

AGREEMENT FOR SERVICES OF INDEPENDENT CONTRACTOR

THIS AGREEMENT (hereafter Agreement) is made by and between the Santa Barbara County Flood Control and Water Conservation District, a political subdivision of the State of California (hereafter COUNTY) and **Bengal Engineering Inc.** with an address at **360 S. Hope Avenue, STE C-110, Santa Barbara, CA 93105** (hereafter CONTRACTOR) wherein CONTRACTOR agrees to provide and COUNTY agrees to accept the services specified herein.

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

Matt Griffin at phone number **805-884-8074** is the representative of COUNTY and will administer this Agreement for and on behalf of COUNTY. **Thomas Conti** at phone number **805-563-0788** is the authorized representative for CONTRACTOR. Changes in designated representatives shall be made only after advance written notice to the other party.

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: Mr. Thomas D. Fayram, Deputy Public Works Director, SBCFC&WCD, 130 E. Victoria Street, STE 200, Santa Barbara, CA 93101

To CONTRACTOR: Md. Wahiduzzaman, Principal in Charge, Bengal Engineering Inc., 360 S. Hope Avenue, STE C-110, Santa Barbara, CA 93105

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. TERM

CONTRACTOR shall commence performance on **November 5, 2019** and end performance upon completion, but no later than **June 30, 2022** unless otherwise directed by COUNTY or unless earlier terminated.

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. Billing shall be made by invoice, which shall include the contract number assigned by COUNTY

and which is delivered to the address given in Section 2 NOTICES above following completion of the increments identified on EXHIBIT B. Unless otherwise specified on EXHIBIT B, payment shall be net thirty (30) days from presentation of invoice.

6. 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.

7. 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 first class and workmanlike manner and shall conform to the standards of quality 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.

8. DEBARMENT AND SUSPENSION

- A. CONTRACTOR certifies to COUNTY that it and its employees and principals are not debarred, suspended, or otherwise excluded from or ineligible for, participation in federal, state, or county government contracts. CONTRACTOR certifies that it shall not contract with a subcontractor that is so debarred or suspended.
- B. This certification is a material representation of fact relied upon by COUNTY. If it is later determined that CONTRACTOR did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to the California Governor's Office of Emergency Services and COUNTY, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
- C. This Agreement is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such CONTRACTOR is required to verify that none of the contractor, its principals (defined at 2 C.F.R. § 180.995), or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

- D. CONTRACTOR must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.
- E. The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

9. MANDATORY DISCLOSURE

CONTRACTOR must disclose, in a timely manner, in writing to the COUNTY all violations of Federal criminal law involving fraud, bribery, or gratuity violations potentially affecting the award. CONTRACTOR is required to report certain civil, criminal, or administrative proceedings to the System for Award Management (SAM) located at www.sam.gov. Failure to make required disclosures can result in any of the remedies described in 2 CFR §200.338 Remedies for noncompliance, including suspension or debarment. (See also 2 CFR part 180 and 31 U.S.C. 3321.)

10. 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.

11. CONFLICT OF INTEREST

CONTRACTOR covenants that CONTRACTOR presently has no employment or interest and shall not acquire any employment or interest, direct or indirect, including any interest in any business, property, or source of income, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement. CONTRACTOR further covenants that in the performance of this Agreement, no person having any such interest shall be employed by CONTRACTOR. CONTRACTOR must promptly disclose to COUNTY, in writing, any potential conflict of interest. COUNTY retains the right to waive a conflict of interest disclosed by CONTRACTOR if COUNTY determines it to be immaterial, and such waiver is only effective if provided by COUNTY to CONTRACTOR in writing.

12. 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.

13. 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.

14. USE OF U.S. DEPARTMENT OF HOMELAND SECURITY (DHS) LOGO

CONTRACTOR shall not use the DHS seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials without specific FEMA pre- approval

15. 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.

16. RECORDS, AUDIT, AND REVIEW

CONTRACTOR shall keep such business records pursuant to this Agreement as would be kept by a reasonably prudent practitioner of CONTRACTOR's profession and shall maintain such records for at least four (4) years following the termination of this Agreement. All accounting records shall be kept in accordance with generally accepted accounting principles. COUNTY shall have the right to audit and review all such documents and records at any time during CONTRACTOR's regular business hours or upon reasonable notice. In addition, if this Agreement exceeds ten thousand dollars (\$10,000.00), CONTRACTOR shall be subject to the examination and audit of the California State Auditor, at the request of the COUNTY or as part of any audit of the COUNTY, for a period of three (3) years after final payment under the Agreement (Cal. Govt. Code Section 8546.7). CONTRACTOR shall participate in any audits and reviews, whether by COUNTY or the State, at no charge to COUNTY.

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.

17. ACCESS TO RECORDS

The following access to records requirements apply to this Agreement:

- A. CONTRACTOR agrees to provide COUNTY, the California Governor's Office of Emergency Services, the FEMA Administrator, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the CONTRACTOR which are directly pertinent to this Agreement for the purposes of making audits, examinations, excerpts, and transcriptions.
- B. CONTRACTOR agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.
- C. CONTRACTOR agrees to provide the FEMA Administrator or his authorized representatives access to construction or other work sites pertaining to the work being completed under the Agreement.

18. INDEMNIFICATION AND INSURANCE

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

19. NONDISCRIMINATION

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.

20. EQUAL EMPLOYMENT OPPORTUNITY

During the performance of this Agreement, CONTRACTOR agrees as follows:

- A. CONTRACTOR will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. CONTRACTOR will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. CONTRACTOR agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- B. CONTRACTOR will, in all solicitations or advertisements for employees placed by or on behalf of CONTRACTOR, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.
- C. CONTRACTOR will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of CONTRACTOR'S commitments under

this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

- D. CONTRACTOR will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- E. CONTRACTOR will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- F. In the event of CONTRACTOR'S noncompliance with the nondiscrimination clauses of this Agreement or with any of the said rules, regulations, or orders, this Agreement may be canceled, terminated, or suspended in whole or in part and CONTRACTOR may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions as may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- G. CONTRACTOR will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. CONTRACTOR will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency CONTRACTOR may request the United States to enter into such litigation to protect the interests of the United States.

21. 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.

22. NO 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.

23. TERMINATION

- A. By COUNTY. COUNTY may, by written notice to CONTRACTOR, terminate this Agreement in whole or in part at any time, whether for COUNTY's convenience, for nonappropriation of funds, or because of the failure of CONTRACTOR to fulfill the obligations herein.
 - 1. **For Convenience.** COUNTY may terminate this Agreement in whole or in part upon thirty (30) days written 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.

2. **For Nonappropriation of Funds.** Notwithstanding any other provision of this Agreement, in the event that no funds or insufficient funds are appropriated or budgeted by federal, state or COUNTY governments, or funds are not otherwise available for payments in the fiscal year(s) covered by the term of this Agreement, then COUNTY will notify CONTRACTOR of such occurrence and COUNTY may terminate or suspend this Agreement in whole or in part, with or without a prior notice period. Subsequent to termination of this Agreement under this provision, COUNTY shall have no obligation to make payments with regard to the remainder of the term.
 3. **For Cause.** Should CONTRACTOR default in the performance of this Agreement or materially breach any of its provisions, COUNTY may, at COUNTY's sole option, terminate or suspend this Agreement in whole or in part by written notice. Upon receipt of notice, CONTRACTOR shall immediately discontinue all services affected (unless the notice directs otherwise) and notify COUNTY as to the status of its performance. The date of termination shall be the date the notice is received by CONTRACTOR, unless the notice directs otherwise.
- B. **By CONTRACTOR.** 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.
- C. 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. Notwithstanding any other payment provision of this Agreement, COUNTY shall pay CONTRACTOR for satisfactory services performed to the date of termination to include a prorated amount of compensation due hereunder less payments, if any, previously made. In no event shall CONTRACTOR be paid an amount in excess of the full price under this Agreement nor for profit on unperformed portions of service. 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.

24. 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.

25. 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.

26. REMEDIES FOR NONCOMPLIANCE

In the event COUNTY determines, in its sole discretion, that CONTRACTOR is not in compliance with the terms and conditions set forth herein, COUNTY may:

- A. Require payments as reimbursements rather than advance payments;
- B. Withhold authority to proceed to the next phase until receipt of evidence of acceptable performance within a given period of performance;
- C. Require additional, more detailed financial reports;
- D. Require additional project monitoring;
- E. Requiring CONTRACTOR to obtain technical or management assistance; or
- F. Establish additional prior approvals.

27. 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.

28. TIME IS OF THE ESSENCE

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

29. 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.

30. 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.

31. CHANGES

- A. **Notice.** The primary purpose of this clause is to obtain prompt reporting of COUNTY conduct that CONTRACTOR considers to constitute a change to this contract. Except for changes identified as such in writing and signed by COUNTY, the Contractor shall notify the COUNTY in writing promptly, within five (5) calendar days from the date that the Contractor identifies any Government conduct (including actions, inactions, and written or oral communications) that the

CONTRACTOR regards as a change to the contract terms and conditions. On the basis of the most accurate information available to the Contractor, the notice shall state

- i. The date, nature, and circumstances of the conduct regarded as a change;
- ii. The name, function, and activity of each Government individual and CONTRACTOR official or employee involved in or knowledgeable about such conduct;
- iii. The identification of any documents and the substance of any oral communication involved in such conduct;
- iv. In the instance of alleged acceleration of scheduled performance or delivery, the basis upon which it arose;
- v. The particular elements of contract performance for which CONTRACTOR may seek an equitable adjustment under this clause, including:
 - What line items have been or may be affected by the alleged change;
 - What labor or materials or both have been or may be added, deleted, or wasted by the alleged change;
 - To the extent practicable, what delay and disruption in the manner and sequence of performance and effect on continued performance have been or may be caused by the alleged change;
 - What adjustments to contract price, delivery schedule, and other provisions affected by the alleged change are estimated; and
- vi. CONTRACTOR'S estimate of the time by which COUNTY must respond to CONTRACTOR'S notice to minimize cost, delay or disruption of performance.

B. **Continued Performance.** Following submission of the required notice, CONTRACTOR shall diligently continue performance of this Agreement to the maximum extent possible in accordance with its terms and conditions as construed by the CONTRACTOR.

C. **COUNTY Response.** COUNTY shall promptly, within ten (10) calendar days after receipt of notice, respond to the notice in writing. In responding, COUNTY shall either --

- i. Confirm that the conduct of which CONTRACTOR gave notice constitutes a change and when necessary direct the mode of further performance;
- ii. Countermand any communication regarded as a change;
- iii. Deny that the conduct of which CONTRACTOR gave notice constitutes a change and when necessary direct the mode of further performance; or
- iv. In the event the Contractor's notice information is inadequate to make a decision, advise CONTRACTOR what additional information is required, and establish the date by which it should be furnished and the date thereafter by which COUNTY will respond.

D. **Equitable Adjustments.**

- i. If the COUNTY confirms that COUNTY conduct effected a change as alleged by the CONTRACTOR, and the conduct causes an increase or decrease in the CONTRACTOR'S cost of, or the time required for, performance of any part of the work under this

Agreement, whether changed or not changed by such conduct, an equitable adjustment shall be made --

- In the contract price or delivery schedule or both; and
 - In such other provisions of the Agreement as may be affected.
- ii. The Agreement shall be modified in writing accordingly. The equitable adjustment shall not include increased costs or time extensions for delay resulting from CONTRACTOR'S failure to provide notice or to continue performance as provided herein.

32. 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.

33. 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.

34. COMPLIANCE WITH FEDERAL LAWS, REGULATIONS, AND EXECUTIVE ORDERS

This is an acknowledgement that FEMA financial assistance will be used to fund this Agreement. CONTRACTOR will only use FEMA funds as authorized herein. CONTRACTOR will comply with all applicable federal law, regulations, executive orders, FEMA policies, procedures, and directives.

35. 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.

36. 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.

37. 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.

38. 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.

39. 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.

40. BYRD ANTI-LOBBYING AMENDMENT, 31 U.S.C. § 1352 (AS AMENDED)

CONTRACTOR shall file the required certification in EXHIBIT D. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient.

41. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

- A. **Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
- B. **Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (1) of this section CONTRACTOR and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.
- C. **Withholding for unpaid wages and liquidated damages.** COUNTY shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.

- D. **Subcontracts.** CONTRACTOR or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.

42. CLEAN AIR ACT

- A. CONTRACTOR agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
- B. CONTRACTOR agrees to report each violation to the California Environmental Protection Agency and understands and agrees that the California Environmental Protection Agency will, in turn, report each violation as required to assure notification to the COUNTY, Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.
- C. CONTRACTOR agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.

43. FEDERAL WATER POLLUTION CONTROL ACT

- A. CONTRACTOR agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.
- B. CONTRACTOR agrees to report each violation to the California State Water Resources Control Board and understands and agrees that the California State Water Resources Control Board will, in turn, report each violation as required to assure notification to the COUNTY, Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.
- C. CONTRACTOR agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.

44. PROCUREMENT OF RECOVERED MATERIALS

- A. A. In the performance of this Agreement, CONTRACTOR shall make maximum use of products containing recovered materials that are EPA- designated items unless the product cannot be acquired—
- i. Competitively within a timeframe providing for compliance with the contract performance schedule;
 - ii. Meeting contract performance requirements; or
 - iii. At a reasonable price.
- B. Information about this requirement, along with the list of EPA-designate items, is available at EPA's Comprehensive Procurement Guidelines web site, <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>.

45. NO OBLIGATION BY FEDERAL GOVERNMENT

The Federal Government is not a party to this Agreement and is not subject to any obligations or liabilities to the non-Federal entity, CONTRACTOR, or any other party pertaining to any matter resulting from the Agreement.

46. PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS OR RELATED ACTS

CONTRACTOR acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to the CONTRACTOR'S actions pertaining to this Agreement.

47. REGISTRATION

COUNTY hereby notifies CONTRACTOR that 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.

Agreement for Services of Independent Contractor between the **Santa Barbara County Flood Control and Water Conservation District and Bengal Engineering Inc.**

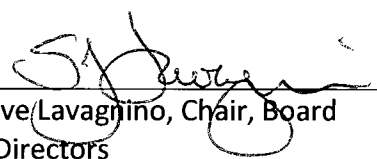
IN WITNESS WHEREOF, the parties have executed this Agreement to be effective on the date executed by COUNTY.

ATTEST:

Mona Miyasato
County Executive Officer
Ex Officio Clerk of the Board of
Directors of the Santa Barbara
County Flood Control and Water
Conservation District

By: 
Deputy Clerk

**SANTA BARBARA COUNTY FLOOD
CONTROL & WATER CONSERVATION
DISTRICT**

By: 
Steve Lavagnino, Chair, Board
of Directors

Date: 11-5-19

RECOMMENDED FOR APPROVAL:

Santa Barbara County Flood Control
& Water Conservation District

By: 
Scott D. McGolpin
Public Works Director

CONTRACTOR:

Bengal Engineering Inc

By: 
Authorized Representative

Name: MD WAHIDUZZAMAN

Title: CEO

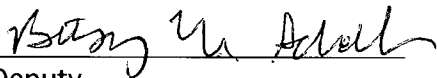
APPROVED AS TO FORM:

Michael C. Ghizzoni
County Counsel

By: 
Deputy County Counsel

APPROVED AS TO ACCOUNTING FORM:

Betsy M. Schaffer, CPA
Auditor-Controller

By: 
Deputy

APPROVED AS TO FORM:

Ray Aromatorio, ARM, AIC
Risk Management

By: 
Risk Management

EXHIBIT A
STATEMENT OF WORK



August 15, 2019

Santa Barbara County Flood Control and Water Conservation District (District)
Attn: Matthew Griffin, P.E.
Civil Engineer Specialist
130 E. Victoria St., Suite 200
Santa Barbara, CA 93101

Re: Scope Changes - Bengal Engineering's Proposal to Provide Engineering Design Services for the Santa Monica Debris Basin Operational Improvements

Dear Mr. Griffin,

Bengal Engineering (Bengal) is proud to have been selected to negotiate the contract for design of the above referenced project. Our approach in our proposal was to provide services based on the Request for Proposals, District Project number SC8370.

Scope Revisions

County Provided Data: Upon meeting with the District to begin negotiations, Bengal reviewed some of the design report currently being finalized by district staff. In our mutual conversations, we both agreed that hours initially accounted for in Bengal's proposal could be reduced, as the district report will be utilized for a variety of engineering decisions.

Removal of 95% Submittal: In order to reduce additional costs, it was proposed to eliminate the 95% submittal and move its budget to the final submittal. This cost cutting measure helped to reduce the costs enough to an agreeable level to proceed.

Schedule: Bengal understands the importance of this project to District operations. The durations planned in our proposal will be shifted accordingly when the contract is awarded and physical dates can be assigned for deliverable due dates.

Bengal finds no better pride than providing service in the very community we live. We are looking forward to move ahead on this project and exceed your expectations.

Sincerely,

A handwritten signature in black ink, appearing to read "Tom Conti", written over a white background.

Thomas Conti P.E., Senior Project Manager

BENGAL ENGINEERING'S PROPOSAL
TO PROVIDE ENGINEERING DESIGN SERVICES FOR THE
SANTA MONICA DEBRIS BASIN OPERATIONAL IMPROVEMENTS



SANTA BARBARA COUNTY WATER RESOURCES DIVISION

SUBMITTED, JULY 11, 2019

SCOPE REVISED (SECTION 4), AUGUST 15, 2019

TO MATT GRIFFIN, P.E., PROJECT MANAGER





BENGAL ENGINEERING TEAM: Task Summary, Resource Estimate 7/23/2019
Santa Monica Debris Basin Operational Improvements Project, Proj. No SC8370

TASK No.	ITEM DESCRIPTION	PROJECT OR TASK MANAGER	CIVIL ENGINEER	BRIDGE ENGINEER	ENGINEERING GEOLOGIST	GEOTECHNICAL ENGINEER	HYDRAULIC ENGINEER	TECHNICIAN	ADMIN / CLERICAL	TOTAL LABOR HOURS	BENGAL ENGINEERING FEE/TASK	LAND SURVEYING (BUDGET) FEE	TOTAL FEE
		HRS	HRS	HRS	HRS	HRS	HRS	HRS	HRS	HRS	\$	\$	\$
1	Project Administration												
1.1	Project Management	20	80	64	20	13	0	0	40	237			
1.2	Progress Meetings (Budget Figure)	32	64	32	0	0	0	0	7	135			
1.3	Quality Control	13	7	13	0	0	0	13	0	46			
	Sub total	65	151	109	20	13	0	13	47	418	\$ 69,212	\$ -	\$ 69,212
2	Preliminary Engineering and Data Gathering												
2.1	Review Preliminary Data	7	10	10	20	7				54			
2.2	Supplemental Data: Surveying		13							13		\$ 10,000	
2.3	Supplemental Data: Geotechnical Field Work	7	16		48	32				103			
2.3	Prepare and Develop Concept Alternates for Spillway Bridge	7	16	32	7	13			64	139			
2.4	Prepare and Develop Concept Alternates for Deck Bridge	4	10	10	20	8			32	84			
2.5	Prepare and Develop Concept Alternates for Tower Inlets	10	32	32	7	8	32		64	185			
2.6	Prep. and Dev. Concept Alt. for Access: West Road & Align. for Channel / Deck Br.	7	26	10					26	69			
2.7	Prepare and Develop Conduit / Bypass Improvements	7	26				13	32		78			
2.8	Environmental Support to County: Budget Figure	7	32	4						43			
	Sub total	56	181	98	102	68	45	218	0	768	\$119,191	\$ 10,000	\$ 129,191
3	65% Plans and Updated Estimate												
3.1	Prepare 65% Civil and Bridge Plans: Spillway Bridge	16	40	144		13		280	7	500			
3.2	Prepare 65% Civil and Bridge Plans: Channel / Deck Bridge	8	16	64		13		160	7	268			
3.3	Prepare 65% Tower Inlet Design Plans	13	32	64		48		80		237			
3.4	Prepare 65% Tower Access Pad Plans	13	48			13		64		138			
3.5	Prepare 65% Conduit/Bypass Plans	16	64			48		64		192			
3.6	Prepare and Submit a "Design Doc.Rpt.": documents approach & decisions	13	64	64		20		64		225			
3.7	65% Specifications, Items List, Engineer's Estimate	7	48	32				32		119			
3.8	Draft Geotechnical Report	4	7	7	96	96		7	10	227			
3.9	65% PS&E Submittal	1	7	7				7	2	24			
3.10	Accept, review & address comments received back from the NRCS & DSOD	1	80	32			32	39	4	188			
	Sub total	92	406	414	96	251	32	797	30	2118	\$308,802	\$ -	\$ 308,802
4	100% Final Plans, Specifications and Estimate												
4.1	Prepare 95% Civil and Bridge Plans: Spillway Bridge	26	64	72	13			64		239			
4.2	Prepare 95% Civil and Bridge Plans: Deck Bridge	13	32	32	13			32		122			
4.3	Prepare 95% Tower Inlet Design Plans	20	61	7				13		165			
4.4	Prepare 95% Tower Access Pad Plans	16	32					32		80			
4.5	Prepare 95% Conduit/Bypass Plans	16	52				13	55		136			
4.6	95% Specifications, Items List, Engineer's Estimate	5	26	13			13		10	67			
4.7	95% PS&E Submittal	1	5					2	2	10			
4.8	Final Geotechnical Report	4	7	7	32	32		7	10	99			
4.9	Accept, review & address comments recvd. from the NRCS and DSOD	1	32	16				13	2	64			
	Sub total	102	311	147	58	32	39	269	24	982	\$149,363	\$ -	\$ 149,363
5	Bid Support												
	Bid Assistance	8	24	24				16	2	74			
	Sub total	8	24	24	0	0	0	16	2	74	\$ 11,638	\$ -	\$ 11,638
	Total (hours)	323	1073	792	276	364	116	1313	103	4360			
	Sub-total										\$658,206	\$ 10,000	\$ 668,206

Reimbursable Expenses	BENGAL	Others	Total
Reproduction Mailing			
Surveyor			
Equipment	\$ 24,701		\$ 24,701
Miscellaneous			
Sub total	\$ 24,701	\$ -	\$ 24,701
			\$692,907

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1. TRANSMITTAL LETTER



July 9, 2019

Santa Barbara County Flood Control & Water Conservation District
Attn: Matthew Griffin, P.E.
Civil Engineer Specialist
130 E. Victoria St., Suite 200
Santa Barbara, CA 93101

**RE: BENGAL ENGINEERING'S PROPOSAL
TO PROVIDE ENGINEERING DESIGN SERVICES FOR THE
SANTA MONICA DEBRIS BASIN OPERATIONAL IMPROVEMENTS**

Dear Mr. Griffin,

Bengal Engineering (Bengal) is pleased to present our proposals for engineering services in accordance with your Request for Proposal (RFP).

Established in 1996, Bengal specializes in the engineering of complex public works projects including highways and roads, bridges, flood control, bike paths, structures and site work.

Bengal Engineering has:

- The in-house and local expertise to expedite important projects like this one.
- A reputation for quality designs -- known by Federal, State and Local agencies.
- Received numerous awards for innovative engineering on local projects.
- Successfully served as "prime" on many local projects.
- Consistently delivered our work without contract change-orders or budget problems.

Right: Ribbon Cutting Ceremony for the San Jose Creek Capacity Improvements and Fish Passage Project: Bengal was "Prime".





Highlights of Bengal's Relevant Experience / Project Approach

The proposed project includes design for two bridges, various drainage structures, access roadway improvements, along with elevated crane pads. Bengal has both the necessary expertise to successfully design these projects and the desire to serve you.

- In recent years, Bengal has successfully completed nearby bridge projects over Santa Barbara County Flood Control Facilities including:
 - Cabrillo Blvd. Bridge
 - Mason Street Bridge
 - Haley / De La Vina Street Bridge
 - Cota Street Bridge
 - Cacique and Soledad Pedestrian Bridges
- Bengal has successfully completed Santa Barbara County Flood Control Projects including:
 - The Lower Mission Creek Flood Control Improvements (Reaches 1B, and 2; the design of Reach 3 is almost completed)
 - Emergency Repair of Reach 2B
 - Carpinteria Salt Marsh Flood Wall
 - Franklin Creek Channel Wall at Union Pacific Railroad
 - San Jose Creek Capacity Improvements (Joint project with City of Goleta)
- We intimately know the Departments project development steps.

Bengal's team consists of top-level local professionals, including:

Bengal Engineering - Prime Contractor: Civil Engineering, Inlet / Drainage Structure Design, Bridge Engineering, Geotechnical Engineering

SubSurface Designs Inc. – Geological Field Work, Drilling & Lab Services

Sincerely,

A handwritten signature in black ink that reads "Md. Wahiduzzaman".

Md Wahiduzzaman, P.E., MBA, CEO





2. CONSULTANT INFORMATION, QUALIFICATIONS, & EXPERIENCE

COMPARABLE PROJECTS

Cacique & Soledad Pedestrian/Bicycle Bridges and Corridor Improvements



Project of the Year 2018

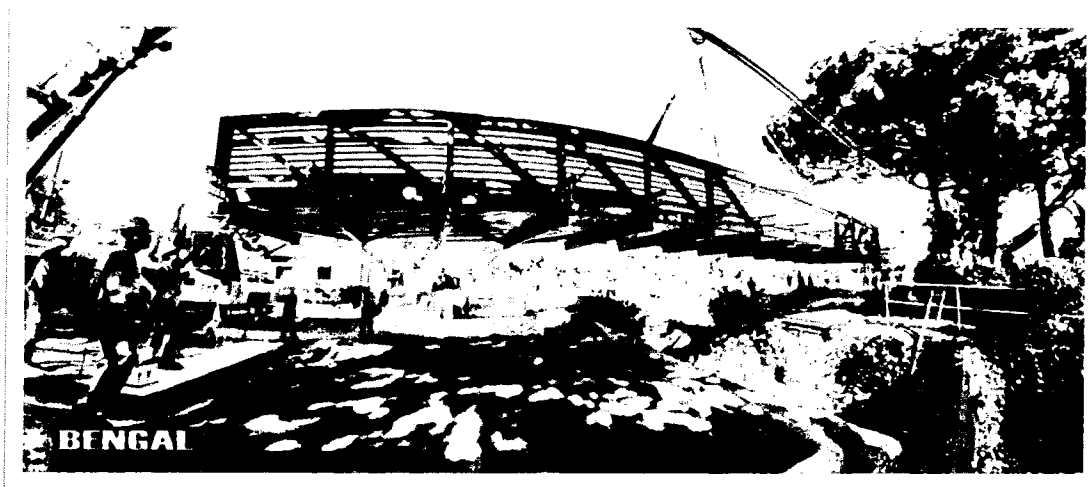


BENGAL'S ROLE: PRIME CONSULTANT

PROJECT OBJECTIVES / DESCRIPTION

This federally-funded ATP Cycle 1 project completed a key transportation link, long envisioned, to provide a bike / pedestrian connection between Salinas and Milpas Street. While the project was centered on two new mixed-use bridges over Sycamore Creek, Bengal was able to get more improvements out of the funding!

Because Bengal's creative engineering saved so much money on the bridges, the project was expanded to improve pedestrian safety by filling-in sidewalks and providing pedestrian lighting along 8 city blocks.



SERVICES BENGAL PROVIDED:

- Civil Engineering
- Geological Investigation
- Bridge Engineering
- Hydraulic Modeling-Sycamore Cr.
- Environmental Support
- Right-of-Way Mapping

BENGAL'S PERFORMANCE:

Bengal delivered the only Santa Barbara ATP Cycle 1 project which was completed on-time, a noteworthy achievement, considering the environmental and utility complications and tight timeline.

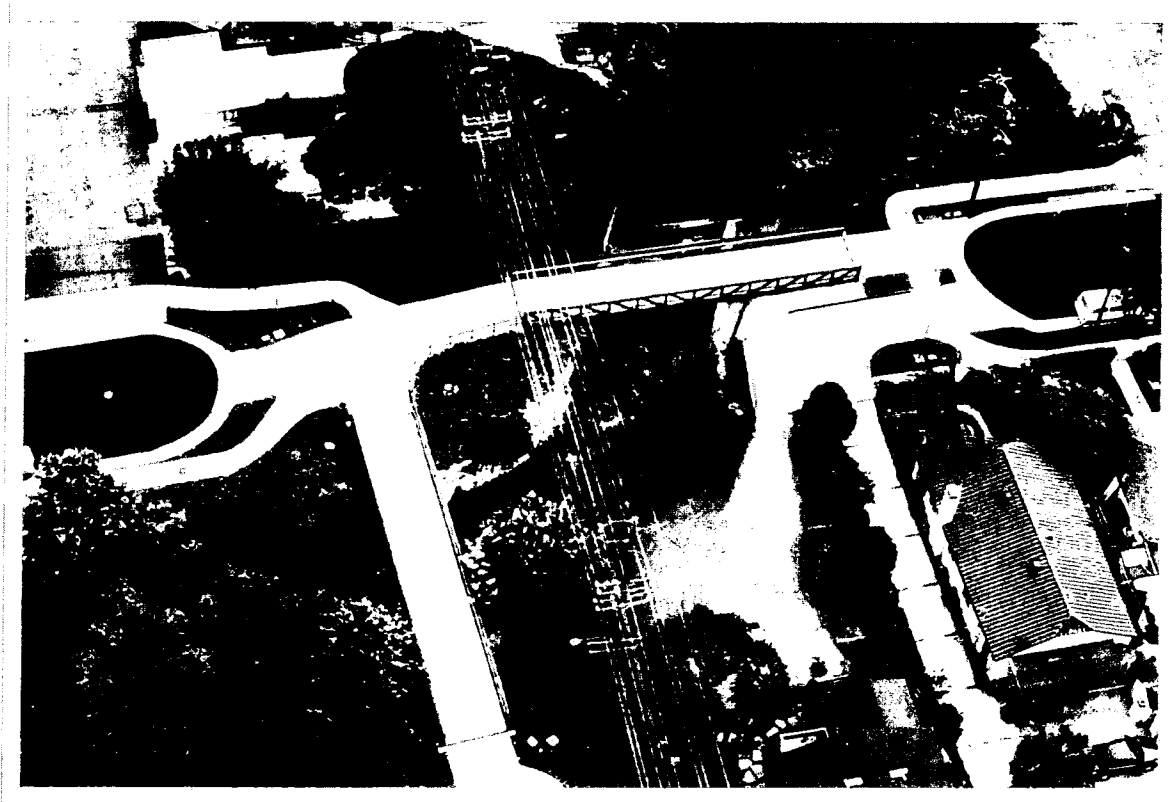




Project Video → https://www.youtube.com/watch?v=R_yvk6uBC6Y

PROJECT DATA

- | | |
|---|---|
| a. Contracting Agency | City of Santa Barbara |
| b. Contracting Agency Project Manager | Laura Yanez |
| c. Contracting Agency Contact Information | 805-897-2615 |
| d. Contract Amount | \$486,000 |
| e. Funding Source | Active Transportation Program |
| f. Date of Contract | February 2015 |
| g. Date of Completion | May 2018 (ribbon cutting) |
| h. Bengal Project Manager | Tom Conti, 805-563-0788 |
| i. Project Objective | see previous page |
| j. Project Description | see previous page |
| k. Project outcome: | |
| | <ul style="list-style-type: none">• This project was completed on-time and within budget with no substantial issues, despite the numerous challenges.• The project was awarded the 2018 "Project of the Year" for APWA and ASCE. |





Mason Street Bridge Replacement & Mission Creek Capacity Improvements

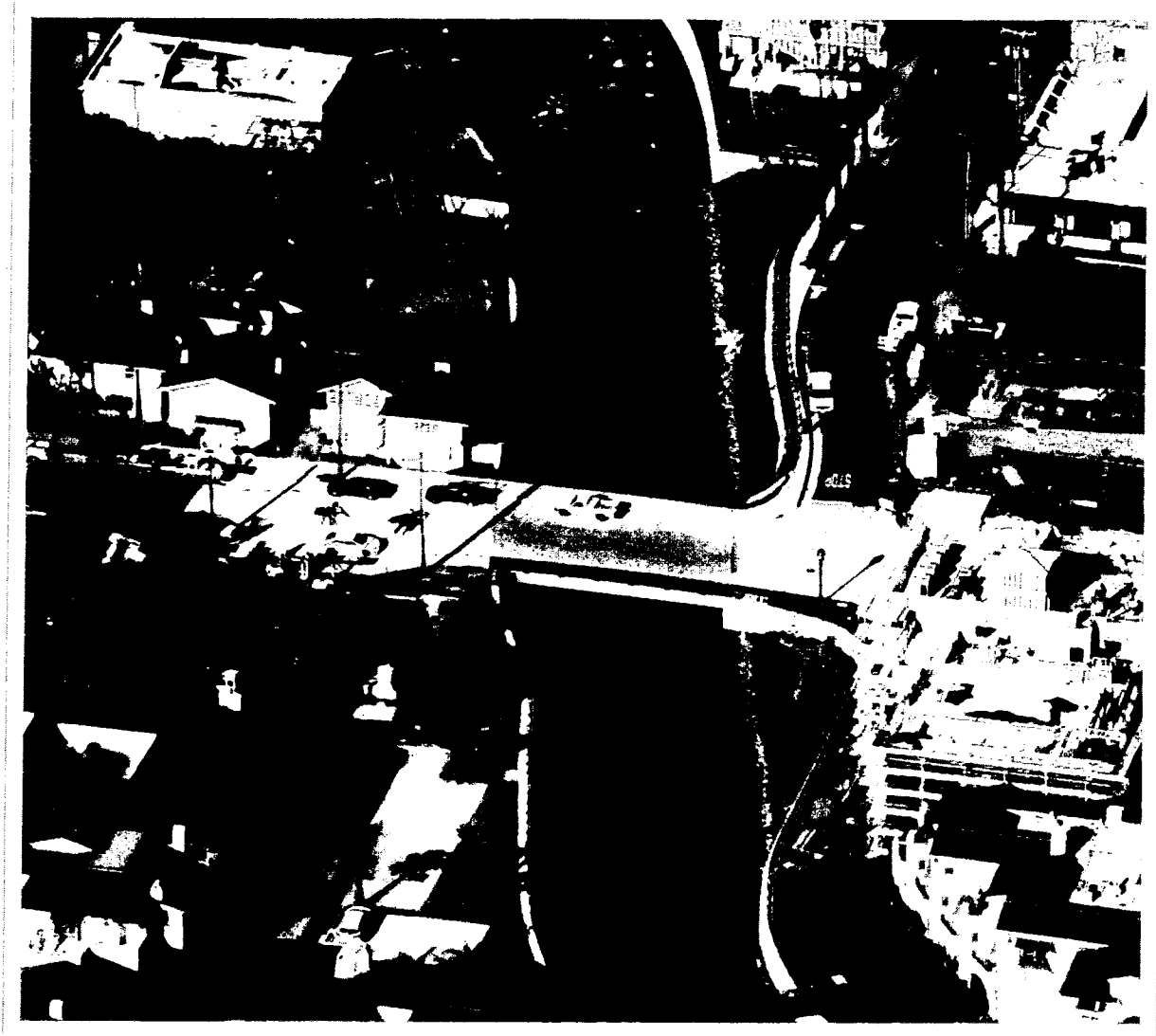


Project of the Year 2017

BENGAL'S ROLE: PRIME CONSULTANT

PROJECT OBJECTIVES / DESCRIPTION

Bengal was the "Prime" consultant who led the design of this project reaching two goals: replacing an aging bridge and widening Mission Creek to improve flood protection in downtown Santa Barbara.



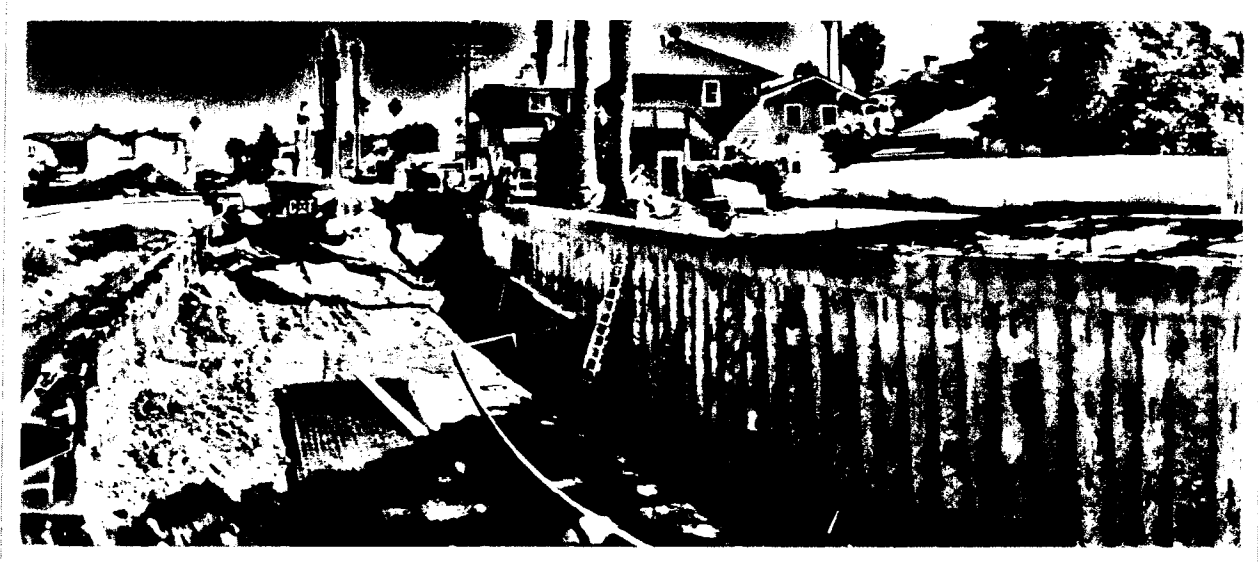


SERVICES BENGAL PROVIDED:

- Civil Engineering for the roadways, bike paths and flood control channel widening
- Geotechnical Investigation for the flood walls and bridge design
- Bridge Engineering and bridge rail aesthetics
- Environmental and right-of-way support to City Staff
- Stream hydraulics analysis: Location Hydraulic Study

PROJECT DATA

- | | |
|--|--------------------------|
| a. Contracting Agency | City of Santa Barbara |
| b. Contracting Agency Project Manager | Adam Hendel |
| c. Contracting Agency Contact Information | 805-897-1921 |
| d. Contract Amount | \$825 k |
| e. Funding Source | BP / City Matching Funds |
| f. Date of Contract | July 2012 |
| g. Date of Completion | January 2017 |
| h. Bengal Project Manager | Tom Conti, 805-563-0788 |
| i. Project Objective | see previous page |
| j. Project Description | see previous page |
| k. Project outcomes: | |
| • Bengal used a modified version of the secant piles in the flood walls for the bridge foundation to streamline construction, saving time-and-money. | |
| • This project was awarded 2017 "Project of the Year", by APWA for the "First-of-Its-Kind": a bridge using abutments on concrete secant piles. | |
| • This project was completed on-time and within budget. | |





Cabrillo Boulevard Bridge Replacement



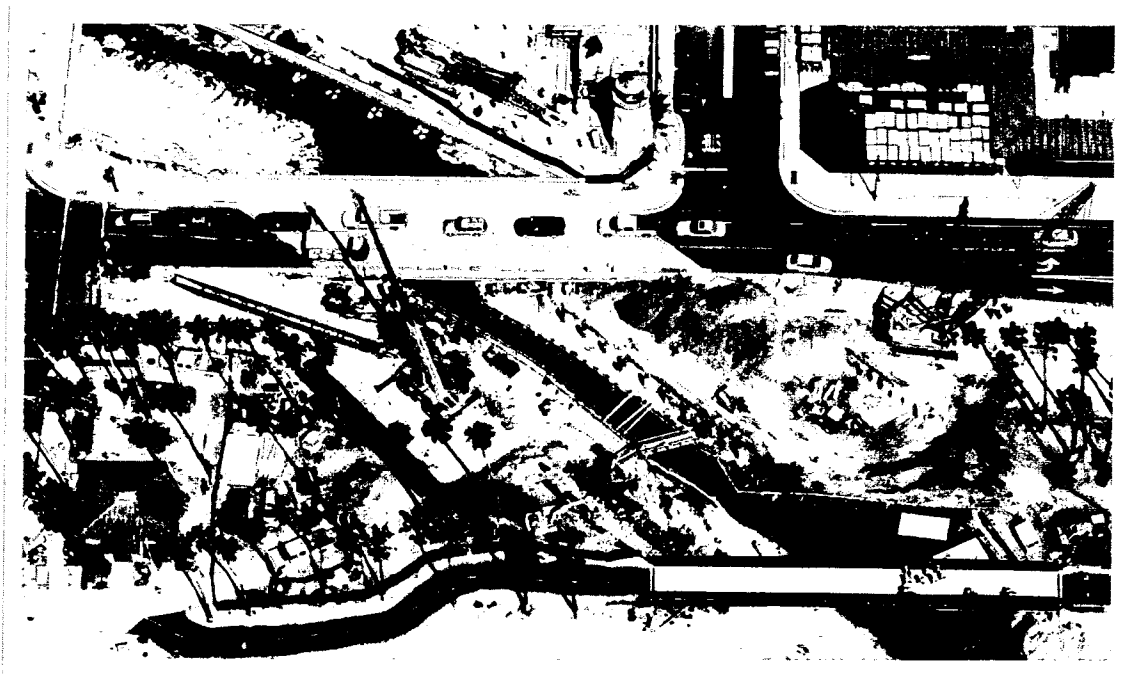
Project of the Year 2018



BENGAL'S ROLE: PRIME CONSULTANT

PROJECT OBJECTIVES / DESCRIPTION

Bengal Engineering was the "Prime" consultant who led the design of this \$26 Million, Federally-funded Highway Bridge Program Project for the City of Santa Barbara. It is the most complicated / expensive bridge project built by the City to date.



Aerial view during Construction: "mountain side" of bridge is complete and carrying traffic while foundations for ocean side are built. Meanwhile, beachgoers use the temporary pedestrian bridge to avoid the work site. (Bengal Photo)

SERVICES BENGAL PROVIDED:

- Civil Engineering for the roadways, bike paths and flood control channel widening
- Geotechnical Investigation for the walls and bridge design
- Bridge Engineering and bridge rail aesthetics
- Environmental and right-of-way support to City Staff
- Stream Hydraulics Analysis: Location Hydraulic Study
- Construction Support

Project Video → https://www.youtube.com/watch?v=eXQOiX5_mVw





Photo taken on the afternoon of "July 4" from a pole-mounted construction camera

Bengal designs all key features in-house streamlining our project-approach:

- Note that the roadways, which Bengal designed, provide the staged-access for the utility relocation, bridge construction and channel widening, also designed by Bengal
- Such tight coordination is important because construction is limited to short yearly work windows allowed by regulators.
- We think Staging Concepts like this will be key at Santa Monica Debris Basin.



Bengal's Team at the ribbon-cutting ceremony for the Cabrillo Blvd Bridge

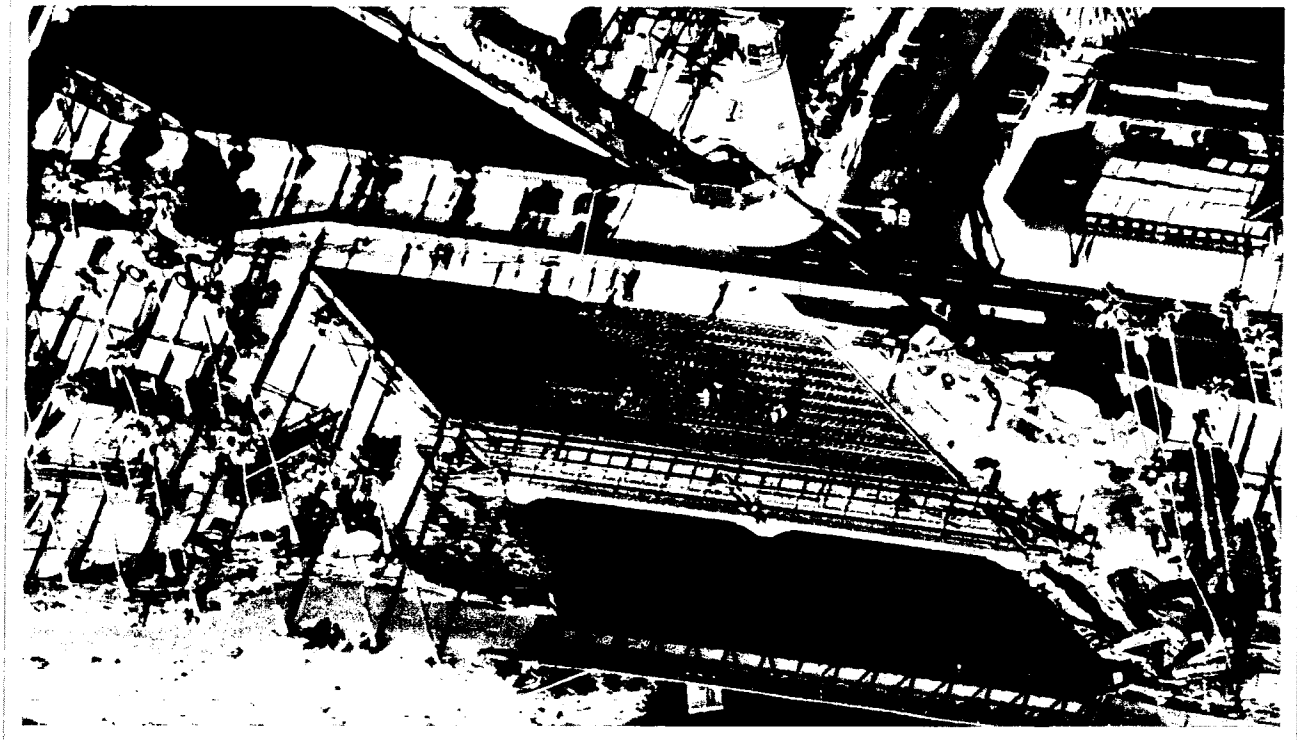
From Left: Md. Wahiduzzaman, Henry Osegueda, Lori Onishuk, Tom Conti, Marc Compton, Scott Onishuk, and Harrison Smith: these same folks are ready to work on Santa Monica Debris Basin





PROJECT DATA

- | | |
|---|---------------------------------|
| a. Contracting Agency | City of Santa Barbara |
| b. Contracting Agency Project Manager | Adam Hendel, PE |
| c. Contracting Agency Contact Information | 805-897-1921 |
| d. Contract Amount | about \$1.7million |
| e. Funding Source | Federal Highway BP & City Funds |
| f. Date of Contract | 2005 to 2018 |
| g. Date of Completion | 2018 |
| h. Bengal Project Manager | Scott Onishuk, 805-563-0788 |
| i. Project Objectives: | |
| • Replace an old City bridge/ Improve city streets | |
| • Improve Flood Control Channel: widen channel and replace channel walls | |
| j. Project Description | see previous page |
| k. Project Outcomes: | |
| • Bengal's careful consideration of construction staging and work access allowed the project to be completed on-time and on-budget, in spite of project complications or geologic challenges. | |
| • As mentioned, this project was awarded ASCE Project of the Year for 2018 for Ventura / Santa Barbara Counties. | |





San Jose Creek Capacity and Fish Passage Improvements



Project of the Year 2014

BENGAL'S ROLE: PRIME CONSULTANT

PROJECT OBJECTIVES / DESCRIPTION

Bengal Engineering was the "Prime" consultant who led the design of this \$20 Million contract.

When plans created by others received push-back because of design and permitting concerns, Bengal stepped-in to redesign this important flood control project.

Bengal's work included about 4000 LF of flood control walls, roadway realignment and multiple utility relocations. Bengal's successful pursuit to obtain a long-term highway lane closure and detours on the City streets both streamlined construction and saved money.

Bengal solution overcame complex site constraints and received approval of the FEMA CLOMR to allow development nearby.



Bengal's innovative ideas using precast wall components saved time-and money

SERVICES BENGAL PROVIDED:

- Stream Hydraulics : CLOMR
- Interaction with National Marine Fisheries and California Dept. of Fish and Game to obtain project approvals.
- Civil Engineering
- Structural Design
- Geotechnical Engineering
- Environmental and right-of-way support to City Staff





Bengal's CEO, Md. Wahiduzzaman reviews construction progress at San Jose Creek

PROJECT DATA

a. Contracting agency	City of Goleta / Santa Bar. County FCD
b. Contracting agency Project Manager	Steve Wagner (now at Goleta SD)
c. Contracting agency contact information	805-967-4519
d. Contract amount	\$20M- Construction
e. Funding source	City, County, DFWP, more
f. Date of contract	Sept. 2009
g. Date of completion	Spring 2014
h. Bengal Project Manager	Scott Onishuk, 805-563-0788
i. Project Objective	see previous page
j. Project Description	see previous page
k. Project Outcomes:	

- When the design timeline was unexpectedly compressed about 6-months due to the abolition of the "Redevelopment Agency", Bengal turned on our engineering turbo chargers and delivered the construction plans quickly to meet a new funding sunset.
- Better still, the Contractor's bids fell right-in-line with the City's budget; this was key for success because the funding would have evaporated if the project required another bidding sequence.
- The project was constructed on-time and on-budget.
- The completed project was awarded the "2014 Central Coast APWA Project of the Year: Environmental projects \$20 million and greater".





Client References



Caltrans

Mike Guiliano, P.E.
Senior Construction Engineer
Division 5 Local Assistance
50 Higuera St., S.L.O., CA
(805) 549-3072

Brent Massey, P.E.
Senior Bridge Engineer
Division of Engineering Services
P.O. Box 168041, Sacramento, CA
(916) 227-8868



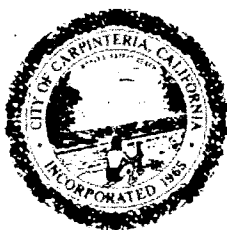
Santa Barbara County

Scott McGolpin, P.E.
Public Works Director
123 Anapamu St., S.B., CA
(805) 568-3010

Tom Fayram, P.E.
Deputy Director, Flood Control
130 E. Victoria St., Ste. 200, S.B., CA
(805) 568-3440



Fred Luna, P.E.
Principal Transportation Engineer
260 N. San Antonio Rd. Ste. B
Santa Barbara, CA
(805)961-8926



City of Carpinteria

John Ilasin, P.E.
Public Works Director
5775 Carpinteria Ave.
Carpinteria, CA 93103
(805) 684-5405

Matt Roberts
Director of Parks and Recreation
5775 Carpinteria Ave.
Carpinteria, CA 93103
(805) 684-5405 x 449



City of Santa Barbara

603 Garden St, Santa Barbara, CA 93102

Brian D'Amour, P.E. (805) 897-2661
Derrick Bailey, P.E., T.E. (805) 564-5544
Laura, Yanez, P.E. (805) 897-2615
Ashleigh Shue, P.E. (805) 897 2507
Adam Hendel, P.E. (805) 897-1921





3. ORGANIZATION AND APPROACH

Team Roles

Bengal guarantees that the key personnel shown will be available without substitution, should the City choose to select our team.

Bengal Engineering, Santa Barbara, CA

Md. Wahiduzzaman, P.E., Principal in Charge

Mr. Wahiduzzaman has decades of experience with Caltrans design methods and Caltrans procedures for project funding and oversight. He is well-known by Caltrans and regulating agencies for high-quality designs and project management.

Mr. Wahiduzzaman will be the principal-in-charge, bearing the ultimate responsibility for the successful completion of the project as he has for dozens of projects for the central coast.

He will be responsible for overseeing all work with the project management team to ensure the project delivery.



Scott Onishuk, P.E., QA/QC

Mr. Onishuk has over 30 years' experience in civil engineering and project management. He is experienced in highway, storm drainage, bridge and heavy structure design. He is well-versed with Caltrans procedures. Mr. Onishuk has worked extensively on bridge and roadway projects including the nearby Cabrillo Blvd., Mason St., and Haley / De La Vina St. Bridges.

He will be the civil engineering manager and lead QA/QC for this project.





Tom Conti, P.E., Project Manger

Mr. Conti will be the project manager, leading the project through design development and providing local care and understanding as he has completed dozens of City of Santa Barbara projects including the Lower Mission Creek Flood Capacity Improvements, and both the Mason Street and Cota Street Bridges. His knowledge of the area and dedication to serve his community will benefit the project team.



Tom Conti (center) with Adam Hendel (right) at the nearby Mason St. Bridge.



Ed Pongracz-Bartha (right) with Scott Onishuk (left)

Ed Pongracz-Bartha, CEG

Mr. Pongracz- Bartha has experience in conducting and managing geotechnical projects in the following areas: structures, bridges, land development, and commercial sites. His role includes plan review and performing site inspections to verify geologic conditions and to ensure geotechnical foundation recommendations are met. His vast knowledge and years of experience in the local area will greatly benefit the team.





M. Shafiq Islam, PhD, PE, GE

Dr. Islam Mr. Islam will be the geotechnical engineer for this project.

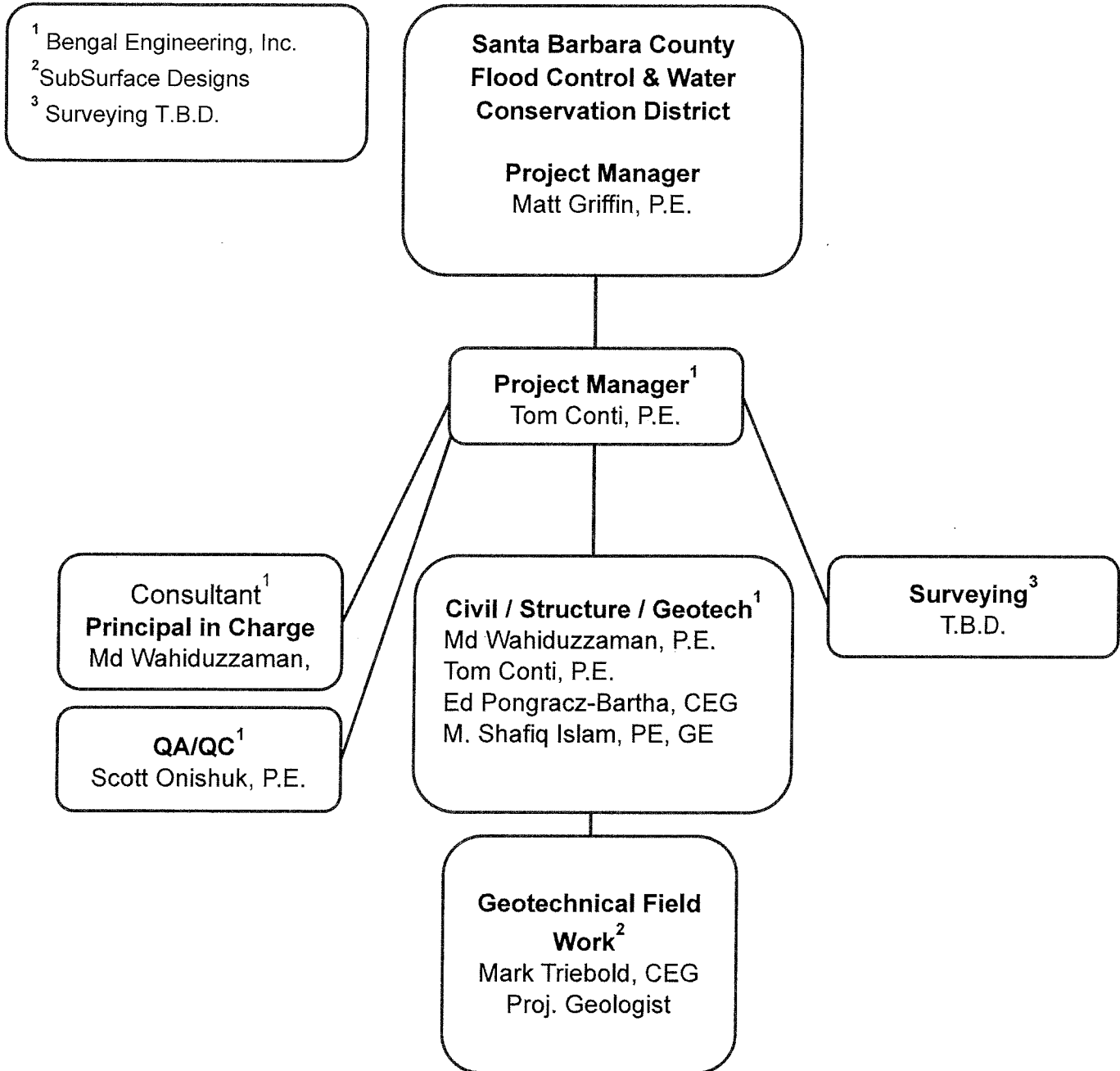
His experience with bridges, dams, pipelines, and reservoirs will provide key insight for this project. He has considerable local experience; examples include the San Jose Creek Capacity Improvement and the Lower Mission Creek project (Bengal provided the Geotechnical Report as a subcontractor to TetraTech).





ORGANIZATION CHART

The technical aspects of engineering projects are far-ranging. Our team is a tapestry of renowned design professionals who know the local engineering landscape.





PROJECT MANAGEMENT APPROACH

We have identified the following key factors for project success:

- Provide a proactive project manager, who lives in the area, and is experienced working with the district.
- Provide a team which is experienced working-together on similar local projects.
- Minimize the use of subcontractors/ outside consultants to streamline communication and speed design.
- Reduce construction costs to maximize the use of available funds.
- Meet or exceed the proposed project schedule.

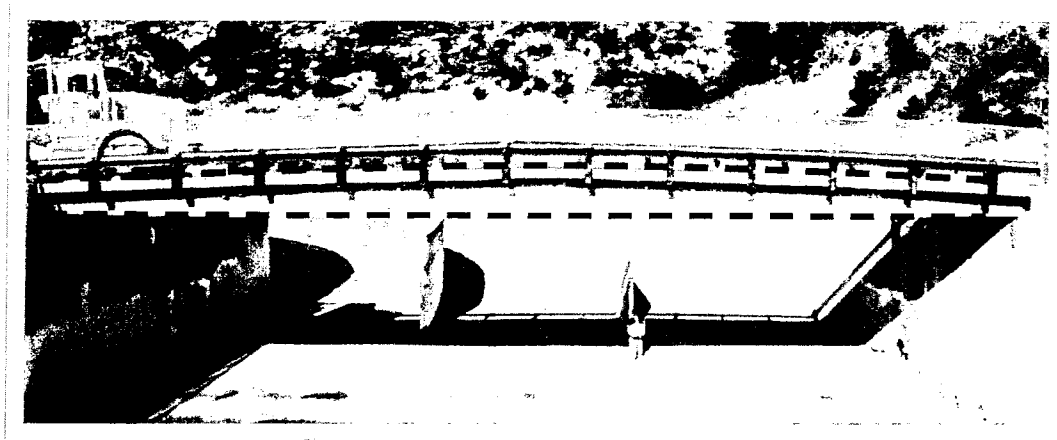
In this proposal we address the key technical issues for the project and highlight our understanding. The Bengal Team stands ready to provide the engineering, and coordination necessary for the successful completion of the project

PROJECT APPROACH & UNDERSTANDING

In this section we will discuss our understanding and approach to some key project-specific components. There are a number of critical decisions necessary for success, therefore this section is somewhat lengthy.

Discussion of the Existing Spillway Bridge

We know of no other bridge designed or built like the spillway bridge. It is unique—but also somewhat peculiar.



*View of existing spillway bridge -- Note the arch in the existing bridge.
Such a configuration is called a "non-prismatic" bridge.*





Considering today's design philosophy, this structure type would not likely be implemented solely because of the cost to build.

Construction challenges facing the Contractor included:

- Curved formwork to build arched girder stems
- Complicated falsework to accommodate settlement and camber to support a structure which gets increasingly thicker and heavier with length
- Shear stirrups which vary constantly in height. This means that most of the shear steel has to be cut in the field to accommodate the deck profile, rather than being placed as shop-fabricated.
- Longitudinal steel which requires complicated temporary supports and becomes congested near abutments.

We think it would be interesting to travel back in time 43 years to learn *why* designers selected this bridge type. Judging by their drawings, the engineers were experienced and likely understood the construction difficulty this design presented to the Contractor.

The Technical Description of the Existing Emergency Spillway Bridge is:

- A non-prismatic, single-span, cast-in-place, [non-prestressed] reinforced concrete, box girder superstructure which is supported by reinforced concrete abutments. These abutments also serve as the channel walls for the reach near the bridge.
- The existing bridge is 77-feet long x 12-feet wide.

The existing steel bridge (guard) rails are short in height by today's standards. These low rails have been augmented with taller chain link fencing not shown on the record drawings. Perhaps this fence was wisely added when folks noticed that the bridge rails raise just a stubby 1'-10" above the deck—only about knee-high—and it's a long way to the spillway below! Without the fence, users may have felt uneasy, especially in a high wind.

Proposed Replacement for Emergency Spillway Bridge

We believe the most cost-effective bridge for this location will be:

- A prismatic, single-span, cast-in-place, pre-stressed, reinforced concrete, box girder structure which will be supported on geo-reinforced abutments set back from the existing channel walls.
- The proposed span will be about 84 feet-long—beyond the existing spillway walls. The spillway measure 80-feet to the outside of the walls.
- The anticipated width will be a minimum of 21'-6"—but we envision that the width will flare wider on the east side to accommodate turning movements for trucks
- The bridge rails will likely follow a Caltrans Standard Plans for a "MASH-tested" barrier rail. There are benefits to selecting either concrete or steel railing. We'd like to discuss these with the District.



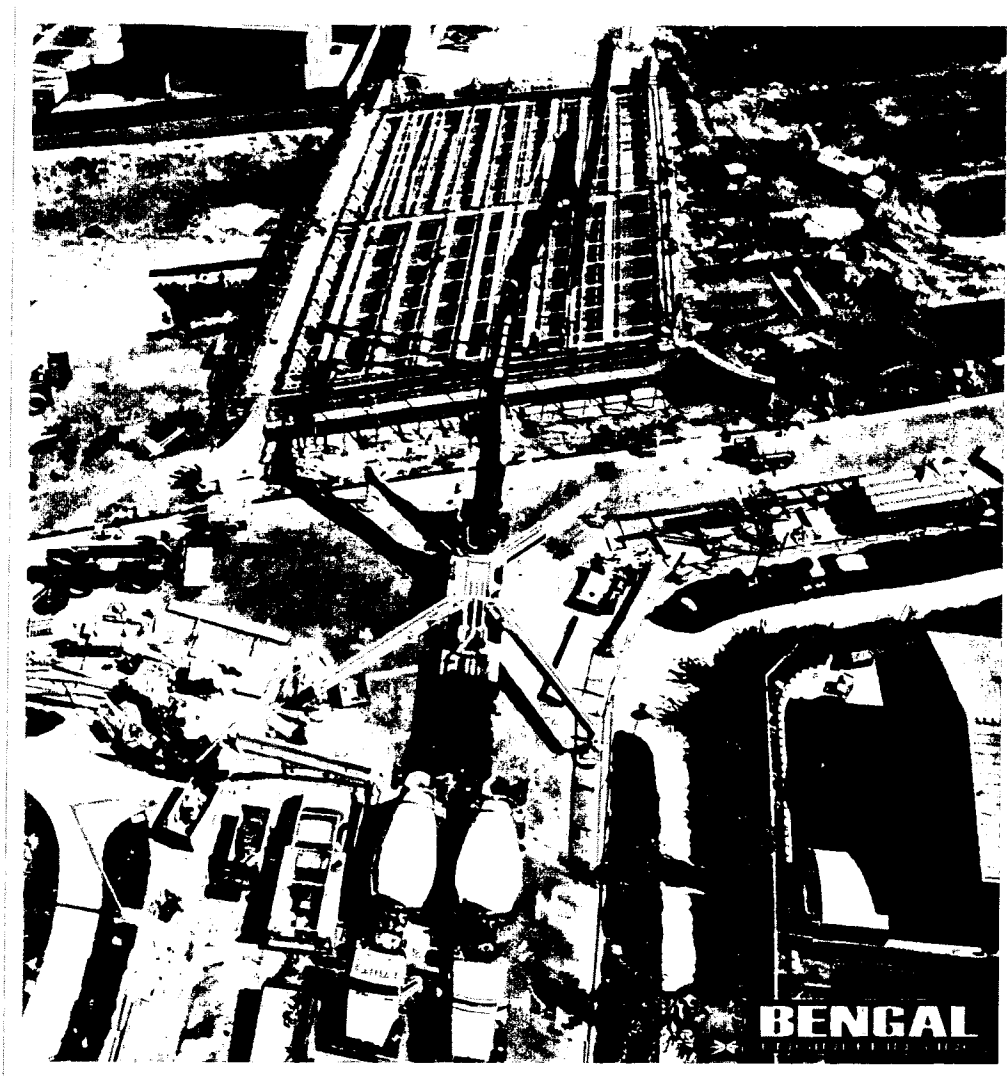


Example of a similar bridge, recently completed, designed by Bengal

Bengal recently completed (both design and construction oversight) a bridge of this type; the "Cohansey Ave. Bridge" over a flood control channel built by Natural Resources Conservation Service / SCS in Santa Clara County.

Although this example is "larger" than the bridge needed here, it is high-lighted because:

- It has the same structure type.
- It includes the special spandrels we propose to include on the spillway bridge.
- It received review by flood control agencies.



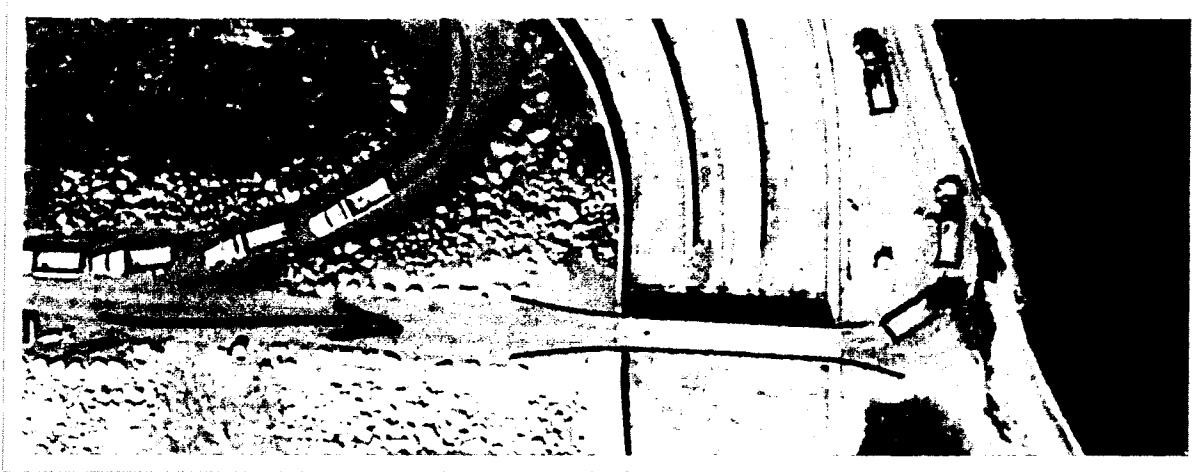
Cohansey Ave. Bridge over a Soil Conservation Service / NRCS-designed channel in the City of Gilroy, Santa Clara County. All bridge and channel modifications designed by Bengal.





Special Features for the Spillway Bridge: Flared Spandrels for Truck Turning

We know the Department needs a beefy structure to support heavy trucks and excavators. But engineers should also consider the bridge geometry to accommodate the turning movements required for large trucks.



10-wheel dump trucks cross the bridge and circle the basin -- Google Earth

All the trucks which cross the spillway bridge must turn. When the basin is being cleared, most drivers turn left, circling back to the west, descending into the basin to be loaded.

Today “10-wheelers” are mostly used for this task. In the future, as environmental permitting, building and maintenance costs, and regulatory restrictions all escalate, we envision that larger trucks—travelling longer distances—could be the “new norm”.

The District’s, Santa Monica Debris Basin Engineering Report, September, 2018, states:

. . . the extremely tight turning radius at the intersection of the bridge (12 feet wide) and the East Access Road, resulted in the contractor removing the guard rails at the northeast corner of the bridge during the FEMA basin cleanout.

and

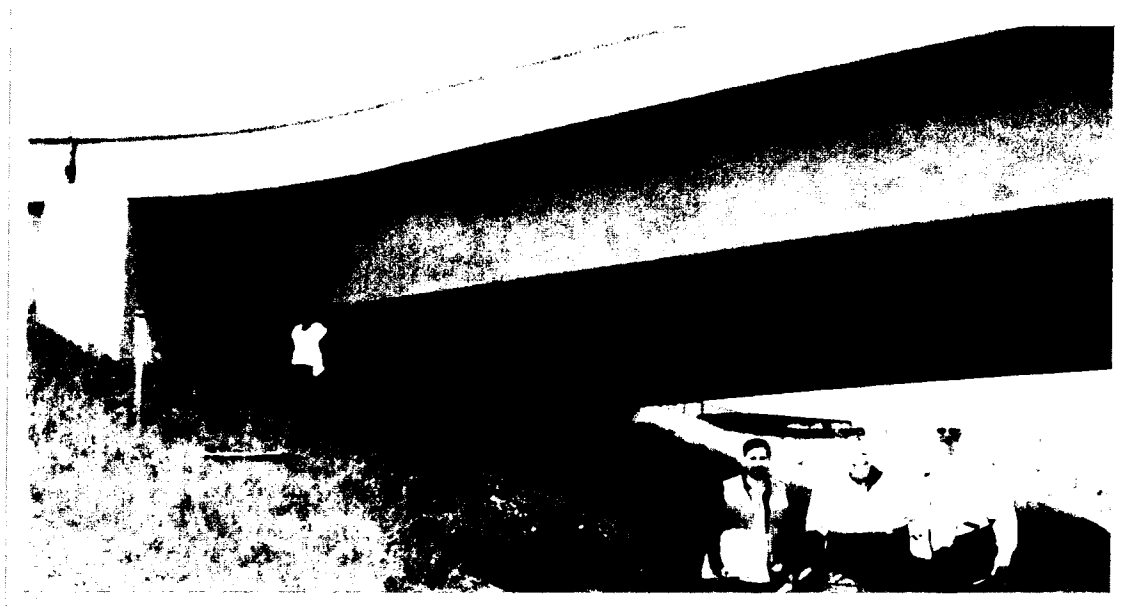
The 214,000 cubic yards of material removed from the Santa Monica Debris Basin and Plunge Pool was hauled to private Placement Sites in Buellton and Santa Paula. Clearly, the absence of suitable, nearby Debris Placement Sites significantly increased the cost of the emergency cleanout effort at the Debris Basin. The excessive travel time required of the dump truck fleet added to the already congested traffic in the disaster area, and exacerbated the negative impacts to air quality and the transportation infrastructure.

To accommodate the predominant turning movement and larger trucks, we envision adding flared spandrels to the east side of the bridge so that drivers can begin their turn on the bridge itself, rather than building a “straight” bridge forcing drivers to crank their wheels after they leave the bridge. This feature will not have a high cost.





Md. Wahiduzzaman inspects the bridge foundation and falsework for the Cohansey Ave. Bridge. Note flared wing walls.



*Cohansey Ave. Bridge, completed in Spring, 2019, Designed by Bengal
Note (left side) the bridge overhang, bridge rail, and wingwalls
are all flared to provide room for turning movements.*

Rather than building flaring spandrels on the bridge we considered realigning the East Access Road, but because the District doesn't own the land, the effort and cost to acquire the land makes this idea unattractive.

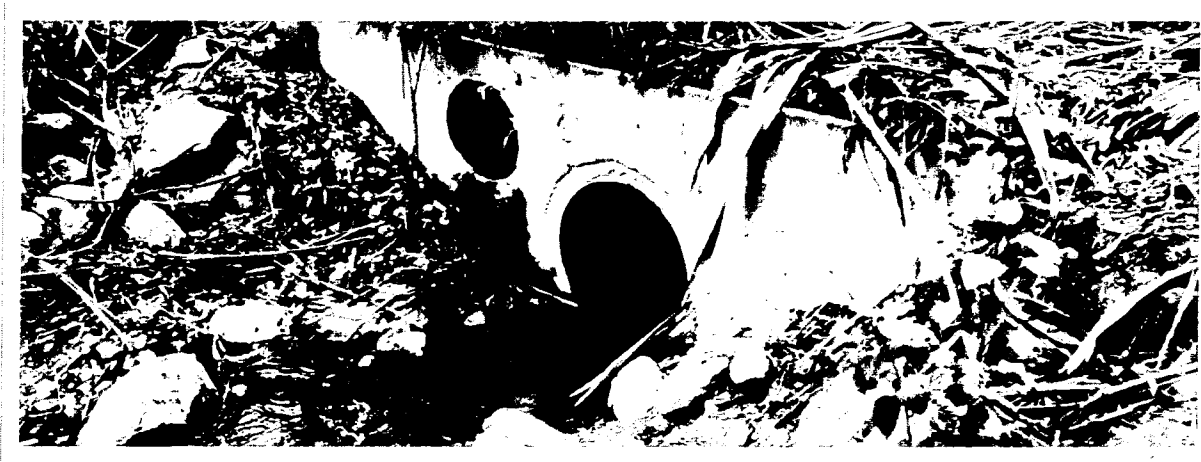




Proposed Deck Bridge

Downstream of the spillway, a new bridge is proposed across the channel to provide access to: the outfall of the 48-inch Low Flow Conduit; another storm drain; and the new 14-inch HDPE By-Pass Drain.

The existing channel is only 16-feet wide at the proposed bridge location. Here, the channel is supported on a “fill” built above the old Santa Monica stream channel. The channel walls extend a couple of feet above the adjacent grade and the channel is protected by concrete V-ditches which run downhill along either side.



View of the outfall of the 48-inch Low Flow Conduit and Storm Drain under the channel. This is the only access to clean the Low Flow Conduit—but there is no “road” to it.



View looking southerly, on east side of channel. The Deck Bridge will cross above the existing channel walls. Storm drains also pass under the channel at this location.





Details of Proposed Deck Bridge

At this location, we propose:

- A Reinforced Concrete Slab Bridge.
- The bridge will be about 16-feet wide and about 30-feet long.
- The bridge will be longer than the outside of the channel to accommodate the foundation, which is described in the next section.
- We will set the bridge profile above the channel walls, elevating the soffit to protect it from accidental impact of logs which might race by in the channel below.



Bengal designed this 40-foot long bridge, built on a tightly curved alignment, over Oak Creek in Montecito, CA.

This bridge withstood first the flames of the Thomas Fire then the following debris flows, providing constant access for the community without any damage. The "Deck Bridge" will have a similar superstructure.

Other nearby bridges, did not perform so well as Bengal's design. Many were swept away and are still missing today because the replacement process is hindered by complications in permitting, funding and in some cases, insurance disputes.





Proposed Bridge Foundations

Typically, bridges are supported on either deep foundations (piles) or on concrete spread footings. The existing spillway bridge was built on spread footings which are similar (but not identical) to the adjacent channel walls. The construction joints between the spillway wall and the bridge abutment are visible on the channel wall and spillway floor.



*View of the West Abutment of the existing spillway bridge.
The existing bridge abutments, (highlighted) are structurally different
than the adjacent channel walls.*

During Bengal's December 2018 Geotechnical Investigation, hard drilling was encountered about 40-feet below the surface, but the geology in the area is variable. This geology will make the construction of deep piles challenging.

Geosynthetic Reinforced Soil Foundations

Because of the site geology--and to save time and money--we envision using a fairly shallow foundation using innovative "Geosynthetic Reinforced Soil foundations" (GRS).

Bengal has successfully used the GRS approach, both recently and nearby, for the two new bridges over Sycamore Creek at Cacique and Soledad Streets in the City of Santa Barbara.

This project was awarded the 2018 Project of the Year by both ASCE and APWA, in large part because of the success of this foundation system.





Some people, unfamiliar with the geologic or structural challenges facing the project might suggest, “Let’s just plop a new, wider (heavier) bridge on the existing abutments and save the cost and effort of a new foundation system.”

This presents a variety of problems starting the challenge to overcoming the limited abutment seat width provided by the existing foundations: the exiting bridge seats do not satisfy the current codes—so we are already facing a retrofit of the existing abutments.

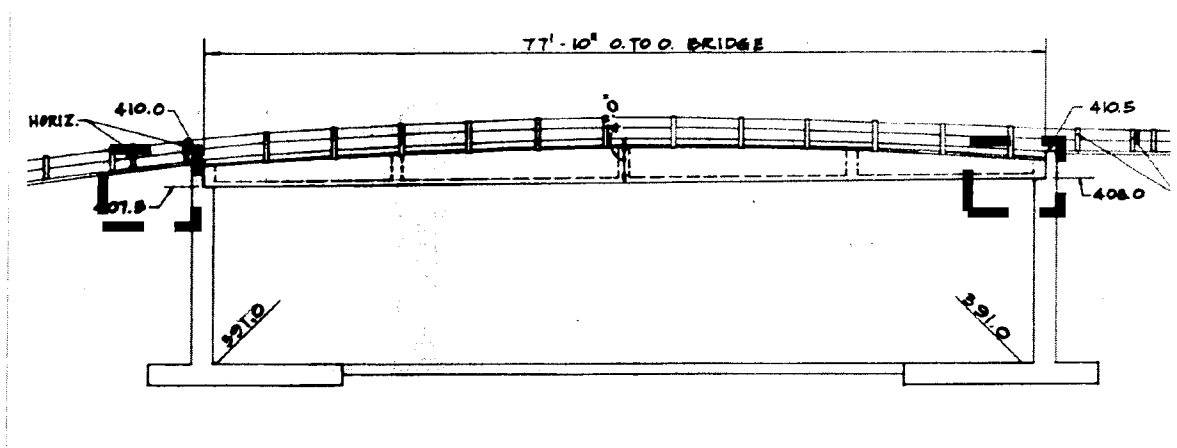
Next, should the seats be augmented (widened), such a retrofit will either impact the airspace on the front of the abutment, or create an eccentric load, on the backfill side. In either case, the additional loading will flow into the existing abutments which will have to be analyzed to see if they can be also be retrofit--likely digging down through the “Select Fill A” in the center of the dam.

We think it is better to avoid this whole scenario by building a new, separate, simple, shallow foundation system which will actually *reduce* the pressures imparted on the channel walls, instead of than increasing the demand on the old abutments. Therefore, we propose similar GRS foundation systems for both of the proposed bridges.

This approach will:

- a. Enhance approach fill and also improve foundation-spillway-dam interaction.
- b. Significantly reduce possibility of soil-structure separation in case of a major seismic event.
- c. Likely be easier and less expensive to engineer and construct than retrofitting the existing structure.

Schematic of the Foundation for Spillway Bridge

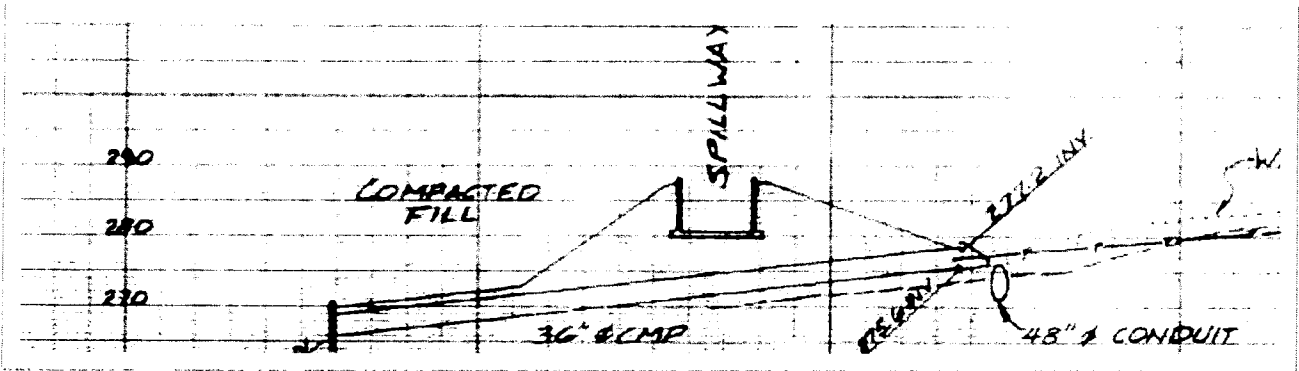


“Geosynthetic Reinforced Soil” Abutments will be placed in the highlighted zones in back of the existing channel walls.

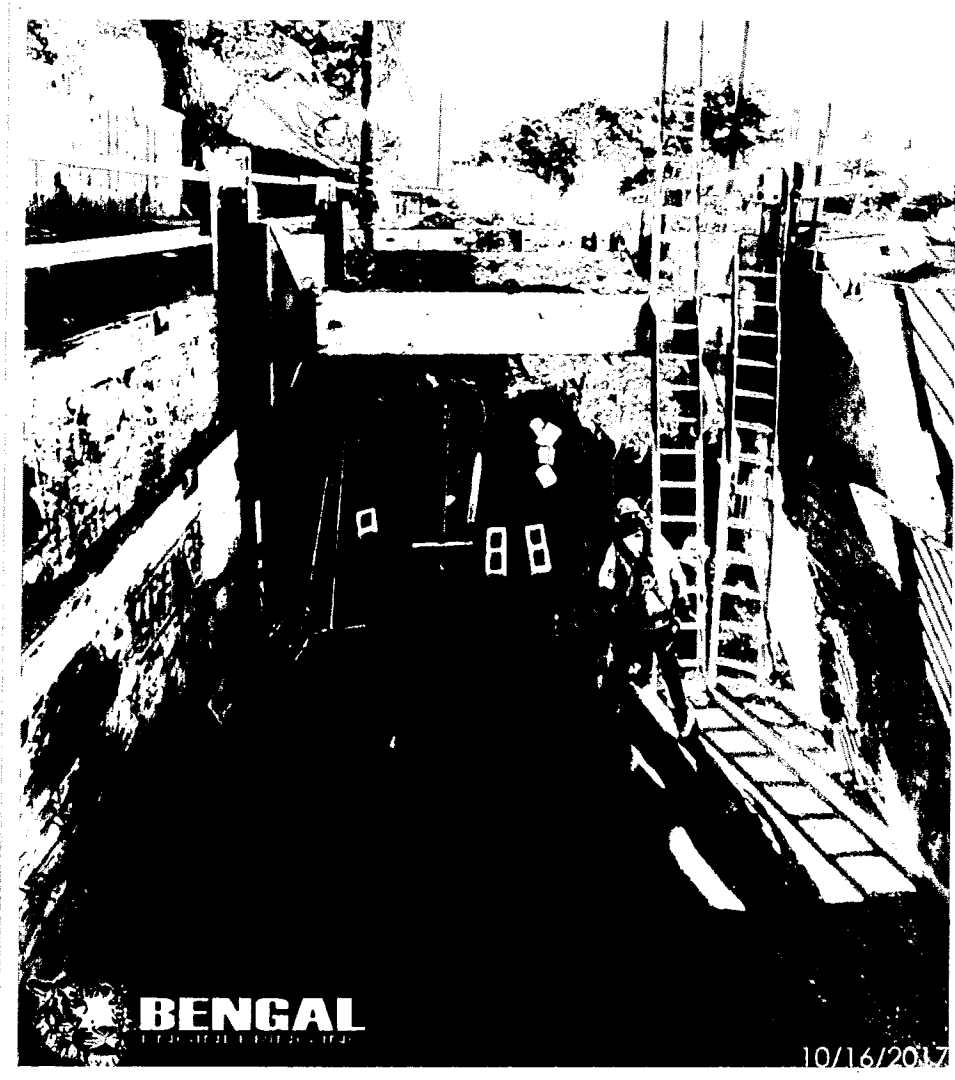




Schematic Drawing of the Foundation for the Deck Bridge



Section of "Record Drawings" showing drains which pass below the spillway near the location of the proposed "Deck Bridge", allowing access to the outfall, shown at the left.



Construction technique for the GRS foundations which Bengal designed for the bridges at Cacique and Soledad Streets over Sycamore Creek in Santa Barbara.

Note the small footprint and shallow excavation as well as the close proximity of work to existing walls / trees at left.

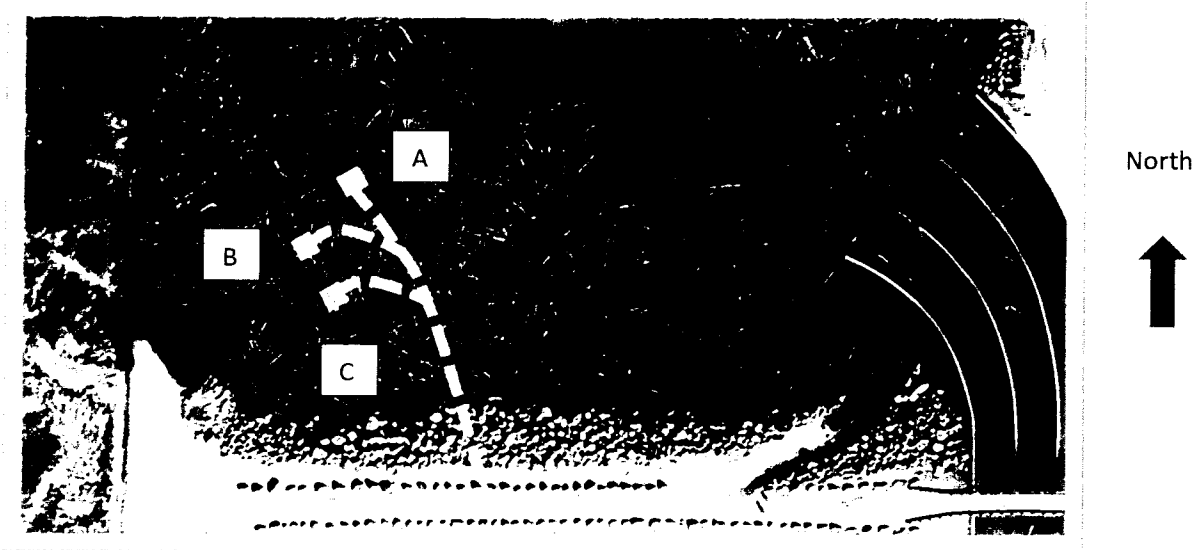
We envision a similar approach for the Santa Monica Debris Basin bridges.



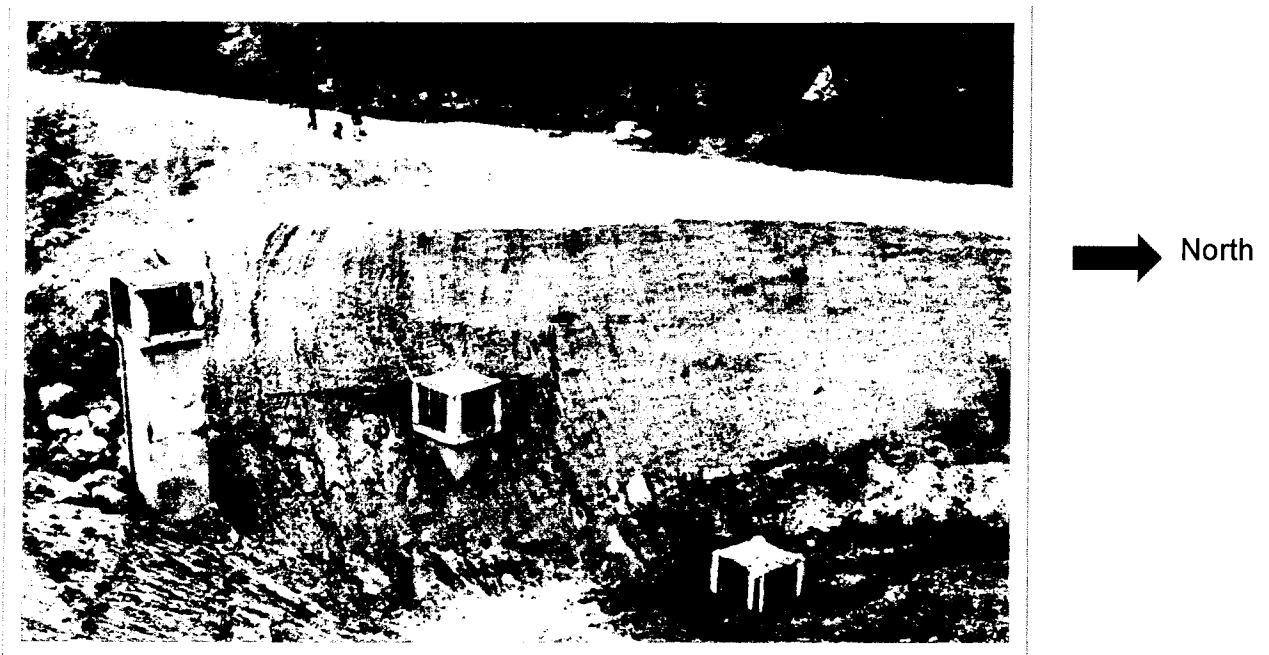


Proposed Inlet Tower Modifications

Three inlet towers connect to the 48-inch low flow conduit.



The approximate locations of Inlet Towers A, B, C and connecting drains are shown.



Tower B and Tower C each drain via a 42-inch diameter pipe to a 45-degree junction structure on the 48-inch Low Flow Conduit. Tower A (the short tower) is located at the northern end of the 48-inch diameter Low Flow.



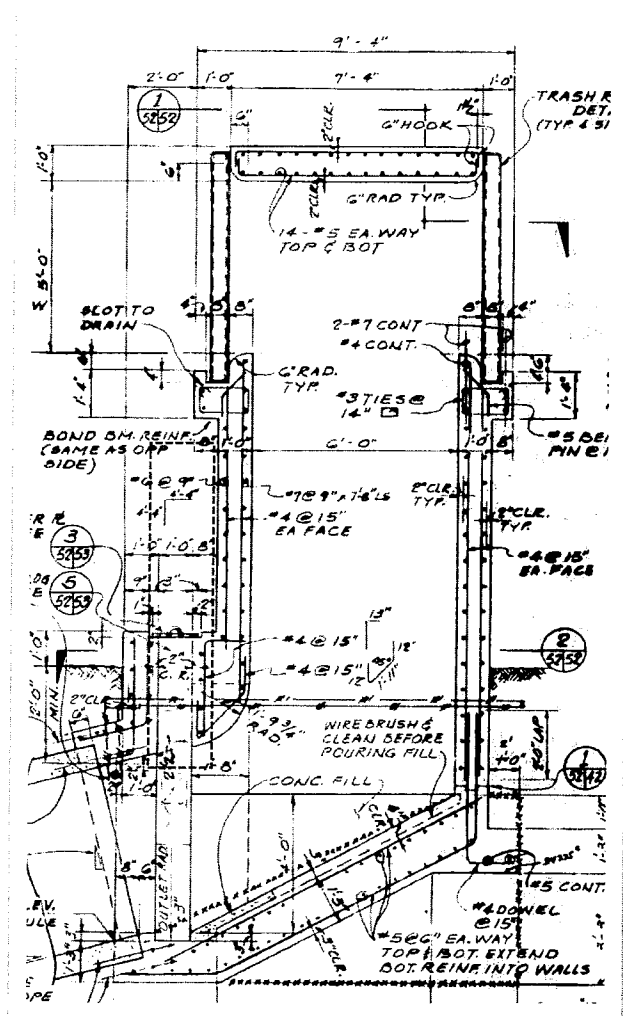


The proposed project would:

- Raise the elevation of the tops of each tower structure
- Provide additional “slots” along the inlet shaft to allow water to enter the tower
- Reinforce the towers as needed to accommodate current codes
- Update the inlet grating
- We’d also like to investigate modifications to the “Stop Logs”.



View of the 3 inlet towers



Record Drawing, Construction of Inlets

Note that the #4 vertical reinforcement steel is spaced at 15-inches. Bengal plans to “slot” the walls between this steel, preserving and augmenting this reinforcement as necessary to improve drainage.





We agree with the observations in the District's *Santa Monica Debris Basin Engineering Report*; the design of the inlets seems to have been based on "Clear Water" conditions which might be expected in a water supply reservoir.

The District's Report observed:

Though not attributed, the Inlet Towers clearly resemble, and were obviously modeled after, a standard inlet tower designs as depicted in the USBR "Design of Small Dams" (pages 387-388).

These standard designs were for outlet works of water supply reservoirs, in one example the nearby Glen Anne Dam, and not for debris basins. Furthermore, SCS Engineering Standard Drawings (ES-151) for similar scale inlet towers, include provisions for "dry dams" with continuous rectangular perforations up the entire height of the tower wall.

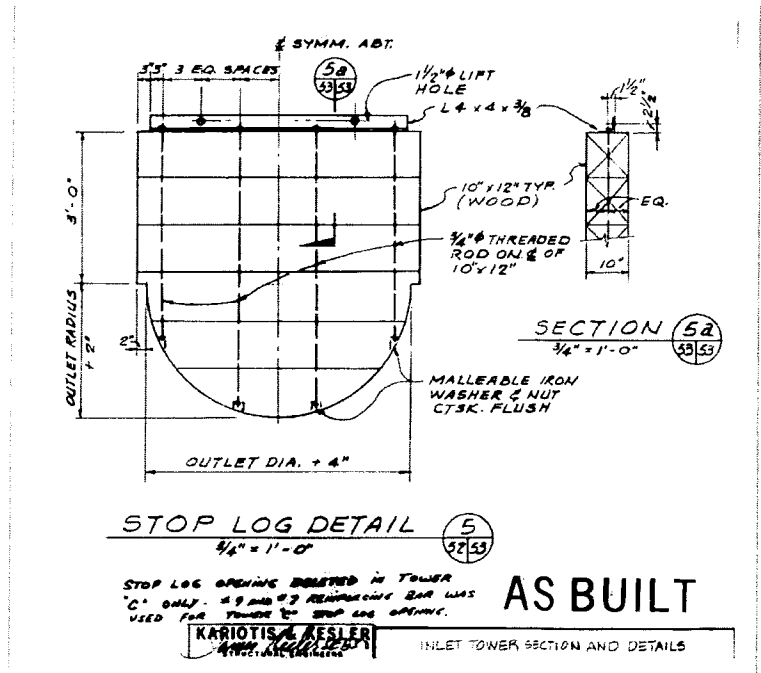
Proposed Inlet Tower Grates

The "Santa Monica Debris Basin Engineering Report" (Santa Barbara County Flood Control and Water Conservation District, September 2018) includes considerable discussion regarding the inlet grates. When the "Preliminary Design Alternatives Report" is ready, Bengal will work with the District to implement the best solution for the new grating. Expected work including the hydraulic modeling of the extension of the towers, evaluation of the grating size / spacing, and performance of the modified towers under various conditions.

Possible Retrofit of the "Stop Logs" inside Towers

We would like to have a discussion with the District regarding performance and maintenance access for this item as part of the considerations for modifications to the inlets, as it seems these "Stop Logs" would be poorly suited to a debris basin and are difficult to reach, especially in an emergency.

Right: The record drawings show a "Stop Log" within the inlets, at the connection to the outfall to the Low Flow Conduit. These drawings also mention construction changes.





Tower Design/Evaluation

Developing a finite element model of the existing and proposed modification of the towers, and assigning realistic hydrodynamic semi-fluid time-dependent pressure loads similar to what the towers have been subjected to in 2018, would provide a clear picture about the structure and foundation demand. Excessive strain/movement of the towers may separate or create gaps between the conduits and the tower connections.

Proposed Crane Pads

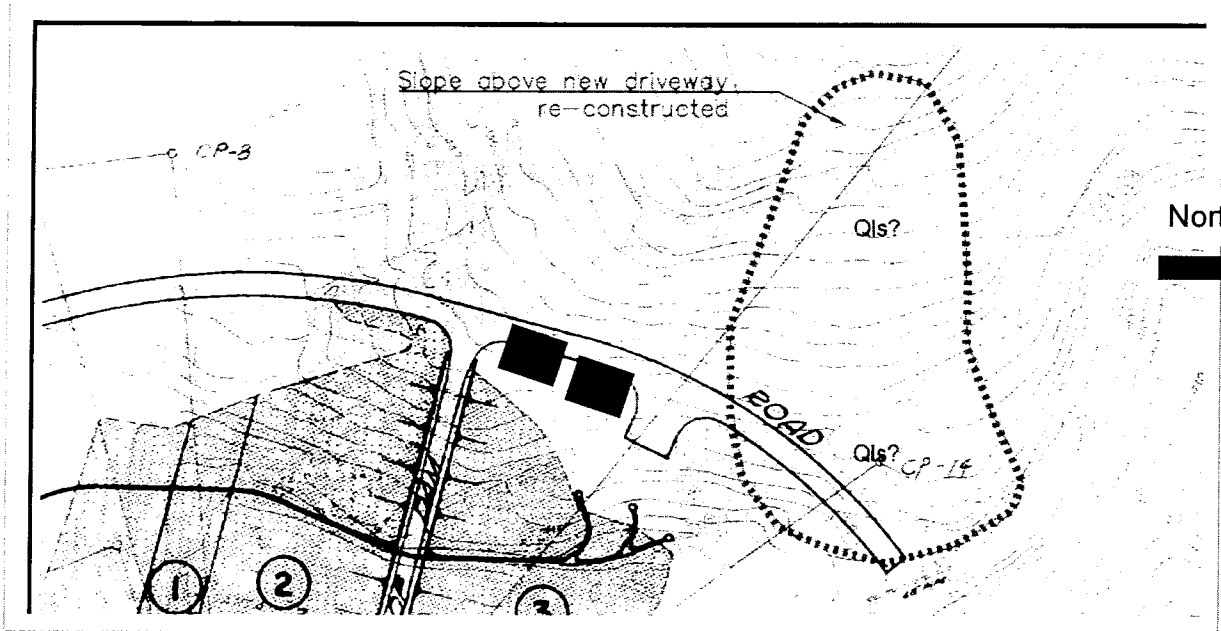
The District's RFP suggests the pads may be constructed from "sheet pile and compacted fill". However, we have geologic concerns, both from what we see on the surface and in what we have reviewed in the geologic reports.

We see evidence of an ancient landslide on the west side of the basin and propose to undertake more geologic work to investigate this situation.



December 2018: View North/Northwest – Lateral shear was observed by Bengal's Engineering Geologist at location marked by red arrow. This could be the southern margin of an ancient landslide ("Qls" on map below). We suggest more investigation.





*Possible limits of ancient landslide (red outline).
Note proximity to access road and proposed crane pads (shown by green boxes).*



View looking west. Note failure of recently constructed fill slope below access road (yellow ellipse). An ancient landslide could exist behind this fill (red outline).





Important Concepts for Crane Pads

Given the geologic issues, we propose:

A) To undertake a geologic investigation in this area, including logging test borings to determine profile of bedrock and other subsurface conditions.

B) To consider an alternative approach: rather than using sheet-pile walls, we suggest considering building self-supporting “bins” which would encircle each crane pad. This approach could be easier to build given geologic issues in the area.

In addition, we envision the “bins” will reduce the depth of the support structure and save cost.



*Crane with a clamshell bucket at Santa Monica Basin
Photo by Lea Boyd, published in CoastalView.Com*

Proposed HDPE Bypass Drain

In conversation with District staff and the upstream neighbor, we learned that “Santa Monica creek is always running, year ‘round”.

Reviewing the construction records, we noted that geologists discovered 14 different springs within the footprint of the work during construction. Most springs were found east of “Stegall’s Pond”, which was suspected of feeding these springs. This pond still exists and was mostly full of water in June, 2019.

Discovery of these pesky springs halted construction and generated some changes in design of the project. Construction of the West Access Road was also stalled, “...for several months because of problems with Stegall’s dam” (As-Built Geologic Report Santa Monica Debris Basin, August 1978, C.E. Stearns, State Geologist, page 1).

In his 1978 report, Stearns observed, “Total flow [from the springs] was estimated at about 3 gallons per minute”. In June, 2019, we noticed the discharge from the Low Flow Conduit appeared to be significantly greater than this.





View looking south: Water from Low Flow Conduit cascades into Plunge Pool

Regardless of its source or volume, water constantly flows through the Low Flow Conduit and into the Plunge Pool. This pool once had a functioning drain to the lower channel, but it no longer works. Therefore, the plunge pool is constantly inundated, making cleaning it difficult. Pumps are now needed to dewater the plunge pool.

To “dry-up” the plunge pool for maintenance, the Department proposes a 14-inch HDPE By-Pass Drain. This bypass will allow the District to redirect water from the Low Flow Conduit around the plunge pool and into to the lower drain.

