
DEPARTMENT OF
PUBLIC WORKS

GOVERNMENTAL CENTER

JOHN A. FANTHAM
DIRECTOR OF PUBLIC WORKS



AGENDA: SEPTEMBER 15, 1998

COUNTY OF SANTA CRUZ¹⁸¹

701 OCEAN STREET, SANTA CRUZ, CALIFORNIA 950604070

(831) 454-2160

FAX (831) 4542385

September 3, 1998

SANTA CRUZ COUNTY BOARD OF SUPERVISORS
701 Ocean Street
Santa Cruz, California 95060

SUBJECT: AMESTI ROAD AT CROW ROAD DEWATERING PROJECT
EMCON ENGINEERING SERVICES CONTRACT

Members of the Board:

Pursuant to previous Board direction, Public Works has now completed the consultant selection process and concluded negotiations for the engineering and construction services contract for investigative engineering and dewatering of the subject storm damages with EMCON of Fresno, California. This contract is intended to provide the necessary analysis for a permanent repair solution to the continuing ground movement along Amesti Road immediately north of Crow Road in Corralitos. The contract before the Board is for a total not-to-exceed amount of \$550,386.00 to provide for all three phases of work: Phase I, geotechnical and groundwater field investigation; Phase II, the design and installation of a groundwater extraction system; and Phase III, groundwater monitoring assistance, which will be conducted by both EMCON and County staff.

Funding for this work was included in the approved 1998/99 Road Program using monies provided in part by the Office of Emergency Services (OES). The state has authorized special Emergency Protective Measure funding through Damage Survey Report (DSR) #96-00 1 in the amount of \$375,000. Based on a 75/25 percent State/County cost ratio, the County's local cost share was budgeted at \$125,000.00, for an approved 1998/99 budget total of \$500,000.00. The increased amount of funding now required to encumber the total contract may be made available by the temporary loan of \$75,000.00 of road maintenance funds and the transfer of \$25,000.00 of "consultant engineering" funds included in the adopted 1998/99 Road Budget.

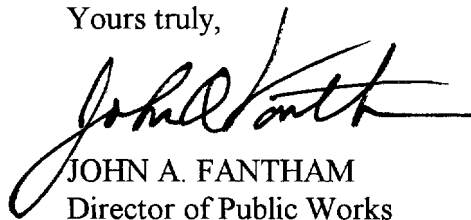
In the meantime we have submitted a supplemental funding request to OES asking that they increase their contribution to \$450,000.00. Since there is sufficient funding in the approved DSR for the first phase of the contract (\$280,947.00), this will allow EMCON to proceed immediately with this critical initial phase; however, until such time as OES has approved this supplemental funding request, we would not authorize EMCON to proceed with Phases II and III of the contract.

Later, subject to funding approval and after the ground water extraction process is fully in place and actively monitored (likely around the year 2000), and once the hillside has been determined to be stable, Public Works will then ask the Federal Emergency Management Agency to prepare DSRs to allow the County to undertake repairs of the closed segment of Amesti Road.

It is therefore recommended that the Board of Supervisors take the following action:

1. Approve the attached independent contractor agreement with EMCON for engineering, investigation, design, construction, and monitoring services for the Amesti Road Dewatering Program for a total not-to-exceed amount of \$550,386.00.
2. Authorize the Director of Public Works to sign the contract on behalf of the County and direct EMCON to proceed with only Phase I of the contract until such time as Public Works has received supplemental DSR funding from OES for this project.

Yours truly,

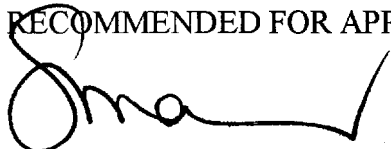


JOHN A. FANTHAM
Director of Public Works

WBW:mg

Attachments

RECOMMENDED FOR APPROVAL:



County Administrative Officer

copy to: EMCON
DPW (Fiscal, Road Engineering, and Operations)
Joe Hanna, County Planning
City of Watsonville Public Works
Auditor/Controller
Browns Valley Road Association
D. A. Christian, Office of Emergency Services
Harry Sherwood, Federal Emergency Management Agency

COUNTY OF SANTA CRUZ
REQUEST FOR APPROVAL OF AGREEMENT

00 183

TO: Board of Supervisors
County Administrative Officer
County Counsel
Auditor-Controller

FROM:

PUBLIC WORKS

(Dept.)

[Signature]

(Signature)

9/3/98

(Date)

The Board of Supervisors is hereby requested to approve the attached agreement and authorize the execution of the same.

1. Said agreement is between the COUNTY OF SANTA CRUZ (Agency)
EMCON, 4233 W SIERRA MADRE, SUITE 210
and FRESNO, CA 93727 (Name & Address)

2. The agreement will provide FOR THE INVESTIGATIVE DESIGN, CONSTRUCTION, AND MONITORING
SERVICES NECESSARY TO STABILIZE THE AMESTI ROAD EMBANKMENT AREA

3. The agreement is needed. BECAUSE THE WORK CAN BE PERFORMED MOST EXPEDITIOUSLY
AND ECONOMICALLY BY CONTRACT

4. Period of the agreement is from AWARD OF CONTRACT to JUNE 30, 1999

5. Anticipated cost is \$ 550,386.00 (Fixed amount; Monthly rate; Not to exceed)

6. Remarks TO CONTRACT \$550,386.00; OVERHEAD (6%) \$33,023.16; TAL \$583,409.16

7. Appropriations are budgeted in 933761 3590 PO0600 621100 (Index#)(Subobject)

NOTE: IF APPROPRIATIONS ARE INSUFFICIENT, ATTACH COMPLETED FORM AUD-74

Appropriations are available and have been encumbered.
are not will be

Contract No. 0081688 Date 9/3/98

GARY A. KNUTSON, Auditor - Controller

By *[Signature]* Deputy.

WBW:mg

Proposal reviewed and approved. It is recommended that the Board of Supervisors approve the agreement and authorize the
DIRECTOR OF PUBLIC WORKS to execute the same on behalf of the DEPARTMENT OF PUBLIC WORKS

(Agency).

County Administrative Officer

Remarks:

(Analyst)

By

[Signature]

Date

9-4-98

Agreement approved as to form. Date

Distribution:

Bd. of Supv. - White
Auditor-Controller - Blue
County Counsel - Green' *
Co. Admin. Officer - Canary
Auditor-Controller - Pink
Originating Dept. - Goldenrod

*To Orig. Dept. if rejected.

ADM-29 (6/95)

State of California)
County of Santa Cruz) ss

I, _____ ex-officio Clerk of the Board of Supervisors of the County of Santa Cruz,
State of California, do hereby certify that the foregoing request for approval of agreement was approved by
said Board of Supervisors as recommended by the County Administrative Officer by an order duly entered
in the minutes of said Board on _____

19 ____

By

County Administrative Officer
Deputy Clerk

Contract No. _____

INDEPENDENT CONTRACTOR AGREEMENT

THIS CONTRACT is entered into this 15th day of September 1998, by and between the County of Santa Cruz, hereinafter called COUNTY, and EMCON, hereinafter called CONTRACTOR, The parties agree as follows:

1. DUTIES. CONTRACTOR agrees to exercise special skill to accomplish the following results: CONDUCT FIELD INVESTIGATION OF LANDSLIDE MECHANISM AT AMESTI ROAD IN THE VICINITY OF CROW ROAD, INCLUDING DESIGN, MITIGATION, INSTALLATION OF DEWATERING SYSTEM, AND PROVIDE MONITORING OF INSTALLED SYSTEM FOR ONE YEAR FOLLOWING CONSTRUCTION COMPLETION. SEE ATTACHMENT 1 FOR SCOPE OF WORK.

2. COMPENSATION. The County of Santa Cruz shall reimburse the contractor for hours worked specified in the Contractor's Cost Proposal (Attachment 1). The specified hourly rates shall include direct salary costs, employee benefits, overhead and fee. The total amount payable by the COUNTY, for all Task Orders resulting from this contract, shall not exceed \$550,386.00. It is understood and agreed that this total is an estimate, and that there is no guarantee, either expressed or implied, as to the actual dollar amount that will be authorized under this contract through Task Orders.

Compensation for each phase shall not exceed the amount specified for that phase:

Phase I:	\$280,947.00
Phase II:	\$230,536.00
Phase III:	\$38,903.00

It is understood that the Scope of Work shall be adjusted following Phase I to reflect field data collected in Phase I. The subtotals of Phase II (system installation) and Phase III (monitoring) are not to be exceeded.

The CONTRACTOR shall be reimbursed for direct costs, other than salary costs, that are identified in an executed Task Order.

The CONTRACTOR shall be reimbursed for actual travel expenses incurred in the performance of this work, including the use of private cars at the rate of 31.5 cents per mile, while traveling away from consultant's headquarters which is hereby designated as FRESNO, CA. In addition, CONTRACTOR'S personnel shall be reimbursed for per diem expenses at a rate not to exceed that currently authorized for State employees under State Department of Personnel Administration rules. Any subcontract entered into as a result of this contract, shall contain all of the provisions of this article.

3. TIME OF BEGINNING AND COMPLETION. Time of beginning and completion shall be as described: FROM BOARD APPROVAL TO PROJECT COMPLETION.

The CONTRACTOR shall not commence performance of work or services until this contract has been approved by the COUNTY and notification to proceed has been issued by the County's Contract Manager. No payment will be made for any work performed prior to the approval of this contract.

4. EARLY TERMINATION. The COUNTY reserves the right to terminate this contract upon thirty (30) calendar days written notice to the CONTRACTOR with the reasons for termination stated in the notice.

5. INDEMNIFICATION FOR DAMAGES TAXES AND CONTRIBUTIONS. CONTRACTOR shall exonerate, indemnify, defend, and hold harmless COUNTY (which for the purpose of paragraphs 5 and 6 shall include, without limitation, its officers, agents, employees and volunteers) from and against:

A. Any and all claims, demands, losses, damages, defense costs, or liability of any kind or nature which COUNTY may sustain or incur or which may be imposed upon it for injury to or death of persons, or damage to property as a result of, arising out of, or in any manner connected with, or caused, or claimed to be caused, by the willful misconduct or negligent acts, errors or omissions of the CONTRACTOR, and its agents, officers, or employees in performing the work or services herein, and all expenses of investigating and defending against same; provided, however that the CONTRACTOR'S duty to indemnify and hold harmless shall not include any claims or liability arising from the established sole active negligence or willful misconduct of the COUNTY, its agents, officers, or employees.

B. Any and all Federal, State and Local taxes, charges, fees, or contributions required to be paid with respect to CONTRACTOR and CONTRACTORS officers, employees and agents engaged in the performance of this Agreement (including, without limitation, unemployment insurance, social security and payroll tax withholding).

6. INSURANCE. CONTRACTOR, at its sole cost and expense, for the full term of this Agreement (and any extensions thereof), shall obtain and maintain at minimum compliance with all of the following insurance coverage(s) and requirements. Such insurance coverage shall be primary coverage as respects COUNTY and any insurance or self-insurance maintained by COUNTY shall be excess of CONTRACTOR'S insurance coverage and shall not contribute to it.

If CONTRACTOR utilizes one or more subcontractors in the performance of the Agreement, CONTRACTOR shall obtain and maintain Independent Contractor's Insurance as to each subcontractor or otherwise provide evidence of insurance coverage for each subcontractor equivalent to that required of CONTRACTOR in this Agreement, unless CONTRACTOR and COUNTY both initial here _____ / _____

A. Types of Insurance and Minimum Limits

(1) Worker's Compensation in the minimum statutorily required coverage amounts. This insurance coverage shall not be required if the CONTRACTOR has no employees and certifies to this fact by initialing here _____

(2) Automobile Liability Insurance for each of CONTRACTOR'S vehicles used in the performance of this Agreement, including owned, non-owned (e.g. owned by CONTRACTOR'S employees), leased or hired vehicles, in the minimum amount of \$500,000 combined single limit per occurrence for bodily injury and property damage. This insurance coverage shall not be required if vehicle use by CONTRACTOR is not a material part of performance of this Agreement and CONTRACTOR and COUNTY both certify to this fact by initialing here _____.

(3) Comprehensive or Commercial General Liability Insurance coverage in the minimum amount of \$1,000,000 combined single limit, including coverage for: (a) bodily injury, (b) personal injury, (c) broad-form property damage, (d) contractual liability, and (e) cross-liability.

(4) Professional Liability Insurance in the minimum amount of \$1,000,000 combined single limit, if, and only if, this Subparagraph is initialed by CONTRACTOR and COUNTY & J / _____.

i f -

B. Other Insurance Provisions

(1) If any insurance coverage required in this Agreement is provided on a "Claims Made" rather than "Occurrence" form, CONTRACTOR agrees to maintain the required coverage for a period of three (3) years after the expiration of this Agreement (hereinafter "post agreement coverage") and any extensions thereof CONTRACTOR may maintain the required post agreement coverage by renewal or purchase of prior acts or tail coverage. This provision is contingent upon post agreement coverage being both available and reasonably affordable in relation to the coverage provided during the term of this Agreement. For purposes of interpreting this requirement, a cost not exceeding 100% of the last annual policy premium during the term of this Agreement in order to purchase prior acts or tail coverage for post agreement coverage shall be deemed to be reasonable.

(2) All required Automobile and Comprehensive or Commercial General Liability Insurance shall be endorsed to contain the following clause:

"The County of Santa Cruz, its officials, employees, agents and volunteers are added as an additional insured as respects the operations and activities of, or on behalf of, the named insured performed under Agreement with the County of Santa Cruz."

(3) All required insurance policies shall be endorsed to contain the following clause: "This insurance shall not be canceled until after thirty (30) days prior written notice has been given to:

BILL WILLIAMSON
COUNTY OF SANTA CRUZ PUBLIC WORKS
701 OCEAN STREET, ROOM 410
SANTA CRUZ, CA 95060.

(4) CONTRACTOR agrees to provide its insurance broker(s) with a full copy of these insurance provisions and provide COUNTY on or before the effective date of this Agreement with Certificates of Insurance for all required coverages. All Certificates of Insurance shall be delivered or sent to:

BILL WILLIAMSON
COUNTY OF SANTA CRUZ PUBLIC WORKS
701 OCEAN STREET, ROOM 410
SANTA CRUZ, CA 95060

7. EQUAL EMPLOYMENT OPPORTUNITY. During and in relation to the performance of this Agreement, CONTRACTOR agrees as follows:

A. The CONTRACTOR shall not discriminate against any employee or applicant for employment because of race, color, religion, national origin, ancestry, physical or mental disability, medical condition (cancer related), marital status, pregnancy, sex, sexual orientation, age (over 18), veteran status or any other non-merit factor unrelated to job duties. Such action shall include, but not be limited to the following: recruitment; advertising; layoff or terminate; rates of pay or other forms of compensation; and selection for training (including apprenticeship), employment, upgrading, demotion and transfer. The CONTRACTOR agrees to post in conspicuous places, available to employees and applicants for employment, notice setting forth the provisions of this non-discrimination clause.

B. If this Agreement provides compensation in excess of \$25,000 to CONTRACTOR the CONTRACTOR shall, in all solicitations or advertisements for employees placed by or on behalf of the CONTRACTOR, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, ancestry, physical or mental disability, medical condition (cancer related), marital status, pregnancy, sex, sexual orientation, age (over 18), veteran status or any other non-merit factor unrelated to job duties.

C. The CONTRACTOR shall comply with the Federal Disadvantaged Business Enterprises (DBE) Consultant Contract Requirements as outlined in Attachment No. 2.

(1) The CONTRACTOR shall furnish COUNTY Affirmative Action Office information and reports in the prescribed reporting format (PER 40 12) identifying the sex, race, physical or mental disability and job classification of its employees and the names, dates and methods of advertisement and direct solicitation efforts made to subcontract with Minority/Women/Disabled Business Enterprises.

(2) In the event of the CONTRACTOR'S non-compliance with the non-discrimination clauses of this Agreement or with any of the said rules, regulations, or orders said CONTRACTOR may be declared ineligible for further agreements with the COUNTY.

D. The CONTRACTOR shall cause the foregoing provisions of Subparagraphs 7B. and 7C. to be inserted in all subcontracts for any work covered under this Agreement by a subcontractor compensated more than \$25,000, provided that the foregoing provisions shall not apply to contracts or subcontracts for standard commercial supplies or raw materials.

8. INDEPENDENT CONTRACTOR STATUS. CONTRACTOR and COUNTY have reviewed and considered the principal test and secondary factors below and agree that CONTRACTOR is an independent contractor and not an employee of COUNTY. CONTRACTOR is responsible for all insurance (worker's compensation, unemployment, etc.) and all payroll related taxes. CONTRACTOR is not entitled to any employee benefits. COUNTY agrees that CONTRACTOR shall have the right to control the manner and means of accomplishing the result contracted herein.

PRINCIPAL TEST: The CONTRACTOR rather than COUNTY has the right to control the manner and means of accomplishing the result contracted for.

SECONDARY FACTORS: (a) The extent of control which, by agreement, COUNTY may exercise over the details of the work is slight rather than substantial; (b) CONTRACTOR is engaged in a distinct occupation or business; (c) In the locality, the work to be done by CONTRACTOR is usually done by a specialist without supervision, rather than under the direction of an employer; (d) the skill required in the particular occupation is substantial rather than slight; (e) The CONTRACTOR rather than the COUNTY supplies the instrumentalities, tools and work place; (f) The length of time for which CONTRACTOR is engaged is of limited duration rather than indefinite; (g) The method of payment of CONTRACTOR is by job rather than by time; (h) The work is part of a special or permissive activity, program, or project, rather than part of the regular business of COUNTY; (i) CONTRACTOR and COUNTY believe they are creating an independent contractor relationship rather than an employer-employee relationship; and (j) the COUNTY conducts public business.

It is recognized that is not necessary that all secondary factors support creation of an independent contractor relationship, but rather that overall there are significant secondary factors which indicate that CONTRACTOR is an independent contractor.

By their signatures to this Agreement each of the undersigned certifies that it is his or her considered judgement that the CONTRACTOR engaged under this Agreement is in fact an independent contractor.

9. CONTRACTOR represents that its operations are in compliance with applicable County planning, environmental and other laws or regulations.

10. COST PRINCIPLES. Code of Federal Regulations (CFR) 48 Chapter 1, Part 3 1 shall be used to determine the allowability of the individual items of cost. The contractor agrees to comply with federal procedures in accordance with CFR 49, Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments. Any costs for which payments have been made to the contractor, which are determined by subsequent audit to be unallowable under CFR 48, Chapter 1 Part 3 1, are subject to repayment by the contractor to the County of Santa Cruz, the State and the Federal Government. Any subcontract, entered into as a result of this contract, shall contain all of the provisions of this article.

11. NON-ASSIGNMENT. CONTRACTOR shall not assign this Agreement without the prior written consent of the COUNTY.

12. RECORD RETENTION AND AUDIT. CONTRACTOR shall retain records pertinent to this Agreement for a period of not less than five (5) years **after** final payment under this Agreement or until a final audit report is accepted by COUNTY, State and the Federal Highway Administration, or their duly authorized representatives, whichever occurs first. CONTRACTOR hereby agrees to be subject to the examination and audit by the Santa Cruz County Auditor-Controller, the Auditor General of the State of California, the Federal Highway Administration or the designee of either for a period of five (5) years **after** final payment under this Agreement. Any subcontract entered into as a result of this contract shall contain all of the provisions of this Article.

13. PRESENTATION OF CLAIMS. Presentation and processing of any or all claims arising out of or related to this Agreement shall be made in accordance with the provisions contained in Chapter 1.05 of the Santa Cruz County Code, which by this reference is incorporated herein.

14. COVENANT AGAINST CONTINGENT FEES. The CONTRACTOR warrants that he/she has not employed or retained any company or person, other than a bona fide employee working for the CONTRACTOR to solicit or secure this agreement, and that he/she has not paid or agreed to pay any company or person, other than a bona fide employee, any fee, commission, percentage, brokerage fee, **gift**, or any other consideration, contingent upon or resulting from the award or formation of this agreement. For breach or violation of this warranty, the COUNTY shall have the right to annul this agreement without liability, or at its discretion to deduct from the agreement price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, **gift**, or contingent fee.

15. DESIGN STANDARDS. The CONTRACTOR shall conform with standards for design as required by the COUNTY, State of California and the Federal Highway Administration. All documents required under this Agreement, including but not limited to plans, specifications, estimates, reports and investigations, shall be prepared in accordance with guidelines established by the COUNTY, State of California and the Federal Highway Administration.

16. OWNERSHIP OF DOCUMENTS. All tracings, plans, specifications and maps prepared or obtained under the terms of this agreement shall be delivered to and become the

property of the COUNTY. Basic survey notes and sketches, charts, computations and other data prepared or obtained under this agreement shall be made available, upon request, to the COUNTY without restriction or limitation on their use. The COUNTY shall not reuse or make any modification to the plans and specifications without the prior written authorization of the CONTRACTOR.

17. CHANGES IN WORK. Changes in work shall be set forth in a supplemental agreement which shall specify, in addition to the work to be done in connection with the changes made, adjustment of contract time, if any, and the basis of compensation for such work. A supplemental agreement shall not become effective until approved by the COUNTY. When compensation for an item of work is subject to adjustment, the CONTRACTOR shall, upon request, furnish the COUNTY with adequate detailed cost data for such item of work.

18. DELAYS AND EXTENSIONS. If work called for under the agreement is not finished within the specified time period, the COUNTY may extend the period of the contract. The COUNTY may charge the CONTRACTOR for overhead expenses which are directly chargeable to the contract and accrue during the extension. The CONTRACTOR shall notify the COUNTY of any delays, in writing, within 15 days of the beginning of any delay. The CONTRACTOR shall have no claim for damage or compensation for any delay unless otherwise agreed to by the COUNTY.

19. SUBCONTRACTORS, ASSIGNMENT AND TRANSFER. The 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 the County of Santa Cruz's Contract Manager, except that which is expressly identified in the Contractor's Cost Proposal. Any subcontract in excess of \$25,000, entered into as a result of this contract, shall contain all the provisions stipulated in this contract to be applicable to subcontractors. Any substitution of subcontractors must be approved in writing by the County of Santa Cruz's Contract Manager.

20. CONTRACTOR'S ENDORSEMENT OF PS&E AND OTHER DATA. The responsible CONTRACTOR shall sign all plans, specifications, estimate, PS&E and engineering data furnished by him/her and where appropriate, indicate his/her registration number.

21. GOVERNMENT CODE SECTION 7550. The CONTRACTOR shall be subject to the following part of Government Code Section 7550 concerning required notice on any documents or written reports that he/she has prepared:

"Any document or written report prepared for or under the direction of the State or Local Agency, which is prepared in whole or in part by non-employees of such Agency, shall contain the numbers and dollar amounts of all contracts and subcontracts relating to the preparation of such document or written report; provided, however, that the total cost for work performed by non-employees of the agency exceeds five thousand dollars (\$5,000). The contract and subcontract numbers and dollar amounts shall be contained in a separate section of such document or written report..."

'When multiple documents or written reports are the subject or product of the contract, the disclosure section may also contain a statement indicating that the total contract amount represents compensation for multiple documents or written reports.'

22. CERTIFICATION BY CONTRACTOR AND BY COUNTY. At the time of execution of this agreement, the CONTRACTOR shall execute Attachment No. 3, "Certification of Consultant" and the COUNTY shall execute Attachment No. 4, "Certification of Local Agency."

23. ATTACHMENTS. This Agreement includes the following attachments:

Attachment No. 1 - Scope of Work

Attachment No. 2 - Disadvantaged Business Enterprises (DBE) Consultant Contractor Requirements

Attachment No. 3 - Certification by Consultant

Attachment No. 4 - Certification by Local Agency

Attachment No. 5 - Supplementary Requirements
Attachment No. 6 - Fringe Benefit

IN WITNESS WHEREOF, the parties hereto have set their hands the day and year first above written.


COUNTY OF SANTA CRUZ

By:

Director of Public Works

CONTRACTOR
EMCON

By:




Address: 4233 WEST SIERRA MADRE
SUITE 210
FRESNO, CA 93722

Telephone: (209) 275-4968

APPROVED AS TO FORM:

By:  9-8-98

 Assistant Chief County Counsel

DISTRIBUTION: Auditor-Controller
Risk Management
Contractor
Public Works



EMCON

4233 W. Sierra Madre • Suite 210 • Fresno, California 93722-3995 • (209) 275-4968 • Fax (209) 275-5181

P. 1 of 162

September 3, 1998
Project 92098-060.013

Mr. John A. Fantham
Director of Public Works
Department of Public Works
County of Santa Cruz
701 Ocean Street
Santa Cruz, California 95060-4070

Re: Transmittal of Information for Amesti Road Landslide Dewatering Program

Dear Mr. Fantham:

EMCON is pleased to submit the attached cost estimate and scope of work for the Amesti Road Landslide dewatering program. The work is divided into three phases consisting of 1) groundwater and landslide investigation; 2) groundwater extraction program design; and 3) groundwater monitoring and training. The costs for each of the tasks and subtasks in each of these three phases is attached. We have also included the base rate and multiplier data for each position for the project team. This is presented for EMCON and Cotton, Shires & Associates. In addition, EMCON's 1998 *Schedule of Charges* is attached.

Sincerely,

EMCON

Steve Strait, C.H.G.
Geosciences Manager

Attachments





Effective January 1, 1998

EMCON 1998 SCHEDULE OF CHARGES

PERSONNEL CHARGES

Travel time will be charged in accordance with the agreed upon rates, up to a maximum of 8 hours per day.

OUTSIDE SERVICES

Charges for special outside services, equipment, and facilities not furnished directly by EMCON will be billed at cost plus 10%. Such charges may include, but shall not be limited to the following services:

Printing and photographic reproduction	Rental and operation of drilling equipment
Rented vehicles	Rented field equipment
Transportation on public carriers	Shipping charges
Subconsultants	Meals and lodging
Special fees, permits, insurance, etc.	Consumable materials

COMMUNICATIONS

The cost of communications including telephone charges, facsimile, express mail, postage and routine copying costs will be charged at a flat rate of 3% of total gross labor charges.

DIRECT CHARGES

Reproduction - black and white, per sheet (non-routine).....	\$ 0.10
Reproduction - color, per sheet.....	\$ 1.25
Blueprints, per square foot.....	\$ 0.25
Mylar, per square foot.....	\$ 2.00
Auto per mile	\$0.3 15
Pickup truck per mile.....	\$0.3 15
Storage of samples per month per container*	\$ 5.00
Disposal per container*	\$50.00
CADD Laser Plots: Vellum, per square foot	\$ 1.00
CADD Laser Plots: Mylar, per square foot.....	\$ 2.00

*A container is defined as a standard core box, a capped Shelby tube or a sealed five-gallon bucket.



COMPUTER CHARGES

CADD/Modeling..... \$15.00/hr.

SUPPLEMENTAL SCHEDULES OF CHARGES (Schedules available upon request)

- Soils Laboratory
- Chemical Laboratory
- Chargeable Equipment Schedule

Rate Changes

Schedule of Charges and Standard Equipment Rates shall not change during the life of the contract.

Payment

Monthly invoices are to be paid within 30 days from invoice date. Interest on late payments will be charged at a rate of 18% per annum.

Page I of I

Expiration Date

Consultant	EMCON
-------------------	-------

34

Expiration Date**Contract No.**

Cotton, Shires and Associates, Inc.

Consultant

	Fringe Benefit %		Overhead %		General Administration %		Combined %
NORMAL	Inc. w/ overhead		200%		Inc.		200%
OVERTIME	N/A	+	N/A	+	N/A	=	0%

[illegible]

1. List individuals by name, the proposed hourly rate and the effective dates for the listed rates.
2. **All** proposed fringe benefits, overhead and general administrative percentages and hourly rates are subject to negotiation prior to approval of the contract.
3. When Task Orders are written, the individuals and their approved hourly rates for the time period of the Task Order shall be used.
4. To use unlisted personnel, he/she must be approved by the Contract Manager and their hourly rates must be agreed to prior to the start of work by the unlisted personnel.
5. Attach a schedule of direct cost items which are not included in overhead and which are anticipated for this contract, with current actual costs per unit.
(These will be paid for at their actual cost, without and markup or fee.)

Table 1
Cost Estimate for Storm Damage Investigation
Amesti Road Site

<i>Description</i>	<i>Detail Total</i>	<i>Subtask Total</i>	<i>Task Total</i>	<i>Phase Totals</i>	<i>Project Total Phases I, II, and III</i>
Phase I Groundwater and Landslide Investigation					
Task 1 Prepare Workplan			\$3,865		
Task 2 Groundwater Investigation					
Subtask 2.1 Prefield Activities		\$3,609			
Subtask 2.2 Initial Well Installation and Sampling		\$7,596			
Subtask 2.3 Installing and Sampling Eight Additional Wells		\$39,917			
Subtask 2.4 Well Surveying		\$2,500			
Subtask 2.5 Groundwater Sampling		\$2,728			
Subtask 2.6 Laboratory Analysis		\$4,070			
Subtask 2.7 Hydraulic Testing		\$23,096	\$83,516		
Task 3 Landslide Investigation					
Subtask 3.1 Prepare Topographic Base Map		\$9,151			
Subtask 3.2 Evaluate Aerial Photographs		\$1,546			
Subtask 3.3 Conduct Surface Mapping and Profiling		\$6,655			
Subtask 3.4 Subsurface Landslide Investigation					
Subtask 3.4.1 Install Nine Large Diameter (26") Borings	\$80,294				
Subtask 3.4.2 Convert 5 of 9 Large Diameter (26") Borings into 4" Monitoring Wells	\$29,233				
Subtask 3.4.3 Backfill 4 of 9 Large Diameter (26") Borings with Sand-Cement Grout	\$12,536				
Subtask 3.4.4 Install Eight Inclinometers	\$22,776	\$144,839			
Subtask 3.5 Laboratory Testing		\$4,940			
Subtask 3.6 Slope Stability Analysis and Monitoring					
Subtask 3.6.1 Slope Stability Analysis	\$5,386	\$5,386	\$172,517		
Task 4 Data Evaluation			\$7,547		
Task 5 Prepare Technical Report			\$10,210		
3% Communication Fee			\$3,292		
				\$280,947	
Phase II Groundwater Extraction System					
Task 1 Prepare Workplan			\$2,481		
Task 2 Design Groundwater Extraction System			\$12,037		
Task 3 Prefield Activities			\$2,692		
Task 4 Install Groundwater Extraction System			\$201,479		
Task 5 Well Surveying			\$4,000		
Task 6 System Performance Evaluation and Report Preparation			\$6,531		
3% Communication Fee			\$1,316		
				\$230,536	
Phase III Groundwater Monitoring Program					
Task 7 Groundwater Monitoring and Training			\$8,401		
Task 8 Slope Stability Monitoring (1 Year) Using Eight Inclinometers			\$29,400		
3% Communication Fee			\$1,102		
				\$38,903	
					\$550,386

1 SCOPE OF WORK

Phase I - Groundwater and Landslide Investigation

The scope of work is presented in three phases. Phase 1 includes an investigation of both the geologic and groundwater conditions beneath the landslide and the residential area near the intersection of Crow Avenue and Amesti Road. An assessment will be made of the hydrogeologic continuity between these two areas, and the relationship of groundwater levels to slope instability. Following completion of site assessment activities, a technical report will be prepared that will include pertinent illustrations that includes a comprehensive characterization of the surface and subsurface conditions and a detailed analysis of the critical parameters controlling slope instability. Based on information from the Phase 1 study, a groundwater extraction program will be designed or in the event such is not economically practicable, alternative stabilization options in Phase 2 will be provided at the client's request. Phase 3 will consist of a monitoring program to assess the effectiveness of the groundwater extraction, or other alternative, program. The following is a detailed description of the tasks to achieve the scope of work.

Task 1 Prepare Work Plan

A work plan will be prepared before implementing the field program. The work plan will describe the methodology and purpose of each task for both the groundwater and landslide investigations (Tasks 1 and 2). It will provide locations for each groundwater monitoring well and the large diameter boreholes for the geotechnical evaluation of the landslide. To prepare the work plan, EMCON and Cotton, Shires, and Associates (CSA) will review all relevant geologic, geotechnical, and hydrogeologic data in the area of the landslide. Sources of background information include the County of Santa Cruz, U.S. Geologic Survey, Regional Water Quality Control Board, the California Department of Water Resources, and previous site reports and correspondence. As part of the work plan, EMCON and CSA will prepare a Health and Safety Plan (HASP) that will fulfill the requirements of Cal-OSHA Hazardous Communication Standard (8 CCR 5194). The HASP will be submitted to the County of Santa Cruz and the Local Enforcement Agency (LEA) for concurrent review.

Task 2 Groundwater Investigation

Subtask 2.1 Prefield Activities. EMCON and CSA will visit the site to confirm well and borehole locations and to stake the locations. Underground Services Alert will be notified to check the drilling locations for underground utilities. In addition, EMCON will contact the City of Watsonville Public Works Department and the County of Santa Cruz Public Works Department to ensure that no utilities are located in the area of the proposed borings. A traffic control permit will also be obtained from the appropriate agency before commencement of field work. We will also meet with County of Santa Cruz personnel to determine the location of threatened and endangered species, if any. Before drilling, a permit to install nine groundwater monitoring wells and nine large-diameter boreholes will be obtained from the County of Santa Cruz.

To assess the hydrogeologic regime of the residential area that is located upgradient of the landslide, and of the landslide itself, EMCON and CSA propose to install four groundwater monitoring wells in public right-of-way areas of the residential area and four groundwater monitoring wells within the landslide area. The following describes the tasks for groundwater investigation.

Subtask 2.2 Initial Well Installation. To obtain preliminary information concerning the chemical and hydraulic characteristics of groundwater beneath the residential area of the site that is located upgradient of the landslide, a 4-inch-diameter groundwater monitoring well will be installed along Crow Avenue (Figure 1). Installation of the groundwater monitoring well will be conducted by Maggiora Bros., Inc., a C-57 state-licensed drilling contractor using truck-mounted, nominal 12-inch-diameter, hollow-stem augers. To minimize the possibility of contamination from previous drilling activities, all down-hole equipment including augers, samplers, and brass tubes will be steam cleaned prior to arrival on site and between boring locations.

For lithologic logging purposes, 1-inch or 5-foot-long soil core samples will be continuously collected from the boring with the use of a California modified split-spoon sampler. Drilled cuttings and core samples will be used to classify the type of soil encountered by the boring using the *Unified Soil Classification System* and generally accepted geologic interpretive descriptions.

The maximum drilling depth of the boring for the proposed monitoring well is estimated to be approximately 75 feet. The actual depth of the boring, however, will be based on the actual depth to groundwater and the lithologic conditions of subsurface materials.

The groundwater monitoring well will be completed with 4-inch-diameter polyvinyl chloride (PVC) flush threaded casing and screen. The screen portion of the well will be machine slotted with 0.020 inch wide slots, and will consist of a 30-foot-long screen interval. The basis for the as built well design will depend on the depth to groundwater

and subsurface materials, and the knowledge in the residential area that septic wells in the site area are completed to a depth of 50 to 60 feet below ground surface.

The annular space between the screened interval will be backfilled with a Monterey No. 3 gravel pack material, and the blank casing portions of the well will be backfilled with hydrated bentonite chips and cement grout having 5 percent bentonite by weight. The gravel pack material, which will be extended approximately 3 to 5 feet above each screened interval, and the bentonite/grout seal will be placed with the use of a tremie pipe to minimize the risk of voids. The surface completion of the monitoring well will consist of a flush mounted, 12-inch-diameter, traffic-rated Christy box.

After allowing the grout seal in the monitoring wells to set, EMCON will develop the well with the use of a surge block and bailer to remove fine sediments accumulated during construction and to enhance the hydraulic efficiency of the well. Development will proceed until the water being produced from the well is relatively clear and free of sediment. During well development, groundwater field parameters consisting of pH, specific conductance, and temperature will be monitored with field instruments. Water removed during well development will not be contained.

Following well completion, the initial monitoring well will be sampled using procedures and protocols provided below in Subtask 2.5. The collected sample will then be submitted to Columbia Analytical Services (CAS) laboratory of San Jose, California for analysis of constituents of concern presented below in Subtask 2.6. CAS is accredited by the E-Lab accreditation program of the California Department of Toxic Substances Control.

Results of sampling the initial well will be conveyed to Santa Cruz County immediately following data analysis. If the water chemistry results appear to be unfavorable for potential large volume discharges of such waters to Corralitos Creek, a water sample of Corralitos Creek water will be obtained. Results of the Corralitos Creek water sample will be compared against that of the water sample from the initial well. Results of this comparison will be provided to Santa Cruz County in an interim letter report.

Subtask 2.3 Installing and Sampling Eight Additional Wells. Based on water quality results from the installation of the initial well and from preliminary results of the landslide investigation eight additional monitoring wells will be installed at the site. Five of the monitoring wells will be installed in the residential area and four will be installed in the landslide area (Figure 2). The procedures and protocols to be used for the well installations will be the same as that presented above in Subtask 2.2.

Subtask 2.4 Well Surveying. Following completion of the monitoring wells, the locations of these wells, in relationship to existing benchmarks, structures, and to each other, will be surveyed by Mid-Coast Engineers, 70 Penny Lane, Suite A, Watsonville, CA 95076 (a state-licensed surveyor). The surveyor will determine the elevation of the top of

each new monitoring well casing, which will be used a reference point for assessing the elevation of groundwater at each of the well locations.

Subtask 2.5 Groundwater Sampling. Groundwater samples will be collected from each of the newly installed groundwater monitoring wells. Before sampling of each well, however, the wells will be purged of at least three well casing volumes with the use of a 2-inch-diameter Grundfos Redi-Flow® submersible pump. Purging will proceed until field parameters consisting of pH, electrical conductivity (EC), temperature, and turbidity have stabilized. Stable field parameters indicate that water representative of the formation is entering the well.

After purging the monitoring wells, the submersible pump will be removed and the monitoring wells will be sampled with the use of a disposable Teflon® bailer attached to single use nylon line. Groundwater samples collected for metals analysis will be field filtered before placement in samples bottles. The remaining samples will be placed directly into sample bottles which will be provided by the analytical laboratory. All sample bottles will be labeled with the well number, date, and time, and placed in an ice chest cooled with frozen gel packs to maintain a temperature of approximately 4°C. Following collection, the samples will be delivered under chain-of-custody procedures to CAS.

Subtask 2.6 Laboratory Analysis. In addition to the monitoring parameters (pH, EC, temperature, turbidity, odor, and color) that will be obtained during sample collection, the samples will be submitted to CAS for analysis of general minerals, total nitrate as NO₃, and CAM 17 metals.

Subtask 2.7 Hydraulic Testing. Hydraulic tests consisting of slug tests, step-drawdown tests, and constant-discharge pumping tests will be conducted on some of the nine groundwater monitoring wells that will be installed at the site. The purpose of these tests is to assess the hydraulic characteristics (transmissivity, hydraulic conductivity, and storativity) of the water bearing unit beneath the subject site. Slug tests will be performed on all the wells and step-drawdown and constant-discharge pumping tests will be conducted in one well from the residential area and one well from the landslide area. The slug test will be performed by lowering or withdrawing a closed metal cylinder from the well. During the test, the water levels will be monitored as the water level returns to its pre-test level. Water level measurements will be measured with a pressure transducer and recorded on a Hermit datalogger.

Step-drawdown tests will be conducted with the use of appropriate pumping equipment to assess the approximate maximum discharge rate at which a test well can be pumped over a 24 hour period. Based on the step-drawdown test, a constant-discharge pumping test will be conducted for at least 24 hours or until the cone of depression reaches near steady-state conditions. Upon stopping the pump, recovery water levels will be monitored for at least

the duration of the pumping phase or until groundwater levels have reached 95 percent of the pre-pumping levels. If feasible, water discharged from the well will not be contained and will be allowed to drain into the street's storm drainage system. Should such not be possible or practical, an appropriate size portable tank will be used to contain the pumped water. During these tests, the water level in the pumping well and nearby observation wells will be monitored with a pressure transducer and recorded on a Hermit datalogger.

Task 3 Landslide Investigation

The purpose of the landslide investigation is to: a) characterize the three-dimensional limits of the active and ancient landslide along Amesti Road; b) determine the critical parameters controlling landslide movements; and c) evaluate the impacts of additional landslide movements with respect to the subdivision upslope. Combining the data gathered within the landslide to that gathered upslope within the subdivision will provide a basis with which to evaluate the relationship between groundwater levels in both areas to slope instability. The results of this evaluation will provide a framework for designing a groundwater extraction program.

Subtask 3.1 Prepare Topographic Base Map. A topographic base map will be generated that will incorporate the established County of Santa Cruz survey data for the site. CSA has in-house surveyors with total station surveying capability and the necessary surveying computer programs to combine all available data. The base map will be used as a comparison to the existing 1995 base map and to help constrain recent rates of landslide movement, upslope migration of the landslide, and direction of movement vectors. To prepare the topographic base map, aerial photographs of the site will be made with contracted aerial services. In addition, a review of recent aerial photographs will be conducted to provide topographic data.

Subtask 3.2 Evaluate Aerial Photographs. Historical and recent aerial photographs will be obtained and analyzed with a stereoscope to evaluate the changes in landslide shape and movement over time to help establish a pattern of movement behavior. EMCON and CSA will have the site flown to obtain current data, and will also obtain recent aerial photographs of the site to provide topographic control.

Subtask 3.3 Conduct Surface Mapping and Profiling. CSA will develop original, detailed, site specific geologic and aerial photogeologic maps and cross sections which will be essential for the analysis of the stability of the site slopes. Of particular importance is the identification of the limits of the ancient landslide, which may control the upslope migration of the landslide, as well as impact local and regional groundwater characteristics.

In addition, CSA will conduct distress mapping of the subdivision prior to our investigation to document the current conditions of the subdivision. This task will be performed using video documentation and mapping of distress on the topographic base map. This information will provide a baseline distress level for use by the County if the residents levee future claims against the County.

Subtask 3.4 Subsurface Landslide Investigation. The purpose of the landslide investigation is to relate the geologic and hydrogeologic conditions of the landslide to those beneath the residential subdivision. The landslide investigation is essential to determining the effectiveness of a dewatering program's impact on the stability of the ground beneath the residential area. To assist in this investigation the following subtasks will be completed.

Subtask 3.4.1 Install Nine Large Diameter (26 inch) Borings. With the assistance of a state-licensed drilling contractor, CSA will install nine 26-inch-diameter exploratory borings that will be downhole-logged in detail by a California-certified engineering geologist, and sampled to investigate the subsurface conditions and groundwater characteristics within the existing landslide. At least two of the large-diameter boreholes will be located outside and upslope of the landslide area in the vicinity of the subdivision located along Crow Avenue.

Subtask 3.4.2 Converting Five of Nine Large Diameter Borings into 4-Inch-Diameter Wells. Following logging and sampling of the nine large diameter borings, five of these borings will be converted into groundwater monitoring/dewatering wells for evaluating the groundwater regime. The wells will be completed with 4-inch-diameter steel casing and screen to minimize the risk of well collapse from hydrostatic pressures of well grouting and from heat generated during curing of the cement grout seal.

Subtask 3.4.3 Backfilling Four of Nine Large Diameter Borings. Four of nine large diameter exploratory borings will be destroyed by backfilling with a 10 sack cement-sand grout mixture that will be mixed with potable water at a local cement batching plant. In all cases the grout will be slowly placed into the borehole from the surface in a manner that will not create voids or spaces. After the grout has been placed, the borehole will be covered and secured for health and safety purposes until the grout has cured overnight.

Subtask 3.4.4 Install Eight Inclinometers. Eight 8 small-diameter boreholes will be installed for the exclusive purpose of establishing slope monitoring stations (inclinometers) within the landslide and within the subdivision. The purpose of these monitoring stations is to determine the depth of landslide movement, the movement direction, the rate of movement, and the relative rates of movement between different portions of the landslide and the subdivision. These monitoring stations will provide critical data to determine the effectiveness of the dewatering system. We will equip two of these boreholes (within the subdivision) with settlement monitoring devices that will

provide data to document whether the groundwater pumping program has induced settlement.

Subtask 3.5 Laboratory Testing. Representative samples from the field exploration program will be tested for index and strength properties to provide critical data for slope stability analysis. Representative samples from the field exploration program will be tested for index and strength properties to provide critical data for slope stability analysis. Specifically, direct shear testing, Atterberg limits tests, and density testing. Determining the strength of the surface that is controlling landslide movements, or “slide plane”, and constraining the density of the landslide materials, combined with the 3-dimensional control of the landslide shape, will allow us to “back out” the groundwater levels which initiate landslide movements.

Subtask 3.6 Slope Stability Analysis and Monitoring.

Subtask 3.6.1 Slope Stability Analysis. CSA will perform slope stability analysis using state of the art computer programs which will incorporate the results of the laboratory testing and subsurface exploration. This analysis is imperative for determining the parameters controlling movement of the existing landslide, and applying these parameters to the ground beneath the residential area. As a result of these analyses, critical groundwater thresholds controlling slope movement can be established for the ground beneath the residential area so that the dewatering program has a specific goal (i.e. a target groundwater elevation for effective landslide control as well as groundwater levels not to be exceeded).

Subtask 3.6.2 Slope Stability Monitoring (1 Year). Monitoring the inclinometers and piezometers during the time interval between the end of Phase I and the initiation of the groundwater pumping program is critical for the understanding of the subsurface characteristics leading to landsliding. Consequently field instruments will be read once per month and during periods of heavy rainfall. We can train County staff at this time for eventual takeover of these tasks during Phase III.

Task 4 Data Evaluation

All of the site data gathered during the investigation will be assessed for hydrogeologic relationships and interaction of these conditions with movements of the Amesti Road landslide. The information obtained from this data will be summarized in a report as described below.

Task 5 Prepare Technical Report

EMCON and CSA will prepare a technical report and appropriate illustrations to summarize the findings of our groundwater and landslide investigation. The report will contain a detailed description of our investigative procedures. It will also contain an engineering geologic and hydrogeologic assessment of the site conditions, the relationship of the subsurface conditions in the landslide to the conditions beneath the residential area, and provide recommendations for design of a groundwater extraction program or alternative solutions.

Phase 2 - Groundwater Extraction Program Design

Phase 2 of the Amesti Road project consists of installing a groundwater extraction program that will be based on findings from Phase 1. Phase 3 will consist of two parts: monitoring groundwater and monitoring the landslide for slope stability with the use of on-site inclinometers. The following is a detailed description of the tasks to achieve the stated scope of work.

Task 1 Prepare Work Plan

A work plan will be prepared before implementing the construction and field program. The work plan will describe the objectives of each task to be completed for constructing a groundwater extraction system at the Amesti Road site. It will provide a locations for each groundwater extraction well to be installed, the piping that will be required and permits that will need to be obtained before construction activities are conducted.

Task 2 Design Groundwater Extraction System

Based on preliminary information that will be contained in the work plan that will be approved by Santa Cruz County, EMCON will design a groundwater extraction system that will be designed to assist in stabilizing the Amesti Road landslide. The groundwater system will consist of approximately 20 extraction wells that will be installed during Phase 2 and some of the wells that will be installed during Phase 1 of the project. The wells will be connected to a common header so that water can be discharged into Corralitos Creek (with approval from all appropriate regulatory agencies). The wells will contain electrical submersible pumps, low and high water switches, and a control panel. A totalizing flow meter and sampling ports will be installed along strategic areas of the system. Where feasible and unobtrusive, the common header discharge pipe will be located above ground for ease of maintenance and for cost reductions. Where such is not feasible, the discharge pipe will be buried in trenches.

Task 3 Prefield Activities

Before conducting any digging at the site, Underground Services Alert will be notified to check the drilling and trenching locations for underground utilities. In addition, EMCON will contact the County of Santa Cruz Public Works Department to ensure that no utilities are located in the area of the proposed borings or trenches. Appropriate permits will be obtained from all regulatory agencies before conducting field activities. This task also includes obtaining competitive cost estimates from prospective contractors that will be performing site work. A traffic control permit will also be obtained from the appropriate agency before commencement of field work

Task 4 Install Groundwater Extraction System

Based on the design of the groundwater extraction system that will be submitted for approval by Santa Cruz County, EMCON will procure contractors for installation of the groundwater extraction system. Where feasible, contractors from within Santa Cruz County will be used for the project provided such contractors are experienced, licensed, and have appropriate insurance covering their employees.

Task 5 Well Surveying

Following construction of the extraction system, Mid-Coast Engineers, a state-licensed surveyor, will be contracted for surveying all of the site extraction wells. The information obtained from the surveyor (northings, eastings, and elevations) will be documented for subsequent appropriate use by Santa Cruz County.

Task 6 System Performance Evaluation and Report Preparation

After its construction, the groundwater extraction system will be evaluated to assess its efficacy in dewatering the landslide area. Results of the evaluation will be presented to Santa Cruz County in an interim report basis. The report will contain findings and recommendations for modifications of the system if such is necessary.

Phase III - Groundwater Monitoring and Training

Task 7 Groundwater Monitoring and Training

Once the groundwater extraction system is operational, EMCON will train Santa Cruz County personnel in the methods, protocols, and procedures that will be needed to

monitor the operation of the groundwater extraction system. Such monitoring will include collecting water level measurements in pumping wells, monitoring wells, and observing the condition of all discharge piping including any evidence of breakage. The personnel will also be trained in making routine adjustments to control flow rates in pumps should such be required.

Task 8 Slope Stability Monitoring

An important part of the project is routine monitoring of the inclinometers that will be placed in several borings at the site. Routine monitoring is important in order to assess the character of movement of the landslide, particularly during rainfall events. Cotton Shires and Associates will read the on-site instruments at least once per month and during periods of heavy rainfall. Santa Cruz County personnel will subsequently be trained in taking over this task.

**DISADVANTAGED BUSINESS ENTERPRISE (DBE)
CONSULTANT CONTRACT REQUIREMENTS**

The provisions of Title 49, Part 23, Code of Federal Regulations (49CFR 23) and Santa Cruz County's adopted DBE Program require that Disadvantaged Business Enterprises (DBEs) have the opportunity to participate in federally funded, transportation projects.

In order to meet these requirements, the following criteria have been established:

1. Participation by CALTRANS' certified DBEs as prime consultants or subconsultants in this contract or
2. A good faith effort by the prime consultant in trying to secure participation by DBEs prior to award of this contract. Documentation of a good faith effort will be submitted in writing and will consist of the following:
 - a) A list of CALTRANS' certified DBEs solicited.
 - b) Description of efforts to use the services of available minority community organizations; minority contractor groups; women contractor groups; and local, state, and federal minority business assistance centers in the recruitment and placement of DBEs including name of contact, date of contact, and information they provided.
 - c) Identification of the portions of the work to be performed by DBEs including type of work and dollar value.
 - d) Documentation of good faith negotiations between subcontractors and interested DBEs, including names and dollar values of all bids.

CERTIFICATION OF CONSULTANT

I HEREBY CERTIFY that I am the engineer and duly authorized representative of the firm of EMCON , whose address is 4233 WEST SIERRA MADRE, SUITE 210,, FRESNO, CA 93722, and that, except as hereby expressly stated, neither I nor the above firm that I represent have:

- (a) employed or retained for a commission, percentage, brokerage, contingent fee, or other consideration, any firm or person (other than a bona fide employee working solely for me or the above consultant) to solicit or secure this agreement; nor
- (b) agreed, as an express or implied condition for obtaining this contract, to employ or retain the services of any firm or person in connection with carrying out the agreement; nor
- (c) paid, or agreed to pay, to any firm, organization or person (other than a bona fide employee working solely for me or the above consultant) any fee, contribution, donation, or consideration of any kind for, or in connection with, procuring or carrying out this agreement.

I acknowledge that this Certificate is to be made available to the California Department of Transportation (CALTRANS) in connection with this agreement involving participation of federal aid highway funds, and is subject to applicable state and federal laws, both criminal and civil.

9/3/98

(Date)

EMCON

 (SIGNATURE OF CONSULTANT)

CERTIFICATION OF LOCAL AGENCY

I HEREBY CERTIFY that I am the Director of the Santa Cruz County Department of Public Works and that the consulting firm of EMCON or its representative has not been required (except as herein expressly stated), directly or indirectly, as an express or implied condition in connection with obtaining or carrying out this Agreement to:

- (a) employ, retain, agree to employ or retain, any firm or person; or
- (b) pay or agree to pay, to any firm, person or organization, any fee, contribution, donation, or consideration of any kind.

I acknowledge that this Certificate is to be made available to the California Department of Transportation (CALTRANS) in connection with this Agreement involving participation of federal aid highway funds, and is subject to applicable state and federal laws, both criminal and civil.

(Date)

JOHN A. FANTHAM, DIRECTOR
DEPARTMENT OF PUBLIC WORKS

**Phase 2, Task 4
Supplementary Requirements**

The following provisions shall apply to the construction of the groundwater extraction system as described in the "Scope of Work: Phase 2, Task 4 - Groundwater Extraction Program" only. Rates for remaining tasks shall be per "Schedule of Charges" and "On-Call Contract Cost Proposal - Project Team," as described in Attachment 1.

PREVAILING WAGE RATES AND APPRENTICESHIPS. The contractor and all subcontractor employees engaged on this project shall be compensated at or above the current prevailing wage rate determination issued by the Director of Industrial Relations. Copies of the applicable current prevailing wage rates are available upon request from the County of Santa Cruz Department of Public Works. A copy of the applicable current prevailing wage rates shall be posted at each job site.

Compliance with Section 1777.5 of the Labor Code, dealing with the employment of properly registered apprentices in all applicable occupations involved in the construction of this project, shall remain the responsibility of the Contractor.

CERTIFIED PAYROLL RECORDS, TRAVEL AND SUBSISTENCE PAYMENTS, AND WORKMAN'S COMPENSATION. Certified payrolls accompanied by Certificates of Compliance shall be submitted by both the Contractor and all subcontractors to the Engineer within (7) days of the end of the payroll period. Compliance with the stipulations outlined in Section 1776 of the Labor Code shall remain the responsibility of the Contractor.

Pursuant to Section 1773.8 of the Labor Code, the Contractor shall be required to pay travel and subsistence payments to each worker needed to execute the work, as such travel and subsistence are defined in the applicable collective bargaining agreements filed in accordance with said section.

In accordance with the provisions of Section 3700 of the Labor Code, the Contractor and all subcontractors will be required to secure the payment of worker's compensation to their employees.

The contractor will be required to furnish a fringe benefit statement for all trades to be employed on the project, which will be used to verify labor rates applied to force account work and for compliance with the prevailing wage payment requirement. A copy of the Fringe Benefit Statement form is included as Attachment 6 for the contractor's information.

JOHN A. FANTHAM
DIRECTOR OF PUBLIC WORKS

date

EMCON
7/8/78
date

CONTRACT NUMBER	FEDERAL NUMBER (IF APPLICABLE)	DATE		
CONTRACTOR/SUBCONTRACTOR	ADDRESS			
In order that the proper Fringe Benefit rates can be used for checking payrolls or applied to Force Account work which may be done on the above contract, the rates for Fringe Benefits, subsistence and/or travel allowance payment (as required by collective bargaining agreements) made for employees on the various classes of work are tabulated below.				
CLASSIFICATION	SUBSISTENCE OR TRAVEL ALLOWANCE	FRINGE	BENEFITS *	EFFECTIVE DATE
		VACATION	TOTAL OTHER FRINGES	
Supplemental statements will be furnished during the progress of the work should a change in rate of any of the classifications be made.				
SUBMITTED: CONTRACTOR/SUBCONTRACTOR		BY:		
*SUBJECT TO VERIFICATION AND/OR JUSTIFICATION AT ENGINEERS REQUEST				

Request for Taxpayer Identification Number and Certification

Give form to the
requester. Do NOT
send to the IRS.

213

Name (if not name, list first and last name of the person or entity whose number you enter in Part I below. See instructions on page 2 if your name has changed.)

Business name (Sole proprietors see instructions on page 2.)

EMCON INC.

Please check appropriate box: ☐ Individual/Sole proprietor ☒ Corporation ☐ Partnership ☐ Other

Address number, street, and apt. or suite no.

PO Box 349014

City, state, and ZIP code

Sacramento CA 95834-9014

Requester's name and address (optional)

EMCON County of Santa Cruz

P.O. Box 349014 701 Ocean Street

Sacramento, CA 95834-9014 Santa Cruz

**CA 95062
4070**

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. For individuals, this is your social security number (SSN). For sole proprietors, see the instructions on page 2. For other entities, it is your employer identification number (EIN). If you do not have a number, see How To Get a TIN below.

Notes: If the account is in more than one name, see the chart on page 2 for guidelines on whose number to enter.

Social security number

1 1 + 1 1 1 1

OR

Employer identification number

9141171309164

List account number(s) here (optional)

Part II For Payees Exempt From Backup Withholding (See Part II instructions on page 2)

Part III Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me, and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding.

Certification instructions.—You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because of underreporting interest or dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, the acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. (Also see Part III instructions on page 2.)

Sign
Here

Signature **Henry Broadbent**

Date **8-25-98**

Section references are to the Internal Revenue Code.

Purpose of Form.—A person who is required to file an information return with the IRS must get your correct TIN to report income paid to you, real estate transactions, mortgage interest you paid, the acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA. Use Form W-9 to give your correct TIN to the requester (the person requesting your TIN) and, when applicable, (1) to certify the TIN you are giving is correct (or you are waiting for a number to be issued), (2) to certify you are not subject to backup withholding, or (3) to claim exemption from backup withholding if you are an exempt payee. Giving your correct TIN and making the appropriate certifications will prevent certain payments from being subject to backup withholding.

Notes: If a requester gives you a form other than a W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

What is Backup Withholding?—Persons making certain payments to you must withhold and pay to the IRS 31% of such

payments under certain conditions. This is called "backup withholding." Payments that could be subject to backup withholding include interest, dividends, broker and barter exchange transactions, rent, royalties, nonemployee pay, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

If you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return, your payments will not be subject to backup withholding. Payments you receive will be subject to backup withholding if:

- You do not furnish your TIN to the requester, or
- The IRS tells the requester that you furnished an incorrect TIN, or
- The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or
- You do not certify to the requester that you are not subject to backup withholding under 3 above (for reportable

interest and dividend accounts opened after 1983 only), or

- You do not certify your TIN. See the Part III instructions for exceptions.

Certain payees and payments are exempt from backup withholding and information reporting. See the Part II instructions and the separate instructions for the Requester of Form W-9.

How To Get a TIN.—If you do not have a TIN, apply for one immediately. To apply, get Form SS-4, Application for a Social Security Number Card (for individuals), from your local office of the Social Security Administration, or Form SS-4, Application for Employer Identification Number (for businesses and all other entities), from your local IRS office.

If you do not have a TIN, write "Applied For" in the space for the TIN in Part I, sign and date the form, and give it to the requester. Generally, you will then have 60 days to get a TIN and give it to the requester. If the requester does not receive your TIN within 60 days, backup withholding, if applicable, will begin and continue until you furnish your TIN.

34

ACORD CERTIFICATE OF INSURANCE

DATE (MM/DD/YY)
21/8/98

PRODUCER

Aon Risk Svcs Inc of No, Cal.
One Market
Spear Street Tower Ste. 2100
San Francisco, CA 94105
415-543-9360

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

COMPANIES AFFORDING COVERAGE

COMPANY

A Ins Co of the State of Pa.

COMPANY

B Indemnity Ins Co of N. Americ

COMPANY

C Genesis Insurance Company

COMPANY

D Reliance National Indemnity C

INSURED

EMCON, ET. AL.
1921 Ringwood Avenue
San Jose, CA 95131-1721

RVK
ACCT
File

AUG 1998
RECEIVED
PUBLIC WORKS DEPT
SANTA CRUZ, CA.

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

C O LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
D	GENERAL LIABILITY	NGB20 15 12706	1/01/98	1/01/99	GENERAL AGGREGATE \$ 2000000
	COMMERCIAL GENERAL LIABILITY				PRODUCTS-COMP/OP A G G \$ 2000000
	CLAIMS MADE <input checked="" type="checkbox"/> OCCUR				PERSONAL & ADV INJURY \$ 1000000
	OWNER'S & CONTRACTOR'S PROT				EACH OCCURRENCE \$ 1000000
	<input checked="" type="checkbox"/> Per Proj. Agg.				FIRE DAMAGE (Any one tire) \$ 1000000
					MED EXP (Any one person) \$ 5000
C	1. AUTOMOBILE LIABILITY	YXB300371B (AOS) YXB300223D (MASS)	1/01/98	1/01/99	COMBINED SINGLE LIMIT \$ 1000000
	<input checked="" type="checkbox"/> ANY AUTO				BODILY INJURY (Per person) \$
	<input checked="" type="checkbox"/> ALL OWNED AUTOS				BODILY INJURY (Per accident) \$
	<input checked="" type="checkbox"/> SCHEDULED AUTOS				PROPERTY DAMAGE \$
	<input checked="" type="checkbox"/> HIRED AUTOS				
	<input checked="" type="checkbox"/> NON-OWNED AUTOS				
	GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT \$
	ANY AUTO				OTHER THAN AUTO ONLY:
					EACH ACCIDENT \$
					AGGREGATE \$
EX A	EXCS LIABILITY	4298-9671	1/01/98	1/01/99	EACH OCCURRENCE \$ 5000000
	<input checked="" type="checkbox"/> UMBRELLA FORM				AGGREGATE \$ 5000000
	OTHER THAN UMBRELLA FORM				
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	C28026262 (AOS) C28026237 (MASS)	1/01/98	1/01/99	<input checked="" type="checkbox"/> STATUTORY LIMITS
	THE PROPRIETOR/ PARTNERS/EXECUTIVE OFFICERS ARE:				EACH ACCIDENT \$ 1000000
	<input checked="" type="checkbox"/> INCL				DISEASE - POLICY LIMIT \$ 1000000
	<input type="checkbox"/> EXCL				DISEASE EACH EMPLOYEE \$ 1000000
D	OTHER	NTF 125942807	1/01/98	1/01/99	CLAIMS MADE FORM
	Consult Env. Liab				\$2,000,000 Ea Claim
	A) Professional				\$2,000,000 Aggre.
	B) Pollution Legal				

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

Certificate Holder is included as an additional insured as respects their interest the operations of the named insured. Additional Insured applicable to General and Automobile liability coverages only.

CERTIFICATE HOLDER

County of Santa Cruz
Department of Public Works
701 Ocean Street
Santa Cruz, CA 95060-4070

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

0963456 10