVENUE BRIDGE REPLACEMENT

County Project No. 862032
Federal Project No. BRLSZD-5951(060)
June 23, 2017

| | | Cornerstone Structural Engineering Group | | | | | | | | | | Sub-Consultants | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Design Team | | | | | QC/QA Team | | | | | | | | | | | |
| TASK | | T. Goolkasian Principal-in-Charge | S. Cullers Project Manager | B. Zermeno Project Engineer | C. Ingle Bridge Engineer | T. Eaton Bridge Engineer | T. Swayze QC/QA Manager | M. Weaver QC/QA Engineer | T. West QC/QA Engineer | Total Hours | Total Dollars | BKF Civil | Earth Mechanics Geotechnical | Avila Hydraulics | Rincon Environmental | Praxis Survey | Hamner Jewel Right-of-Way | Total Fee |
| | Rate | $217.83 | $145.22 | $117.84 | $102.90 | $86.30 | $214.35 | $127.80 | $102.90 | | | | DBE | DBE | | | | |
| **TASK 1 - MANAGEMENT AND QUALITY CONTROL** | | **4.00** | **24.00** | **40.00** | **-** | **-** | **-** | **-** | **-** | **68.00** | **9,070** | **-** | **-** | **-** | **-** | **-** | **-** | **9,070** |
| 1.3 | Assistance with Caltrans Programming and Local Assistance | 4.00 | 24.00 | 40.00 | | | | | | 68.00 | 9,070 | | | | | | | 9,070 |
| | | | | | | | | | | | | | | | | | | |
| **TASK 3 - SUPPLEMENTAL SURVEY FOR BASE MAPPING & HYDRAULICS** | | **-** | **4.00** | **8.00** | **-** | **-** | **-** | **-** | **-** | **12.00** | **1,524** | **-** | **-** | **-** | **-** | **18,334** | **-** | **19,857** |
| 3.3 | Supplemental Survey | | | | | | | | | - | - | | | | | | | - |
| 3.3.1 | Recover Control Survey | | | | | | | | | - | - | | | | | 3,389 | | 3,389 |
| 3.3.2 | Supplmental Topographic Mapping | | 2.00 | 4.00 | | | | | | 6.00 | 762 | | | | | 4,417 | | 5,178 |
| 3.3.3 | Supplemental Utility Mapping | | 2.00 | 4.00 | | | | | | 6.00 | 762 | | | | | 10,528 | | 11,290 |
| | | | | | | | | | | - | - | | | | | | | - |
| **TASK 14 - CONTRACT BIDDING AND AWARD ASSISTANCE** | | **0.50** | **8.00** | **8.00** | **-** | **-** | **-** | **-** | **-** | **16.50** | **2,213** | **-** | **-** | **-** | **-** | **-** | **-** | **2,213** |
| 14.3 | Attend Bid Opening | 0.50 | 8.00 | 8.00 | | | | | | 17 | 2,213 | | | | | | | 2,213 |
| | | | | | | | | | | - | - | | | | | | | - |
| **REIMBURSABLES** | | | | | | | | | | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| | Travel/Mileage | | | | | | | | | | | | | | | | | - |
| | Supplies & Miscellaneous | | | | | | | | | | | | | | | | | - |
| | Printing | | | | | | | | | | | | | | | | | - |
| **ALLOWANCE FOR SALARY INCREASE** | | | | | | | | | | | **256** | **-** | **-** | **-** | **-** | **-** | **-** | **256** |
| | Future Salary Increases | | | | | | | | | | 256 | - | - | - | - | - | - | 256 |
| | | | | | | | | | **TOTALS** | **96.50** | **13,063** | **-** | **-** | **-** | **-** | **18,334** | **-** | **31,397** |

**TOTAL FEE $ 31,397**

**TOTAL DBE $ -**

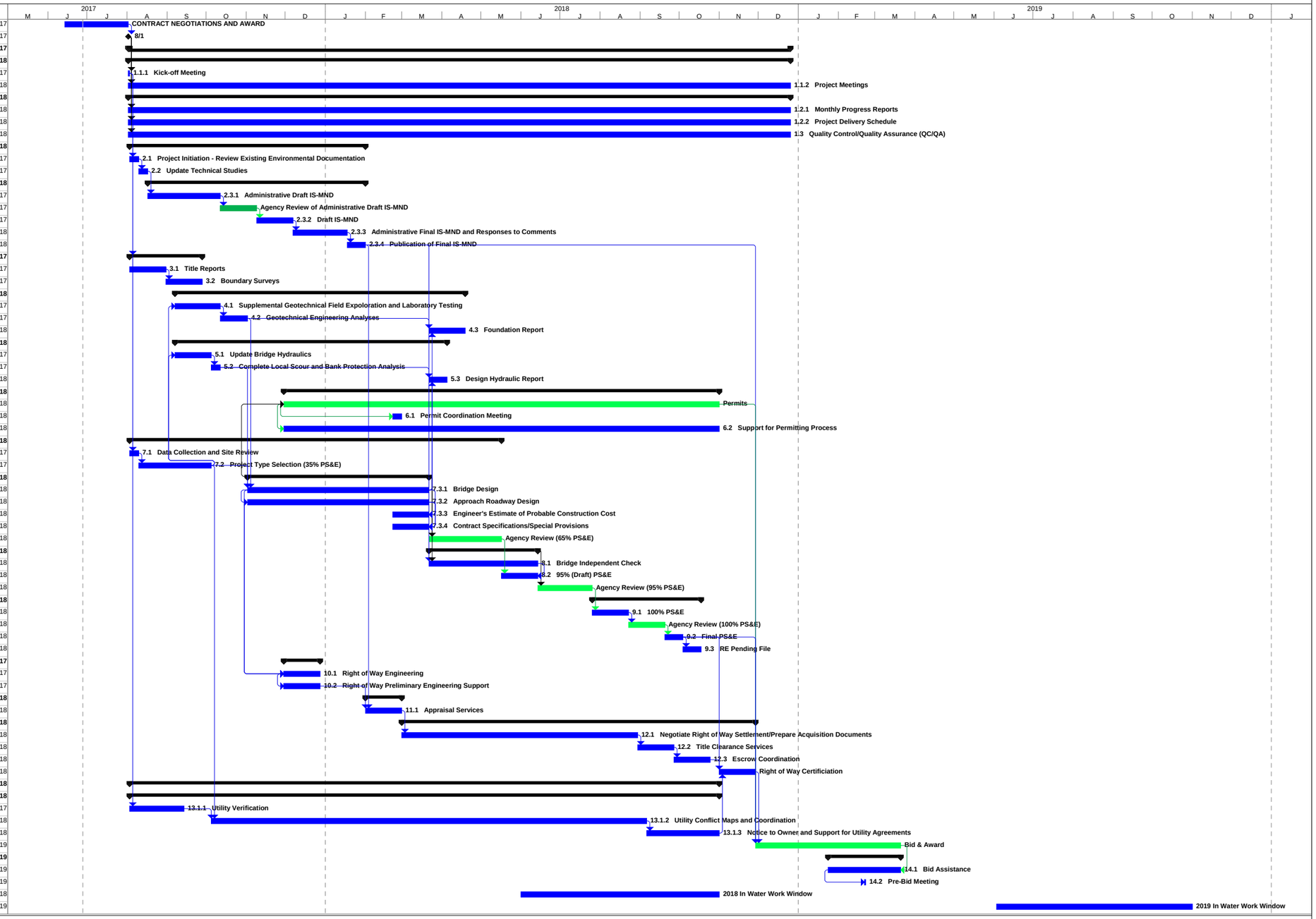
* SEE SCOPE OF WORK FOR ASSUMPTIONS

CORNERSTONE structural engineering group

# REPLACEMENT OF THE FLORADALE AVENUE BRIDGE
# AT SANTA YNEZ RIVER
# BASELINE PROJECT DELIVERY SCHEDULE

June 23, 2017

| ID | Task Name | Duration | Start | Finish |
|---|---|---|---|---|
| 1 | **CONTRACT NEGOTIATIONS AND AWARD** | 7 wks | Wed 6/14/17 | Tue 8/1/17 |
| 2 | **CONTRACT NTP** | 0 days | Tue 8/1/17 | Tue 8/1/17 |
| 3 | **TASK 1 - MANAGEMENT AND QUALITY CONTROL** | **1 day** | **Wed 8/2/17** | **Wed 8/2/17** |
| 4 | **1.1 Project Meetings** | **365 days** | **Wed 8/2/17** | **Tue 12/25/18** |
| 5 | 1.1.1 Kick-off Meeting | 1 day | Wed 8/2/17 | Wed 8/2/17 |
| 6 | 1.1.2 Project Meetings | 365 days | Wed 8/2/17 | Tue 12/25/18 |
| 7 | **1.2 Project Status Reports & Delivery Schedule** | **365 days** | **Wed 8/2/17** | **Tue 12/25/18** |
| 8 | 1.2.1 Monthly Progress Reports | 365 days | Wed 8/2/17 | Tue 12/25/18 |
| 9 | 1.2.2 Project Delivery Schedule | 365 days | Wed 8/2/17 | Tue 12/25/18 |
| 10 | 1.3 Quality Control/Quality Assurance (QC/QA) | 365 days | Wed 8/2/17 | Tue 12/25/18 |
| 11 | **TASK 2 - ENVIRONMENTAL REVIEW UNDER CEQA AND UPDATE OF NES** | **130 days** | **Thu 8/3/17** | **Wed 1/31/18** |
| 12 | 2.1 Project Initiation - Review Existing Environmental Documentation | 1 wk | Thu 8/3/17 | Wed 8/9/17 |
| 13 | 2.2 Update Technical Studies | 1 wk | Thu 8/10/17 | Wed 8/16/17 |
| 14 | **2.3 Initial Study-Mitigated Negative Declaration (IS-MND)** | **120 days** | **Thu 8/17/17** | **Wed 1/31/18** |
| 15 | 2.3.1 Administrative Draft IS-MND | 2 mons | Thu 8/17/17 | Wed 10/11/17 |
| 16 | Agency Review of Administrative Draft IS-MND | 1 mon | Thu 10/12/17 | Wed 11/8/17 |
| 17 | 2.3.2 Draft IS-MND | 1 mon | Thu 11/9/17 | Wed 12/6/17 |
| 18 | 2.3.3 Administrative Final IS-MND and Responses to Comments | 1.5 mons | Thu 12/7/17 | Wed 1/17/18 |
| 19 | 2.3.4 Publication of Final IS-MND | 2 wks | Thu 1/18/18 | Wed 1/31/18 |
| 20 | **TASK 3 - SUPPLEMENTAL SURVEY FOR BASE MAPPING & HYDRAULICS** | **40 days** | **Thu 8/3/17** | **Wed 9/27/17** |
| 21 | 3.1 Title Reports | 4 wks | Thu 8/3/17 | Wed 8/30/17 |
| 22 | 3.2 Boundary Surveys | 4 wks | Thu 8/31/17 | Wed 9/27/17 |
| 23 | **TASK 4 - FINAL MATERIALS AND FOUNDATION REPORT** | **160 days** | **Thu 9/7/17** | **Wed 4/18/18** |
| 24 | 4.1 Supplemental Geotechnical Field Expoloration and Laboratory Testing | 5 wks | Thu 9/7/17 | Wed 10/11/17 |
| 25 | 4.2 Geotechnical Engineering Analyses | 3 wks | Thu 10/12/17 | Wed 11/1/17 |
| 26 | 4.3 Foundation Report | 4 wks | Thu 3/22/18 | Wed 4/18/18 |
| 27 | **TASK 5 - FINAL HYDROLOGY AND HYDRAULICS STUDY** | **150 days** | **Thu 9/7/17** | **Wed 4/4/18** |
| 28 | 5.1 Update Bridge Hydraulics | 4 wks | Thu 9/7/17 | Wed 10/4/17 |
| 29 | 5.2 Complete Local Scour and Bank Protection Analysis | 1 wk | Thu 10/5/17 | Wed 10/11/17 |
| 30 | 5.3 Design Hydraulic Report | 2 wks | Thu 3/22/18 | Wed 4/4/18 |
| 31 | **TASK 6 - PERMITTING SUPPORT (PERMITTING BY COUNTY)** | **240 days** | **Thu 11/30/17** | **Wed 10/31/18** |
| 32 | Permits | 12 mons | Thu 11/30/17 | Wed 10/31/18 |
| 33 | 6.1 Permit Coordination Meeting | 1 wk | Thu 2/22/18 | Wed 2/28/18 |
| 34 | 6.2 Support for Permitting Process | 12 mons | Thu 11/30/17 | Wed 10/31/18 |
| 35 | **TASK 7 - 65% PS&E (ROADWAY & STRUCTURE)** | **205 days** | **Thu 8/3/17** | **Wed 5/16/18** |
| 36 | 7.1 Data Collection and Site Review | 1 wk | Thu 8/3/17 | Wed 8/9/17 |
| 37 | 7.2 Project Type Selection (35% PS&E) | 8 wks | Thu 8/10/17 | Wed 10/4/17 |
| 38 | **7.3 Unchecked Details (65% PS&E)** | **100 days** | **Thu 11/2/17** | **Wed 3/21/18** |
| 39 | 7.3.1 Bridge Design | 5 mons | Thu 11/2/17 | Wed 3/21/18 |
| 40 | 7.3.2 Approach Roadway Design | 5 mons | Thu 11/2/17 | Wed 3/21/18 |
| 41 | 7.3.3 Engineer's Estimate of Probable Construction Cost | 4 wks | Thu 2/22/18 | Wed 3/21/18 |
| 42 | 7.3.4 Contract Specifications/Special Provisions | 4 wks | Thu 2/22/18 | Wed 3/21/18 |
| 43 | Agency Review (65% PS&E) | 2 mons | Thu 3/22/18 | Wed 5/16/18 |
| 44 | **TASK 8 - 95% PS&E (ROADWAY & STRUCTURE)** | **60 days** | **Thu 3/22/18** | **Wed 6/13/18** |
| 45 | 8.1 Bridge Independent Check | 3 mons | Thu 3/22/18 | Wed 6/13/18 |
| 46 | 8.2 95% (Draft) PS&E | 1 mon | Thu 5/17/18 | Wed 6/13/18 |
| 47 | Agency Review (95% PS&E) | 1.5 mons | Thu 6/14/18 | Wed 7/25/18 |
| 48 | **TASK 9 - FINAL BID PACKAGE AND RE FILE** | **60 days** | **Thu 7/26/18** | **Wed 10/17/18** |
| 49 | 9.1 100% PS&E | 1 mon | Thu 7/26/18 | Wed 8/22/18 |
| 50 | Agency Review (100% PS&E) | 1 mon | Thu 8/23/18 | Wed 9/19/18 |
| 51 | 9.2 Final PS&E | 2 wks | Thu 9/20/18 | Wed 10/3/18 |
| 52 | 9.3 RE Pending File | 2 wks | Thu 10/4/18 | Wed 10/17/18 |
| 53 | **TASK 10 - RIGHT-OF-WAY ENGINEERING** | **20 days** | **Thu 11/30/17** | **Wed 12/27/17** |
| 54 | 10.1 Right of Way Engineering | 1 mon | Thu 11/30/17 | Wed 12/27/17 |
| 55 | 10.2 Right of Way Preliminary Engineering Support | 1 mon | Thu 11/30/17 | Wed 12/27/17 |
| 56 | **TASK 11 - RIGHT-OF-WAY APPRAISALS** | **20 days** | **Thu 2/1/18** | **Wed 2/28/18** |
| 57 | 11.1 Appraisal Services | 1 mon | Thu 2/1/18 | Wed 2/28/18 |
| 58 | **TASK 12 - RIGHT-OF-WAY ACQUISITION** | **195 days** | **Thu 3/1/18** | **Wed 11/28/18** |
| 59 | 12.1 Negotiate Right of Way Settlement/Prepare Acquisition Documents | 6.5 mons | Thu 3/1/18 | Wed 8/29/18 |
| 60 | 12.2 Title Clearance Services | 1 mon | Thu 8/30/18 | Wed 9/26/18 |
| 61 | 12.3 Escrow Coordination | 1 mon | Thu 9/27/18 | Wed 10/24/18 |
| 62 | Right of Way Certificiation | 1 mon | Thu 11/1/18 | Wed 11/28/18 |
| 63 | **TASK 13 - UTILITY COORDINATION AND RELOCATIONS** | **325 days** | **Thu 8/3/17** | **Wed 10/31/18** |
| 64 | **13.1 Utility Coordination** | **325 days** | **Thu 8/3/17** | **Wed 10/31/18** |
| 65 | 13.1.1 Utility Verification | 6 wks | Thu 8/3/17 | Wed 9/13/17 |
| 66 | 13.1.2 Utility Conflict Maps and Coordination | 12 mons | Thu 10/5/17 | Wed 9/5/18 |
| 67 | 13.1.3 Notice to Owner and Support for Utility Agreements | 2 mons | Thu 9/6/18 | Wed 10/31/18 |
| 68 | Bid & Award | 4 mons | Thu 11/29/18 | Wed 3/20/19 |
| 69 | **TASK 14 - CONTRACT BIDDING AND AWARD ASSISTANCE** | **40 days** | **Thu 1/24/19** | **Wed 3/20/19** |
| 70 | 14.1 Bid Assistance | 2 mons | Thu 1/24/19 | Wed 3/20/19 |
| 71 | 14.2 Pre-Bid Meeting | 1 day | Thu 2/21/19 | Thu 2/21/19 |
| 72 | 2018 In Water Work Window | 5.45 mons | Fri 6/1/18 | Wed 10/31/18 |
| 73 | 2019 In Water Work Window | 5.45 mons | Mon 6/3/19 | Thu 10/31/19 |




Proposal Schedule

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| âTask | Summary | Rolled Up Progress | Project Summary | Inactive Milestone | Duration-only | Start-only | External Milestone |
| Progress | Rolled Up Task | Split | Group By Summary | Inactive Summary | Manual Summary Rollup | Finish-only | |
| Milestone | Rolled Up Milestone | External Tasks | Deadline | Manual Task | Manual Summary | External Tasks | |

# EXHIBIT 10-O2 CONSULTANT CONTRACT DBE COMMITMENT

1. Local Agency: County of Santa Barbara
2. Contract DBE Goal: 9
3. Project Description: Proposal to Provide Design Engineering Services for the Floradale Avenue Bridge Project
4. Project Location: Floradale Avenue Bridge over the Santa Ynez River, just North of the City of Lompoc, Ca
5. Consultant's Name: Cornerstone Structural Eng.
6. Prime Certified DBE: ☐
7. Total Contract Award Amount:
8. Total Dollar Amount for **ALL** Subconsultants: $454,709
9. Total Number of **ALL** Subconsultants: 6

| 10. Description of Work, Service, or Materials Supplied | 11. DBE Certification Number | 12. DBE Contact Information | 13. DBE Dollar Amount |
|---|---|---|---|
| Hydrology/Hydraulics | 032811 | Avila and Associates<br>712 Bancroft Rd, #333<br>Walnut Creek, CA 94598<br>(925) 673-0549 | $15,731 |
| | | | |
| Geotechnical | 6956 | Earth Mechanics, Inc.<br>17800 Newhope Street, Suite B<br>Fountain Valley, CA 92708 | $98,501 |
| | | | |
| | | | |
| | | | |
| | | | |

**Local Agency to Complete this Section**

20. Local Agency Contract Number:

21. Federal-Aid Project Number:

22. Contract Execution Date:

Local Agency certifies that all DBE certifications are valid and information on this form is complete and accurate.

23. Local Agency Representative's Signature

24. Date

25. Local Agency Representative's Name

26. Phone

27. Local Agency Representative's Title

**14. TOTAL CLAIMED DBE PARTICIPATION**

$ 114,232

13.6 %

IMPORTANT: Identify all DBE firms being claimed for credit, regardless of tier. Written confirmation of each listed DBE is required.

15. Preparer's Signature

16. Date: 6/23/2017

17. Preparer's Name: Todd M. Goolkasian

18. Phone: (559) 320-3200

19. Preparer's Title: President

DISTRIBUTION: 1. Original – Local Agency
2. Copy – Caltrans District Local Assistance Engineer (DLAE). Failure to submit to DLAE within 30 days of contract execution may result in de-obligation of federal funds on contract.

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**Exhibit 10-H**



**Actual Cost-Plus-Fixed Fee or lump sum (Firm Fixed Price) contracts**

Floradale Avenue Bridge Replacement

Base Services

County Project No. 862032 Federal Project No. BRLSZD-5951(060)

Consultant Cornerstone Structral Engineering Group Contract No. _____ Date 6/23/2017

**DIRECT LABOR**

| Classification/Title | Name | Hours | Range | Initial Hourly Rate | Total |
|---|---|---|---|---|---|
| Principal | T. Goolkasian | 137.50 | 70.00 - 80.00 | $ 75.72 | $ 10,411.50 |
| Engineering Manager | S. Cullers | 616.50 | 40.00 - 55.00 | $ 50.48 | $ 31,120.92 |
| Project Engineer | B. Zermeno | 793.50 | 35.00 - 45.00 | $ 40.96 | $ 32,501.76 |
| Staff Engineer | C. Ingle | 560.00 | 30.00 - 40.00 | $ 35.77 | $ 20,031.20 |
| Structural Designer II | T. Eaton | 572.00 | 25.00 - 35.00 | $ 30.00 | $ 17,160.00 |
| Principal | T. Swayze | 40.00 | 25.00 - 35.00 | $ 74.51 | $ 2,980.40 |
| Senior Engineer | M. Weaver | 160.00 | 25.00 - 35.00 | $ 44.42 | $ 7,107.20 |
| Staff Engineer | J. Jensen | 265.00 | 70.00 - 80.00 | $ 35.77 | $ 9,479.05 |
| | | | | | |
| | | 3,144.50 | | | |

**LABOR COSTS**

| | | | |
|---|---|---|---|
| a) Subtotal Direct Labor Costs | | $ 130,792.03 | |
| b) Anticipated Salary Increases | | $ 2,615.84 | |
| | **c) Total Direct Labor Costs [(a) + (b)]** | | $ 133,407.87 |

**FRINGE BENEFITS**

| | | | |
|---|---|---|---|
| d) Fringe Benefits % 82.41% | **e) Total Fringe Benefits [(c) x (d)]** | | $ 109,941.43 |

**INDIRECT COSTS**

| | | | |
|---|---|---|---|
| f) Overhead% 25.01% | g) Overhead [(c) x (f)] | $ 33,365.31 | |
| h) General and Administrative% 54.11% | i) Gen & Admin [(c) x (h)] | $ 72,187.00 | |
| | **j) Total Indirect Costs [(g) + (i)]** | | $ 105,552.31 |

**FIXED FEE (Profit)**

| | | |
|---|---|---|
| n) (Rate: 10%) | **k) TOTAL PROFIT [(c) + (e) + (j)] x (q)** | $ 34,890.16 |

**OTHER DIRECT COSTS (ODC)**

| | | |
|---|---|---|
| l) Travel/Mileage Costs (supported by consultant actual costs) | $ 2,600.00 | |
| m) Equipment Rental and Supplies (itemize) | $ - | |
| n) Permit Fees (itemize), Plan sheets (each), Test Holes (each), etc. | $ 2,000.00 | |
| o) Subconsultant Costs (attach detailed cost proposal in same format as prime consultant estimate for each subconsultant) | $ 454,708.31 | |
| p) **Total Other Direct Cost**s [(l) + (m) + (n) + (o)] | | $ 459,308.31 |
| **TOTAL COST** [(c) + (e) + (j) + (k) + (p)] | | $ 843,100 |

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.
- Travel related costs should be pre-approved by the contracting agency. The rates should not exceed the State Department of Personnel Administration (DPA) requirements.

**Exhibit 10-H**



**Actual Cost-Plus-Fixed Fee or Lump Sum (Firm Fixed Price) Contracts**

Floradale Avenue Bridge Replacement

Base Services

County Project No. 862032 Federal Project No. BRLSZD-5951(060)

Consultant Cornerstone Structral Engineering Group Contract No. _____ Date 6/23/2017

**1. Calculate average hourly rate for 1st year of the contract (Direct Labor Subtotal divided by total hours)**

| | Direct Labor Subtotal per Cost Proposal | | Total Hours per Cost Proposal | | Avg Hourly Rate | **3 Year Contract Duration** |
|---|---|---|---|---|---|---|
| $ | 130,792.03 | / | 3,144.50 | = | $41.59 | Year 1 Avg Hourly Rate |

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

| | Avg Hourly Rate | | Proposed Escalation | | | |
|---|---|---|---|---|---|---|
| Year 1 | $41.59 | + | 5% | = | $43.67 | Year 2 Avg Hourly Rate |
| Year 2 | $43.67 | + | 5% | = | $45.86 | Year 3 Avg Hourly Rate |
| Year 3 | $45.86 | + | 5% | = | $48.15 | Year 4 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 | 60% | * | 3144.5 | = | 1887 | Estimated Hours Year 1 |
| Year 2 | 40% | * | 3144.5 | = | 1258 | Estimated Hours Year 2 |
| Year 3 | 0% | * | 3144.5 | = | 0 | Estimated Hours Year 3 |
| Total | 100% | | | = | 3145 | |

**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 | $41.59 | * | 1887 | = | $ 78,475.22 | Estimated Hours Year 1 |
| Year 2 | $43.67 | * | 1258 | = | $ 54,932.65 | Estimated Hours Year 2 |
| Year 3 | $45.86 | * | 0 | = | $ - | Estimated Hours Year 3 |

| | | | |
|---|---|---|---|
| Total Direct Labor Cost with Escalation | = | $ 133,407.87 | |
| Direct Labor Subtotal before escalation | = | $ 130,792.03 | |
| Estimated total of Direct Labor Salary Increase | = | $ 2,615.84 | Transfer to Page 1 |

NOTES:

- This is not the only way to estimate salary increases. Other methods will be accepted if they clearly indicate the % increase, the # of years of the contract, and a breakdown of the labor to be performed each year.
- An estimation that is based on direct labor multiplied by salary increase % multiplied by the # of years is not acceptable. (i.e. $250,000 x 2% x 5 yrs = $25,000 is not an acceptable methodology.)
- This assumes that one year will be worked at the rate on the cost proposal before salary increases are granted

**Exhibit 10-H**



**Actual Cost-Plus-Fixed Fee or lump sum (Firm Fixed Price) contracts**

Floradale Avenue Bridge Replacement

County Project No. 862032 Federal Project No. BRLSZD-5951(060)

Consultant BKF Engineers Contract No. _____ Date 6/20/2017

**DIRECT LABOR**

| Classification/Title | Name | Hours | Range | Initial Hourly Rate | Total |
|---|---|---|---|---|---|
| Principal | C. Rideout | 150.00 | 70.00 - 90.00 | $ 83.56 | $ 12,534.00 |
| Project Manager | S. Amparo | 410.00 | 40.00 - 60.00 | $ 54.25 | $ 22,242.50 |
| Engineer II | S. Chen | 420.00 | 35.00 - 45.00 | $ 43.50 | $ 18,270.00 |
| Engineer I | L. Subida | 540.00 | 30.00 - 40.00 | $ 30.00 | $ 16,200.00 |
| Structural Designer II | 0 | - | 25.00 - 35.00 | $ - | $ - |
| Principal | 0 | - | 25.00 - 35.00 | $ - | $ - |
| Senior Engineer | 0 | - | 25.00 - 35.00 | $ - | $ - |
| Structural Designer II | 0 | - | 70.00 - 80.00 | $ - | $ - |
| | | | | | |
| | | 1,520.00 | | | |

**LABOR COSTS**

| | | | |
|---|---|---|---|
| a) Subtotal Direct Labor Costs | | $ 69,246.50 | |
| b) Anticipated Salary Increases | | $ 1,393.59 | |
| | **c) Total Direct Labor Costs [(a) + (b)]** | | $ 70,640.09 |
| **FRINGE BENEFITS** | | | |
| d) Fringe Benefits % 67.00% | **e) Total Fringe Benefits [(c) x (d)]** | | $ 47,328.86 |
| **INDIRECT COSTS** | | | |
| f) Overhead% 111.60% | g) Overhead [(c) x (f)] | $ 78,834.34 | |
| h) General and Administrative% 0.00% | i) Gen & Admin [(c) x (h)] | $ - | |
| | **j) Total Indirect Costs [(g) + (i)]** | | $ 78,834.34 |
| **FIXED FEE (Profit)** | | | |
| n) (Rate: 10%) | **k) TOTAL PROFIT [(c) + (e) + (j)] x (q)** | | $ 19,680.33 |

**OTHER DIRECT COSTS (ODC)**

| | | |
|---|---|---|
| l) Travel/Mileage Costs (supported by consultant actual costs) | $ 1,350.00 | |
| m) Equipment Rental and Supplies (itemize) | $ 660.00 | |
| n) Permit Fees (itemize), Plan sheets (each), Test Holes (each), etc | $ 1,000.00 | |
| o) Subconsultant Costs (attach detailed cost proposal in same format as prime consultant estimate for each subconsultant) | $ - | |
| p) **Total Other Direct Cost**s [(l) + (m) + (n) + (o)] | | $ 3,010.00 |
| **TOTAL COST** [(c) + (e) + (j) + (k) + (p)] | | $ 219,494 |

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.
- Travel related costs should be pre-approved by the contracting agency. The rates should not exceed the State Department of Personnel Administration (DPA) requirements.

**Exhibit 10-H**



**Actual Cost-Plus-Fixed Fee or Lump Sum (Firm Fixed Price) Contracts**

Floradale Avenue Bridge Replacement

County Project No. 862032 Federal Project No. BRLSZD-5951(060)

Consultant BKF Engineers Contract No. _____ Date 6/23/2017

**1. Calculate average hourly rate for 1st year of the contract (Direct Labor Subtotal divided by total hours)**

| | Direct Labor Subtotal per Cost Proposal | | Total Hours per Cost Proposal | | Avg Hourly Rate | **3 Year Contract Duration** |
|---|---|---|---|---|---|---|
| | $ 69,246.50 | / | 1,520.00 | = | $45.56 | Year 1 Avg Hourly Rate |

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

| | Avg Hourly Rate | | Proposed Escalation | | | |
|---|---|---|---|---|---|---|
| Year 1 | $45.56 | + | 5% | = | $47.83 | Year 2 Avg Hourly Rate |
| Year 2 | $47.83 | + | 5% | = | $50.23 | Year 3 Avg Hourly Rate |
| Year 3 | $50.23 | + | 5% | = | $52.74 | Year 4 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 | 65% | * | 1520 | = | 988 | Estimated Hours Year 1 |
| Year 2 | 30% | * | 1520 | = | 456 | Estimated Hours Year 2 |
| Year 3 | 5% | * | 1520 | = | 76 | Estimated Hours Year 3 |
| Total | 100% | | | = | 1520 | |

**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 | $45.56 | * | 988 | = | $ 45,010.23 | Estimated Hours Year 1 |
| Year 2 | $47.83 | * | 456 | = | $ 21,812.65 | Estimated Hours Year 2 |
| Year 3 | $50.23 | * | 76 | = | $ 3,817.21 | Estimated Hours Year 3 |

| | | | | |
|---|---|---|---|---|
| Total Direct Labor Cost with Escalation | = | $ | 70,640.09 | |
| Direct Labor Subtotal before escalation | = | $ | 69,246.50 | |
| Estimated total of Direct Labor Salary Increase | = | $ | 1,393.59 | Transfer to Page 1 |

NOTES:

- This is not the only way to estimate salary increases. Other methods will be accepted if they clearly indicate the % increase, the # of years of the contract, and a breakdown of the labor to be performed each year.
- An estimation that is based on direct labor multiplied by salary increase % multiplied by the # of years is not acceptable. (i.e. $250,000 x 2% x 5 yrs = $25,000 is not an acceptable methodology.)
- This assumes that one year will be worked at the rate on the cost proposal before salary increases are granted

# EXHIBIT 10-H COST PROPOSAL

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

(DESIGN, ENGINEERING AND ENVIRONMENTAL STUDIES)

Note: Mark-ups are Not Allowed

Consultant Earth Mechanics Contract No. BRLSZD-5951(060) Date 6/19/2017

**DIRECT LABOR**

| Classification/Title | Name | hours | Actual Hourly Rate | Total |
|---|---|---|---|---|
| Principal | L. Cheang | 83 | $80.00 | $6,640.00 |
| Senior Project Engineer | C. T. Yang | 54 | $46.80 | $2,527.20 |
| Project Engineer | A. Thurairajah | 121 | $41.00 | $4,961.00 |
| Project Geologist | M. Hoshiyama | 14 | $35.55 | $497.70 |
| Technician | K. Kaekul | 158 | $34.65 | $5,474.70 |
| | | | | $0.00 |
| | | | | |

**LABOR COSTS**

a) Subtotal Direct Labor Costs $20,100.60

b) Anticipated Salary Increases (see page 2 for sample) $321.61

**c) TOTAL DIRECT LABOR COSTS [(a) + (b)]** $20,422.21

**FRINGE BENEFITS**

d) Fringe Benefits (Rate: 48.36% ) **e) Total Fringe Benefits** [(c) x (d)] $9,876.18

**INDIRECT COSTS**

f) Overhead (Rate: 129.26% ) g) Overhead [(c) x (f)] $26,397.75

h) General and Administrative (Rate: 0.00% ) i) Gen & Admin [(c) x (h)] $0.00

j) **Total Indirect Costs** [(e) + (g) + (i)] $36,273.93

**FEE (Profit)**

q) (Rate: 10.00% ) k) **TOTAL FIXED PROFIT** [(c) + (j)] x (q)] $5,669.61

**OTHER DIRECT COSTS (ODC)**

| | Description | Unit(s) | Unit Cost | Total |
|---|---|---|---|---|
| l) | Drilling Rig Rental | 6 | $4,000.00 | $24,000.00 |
| m) | Coring | 1 | $1,710.00 | $1,710.00 |
| n) | Permit Fees | 1 | $1,000.00 | $1,000.00 |
| o) | Traffic Control | 4 | $1,450.00 | $5,800.00 |
| p) | Drum Disposal | 1 | $3,500.00 | $3,500.00 |
| q) | Overnight Mail | 5 | $25.00 | $125.00 |
| | | | | |

r) **Total Other Direct Costs** [(l) + (m) + (n) + (o)+(p)+(q)] $36,135.00

**TOTAL COST** [(c) + (j) + (k) + (r)] $98,500.75

NOTES:

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- 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.

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

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

(SAMPLE CALCULATIONS FOR ANTICIPATED SALARY INCREASES)

Consultant Earth Mechanics Contract No. BRLSZD-5951(060 Date 6/19/2017

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

| Direct Labor Subtotal per Cost Proposal | | Total Hours per Cost Proposal | | Avg Hourly Rate | 5 Year Contract Duration |
|---|---|---|---|---|---|
| $20,100.60 | | 430 | = | $46.75 | Year 1 Avg Hourly Rate |

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

| | Avg Hourly Rate | | Proposed Escalation | | | |
|---|---|---|---|---|---|---|
| Year 1 | $46.75 | + | 4.00% | = | $48.62 | Year 2 Avg Hourly Rate |
| Year 2 | $48.62 | + | 4.00% | = | $50.56 | Year 3 Avg Hourly Rate |
| Year 3 | $50.56 | + | 4.00% | = | $52.58 | Year 4 Avg Hourly Rate |
| Year 4 | $52.58 | + | 4.00% | = | $54.69 | Year 5 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 | 60.00% | * | 430.0 | = | 258.0 | Estimated Hours Year 1 |
| Year 2 | 40.00% | * | 430.0 | = | 172.0 | Estimated Hours Year 2 |
| Year 3 | 0.00% | * | 430.0 | = | 0.0 | Estimated Hours Year 3 |
| Year 4 | 0.00% | * | 430.0 | = | 0.0 | Estimated Hours Year 4 |
| Year 5 | 0.00% | * | 430.0 | = | 0.0 | Estimated Hours Year 5 |
| Total | 100% | | Total | = | 430.0 | |

**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 | $46.75 | * | 258.0 | = | $12,060.36 | Estimated Hours Year 1 |
| Year 2 | $48.62 | * | 172.0 | = | $8,361.85 | Estimated Hours Year 2 |
| Year 3 | $50.56 | * | 0.0 | = | $0.00 | Estimated Hours Year 3 |
| Year 4 | $52.58 | * | 0.0 | = | $0.00 | Estimated Hours Year 4 |
| Year 5 | $54.69 | * | 0 | = | $0.00 | Estimated Hours Year 5 |
| | Total Direct Labor Cost with Escalation | | | = | $20,422.21 | |
| | Direct Labor Subtotal before Escalation | | | = | $20,100.60 | |
| | Estimated total of Direct Labor Salary Increase | | | = | **$321.61** | Transfer to Page 1 |

NOTES:

- This is not the only way to estimate salary increases. Other methods will be accepted if they clearly indicate the % increase, the # of years of the contract, and a breakdown of the labor to be performed each year.
- An estimation that is based on direct labor multiplied by salary increase % multiplied by the # of years is not acceptable. (i.e. $250,000 x 2% x 5 yrs = $25,000 is not an acceptable methodology)
- This assumes that one year will be worked at the rate on the cost proposal before salary increases are granted.

# 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 Avila & Associates (DBE) Contract No. _____ Date 8/26/2016

**DIRECT LABOR**

| Classification/Title | Name | hours | Actual Hourly Rate | Total |
|---|---|---|---|---|
| Project Manager | Cathy Avila | 46 | $82.50 | $3,795.00 |
| Project Engineer | Todd Remington | 56 | $61.50 | $3,444.00 |
| Assistant Engineer | Steven Jones | 0 | $50.00 | $0.00 |
| Technical Editor | Rachel Spadafore | 4 | $58.76 | $235.04 |

**LABOR COSTS**

a) Subtotal Direct Labor Costs $7,474.04

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

**c) TOTAL DIRECT LABOR COSTS [(a) + (b)]** $7,474.04

**FRINGE BENEFITS**

d) Fringe Benefits (Rate 29.76% ) **e) Total Fringe Benefits** [(c) x (d)] $2,224.27

**INDIRECT COSTS**

f) Overhead (Rate: 23.62%) g) Overhead [(c) x (f)] $1,765.37

h) General and Administrative (Rate: 36.96%) i) Gen & Admin [(c) x (h)] $2,762.41

j) **Total Indirect Costs** [(e) + (g) + (i)] $6,752.05

**FEE (Profit)**

q) (Rate: 10.00% ) k) **TOTAL FIXED PROFIT** [(c) + (j)] x (q)] $1,422.61

**OTHER DIRECT COSTS (ODC)**

| | Description | Unit(s) | Unit Cost | Total |
|---|---|---|---|---|
| l) | Travel/Mileage Costs (supported by consultant actual costs) | 1 | $82.00 | $82.00 |
| m) | Equipment Rental and Supplies (itemize) | 0 | $250.00 | $0.00 |
| n) | Permit Fees (itemize), Plan sheets (each), Test Holes (each), etc. | 0 | $0.00 | $0.00 |
| o) | Subconsultant Costs (attach detailed cost proposal in same format as prime consultant estimate for each subconsultant) | 0 | $0.00 | $0.00 |

p) **Total Other Direct Costs** [(l) + (m) + (n) + (o)] $82.00

**TOTAL COST** [(c) + (j) + (k) + (p)] $15,730.70

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.

**Exhibit 10-H**



**Actual Cost-Plus-Fixed Fee or lump sum (Firm Fixed Price) contracts**

Floradale Avenue Bridge Replacement

County Project No. 862032 Federal Project No. BRLSZD-5951(060)

All Phases

Consultant: Rincon Consultants, Inc. Contract No. _____ Date: 6/23/2017

**DIRECT LABOR**

| Classification/Title | Name | Hours | Range | Initial Hourly Rate | Total |
|---|---|---|---|---|---|
| Principal II | Richard Daulton | 40.00 | 50.00 - 70.00 | $ 80.27 | $ 3,210.80 |
| Sr. Professional I | Eric VonBerg | 66.00 | 40.00 - 55.00 | $ 45.67 | $ 3,014.22 |
| Professional III | Bronwyn Green | 110.00 | 30.00 - 40.00 | $ 43.27 | $ 4,759.70 |
| GIS I | Jon Montgomery | 22.00 | 30.00 - 40.00 | $ 25.30 | $ 556.60 |
| Admin I | Megyne Todd | 25.00 | 30.00 - 40.00 | $ 20.00 | $ 500.00 |
| | | | | $ - | $ - |
| | | | | | $ - |
| | | | | | $ - |
| | | 263.00 | | | |

**LABOR COSTS**

| | | | |
|---|---|---|---|
| a) Subtotal Direct Labor Costs | | $ 12,041.32 | |
| b) Anticipated Salary Increases | | $ - | |
| | **c) Total Direct Labor Costs [(a) + (b)]** | | $ 12,041.32 |

**FRINGE BENEFITS**

| | | | |
|---|---|---|---|
| d) Fringe Benefits % 59.00% | **e) Total Fringe Benefits [(c) x (d)]** | | $ 7,104.38 |

**INDIRECT COSTS**

| | | | |
|---|---|---|---|
| f) Overhead% 68.30% | g) Overhead [(c) x (f)] | $ 8,224.22 | |
| h) General and Administrative% | i) Gen & Admin [(c) x (h)] | $ - | |
| | **j) Total Indirect Costs [(g) + (i)]** | | $ 8,224.22 |

**FIXED FEE (Profit)**

| | | |
|---|---|---|
| n) (Rate: 21%) | **k) TOTAL PROFIT [(c) + (e) + (j)] x (q)** | $ 5,788.74 |

**OTHER DIRECT COSTS (ODC)**

| | | |
|---|---|---|
| l) Printing | $ 900.00 | |
| m) Travel | $ 514.00 | |
| n) Supplies and Misc Expenses | $ 995.00 | |
| o) Subconsultant Costs (attach detailed cost proposal in same format as prime consultant estimate for each subconsultant) | $ - | |
| p) **Total Other Direct Costs** [(l) + (m) + (n) + (o)] | | $ 2,409.00 |
| **TOTAL COST** [(c) + (e) + (j) + (k) + (p)] | | $ 35,568 |

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.
- Travel related costs should be pre-approved by the contracting agency. The rates should not exceed the State Department of Personnel Administration (DPA) requirements.

**Exhibit 10-H**



## Actual Cost-Plus-Fixed Fee or Lump Sum (Firm Fixed Price) Contracts

Floradale Avenue Bridge Replacement

All Phases

Consultant: Rincon Consultants, Inc. Contract No.: 0 Date: 6/23/2017

**1. Calculate average hourly rate for 1st year of the contract (Direct Labor Subtotal divided by total hours)**

| Direct Labor | | Total Hours per Cost | | Avg Hourly | |
|---|---|---|---|---|---|
| $ 12,041.32 | / | 263 | = | $45.78 | **4 Year Contract Duration** Year 1 Avg Hourly Rate |

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

| | Avg Hourly Rate | | Proposed Escalation | | | |
|---|---|---|---|---|---|---|
| Year 1 | $45.78 | + | 5% | = | $48.07 | Year 2 Avg Hourly Rate |
| Year 2 | $48.07 | + | 5% | = | $50.48 | Year 3 Avg Hourly Rate |
| Year 3 | $50.48 | + | 5% | = | $53.00 | Year 4 Avg Hourly Rate |

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

| | Estimated % Completed Each | | Total Hours per Cost | | Total Hours per Year | |
|---|---|---|---|---|---|---|
| Year 1 | 100% | * | 263 | = | 263 | Estimated Hours Year 1 |
| Year 2 | 0% | * | 263 | = | 0 | Estimated Hours Year 2 |
| Year 3 | 0% | * | 263 | = | 0 | Estimated Hours Year 3 |
| Year 4 | 0% | * | 263 | = | 0 | Estimated Hours Year 4 |
| Total | 100% | | | = | 263 | |

**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 | $45.78 | * | 263 | = $ | 12,041.32 | Estimated Cost Year 1 |
| Year 2 | $48.07 | * | 0 | = $ | - | Estimated Cost Year 2 |
| Year 3 | $50.48 | * | 0 | = $ | - | Estimated Cost Year 3 |
| Year 4 | $53.00 | * | 0 | = $ | - | Estimated Cost Year 4 |

| | | | |
|---|---|---|---|
| Total Direct Labor Cost with Escalation | = $ | 12,041.32 | |
| Direct Labor Subtotal before escalation | = $ | 12,041.32 | |
| Estimated total of Direct Labor Salary Increase | = $ | - | Transfer to Page 1 |

NOTES:

- This is not the only way to estimate salary increases. Other methods will be accepted if they clearly indicate the % increase, the # of years of the contract, and a breakdown of the labor to be performed each year.
- An estimation that is based on direct labor multiplied by salary increase % multiplied by the # of years is not acceptable. (i.e. $250,000 x 2% x 5yrs= $25,000 is not an acceptable methodology.)
- This assumes that one year will be worked at the rate on the cost proposal before salary increases are granted.

**Exhibit 10-H Cost Proposal**
**Actual Cost-Plus-Fixed Fee or Lump Sum (Firm Fixed Price) contracts**
(Design, Engineering and Environmental Studies)

Note: Mark-ups are Not Allowed

Consultant: Praxis Consolidated International  Contract No.: Floradale Ave Bridge  Date: 6/21/2017

**DIRECT LABOR**

| Classification/Title | Name | Hours | Actual Hourly Rate | Total |
|---|---|---|---|---|
| Principal Surveyor | Justin Height | 68 | $57.70 | $ 3,923.60 |
| Suveying Associate | Andrew Labine | 44 | $35.00 | $ 1,540.00 |
| Admin Assistant | Ellie Matthews | 5 | $21.00 | $ 105.00 |
| *Party Chief | Andrew Labine | 56 | $70.86 | $ 3,968.16 |
| *Chainman | Kevin Milne | 56 | $67.78 | $ 3,795.68 |
| | | | $0.00 | $ - |
| | | | $0.00 | $ - |
| *Prevailing Wage | | | $0.00 | $ - |
| | | | $0.00 | $ - |
| | | 229 | $0.00 | $ - |

**LABOR COSTS**

a) Subtotal Direct Labor Costs $ 13,332.44
b) Anticipated Salary Increases $0.00 (see Escalation Calculation attached)

c) **Total Direct Labor Costs** [(a) + (b)] $ 13,332.44

**FRINGE BENEFITS**

d) Fringe Benefits Rate: 35.38%  e) **Total Fringe Benefits** [(c) x (d)] $ 4,717.02

**INDIRECT COSTS**

f) Overhead Rate: 47.02%  g) Overhead [(c) x (f)] $6,268.91
h) General and Administrative Rate: 39.98%  i) Gen & Admin [(c) x (h)] $5,330.31

j) **Total Indirect Costs** [(g) + (i)] $ 11,599.22

**FEE (Profit)**

q) Rate: 10.00%  k) **TOTAL FIXED PROFIT** [(c) + (e) + (j)] x (q) $ 2,964.87

**OTHER DIRECT COSTS (ODC)**

l) Travel/Mileage Costs (supported by consultant actual costs) $ -
m) Equipment Rental and Supplies (itemize) $ -
n) Permit Fees (itemize), Plan sheets (each), Test Holes (each), etc. $ -
o) Subconsultant Costs (attach detailed cost proposal in same format as prime consultant estimate for each subconsultant) $ -

p) **Total Other Direct Costs** [(l) + (m) + (n) + (o)] $ -

**TOTAL COST** [(c) + (e) + (j) + (k) + (p)] $ 32,613.55

**OTHER DIRECT COSTS (ODC) ITEMIZATION**

| Travel/Mileage Costs | | Cost |
|---|---|---|
| hotel, 2 persons, 12 nights | $ | - |
| per diem, 2 persons, 12 days | $ | - |
| | $ | - |
| | $ | - |
| **Total** | **$** | **-** |

| Equipment Rental and Supplies | | |
|---|---|---|
| | $ | - |
| | $ | - |
| | $ | - |
| | $ | - |
| **Total** | **$** | **-** |

| Permit Fees, Plan Sheets, Test Holes, Etc. | | |
|---|---|---|
| | $ | - |
| | $ | - |
| | $ | - |
| | $ | - |
| **Total** | **$** | **-** |

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
- Travel related costs should be pre-approved by the contracting agency. The rates should not exceed the State Department of Personnel

**Exhibit 10-H Cost Proposal**
**Actual Cost-Plus-Fixed Fee or Lump Sum (Firm Fixed Price) contracts**
(Calculations for Anticipated Salary Increases)

Consultant Praxis Consolidated International, Inc Contract No. Floradale Ave Bridge Date 1/24/2017

**1. Calculate average hourly rate for 1st year of the contract (Direct Labor Subtotal divided by total hours)**

| | Direct Labor Subtotal per Cost Proposal | | Total Hours per Cost Proposal | | Avg Hourly Rate | **5 Year Contract Duration** |
|---|---|---|---|---|---|---|
| | $ 13,332.44 | / | 229 | = | $58.22 | Year 1 Avg Hourly Rate |

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

| | Avg Hourly Rate | | Proposed Escalation | | | |
|---|---|---|---|---|---|---|
| Year 1 | $58.22 | + | 2% | = | $59.38 | Year 2 Avg Hourly Rate |
| Year 2 | $59.38 | + | 2% | = | $60.57 | Year 3 Avg Hourly Rate |
| Year 3 | $60.57 | + | 2% | = | $61.78 | Year 4 Avg Hourly Rate |
| Year 4 | $61.78 | + | 2% | = | $63.02 | Year 5 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 | 100.00% | * | 229 | = | 229 | Estimated Hours Year 1 |
| Year 2 | 0.00% | * | 229 | = | 0 | Estimated Hours Year 2 |
| Year 3 | 0.00% | * | 229 | = | 0 | Estimated Hours Year 3 |
| Year 4 | 0.00% | * | 229 | = | 0 | Estimated Hours Year 4 |
| Year 5 | 0.00% | * | 229 | = | 0 | Estimated Hours Year 5 |
| Total | 100% | | Total | = | 229 | |

**4. Calculate Total Costs including Escalation (multiply average hourly rate by the number of hour**

| | Avg Hourly Rate (calculated above) | | Estimated Hours (calculated above) | | Cost Per Year | |
|---|---|---|---|---|---|---|
| Year 1 | $58.22 | * | 229 | = | $13,332.44 | Estimated Hours Year 1 |
| Year 2 | $59.38 | * | 0 | = | $0.00 | Estimated Hours Year 2 |
| Year 3 | $60.57 | * | 0 | = | $0.00 | Estimated Hours Year 3 |
| Year 4 | $61.78 | * | 0 | = | $0.00 | Estimated Hours Year 4 |
| Year 5 | $63.02 | * | 0 | = | $0.00 | Estimated Hours Year 5 |

| | | | |
|---|---|---|---|
| Total Direct Labor Cost with Escalation | = | $13,332.44 | |
| Direct Labor Subtotal before escalation | = | $13,332.44 | |
| Estimated total of Direct Labor Salary Increase | = | **$0.00** | Transfer to Page 1 |

NOTES:

- This is not the only way to estimate salary increases. Other methods will be accepted if they clearly indicate the % increase, the # of years of the contract, and a breakdown of the labor to be performed each year.
- An estimation that is based on direct labor multiplied by salary increase % multiplied by the # of years is not acceptable. (i.e. $250,000 x 2% x 5 yrs = $25,000 is not an acceptable methodology.)
- This assumes that one year will be worked at the rate on the cost proposal before salary increases are granted

# EXHIBIT 10-H COST PROPOSAL

## COST PER UNIT OF WORK CONTRACTS

(RIGHT OF WAY SERVICES)

Consultant Hamner, Jewell & Associates Contract No. County of Santa B Date 6/23/2017

Floradale Bridge Replacement



**Right of Way Services:**

| DIRECT LABOR | Hours | Hourly Billing Rate ($) | Total ($) |
|---|---|---|---|
| Managing Senior Associate | 30 | $195.00 | $5,850.00 |
| Right of Way Agent (Sr II) | 100 | $165.00 | $16,500.00 |
| Right of Way Agent (Sr I) | 0 | $135.00 | $0.00 |
| Right of Way Agt I | 100 | $82.00 | $8,200.00 |
| Transaction Support | 64 | $80.00 | $5,120.00 |
| Clerical Support | 14 | $45.00 | $630.00 |
| Project Coordinator | 0 | $98.00 | $0.00 |
| | 308 | | |

| OTHER DIRECT COST | | | |
|---|---|---|---|
| Description | Unit(s) | Unit Cost | |
| Appraisals | | | $9,100.00 |
| Review Appraisals (per funding rec | 4 | $1,000.00 | $4,000.00 |
| Title Reports | 4 | $550.00 | $2,200.00 |
| Reimbursible Expenses | IRS rate | $1,200.00 | $1,200.00 |

**TOTAL COST PER UNIT OF WORK** $52,800.00

NOTES:

- ODC items will be based on actual costs incurred without markup.
- Professional services billed at actual time. We will bill only for actual time and expenses expended.

**Exhibit 10-H**



**Actual Cost-Plus-Fixed Fee or lump sum (Firm Fixed Price) contracts**

Floradale Avenue Bridge Replacement

Optional Services

County Project No. 862032 Federal Project No. BRLSZD-5951(060)

Consultant Cornerstone Structral Engineering Group Contract No. _____ Date 6/23/2017

**DIRECT LABOR**

| Classification/Title | Name | Hours | Range | Initial Hourly Rate | Total |
|---|---|---|---|---|---|
| Principal | T. Goolkasian | 4.50 | 70.00 - 80.00 | $ 75.72 | $ 340.74 |
| Engineering Manager | S. Cullers | 36.00 | 40.00 - 55.00 | $ 50.48 | $ 1,817.28 |
| Project Engineer | B. Zermeno | 56.00 | 35.00 - 45.00 | $ 40.96 | $ 2,293.76 |
| Staff Engineer | C. Ingle | - | 30.00 - 40.00 | $ 35.77 | $ - |
| Structural Designer II | T. Eaton | - | 25.00 - 35.00 | $ 30.00 | $ - |
| Principal | T. Swayze | - | 25.00 - 35.00 | $ 74.51 | $ - |
| Senior Engineer | M. Weaver | - | 25.00 - 35.00 | $ 44.42 | $ - |
| Staff Engineer | J. Jensen | - | 70.00 - 80.00 | $ 35.77 | $ - |
| | | | | | |
| | | 96.50 | | | |

**LABOR COSTS**

| | | | |
|---|---|---|---|
| a) Subtotal Direct Labor Costs | | $ 4,451.78 | |
| b) Anticipated Salary Increases | | $ 89.04 | |
| | **c) Total Direct Labor Costs [(a) + (b)]** | | $ 4,540.82 |

**FRINGE BENEFITS**

| | | | |
|---|---|---|---|
| d) Fringe Benefits % 82.41% | **e) Total Fringe Benefits [(c) x (d)]** | | $ 3,742.09 |

**INDIRECT COSTS**

| | | | |
|---|---|---|---|
| f) Overhead% 25.01% | g) Overhead [(c) x (f)] | $ 1,135.66 | |
| h) General and Administrative% 54.11% | i) Gen & Admin [(c) x (h)] | $ 2,457.04 | |
| | **j) Total Indirect Costs [(g) + (i)]** | | $ 3,592.69 |

**FIXED FEE (Profit)**

| | | |
|---|---|---|
| n) (Rate: 10%) | **k) TOTAL PROFIT [(c) + (e) + (j)] x (q)** | $ 1,187.56 |

**OTHER DIRECT COSTS (ODC)**

| | | |
|---|---|---|
| l) Travel/Mileage Costs (supported by consultant actual costs) | $ - | |
| m) Equipment Rental and Supplies (itemize) | $ - | |
| n) Permit Fees (itemize), Plan sheets (each), Test Holes (each), etc. | $ - | |
| o) Subconsultant Costs (attach detailed cost proposal in same format as prime consultant estimate for each subconsultant) | $ 18,333.63 | |
| p) **Total Other Direct Cost**s [(l) + (m) + (n) + (o)] | | $ 18,333.63 |
| **TOTAL COST** [(c) + (e) + (j) + (k) + (p)] | | $ 31,397 |

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.
- Travel related costs should be pre-approved by the contracting agency. The rates should not exceed the State Department of Personnel Administration (DPA) requirements.

**Exhibit 10-H**



**Actual Cost-Plus-Fixed Fee or Lump Sum (Firm Fixed Price) Contracts**

Floradale Avenue Bridge Replacement

Optional Services

County Project No. 862032 Federal Project No. BRLSZD-5951(060)

Consultant Cornerstone Structral Engineering Group Contract No. _____ Date 6/23/2017

**1. Calculate average hourly rate for 1st year of the contract (Direct Labor Subtotal divided by total hours)**

| | Direct Labor Subtotal per Cost Proposal | | Total Hours per Cost Proposal | | Avg Hourly Rate | **3 Year Contract Duration** |
|---|---|---|---|---|---|---|
| | $ 4,451.78 | / | 96.50 | = | $46.13 | Year 1 Avg Hourly Rate |

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

| | Avg Hourly Rate | | Proposed Escalation | | | |
|---|---|---|---|---|---|---|
| Year 1 | $46.13 | + | 5% | = | $48.44 | Year 2 Avg Hourly Rate |
| Year 2 | $48.44 | + | 5% | = | $50.86 | Year 3 Avg Hourly Rate |
| Year 3 | $50.86 | + | 5% | = | $53.40 | Year 4 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 | 60% | * | 96.5 | = | 58 | Estimated Hours Year 1 |
| Year 2 | 40% | * | 96.5 | = | 39 | Estimated Hours Year 2 |
| Year 3 | 0% | * | 96.5 | = | 0 | Estimated Hours Year 3 |
| Total | 100% | | | = | 97 | |

**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 | $46.13 | * | 58 | = | $ 2,671.07 | Estimated Hours Year 1 |
| Year 2 | $48.44 | * | 39 | = | $ 1,869.75 | Estimated Hours Year 2 |
| Year 3 | $50.86 | * | 0 | = | $ - | Estimated Hours Year 3 |

| | | | |
|---|---|---|---|
| Total Direct Labor Cost with Escalation | = | $ 4,540.82 | |
| Direct Labor Subtotal before escalation | = | $ 4,451.78 | |
| Estimated total of Direct Labor Salary Increase | = | $ 89.04 | Transfer to Page 1 |

NOTES:

- This is not the only way to estimate salary increases. Other methods will be accepted if they clearly indicate the % increase, the # of years of the contract, and a breakdown of the labor to be performed each year.
- An estimation that is based on direct labor multiplied by salary increase % multiplied by the # of years is not acceptable. (i.e. $250,000 x 2% x 5 yrs = $25,000 is not an acceptable methodology.)
- This assumes that one year will be worked at the rate on the cost proposal before salary increases are granted

**Exhibit 10-H Cost Proposal**
**Actual Cost-Plus-Fixed Fee or Lump Sum (Firm Fixed Price) contracts**
(Design, Engineering and Environmental Studies)

Note: Mark-ups are Not Allowed

Consultant: Praxis Consolidated International  Contract No.: Floradale Ave Bridge  Date: 6/21/2017

**DIRECT LABOR**

| Classification/Title | Name | Hours | Actual Hourly Rate | Total |
|---|---|---|---|---|
| Principal Surveyor | Justin Height | 6 | $57.70 | $ 346.20 |
| Suveying Associate | Andrew Labine | 44 | $35.00 | $ 1,540.00 |
| Admin Assistant | Ellie Matthews | 3 | $21.00 | $ 63.00 |
| *Party Chief | Andrew Labine | 40 | $70.86 | $ 2,834.40 |
| *Chainman | Kevin Milne | 40 | $67.78 | $ 2,711.20 |
| | | | $0.00 | $ - |
| | | | $0.00 | $ - |
| *Prevailing Wage | | | $0.00 | $ - |
| | | | $0.00 | $ - |
| | | 133 | $0.00 | $ - |

**LABOR COSTS**

a) Subtotal Direct Labor Costs $ 7,494.80
b) Anticipated Salary Increases $0.00 (see Escalation Calculation attached)

c) **Total Direct Labor Costs** [(a) + (b)] $ 7,494.80

**FRINGE BENEFITS**

d) Fringe Benefits Rate: 35.38%  e) **Total Fringe Benefits** [(c) x (d)] $ 2,651.66

**INDIRECT COSTS**

f) Overhead Rate: 47.02%  g) Overhead [(c) x (f)] $3,524.05
h) General and Administrative Rate: 39.98%  i) Gen & Admin [(c) x (h)] $2,996.42

j) **Total Indirect Costs** [(g) + (i)] $ 6,520.48

**FEE (Profit)**

q) Rate: 10.00%  k) **TOTAL FIXED PROFIT** [(c) + (e) + (j)] x (q) $ 1,666.69

**OTHER DIRECT COSTS (ODC)**

l) Travel/Mileage Costs (supported by consultant actual costs) $ -
m) Equipment Rental and Supplies (itemize) $ -
n) Permit Fees (itemize), Plan sheets (each), Test Holes (each), etc. $ -
o) Subconsultant Costs (attach detailed cost proposal in same format as prime consultant estimate for each subconsultant) $ -

p) **Total Other Direct Costs** [(l) + (m) + (n) + (o)] $ -

**TOTAL COST** [(c) + (e) + (j) + (k) + (p)] $ 18,333.63

**OTHER DIRECT COSTS (ODC) ITEMIZATION**

| Travel/Mileage Costs | | Cost |
|---|---|---|
| hotel, 2 persons, 12 nights | $ | - |
| per diem, 2 persons, 12 days | $ | - |
| | $ | - |
| | $ | - |
| **Total** | **$** | **-** |

| Equipment Rental and Supplies | | |
|---|---|---|
| | $ | - |
| | $ | - |
| | $ | - |
| | $ | - |
| **Total** | **$** | **-** |

| Permit Fees, Plan Sheets, Test Holes, Etc. | | |
|---|---|---|
| | $ | - |
| | $ | - |
| | $ | - |
| | $ | - |
| **Total** | **$** | **-** |

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
- Travel related costs should be pre-approved by the contracting agency. The rates should not exceed the State Department of Personnel

**Exhibit 10-H Cost Proposal**
**Actual Cost-Plus-Fixed Fee or Lump Sum (Firm Fixed Price) contracts**
(Calculations for Anticipated Salary Increases)

Consultant Praxis Consolidated International, Inc Contract No. Floradale Ave Bridge Date 1/24/2017

**1. Calculate average hourly rate for 1st year of the contract (Direct Labor Subtotal divided by total hours)**

| | Direct Labor Subtotal per Cost Proposal | | Total Hours per Cost Proposal | | Avg Hourly Rate | **5 Year Contract Duration** |
|---|---|---|---|---|---|---|
| | $ 7,494.80 | / | 133 | = | $56.35 | Year 1 Avg Hourly Rate |

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

| | Avg Hourly Rate | | Proposed Escalation | | | |
|---|---|---|---|---|---|---|
| Year 1 | $56.35 | + | 2% | = | $57.48 | Year 2 Avg Hourly Rate |
| Year 2 | $57.48 | + | 2% | = | $58.63 | Year 3 Avg Hourly Rate |
| Year 3 | $58.63 | + | 2% | = | $59.80 | Year 4 Avg Hourly Rate |
| Year 4 | $59.80 | + | 2% | = | $61.00 | Year 5 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 | 100.00% | * | 133 | = | 133 | Estimated Hours Year 1 |
| Year 2 | 0.00% | * | 133 | = | 0 | Estimated Hours Year 2 |
| Year 3 | 0.00% | * | 133 | = | 0 | Estimated Hours Year 3 |
| Year 4 | 0.00% | * | 133 | = | 0 | Estimated Hours Year 4 |
| Year 5 | 0.00% | * | 133 | = | 0 | Estimated Hours Year 5 |
| Total | 100% | | Total | = | 133 | |

**4. Calculate Total Costs including Escalation (multiply average hourly rate by the number of hour**

| | Avg Hourly Rate (calculated above) | | Estimated Hours (calculated above) | | Cost Per Year | |
|---|---|---|---|---|---|---|
| Year 1 | $56.35 | * | 133 | = | $7,494.80 | Estimated Hours Year 1 |
| Year 2 | $57.48 | * | 0 | = | $0.00 | Estimated Hours Year 2 |
| Year 3 | $58.63 | * | 0 | = | $0.00 | Estimated Hours Year 3 |
| Year 4 | $59.80 | * | 0 | = | $0.00 | Estimated Hours Year 4 |
| Year 5 | $61.00 | * | 0 | = | $0.00 | Estimated Hours Year 5 |

| | | | |
|---|---|---|---|
| Total Direct Labor Cost with Escalation | = | $7,494.80 | |
| Direct Labor Subtotal before escalation | = | $7,494.80 | |
| Estimated total of Direct Labor Salary Increase | = | **$0.00** | Transfer to Page 1 |

NOTES:

- This is not the only way to estimate salary increases. Other methods will be accepted if they clearly indicate the % increase, the # of years of the contract, and a breakdown of the labor to be performed each year.
- An estimation that is based on direct labor multiplied by salary increase % multiplied by the # of years is not acceptable. (i.e. $250,000 x 2% x 5 yrs = $25,000 is not an acceptable methodology.)
- This assumes that one year will be worked at the rate on the cost proposal before salary increases are granted

# EXHIBIT 10-K CONSULTANT CERTIFICATION OF CONTRACT COSTS AND FINANCIAL MANAGEMENT SYSTEM

***(Note: If requesting to utilize the Safe Harbor Indirect Cost Rate submit Attachment 1 of DLA-OB 13-07 - Safe Harbor Indirect Cost Rate for Consultant Contracts found at http://www.dot.ca.gov/hq/LocalPrograms/DLA_OB/DLA_OB.htm in lieu of this form.)***

## Certification of Final Indirect Costs:

Consultant Firm Name: Cornerstone Structural Engineering Group, Inc.

Indirect Cost Rate: 161.31% * for fiscal period January 1, 2015 to December 31, 2015

*Fiscal period covered for Indirect Cost Rate developed (not the contract period).

Local Government: County of Santa Barbara **Floradale Avenue Bridge Replacement**

Contract Number: County Project No. 862032 Project Number: Federal Project No. BRLSZD-5951(060)

I, the undersigned, certify that I have reviewed the proposal to establish final indirect cost rates for the fiscal period as specified above and to the best of my knowledge and belief:

1. All costs included in this proposal to establish final Indirect Cost Rates are allowable in accordance with the cost principles of the Federal Acquisition Regulations (FAR) of Title 48, Code of Federal Regulations (CFR), Part 31.
2. This proposal does not include any costs which are expressly unallowable under the cost principles of the FAR of 48 CFR, Part 31.

All known material transactions or events that have occurred affecting the firm's ownership, organization, and Indirect Cost Rates have been disclosed as of the date of proposal preparation noted above.

## Certification of Financial Management System:

I, the undersigned, certify to the best of my knowledge and belief that our Financial Management System meets the standards for financial reporting, accounting records, internal and budget control as set forth in the FAR of Title 49, CFR, Part 18.20 to the extent applicable to Consultant.

## Certification of Dollar Amount for all A&E Contracts:

I, the undersigned, certify that the approximate dollar amount of all A&E contracts awarded by Caltrans or a California local agency to this firm within the last three (3) calendar years for all State DOT and Local Agencies is $ $1.5M and the number of states in which the firm does business is 1.

## 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 reasonable, allowable and allocable to the contract in accordance with the cost principles of the FAR of Title 48, CFR, Part 31. Allowable direct costs to a Government contract shall be:

1. Compliant with Generally Accepted Accounting Principles (GAAP) and standards promulgated by the Cost Accounting Standards Board (when applicable).
2. Compliant with the terms of the contract and is incurred specifically for the contract.
3. Not prohibited by 23 CFR, Chapter 1, Part 172 – Administration of Engineering and Design Related Service Contracts to the extent requirements are applicable to Consultant.

All costs must be applied consistently and fairly to all contracts. All documentation of compliance must be retained in the project files.

**Subconsultants (if applicable)**
Proposed Contract Amount (or amount not to exceed if on-call contract): $ _____

**Prime Consultants (if applicable)**
Proposed **Total** Contract Amount (or amount not to exceed if on-call contract): $ $843,098

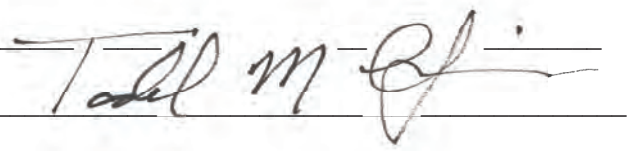
Prime, list all subconsultants and proposed subcontract dollar amounts (attach additional page if necessary):

| | |
|---|---|
| BkF Engineers | $ $ 219,494 |
| Earth Mechanics, Inc. | $ $ 98,501 |
| Avila & Associates | $ $ 15,731 |
| Rincon Consultants, Inc. | $ $ 35,569 |
| Praxis | $ $ 32,614 |
| Hamner, Jewell & Associates | **$** $ 52,800 |

Consultant Certifying (Print Name and Title):

Name: Todd M. Goolkasian

Title: President

Consultant Certification Signature **: 

Date of Certification (mm/dd/yyyy): June 23, 2017

Consultant Contact Information:

Email: tgoolkasian@cseg.com

Phone number: (559) 320-3200

**An individual executive or financial officer of the consultant's organization at a level no lower than a Vice President or Chief Financial Officer, or equivalent, who has authority to represent the financial information utilized to establish the Indirect Cost Rate proposal submitted in conjunction with the contract.

Note: *Per 23 U.S.C. 112(b)(2)(B), Subconsultants must comply with the FAR Cost Principles contained in 48 CFR, Part 31. 23 CFR Part 172.3 Definitions state: Consultant means the individual or firm providing engineering and design related services as a party to the contract. Therefore, subconsultants as parties of a contract must complete a certification and send originals to A&I and keep copies in Local Agency Project Files.*

**Distribution:** 1) Original to Caltrans Audits and Investigations
2) Retained in Local Agency Project Files

# EXHIBIT 10-K CONSULTANT CERTIFICATION OF CONTRACT COSTS AND FINANCIAL MANAGEMENT SYSTEM

***(Note: If requesting to utilize the Safe Harbor Indirect Cost Rate submit Attachment 1 of DLA-OB 13-07 - Safe Harbor Indirect Cost Rate for Consultant Contracts found at http://www.dot.ca.gov/hq/LocalPrograms/DLA_OB/DLA_OB.htm in lieu of this form.)***

**Certification of Final Indirect Costs:**

Consultant Firm Name: BkF Engineers

Indirect Cost Rate: 178.60% * for fiscal period 01/01/2016 – 12/31/2016

*Fiscal period covered for Indirect Cost Rate developed (not the contract period).

Local Government: County of Santa Barbara **Floradale Avenue Bridge Replacement**

Contract Number: County Project No. 862032 Project Number: Federal Project No. BRLSZD-5951(060)

I, the undersigned, certify that I have reviewed the proposal to establish final indirect cost rates for the fiscal period as specified above and to the best of my knowledge and belief:

1. All costs included in this proposal to establish final Indirect Cost Rates are allowable in accordance with the cost principles of the Federal Acquisition Regulations (FAR) of Title 48, Code of Federal Regulations (CFR), Part 31.
2. This proposal does not include any costs which are expressly unallowable under the cost principles of the FAR of 48 CFR, Part 31.

All known material transactions or events that have occurred affecting the firm's ownership, organization, and Indirect Cost Rates have been disclosed as of the date of proposal preparation noted above.

**Certification of Financial Management System:**

I, the undersigned, certify to the best of my knowledge and belief that our Financial Management System meets the standards for financial reporting, accounting records, internal and budget control as set forth in the FAR of Title 49, CFR, Part 18.20 to the extent applicable to Consultant.

**Certification of Dollar Amount for all A&E Contracts:**

I, the undersigned, certify that the approximate dollar amount of all A&E contracts awarded by Caltrans or a California local agency to this firm within the last three (3) calendar years for all State DOT and Local Agencies is $ 30,000,000 and the number of states in which the firm does business is 1.

**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 reasonable, allowable and allocable to the contract in accordance with the cost principles of the FAR of Title 48, CFR, Part 31. Allowable direct costs to a Government contract shall be:

1. Compliant with Generally Accepted Accounting Principles (GAAP) and standards promulgated by the Cost Accounting Standards Board (when applicable).
2. Compliant with the terms of the contract and is incurred specifically for the contract.
3. Not prohibited by 23 CFR, Chapter 1, Part 172 – Administration of Engineering and Design Related Service Contracts to the extent requirements are applicable to Consultant.

All costs must be applied consistently and fairly to all contracts. All documentation of compliance must be retained in the project files.

**Subconsultants (if applicable)**
Proposed Contract Amount (or amount not to exceed if on-call contract): $ 219,494

**Prime Consultants (if applicable)**
Proposed **Total** Contract Amount (or amount not to exceed if on-call contract): $ _____

Prime, list all subconsultants and proposed subcontract dollar amounts (attach additional page if necessary):

_____ $_____
_____ $_____
_____ $_____
_____ $_____
_____ $_____

Consultant Certifying (Print Name and Title):

Name: Christopher Rideout

Title: Principal/Vice President

Consultant Certification Signature **: _____

Date of Certification (mm/dd/yyyy): 6/20/17

Consultant Contact Information:

Email: crideout@bkf.com

Phone number: 949-526-8462

**An individual executive or financial officer of the consultant's organization at a level no lower than a Vice President or Chief Financial Officer, or equivalent, who has authority to represent the financial information utilized to establish the Indirect Cost Rate proposal submitted in conjunction with the contract.

Note: *Per 23 U.S.C. 112(b)(2)(B), Subconsultants must comply with the FAR Cost Principles contained in 48 CFR, Part 31. 23 CFR Part 172.3 Definitions state: Consultant means the individual or firm providing engineering and design related services as a party to the contract. Therefore, subconsultants as parties of a contract must complete a certification and send originals to A&I and keep copies in Local Agency Project Files.*

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# EXHIBIT 10-K CONSULTANT CERTIFICATION OF CONTRACT COSTS AND FINANCIAL MANAGEMENT SYSTEM

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## Certification of Final Indirect Costs:

Consultant Firm Name: Earth Mechanics, Inc.

Indirect Cost Rate: 177.62% * for fiscal period 2/1/2015 to 1/31/2016

*Fiscal period covered for Indirect Cost Rate developed (not the contract period).

Local Government: Santa Barbara County, Floradale Ave Bridge

Contract Number: County Project No. 862032 Project Number: Federal# BRLSZD-5951(060)

I, the undersigned, certify that I have reviewed the proposal to establish final indirect cost rates for the fiscal period as specified above and to the best of my knowledge and belief:

1. All costs included in this proposal to establish final Indirect Cost Rates are allowable in accordance with the cost principles of the Federal Acquisition Regulations (FAR) of Title 48, Code of Federal Regulations (CFR), Part 31.
2. This proposal does not include any costs which are expressly unallowable under the cost principles of the FAR of 48 CFR, Part 31.

All known material transactions or events that have occurred affecting the firm's ownership, organization, and Indirect Cost Rates have been disclosed as of the date of proposal preparation noted above.

## Certification of Financial Management System:

I, the undersigned, certify to the best of my knowledge and belief that our Financial Management System meets the standards for financial reporting, accounting records, internal and budget control as set forth in the FAR of Title 49, CFR, Part 18.20 to the extent applicable to Consultant.

## Certification of Dollar Amount for all A&E Contracts:

I, the undersigned, certify that the approximate dollar amount of all A&E contracts awarded by Caltrans or a California local agency to this firm within the last three (3) calendar years for all State DOT and Local Agencies is $ 7,300,000.00 and the number of states in which the firm does business is 2.

## 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 reasonable, allowable and allocable to the contract in accordance with the cost principles of the FAR of Title 48, CFR, Part 31. Allowable direct costs to a Government contract shall be:

1. Compliant with Generally Accepted Accounting Principles (GAAP) and standards promulgated by the Cost Accounting Standards Board (when applicable).
2. Compliant with the terms of the contract and is incurred specifically for the contract.
3. Not prohibited by 23 CFR, Chapter 1, Part 172 – Administration of Engineering and Design Related Service Contracts to the extent requirements are applicable to Consultant.

All costs must be applied consistently and fairly to all contracts. All documentation of compliance must be retained in the project files.

**Subconsultants (if applicable)**

Proposed Contract Amount (or amount not to exceed if on-call contract): $ 98,500.75

**Prime Consultants (if applicable)**

Proposed **Total** Contract Amount (or amount not to exceed if on-call contract): $ _____

Prime, list all subconsultants and proposed subcontract dollar amounts (attach additional page if necessary):

_____ $_____
_____ $_____
_____ $_____
_____ $_____
_____ $_____

Consultant Certifying (Print Name and Title):

Name: Lino Cheang, PE, GE

Title: Principal

Consultant Certification Signature **: _____

Date of Certification (mm/dd/yyyy): June 20, 2017

Consultant Contact Information:

Email: l.cheang@earthmech.com

Phone number: 714-751-3826

**An individual executive or financial officer of the consultant's organization at a level no lower than a Vice President or Chief Financial Officer, or equivalent, who has authority to represent the financial information utilized to establish the Indirect Cost Rate proposal submitted in conjunction with the contract.

Note: *Per 23 U.S.C. 112(b)(2)(B), Subconsultants must comply with the FAR Cost Principles contained in 48 CFR, Part 31. 23 CFR Part 172.3 Definitions state: Consultant means the individual or firm providing engineering and design related services as a party to the contract. Therefore, subconsultants as parties of a contract must complete a certification and send originals to A&I and keep copies in Local Agency Project Files.*

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1. Compliant with Generally Accepted Accounting Principles (GAAP) and standards promulgated by the Cost Accounting Standards Board (when applicable).
2. Compliant with the terms of the contract and is incurred specifically for the contract.
3. Not prohibited by 23 CFR, Chapter 1, Part 172 – Administration of Engineering and Design Related Service Contracts to the extent requirements are applicable to Consultant.

All costs must be applied consistently and fairly to all contracts. All documentation of compliance must be retained in the project files.

**Subconsultants (if applicable)**
Proposed Contract Amount (or amount not to exceed if on-call contract): $ $ 15,731

**Prime Consultants (if applicable)**
Proposed **Total** Contract Amount (or amount not to exceed if on-call contract): $ _____

Prime, list all subconsultants and proposed subcontract dollar amounts (attach additional page if necessary):

_____ $_____
_____ $_____
_____ $_____
_____ $_____
_____ $_____

Consultant Certifying (Print Name and Title):

Name: Catherine Avila

Title: President

Consultant Certification Signature **:

Date of Certification (mm/dd/yyyy): June 20, 2017

Consultant Contact Information:

Email: _____

Phone number: _____

**An individual executive or financial officer of the consultant's organization at a level no lower than a Vice President or Chief Financial Officer, or equivalent, who has authority to represent the financial information utilized to establish the Indirect Cost Rate proposal submitted in conjunction with the contract.

Note: *Per 23 U.S.C. 112(b)(2)(B), Subconsultants must comply with the FAR Cost Principles contained in 48 CFR, Part 31. 23 CFR Part 172.3 Definitions state: Consultant means the individual or firm providing engineering and design related services as a party to the contract. Therefore, subconsultants as parties of a contract must complete a certification and send originals to A&I and keep copies in Local Agency Project Files.*

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# EXHIBIT 10-K CONSULTANT CERTIFICATION OF CONTRACT COSTS AND FINANCIAL MANAGEMENT SYSTEM

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**Certification of Final Indirect Costs:**

Consultant Firm Name: Rincon Consultants, Inc.

Indirect Cost Rate: 127.31 * for fiscal period 1/1/15 - 12/31/15

*Fiscal period covered for Indirect Cost Rate developed (not the contract period).

Local Government: County of Santa Barbara **Floradale Avenue Bridge Replacement**

Contract Number: County Project No. 862032 Project Number: Federal Project No. BRLSZD-5951(060)

I, the undersigned, certify that I have reviewed the proposal to establish final indirect cost rates for the fiscal period as specified above and to the best of my knowledge and belief:

1. All costs included in this proposal to establish final Indirect Cost Rates are allowable in accordance with the cost principles of the Federal Acquisition Regulations (FAR) of Title 48, Code of Federal Regulations (CFR), Part 31.
2. This proposal does not include any costs which are expressly unallowable under the cost principles of the FAR of 48 CFR, Part 31.

All known material transactions or events that have occurred affecting the firm's ownership, organization, and Indirect Cost Rates have been disclosed as of the date of proposal preparation noted above.

**Certification of Financial Management System:**

I, the undersigned, certify to the best of my knowledge and belief that our Financial Management System meets the standards for financial reporting, accounting records, internal and budget control as set forth in the FAR of Title 49, CFR, Part 18.20 to the extent applicable to Consultant.

**Certification of Dollar Amount for all A&E Contracts:**

I, the undersigned, certify that the approximate dollar amount of all A&E contracts awarded by Caltrans or a California local agency to this firm within the last three (3) calendar years for all State DOT and Local Agencies is $ 6,270,000. - and the number of states in which the firm does business is 3.

**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 reasonable, allowable and allocable to the contract in accordance with the cost principles of the FAR of Title 48, CFR, Part 31. Allowable direct costs to a Government contract shall be:

1. Compliant with Generally Accepted Accounting Principles (GAAP) and standards promulgated by the Cost Accounting Standards Board (when applicable).
2. Compliant with the terms of the contract and is incurred specifically for the contract.
3. Not prohibited by 23 CFR, Chapter 1, Part 172 – Administration of Engineering and Design Related Service Contracts to the extent requirements are applicable to Consultant.

All costs must be applied consistently and fairly to all contracts. All documentation of compliance must be retained in the project files.

**Subconsultants (if applicable)**
Proposed Contract Amount (or amount not to exceed if on-call contract): $ $35,569

**Prime Consultants (if applicable)**
Proposed **Total** Contract Amount (or amount not to exceed if on-call contract): $ _____

Prime, list all subconsultants and proposed subcontract dollar amounts (attach additional page if necessary):

_____ $_____
_____ $_____
_____ $_____
_____ $_____
_____ $_____

Consultant Certifying (Print Name and Title):

Name: Lacrissa Davis, MESM

Title: Vice President / CFO

Consultant Certification Signature **: _____

Date of Certification (mm/dd/yyyy): 6/12/17

Consultant Contact Information:

Email: lcook@rinconconsultants.com

Phone number: 805-701-8828

**An individual executive or financial officer of the consultant's organization at a level no lower than a Vice President or Chief Financial Officer, or equivalent, who has authority to represent the financial information utilized to establish the Indirect Cost Rate proposal submitted in conjunction with the contract.

Note: *Per 23 U.S.C. 112(b)(2)(B), Subconsultants must comply with the FAR Cost Principles contained in 48 CFR, Part 31. 23 CFR Part 172.3 Definitions state: Consultant means the individual or firm providing engineering and design related services as a party to the contract. Therefore, subconsultants as parties of a contract must complete a certification and send originals to A&I and keep copies in Local Agency Project Files.*

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# EXHIBIT 10-K CONSULTANT CERTIFICATION OF CONTRACT COSTS AND FINANCIAL MANAGEMENT SYSTEM

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**Certification of Final Indirect Costs:**

Consultant Firm Name: __Praxis Consolidated International, Inc.

Indirect Cost Rate: _122.38%_____ * for fiscal period _____ (01/01/2015 to 012/31/2015)

*Fiscal period covered for Indirect Cost Rate developed (not the contract period).

Local Government: Floradale Bridge Project

Contract Number: _____ Project Number: _____

I, the undersigned, certify that I have reviewed the proposal to establish final indirect cost rates for the fiscal period as specified above and to the best of my knowledge and belief:

1. All costs included in this proposal to establish final Indirect Cost Rates are allowable in accordance with the cost principles of the Federal Acquisition Regulations (FAR) of Title 48, Code of Federal Regulations (CFR), Part 31.
2. This proposal does not include any costs which are expressly unallowable under the cost principles of the FAR of 48 CFR, Part 31.

All known material transactions or events that have occurred affecting the firm's ownership, organization, and Indirect Cost Rates have been disclosed as of the date of proposal preparation noted above.

**Certification of Financial Management System:**

I, the undersigned, certify to the best of my knowledge and belief that our Financial Management System meets the standards for financial reporting, accounting records, internal and budget control as set forth in the FAR of Title 49, CFR, Part 18.20 to the extent applicable to Consultant.

**Certification of Dollar Amount for all A&E Contracts:**

I, the undersigned, certify that the approximate dollar amount of all A&E contracts awarded by Caltrans or a California local agency to this firm within the last three (3) calendar years for all State DOT and Local Agencies is $20,000 and the number of states in which the firm does business is 2.

**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 reasonable, allowable and allocable to the contract in accordance with the cost principles of the FAR of Title 48, CFR, Part 31. Allowable direct costs to a Government contract shall be:

1. Compliant with Generally Accepted Accounting Principles (GAAP) and standards promulgated by the Cost Accounting Standards Board (when applicable).
2. Compliant with the terms of the contract and is incurred specifically for the contract.
3. Not prohibited by 23 CFR, Chapter 1, Part 172 – Administration of Engineering and Design Related Service Contracts to the extent requirements are applicable to Consultant.

All costs must be applied consistently and fairly to all contracts. All documentation of compliance must be retained in the project files.

**Subconsultants (if applicable)**

Proposed Contract Amount (or amount not to exceed if on-call contract): $ 32,613 (base services)

**Prime Consultants (if applicable)**

Proposed **Total** Contract Amount (or amount not to exceed if on-call contract): $

Prime, list all subconsultants and proposed subcontract dollar amounts (attach additional page if necessary):

_____ $_____
_____ $_____
_____ $_____
_____ $_____
_____ $_____

Consultant Certifying (Print Name and Title):

Name: Grant Dorman

Title: _C.E.O._____

Consultant Certification Signature **: _____

Date of Certification (mm/dd/yyyy): 06/21/2017

Consultant Contact Information:

Email: ___grant@praxisci.com_____

Phone number: _(805) 489-9900 x102_____

**An individual executive or financial officer of the consultant's organization at a level no lower than a Vice President or Chief Financial Officer, or equivalent, who has authority to represent the financial information utilized to establish the Indirect Cost Rate proposal submitted in conjunction with the contract.

Note: *Per 23 U.S.C. 112(b)(2)(B), Subconsultants must comply with the FAR Cost Principles contained in 48 CFR, Part 31. 23 CFR Part 172.3 Definitions state: Consultant means the individual or firm providing engineering and design related services as a party to the contract. Therefore, subconsultants as parties of a contract must complete a certification and send originals to A&I and keep copies in Local Agency Project Files.*

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**Certification of Final Indirect Costs:**

Consultant Firm Name: Hamner, Jewell & Associates

Indirect Cost Rate: 110 Safe Harbor * for fiscal period 2016

*Fiscal period covered for Indirect Cost Rate developed (not the contract period).

Local Government: County of Santa Barbara

Contract Number: _____ Project Number: _____

I, the undersigned, certify that I have reviewed the proposal to establish final indirect cost rates for the fiscal period as specified above and to the best of my knowledge and belief:

1. All costs included in this proposal to establish final Indirect Cost Rates are allowable in accordance with the cost principles of the Federal Acquisition Regulations (FAR) of Title 48, Code of Federal Regulations (CFR), Part 31.
2. This proposal does not include any costs which are expressly unallowable under the cost principles of the FAR of 48 CFR, Part 31.

All known material transactions or events that have occurred affecting the firm's ownership, organization, and Indirect Cost Rates have been disclosed as of the date of proposal preparation noted above.

**Certification of Financial Management System:**

I, the undersigned, certify to the best of my knowledge and belief that our Financial Management System meets the standards for financial reporting, accounting records, internal and budget control as set forth in the FAR of Title 49, CFR, Part 18.20 to the extent applicable to Consultant.

**Certification of Dollar Amount for all A&E Contracts:**

I, the undersigned, certify that the approximate dollar amount of all A&E contracts awarded by Caltrans or a California local agency to this firm within the last three (3) calendar years for all State DOT and Local Agencies is $ not an A&E Firm and the number of states in which the firm does business is 1.

**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 reasonable, allowable and allocable to the contract in accordance with the cost principles of the FAR of Title 48, CFR, Part 31. Allowable direct costs to a Government contract shall be:

1. Compliant with Generally Accepted Accounting Principles (GAAP) and standards promulgated by the Cost Accounting Standards Board (when applicable).
2. Compliant with the terms of the contract and is incurred specifically for the contract.
3. Not prohibited by 23 CFR, Chapter 1, Part 172 – Administration of Engineering and Design Related Service Contracts to the extent requirements are applicable to Consultant.

All costs must be applied consistently and fairly to all contracts. All documentation of compliance must be retained in the project files.

**Subconsultants (if applicable)**

Proposed Contract Amount (or amount not to exceed if on-call contract): $ 52,800.00

**Prime Consultants (if applicable)**

Proposed **Total** Contract Amount (or amount not to exceed if on-call contract): $ _____

Prime, list all subconsultants and proposed subcontract dollar amounts (attach additional page if necessary):

_____ $_____
_____ $_____
_____ $_____
_____ $_____
_____ $_____

Consultant Certifying (Print Name and Title):

Name: Lillian Jewell

Title: Managing Senior Associate

Consultant Certification Signature **: 

Date of Certification (mm/dd/yyyy): 06/23/17

Consultant Contact Information:

Email: ljewell@hamner-jewell.com

Phone number: 805-773-1459

**An individual executive or financial officer of the consultant's organization at a level no lower than a Vice President or Chief Financial Officer, or equivalent, who has authority to represent the financial information utilized to establish the Indirect Cost Rate proposal submitted in conjunction with the contract.

Note: *Per 23 U.S.C. 112(b)(2)(B), Subconsultants must comply with the FAR Cost Principles contained in 48 CFR, Part 31. 23 CFR Part 172.3 Definitions state: Consultant means the individual or firm providing engineering and design related services as a party to the contract. Therefore, subconsultants as parties of a contract must complete a certification and send originals to A&I and keep copies in Local Agency Project Files.*

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2) Retained in Local Agency Project Files

# County of Santa Barbara

## Request for Proposal to Provide:

Professional Design Engineering Services for the
Floradale Avenue Bridge Project
County Project No. 862032
Federal Project No. BRLSZD-5951 (060)

CORNERSTONE
structural
engineering
group

February 3, 2017

CORNERSTONE
structural
engineering
group

February 3, 2017

County of Santa Barbara
Department of Public Works
Transportation Division
123 East Anapuma Street
Santa Barbara, CA 93101

Attention: Mr. Charlie Elbert
Project Manager/Contract Manager

Subject: Proposal for All-Inclusive Bridge Engineering Services
Floradale Avenue Bridge Project (Br. No. 51C-0006)
County Project No. 862032
Federal Project No. BRLSZD-5951(060)

Dear Mr. Elbert:

Cornerstone Structural Engineering Group is pleased to submit this all-inclusive proposal for the Floradale Avenue Bridge Project, in response to the County's RFP dated December 27, 2016. We understand that the County wishes to replace the existing Floradale Avenue Bridge over the Santa Ynez River and that they are soliciting proposals from qualified design professionals to provide design, environmental, and right-of-way services. We are excited to have the opportunity to complete this project for the County, and believe that our unique qualifications as well as those of our selected subconsultants will be shown in this proposal to be a perfect fit for the project.

Cornerstone is a Certified Small Business with the California Department of General Services and provides structural engineering design services to public agencies and other professional clients on a wide variety of infrastructure projects located throughout California. Established as an "S" Corporation in 2004, Cornerstone's principals have over 60 years of combined professional engineering and management experience on bridge projects. We specialize in the design and project management of federally funded local Highway Bridge Program projects and we have longstanding client relationships with many local public agencies throughout California from Redding to Santa Barbara, many of which regularly enlist our firm for Federal HBP and other publicly funded bridge design services.

Our talented and knowledgeable staff includes five licensed structural engineers and 12 licensed civil engineers between two offices in Fresno and San Francisco. Cornerstone represents Caltrans' Central Region on the Caltrans/ACEC Structures Liaison Committee and is intimately familiar with Caltrans practices and policies, especially related to the Federal Highway Bridge Program. Cornerstone is proud of its reputation as a go-to firm for federally-funded bridge and infrastructure related services with many local agencies in the Central Region, and looks forward to offering these services to Santa Barbara County on the Floradale Avenue Bridge Project.

We have partnered with the following firms to provide the complete scope of engineering services requested in the County's RFP:

- BKF Engineers – Civil Engineering and Utility Coordination
- Earth Mechanics Inc. (DBE) - Geotechnical Engineering
- Avila & Associates (DBE) - Hydraulics/Hydrology
- Rincon Consultants – Environmental
- Praxis – Survey and Right-of-Way Engineering
- Hamner, Jewel & Associates – Right-of-Way Appraisal & Acquisitions

We have successfully completed numerous past bridge projects using this team and have the utmost confidence that they will successfully deliver this project on schedule and within budget.

CORNERSTONE
structural
engineering
group

Cornerstone has completed several large river bridge crossings that are similar in scope to the Floradale Avenue Bridge Project. Our most recent completed project, the Avenue 416 (R.B. Oliver) Bridge Replacement over the Kings River won a 2016 ACEC Honor Award for its environmentally sensitive design and our Goodfellow Avenue Bridge over the Kings River also won a 2011 ASCE Structural Project of the Year award for its innovative foundations. We are also currently working on the Carmel River Overflow Bridge on State Route 1, which has similar liquefaction issues to the Floradale Avenue Bridge.

With our experience with larger river bridges, we have identified several Key Issues related to the Floradale Avenue Bridge Project. These Key Issues are:

- **Limit increases in the roadway profile to minimize impacts within the floodway.** The current roadway design includes up to 3 ft. of additional fill above the existing roadway, blocking a portion of the regulated floodway.
- **Reduce the number of bridge spans and use single column piers to reduce foundation costs.** We believe up to two spans can be eliminated from the current bridge design and the bridge can be supported on single column piers, significantly reducing costly foundations elements.
- **Replace CISS piles with more cost effective CIDH piles.** We believe reductions in the seismic demands on the bridge will allow the use of large diameter CIDH piles, reducing foundation costs and reducing impacts to steelhead within the Santa Ynez River.

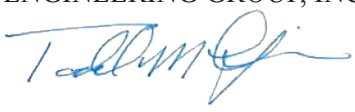
Cornerstone has a commitment to provide strong leadership with minimal oversight time from our clients' staff. We recognize that the key to a successful project is to identify key issues, which are not always structural or even technical in nature, early in the design process. We take great pride in understanding all aspects of a project, including those of other disciplines, so that we can provide comprehensive input and recommendations to keep projects on schedule and within budget. We continually work with our clients to understand their unique needs, budget and schedule so that we may provide our clients with the information and recommendations needed throughout the project for successful project completion. We continuously look for ways to improve ourselves; to learn from past experiences and actively apply what we have learned so that we can better meet our client's needs. We call this personal attention and dedication "servant leadership" and believe it is what our existing clients most appreciate about us.

Cornerstone Structural Engineering Group will adhere to Prevailing Wage rates and we affirm that our proposal terms will remain in effect for ninety (90) days following the date the proposal submittal is due. We also acknowledge that we are aware of the County's DBE requirements for the project.

Although he is President of the company, Mr. Goolkasian is a working Principal and typically manages the larger projects for Cornerstone. Mr. Goolkasian will be the day-to-day contact for Santa Barbara County on this project and will manage all aspects of the project including all subconsultants.

We look forward to the opportunity to further present our qualifications and project understanding at an interview, should the County find this necessary. Should you have any questions, please do not hesitate to contact me at (559) 320-3200 or tgoolkasian@cseg.com.

Sincerely,
CORNERSTONE STRUCTURAL
ENGINEERING GROUP, INC.



Todd M. Goolkasian, S.E.
President

# *Project Understanding/Work Plan*

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## Introduction

The County of Santa Barbara Department of Public Works (County), in cooperation with the California Department of Transportation (Caltrans) and the Federal Highway Administration, has requested proposals to provide Professional Design Services for the Floradale Avenue Bridge over the Santa Ynez River (Bridge No. 51C0006). The project is located north of the City of Lompoc and east of Vandenberg Air Force Base (VAFB) as shown below:


Cornerstone Structural Engineering Group (Cornerstone) and our qualified Team have developed the following project understanding and work plan to successfully complete this Project and our Team **will deliver** through our:

- Technical Expertise
- Experience with Similar Projects
- Experience with, and knowledge of, the Local Bridge Seismic Retrofit Program (LBSRP) and the Highway Bridge Program (HBP)

## Background

Floradale Avenue provides direct access from the south to the Lompoc Federal Correctional Complex (FCC), which includes the Federal Correctional Institution (FCI), a US Penitentiary (USP), and an FCC Prison Farm; and the VAFB Lompoc Gate. After crossing the Santa Ynez River, Floradale Avenue becomes Santa Lucia Canyon Road. The Lompoc FCC facilities are located directly north of the bridge crossing, with the FCI and USP located on the west of side of Santa Lucia Canyon Road. The FCC Farm complex has facilities on both sides of Santa Lucia Canyon Road, with the FCC Dairy Farm located to the west. VAFB Lompoc Gate is located north of the bridge, closer to where Santa Lucia Canyon Road meets Highway 1.

The existing Floradale Avenue Bridge was constructed by


the Federal Highway Administration to replace a bridge that was washed out during the 1969 floods. The existing bridge is a 6 span, 521 ft. long reinforced concrete box girder supported by single column piers founded on pile caps and driven cast-in-steel-shell piles.

The Floradale Avenue Bridge is listed on the Caltrans Mandatory Local Seismic Safety Retrofit Program (LSSRP) list and is eligible for funding from the State's Proposition 1B account. The bridge was placed on the seismic retrofit list following the screening performed on thousands of bridges statewide following the 1989 Loma Prieta and the 1994 Northridge earthquakes. The screening, performed by Caltrans, revealed that the bridge was susceptible to collapse under the maximum credible earthquake. The preliminary seismic retrofit strategy identified two strategies:

- Retrofit with two-column catcher bents (also called super-bents) located under each of the existing piers
- Retrofit by replacement

In 2007, the County completed a comparison between the retrofit strategies and the retrofit by replacement strategy was determined to be the preferred alternative. An HBP 6D Change request was submitted to Caltrans and the project was programed as a replacement.

Based on our conversations with the Robert Zezoff, the Caltrans District 5 Structures Liaison Engineer, we understand that one of the primary reasons the replacement bridge was preferred over the super-bent retrofit was due to the hydraulic impacts of the super-bent and the increase in the base flood water surface elevations resulting from the larger super-bent columns in the channel. The replacement bridge alternative resolves this issue by lengthening the bridge relative to the existing bridge and reducing the number of spans from six spans on the existing bridge to five spans on the proposed. Based on this and our discussions with Mr. Zezoff, we

understand that no additional review of the retrofit strategy or replacement justification should be anticipated by Caltrans Local Assistance.

The currently proposed replacement structure consists of a 575 ft. long, 5 span cast-in-place post-tensioned box girder supported on two column piers and cast-in-steel-shell (CISS) piles. The bridge is proposed to be located on a new, westerly alignment adjacent to the existing bridge.

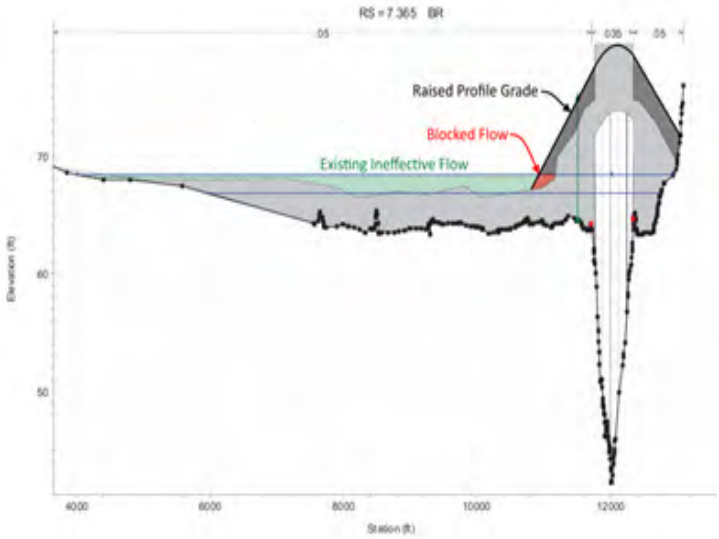
## Project Details

## HYDRAULICS

### Key Issues

- Large Floodplain
- Regulated Floodway
- Impacts of Roadway Profile

The Santa Ynez river is one of the largest rivers in California,




with a drainage basin of nearly 900 square miles that covers much of Santa Barbara County. The Floradale Avenue Bridge is located near the terminus of the Santa Ynez river where the channel widens into a natural floodplain. The floodplain encompasses much of the valley that the City of Lompoc occupies and is nearly 1.5 miles wide at the project site.

The floodplain of the Santa Ynez river, like many floodplains, provides natural relief to the river channel during flood events by providing additional area for flood flows. Floodplains consist of two general areas, the floodway that is primarily responsible for carrying flood flows and the inundated areas outside the floodway that see very little flow, which are referred to as ineffective flow areas. Impacting floodways, where flood flows are predominately carried, can severely influence upstream flooding by restricting flows. For this reason, regulated floodways are established to limit development in areas that are considered critical to maintaining flood flows.

The Santa Ynez River has a FEMA established regulated floodway. While the presence of the regulated floodway does not prohibit development within the floodway, it will require analysis to show that the development does not increase the flood elevations.

This analysis was started during the preliminary engineering phase of the project and our Team member, Avila & Associates, prepared this analysis. However, the current analysis included in the Preliminary Hydraulics Report (PHR) and the Draft Final Hydraulics Report (FHR) does not include the rise in roadway profile shown on the Geometric Approval Drawings (GADs). According to the GADs, the profile grade of the new structure is higher than the existing roadway by approximately 2 ft. at the south end and 3.5 ft. on the north end of the existing bridge. On the south end of the bridge, this creates a dam and blocks a portion of the regulated floodway. This is shown in the figure below, which is one of the Draft FHR figures that has been modified to show the GAD profile grade.

The current bridge and roadway design reflected in the preliminary engineering documents do not account for this impact and the hydraulics analysis will need to be updated to consider any proposed increase in the profile grade (if an increase in profile is necessary, see further discussion below).

From a hydraulic opening standpoint, the ideal project would not raise the profile grade of the new road above the existing. This would maintain a hydraulic opening nearly identical to the existing bridge (neglecting the influence of the piers), resulting in no net change to the existing flood elevations. However, because the new bridge must also meet the County of Santa Barbara's freeboard requirements, or 2 ft. over the Base Flood Elevation (BFE), the new profile grade is dependent upon the depth of the new bridge structure and the required freeboard.

Fortunately, the draft FHR has a lower calculated BFE which will allow the profile grade to be reduced by a minimum of 1.5 ft., which is the difference between the soffit at the south end of the currently proposed bridge and the revised BFE shown in the draft FHR. The profile grade could be further reduced if a thinner structure was used, such as with a haunched box girder. However, we believe dropping the profile grade 1.5 ft. will be enough to eliminate the blocked flow area and significantly decrease the potential for regulatory compliance issues in the floodway.

Cornerstone will confirm that this issue has been fully addressed during our proposed update to the project Type Selection and GAD documents. We will also work closely with Avila and Associates to ensure that any proposed design revisions meet the design requirements for the project, do not negatively affect the project hydraulics, and address regulatory compliance with the Santa Barbara County Flood Control District.

## Roadway

### Key Issues

- Maintaining Traffic
- Intersection at FCC Farm Roads
- Construction of Tie-Ins
- Agricultural Use

The facilities served by Floradale/Santa Lucia Canyon Road create a significant amount of traffic over the existing bridge, most of which is attributed to VAFB personal from Lompoc. The City of Lompoc *2015 Engineering & Traffic Survey to Establish Speed Zones* indicates an ADT of 5,700 and the road is classified as a major road in the County of Santa Barbara's Comprehensive Plan and a minor arterial in the City of Lompoc General Plan. Therefore, the roadway is a major transportation element in the local area.

Cornerstone agrees with the preliminary engineering proposal to construct the bridge along a new, adjacent alignment. This offers several advantages over other potential alternatives including:

- Reduced impacts to the traveling public by **maintaining traffic** on the existing bridge
- Reduced construction costs by eliminating costly staging

Cornerstone and our Team have used this construction technique on several of our large, river crossing projects including most recently on our Avenue 416 (R.B. Oliver) Bridge over the Kings River in Tulare County. This project is nearly identical to the Floradale project, with a 740 ft. long bridge constructed on an adjacent alignment with approximately 2,000 ft. of approach roadway tying back into the existing roadway alignment.

Our Avenue 416 project also included two intersections, one on each side of the bridge, similar to the intersection at the FCC farm and dairy access roads located north of the bridge. These access roads provide the main access to the FCC farm located west of the bridge and the FCC Dairy located east of the bridge and we are very familiar with the traffic staging that can be expected from shifting the roadway.

The intersection at the FCC access roads provides a unique challenge to the project. Site distance must be maintained to ensure safety at the intersection. Based on our review of the preliminary engineering documents, we understand the new intersection was designed for an intersection site distance (ISD) based on AASHTO criteria using a single-unit truck (9.5 s gap time) and a design speed of 45 mph. Because of this ISD and the view obstruction of the bridge barrier rail and associated guardrail, the intersection has been moved approximately 100 ft. further north which results in the realignment of the eastern FCC dairy access road. The realignment of the dairy access roads results in the road cutting into the hill located along the northeast quadrant of the project. As part of the Type Selection update, we recommend that this intersection design be confirmed and the need for the intersection to be moved this far north be investigated to potentially reduce the impacts to the FCC. This would include considering the design criteria and the layout of the proposed intersection to determine whether adjustments could be made.

***Intersection Site Distance - Observation Due to Barrier***

Because these access roads are critical to the operation of the FCC facilities, access during construction will need to be maintained. Staged construction of the intersection will be required. This staging will need to account for any vertical profile change between the existing roadway and the proposed, though this change will be minimal with the reduced profile grade.

There likely will be the need to provide a temporary roadway to the new profile grade in the location of the intersection. This temporary connection will allow for the construction of the ultimate intersection at the FCC access road approaches. Construction of the roadway will also need to consider the

staging at the tie-ins to the existing road. On the south side of the river the approach roadway would need to be constructed in stages while maintaining one lane of traffic in each direction: The fill and roadway south of the abutment can be placed southerly to approximately 41+25 without impacting the existing pavement (no impact to existing roadway/shoulders).

With the existing pavement south of STA 41+25 being approximately 40 feet wide, there is room to shift traffic to the very east side of the pavement and construct the remainder of the approach roadway. There likely may be the need for a sliver (4-6 feet) for temporary pavement on the east edge of the existing road to push traffic completely out of the construction zone (41+00 and conform limits on the south) to maintain the two lanes of traffic. Similar to the south conform transition, north of 62+50 the traffic will be shifted easterly during the tie-in road work to maintain traffic.

The proposed roadway section (two 12 ft. travel lanes with 8 ft. shoulders) meets the AASHTO A Policy on Geometric Design of Highways and Streets (AASHTO Green Book) guidelines for rural collectors. However, it should be noted that the current ADT exceeds the County of Santa Barbara's Engineering Design Standards for local public road sections (maximum ADT of 5,000). While the current ADT exceeds the County standards, the roadway continues to meet AASHTO criteria and will be consistent with the remaining sections of Floradale/Santa Lucia Road.

The proposed roadway section must also meet local use requirements. While Floradale Avenue primarily serves as a commute route between Lompoc and VAFB, the bridge also provides an agricultural connection over the Santa Ynez River. The primary crops in the area are row crops that require cultivators, which are typically 24 ft. wide but can extend upwards of 40 ft. While the existing bridge is approximately 40 ft. wide, the barrier rails on the existing bridge are only 2'-3" tall, which is typical for older bridges in agriculture areas. The lower barrier rails allow wide farm equipment to extend over the barrier rail, which allows wider equipment to pass over the bridge. However, new barrier rails are much taller to meet AASHTO and MASH criteria. The new MASH criteria requires TL-4 barriers, which the replacement barriers will need to be, to be 36 in. tall. The additional height of the barrier rails can impede agricultural equipment that were once able to pass over the bridge with the lower barriers. While we do not anticipate this will be of significant concern on the Floradale Avenue bridge, because of the relatively wide roadway section, we recommend engaging with the FCC farm to ensure that this item is addressed prior to final design.

## Utilities

### Key Issues

- Identification of Existing Utilities
- Determination of Conflicts and Liability
- Relocation Coordination

We understand that utility coordination has not started but that mapping of visible utilities has been completed. Cornerstone and our Team will identify the existing utilities and and coordinate with the existing utility owners following Caltrans Right-of-Way Manual, Chapter 13 Utility Relocation. The utility coordination process will begin with submitting Utility Verification letters (Utility 'A' letters) requesting utility record mapping and established rights of those utilities within the project area.

Record mapping will be compared to the previous survey mapping and conflicts with the proposed improvements will be identified. Cornerstone will also coordinate with the County to determine whether the utilities operate within the County's right-of-way under a franchise agreement to determine liability of utility relocation and impacts to project cost. Conflict maps will be prepared and Utility Confirmation letters (utility 'B' letters) will be provided to the utility owners requesting the utility's relocation strategy and confirmation of prior rights. Cornerstone and our Team will also request a utility coordination meeting with the impacted utilities to coordinate their relocation efforts with the proposed design, establish project schedule deadlines, and to facilitate building consensus with the impacted utilities.

Based on our observations at the site, the following utilities are anticipated to be impacted:

### Joint Overhead Utilities

The existing Joint Pole (JP) line running north-south on the west side of the existing alignment will be impacted with the new alignment and will require relocation. The JP carries electrical and communication lines. Owners will be determined during the first phase of utility coordination but electrical is owned by either PG&E or Lompoc City Electric and will likely be the lead in the JP relocation. The JP will be relocated prior to construction, likely to the east side of the existing road since the JP and runs easterly along the southern bank of the river. Relocation would be coordinated to ensure that all standard clearances are met and that the relocated poles will not impact construction activities (such as maintaining necessary clearances to crane booms).

## Sewer Lines

There are two sewer lines that are carried by the existing bridge, one on each side of the bridge and supported from the bridge overhangs. These lines flow to the Lompoc Sewage Treatment Plant located approximately one mile south of the bridge along Central Avenue. The eastern sewer line is from Vandenberg Village and is operated by the Vandenberg Village Community Services District. The western ewer line is from VAFB and is owned by the Base but is operated by the Base's subcontractor, American Water, Inc. There appears to be a lift station located on the north-west side of the bridge for the VAFB sewer line. This will be confirmed during the utility coordination process and relocation of the lift station will be included in the utility relocation effort.

The sewer lines will be relocated into the cells of the new bridge structure. Because the replacement bridge will be constructed on a new alignment, new facilities will be installed within the bridge. The new facilities will be "cut-in" to the existing facilities once the new facilities are complete.

Cornerstone understands that many utility companies, particularly smaller utilities, do not have experience with bridge crossings. Therefore, Cornerstone will be available to offer our knowledge and previous experiences with large wet utilities on bridge structures. Key to this is:

- Providing specifications that provide adequate time for the utilities to install their facilities
- Coordinating details required at the bridge to accommodate the bridge movement, such as the use of expansion-deflection fittings,
- Coordinating the utility supports within the bridge with the owner

Cornerstone has provided this leadership on several of our previous projects involving wet utilities, including our North and South Dougherty bridges that carried 12" and 20" diameter water mains, and a 54" diameter storm drain and our Japonica Way bridge that carried a 10" diameter sewer main

## Right of Way

### Key Issues

- Federal Land Acquisition

We anticipate a total of four parcels will be impacted by the new alignment.
These parcels are:

| APN | Owner |
|---|---|
| 095-040-004 | FCC |
| 095-040-011 | FCC |
| 093-040-028 | County of Santa |
| 095-040-029 | Stephen and Patricia Jordon |

Two of these parcels are owned by the Federal Government and are associated with the FCC and VAFB. Because the project will improve access to both the FCC and VAFB and will be of great benefit to the federal facilities, we anticipate that the required right-of-way from these parcels will be granted to the County.

We have included Hamner Jewel & Associates (HJA) on our team to provide right-of-way acquisition services. HJA has extensive experience in the local Santa Barbara area and their familiarity will help expedite the right-of-way appraisal and acquisition process.

## Geotechnical

### Key Issues

- Liquefaction
- Potential for Lateral

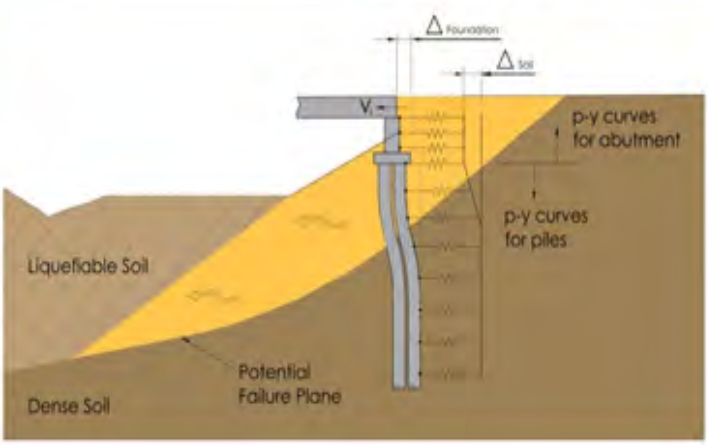
Cornerstone has teamed with Earth Mechanics, Inc. (EMI) to perform the supplemental geotechnical investigation for this project. EMI is very familiar with this project site and the anticipated subsurface conditions, having worked on the preliminary engineering.

There is a substantial amount of geotechnical data available on the project, with twelve soil borings and eleven cone penetrometer tests (CPTs) having been performed along the existing bridge alignment. Nine borings were completed as part of the design of the original bridge in 1969. These borings went to a depth of approximately 110 ft. below the channel. In 1997, Taber Consultants

conducted three additional borings as part of the seismic retrofit strategy, with maximums depths of approximately 130 ft. The CPT depths varied from 50 ft. to 120 ft.

Because the project is located within the historic floodplain of the Santa Ynez River, the subsurface profile consists of young alluvial deposits (sand and silt) over older, denser alluvium. These deposits, which have accrued over the centuries as the river deposits sediment, have resulted in very weak soils at the project site. When these loosely consolidated deposits are combined with high groundwater and strong ground shaking during an earthquake, they are susceptible to liquefaction. Liquefaction results in the loss of both lateral and vertical support for bridge foundations and can lead to very large downdrag forces within the liquefied zone. These downdrag forces can add significant loading to the piles and can also lead to large vertical settlement of the bridge foundations.

Liquefaction can also lead to lateral spreading, a phenomena where the ground flows, or moves, along the sloping gradient. This slope failure typically occurs at the channel slopes and can push on the bridge abutments and foundations, inducing significant lateral loads on the structure and potentially leading to collapse.




***Lateral Spreading at Abutments***

Cornerstone has extensive recent experience with liquefaction and lateral spreading and we are fully aware of Caltrans current methodologies and guidelines, including the recent update to Caltrans Memo-To-Designer 20-15 and Caltrans Guidelines on Foundation Loading and Deformation Due to Liquefaction Induced Lateral Spreading. We recently completed the design for the San Joaquin River Bridge at River Islands Parkway in Lathrop CA for Reclamation District RD 17 and RD 2062 which included liquefiable soils in the upper 15 to 20ft within the river and lateral spreading of the existing levees into the river channel. We are also currently working on the Carmel River Bridge at State Route 1 for Monterey County, which has liquefaction induced vertical settlements up to 10 in. and horizontal lateral spreading movements of up to 48 in. To deal with these large liquefaction induced displacements, large diameter, driven cast-in-steel-shell (CISS) piles can be used. CISS piles provide additional stiffness over cast-in-drilled-hole piles due to the driven steel shell. CISS piles also have the additional benefit of providing lower risk to foundation constructability issues, such as caving. However, CISS piles are more expensive (30% to 50% more than drilled piles) and typically require driving by impact hammers, which can be a significant disadvantage in channels with listed anadromous fish species, such as southern California steelhead found in the Santa Ynez River, where regulatory constraints will limit driving.

One alternative to using CISS piles, one that eliminates driving but provides similar benefits to CISS piles, is to use a casing oscillator to install a cast-in-drilled-hole (CIDH) pile. The oscillator allows a temporary casing to be “oscillated and pushed” into place and subsequently extracted as the pile is filled with concrete. This allows temporary casing to extend the full depth of the pile, something that might otherwise be impossible for pile shafts that extend down over 100 ft. below the mudline. Because of loose, caving soils located along the full depth of the pile shafts, Cornerstone incorporated special requirements in the project special provisions for our Goodfellow Avenue Bridge replacement project and our Avenue 416 Bridge replacement project that required the use of this technology.

Another option to impact driving of CISS piles is to use rotator/oscillators to “rotate and push” a permanent steel shell into the ground. This construction technology combines an oscillator installed CIDH pile with the permanent casing of a CISS pile. While this technology which has liquefaction induced vertical settlements up to 10 in. and horizontal lateral spreading movements of up to 48 in.

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Another option to impact driving of CISS piles is to use rotator/oscillators to "rotate and push" a permanent steel shell into the ground. This construction technology combines an oscillator installed CIDH pile with the permanent casing of a CISS pile. While this technology eliminates the need to drive the steel casing and reduces regulatory issues, it also essentially combines the cost of an oscillated drilled pile with a CISS pile, resulting in very expensive foundations, particularly for large diameter piles required for bridge foundations. The cost of these piles typically outweighs their benefits, unless a permanent steel casing is required for the structural capacity of the foundation.

For the Floradale Avenue bridge, we believe a large diameter casing oscillated CIDH pile is feasible, will be more cost effective, and will not require driving, which is not currently included in the project Biological Opinion (BO). While the preliminary engineering analysis indicated CIDH piles were not recommended for constructability, a casing oscillator will address constructability issues. Furthermore, this pile type is currently being used for the 13th Street Bridge located approximately 3 miles downstream from the Floradale Avenue bridge.

Cornerstone prides ourselves on our ability to provide innovative and cost effective foundation solutions, particularly because foundations tend to be the leading cause of change orders during construction. Our Goodfellow Avenue Bridge Replacement Project was awarded the 2011 Outstanding Structural Project of the Year and our Avenue 416 Bridge over the Kings River won the 2014 Outstanding Structural Project of the Year by the San Francisco Section of ASCE because of their innovative use of new foundation technologies.

## Environmental and Permitting

### Key Issues

- CEQA Compliance
- Biological Opinion

We understand that the NEPA Categorical Exclusion (CE) has been approved by Caltrans and that the CEQA Initial Study/ Mitigated Negative Declaration will need to be completed based on the technical studies previously completed by the County for NEPA compliance. Because the NEPA document has been completed, any proposed revisions to the design must be within the scope of the current technical studies and NEPA CE. While we do not anticipate any issues that would require revisions to the NEPA document, it is important for the Design Team to understand this during the Type Selection Update process.

Our Team member, Rincon Consultants, Inc. (Rincon) will prepare the CEQA IS/MND document, based on the technical studies and project descriptions prepared for the NEPA document. The key to successful completion of this will be to ensure that there are no changes that may impact the NEPA CE. Rincon will review the existing technical studies and will identify any potential areas of concern through coordination with the resource and regulatory agencies. Any areas of concern will be brought to the immediate attention of the County and our Team will work to resolve the issue in such a way as to maintain the project schedule.

Based on our review of the BO document, we understand that the description of the proposed action includes the installation of bridge piling using a "torque and push" method for CISS piles. As discussed previously, this installation method, which eliminates the need for impact driving and subsequent impacts to anadromous fish, while feasible, may be a cost prohibitive method of pile installation. For this reason, we believe the use of a CIDH pile installed with a casing oscillator, which does not require impact driving.

One item that will need to be considered is the potential use of impact driving for falsework. Because the bridge will be constructed over two seasons, we strongly recommend that falsework within the channel be specified to withstand flood flows to reduce the risk of a flood event washing out the partially completed bridge. To accomplish this, the specifications would require that falsework consist of driven steel pipe piling specified to withstand the hydraulic forces, including debris loading. Typically these piles are installed with vibratory hammers and proof tested with an impact hammer to ensure they have adequate capacity. Cornerstone used similar specifications for our Avenue 416 and Goodfellow Avenue Bridge Replacement Projects and other agencies have adopted similar practices for large river bridges.

While regulatory permits will be provided by the County, Cornerstone and our Team will be available to assist the County in developing the required applications by providing technical support including providing descriptions and limits of the scope of work and by providing descriptions of the anticipated construction. Cornerstone is very familiar with potential impacts to listed

and the requirements of CDFG, USFWS and NMFS, having worked with these agencies on several other river bridge projects including most recently with the San Joaquin River Bridge at River Islands Parkway and the Healdsburg Avenue Bridge over Russian River.

## Bridge Engineering

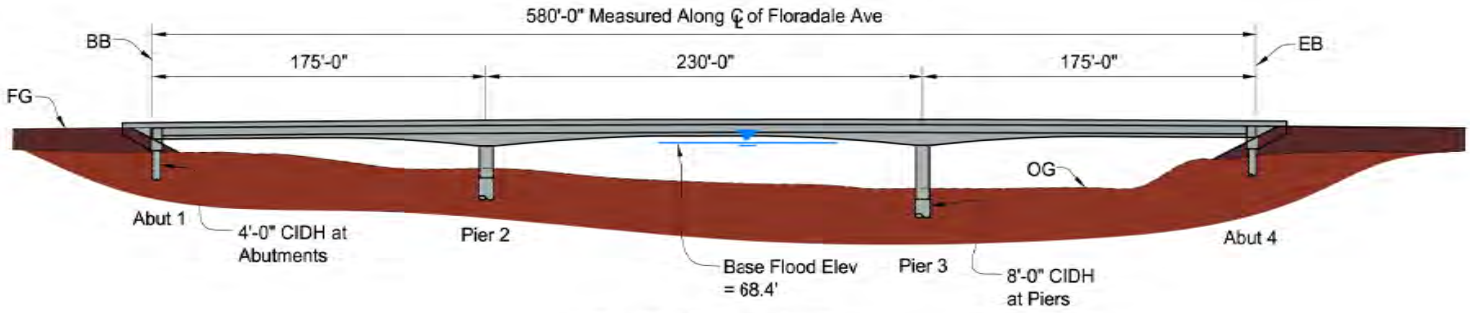
Based on our understanding of the project and the project details, Cornerstone has identified several potential revisions to the preliminary bridge design that will be more cost effective, and provide a better quality project while remaining within the currently scoped work for environmental approval.

### Bridge Layout

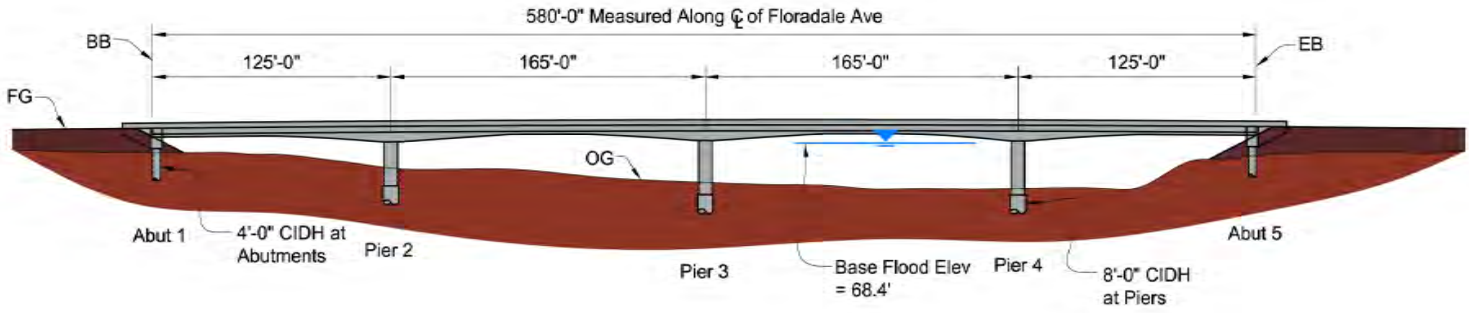
The bridge is currently aligned with an apex of a bend in the river. Typically placing a bridge at a bend like this can be problematic for long term channel migration and scour. While this location is not ideal, the draft FHR does not indicate that channel migration is an issue and, given the alignment of Floradale Avenue and the status of the environmental documents, there are few options available. However, we do recommend moving the north abutment slightly north, behind the existing roadway embankment fill. This will provide a buffer between the existing channel and the abutment. The existing embankment fill will also help shield the new abutment.

### Span Configuration

The bridge in the preliminary engineering documents is a five span structure; one less than the existing bridge. Cornerstone believes that an additional one or two piers can be removed, resulting in a four span or possibly a three span structure. This will reduce the foundation costs of the structure, which are nearly half of the total bridge construction costs. We have reviewed the Type Selection report for the proposed bridge and understand that a two column pier was chosen because of excessive deflections during an earthquake. However, we strongly believe that a single column pier is the right solution for this project.



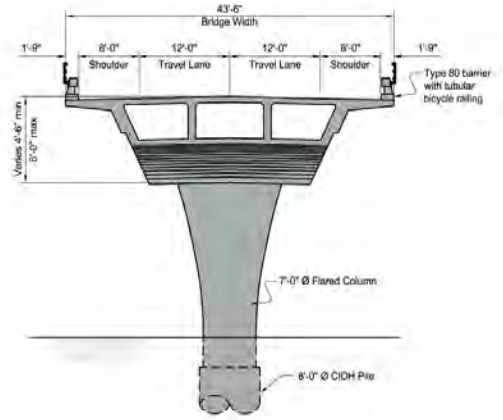

**THREE SPAN ELEVATION**




**FOUR SPAN ELEVATION**

There are two reasons for this:

- The bridge is relatively narrow and it is common practice for a bridge of this width to be supported on a single, large diameter pier
- Caltrans has updated the seismic response spectras and the seismic demands on the bridge have reduced by 33%, which will reduce the seismic displacements




***Haunched Box Girder section & Single Column Pier***

Based on our previous experience with similar bridges, we anticipate that each pier will consist of a single 7 ft. diameter column supported on an 8 ft. diameter CIDH pile. If during the Type Selection Update it is determined that the bridge still has excessive deflections, a larger pile, up to 10 ft. can be used. An 8 ft. diameter pile is preferred because the size of the drill rigs and cranes required to install larger piles becomes exceedingly expensive beyond this size.

## 13th Street Bridge

As an example of why Cornerstone believes our revisions to the proposed bridge are in the best interest of the project, one only has to look downstream at VAFB's replacement of the 13th Street Bridge.

Cornerstone is fully aware of this structure and every revision we are proposing for the Floradale Avenue bridge has been incorporated into the 13th Street bridge. This structure is a 650 ft. long, three span cast-in-place post-tensioned haunched box girder bridge supported on single large diameter CIDH piles at the piers.

## WORK PLAN

The following is a general summary of the approach that our Team will use for the Floradale Avenue Bridge Project. Our project workflow, in general, follows Caltrans' Work Breakdown Structure (WBS) which we then tailor to the specific project constraints and client goals. Our workflow also follows Caltrans' HBP guidelines outlined in the Caltrans Local Assistance Procedures Manual (LAPM), which is essential to the successful completion and reimbursement for federally funded HBP projects. A detailed scope of work for the project has been included in the Appendix.

## Task 1 Management and Quality Control

This Task commences with receiving the Notice-to-Proceed and concludes with the submittal of the Final PS&E at the completion of the project. Key aspects of the Project Management program include attending the project kick-off meeting and Project Delivery Team (PDT) meetings; coordination with the County's Project Manager, Caltrans Local Assistance; developing and maintaining a project delivery schedule; providing Quality Assurance/Quality Control, and general coordination and communications. Cornerstone's Project Manager will direct and monitor project work activities in accordance with the contracted scope, schedule, and budget.

| | |
|---|---|
| **Tasks** | 1.1 Project Meetings<br>1.2 Assistance with Caltrans Programming and Local Assistance<br>1.3 Project Status Reports & Delivery Schedule<br>1.4 Quality Control/Quality Assurance (QC/QA) |
| **Task Deliverables** | Meeting Agendas<br>Meeting Minutes and Sign In Sheets<br>LAPM Forms<br>Monthly Progress Reports<br>Project Delivery Schedule and Updates |

## Task 2 Environmental Review under CEQA and Update of NES

We understand that the NEPA Categorical Exclusion (CE) has been approved by Caltrans and that the CEQA Initial Study/Mitigated Negative Declaration (IS/MND) will need to be completed based on the technical studies previously completed by the County for NEPA compliance. This task includes review of the previously completed documentation, will identification of any potential areas of concern with the existing documents, updating the NES, and preparing the IS/MND in accordance with the County CEQA Thresholds Manual and Caltrans SER.

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| **Tasks** | 2.1 Project Initiation - Review Existing Environmental Documentation<br>2.2 Update Technical Studies<br>2.3 Initial Study-Mitigated Negative Declaration (IS-MND)Schedule<br>2.3.1 Administrative Draft IS-MND<br>2.3.2 Draft IS-MND<br>2.3.3 Administrative Final IS-MND and Responses to Comments<br>2.3.4 Publication of Final IS-MND |
| **Task Deliverables** | Digital copy of peer review memorandum<br>Digital copy of updated NES or memorandum addendum to NES<br>Digital copy of Administrative Draft IS-MND<br>30 bound copies of the Draft IS-MND<br>One copy of the NOI and NOC.<br>Digital copy of Administrative Final IS-MND<br>10 bound copies of the Final IS-MND<br>One copy of NOD |

## Task 3 Supplemental Survey for Base Mapping & Hydraulics

We understand that the topographic mapping was completed during the preliminary engineering phase of the project and we do not anticipate any further mapping being required for hydraulics. However, we understand that boundary surveys were not completed during the preliminary engineering phase and we have included this in our current work plan.

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| **Tasks** | 3.1 Title Reports<br>3.2 Boundary Surveys |
| **Task Deliverables** | Copy of Title Reports<br>Updated base map property lines with Digital |

## Task 4 Final Materials and Foundation Report

Twelve soil borings and eleven cone penetrometer tests (CPTs) have been performed along the existing bridge alignment. Currently four supplemental soil borings are proposed to verify the previously performed borings. We recommend the number of borings be discussed with the County to determine whether the number of additional borings can be reduced, given the amount of subsurface data available from the existing bridge. This will depend on the County's tolerance to risk during the construction phase of the project (fewer borings increase the chances for Differing Site Conditions and CCO's during construction) and the anticipated depth of the proposed piles based on preliminary loads. The geotechnical report will be based on Caltran's Foundation Report Preparation for Bridge guidelines and will be based on existing information and the additional borings. Environmental clearance, including USFW Consultation and a DFG Streambed Alteration Agreement, will be coordinated with the regulatory agencies as required. The Foundation Report will discuss site geology, seismic design criteria based on Caltrans SDC, liquefaction and lateral spreading potential, suitable foundation types and recommendations, and constructability considerations. Log of Test Borings sheets will be completed for inclusion into the final bid documents.

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| **Tasks** | 4.1 Supplemental Geotechnical Field Exploration and Laboratory Testing<br>4.2 Geotechnical Engineering Analyses<br>4.3 Foundation Report |
| **Task Deliverables** | PDF and (1) printed copy of Draft Foundation Report<br>PDF and (2) printed copies of Final Foundation Report<br>Log of Test Borings (LOTB) |

## Task 5 Final Hydrology and Hydraulics Study

Twelve soil borings and eleven cone penetrometer tests (CPTs) have been performed along the existing bridge.

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| **Tasks** | 5.1 Update Bridge Hydraulics<br>5.2 Complete Local Scour and Bank Protection Analysis<br>5.3 Design Hydraulic Report |
| **Task Deliverables** | PDF and (1) printed copy of Draft Design Hydraulic Report<br>PDF and (2) printed copies of Final Design Hydraulic Report |

## Task 6 Permitting Support

We understand that all regulatory permits for the project will be obtained by the County. We anticipate the following permits

- US Army Corps of Engineers (ACOE) Nationwide 404 Permit
- Regional Water Quality Control Board (RWQCB) 401 Certification
- California Department of Fish and Wildlife (CDFW) 1602 Streambed Alteration Agreement (SAA)
- Santa Barbara County Air Pollution Control District Permit
-

As part of this task, we will coordinate and assist the County with the preparation of the permit applications by providing project specific technical information including construction techniques and schedules; and by attending a permit coordination meeting with the regulatory agencies to discuss the project and any permitting issues.

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| **Tasks** | 6.1 Permit Coordination Meeting<br>6.2 Support for Permitting Process |
| **Task Deliverables** | Field questions by the COUNTY throughout permitting process<br>Provide project-specific technical information, potential construction techniques, and potential construction schedules. |

## Task 7 65% PS&E (Roadway & Structure)

This task includes the development of the draft Plans, Specifications, and Estimate (PS&E). The PS&E phase is mostly a production phase where the preparation of plans, specifications, and estimate for the improvements are completed.

While a Type Selection Report was completed in 2007, the report will need to be updated based on the revisions discussed in our project understanding. We will prepare a Type Selection Update Design Memorandum that will include a general summary of the proposed changes to the bridge and roadway design, including revisions to the profile grade and intersection (if necessary), an updated Bridge General Plan, updated GAD drawings, and updated costs estimates.

Once the Type Selection Update Design Memorandum is approved by the County we will prepare and submit the draft Plans, Specifications, and Estimate. This submittal represents a complete set of "unchecked" plans that will represent a biddable plan set but one that has not been through our QC checklist. We will also provide a detailed costs estimate in accordance with Caltrans standard specifications and payment items. The engineer's estimate of probable construction cost ("Marginal Estimate") for the project will be prepared using the most recent and relevant Caltrans Cost Data, our own internal cost data, as well as the County's cost data (if available).

Our Team will also prepare the contract technical Special Provisions for the project based in general on Caltrans' 2015 Standard Special Provisions and Standard Specifications and the County's construction contract standards. We will also assist the County with combining the technical specifications with the County's Boiler Plate provisions (Special Provisions Sections 1 through 9), Notice to Contractors, and the Proposal and Agreement Sections.

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| **Tasks** | 7.1 Data Collection and Site Review<br>7.2 Update Project Type Selection (35% PS&E)<br>7.3 Unchecked Details (65% PS&E) |
| **Task Deliverables** | PDF of Draft Type Selection Update Design Memorandum<br>PDF and (3) printed copies of Final Type Selection Update Design Memorandum<br>Up to six (6) full-size sets of 65% plans (22x34)<br>Up to six (6) half-size sets of 65% plans (11x17)<br>Up to six (6) sets of annotated Technical Special Provisions<br>Up to six (6) copies of Cost Estimate<br>One (1) set of all draft (unchecked) Design Calculations<br>One (1) CD with electronic copy in PDF formal of all 65% submittal forms<br>Copy of Special Provisions in Word format and Cost Estimate in Excel format (On CD) |

## Task 8 95% PS&E (Roadway & Structure)

This submittal represents a complete set of "checked" plans that has been through our Teams Quality Control procedures. Following completion of the 65% PS&E, an independent bridge design check will be completed. An independent engineer who was not involved These final contract documents will be used by the County for competitive bidding and construction. in the design will re-analyze the bridge, verify member capacities, and review the special provisions for the bridge. The checker will provide a list of comments and a set of "red-marked" plans that communicate issues uncovered during the preparation of the independent check. Issues raised by the checker will be discussed with and resolved by the designer and checker. The final design will reflect agreement between the two engineers.

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| **Tasks** | 8.1 Bridge Independent Check<br>8.2 95% (Draft) PS&E |
| **Task Deliverables** | Respond to COUNTY Comments<br>Three (3) full-size sets of 95% plans (22x34)<br>Three (3) half-size sets of 95% plans (11x17)<br>Three (3) sets of annotated Technical Special Provisions<br>Three (3) copies of Cost Estimate<br>One (1) set of updated Bridge Design Calculations<br>One (1) set of Independent Check Bridge Design Calculations<br>One (1) CD with electronic copy in PDF formal of all 95% submittal forms<br>Copy of Special Provisions in Word format and Cost Estimate in Excel format (On CD) |

## Task 9 Final Bid Package and RE File

This task represents the completion of the PS&E which represents the contract documents that will be used by the County for competitive bidding and construction. This task also includes the preparation of the Resident Engineer's Pending File which will include items necessary for the RE to manage the project during construction.

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| **Tasks** | 9.1 100% PS&E<br>9.2 Final PS&E<br>9.3 RE Pending File |
| **Task Deliverables** | Respond to COUNTY Comments<br>Three (3) full-size sets of 100% plans (22x34)<br>Three (3) half-size sets of 100% plans (11x17)<br>Three (3) sets of Technical Special Provisions (100%)<br>Three (3) copies of Cost Estimate (100%)<br>One (1) CD with electronic copy in PDF formal of all 100% submittal forms<br>Copy of Special Provisions in Word format and Cost Estimate in Excel format (On CD)<br>One (1) set of signed Final plans on Film<br>Two (2) sets of signed Final plans on Bond<br>One (1) copy of signed Technical Special Provisions (Final)<br>One (1) copy of Cost Estimate (Final)\<br>One (1) copy each of signed Design and Check Quantity Calculations<br>One (1) CD with electronic copy in PDF formal of all final submittal forms<br>Copy of Special Provisions in Word format and Cost Estimate in Excel format (On CD)<br>RE Pending File |

## Task 10 Right of Way Engineering

There appear to be four parcels that could be impacted by the project. Two of these parcels are owned by the Federal Government and are part of the Federal Correctional Complex; one is owned by the County of Santa Barbara; and one is privately owned. It is assumed that right-of-way engineering will only be required for the two Federal Government parcels and the privately owned parcel. This task includes the development of plats and legal descriptions for permanent right-of-way acquisitions and temporary construction easements and a Record of Survey map to document land net and the right of way survey as required bv the PLS Act.

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| **Tasks** | 10.1 Right of Way Engineering<br>10.2 Right of Way Preliminary Engineering Support<br>10.3 Record Survey |
| **Task Deliverables** | Right-of-Way Requirements Map with Type Selection alternative matrix<br>Prepare plats and legal descriptions<br>Secure preliminary parcel information<br>Record of Survey map |

## Task 11 Right of Way Appraisals

Because the project will be of great benefit to the Federal Correctional Complex and the Vandenberg Air Force Base, it is assumed that the Federal Government will waive the appraisal process required for federally funded projects and grant the use of the land for the project. It is also assumed that no appraisal and acquisition services will be required for the County owned parcel. Furthermore, there appears to be no significant impacts from the current project design that would require relocation services at this time.

Appraisals will adhere to all standards and final appraisals will contain Appraiser and Review Appraiser Certificates. Our Team will notify the property owner with a notification letter indicating the County's intent to appraise. The appraiser will review the title information and perform a physical inspection of the property, taking an inventory of all improvements. The appraiser will perform market research and document and confirm comparable sales information. Finally, the appraiser till prepare a narrative appraisal report conforming to the USPAP. The appraisal report will serve as an acquisition appraisal. A formal review by an independent appraiser will be conducted in accordance with federal regulations and the Caltrans LAPM.

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| **Tasks** | 11.1 Appraisal Services |
| **Task Deliverables** | Mail notification letters to property owners<br>Obtain and review right-of-way appraisal |

## Task 12 Right of Way Acquisition

Our Team will maintain a complete and current record file that meets all Federal, State, and Caltrans ROW standards and prepare all applicable forms and submit those forms to the County for review and approval. Once approved, the first written purchase offer will be presented to the owner. We will follow-up and negotiate with the property owner, as necessary and prepare and submit recommended settlement justifications to the County for review and approval. Following negotiations, we will prepare and assemble acquisition contracts, deeds, and related acquisition documents required for the acquisition of property. Finally we will coordinate escrow closings and fill all applicable forms and documents to the County Assessors office.

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| **Tasks** | 12.1 Negotiate Right-of-Way Settlement/Prepare Acquisition Documents<br>12.2 Title Clearance Services<br>12.3 Escrow Coordination |
| **Task Deliverables** | Prepare documents for right-of-way settlement and acquisition documents<br>Deliver settlement documents to property owners and transmit executed acquisition documents following negotiation<br>Coordination services for title clearance |

## Task 13 Utility Coordination and Relocations

Several utilities will need to be relocated as part of this project. Cornerstone will coordinate with all utility owners to identify all utility conflicts and coordinate relocations as necessary. This task will include obtaining utility facility maps by preparing Utility Verification letters, preparing conflict maps, meeting the utility owners to discuss the project and relocations options and preparing Report of Investigation Forms and Notice to Owners.

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| **Tasks** | 13.1 Utility Coordination |
| **Task Deliverables** | Utility Verification Letters<br>Utility Conflict Maps and Conflict Letters<br>Utility Coordination Meeting Agenda and Sign in Sheets<br>Utility Coordination Meeting Minutes (Draft and Final)<br>Utility Notice to Owner Letters |

# *Resource Allocation Matrix & Schedule*

CORNERSTONE
structural
engineering
group

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## Financial Responsibility

Cornerstone's Project Managers and Engineers face high expectations to complete projects within budget and on schedule, without sacrificing diligence or quality. The ability to complete projects on time and within budget is inherently interrelated and, we believe, is a trait of a good engineer. Therefore, we take this ability very seriously and personally.

We conduct weekly staff meetings to discuss each of our projects – specifically the progress that was made the previous week, the status of budget remaining, the estimated time left for completion, and the checkpoints or deliverables that would need to be accomplished that week in order to complete the current project phase/task in the most efficient way possible. These staff meetings are highly beneficial in that the brainpower of several highly competent engineers is utilized to ensure continuous efficiency in design while producing high-quality engineering.

Each engineer regularly receives up-to-date Job Status Reports indicating budgets spent and remaining so that each engineer can ensure their projects are progressing as efficiently as possible. Our Project Engineers are careful to provide our junior designers with enough autonomy to permit growth, but are equally as careful to provide close oversight and remain closely familiar with the progress of design to ensure efficiency and quality. Furthermore, Cornerstone has successfully demonstrated our ability to minimize agency plan check comments, thereby helping to stay on schedule and minimize budget spent responding to comments.

At Cornerstone, we recognize that the key to completing a successful project is to identify key issues, which are not always structural or even technical in nature. We prioritize understanding all aspects of a project, so that we can provide comprehensive input and recommendations to keep projects on schedule and within budget. We continually work with our clients to understand their unique needs, budget and schedule so that we may provide our clients with the information and recommendations needed throughout the project for successful project completion. As a result of this mindset and the project management strategies mentioned previously, Cornerstone has consistently proven the ability to complete projects on schedule, within budget, and to the satisfaction of our clients.

## Understanding of Schedule

Cornerstone understands the need to meet project deadlines to ensure that project funding is available and to ensure the project is designed and constructed in a timely manner. This is particularly important on HBP projects where funding reimbursement is directly tied to achieving project milestones.
Cornerstone develops a baseline project schedule at the beginning of each of our HBP projects and we continuously update these schedules during the course of the project. The tasks of this schedule are directly related to our detailed scope of work. This, combined with the ability to set task dependencies, allows us to identify scheduling delays or issues and ensure timely completion of the project.

Furthermore, we have engineering and support staff in two office locations which provides Cornerstone's Project Manager a variety of project engineers to ensure the availability of design staff to meet the County of Santa Barbara's project schedules.

We have provided our current understanding of the project schedule with this proposal. For this project, the target for the completion of the PS&E documents will be dictated by the construction window for in-water work, which is from June 1 to October 31 according to the Biological Opinion. Because construction of the project will be driven by the bridge, ideally, the County would have the project bid, awarded, and an NTP to the contractor that allows construction in the channel to start as soon as the BO window opens. Typically we prefer to provide a minimum of 4 months from completion of the PS&E to NTP to the contractor. Providing the contractor another two months to provide the necessary submittals and mobilize, requires that the project Final PS&E be completed no later than January to allow the contractor to immediately start work on the bridge.

Based on our review of the County's RFP, we understand that the County anticipates construction to begin in 2019. We believe this schedule can be easily met. Currently we have Final PS&E being completed and ready for bid around June, 2018, which closely matches with the County's schedule. In fact, the current County schedule shows bidding in November, 2018 which appears to have the NTP to the contractor around January or February, 2019 (based on bidding in November) which will gives the contractor 4 months of lead time prior to opening of the in-channel work window.

CORNERSTONE structural engineering group

## RESOURCE ALLOCATION MATRIX
## SANTA BARBARA COUNTY - DEPARTMENT OF PUBLIC WORKS
## FLORADALE AVENUE BRIDGE REPLACEMENT

County Project No. 862032
Federal Project No. BRLSZD-5951(060)
February 3, 2017

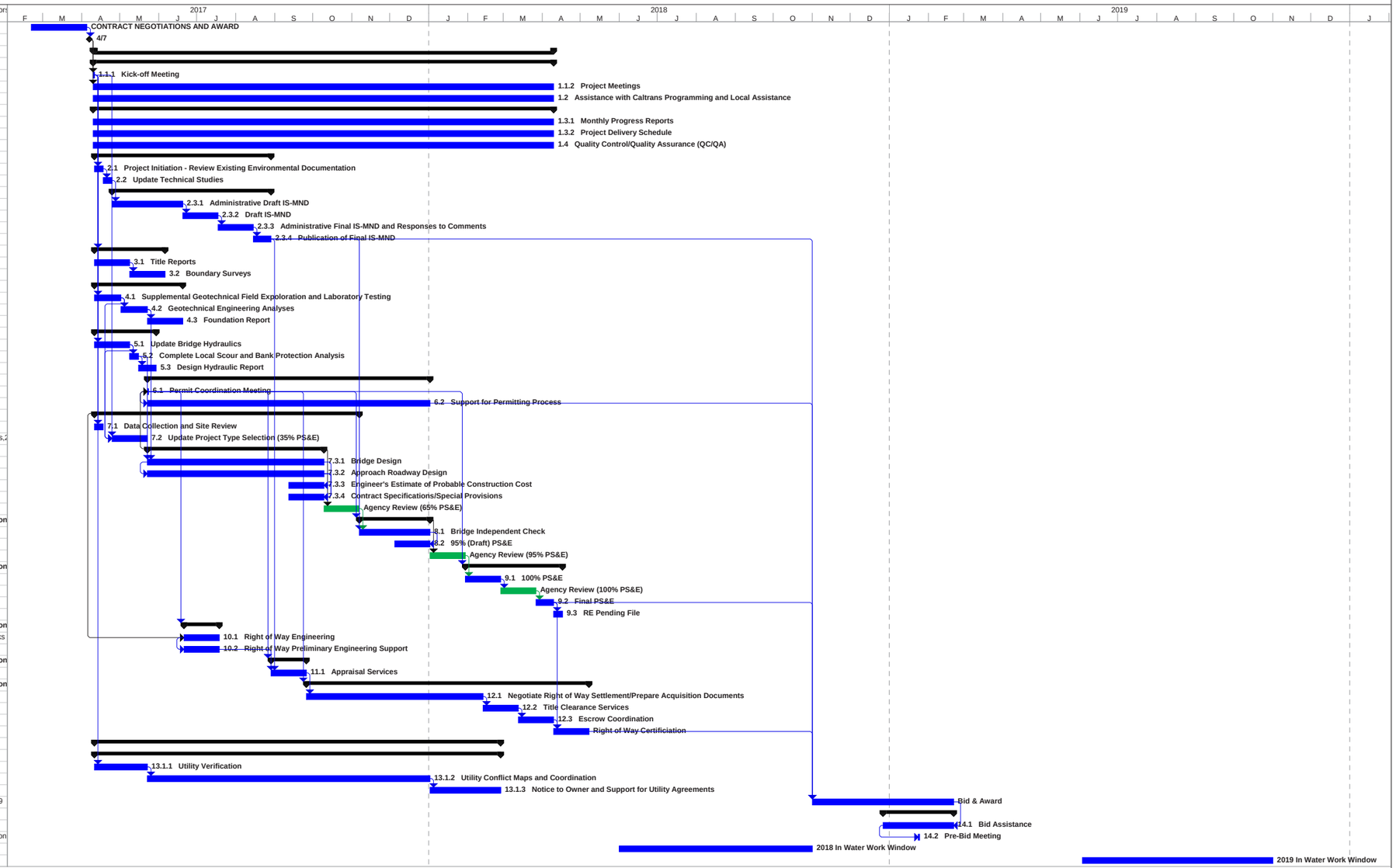
| | | Cornerstone Structural Engineering Group | | | | | | | | | BKF Engineers | | | | | Earth Mechanics | | | | | | Avila & Associates | | | | Rincon | | | | | | Praxis | | | | | | | Hamner Jewel | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Design Team | | | | QC/QA Team | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TASK | | Goolkasian Principal-in-Charge | Cullers Project Manager | Zermeno Project Engineer | Ingle Bridge Engineer | Eaton Bridge Engineer | Swayze QC/QA Manager | Weaver QC/QA Engineer | West QC/QA Engineer | Total Hours | Project Manager | Project Engineer | Engineer II | Engineer I | Total Hours | Project Manager | Senior Project Engineer | Project Engineer | Project Geologist | Technician | Total Hours | Avila Project Manager (Engineerin | Remington Associate Engineer | Spadafore Project Manager (Enviro) | Total Hours | Principal II | Sr. Prof. I | Prof. III | GIS I | Admin I | Total Hours | Principal Surveyor | Project Surveyor | Surveying Associate | Admin. Assistant | Party Chief | Chainman | Total Hours | Managing Sr. Associate | Sr. Associate II | Right of Way Associate I | Transaction and Coordinators | Clerical Support | Total Hours |
| **TASK 1 - MANAGEMENT AND QUALITY CONTROL** | | **46.50** | **90.50** | **53.50** | **-** | **12.00** | **24.00** | **-** | **-** | **226.50** | **44.00** | **106.00** | **20.00** | **12.00** | **182.00** | **-** | **-** | **-** | **-** | **-** | **-** | **8.00** | **-** | **-** | **8.00** | **12.00** | **24.00** | **-** | **-** | **8.00** | **44.00** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| 1.1 | Project Meetings | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | | | | | - | | | | | | - | | | | | | | - |
| 1.1.1 | Kick-off Meeting | 8.00 | 8.00 | - | - | 12.00 | - | - | - | 28 | | | | | - | | | | | | - | | | | - | | | | | - | | | | | | - | | | | | | | - |
| 1.1.2 | Project Meetings | 20.00 | 60.00 | 32.00 | - | - | - | - | - | 112 | 20 | 60 | | | 80 | | | | | | - | | | | - | 4 | 12 | | | 2 | 18 | | | | | | - | | | | | | | - |
| 1.2 | Assistance with Caltrans Programming and Local Assistance | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | | | | | - | | | | | | - | | | | | | | - |
| 1.3 | Project Status Reports & Delivery Schedule | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | | | | | - | | | | | | - | | | | | | | - |
| 1.3.1 | Monthly Progress Reports | 4.50 | 18.00 | - | - | - | - | - | - | 23 | | | | | - | | | | | | - | | | | - | | | | | - | | | | | | - | | | | | | | - |
| 1.3.2 | Project Delivery Schedule | 2.00 | 4.50 | 21.50 | - | - | | - | - | 28 | | | | | - | | | | | | - | | | | - | | | | | - | | | | | | - | | | | | | | - |
| 1.4 | Quality Control/Quality Assurance (QC/QA) | 12.00 | - | - | - | - | 24.00 | - | - | 36 | 24 | 46 | 20 | 12 | 102 | | | | | | - | 8 | | | 8 | 8 | 12 | | | 6 | 26 | | | | | | - | | | | | | | - |
| | | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | | | | | - | | | | | | - | | | | | | | - |
| **TASK 2 - ENVIRONMENTAL REVIEW UNDER CEQA AND UPDATE OF NES** | | **2.00** | **16.00** | **12.00** | **-** | **-** | **-** | **-** | **-** | **30.00** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **28.00** | **42.00** | **110.00** | **22.00** | **17.00** | **219.00** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| 2.1 | Project Initiation - Review Existing Environmental Documentation | - | 2.00 | - | - | - | - | - | - | 2 | | | | | - | | | | | | - | | | | - | 2 | 4 | 4 | | 1 | 11 | | | | | | - | | | | | | | - |
| 2.2 | Update Technical Studies | - | 4.00 | 12.00 | - | - | - | - | - | 16 | | | | | - | | | | | | - | | | | - | 4 | 4 | 20 | 4 | 2 | 34 | | | | | | - | | | | | | | - |
| 2.3 | Initial Study-Mitigated Negative Declaration (IS-MND) | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | | | | | - | | | | | | - | | | | | | | - |
| 2.3.1 | Administrative Draft IS-MND | 2.00 | 8.00 | - | - | - | - | - | - | 10 | | | | | - | | | | | | - | | | | - | 14 | 24 | 56 | 14 | 4 | 112 | | | | | | - | | | | | | | - |
| 2.3.2 | Draft IS-MND | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | 4 | 4 | 20 | 2 | 2 | 32 | | | | | | - | | | | | | | - |
| 2.3.3 | Administrative Final IS-MND and Responses to Comments | - | 2.00 | - | - | - | - | - | - | 2 | | | | | - | | | | | | - | | | | - | 3 | 4 | 8 | 2 | 6 | 23 | | | | | | - | | | | | | | - |
| 2.3.4 | Publication of Final IS-MND | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | 1 | 2 | 2 | | 2 | 7 | | | | | | - | | | | | | | - |
| | | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | | | | | - | | | | | | - | | | | | | | - |
| **TASK 3 - SUPPLEMENTAL SURVEY FOR BASE MAPPING & HYDRAULICS** | | **-** | **4.00** | **12.00** | **-** | **-** | **-** | **-** | **-** | **16.00** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **24.00** | **8.00** | **8.00** | **1.00** | **40.00** | **40.00** | **121.00** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| 3.1 | Title Reports | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | | | | | - | | | | | | - | | | | | | | - |
| 3.2 | Boundary Surveys | - | 4.00 | 12.00 | - | - | - | - | - | 16 | | | | | - | | | | | | - | | | | - | | | | | - | 24 | 8 | 8 | 1 | 40 | 40 | 121 | | | | | | | - |
| | | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | | | | | - | | | | | | - | | | | | | | - |
| | | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | | | | | - | | | | | | - | | | | | | | - |
| **TASK 4 - FINAL MATERIALS AND FOUNDATION REPORT** | | **2.00** | **16.00** | **40.00** | **-** | **-** | **-** | **-** | **-** | **58.00** | **-** | **-** | **-** | **-** | **-** | **83.00** | **54.00** | **121.00** | **14.00** | **134.00** | **406.00** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| 4.1 | Supplemental Geotechnical Field Exploration and Laboratory Testing | - | - | - | - | - | - | - | - | - | | | | | - | 11 | 6 | 17 | 14 | 104 | 152 | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| 4.2 | Geotechnical Engineering Analyses | - | - | - | - | - | - | - | - | - | | | | | - | 34 | 40 | 50 | | | 124 | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| 4.3 | Foundation Report | 2.00 | 16.00 | 40.00 | - | - | - | - | - | 58 | | | | | - | 38 | 8 | 54 | | 30 | 130 | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| | | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| **TASK 5 - FINAL HYDROLOGY AND HYDRAULICS STUDY** | | **1.00** | **12.00** | **24.00** | **-** | **-** | **-** | **-** | **-** | **37.00** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **40.00** | **60.00** | **4.00** | **104.00** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| 5.1 | Update Bridge Hydraulics | - | 8.00 | 16.00 | - | - | - | - | - | 24 | | | | | - | | | | | | - | 16 | 28 | | 44 | | | | | | - | | | | | | - | | | | | | | - |
| 5.2 | Complete Local Scour and Bank Protection Analysis | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | 12 | 10 | | 22 | | | | | | - | | | | | | - | | | | | | | - |
| 5.3 | Design Hydraulic Report | 1.00 | 4.00 | 8.00 | - | - | - | - | - | 13 | | | | | - | | | | | | - | 12 | 22 | 4 | 38 | | | | | | - | | | | | | - | | | | | | | - |
| | | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| **TASK 6 - PERMITTING SUPPORT** | | **20.00** | **52.00** | **12.00** | **-** | **-** | **-** | **-** | **-** | **84.00** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| 6.1 | Permit Coordination Meeting | 4.00 | 12.00 | 12.00 | - | - | - | - | - | 28 | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| 6.2 | Support for Permitting Process | 16.00 | 40.00 | - | - | - | - | - | - | 56 | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| | | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| **TASK 7 - 65% PS&E (ROADWAY & STRUCTURE)** | | **30.00** | **216.00** | **368.00** | **480.00** | **400.00** | **-** | **-** | **-** | **1,494.00** | **36.00** | **124.00** | **152.00** | **192.00** | **504.00** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| 7.1 | Data Collection and Site Review | 2.00 | 8.00 | 24.00 | - | - | - | - | - | 34 | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| 7.2 | Update Project Type Selection (35% PS&E) | - | 20.00 | 80.00 | 80.00 | 80.00 | - | - | - | 260 | 8 | 30 | 40 | 48 | 126 | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| 7.3 | Unchecked Details (65% PS&E) | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| 7.3.1 | Bridge Design | 24.00 | 120.00 | 240.00 | 320.00 | 320.00 | - | - | - | 1,024 | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| 7.3.2 | Approach Roadway Design | - | - | - | - | - | - | - | - | - | 20 | 60 | 80 | 120 | 280 | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| 7.3.3 | Engineers Estimate of Probable Construction Cost | - | 8.00 | 24.00 | 80.00 | - | - | - | - | 112 | 4 | 10 | 20 | 24 | 58 | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| 7.3.4 | Contract Specifications/Special Provisions | 4.00 | 60.00 | - | - | - | - | - | - | 64 | 4 | 24 | 12 | | 40 | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| | | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| **TASK 8 - 95% PS&E (ROADWAY & STRUCTURE)** | | **8.00** | **60.00** | **80.00** | **80.00** | **80.00** | **16.00** | **160.00** | **320.00** | **804.00** | **32.00** | **80.00** | **120.00** | **180.00** | **412.00** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| 8.1 | Bridge Independent Check | - | 20.00 | 40.00 | - | - | 16.00 | 160.00 | 320.00 | 556 | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| 8.2 | 95% (Draft) PS&E | 8.00 | 40.00 | 40.00 | 80.00 | 80.00 | - | - | - | 248 | 32 | 80 | 120 | 180 | 412 | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| | | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| **TASK 9 - FINAL BID PACKAGE AND RE FILE** | | **3.00** | **28.00** | **64.00** | **-** | **80.00** | **-** | **-** | **-** | **175.00** | **16.00** | **36.00** | **72.00** | **72.00** | **196.00** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| 9.1 | 100% PS&E | 2.00 | 12.00 | 20.00 | - | 40.00 | - | - | - | 74 | 8 | 24 | 36 | 48 | 116 | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| 9.2 | Final PS&E | 1.00 | 12.00 | 20.00 | - | 40.00 | - | - | - | 73 | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| 9.3 | RE Pending File | - | 4.00 | 24.00 | - | - | - | - | - | 28 | 8 | 12 | 36 | 24 | 80 | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| | | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| **TASK 10 - RIGHT-OF-WAY ENGINEERING** | | **3.00** | **18.00** | **40.00** | **-** | **-** | **-** | **-** | **-** | **61.00** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **24.00** | **32.00** | **-** | **2.00** | **8.00** | **8.00** | **74.00** | **20.00** | **30.00** | **40.00** | **4.00** | **4.00** | **98.00** |
| 10.1 | Right of Way Engineering | 2.00 | 12.00 | 40.00 | - | - | - | - | - | 54 | | | | | - | | | | | | - | | | | - | | | | | | - | 8 | 8 | | 1 | | | 17 | | | | | | - |
| 10.2 | Right-of-Way Preliminary Engineering Support | 1.00 | 4.00 | - | - | - | - | - | - | 5 | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | 20 | 30 | 40 | 4 | 4 | 98 |
| 10.3 | Record of Survey | - | 2.00 | - | - | - | - | - | - | 2 | | | | | - | | | | | | - | | | | - | | | | | | - | 16 | 24 | | 1 | 8 | 8 | 57 | | | | | | - |
| | | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| **TASK 11 - RIGHT-OF-WAY APPRAISALS** | | **1.00** | **8.00** | **-** | **-** | **-** | **-** | **-** | **-** | **9.00** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| 11.1 | Appraisal Services | 1.00 | 8.00 | - | - | - | - | - | - | 9 | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| | | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| **TASK 12 - RIGHT-OF-WAY ACQUISITION** | | **5.00** | **20.00** | **-** | **-** | **-** | **-** | **-** | **-** | **25.00** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **10.00** | **70.00** | **60.00** | **60.00** | **10.00** | **210.00** |
| 12.1 | Negotiate Right of Way Settlement/Prepare Acquisition Documents | 4.00 | 16.00 | - | - | - | - | - | - | 20 | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | 10 | 40 | 60 | 60 | 10 | 180 |
| 12.2 | Title Clearance Services | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | | 30 | | | | 30 |
| 12.3 | Escrow Coordination | 1.00 | 4.00 | - | - | - | - | - | - | 5 | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| | | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| **TASK 13 - UTILITY COORDINATION AND RELOCATIONS** | | **4.00** | **36.00** | **48.00** | **-** | **80.00** | **-** | **-** | **-** | **168.00** | **20.00** | **56.00** | **92.00** | **84.00** | **252.00** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| 13.1 | Utility Coordination | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| 13.1.1 | Utility Verification | - | 4.00 | 8.00 | - | - | - | - | - | 12 | | 4 | 8 | 16 | 28 | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| 13.1.2 | Utility Conflict Maps and Coordination | 2.00 | 24.00 | 40.00 | - | 80.00 | - | - | - | 146 | 18 | 48 | 76 | 52 | 194 | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| 13.1.3 | Assistance to Owner and Support for Utility Agreements | 2.00 | 8.00 | - | - | - | - | - | - | 10 | 2 | 4 | 8 | 16 | 30 | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| | | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| **TASK 14 - CONTRACT BIDDING AND AWARD ASSISTANCE** | | **12.00** | **28.00** | **24.00** | **-** | **-** | **-** | **-** | **-** | **64.00** | **2.00** | **8.00** | **16.00** | **-** | **26.00** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| 14.1 | Bid Assistance | 4.00 | 16.00 | 24.00 | - | - | - | - | - | 44 | 2 | 8 | 16 | | 26 | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| 14.2 | Pre-Bid Meeting | 8.00 | 12.00 | - | - | - | - | - | - | 20 | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| | | - | - | - | - | - | - | - | - | - | | | | | - | | | | | | - | | | | - | | | | | | - | | | | | | - | | | | | | | - |
| | | **137.50** | **604.50** | **777.50** | **560.00** | **652.00** | **40.00** | **160.00** | **320.00** | **3,251.50** | **150.00** | **410.00** | **472.00** | **540.00** | **1,572.00** | **83.00** | **54.00** | **121.00** | **14.00** | **134.00** | **406.00** | **48.00** | **60.00** | **4.00** | **112.00** | **40.00** | **66.00** | **110.00** | **22.00** | **25.00** | **263.00** | **48.00** | **40.00** | **8.00** | **3.00** | **48.00** | **48.00** | **195.00** | **30.00** | **100.00** | **100.00** | **64.00** | **14.00** | **308.00** |

* SEE SCOPE OF WORK FOR ASSUMPTIONS

# REPLACEMENT OF THE FLORADALE AVENUE BRIDGE
# AT SANTA YNEZ RIVER
# BASELINE PROJECT DELIVERY SCHEDULE

February 3, 2017

| ID | Task Name | Duration | Start | Finish | Predecessors |
|---|---|---|---|---|---|
| 1 | **CONTRACT NEGOTIATIONS AND AWARD** | 6.4 wks | Mon 2/20/17 | Tue 4/4/17 | |
| 2 | **CONTRACT NTP** | 0 days | Fri 4/7/17 | Fri 4/7/17 | 1 |
| 3 | **TASK 1 - MANAGEMENT AND QUALITY CONTROL** | **1 day** | **Mon 4/10/17** | **Mon 4/10/17** | |
| 4 | **1.1 Project Meetings** | **261 days** | **Mon 4/10/17** | **Mon 4/9/18** | |
| 5 | 1.1.1 Kick-off Meeting | 1 day | Mon 4/10/17 | Mon 4/10/17 | 2FS+1 day |
| 6 | 1.1.2 Project Meetings | 261 days | Mon 4/10/17 | Mon 4/9/18 | 2FS+1 day |
| 7 | 1.2 Assistance with Caltrans Programming and Local Assistance | 261 days | Mon 4/10/17 | Mon 4/9/18 | |
| 8 | **1.3 Project Status Reports & Delivery Schedule** | **261 days** | **Mon 4/10/17** | **Mon 4/9/18** | |
| 9 | 1.3.1 Monthly Progress Reports | 261 days | Mon 4/10/17 | Mon 4/9/18 | |
| 10 | 1.3.2 Project Delivery Schedule | 261 days | Mon 4/10/17 | Mon 4/9/18 | |
| 11 | 1.4 Quality Control/Quality Assurance (QC/QA) | 261 days | Mon 4/10/17 | Mon 4/9/18 | |
| 12 | **TASK 2 - ENVIRONMENTAL REVIEW UNDER CEQA AND UPDATE OF NES** | **100 days** | **Tue 4/11/17** | **Mon 8/28/17** | |
| 13 | 2.1 Project Initiation - Review Existing Environmental Documentation | 1 wk | Tue 4/11/17 | Mon 4/17/17 | 5 |
| 14 | 2.2 Update Technical Studies | 1 wk | Tue 4/18/17 | Mon 4/24/17 | 13 |
| 15 | **2.3 Initial Study-Mitigated Negative Declaration (IS-MND)** | **90 days** | **Tue 4/25/17** | **Mon 8/28/17** | |
| 16 | 2.3.1 Administrative Draft IS-MND | 2 mons | Tue 4/25/17 | Mon 6/19/17 | 14 |
| 17 | 2.3.2 Draft IS-MND | 1 mon | Tue 6/20/17 | Mon 7/17/17 | 16 |
| 18 | 2.3.3 Administrative Final IS-MND and Responses to Comments | 1 mon | Tue 7/18/17 | Mon 8/14/17 | 17 |
| 19 | 2.3.4 Publication of Final IS-MND | 2 wks | Tue 8/15/17 | Mon 8/28/17 | 18 |
| 20 | **TASK 3 - SUPPLEMENTAL SURVEY FOR BASE MAPPING & HYDRAULICS** | **40 days** | **Tue 4/11/17** | **Mon 6/5/17** | 5 |
| 21 | 3.1 Title Reports | 4 wks | Tue 4/11/17 | Mon 5/8/17 | |
| 22 | 3.2 Boundary Surveys | 4 wks | Tue 5/9/17 | Mon 6/5/17 | 21 |
| 23 | **TASK 4 - FINAL MATERIALS AND FOUNDATION REPORT** | **50 days** | **Tue 4/11/17** | **Mon 6/19/17** | |
| 24 | 4.1 Supplemental Geotechnical Field Expoloration and Laboratory Testing | 3 wks | Tue 4/11/17 | Mon 5/1/17 | 5 |
| 25 | 4.2 Geotechnical Engineering Analyses | 3 wks | Tue 5/2/17 | Mon 5/22/17 | 24 |
| 26 | 4.3 Foundation Report | 4 wks | Tue 5/23/17 | Mon 6/19/17 | 25 |
| 27 | **TASK 5 - FINAL HYDROLOGY AND HYDRAULICS STUDY** | **35 days** | **Tue 4/11/17** | **Mon 5/29/17** | |
| 28 | 5.1 Update Bridge Hydraulics | 4 wks | Tue 4/11/17 | Mon 5/8/17 | 5 |
| 29 | 5.2 Complete Local Scour and Bank Protection Analysis | 1 wk | Tue 5/9/17 | Mon 5/15/17 | 28 |
| 30 | 5.3 Design Hydraulic Report | 2 wks | Tue 5/16/17 | Mon 5/29/17 | 29 |
| 31 | **TASK 6 - PERMITTING SUPPORT (PERMITTING BY COUNTY)** | **160 days** | **Tue 5/23/17** | **Mon 1/1/18** | |
| 32 | 6.1 Permit Coordination Meeting | 1 day | Tue 5/23/17 | Tue 5/23/17 | 37SS |
| 33 | 6.2 Support for Permitting Process | 8 mons | Tue 5/23/17 | Mon 1/1/18 | 32SS |
| 34 | **TASK 7 - 65% PS&E (ROADWAY & STRUCTURE)** | **150 days** | **Tue 4/11/17** | **Mon 11/6/17** | |
| 35 | 7.1 Data Collection and Site Review | 1 wk | Tue 4/11/17 | Mon 4/17/17 | 5 |
| 36 | 7.2 Update Project Type Selection (35% PS&E) | 4 wks | Tue 4/25/17 | Mon 5/22/17 | 24FS-2 wks,2 |
| 37 | **7.3 Unchecked Details (65% PS&E)** | **100 days** | **Tue 5/23/17** | **Mon 10/9/17** | |
| 38 | 7.3.1 Bridge Design | 5 mons | Tue 5/23/17 | Mon 10/9/17 | 25,29 |
| 39 | 7.3.2 Approach Roadway Design | 5 mons | Tue 5/23/17 | Mon 10/9/17 | 38SS |
| 40 | 7.3.3 Engineer's Estimate of Probable Construction Cost | 4 wks | Tue 9/12/17 | Mon 10/9/17 | 39FF |
| 41 | 7.3.4 Contract Specifications/Special Provisions | 4 wks | Tue 9/12/17 | Mon 10/9/17 | 38FF,39FF |
| 42 | Agency Review (65% PS&E) | 1 mon | Tue 10/10/17 | Mon 11/6/17 | 37 |
| 43 | **TASK 8 - 95% PS&E (ROADWAY & STRUCTURE)** | **40 days** | **Tue 11/7/17** | **Mon 1/1/18** | 32FS+1 mon |
| 44 | 8.1 Bridge Independent Check | 2 mons | Tue 11/7/17 | Mon 1/1/18 | 42,19 |
| 45 | 8.2 95% (Draft) PS&E | 4 wks | Tue 12/5/17 | Mon 1/1/18 | 44FF |
| 46 | Agency Review (95% PS&E) | 1 mon | Tue 1/2/18 | Mon 1/29/18 | 43 |
| 47 | **TASK 9 - FINAL BID PACKAGE AND RE FILE** | **55 days** | **Tue 1/30/18** | **Mon 4/16/18** | 32FS+1 mon |
| 48 | 9.1 100% PS&E | 1 mon | Tue 1/30/18 | Mon 2/26/18 | 46 |
| 49 | Agency Review (100% PS&E) | 1 mon | Tue 2/27/18 | Mon 3/26/18 | 48 |
| 50 | 9.2 Final PS&E | 2 wks | Tue 3/27/18 | Mon 4/9/18 | 49 |
| 51 | 9.3 RE Pending File | 1 wk | Tue 4/10/18 | Mon 4/16/18 | 50 |
| 52 | **TASK 10 - RIGHT-OF-WAY ENGINEERING** | **20 days** | **Wed 6/21/17** | **Tue 7/18/17** | 32FS+1 mon |
| 53 | 10.1 Right of Way Engineering | 1 mon | Wed 6/21/17 | Tue 7/18/17 | 34SS+8 wks |
| 54 | 10.2 Right of Way Preliminary Engineering Support | 1 mon | Wed 6/21/17 | Tue 7/18/17 | 53SS |
| 55 | **TASK 11 - RIGHT-OF-WAY APPRAISALS** | **20 days** | **Tue 8/29/17** | **Mon 9/25/17** | 32FS+1 mon |
| 56 | 11.1 Appraisal Services | 1 mon | Tue 8/29/17 | Mon 9/25/17 | 54,19 |
| 57 | **TASK 12 - RIGHT-OF-WAY ACQUISITION** | **160 days** | **Tue 9/26/17** | **Mon 5/7/18** | 32FS+1 mon |
| 58 | 12.1 Negotiate Right of Way Settlement/Prepare Acquisition Documents | 5 mons | Tue 9/26/17 | Mon 2/12/18 | 56 |
| 59 | 12.2 Title Clearance Services | 1 mon | Tue 2/13/18 | Mon 3/12/18 | 58 |
| 60 | 12.3 Escrow Coordination | 1 mon | Tue 3/13/18 | Mon 4/9/18 | 59 |
| 61 | Right of Way Certificiation | 1 mon | Tue 4/10/18 | Mon 5/7/18 | 60,50 |
| 62 | **TASK 13 - UTILITY COORDINATION AND RELOCATIONS** | **230 days** | **Tue 4/11/17** | **Mon 2/26/18** | |
| 63 | **13.1 Utility Coordination** | **230 days** | **Tue 4/11/17** | **Mon 2/26/18** | |
| 64 | 13.1.1 Utility Verification | 6 wks | Tue 4/11/17 | Mon 5/22/17 | 5 |
| 65 | 13.1.2 Utility Conflict Maps and Coordination | 8 mons | Tue 5/23/17 | Mon 1/1/18 | 64 |
| 66 | 13.1.3 Notice to Owner and Support for Utility Agreements | 2 mons | Tue 1/2/18 | Mon 2/26/18 | 65 |
| 67 | Bid & Award | 4 mons | Thu 11/1/18 | Wed 2/20/19 | 50,61,33,19 |
| 68 | **TASK 14 - CONTRACT BIDDING AND AWARD ASSISTANCE** | **40 days** | **Thu 12/27/18** | **Wed 2/20/19** | |
| 69 | 14.1 Bid Assistance | 2 mons | Thu 12/27/18 | Wed 2/20/19 | 67FF |
| 70 | 14.2 Pre-Bid Meeting | 1 day | Thu 1/24/19 | Thu 1/24/19 | 69SS+1 mon |
| 71 | 2018 In Water Work Window | 5.45 mons | Fri 6/1/18 | Wed 10/31/18 | |
| 72 | 2019 In Water Work Window | 5.45 mons | Mon 6/3/19 | Thu 10/31/19 | |




Proposal Schedule

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ãTask | Summary | Rolled Up Progress | Project Summary | Inactive Milestone | Duration-only | Start-only | External Milestone | | | | |
| Progress | Rolled Up Task | Split | Group By Summary | Inactive Summary | Manual Summary Rollup | Finish-only | | | | | |
| Milestone | Rolled Up Milestone | External Tasks | Deadline | Manual Task | Manual Summary | External Tasks | | | | | |

## *Innovative Techniques*
## *Familiarity with State/Federal/County Procedures*

CORNERSTONE
structural
engineering
group

Innovative Techniques
Familiarity with State
Federal/County Procedures

986 West Alluvial Avenue, Suite 201, Fresno, CA 93711 | TEL (559) 320-3200 | FAX (559) 320-3201 | www.cseg.com

## Innovative or Advance Techniques

Cornerstone has established a reputation for producing complete, innovative and cost effective designs. Each project presents a unique set of design challenges and innovative solutions are developed through creativity, experience and use of state-of-the-art design procedures and software. Innovation also comes from understanding current tools and methods that are being used by the bridge contractors, who must ultimately build the structure.

Cornerstone embraces innovation and our Goodfellow Avenue Bridge was awarded the ASCE 2011 Outstanding Structural Project of the Year award specifically for its use of innovative foundation techniques.

We believe our project understanding and the techniques and solutions we have discussed show our innovative nature and we look forward to providing these solutions for the Final PS&E.


## Familiarity With State/Federal/County Procedures

Cornerstone Structural Engineering Group specializes in, and is well-known within Caltrans for, the design and project management of federally funded local Highway Bridge Program (HBP) projects. We have completed HBP bridge projects for local agencies throughout the State have also completed several Caltrans Encroachment Permit projects and are currently working on the new Carmel River Overflow Bridge on State Route 1 in Monterey County. Cornerstone and our Team thoroughly understands the HBP funding and project delivery process including the Caltrans Local Assistance Procedures Manual (LAPM) and the Local Assistance Procedures Guidelines (LAPG). Our extensive bridge experience requires us to understand Caltrans, FHWA and AASHTO policies, guidelines, and procedures. We believe our project experience and our project understanding and approach stand for themselves and show our familiarity with the HBP program and Caltrans and Federal procedures. Cornerstone also represents Caltrans' Central Region on the Caltrans/ACEC Structures Liaison Committee. Through this committee, we have provided design collaboration and feedback on current bridge design practices. Most recently, Cornerstone recommended that Caltrans considered revising the current Amendments to the LRFD specifications for CISS pile design to relax the requirement for static load testing on piles 36" in diameter and greater. Recognizing that this requirement is a significant cost burden to smaller, local agency projects, Cornerstone brought this to the attention of the committee and Caltrans has started the process of revising the amendment in the next edition of the amendments. Through this committee, Cornerstone's staff has also provided Caltrans Specifications training to local agency and consultant staff, training other engineers on how to successfully use the Caltrans 2010 and 2015 plain language specifications.

Cornerstones also has experience with County procedures, having worked on three other Santa Barbara County projects. Through these projects, we have become familiar with the County's staff and understand the County's procedures.

Cornerstone also represents Caltrans' Central Region on the Caltrans/ACEC Structures Liaison Committee. Through this committee, we have provided design collaboration and feedback on current bridge design practices. Most recently, Cornerstone recommended that Caltrans considered revising the current Amendments to the LRFD specifications for CISS pile design to relax the requirement for static load testing on piles 36" in diameter and greater. Recognizing that this requirement is a significant cost burden to smaller, local agency projects, Cornerstone brought this to the attention of the committee and Caltrans has started the process of revising the amendment in the next edition of the amendments. Through this committee, Cornerstone's staff has also provided Caltrans Specifications training to local agency and consultant staff, training other engineers on how to successfully use the Caltrans 2010 and 2015 plain language specifications.

# *Project Delivery Team*

CORNERSTONE
structural
engineering
group

986 West Alluvial Avenue, Suite 201, Fresno, CA 93711 | TEL (559) 320-3200 | FAX (559) 320-3201 | www.cseg.com

# County of Santa Barbara
## Department of Public Works
## Charlie Elbert - Project Manager

**Design Engineering Services for**
**The Floradale Avenue Bridge Project**
**County Project No. 862032**
**Federal Project No. BRLSZD - 5951 (060)**

*US Army Corps Of Engineers*
*California Dept. of Fish and Wildlife*
*Regional Water Quality Control Board*
*Santa Barbara Co. Air Pollution Control*
*Santa Barbara Co. Flood Control*
*Santa Barbara Co. Water Conservation Dept.*
*Vandenberg Village Community Services Dist.*
*Vandenberg Air Force Base*
*Federal Bureau of Prisons*
*National Marine Fisheries Service*
*United State Fish and Wildlife Service*
*City of Lompoc*
*Verizon*
*PG&E*
*Other Utilities*

**Cornerstone Structural Engineering Group**

**Principal - in - Charge**
**Todd M. Goolkasian, SE**

**Quality Control Manager**
**Thomas L. Swayze, SE**

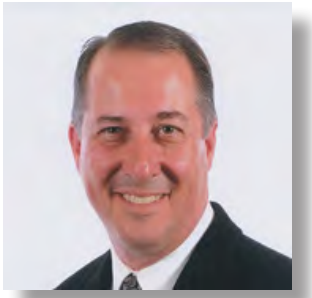
**Quality Control Engineer**
**Mark A. Weaver, SE**

**Project Manager**
**Shawn M. Cullers, SE**

| Earth Mechanics | BKF Engineers | Avila & Associates | Praxis | Hamner, Jewell & Associates | Rincon Consultants |
|---|---|---|---|---|---|
| **Geotechnical** | **Roadway Utility Coordination** | **Hydrology & Hydraulics** | **Survey** | **Right of Way Appraisal & Aquisition** | **Environmental** |

**<u>Cornerstone Staff</u>**
**Project Management**
**Bridge Design Coordination - Funding Assistance**
**Assistance During Bidding - Construction Support**

*Key Staff will be available for the full duration of the project.*
*Key Staff will not be removed or replaced without the written consent of COUNTY.*



*Principal - in - Charge*

**Education**
**Santa Clara University,**
**Santa Clara, California**
*B.S. Civil Engineering, 1985, Cum Laude*

**Registration**
**California Civil License**
*No. C43661*
**California Structural License**
*No. S3543*

***Mr. Todd M. Goolkasian, SE,*** is a licensed structural engineer with over 30 years of experience in structural design and project management. During his career he has been responsible for the design and construction management of major transportation projects including bridges, assessment studies, retaining walls, and culvert/water related structures. He has also been responsible for the structural design of educational, commercial, industrial and community building facilities. His clients include public agencies, private developers, professional engineers, architects, school districts, and church dioceses, among others.

As founder of Cornerstone Structural Engineering Group, Inc., Todd is a working-Principal. He is active in the direct oversight of all projects designed by the Fresno division. His responsibilities include client development, contract negotiations, project staffing, project scheduling, supervision of project engineers and draftsmen, and engineering quality control and job cost control for projects under his supervision.

**Some of the current and completed projects where Todd has acted as Principal-in-Charge or Project Manager include:**

- Major Bridge, Grade Separation, and Freeway Interchange projects for counties and cities throughout California from Redding to Los Angeles
- Seismic retrofit, rehabilitation, and replacement of over 100 bridges under the Federal Highway Bridge Program (HBP)
- Structural design of bridge and other infrastructure for nationally recognized developers including Lennar Homes, KB Homes, Shapell Industries, Pulte Group, Hovanian Enterprises, Taylor Morrison, Braddock and Logan, and others.
- Educational, commercial, industrial, mixed use, and community building facilities for Fresno Unified School District, Diocese of Fresno, IBM, Apple Computers, California State University Fresno, and Table Mountain Casino.

*Quality Control Manager*

**Education**
**California Polytechnic State University**
**San Luis Obispo, California**
*B.S. Architectural Engineering*

**Registration**
**California Civil License**
*No. C39948*
**California Structural License**
*No. S3302*

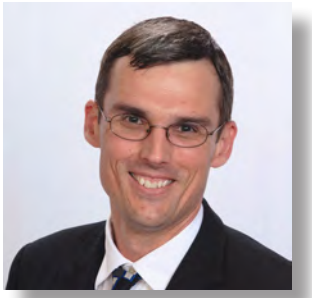
***Mr. Thomas L. Swayze, SE,*** is a principal of Cornerstone with over 25 years of professional engineering experience. Mr. Swayze will serve as Quality Control Manager responsible for overall management of engineering quality control and quality assurance for the project. He will provide oversight to ensure the project meets the goals established by the owner through the development and implementation of the project quality control plan, review of project strategy development, technical guidance, review of project administration, supervision of the project quality control engineers, and overall review of project contract documents.

**Key Project Experience:**

**San Joaquin River Bridge at 13th Street (HBP), Firebaugh, California**
Quality Control Engineer for the replacement of a 540 foot-long post-tensioned box girder with parabolic arches over the San Joaquin River at 13th Street.

**Additional Project Experience:**

- Sleepy Hollow Ford (Low Water Crossing) Replacement, Monterey, California
- Byrd Slough Bridge at Goodfellow Avenue (HBP), Fresno, California
- M319 Replacement Bridge over SF Kaweah River, Tulare County, California
- Carmel River Overflow Bridge at Highway 1, Monterey County, California
- R.B. Oliver Bridge over the Kings River, Tulare County, California
- Creekview Drive Bridge over Angels Creek,
- Oakland Road Bridge at Coyote Creek, San Jose, California
- Tsushima Street Bridge over Refugio Creek, Hercules, California
- Saratoga-Sunnyvale Road, Sunnyvale, California
- Los Gatos Creek Bridge on Calaveras Avenue, Fresno County, California
- Mare Island West Approach Bridge Replacement, Vallejo, California
- Holly Street to Miramonte Bridge at Purissima Creek, Los Altos, California



*Project Manager*

**Education**

**California State Univ., Fresno**
**Fresno, California**
*B.S. Civil Engineering*
*B.S. Const. Management*

**Registration**

**California Civil License**
*No. C71542*

**California Structural License**
*No. S5561*

***Mr. Shawn M. Cullers, SE,*** has over 13 of professional engineering and project management experience. As Project Manager, he will be responsible for the administration and oversight of the project including project initiation, plan and strategy development, and plan execution; identification of project constraints, contract administration, budgeting, and scheduling; communication with the owner and project stakeholders; coordination of sub-consultants and project disciplines; oversight and review of project technical issues and project contract documents, and the supervision of project staff.

**Key Project Experience:**

**R.B. Oliver Bridge over the Kings River (HBP), Tulare, County, California**
Project Manager for the replacement of the existing 23-span, 850-foot long bridge. Originally programmed as a seismic retrofit project, a complete bridge replacement alternative was justified through a life cycle cost analysis. The replacement bridge will be a new state-of-the-art structure that is significantly wider than the existing structure (four lanes and a median versus two existing lanes) to accommodate traffic projections and the widening of the Ave 416.

**Additional Project Experience:**

- Carmel River Overflow Bridge at Highway 1, Monterey County, California
- Sleepy Hollow Ford (Low Water Crossing) Replacement, Monterey County, California
- Kings River Bridge at Goodfellow Avenue (HBP), Fresno, California
- Kings River Bridge at Manning Avenue, Reedley, California
- Byrd Slough Bridge at Goodfellow Avenue (HBP), California
- Healdsburg Avenue Bridge over Russian River (HBP) Retrofit, Healdsburg, California
- Mineral King Bridge over East Fork Kaweah River, Tulare County, California
- M319 Replacement Bridge over SF Kaweah River, Tulare County, California
- Dougherty Road Bridges at WS-6 and WS-7 Creeks
- "R" Street Culvert, Merced, California
- Culvert Widening at State Route 132, San Joaquin County, California
- Creekview Drive Bridge over Angels Creek, California
- Bird Road IC at SR 132 and Culvert Widening, San Joaquin County, California
- Geary Avenue over Central Canal No. 23, Fresno, California
- Tsushima Street Bridge over Refugio Creek, Hercules, California

*Quality Control Engineer*

**Education**

**California State Univ., Fresno**
**Fresno, California**
*B.S. Civil Engineering*

**Univ. of California, Berkeley**
**Berkeley, California**
*M.S. Structural Engineering*

**Registration**

**California Civil License**
*No. C79235*

**California Structural License**
*No. S6424*

***Mr. Mark A. Weaver, SE,*** has over 9 of professional engineering and quality control experience. His role as Quality Control Engineer will be to assist the quality control manager with the implementation of the engineering quality control plan by providing an independent check of all plans and details at the preliminary design phase and prior to the submittal of final plans, specifications, and estimates, and reviewing structural designs and analysis.

**Key Project Experience:**

**Bradshaw's Crossing over the San Joaquin River, Lathrop, California**
Quality Control Engineer of a new 447-foot long by 42-foot wide, three-span, cast-in-place post-tensioned box girder bridge. Unique design challenges included significant liquefaction induced lateral spreading loads on pile foundations, as well as environmental restrictions on underwater noise during construction, which resulted in the use of oscillated cast-in-drilled-hole pilings at the abutments and piers.

**Additional Project Experience:**

- Healdsburg Avenue Bridge (HBP), Healdsburg, California
- Healdsburg California Mountain Road M319 Bridge (HBP)
- Road 425B over China Creek, Madera County, California
- Sleepy Hollow Ford (Low Water Crossing) Replacement, Monterey County, California
- Tularcitos High Road (THR)) Bridge over Tularcitos Creek, Carmel Valley, California
- R.B. Oliver Bridge over the Kings River (HBP), Tulare, County, California
- Pacific Ridge ESHA Bridge, Half Moon Bay California
- Cotta Road Bridge Replacement, San Joaquin, California

*Roadway*
*Utility Coordination*

BkF Engineers / Surveyors / Planners

**Education**

**California Polytechnic**

**State University**

**San Luis Obispo, California**

*B.S. Civil Engineering*

**Registration**

**California Civil License**

*No. C44922*

***Chris Rideout, PE*** has 30 years of project management/design experience on numerous bridges, roadway, recreational facilities, utility infrastructure, and municipal improvement projects. Mr. Rideout has been able to develop strong relationships with the local and regional approval agencies throughout his career, which assists in obtaining timely jurisdictional approvals. His strengths include providing creative alternatives with maximum amount of flexibility during the design, while maintaining the project objectives and schedule. He has extensive experience in developing the civil design for HBP funded bridge replacement projects. He understands and incorporates the nuances associated with federally funded projects like the Floradale Ave Bridge Replacement Project.

**Key Project Experience:**

- Firestone Bridge Replacement Project, Norwalk, CA
- Developed complex staging and traffic handling to maintain access to adjacent business, reducing damages
- Led the coordination with numerous 3rd party utilities including SCE overhead relocation, CBMWD reclaimed waterline protection and Verizon temporary support scheme during construction
- Led the effort in coordinating the Utility Agreements for Caltrans Certification
- Minimize the need for both temporary and permanent right-of-way needs
- Coordinated with LACFCD for access road and re-alignment of regional bike trail
- Metro and HBP Funding
- Glen Helen Parkway Phase II, San Bernardino, CA
- Civil Proj. Manager for Ph II of widening of Glen Helen Parkway a HBP funded project
- Lead the utility coordination effort with 3rd Party Utilities
- Developed bridge geometrics including multi-use path on the bridge
- Coordination with Glen Helen Regional Park on access/impacts
- Designed new profile to satisfy hydraulic conditions over the 900 foot wide Cajon Wash
- Peltier Road Bridge, San Joaquin County, CA

*Right Of Way*
*Appraisal/Aquisition*

Hamner Jewell & Associates

**Education**

**California State University**
**Santa Barbara, California**

*B.A. Civil Engineering*

**Registration**

**California Bureau of**
**Real Estate**

*No. 00704804*

***Ms. Lillian D. Jewell, BRE,*** has been the Managing Senior Associate of Hamner, Jewell & Associates since 1990 and since 1979, has spent her entire career in real estate. She has been with Hamner, Jewell & Associates since 1986 and is the corporate broker for the firm. With her extensive background and experience in governmental real estate acquisition and relocation assistance, Ms. Jewell oversees our project team, working closely with client project managers and our project support staff. She is a "hands-on" manager who closely monitors project progress and maintains direct relationships with our clients and project teams.

**Key Project Experience:**

**Haley-De La Vina Bridge, City of Santa Barbara, California**

Provided property acquisition and residential relocation services on this federally funded Mission Creek bridge replacement project. This project involved two full parcel acquisitions, three partial acquisitions, and three residential tenant relocations.

**Additional Project Experience:**

- Cabrillo Bridge Project, City of Santa Barbara, California
- Los Carneros Overhead Bridge, City of Goleta, California
- Freeway interchange projects
- Acquisition of sites for federally funded transportation
- Transit maintenance facility sites
- Park acquisitions Roadways

**Additional Projects with Local Agencies:**

Santa Barbara ● Lompoc ● Goleta ● Ventura ● Santa Maria ● San Luis Obispo ● County of Santa Barbara ● Ventura ● San Luis Obispo ● Goleta Water District ● Central Coast Water Authority

*Hydrology/Hydraulics*

AVILA & ASSOCIATES

**Education**

**California State Univ., Fresno**
**Fresno, California**
*B.S. Civil Engineering*
*B.S. Const. Management*

**Registration**

**California Civil License**
*No. C71542*
**California Structural License**
*No. S5561*

***Ms. Catherine Avila*** is a Principal who began Avila and Associates Consulting Engineers, Inc. in 2000 and who has over 30 years of public and private sector experience in many areas including hydrologic and hydraulic modeling (HEC-RAS, HEC-HMS), environmental assessments, and structure hydraulics.

**Key Project Experience:**

*Santa Ynez River – Floradale Avenue Bridge, Santa Barbara County, California*
Ms. Avila provided bridge hydraulic services including estimating discharge design, water surface elevation, velocity and bridge scour for a bridge replacement of the Floradale Avenue Bridge over the Santa Ynez River. The Santa Ynez River provided additional challenges, as it was located on a river that has been historically mined for sand and gravel.

**Additional Project Experience:**

***E. Mt. Drive Road Br. Replacement over Cold Springs Creek, County of Santa Barbara***
Design engineer responsible for providing bridge hydraulic services for the replacement of a low water crossing with a bridge including estimating discharge design water surface elevation, velocity and bridge scour for this Highway Bridge Program (HBP) bridge replacement. Design includes bulking to account for large boulders in the channel and provides fish passage.

***Sandspit Road over Goleta Slough, City of Goleta, Co. of Santa Barbara***
Ms. Avila provided bridge hydraulic services including estimating discharge design water surface elevation, velocity and bridge scour for the Sandspit Rd Bridge over Goleta Slough. Estimation of the potential impact of Sea Level Rise is included as part of the project.

***Montecito St. Bridge over Sycamore Creek Br. Rep., City of Santa Barbara, California***
Design engineer responsible for providing bridge hydraulic services including estimating discharge design water surface elevation, velocity and bridge scour for the Sycamore Creek in the City of Santa Barbara. The project was complicated by the presence of a sanitary sewer line on bridge which limited the soffit elevation, a sycamore tree upstream which limited the widening and its location in a FEMA designated floodplain.

*Geotechnical*

Earth Mechanics, Inc.
Geotechnical and Earthquake Engineering

**Education**

**Univ. of Texas**
**Austin, Texas**
*B.S. Civil Engineering*
*M.S. Civil Engineering*

**Registration**

**Geotechnical Engineer, CA**
*No. GE 2345*

**Civil Engineer, CA**
*No. C41401*

***Mr. Lino Cheang, PE, GE,*** has provided foundation design for close to 1,000 new, replaced and widened structures, various transportation and public works agencies. These structures include railroad bridges, major water crossings, long viaducts, and overcrossings and undercrossings at major interchanges. He is familiar with Caltrans design philosophy and criteria, and the review process. He has designed roadway embankments and pavement structural sections for Caltrans facilities, statewide.

**Key Project Experience:**

**Santa Ynez River Bridge, Lompoc, California**
Project Manager. The original retrofit design consisted of cost foundation retrofit due to soil liquefaction. Conducted field exploration consisting of cone penetrometer test to evaluate site liquefaction potential. Provided alternatives and low-cost mitigations for soil liquefaction and lateral spreading

**Additional Project Experience:**

***Bell Street Bridge Replacement, Santa Barbara County, California***
Project Manager. Worked closely with Santa Barbara County Dept. Public Works on foundation design. Site conditions show a compressible soil layer and long settlement period; therefore, settlement monitoring was incorporated into the design.

***Rehabilitation of River Road Bridge, Stanislaus County, California***
Project Manager. Provided foundation design parameters for foundation rehabilitation damaged by scour and upgraded capacity for earthquake loads. The retrofit strategy was presented to the County and Caltrans and decision was for a complete bridge replacement. Work on this bridge replacement project will continue when funding is available.

***Echo Ditch Bridge (Widen) at I-10, Coachella, California***
Project Manager. Prepared a Structural Preliminary Geotechnical Report in support on the Advance Planning Study for bridge widening. This project will be moving into the final design phase shortly.

*Survey*

PRAXIS Ideas into Action

**Education**

**California State Univ., Fresno**
**Fresno, California**
*B.S. Surveying & Photo Grammetry*

**Registration**

**Professional Land Surveyor, Ca**
*No. 6167*
**Nevada**
*No. 20712*
**Idaho**
*No. 16900*

***Mr. Justin P Height, PLS,*** has been employed in the surveying profession since 1984, and joined Praxis in July 2015. His career began in a field party position and progressed to his current position as a Principal Surveyor at Praxis Consolidated International. Mr. Height has been responsible for all types of surveying and mapping projects, including topographic surveys, ALTA land title surveys, right-of-way acquisition surveys, land planning and public agency coordination, control network surveys, the preparation and finalization of tract and parcel maps, lot line adjustments, condominium plans and Record of Survey maps, as well as management of construction staking projects.

**Key Project Experience:**

**Amtrak Train Station Improvements, Grover Beach, California**
Project Surveyor. Working as a subconsultant to Rick Engineering, Praxis surveyors performed a detailed topographic survey of the three-acre site and delivered a Civil 3D dataset including a drawing, surface, and points. In addition, we performed a boundary establishment survey of the City owned parcels, as well as the UPRR right of way, both of which control the limits of design of new parking lots and building facilities.

**Additional Project Experience:**

***Section 6B, Line 36-9-09N Gas Line Replacement, Arroyo Grande, CA***
As part of our five-year contract with Jacobs Engineering to provide surveying and mapping services on the Pipeline Safety Enhancement Plan (PSEP) for SoCalGas/Sempra Energy, we recently completed a survey for a one-mile realignment section of gas line. We had previously mapped about 10 miles of corridor in the Arroyo Grande area, including Section 6B. Based on our mapping, the original intended alignment of Section 6B was rejected by the City or Arroyo Grande due to major conflicts with existing subsurface utilities. Our PSEP base-mapping includes topographic, subsurface utilities (using S.U.E. process), and right of way and boundary mapping.

- I-5 Truck Lane & HOV Lane Widening Project, Santa Clarita, CA*
- Avenue G-8 Storm Drain, Lancaster, CA *
- Miguelito Canyon Water Line, Lompoc, CA*

*Environmental*

rincon

**Education**

**University of CA Irvine**
**Irvine, California**
*M.S., Urban 7 Regional Planning*

**Univ. of California, San Diego**
**San Diego, California**
*B.S. Economics*

***Mr. Richard C. Dalton, MURP,*** is a Principal at Rincon Consultants' Environmental Sciences and Planning Group and the Operations Manager of Rincon's San Luis Obispo office, Mr. Daulton oversees planning and environmental projects in the California central coast region. He has over 20 yrs of experience in the planning profession with an emphasis on environmental planning. His planning skills are supported by a strong background in technical environmental and economic analysis. He manages a range of CEQA & NEPA documentation projects, & has successfully combined environmental analysis and planning techniques to guide agencies through complex studies and controversial programs, entitlement, and planning projects.

**Key Project Experience:**

***TRANSPORTATION PROJECTS***

- Cabrillo Boulevard Rail Bridge Replacement Project, County of Santa Barbara
- Bridge Union Valley Parkway Extension/IC Project EIR/EA, City of Santa Maria
- Hollister Ave Widening Project EIR/EA & Caltrans Env. Studies, County of Santa Barbara
- Morro Creek Multi-purpose Trail and Bridge Project IS-MND and Caltrans Environmental Studies, City of Morro Bay
- Holman Highway Roundabout EIR and Caltrans Environmental Studies Addenda, City and County of Monterey
- SR 99/Fulkerth Ave. Interchange Improvements PEAR, IS-MND and Environmental Studies, City of Turlock
- U.S. 101/Clark Avenue Interchange Improvements PEAR, County of Santa Barbara
- Grover Beach Transit Center IS-MND, City of Grover Beach

## R.B. Oliver Bridge over the Kings River (HBP)

Tulare County, California

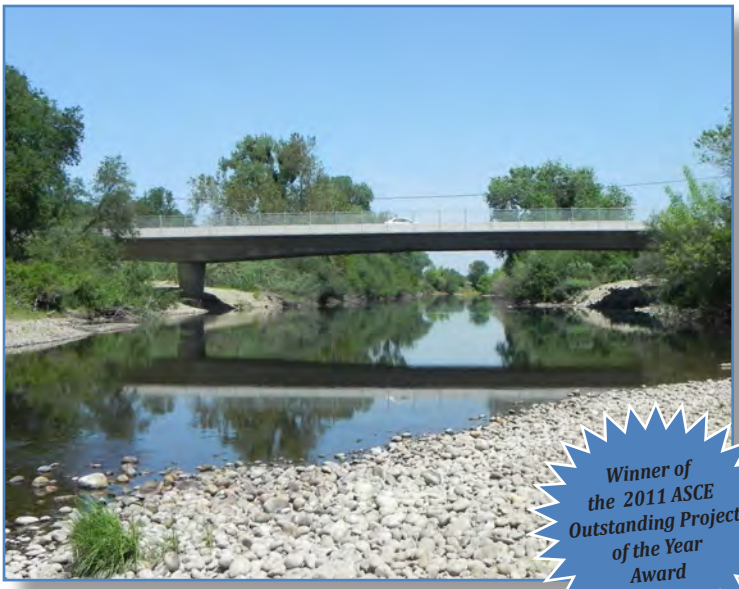
Award Winner of:
2016 ACEC Honor & National Recognition Awards
2014 - ASCE Structural Project of the Year
2014 APWA Project of the Year


Cornerstone Structural Engineering Group was retained by the County of Tulare to prepare the federal funding application and final PS&E package for the replacement of the existing 850-foot long R.B. Oliver Bridge over the Kings River. The bridge was originally programmed as a seismic retrofit project; however, Cornerstone was able to justify a complete bridge replacement alternative through a life cycle cost analysis that showed that a complete replacement alternative would be more economical than a seismic retrofit and rehabilitation alternative. The justification provided by Cornerstone allowed the County to replace the bridge with a new state of the art structure to accommodate traffic projections through 2030 and the widening of the Avenue 416 corridor between Highway 99 and the City of Dinuba. The replacement structure is a 5-span cast-in-place post-tensioned concrete box girder bridge with a width of 81 ft. and a total length of 740 ft. The completed bridge carries 4 lanes of vehicular traffic and protected pedestrian sidewalks. Notable project features included the provision of both day and night roost bat habitats to mitigate for loss of habitat on the existing bridge; isolation casings at end span pier foundation piles to allow thermal and shrinkage movement of the bridge without the need for high maintenance hinges; and extensive aesthetic features including entry monuments, custom pedestrian railings and pilasters, and pier monuments.

**Principal-in-Charge:** Todd Goolkasian, SE
**Project Manager:** Shawn M. Cullers, SE
**Client:** Tulare County Resource Management Agency
**Client Contact:** Ben Ruiz (559) 624-7134
**Year Delivered:** March 2014, On Schedule

## Kings River Bridge at Goodfellow Avenue (HBP)

Fresno County, California



*Winner of the 2011 ASCE Outstanding Project of the Year Award*

**Principal-in-Charge:** Todd M. Goolkasian, SE
**Project Manager:** Shawn M. Cullers, SE
**Client Contact:** County of Fresno
Dale Siemer (559) 262-4072

Calaveras Materials, Inc. (CMI) proposed a sand and gravel mining operation to be constructed adjacent to the Kings River southeast of Sanger. As part of the County of Fresno conditions of approval for this project, CMI was required to contribute toward the replacement of the existing Kings River Bridge at Goodfellow Avenue with a new structure, to accommodate the added traffic that will be generated by the gravel mining operation. Cornerstone assisted CMI to identify federal funding assistance and brought CMI and Fresno County together to complete this public-private partnership project.

The existing seven-span, 500-foot-long structure was functionally obsolete and qualified for Federal Highway Bridge Replacement and Rehabilitation (HBRR) replacement funding. The County of Fresno is the lead Agency for the bridge replacement, with CMI funding part of the required 20% local match. The replacement structure consists of a 520-foot long by 35-foot wide parabolically haunched cast-in-place post-tensioned box girder superstructure supported on eight-foot-diameter cast in drilled hole piles at the piers and short seat type abutments. The large column supports and arched features of the new bridge make it an aesthetically pleasing addition to the river, which is frequently used by swimmers and boaters near the bridge.

## Healdsburg Avenue Bridge over the Russian River (HBP)

Healdsburg County, California

Cornerstone Structural Engineering Group, along with project team members Omni Means and Parikh Consultants were selected by the City of Healdsburg to provide engineering services for the HBP funded seismic retrofit/ rehabilitation of the Healdsburg Avenue Bridge over the Russian River. The existing bridge, built in 1921, consists of a 400ft long two-span steel Parker through truss and serves as a entry way to the south and east portions of Healdsburg. The existing bridge is also located just north of the Veterans Memorial Park and public beach, which serves as a summer retreat for the community. In order to address concerns regarding eligibility of the existing through-truss bridge for the National Register of Historic Places and a desire by the community to preserve the existing bridge, Cornerstone and the design team proposed several project concepts at the beginning of the project that would either rehabilitate, relocate, and convert the existing steel truss bridge into a pedestrian bridge or retrofit and rehabilitate the existing bridge in place. To determine funding eligibility of the proposed project concepts under the Federal HBP program, Cornerstone worked closely with Caltrans District 4 Local Assistance and Caltrans Headquarters. After several public meetings where the local community had the opportunity to comment on the project concepts, Healdsburg City Council elected that the preferred concept was to retrofit and rehabilitate the existing bridge in place. Cornerstone worked closely with Caltrans District 4 Local Assistance, Caltrans Headquarters, and FHWA to determine the funding eligibility for the rehabilitation portion of the project. The existing bridge will remain functionally obsolete following rehabilitation but, because the bridge is historically significant, approval of HBP funding for the project was obtained. The existing bridge is also eligible under the Local Seismic Safety Retrofit Program (LSSRP) for the seismic retrofit portion of the project, which is immediately eligible for funding. However, due to the eligibility of the bridge for HBP rehabilitation funding and in order to reduce environmental impacts, the retrofit and rehabilitation portions of the project have been combined into a single project.

**Project Manager:** Todd M. Goolkasian, SE
**Project Engineer:** Shawn M. Cullers, SE
**Client:** City of Healdsburg
**Client Contact:** Mario Landeros (707) 431-3346

*Winner of the 2017 ACEC Engineering Excellence Honor Award*

## San Joaquin River Bridge at 13th Street (HBP)
Firebaugh, California


**Project Manager:** Todd M. Goolkasian, SE
**Client:** City of Firebaugh
**Client Contact:** Greg Merrill (559) 252-7223
(City Engineer - Rabe Engineering)

The City of Firebaugh requested a seismic evaluation of the bridge to be completed. After a seismic retrofit analysis was performed using the latest Caltrans analysis techniques, a retrofit strategy was agreed to with Caltrans at an estimated construction cost of $1.2 Million. However, after careful consideration, the City of Firebaugh made the decision, following the recommendations of Project Manager Todd Goolkasian, that it would be better to replace the bridge rather than to retrofit it. A lifecycle cost evaluation was done, going forward 50 years, concluding that it would be more cost efficient for the City to build a new bridge, rather than retrofit and maintain the existing bridge. Caltrans Headquarters, for the first time, allowed retrofit dollars to be used toward the cost of the replacement structure using Highway Bridge Replacement and Rehabilitation bridge replacement funding. The replacement bridge was a 540-foot long post-tensioned box girder with graceful parabolic arches and a river overlook included in design to compliment the Andrew D. Firebaugh Park adjacent to the bridge. Construction inspection services were also included in the project. The cost of the replacement bridge was $4 Million (1999 dollars) and with proper care, will last for many decades. The center pier of the original center-swing drawbridge is still standing and is just downstream from the new structure. Project performed while Mr. Goolkasian was with another firm.

## Valley Boulevard Bridge over San Gabriel River (North Bridge)
Los Angeles County, California

**Project Manager:** Todd M. Goolkasian, SE
**Client:** County of Los Angeles
**Client Contact:** Kitty Shih (626) 458-5196

The north bridge portion of the Valley Boulevard Bridge was constructed around 1917 and consists of an 11 simple-span riveted steel plate girder superstructure 903 feet long and 25 feet wide. The piers are concrete-filled steel cylinders connected at the top with a riveted steel link beam. The structure is supported on timber piles.

A non-linear time history seismic analysis of the bridge was performed as part of Los Angeles County's Local Seismic Safety Retrofit Program.

Due to the high cost of retrofitting this bridge and significant pier scour concerns, the County of Los Angeles and Caltrans agreed to replace the North Bridge. Plans, specifications, and estimates for this job were completed in 2000 and construction was completed in 2001. Project Manager Todd Goolkasian worked in conjunction with Earth Mechanics on this project while Mr. Goolkasian was with another firm.

CORNERSTONE structural engineering group

Earth Mechanics, Inc.
Geotechnical and Earthquake Engineering

## Mountain Road M319 Bridge (HBP)
Tulare County, California

New Bridge

Original Bridge

Cornerstone was an integral part of the design process for the newly completed Mountain Road 319 Bridge Replacement project, located near the community of Three Rivers in Tulare County.

Project Highlights:
- Replaced existing steel box truss bridge constructed in 1950:
  - *Structurally deficient*
  - *Unsafe for emergency vehicles*
  - *Single Lane*
- Federal Funds (HBP) utilized
- Beautified with a new state of the art **two-lane** precast concrete structure.
- Aesthetic features that blend with environment

The project kicked-off in early 2010 and was completed in 2013 ***on schedule and within budget.***

**Principal-in-Charge:** Todd M. Goolkasian, SE
**Project Engineer:** Shawn M. Cullers, SE
**Client Contact:** Tulare County RMA
Ben Ruiz (559) 624-7134

## San Joaquin River Bridge at River Island Parkway
Lathrop, California

**Principal-in-Charge:** Todd M. Goolkasian, SE
**Client:** City of Lathrop
**Client Contact:** Glenn Gebhardt
(209) 941-7443

River Islands is comprised of 2,000 acres of residential and commercial development with water courses, marinas and lakes. The development includes two river crossings over the San Joaquin River (Bradshaw's Crossing & Golden Parkway Bridge), two river crossings over Paradise Cut (Golden Valley Parkway Causeway & Paradise Road Causeway), interior lake bridges, canal bridges, and lake and canal bulkhead structures.

Bradshaw's Crossing is a four-lane divided roadway that includes twin river crossings over the San Joaquin River. The prestressed concrete box girder river crossings presented several engineering challenges as construction restrictions at the river required innovative construction methods. Trestles will be built on both sides of the river to construct the pier pileshafts. Falsework would then be built on top of the trestles to facilitate cast-in-place construction of the end spans. Precast girders will be erected at the center span using cranes that will travel on top of the completed end spans. Finally, the spans will be made continuous with post-tensioning.

The bridges are built on top of existing levees, and the abutments were designed to isolate the vertical and seismic loads from the existing levees. This and the presence of deep scour increased the complexity of the seismic design.

## Carmel River Overflow Bridge
Monterey County, California

**Principal-in-Charge:** Todd Goolkasian, SE
**Project Manager:** Shawn M. Cullers, SE
**Client:** Big Sur Land Trust
**Client Contact:** Sarah Hardgrave (831) 625-5523

The construction the State Route 1 embankment and levees along the banks of the Carmel River in the 1930's significantly altered the hydrologic function and ecosystem of the lower Carmel River watershed. Flood waters that once flowed onto the historic floodplains have been constrained to the main channel, creating significant flood hazards to development north of the river near the City of Carmel by the Sea. To reduce flood risks and restore the historic Carmel River watershed and ecosystem, the Big Sur Land Trust developed the Carmel River Floodplain Restoration and Environmental Enhancement (Carmel River FREE) project. This project identified the need for a new overflow bridge to replace a portion of the existing State Route 1 embankment; reconnecting the east and west portions of the southern floodplain.

Cornerstone recently completed the Type Selection phase of the project and is currently working on the development of the Final Plans, Specifications, and Estimates for the 350 ft. long overflow bridge. The bridge site is susceptible to liquefaction and lateral spreading, with up to 4 ft. of lateral soil movement expected during a large earthquake. Because of the large soil movements, the design of the bridge foundations includes highly ductile, large diameter driven steel shells filled with reinforced concrete to resist the anticipated seismic and lateral spreading demands. The project also includes a large community outreach campaign to educate the public on the project and to provide public comments on several key design factors, including temporary impacts during construction, bicycle and trail access, and bridge and railing aesthetics.

## Hercules Bayfront
Hercules, California

**Principal-in-Charge:** Todd Goolkasian, SE
**Project Manager:** Mark Weaver, SE
**Client:** City of Hercules
**Client Contact:** Erwin Blancaflor (510) 799-8242

Cornerstone Structural Engineering Group is provided structural engineering services for the City of Hercules' Bayfront project, which will provides a transit oriented traditional neighborhood mixed-use project within the Hercules Waterfront District. The project includes a Multi-Modal Transit Station that offers a connection to downtown San Francisco via a ferry terminal, and will is designated as the only train, ferry and bus station in California.

Project included the design of a two-span cast-in-place post-tensioned box girder superstructure over Refugio Creek near its outlet to San Pablo Bay. The bridge is supported on 5'-0" diameter cast-in-drilled-hole piles with permanent steel casings at the center pier, and 2'-0" diameter piles at the abutments. The piers extend approximately 80' through soft bay mud and into competent material below. The bridge design includes architectural enhancements to the bridge railing and abutments in accordance with the Hercules Waterfront District Master Plan. This project was complete in Fall 2016.

## Glen Helen Parkway Bridge over Cajon Wash

San Bernardino County, California


**Client:** County of San Bernardino
**Client Contact:** Andy Silao, PW Engineer III
(909) 387-7922

BKF was the lead Civil Engineer on the Firestone Boulevard Bridge Replacement. The bridge had been identified as structurally deficient and functionally obsolete with the eastbound lanes having been signed for weight limits. The new bridge will continue to have 3 lanes in both directions, but a new 14ft wide median, 8ft shoulders, and 10 sidewalks will be added to the cross section to meet current standards and to provide safe passage for pedestrians and bicyclist. Since the roadway carries 57,000 ADT and is a major east-west arterial, BKF worked closely with both the City of Norwalk (project sponsor) and City of Downey to develop detailed construction staging plans, detour routes and traffic handling plans. BKF led the effort for all utility relocations necessitated by the widening of the roadway. Coordination with SCE, Verizon, LA County, LACFCD, and Central Basin Municipal Water District (CBMWD) to provide space for relocations and confirming/re-establishing easements has been an early task. BKF prepared a utility relocation matrix that identified the owners, rights, costs for relocation, and relocation dates for all utilities impacted by the project. This matrix was a critical tool to ensure all utilities are tracked for relocation and the corresponding timeframes for relocation meet project milestones including Caltrans Certification of the ROW and Utilities. Estimated completion date: 2017.

## Peltier Road Bridge Replacement

San Joaquin County, California


**Client:** San Joaquin County
**Client Contact:** Mahmoud Saqqa, Co. PM
(209) 468-3040

BKF is providing roadway engineering for the Peltier Road Bridge Project. This project consists of rehabilitation and widening of existing two-lane bridge over the Mokelumne River in San Joaquin County. This bridge has been identified as structurally deficient and functionally obsolete and does not correspond with the County's roadway classification and Master Plan. The Peltier Road Bridge was constructed in 1948 and consists of a 139- foot long riveted steel through truss main span and 667 feet of continuous multi-span concrete slab approach structure. BKF prepared multiple re-alignments and staging alternatives to accommodate for the replace/rehabilitation of the bridge with minimum impact to traffic operations as part of the Justification Report. Additionally, BKF is the lead effort for all utility relocations and right of way engineering necessary by the widening of the roadway. BKF is in coordination with PG&E, AT&T and Comcast to provide adequate relocation plans and avoid any conflict with existing and proposed utilities during construction. For the replacement alternative, right of way acquisition will be necessary including temporary construction easements and permanent takes. Project status: On-Going.

## Kings River Bridge at Manning Avenue
Reedley, California

**Project Manager:** Todd M. Goolkasian, SE
**Client:** City of Reedley
**Client Contact:** Noe Martinez (559) 637-4200

Cornerstone experience with federally funded bridge projects and the HBP process was essential in acquiring the HBP replacement funding for the existing Kings River Bridge at Manning Avenue. The City of Reedley preferred replacing the existing bridge rather than rehabilitating and retrofitting the aging structure. The original bridge was constructed in 1929 and then widened in 1952 and 1974. Because of their age, the 1929 and 1952 portions of the bridge were identified to be replaced while the 1974 widening of the bridge was originally planned to be rehabilitated. In 2006, Cornerstone Structural Engineering Group prepared a rehabilitation evaluation and seismic retrofit strategy of the existing 1974 structure to determine the scope and cost of the rehabilitation and retrofit. In order to justify the complete replacement of the existing bridge and obtain HBP replacement funding, Cornerstone Structural Engineering Group performed a life cycle cost analysis that showed that replacing the 1974 structure was less expensive and was a better use of public funds versus rehabilitating and retrofitting the existing bridge.

Cornerstone also identified additional benefits of the complete replacement including; eliminating constraints to allow the road approaches to meet current design standards, a relatively maintenance free state of the art bridge, a reduction in the number of supports in the river resulting in a better hydraulic performing bridge with no scour mitigation requirements and increased safety for recreational users of the river , and a more aesthetically pleasing bridge. Working with Caltrans Local Assistance and the City of Reedley, Cornerstone was able to justify and obtain fully participating HBP replacement funding for the Kings River Bridge at Manning Avenue.

## Jonata Park Road Bridge over Zaca Creek
Santa Barbara County, California


**Project Manager:** Lino Cheang
**Client:** County of Santa Barbara
**Client Contact:** Chris Doolittle (805) 739-8777

Jonata Park Road is a two-lane road running almost parallel to and west of US 101 at the bridge site, north of the City of Buellton in Santa Barbara County. The existing Jonata Park Bridge (No. 51C-0226) carries traffic over Zaca Creek. The existing structure is an arched girder bridge and was constructed in 1916. The length and width are 84 and 24 feet, respectively. The new bridge will be a single-span structure with a total length of about 118 feet and a width of about 35.5 feet. The abutments will be supported on 42-inch diameter Cast-In-Drilled-Hole (CIDH) concrete piles. Jonata Park Road at the bridge crossing will be shifted to the west from the existing alignment and the new bridge will cross over the existing bridge. Thus, vertical profile will be raised by about 10± feet at both the southern and northern approaches. A pair of Caltrans standard Type-1 cantilevered retaining walls will be used to retain a portion of the southern approach.

The existing bridge will remain in-place due to the historical nature of the structure, the cost associated with the removal of the structure and the environmental impacts, and the design aspects of maintaining access while raising the profile of the bridge to meet current design standards. This project has been completed.

# Appendix

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# EXHIBIT 10-O1 CONSULTANT PROPOSAL DBE COMMITMENT

1. Local Agency: County of Santa Barbara
2. Contract DBE Goal: 9%
3. Project Description: Design Engineering Services for the Floradale Avenue Bridge Project
4. Project Location: Floradale Avenue Bridge over the Santa Ynez River, just North of the City of Lompoc, Ca
5. Consultant's Name: Cornerstone Structural Engineering Group, Inc.
6. Prime Certified DBE: ☐

| 7. Description of Work, Service, or Materials Supplied | 8. DBE Certification Number | 9. DBE Contact Information | 10. DBE % |
|---|---|---|---|
| Hydrology/Hydraulics | 032811 | Avila and Associates<br>712 Bancroft Rd, #333<br>Walnut Creek, CA 94598<br>(925) 673-0549 | 1.9 |
| | | | |
| Geotechnical | 6956 | Earth Mechanics, Inc.<br>17800 Newhope Street, Suite B<br>Fountain Valley, CA 92708 | 11.8 |
| | | | |
| | | | |
| | | | |
| | | | |

**Local Agency to Complete this Section**

17. Local Agency Contract Number:

18. Federal-Aid Project Number:

19. Proposed Contract Execution Date:

Local Agency certifies that all DBE certifications are valid and information on this form is complete and accurate.

20. Local Agency Representative's Signature

21. Date

22. Local Agency Representative's Name

23. Phone

24. Local Agency Representative's Title

**11. TOTAL CLAIMED DBE PARTICIPATION** 13.7 %

IMPORTANT: Identify all DBE firms being claimed for credit, regardless of tier. Written confirmation of each listed DBE is required.

12. Preparer's Signature

13. Date: 2/3/2017

14. Preparer's Name: Todd M. Goolkasian

15. Phone: (559) 320-3200

16. Preparer's Title: President

DISTRIBUTION: Original – Included with consultant's proposal to local agency.

**ADA Notice:** For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

# EXHIBIT 10-O2 CONSULTANT CONTRACT DBE COMMITMENT

1. Local Agency: County of Santa Barbara
2. Contract DBE Goal: 9
3. Project Description: Proposal to Provide Design Engineering Services for the Floradale Avenue Bridge Project
4. Project Location: Floradale Avenue Bridge over the Santa Ynez River, just North of the City of Lompoc, Ca
5. Consultant's Name: Cornerstone Structural Eng.
6. Prime Certified DBE: ☐
7. Total Contract Award Amount:
8. Total Dollar Amount for **ALL** Subconsultants: TBD
9. Total Number of **ALL** Subconsultants: 6

| 10. Description of Work, Service, or Materials Supplied | 11. DBE Certification Number | 12. DBE Contact Information | 13. DBE Dollar Amount |
|---|---|---|---|
| Hydrology/Hydraulics | 032811 | Avila and Associates<br>712 Bancroft Rd, #333<br>Walnut Creek, CA 94598<br>(925) 673-0549 | TBD |
| | | | |
| Geotechnical | 6956 | Earth Mechanics, Inc.<br>17800 Newhope Street, Suite B<br>Fountain Valley, CA 92708 | TBD |
| | | | |
| | | | |
| | | | |
| | | | |

**Local Agency to Complete this Section**

20. Local Agency Contract Number:

21. Federal-Aid Project Number:

22. Contract Execution Date:

Local Agency certifies that all DBE certifications are valid and information on this form is complete and accurate.

23. Local Agency Representative's Signature

24. Date

25. Local Agency Representative's Name

26. Phone

27. Local Agency Representative's Title

**14. TOTAL CLAIMED DBE PARTICIPATION**

$ TBD

%

IMPORTANT: Identify all DBE firms being claimed for credit, regardless of tier. Written confirmation of each listed DBE is required.

15. Preparer's Signature

16. Date: 2/3/2017

17. Preparer's Name: Todd M. Goolkasian

18. Phone: (559) 320-3200

19. Preparer's Title: President

DISTRIBUTION: 1. Original – Local Agency
2. Copy – Caltrans District Local Assistance Engineer (DLAE). Failure to submit to DLAE within 30 days of contract execution may result in de-obligation of federal funds on contract.

**ADA Notice:** For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

Attachment B contains the Standard Agreement used by the COUNTY for Technical Services and added clauses by the State Auditors; no changes will be made to the Standard Agreement language. CONSULTANTS are required to review the Standard Agreement and acknowledge their acceptance of the terms of the Standard Agreement language in the space provided below. Failure to acknowledgement acceptance of the Standard agreement language will cause the rejection of the proposal without further consideration.

Cornerstone Structural Engineering Group acknowledges acceptance of the terms of the Standard Agreement, "Agreement for Services of Independent Contractors.

Signature: _____

## CONSULTANT INFORMATION SHEET

**NAME OF PROPOSER** Cornerstone Structural Engineering Group, Inc.

**BUSINESS P.O. BOX** _____

**CITY, STATE, ZIP** _____

**BUSINESS STREET ADDRESS** 986 W. Alluvial Avenue, Suite 201
(include even if P.O. Box used)

**CITY, STATE, ZIP** Fresno, California 93711

**TELEPHONE NO:** (559) 320-3200 **AREA CODE** ( 559 )

**FAX NO:** (559) 320-3201 **AREA CODE** ( 559 )

**BUSINESS TYPE (Check one):** X **Corporation** _____ **Partnership** _____ **Sole Proprietorship** _____

**CONTACT PERSON NAME** Todd M. Goolkasian

**CONTACT PERSON PHONE No.** (559) 320-3200

**CONTACT PERSON E-MAIL** tgoolkasian@cseg.com

**EMPLOYER'S TAX IDENTIFICATION NUMBER** 20-0803404

**PUBLIC WORKS CONTRACTOR REGISTRATION NO. (IF APPLICABLE)** _____

CORNERSTONE structural engineering group

# EXHIBIT A

## COUNTY OF SANTA BARBARA DEPARTMENT OF PUBLIC WORKS

Floradale Avenue Bridge Project

County Project No. 862032

Federal Project No.: BRLSZD-5951(060)

Bridge No.: 51C-0006

## SCOPE OF WORK -

February 3, 2017

## TASK 1 MANAGEMENT AND QUALITY CONTROL

This Task commences with receiving the Notice-to-Proceed and concludes with the submittal of the Final PS&E at the completion of the project. Key aspects of the Project Management program include attending the project kick-off meeting and Project Delivery Team (PDT) meetings; coordination with the COUNTY's Project Manager, Caltrans Local Assistance; developing and maintaining a project delivery schedule; providing Quality Assurance/Quality Control, and general coordination and communications. CONSULTANT's Principal and Project Manager will direct and monitor project work activities in accordance with the contracted scope, schedule, and budget.

### 1.1 Project Meetings

CONSULTANT will prepare for and attend the project kick-off/field review meeting and meetings at least every two months with COUNTY staff to discuss project progress.

#### 1.1.1 Kick-off Meeting

CONSULTANT will prepare for and attend the project kick-off meeting at the COUNTY's offices. The goal of the kick-off meeting is to introduce staff, discuss project background and scope, establish communication and procedure guidelines, and discuss the project schedule.

#### 1.1.2 Project Meetings

CONSULTANT will prepare for and attend up to twelve (12) Project Development Team (PDT) meetings. The PDT meetings will broken out to include six (6) in-person meetings at the COUNTY's offices and six (6) phone conference meetings. Meetings will initially be held monthly unless project status dictates otherwise or at the discretion of the COUNTY and CONSULTANT. The goal of the meetings is to discuss project status, schedule, and budget; to discuss critical project information and status across team disciplines and make decisions that could potentially affect the project design, scope, schedule, and budget. CONSULTANT will prepare meeting minutes documenting the discussions, conclusions and meeting action items and the responsible party.

**Deliverables:**

- Meeting Agendas
- Meeting Minutes and Sign In Sheets

### 1.2 Assistance with Caltrans Programming and Local Assistance

CONSULTANT will assist the COUNTY in the preparation of the paperwork necessary to comply with the requirements of the HBP program and Local Assistance Procedures Manual (LAPM) for the COUNTY to submit to Caltrans District 5 Local Assistance. The documents will include (but not be limited to):

- HBP Scope/Cost/Schedule Change Request (Exhibit 6D) as required
- Request for Authorization to Proceed with Construction Certification

- Finance Letters
- Cooperate with Caltrans or County pre- or post-award audit

**Deliverables:**

- LAPM Forms

### 1.3 Project Status Reports & Delivery Schedule

CONSULTANT will prepare monthly project status reports and project delivery schedules.

#### 1.3.1 Monthly Progress Reports

CONSULTANT will prepare monthly status reports addressing the progress of the project, project design schedule, decisions that must be made to keep the project on schedule, and a list of work that has been accomplished in the previous month and work forecasted for the upcoming month.

#### 1.3.2 Project Delivery Schedule

CONSULTANT will provide a project delivery schedule for the tasks identified within this scope of services. The schedule will identify the major tasks to be completed, durations, and project milestones. CONSULTANT will provide a baseline project delivery schedule after the kick-off meeting and will provide monthly updates to the schedule noting percentages complete for each task. The project delivery schedule will be prepared in Microsoft Project format.

**Deliverables:**

- Monthly Progress Reports
- Project Delivery Schedule and Updates

### 1.4 Quality Control/Quality Assurance (QC/QA)

CONSULTANT will utilize a QC/QA plan/process for this project whereby deliverables are reviewed for uniformity, compatibility and constructability as well as general conformance with the Caltrans and FHWA HBP program requirements. QC/QA Manager will be assigned to the project whose responsibility will be to ensure the proper quality control procedures are in place and followed. The QC/QA plan will include procedures for reviewing deliverables including, but not limited to, conceptual plans, technical memorandums and reports, and cost estimates. Supporting documentation demonstrating that the QC/QA plan/process is being followed will be submitted to the COUNTY. This documentation may include copies of review comment forms, red-marked plans, QC/QA meeting minutes, etc.

## TASK 2 ENVIRONMENTAL REVIEW UNDER CEQA AND UPDATE OF NES

### 2.1 Project Initiation - Review Existing Environmental Documentation

This task includes the steps needed to initiate the CEQA environmental review process. As part of this task, CONSULTANT will undertake ongoing environmental coordination with the County, which will include the following:

- Prepare the project description, and describe the Environmental Setting.
- Review the APE map and environmental technical studies.

CONSULTANT will review existing relevant literature maps and inventories, including resource inventories and environmental and land use studies for the project vicinity. The existing technical studies will be used as much as possible, but will be independently verified for accurate representation of current existing conditions. CONSULTANT will identify any potential areas of concern, through coordination with resource and regulatory agencies. A site review will be conducted to verify the findings of this research.

The project description will be adapted from the existing documentation and will fully describe the action to be undertaken, including, as applicable, the project limits (logical termini/independent utility), construction activities, including staging areas and facilities, utility relocations, and construction activities that may require temporary facilities such as roads, detours, or ramp closures. Any state or federal permit or consultation requirements will be noted. A brief discussion of the environmental setting will also be provided.

**Deliverables:**

- Digital copy via e-mail of memorandum describing conclusions of peer review of existing technical studies, and recommendations for additional/updated environmental studies.

## 2.2 Update Technical Studies

This task involves updating the technical environmental studies as necessary to ensure accurate characterization of existing conditions, project impacts, and avoidance, minimization and mitigation measures. CONSULTANT will complete updated environmental records searches for biological resources and cultural resources, and will field-verify the technical studies. The review and update of the Natural Environment Study (NES) will be conducted. Special Status Species records, habitat area and regulatory agency jurisdictional calculations, and impact conclusions will be evaluated. A draft revised and updated version of the NES, or a memorandum addendum to the NES explaining minor revisions, will be submitted for County review. Upon incorporation of revisions based on County comments, the NES or addendum thereto will be submitted for Caltrans review and comment.

**Deliverables:**

- Digital copy via e-mail of updated NES or memorandum addendum to NES

## 2.3 Initial Study-Mitigated Negative Declaration (IS-MND)

To the extent feasible, existing environmental documentation will be applied to the environmental analysis for the proposed project. This scope of work assumes that the completed technical studies will be adaptable for use in the IS-MND with only minor revision.

### 2.3.1 Administrative Draft IS-MND

CONSULTANT will prepare the Administrative Draft IS-MND in conformance with County CEQA Thresholds Manual and Caltrans' SER. The Administrative Draft IS-MND will contain all required components and will address on-site and off-site impacts of the project. All CEQA thresholds will be evaluated, but the technical analysis will be based on completed technical studies and focused as described Task 3.2 above.

The IS-MND will identify the direct, indirect, and cumulative environmental effects resulting from the project and project alternatives. It will provide the nature, magnitude, and extent and direction of adverse and beneficial impacts, as well as adverse impacts pertaining to environmental issues.

The environmental information from the existing technical studies regarding biological resources, cultural resources, and hydrology/water quality will be supplemented with records review and impact analysis focused on Aesthetics, Air Quality, Geologic Resources, Greenhouse Gas Emissions, Hazardous Materials, Noise, and Transportation.

In addition, effective in October 2016, a new Tribal Cultural Resources section has been added to the recommended initial study checklist in Appendix G of the CEQA Guidelines. We will include this section in the IS-MND, and incorporate a brief description of the consultation procedures and results for this project, based on information provided by the COUNTY.

**Deliverables:**

- Digital copy via e-mail of Administrative Draft IS-MND

### 2.3.2 Draft IS-MND

CONSULTANT will revise the Administrative Draft IS-MND based on the comments received from County staff and the Caltrans staff peer review process. This scope of work assumes that Caltrans and the County will each provide one set of consolidated comments for each round of review.

Upon receiving clearance, CONSULSTANT will print and deliver the Draft IS-MND. CONSULTANT will prepare the Notice of Completion (NOC) and Notice of Intent to Adopt (NOI) of the Draft IS-MND for distribution. The COUNTY will be responsible for developing a distribution list, circulating the document, and paying newspaper noticing fees.

**Deliverables:**

- One reproducible unbound copy and thirty (30) bound copies of the Draft IS-MND
- One copy of the NOI and NOC.

### 2.3.3 Administrative Final IS-MND and Responses to Comments

The final formal stages of the IS-MND and project review process involve responding to comments, public hearings, and final publication tasks. At this point, the IS-MND is brought forward for final public governmental scrutiny leading to decisions regarding approval. Through this process, final changes and policy decisions concerning the project are made.

CONSULTANT will discuss and modify, as necessary, information in the IS-MND that requires such modification. Along with the responses to comments, CONSULTANT will submit a draft mitigation monitoring and reporting program (MMRP) that outlines how implementation of adopted mitigation measures will be monitored. CONSULTANT will submit one reproducible copy via e-mail of the proposed Administrative Final IS-MND with responses to comments for COUNTY and Caltrans review.

**Deliverables:**

- Digital copy via e-mail of Administrative Final IS-MND

### 2.3.4 Publication of Final IS-MND

Following public hearings and final project decisions, CONSULTANT will make any final revisions to the IS-MND and submit the Final IS-MND. CONSULTANT will assist in filing of the IS-MND, including preparation of the Notice of Determination. The COUNTY will pay all required filing fees.

**Deliverables:**

- One reproducible unbound copy and ten (10) bound copies of the Final IS-MND
- One copy of NOD

## TASK 3 SUPPLEMENTAL SURVEY FOR BASE MAPPING & HYDRAULICS

### 3.1 Title Reports

CONSULTANT will secure vesting deeds, back up documents, property profiles, and tax maps for each property and secure preliminary title reports (paid for directly by COUNTY) for each property which will remain valid for a minimum of 6 months or until there is an ownership change and copies of recorded back-up documents as needed. CONSULTANT will also prepare a list of title exceptions to be cleared; confirm manner of disposition is consistent with approved project plan.

### 3.2 Boundary Surveys

The Floradale Avenue Bridge is located just south of the dividing line between the Rancho Lompoc and the Rancho Mission la Purisima. Establishing the rancho line, along with the alignment of Floradale Avenue and the location of the grant deeds to the federal government, are key to locating the existing right of way and acquiring new right of way. There is no recorded survey of this portion of the rancho line since it was surveyed in the late 1890's. The grant deeds have probably never been surveyed, and the last recorded survey of Floradale Avenue in this area is from 1973. The boundary survey will be challenging and will require a high level of effort.

CONSULTANT will conduct right of way research and conduct field surveys of existing right of way and affected property lines within the proposed footprint. CONSULTANT will search for and tie existing monumentation of property corners and/or right-of-way control as needed to define the existing right-of-way and property boundaries within the project footprint. The property corner monuments and right-of-way monuments will be tied into the project control. Analysis of the surveyed monumentation, with record maps and deeds, will be performed to resolve the existing land net and right-of-way configurations. All surveying will be based on the California Coordinate System North American Datum of 1983, Zone III and in full compliance with applicable State codes including the Land Surveyors Act, the Business and Professions Code, and the Public Resources Code.

## TASK 4 FINAL MATERIALS AND FOUNDATION REPORT

CONSULTANT will provide supplemental foundation studies for the selected bridge site. This task includes site review, geologic reconnaissance, drilling and sampling of test borings, laboratory testing, engineering evaluation, and analysis. A Foundation Report will be prepared in general conformance with the Caltrans Guidelines for Structure Foundation Report dated December 2009.

### 4.1 Supplemental Geotechnical Field Exploration and Laboratory Testing

Twelve soil borings and eleven cone penetrometer tests (CPTs) have been performed along the existing bridge alignment. Based on the preliminary foundation report prepared on May 1, 2009, four supplemental soil borings are proposed. This supplemental program assumes that the existing subsurface data along the current bridge alignment can be extrapolated and used for foundation design along the new alignment. These explorations will provide an evaluation of subsurface soils/rock conditions for the proposed structure.

CONSULTANT will drill a total of five (5) borings including:

Two (2) borings, one at each abutment of the new bridge up to 100 ft. in depth

Two (2) borings within the riverbed up to 130 ft. in depth

One (1) boring below the new roadway up to 5 ft. in depth

A truck-mounted rotary-wash drilling rig will be used to perform the field exploration. Soil samples will be collected for laboratory testing, including bulk samples of near surface soils and small disturbed and relatively undisturbed ring samples of deeper soils. The small disturbed and relatively undisturbed soil samples will be collected using split-spoon samplers at a vertical interval of about 5 to 10 feet, alternating between the Standard Penetration Test (SPT) sampler and the Modified California Drive (MCD) sampler. Samples of subsurface soils will be logged during the field investigation, secured in their containers or collected in plastic bags.

Representative soil samples will be selected for laboratory testing. Various laboratory tests will be performed to determine or derive physical and engineering characteristics of soils. Anticipated laboratory soil tests include: moisture content, density, grain size distribution, direct shear, unconsolidated-undrained triaxial tests, R-value and soil corrosion tests. Tests will be conducted in general accordance with California Test methods or ASTM standards.

### 4.2 Geotechnical Engineering Analyses

Results obtained from the field investigation and laboratory testing will be used to characterize subsurface soils and conditions and create idealized profiles for design purposes.

The following analyses will be performed:

- Evaluation of seismicity, estimation of peak ground acceleration based on the Caltrans Seismic Design Criteria and Caltrans ARS Online, and recommendations of an ARS curve for the bridge structural design
- Evaluation of liquefaction potential, lateral spreading and liquefaction induced settlement
- Design of bridge foundations based on Caltrans LRFD design methodologies
- Assessment of global stability and settlement of approach roadway embankments
- Evaluation of soil corrosivity, and provide recommendations for mitigation measures, if required
- Design of pavement structural sections in accordance with the Caltrans Highway Design Manual method

### 4.3 Foundation Report

CONSULTANT will prepare and submit a Draft Foundation Report. The report will present results of engineering analyses and design and construction recommendations for the bridge foundations and will be in general conformance with the Caltrans Guidelines for Structure Foundation Report dated December 2009. Copies of the existing soil boring logs will be included "as-is" in one of the appendices and the existing CPT logs will be drafted in LOTB format. Supplemental borings will also be drafted in LOTB format. The draft Foundation Report will be submitted with the 65% PS&E. COUNTY and Design Team comments to the draft report will be incorporated into the final Foundation Report.

**Deliverables:**

- PDF and (1) printed copy of Draft Foundation Report including Log of Test Borings (LOTB)
- PDF and (2) printed copies of Final Foundation Report including Log of Test Borings (LOTB)

## TASK 5 FINAL HYDROLOGY AND HYDRAULICS STUDY

### 5.1 Update Bridge Hydraulics

CONSULTANT will update the existing conditions HEC-RAS model with additional overbank areas by adding Lidar data to the existing conditions model. CONSULTANT will finalize the HEC-RAS model and update the hydraulics report for the final bridge design, incorporating any changes to the project incorporated into the Type Selection Update Design Memorandum from Task 7.

### 5.2 Complete Local Scour and Bank Protection Analysis

CONSULTANT will review maintenance records for the existing and adjacent bridges to determine if the stream has aggraded or degraded over time. Pier and contraction scour will be estimated using the methods described in the Federal Highway Administration (FHWA) Publication HEC-18, Evaluating Scour at Bridges. Scour estimates and bank protection parameters will be incorporated into the hydraulics report.

### 5.3 Design Hydraulic Report

CONSULTANT will prepare a draft design hydrology, hydraulics and scour report for the bridge replacement project for submittal to the COUNTY during the 65% PS&E. COUNTY comments will be incorporated into the final Design Hydraulic Report.

**Deliverables:**

- PDF and (1) printed copy of Draft Design Hydraulic Report
- PDF and (2) printed copies of Final Design Hydraulic Report

## TASK 6 PERMITTING SUPPORT

All regulatory permits for the project will be obtained by the COUNTY. The following permits are anticipated:

- US Army Corps of Engineers (ACOE) Nationwide 404 Permit

- Regional Water Quality Control Board (RWQCB) 401 Certification
- California Department of Fish and Wildlife (CDFW) 1602 Streambed Alteration Agreement(SAA)
- Santa Barbara County Air Pollution Control District Permit

CONSULTANT will coordinate with and generally assist the COUNTY with the preparation of the permit applications by providing the following tasks:

### 6.1 Permit Coordination Meeting

CONSULTANT will attend one (1) field meeting at the project site with the COUNTY and the regulatory agencies to discuss the proposed project and permitting issues. The COUNTY will be responsible for coordinating and scheduling the meeting with the regulatory agencies and for providing the agenda and meeting minutes.

### 6.2 Support for Permitting Process

CONSULTANT will coordinate with the COUNTY and provide support for the project permit task by answering questions regarding the proposed project alternatives, provide project-specific technical information, providing potential construction techniques that may be employed by the contractor, providing potential construction schedules, and generally assisting the COUNTY as required to support the permitting phase of work.

## TASK 7 65% PS&E (ROADWAY & STRUCTURE)

### 7.1 Data Collection and Site Review

CONSULTANT will assess available information on the project, including existing drawings, AutoCAD base files, and previous studies and reports.

### 7.2 Update Project Type Selection (35% PS&E)

This task will update the project Type Selection based on the updates to the project Design Hydraulic Study and Foundation Report, and CONSULTANT'S recommendations that are approved by the COUNTY. CONSULTANT will prepare a Type Selection Update Design Memorandum that includes:

- General summary of updated project constraints including updated design criteria, constructability considerations, stakeholder impacts, environmental impacts, design exceptions (if required), right-of-way impacts, impacts to the travelling public, traffic handling requirements.
- Summary of any proposed revisions to the alignment and preferred bridge alternative
- List of design decisions needed by the COUNTY
- List of issues that will be resolved during final design
- Bridge General Plan
- Geometric Approval Drawings
- Estimated Construction Cost

A draft version of the Type Selection Update Design Memorandum will be provided to the COUNTY for review and COUNTY requested changes will be incorporated into the Final version of the document.

**Deliverables:**

- PDF of Draft Type Selection Update Design Memorandum
- Final Type Selection Update Design Memorandum
  - PDF and Three (3) printed copies

### 7.3 Unchecked Details (65% PS&E)

Upon approval of the Type Selection Update Design Memorandum, CONSULTANT will prepare and submit the draft Plans, Specifications, and Estimate to the COUNTY. This submittal represents a complete set of "unchecked" plans.

The CONSULTANT will prepare a complete set of construction plans in accordance with COUNTY's standards. The content will represent a biddable plan set but it has not been through our QC checklist.

Design Criteria

The design will be performed in general accordance with the following:

- Caltrans Local Assistance Procedures Manual (LAPM) Chapter 11: Design Guidance
- Caltrans LAPM Chapter 12: Plans, Specifications, and Estimates
- Caltrans Highway Design Manual
- AASHTO's Policy on Geometric Design of Highways and Streets, 6th Edition
- County of Santa Barbara Department of Public Works Engineering Design Standards
- AASHTO LRFD Bridge Design Specifications
- Caltrans Seismic Design Criteria, Version 1.7
- Caltrans Bridge Design & Detailing Manuals
- Caltrans 2015 Standard Plans & Specifications

Plan Sheets

This scope of work is based on the approximate sheet count listed below. Plans will be prepared in 2017 AutoCAD Civil 3D format in accordance with CONSULTANTS drafting standards. Plans will be prepared in English units. AutoCAD Civil 3D files will be provided to the COUNTY after COUNTY has agreed to CONSULTANT'S limit of liability for electronic documents. A

| | |
|---|---|
| Title Sheet | 1 Sheet |
| | |
| Road Plans | |
| Typical Sections | 1 Sheet |
| Plan and Profile | 2 Sheet |
| Construction Details | 1 Sheet |
| Composite Utility Plans | 2 Sheets |
| Drainage Improvement Plans | 1 Sheet |
| Erosion and Sedimentation Plans | 1 Sheet |
| Stormwater Treatment Plans | 1 Sheet |
| Pavement Delineation and Signing Plans | 2 Sheets |
| Construction Area Sign Plans | 1 Sheet |
| Construction Staging Plans | 2 Sheets |
| Subtotal Road Plans | 15 Sheets |

| | |
|---|---|
| Bridge Plans | |
| (Cast-In-Place Reinforced Concrete Box Girder Bridge assumed) | |
| General Plan No. 1 | 1 Sheet |
| General Plan No. 2 | 1 Sheet |
| Deck Contours | 1 Sheet |
| Foundation Plan | 1 Sheet |
| Abutment Layout | 1 Sheet |
| Abutment Details | 1 Sheet |

| | |
|---|---|
| Pier Layout | 1 Sheet |
| Pier Details | 2 Sheets |
| Typical Section | 1 Sheet |
| Girder Layout | 2 Sheets |
| Additional Deck & Soffit Reinforcing | 2 Sheets |
| Joint Seal Assembly Details | 2 Sheets |
| Structure Approach Details | 1 Sheet |
| Structure Approach Drainage Details | 1 Sheet |
| Utility Details | 1 Sheet |
| Log of Test Borings | 2 Sheets |
| Subtotal Bridge Plans | 21 Sheets |
| | |
| **Total Sheet Count** | **37 sheets** |

### 7.3.1 Bridge Design

CONSULTANT will prepare structural calculations and bridge plans for the bridge type and configuration agreed upon during the 35% PS&E. This submittal will represent complete, unchecked set of bridge construction documents to be submitted to the COUNTY.

### 7.3.2 Approach Roadway Design

CONSULTANT will prepare the approach roadway design in general conformance with COUNTY Standards, AASHTO "A Policy on Geometric Design of Highways and Streets, the Caltrans Highway Design Manual, Caltrans Standard Specifications and Standard Plans. Final grading will be developed as well as new/existing roadway conformance details, as required. A key element of this plan submittal is completion of the utility relocation plans which will be prepared by Utility companies, but included in the plan set for information only.

### 7.3.3 Engineer's Estimate of Probable Construction Cost

CONSULTANT will provide cost estimates at the 65% PS&E design submittal. CONSULTANT will prepare detailed quantities in accordance with Caltrans standard specifications and payment items. The engineer's estimate of probable construction cost ("Marginal Estimate") for the project will be prepared using the most recent and relevant Caltrans Cost Data, CONSULTANTS cost data, as well as the COUNTY's cost data.

### 7.3.4 Contract Specifications/Special Provisions

CONSULTANT will prepare the contract technical Special Provisions for the project based in General on Caltrans' 2015 Standard Special Provisions and Standard Specifications, and COUNTY construction contract standards. CONSULTANT will assist the COUNTY with combining the technical specifications with the COUNTY's Special Provisions Sections 1 through 9 Boiler Plate provisions, Notice to Contractors, and the Proposal and Agreement Sections. The COUNTY will be responsible for the content of Sections 1 through 9 Special Provisions. CONSULTANT will review, comment and/or make recommendations to County on the form and content of the Front-End Specifications and bid documents as they apply to the project.

### 7.3.5 Design Exception Fact Sheets

CONSULTANT will identify all non-standard design features and prepare Design Fact Sheets in accordance with Chapter 11 – Design Guidance of the Caltrans Local Assistance Procedures Manual once the COUNTY selects a preferred design alternative. CONSULTANT will prepare draft Design Fact Sheets for COUNTY review and incorporate COUNTY requested revisions. Final Design Fact Sheets will be prepared by CONSULTANT for COUNTY approval and signature. It is assumed that a maximum of two design exceptions will be required and that Caltrans will not be involved in the design exceptions approval process.

**Deliverables:**

- Up to six (6) full-size sets of 65% plans (22 x 34)
- Up to six (6) half-size set of 65% plans (11 x 17)
- Up to six (6) sets of annotated Technical Special Provisions
- Up to six (6) copies of Cost Estimate
- One (1) set of all draft (unchecked) Design Calculations
- 1 CD with electronic copy in PDF format of all 65% submittal items
    - Copy of Special Provisions in Word format
    - Copy of Cost Estimate in Excel format

## TASK 8 95% PS&E (ROADWAY & STRUCTURE)

This submittal represents a complete set of "checked" plans that has been through CONSULTANTS Quality Control checklist.

### 8.1 Bridge Independent Check

Following completion of the 65% PS&E, an independent bridge design check will be completed. An independent engineer who was not involved in the design will re-analyze the bridge, verify member capacities, and review the special provisions for the bridge. The checker will provide a list of comments and a set of "red-marked" plans that communicate issues uncovered during the preparation of the independent check. Issues raised by the checker will be discussed with and resolved by the designer and checker. The final design will reflect agreement between the two engineers.

### 8.2 95% (Draft) PS&E

CONSULTANT will provide written responses to Independent Check comments, COUNTY comments, and Caltrans comments to the 65% PS&E. CONSULTANT will update the PS&E based on the agreement and resolution of comments for final submittal to the COUNTY. The COUNTY will be responsible for submitting the updated PS&E to Caltrans.

**Deliverables:**

- Response to COUNTY Comments
- Three(3) full-size sets of 95% Plans (24 x 36)
- Three (3) half-size set of 95% Plans (11 x 17)
- Three (3) sets of annotated Technical Special Provisions
- Three (3) copies of Cost Estimate
- One (1) set of updated Bridge Design Calculations
- One (1) set of Independent Check Bridge Design Calculations
- 1 CD with electronic copy in PDF format of all 95% submittal items
    - Copy of Special Provisions in Word format
    - Copy of Cost Estimate in Excel format

## TASK 9 FINAL BID PACKAGE AND RE FILE

### 9.1 100% PS&E

Following the reviews by the COUNTY and CONSULTANTS QC team, agreed-upon revisions will be made to the 95% PS&E. The specifications, plans, and other bid documents will be submitted to the COUNTY for final approval.

**Deliverables:**

- Response to COUNTY Comments

- Three (3) full-size sets of 100% Plans (24 x 36)
- Three (3) half-size set of 100% Plans (11 x 17)
- Three (3) sets of Technical Special Provisions
- Three (3) copies of Cost Estimate
- 1 CD with electronic copy in PDF format of all 95% submittal items
  - Copy of Special Provisions in Word format
  - Copy of Cost Estimate in Excel format

### 9.2 Final PS&E

After receipt of final approval, an original set of stamped and signed plans, two camera ready copies of the bidding documents and an engineer's estimate will be submitted to the COUNTY for its use in soliciting construction bids. The CONSULTANT shall provide the quantity calculations to the COUNTY for use in administering the contract.

**Deliverables:**

- One (1) set of signed Final plans on Film
- Two (2) sets of signed Final plans on Bond
- One (1) copy of signed Technical Special Provisions
- One (1) copy of Cost Estimate
- One (1) copy each of signed Design and Check Quantity Calculations
- 1 CD with electronic copy in PDF format of all submittal items
  - Copy of Special Provisions in Word format
  - Copy of Cost Estimate in Excel format

### 9.3 RE Pending File

CONSULTANT will prepare the Resident Engineer's Pending File which will include the following:

- Roaday Cross Sections at approximately 50 ft. intervals
- Bridge As-Built Plans and Bridge Inspection Reports
- Bridge Joint Movement Calculation Sheet
- Bridge Four-Scales
- Design Engineer Notes to the Resident Engineer

## TASK 10 RIGHT-OF-WAY ENGINEERING

There appear to be four parcels that could be impacted by the project. Two of these parcels are owned by the Federal Government and are part of the Federal Correctional Complex; one is owned by the County of Santa Barbara; and one is privately owned. It is assumed that right-of-way engineering will only be required for the two Federal Government parcels and the privately owned parcel.

### 10.1 Right of Way Engineering

CONSULTANT will prepare a Right-of-Way Requirements Map along with a comprehensive matrix for the selected alignment alternative identified in the Type Selection Update Design Memorandum. Matrix information will include: type and size of acquisition, duration for temporary acquisitions, affected parcel owner, APN numbers and parcel addresses.

After the limits of the Right-of-Way acquisitions have been delineated and approved by the COUNTY, CONSULTANT will prepare plats and legal descriptions for permanent right-of-way acquisitions and temporary construction easements with closure calculations. It is assumed that for the two Federal Government parcels, plats and legals will only be required for permanent right-of-way takes. It is assumed that plats and legals for both permanent right-of-way takes and temporary construction easements will be required for the private parcel. No plats and legals will be prepared for the COUNTY parcel.

### 10.2 Right of Way Preliminary Engineering Support

CONSULTANT will analyze and research the right of way impacts of the proposed project assessing any temporary and permanent easement and permanent fee impacts for one unique Assessor's Parcel Numbers including the following:

- Take an inventory of the affected properties. Secure preliminary parcel information from online database sources and investigate current ownerships. Utilizing this information and Assessor's Roll information, determine other valuation considerations such as zoning, lot size, current usage, and other relevant factors.
- Visually inspect each property (exterior street view) and note the effects of all proposed acquisitions.
- Sort each property into product types to determine the set of real estate data to be researched and create valuation data sets for each product type.
- Prepare an estimate of the probable cost of each partial acquisition, as well as permanent and temporary easement interests, including (for partial acquisitions) damages to the remaining parcel, using created data sets from various real estate value databases.

### 10.3 Record of Survey

CONSULTANT will prepare a Record of Survey map to document land net and right of way survey as required by PLS Act. Coordinate with county surveyor during review process and make corrections as required. Set monuments sufficient to enable retracement of survey as required by PLS Act.

## TASK 11 RIGHT-OF-WAY APPRAISALS

Because the project will be of great benefit to the Federal Correctional Complex and the Vandenberg Air Force Base, it is assumed that the Federal Government will waive the appraisal process required for federally funded projects and grant the use of the land for the project. No appraisal and acquisition will be required for the COUNTY owned parcel. Therefore, only one parcel is included in the appraisal process. Furthermore, there appears to be no significant impacts from the current project design that would require relocation services at this time.

### 11.1 Appraisal Services

- CONSULTANT will mail a notification letter and acquisition policies brochure to the property owner requesting permission to conduct an on-site inspection of the property, advising them of their right to accompany the appraiser at the time of the inspection, and requesting information regarding the property appraised which could influence the appraised value.
- Appraiser will review title information pertaining to respective ownerships and will review drawings and other pertinent information relative to the parcel.
- Appraiser will inspect each property personally with the owner (if possible) and document the inspection with photographs for use in the report.
- Appraiser will inventory all improvements affected by the proposed taking, including notes on their manner of disposition (i.e., pay-for and remove vs. move back).
- Appraiser will perform market research to support the selected appraisal methodologies and will document and confirm comparable sales information.
- Appraiser will prepare a narrative appraisal report that conforms to the Uniform Standards of Professional Appraisal Practice (USPAP). The appraisal study and report are intended to serve as an acquisition appraisal and will be prepared in a summary format consistent with the specifications for narrative appraisal reports.
- Upon completion of the fee appraisal, CONSULTANT will conduct a formal review by an independent appraiser in accordance with federal regulations and Caltrans procedures manual.
- CONSULTANT will receive and analyze the completed appraisal reports accordingly.

## TASK 12 RIGHT-OF-WAY ACQUISITION

### 12.1 Negotiate Right of Way Settlement/Prepare Acquisition Documents

- Establish and maintain a complete and current record file of all ownerships in a form acceptable to the client.
- Receive and analyze title information, approved appraisal reports, and legal descriptions in sufficient detail to negotiate with property owners and other parties.
- Prepare all offer letters, summary statements, and lists of compensable items of fixtures and equipment, in accordance with state or federal regulations and the approval of the client.
- Present written purchase offers to owners or their representatives in person, when possible. Secure receipt of delivery of offer as practical and present and secure tenant information statements, as applicable.
- Follow-up and negotiate with each property owner, as necessary; prepare and submit recommended settlement justifications to client for review and approval; review any independent appraisal secured by property owner; and coordinate reimbursement of appraisal fees (up to $5,000) with client. Ongoing negotiations and settlement discussions will continue after the initial offer or until we reach settlement or impasse, as dictated by the overall Project Schedule.
- Prepare and assemble acquisition contracts, deeds, and related acquisition documents required for the acquisition of necessary property interests.
- Maintain a diary report of all contacts made with property owners or representatives and a summary of the status of negotiations indicating attitude of owners, problem areas, and other pertinent information. Copies of all applicable written correspondence will be maintained in files.
- Prepare an impasse letter for any parcel where, after diligent attempts to settle by negotiation, it appears eminent domain will be needed or prudent to acquire the needed interest.
- Transmit executed acquisition documents to client. Each transmittal package shall include a fully executed and properly notarized deed(s), fully executed acquisition contract with attachments, and a brief settlement memorandum which summarizes the pertinent data relative to the transaction.

### 12.2 Title Clearance Services

- Work in conjunction with escrow officer to facilitate the clearance of title matters as set forth in the settlement memorandum and escrow instructions.
- Coordinate payment of taxes due and release of liens.
- Secure full or partial reconveyance instruments from lien holders of record.
- Coordinate lost instrument bonds as may be necessary.
- Coordinate and facilitate recordation of corrective deeds to clear vesting issues.
- Secure subordination agreements from conflicting easement holders, as needed.

### 12.3 Escrow Coordination

If by Negotiated Settlement: Assist the escrow/title company with the following:

- Open escrow and coordinate execution of closing instructions providing for title insurance coverage at the settlement amount.
- Provide escrow officer with fully executed acquisition contract and notarized deed.
- Review settlement statement for accuracy.
- Coordinate deposit of acquisition price and estimated closing costs with escrow.
- After the closing, review the title insurance policy for accuracy.
- Prepare and mail a letter to County Assessor requesting cancellation of taxes if appropriate.

## TASK 13 UTILITY COORDINATION AND RELOCATIONS

During the development of the PS&E, CONSULTANT will incorporate potential utility impacts into the analysis. These utilities will need to be accurately located during the initial phase of the Project ensuring they are considered in the final design since both the costs and relocation scheduling can be a major Project element. I

### 13.1 Utility Coordination

CONSULTANT will lead the effort for Utility Coordination and will at a minimum conduct the following items:

#### 13.1.1 Utility Verification

Data Review

CONSULTANT will review the survey information to determine what utility mapping information has already been obtained. It is assumed that all visible utilities within the project footprint have already been mapped during the previous topographic surveying effort. It is also assumed that all gravity lines with accessible manholes/grates, have been surveyed to obtain accurate invert elevations.

Utility Identification

CONSULTANT will conduct research using Underground Services Alert (USA) database of utilities and coordinate with the COUNTY and local purveyors to accurately assemble utilities within and adjacent to the Project. It is important to document utilities outside of the proposed alignments to ensure that if an alignment outside those originally proposed is developed, utilities are documented.

Utility Documentation

CONSULTANT will prepare Utility 'A' letters requesting record mapping, block maps, inspection reports from previous construction (installation/repair), and any prior rights the utility owners may have for their existing facilities. It is important to gather these rights, if necessary, to ensure any relocations costs with prior rights be captured in the Project costs. These letters will be formatted to be printed on COUNTY letterhead.

#### 13.1.2 Utility Conflict Maps and Coordination

Utility Confirmation

CONSULTANT will prepare Utility Conflict Maps and Utility 'B' letters requesting the utility companies confirm their facilities are mapped correctly; identify and confirm whether their utilities are located within franchise or under prior rights, request the utility's relocation strategies, costs (for federal reimbursement if they are not franchise), and relocation schedule.

Utility Coordination

CONSULTANT will coordinate and incorporate any utility agency's future needs, if any, in and around the bridge improvement. CONSULTANT will coordinate the relocation and protection of the existing utilities for the project based on the information obtained from the COUNTY and various affected utilities. The Design Team will also provide adequate openings for future utilities in the bridge if needed. It is assumed that the utility companies will prepare their own relocation plans. Relocation of utilities will be shown in the PS&E documents and will be based on the utility owner's relocation plans.

Utility Meeting

CONSULTANT will hold a utility coordination meeting with those utility owners having significant relocation efforts. The purpose of this meeting will be to come to consensus on the scope, level of effort, and approximate cost of the required relocations. It is assumed only one utility coordination meeting will be required.

#### 13.1.3 Notice to Owner and Support for Utility Agreements

Following the COUNTY's review and approval of the utility conflict resolution plan and the liability determination, CONSULTANT will prepare a Notice to Owners (NTO) letter to each of the utility owners requiring relocation. The letters will include agreed upon relocation plan, relocation schedule commitments, and financial responsibilities necessary for utility relocation work. CONSULTANT will provide the letters to the

COUNTY, who will send the letters on County letterhead to the affected utility companies. Issuance of the NTO letters will complete the utility coordination task.

**Deliverables:**

- Utility Verification Letters
- Utility Conflict Maps and Conflict Letters
- Utility Coordination Meeting Agenda and Sign In Sheets
- Utility Coordination Meeting Minutes (Draft and Final)
- Utility Notice to Owner Letters

## TASK 14 CONTRACT BIDDING AND AWARD ASSISTANCE

The COUNTY will advertise the project for bidding and distribute the plans to prospective bidders. The COUNTY's project manager will be the designated person to receive contractor inquiries.

### 14.1 Bid Assistance

The CONSULTANT will assist the COUNTY as requested during bidding. The work may include answering questions, providing consultation and interpretation of the construction documents, assisting the COUNTY in preparation of addenda to the PS&E during the advertisement period, and assisting the COUNTY in the evaluation of the bids received.

### 14.2 Pre-Bid Meeting

CONSULTANT will attend the pre-bid meeting at the COUNTY's offices. CONSULTANT will prepare a check list of pertinent items of work and construction items critical to the proper construction of the project to be discussed at the pre-bid meeting

### 14.3 Bid Opening (OPTIONAL)

CONSULTANT will attend the bid opening at the request of the COUNTY.

## WORK PERFORMED BY THE COUNTY

In addition to those services already identified to be provided by the COUNTY, the following additional services will be performed by the COUNTY:

- Provide copies of previous reports, survey documents, utility information, and any other documents completed on the project to CONSULTANT.
- Provide project base files, including topographic data, control data, and boundary data previously completed in AutoCAD Civil 3D format.
- Examine documents submitted to COUNTY by CONSULTANT and timely render decisions pertaining thereto.
- Coordinate with Caltrans Local Assistance including submitting required LAPM forms and paperwork for Caltrans approval. CONSULTANT will assist with preparing the forms and paperwork.
- Prepare copies of the previously completed NEPA CE and technical studies to CONSULTANT.
- Complete and submit applications, assisted by the CONSULTANT, to obtain all required permits from all affected regulatory agencies.
- Prepare the project Mitigation and Monitoring Plan in accordance with the regulatory agency requirements
- Pay all fees for required agency reviews and permits.
- Obtain Right-of-Entries
- Combine CONSULTANT's technical specifications with COUNTY's Special Provisions Sections 1 through 9, COUNTY's Road Design Specs, Notice to Contractor's calling for bids, the Proposal and Agreement Sections, to create a complete set of documents for advertising.

- Attend and participate in meetings with the CONSULTANT and other agencies required.
- Provide COUNTY Standard Special Provisions in Caltrans 2015 Specification format to be edited as appropriate by CONSULTANT.
- Review and return comments on reports within ten business days of receipt from CONSULTANT.
- Review and return comments on PS&E within twenty business days of receipt from CONSULTANT.
- Arrange for and pay the reproduction costs of printing the final bidding and construction documents.
- Advertise, process bids, and award construction contract.
- Distribute any required addenda.

## ASSUMPTIONS

In addition to the assumptions previously discussed, the following additional assumptions were made in generating this proposal.

1. A replacement bridge will consist of a 575 ft. long cast-in-place, post-tensioned box girder bridge on a new westerly alignment.
2. Utility design and construction of all utility relocation is to be performed by the utility companies. CONSULTANT will coordinate with the impacted utility companies for any require relocation work resulting from the project. Relocated utilities will be shown on the improvement plans. COUNTY is responsible for obtaining final utility agreements.
3. Potholing of existing utilities is not included.
4. CONSULTANT will design all bridge components to accommodate two relocated sewer lines within the cells of the replacement bridge. Additional utilities within the bridge may require additional budget.
5. It is assumed that hazardous materials will not be encountered during geotechnical explorations. If hazardous materials are encountered during our field investigation, we will immediately terminate our work and notify the COUNTY. Soil cuttings are assumed to be non-hazardous for disposal purposes.
6. It is assumed that existing mapping is related to known/defined horizontal and vertical datums and that there is an existing survey control network tied to the known datums. It is assumed that the control monuments are in good condition and easily accessible.
7. Existing embankment slopes are assumed to be stable and there are no pre-existing landslides and/or unstable geologic features. Our scope of work does not include stability evaluations to address adverse geologic conditions.
8. No degradation or impact of gravel mining operations is included. Additional budget will be necessary if the degradation caused by adjacent gravel mining operators needs to be included.
9. It is assumed that the Area of Potential Effect and Area of Direct Impact will not change compared to the previous studies completed in support of the NEPA process. It is assumed that the remaining environmental studies will be determined to be adequate without revision. If the review process leads to a determination that additional issues are required for examination or that particular issues require a greater depth of analysis than proposed, additional budget will be required.
10. To the extent feasible, existing environmental documentation will be applied to the environmental analysis for the IS-MND for the proposed project. This scope of work assumes that the completed technical studies will be adaptable for use in the IS-MND with only minor revision.
11. It is assumed that the bridge will not cause a significant encroachment into the floodplain or a change in the water surface elevation; if a significant encroachment into the floodplain or change in water surface elevation is found, additional budget will be necessary.
12. It is assumed that the additional fill within the floodway will be acceptable to the Santa Barbara County Flood Control District.
13. No Conditional Letter of Map Revision (CLOMR) will be required; if a CLOMR is required, additional budget will be necessary.
14. A Streambed Alteration Agreement (SAA) from CDFW will not be required for the geotechnical field exploration. If a SAA is required, additional budget will be necessary to provide the SAA application.
15. No electrical or street lighting will be provided due to the rural location of the bridge.

16. The schedule is driven by timely receipt of all project and design information necessary to prepare complete application packages. The schedule cannot accurately depict agency review times or the timing of permit issuance as these items are outside the control of a consultant or the County.
17. COUNTY will arrange unlimited access to the project area for purposes of field investigations and any on-site meetings with agency staff.
18. CONSULTANT will be retained by COUNTY to provide construction administration support, shop drawing review, etc. at a minimum, and potentially including construction inspection services during construction via a scope and budget change to be determined at a later date.

**Cornerstone Structural Engineering Group Inc.**

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**EXHIBIT C**

**Indemnification and Insurance Requirements**
**(For Design Professional Contracts)**

INDEMNIFICATION

CONTRACTOR agrees to indemnify, defend (with counsel reasonably approved by COUNTY) and hold harmless COUNTY and its officers, officials, employees, agents and volunteers from and against any and all claims, actions, losses, damages, costs, expenses (including but not limited to attorneys' fees), judgments and/or liabilities that arise out of, or pertain to, or relate to the negligence, recklessness, or willful misconduct of the CONTRACTOR and its employees, subcontractors, or agents in the performance of services under this Agreement, but this indemnity does not apply to liability for damages arising from the sole negligence, active negligence, or willful acts of the COUNTY.

NOTIFICATION OF ACCIDENTS AND SURVIVAL OF INDEMNIFICATION PROVISIONS

CONTRACTOR shall notify COUNTY immediately in the event of any accident or injury arising out of or in connection with this Agreement. The indemnification provisions in this Agreement shall survive any expiration or termination of this Agreement.

INSURANCE

CONTRACTOR shall procure and maintain for the duration of this Agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder and the results of that work by the CONTRACTOR, his agents, representatives, employees or subcontractors.

A. Minimum Scope of Insurance
Coverage shall be at least as broad as:

1. **Commercial General Liability (CGL):** Insurance Services Office (ISO) Form CG 00 01 covering CGL on an "occurrence" basis, including products-completed operations, personal & advertising injury, with limits no less than $1,000,000 per occurrence and $2,000,000 in the aggregate.
2. **Automobile Liability**: ISO Form Number CA 00 01 covering any auto (Code 1), or if CONTRACTOR has no owned autos, hired, (Code 8) and non-owned autos (Code 9), with limit no less than $1,000,000 per accident for bodily injury and property damage.
3. **Workers' Compensation**: as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than $1,000,000 per accident for bodily injury or disease.
4. **Professional Liability** (Errors and Omissions) Insurance appropriate to the CONTRACTOR'S profession, with limit of no less than $1,000,000 per occurrence or claim, $2,000,000 aggregate.

If the CONTRACTOR maintains higher limits than the minimums shown above, the COUNTY requires and shall be entitled to coverage for the higher limits maintained by

the CONTRACTOR. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the COUNTY.

B. Other Insurance Provisions
The insurance policies are to contain, or be endorsed to contain, the following provisions:

1. **Additional Insured** – COUNTY, its officers, officials, employees, agents and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the CONTRACTOR including materials, parts, or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the CONTRACTOR's insurance at least as broad as ISO Form CG 20 10 11 85 or if not available, through the addition of both CG 20 10 and CG 20 37 if a later edition is used).
2. **Primary Coverage** – For any claims related to this Agreement, the CONTRACTOR's insurance coverage shall be primary insurance as respects the COUNTY, its officers, officials, employees, agents and volunteers. Any insurance or self-insurance maintained by the COUNTY, its officers, officials, employees, agents or volunteers shall be excess of the CONTRACTOR's insurance and shall not contribute with it.
3. **Notice of Cancellation** – Each insurance policy required above shall provide that coverage shall not be canceled, except with notice to the COUNTY.
4. **Waiver of Subrogation Rights** – CONTRACTOR hereby grants to COUNTY a waiver of any right to subrogation which any insurer of said CONTRACTOR may acquire against the COUNTY by virtue of the payment of any loss under such insurance. CONTRACTOR agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation, but this provision applies regardless of whether or not the COUNTY has received a waiver of subrogation endorsement from the insurer.
5. **Deductibles and Self-Insured Retention** – Any deductibles or self-insured retentions must be declared to and approved by the COUNTY. The COUNTY may require the CONTRACTOR to purchase coverage with a lower deductible or retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention.
6. **Acceptability of Insurers** – Unless otherwise approved by Risk Management, insurance shall be written by insurers authorized to do business in the State of California and with a minimum A.M. Best's Insurance Guide rating of "A- VII".
7. **Verification of Coverage** – CONTRACTOR shall furnish the COUNTY with proof of insurance, original certificates and amendatory endorsements as required by this Agreement. The proof of insurance, certificates and endorsements are to be received and approved by the COUNTY before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the CONTRACTOR's obligation to provide them. The CONTRACTOR shall furnish evidence of renewal of coverage throughout the term of the Agreement. The COUNTY reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

8. **Failure to Procure Coverage** – In the event that any policy of insurance required under this Agreement does not comply with the requirements, is not procured, or is canceled and not replaced, COUNTY has the right but not the obligation or duty to terminate the Agreement. Maintenance of required insurance coverage is a material element of the Agreement and failure to maintain or renew such coverage or to provide evidence of renewal may be treated by COUNTY as a material breach of contract.
9. **Subcontractors** – CONTRACTOR shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and CONTRACTOR shall ensure that COUNTY is an additional insured on insurance required from subcontractors.
10. **Claims Made Policies** – If any of the required policies provide coverage on a claims-made basis:
    i. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.
    ii. Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of contract work.
    iii. If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a Retroactive Date prior to the contract effective date, the CONTRACTOR must purchase "extended reporting" coverage for a minimum of five (5) years after completion of contract work.
11. **Special Risks or Circumstances** – COUNTY reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

Any change requiring additional types of insurance coverage or higher coverage limits must be made by amendment to this Agreement. CONTRACTOR agrees to execute any such amendment within thirty (30) days of receipt.

Any failure, actual or alleged, on the part of COUNTY to monitor or enforce compliance with any of the insurance and indemnification requirements will not be deemed as a waiver of any rights on the part of COUNTY.