## ARTICLE I - PERIOD OF PERFORMANCE

This contract shall begin on July 1, 2001, contingent upon approval by the State, and terminate on June 30, 2004, unless extended by mutual agreement by an amendment.

## ARTICLE II - CONTRACT ADMINISTRATOR/CONTRACT MANAGER/CONTRACT OFFICER

The Contract Administrator is:
Marge Rouch
Hazardous Waste Management, Air Quality and Noise Office
Environmental Program
P.O. Box 942874, MS-27
Sacramento, CA 94274-0001
Voice: (916) 653-3352; Fax (916) 653-5927; Email: marge_rouch@dot.ca.gov

The Contract Administrator or designee will approve all expenditures for work under this contract. The Contract Administrator will approve all subcontractor substitutions under this contract.

A Caltrans Contract Manager will be designated for each Task Order. The Caltrans Contract Manager will be responsible for managing the Task Order and monitoring work by the Contractor. The Caltrans Contract Manager is typically a Hazardous Waste Coordinator in one of the 12 district offices.

The Departmental Contract Officer is the Chief of the Division of Procurement and Contracts (DPAC).

## ARTICLE III - REQUEST FOR SERVICES (TASK ORDERS)

A. All services under the Contract will be requested through the issuance of a Task Order for specific work. Task Orders are site specific, work quantified and time constrained. Task Orders are an extension of this contract and all provisions of this contract apply to the Task Order. The special provisions of Article XXVIII pertain as directed by the Caltrans Contract Manager. The Task Order may be either for an initial site assessment, survey, site investigation, preparation of an investigation plan, or other similar work.

B. All Contractors will be placed on a list with their respective contract bid item prices described in Appendix A. The Caltrans Contract Manager will estimate the quantities necessary for items of work required in the Task Order. Based on these quantities and the Contractor's bid prices for Appendix A items, the Contractor with the lowest total bid cost will be offered the Task Order, except as provided for in Article III.C and Article VII.C. If additional services not listed in Appendix A are required for the satisfactory completion of the Task Order, such services will be considered as extra work and shall be paid per the provisions of Article VII.C.

C. If, in the sole determination of Caltrans, extra work will comprise in excess of fifty percent (50%) of the cost of the Task Order, all contractors within the geographic region shall be requested to provide a bid for the extra work. The Contractor with the lowest combined cost of bid items and extra work shall be offered the Task Order.

D. An Acceptance/Refusal Document (ARD) shall be used by the Contractor to respond to Task Order offers from the Caltrans Contract Manager. The Contractor must sign and return the ARD to the Caltrans Contract Manager within the time limit stated in the Task Order. The Contractor shall include with the ARD a list of approved subcontractors for the Task Order work, and (as applicable) a bid price for any necessary extra work requested by the Caltrans Contract Manager as provided in Article VII.C. Failure to return these documents within the specified time limit shall result in the Task Order being offered to the next lowest bidder.

E. For Task Order work on sites listed on the National Priority List (NPL sites) or the California State Superfund list, contractors will be selected based on previous successful NPL and/or State Superfund site experience in addition to low bid status.

F. Suspension of Contractors from Existing or New Task Orders

1. Not Meeting the Task Order Schedule - Contractors that are not meeting the schedule stated in any Task Order may be temporarily suspended from being offered any additional Task Orders until all work is back on schedule or completed, as determined by the Contract Administrator.

2. Substandard Technical Work - Contractors or subcontractors whose work does not meet the minimum standards of the contract/Task Order may be suspended from being offered any additional Task Orders until the Contract Administrator has determined that the contractor has corrected said deficiencies. Reasons for suspension may include, but are not limited to, arriving at a site with improper or missing equipment, inadequate safety procedures, improper decontamination procedures, missing or incomplete chain of custody records, and laboratory quality control/quality assurance out of compliance with methodological requirements.

3. General Performance - Additional Task Orders may not be offered to any Contractor that is not performing to the satisfaction of the Contract Administrator. Task Order work may be evaluated by the Caltrans Contract Manager and the Contract Administrator; more than one substandard evaluation will be grounds for removal of the contractor from consideration of further work under this contract.

4. Refusal to Accept Task Orders - If the Contractor refuses three or more Task Orders in the region or if mitigating circumstances arise affecting the Contractor's ability or willingness to accept a Task Order, the Contractor shall discuss the issue with the Contract Administrator. Mitigating circumstances include, but are not limited to contractor’s current Caltrans workload prevents additional work from being completed on schedule. If the Contract Administrator determines that the mitigating circumstances are not justified, the Contractor may be suspended from being offered any additional Task Orders.

5. Failure to Maintain Proof of Insurance - The Contractor shall ensure that a current copy of proof of insurance (pursuant to Article XVIII) is on file with the Contract Administrator during the term of this contract. Failure to maintain current proof of insurance shall result in suspension of the Contractor from the contract.

6. Failure to Pay Subcontractors - Contractors shall ensure that subcontractors are paid for work performed per the provisions of Article XVI. Failure to reimburse subcontractors will be grounds for removal of the Contractor from consideration of further work under this contract.

## ARTICLE IV - CONTRACTOR'S MEETINGS, REPORTS AND PERSONNEL

A. Meetings

1. Task Order meetings may include pre-work conferences, pre-work site visits and progress meetings. When a Task Order meeting is called by the Caltrans Contract Manager, the Contractor's Task Order Manager and the person in supervisory charge of the Task Order field work shall attend the meeting. The Task Order meeting shall be paid per the applicable general personnel bid item prices, and payment shall cover the meeting time only. No separate travel time, per diem, or mileage is paid; compensation for travel time, per diem and mileage is to be included in the bid price. No exception to this requirement will be permitted without written approval of the Contract Administrator. If the Caltrans Contract Manager requests additional personnel to attend the Task Order meeting, they shall be paid per the applicable general personnel bid item prices. At the Task Order meeting the Contractor's representatives and the Caltrans Contract Manager shall resolve all questions regarding the Task Order and agree on and sign a final completion schedule, which shall become a part of the Task Order.

2. The Contractor shall meet with the Caltrans Contract Manager as needed to discuss progress on the contract.

3. Prior to completion of the Task Order, the Contract Manager may request a final meeting with the Contractor to review findings, conclusions and recommendations and to receive a comprehensive final report on the project.

B. Reports

1. For Task Orders of three months or more in duration, the Contractor shall submit written progress reports at least once a month, to allow the Caltrans Contract Manager to determine if the Contractor is performing to expectations and is on schedule, to provide communication of interim findings and to afford occasions for airing difficulties or special problems encountered so that remedies can be developed.

2. Unless otherwise stipulated in the Task Order, four (4) copies of the Health and Safety Plan and four (4) copies of the Work Plan shall be submitted to the Caltrans Contract Manager.

3. Unless otherwise stipulated in the Task Order, five (5) copies of the draft final report shall be submitted to the Caltrans Contract Manager for review and comment. The draft report shall be complete, including all figures and tables and shall go through the Contractor's Quality Assurance/Quality Control (QA/QC) procedures, including review by the Contractor's Task Order Manager before submittal to Caltrans. The report shall be modified to address all comments received and submitted in final form within the time specified in the Task Order. A list with annotations describing how and where review comments were handled shall accompany the final report. The final report for site investigations shall be signed and stamped by the Contractor's Task Order Manager. Five copies of the Final Report shall be submitted to the Caltrans Contract Manager. Additional copies of reports will be paid as extra work per the provisions of Article VII.C.

4. At the request of the Caltrans Contract Manager, one digital copy of the final report shall be submitted to the Contract Administrator. Unless otherwise stated in the Task Order, the text portion of the report shall be in Microsoft Word format (ver.

6.0/Win-95); tables within the body of the report shall be in Microsoft Excel Format (ver.5.0/Win-95). Geographic location coordinate data shall be in one of the following formats:

a. Arc/Info or ArcView Geographic Information System files.

b. Trimble SSF or RINEX Global Positioning System files.

c. Excel (ver. 5.0/Win-95) spreadsheet format.

d. Delimited text files.

e. If requested by the Caltrans Contract Manager, DXF (CADD) files shall be included in the report and will be paid by Bid Item 2.

The digital files shall be transmitted as e-mail attachments and sent to the Contract Manager. The subject line of the e-mail message shall include the Caltrans Contract Number and Task Order Number. The body of the e-mail message shall contain an index of the names and contents of the attached files.

5. All reports shall have a separate disclaimer section preceding the main body of the report per Article XIX of this contract.

6. Costs for clerical and administrative support, photocopying, report binding, final reporting, submission of any reports or files via electronic data transfer (e.g., e-mail), the Monthly Tracking Report, completion of work logs and administrative overhead are included in the bid item prices in Appendix A. No hours may be charged for these items of work.

C. Personnel

The Contractor's key personnel for this contract shall include the Contractor's Project Manager who has overall responsibility for all work done under the contract, Contractor's Task Order Managers who are registered professionals that manage specific Task Orders, and Contractor's Field Supervisors who supervise field work. The Project Manager, Task Order Managers, and Field Supervisors shall be directly employed by the Contractor; these positions shall not be subcontracted.

## ARTICLE V - COST LIMITATIONS

The total amount available for encumbrance for all contractors combined under this contract shall not exceed $10,000,000. Funds will be encumbered for individual Task Orders. It is understood and agreed that each Task Order encumbrance is an estimate and that the State will only pay for services rendered as authorized by the Contract Administrator or his/her designee. Actual costs of each Task Order shall not exceed the estimated costs set forth in the Task Order and its estimate as accepted by the Contractor, and shall not exceed any additional or extra work bids as accepted by the Caltrans Contract Manager, without prior written agreement between the Contract Manager and the Contractor.

## ARTICLE VI - COST PRINCIPLES

The Contractor agrees that the Contract Cost Principles and Procedures, CFR 48, Federal Acquisitions Regulations System, Chapter 1, Part 31, shall be used to determine the allowability of individual items of cost and any costs for which payment has been made to Contractor that are determined by subsequent audit to be unallowable under CFR 48, Federal Acquisitions Regulations System, Chapter 1, Part 31, are subject to repayment by Contractor to State.

## ARTICLE VII - ALLOWABLE COSTS AND PAYMENTS

A. The Contractor shall not commence performance of work or services until this contract has been approved by the State. No payment will be made prior to approval of this contract. No payment will be made for any Task Order for any work performed prior to approval by the Contract Administrator and prior to encumbrance of funds for any individual Task Order under this contract.

B. Payment will be based upon the Contractor's bid item prices for contract bid items listed in Appendix A. The bid cost is non-adjustable for the term of the contract. In no case will payment be made that exceeds the bid item price, except as provided for in Article VII.E.

C. Extra Work

1. If, in the judgment of the Caltrans Contract Manager, additional services not listed in Appendix A are reasonably required for satisfactory completion of the Task Order, such services will be considered as extra work and will be paid at actual cost plus a ten percent (10%) markup, with said markup not to exceed $5,000.00 per Task Order. No additional markup on extra work shall be allowed. However, report percentage shall be applied to extra work where that extra work requires additional reporting and data evaluation.

2. The Contractor will provide an estimate of the cost of Extra Work at the request of the Caltrans Contract Manager. The estimate will be included in the cover letter transmitting the ARD back to the Caltrans Contract Manager.

3. If, in the sole determination of Caltrans, extra work will comprise in excess of fifty percent (50%) of the cost of the Task Order, the extra work will be paid at the price bid by the Contractor receiving the Task Order, per Article III.C. This bid price is all inclusive and no additional markups will be allowed.

4. Only extra work necessary to meet the Task Order objectives will be authorized.

5. The Contractor shall submit three bids for subcontracted extra work when requested by the Caltrans Contract Manager.

D. Cost for work that Caltrans requires to be performed on Saturdays, Sundays, or national holidays or that cannot begin until after 6:00 p.m. because of site access reasons shall be compensated with a twenty five percent (25%) surcharge added to fieldwork and personnel bid item rates. Such surcharge shall not apply to equipment, supply or laboratory bid items or to extra work.

E. When Caltrans determines that standby time is necessary for a task order, such standby time shall be paid at actual cost for equipment operators and helpers and fifty percent (50%) of the published equipment rate. Standby time shall be defined as one continuous hour or more that a Contractor is directed to stop work by the Caltrans Contract Manager, or is otherwise prevented from working by task order provisions specifically defining standby time appropriate to the task order.

F. Transportation and subsistence costs shall not be separately reimbursed and are included in the bid item prices in Appendix A.

G. Progress payments shall be made monthly, in arrears based on services provided and actual costs incurred for individual Task Orders of three months or more in duration.

H. Caltrans will not pay for down time, time loss, failure to meet QA/QC requirements, failure to obtain samples due to equipment or instrument breakdown or malfunction, failure to

have the required equipment or supplies on site, or instrument and/or equipment contamination.

I. If the Caltrans Contract Manager disputes any portion of the invoice, the Caltrans Contract Manager shall complete a Std 209 Invoice Dispute Notification form and provide a copy to the Contractor.

J. Invoice Format and Content Requirements

1. Invoices shall be submitted, in quadruplicate, to the Caltrans Contract Manager no later than 45 calendar days after the performance of work for which the Contractor is billing or within 45 calendar days after completion and acceptance of the final report.

2. The invoice shall itemize all payments to subcontractors identified in the contract during the invoice period. If no payments to subcontractors were made, the invoice shall state "No work was performed by subcontractors during this period," or "Work performed by subcontractors in this period has not been invoiced by the subcontractor," as the case may be.

3. For Task Orders with multiple Expenditure Authorizations (EAs), the invoice shall itemize bid item costs by EA on separate pages for each EA.

4. The following information shall be shown on the invoice:

a. The contract number, Task Order number, and all Task Order Expenditure Authorization (EA) numbers.

b. The beginning and ending dates during which the service was performed.

c. A list of services and materials provided in satisfaction of the Task Order, with appropriate bid item numbers and units as shown in Appendix A, and with corresponding item bid rates.

d. Allowable extra work charges.

e. The invoice date and number. Final invoices shall be stamped FINAL.

f. A statement of the amount paid to Disadvantaged Business Enterprises (DBE) during the invoice period.

g. Small Business Stamp shown if Contractor qualifies under the Small Business Regulations.

5. Copies of time sheets and invoices or receipts for all hourly-rate bid items (ISA, work plans, personnel rates) and for all extra work items must accompany the invoice. Failure to include the above information will result in delay of payment for the invoice. Copies of project diaries and all other supporting documentation shall be available from the Contractor upon request of the Caltrans Contract Manager or Contract Administrator.

K. Any costs for which payment has been made to the Contractor that are determined by subsequent audit to be unallowable are subject to immediate repayment by the Contractor to the State.

## ARTICLE VIII - FUNDING REQUIREMENTS

A. It is mutually understood between the parties that this contract may have been written before ascertaining the availability of congressional or legislative appropriation of funds,

for the mutual benefit of both parties, in order to avoid program and fiscal delays that would occur if the contract were executed after that determination was made.

B. This contract is valid and enforceable only if sufficient funds are made available to the State by the United States Government or the California State Legislature for the Fiscal Years 2000-2002. In addition, this contract is subject to any additional restrictions, limitations, conditions, or any statute enacted by the Congress or the State Legislature that may affect the provisions, terms or funding of this contract in any manner.

C. It is mutually agreed that if the Congress or the State Legislature does not appropriate sufficient funds for the program, this contract shall be amended to reflect any reduction in funds.

D. The State has the option to void the contract under the ten (10) day termination clause or to amend the contract to reflect any reduction of funds.

## ARTICLE IX - RETENTION OF RECORDS/AUDIT

A. For the purpose of determining compliance with Public Contract Code 10115, et seq., and Title 21, California Code of Regulations, Chapter 21, Section 2500, et. seq., when applicable, and other matters connected with the performance of the contract pursuant to Government Code 8546.7, the Contractor, subcontractors and the State shall maintain all books documents, papers, accounting records, and other evidence pertaining to the performance of the contract, including but not limited to, the costs of administering the contract. All parties shall make such materials available at their respective offices at all reasonable times during the contract period and for three years from the date of final payment under the contract. The State, the State Auditor General, FHWA, or any duly authorized representative of the federal government having jurisdiction under Federal laws or regulations (including the basis of Federal funding in whole or part) shall have access to any books, records, and documents of the Contractor that are pertinent to the contract for audits, examinations, excerpts, and transactions, and copies thereof shall be furnished if requested.

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

## ARTICLE X - CHANGE IN TERMS

A. This contract may be amended or modified only by mutual written agreement of the parties.

B. There shall be no change in the contractor's project manager or other key personnel without prior written approval by the Contract Administrator.

## ARTICLE XI - EVALUATION OF CONTRACTOR

The Contractor's performance, as required by this contract, will be evaluated at the conclusion of the contract and, if negative findings are made, will be reported to the Department of General Services Legal Office. Work performed under individual Task Orders will be evaluated in accordance with Articles III, IV, and VII.

## ARTICLE XII – DISPUTES

A. Any dispute concerning a question of fact arising under this contract shall be presented to the Contract Administrator. If an agreement is not reached with the Contract Administrator, then the dispute shall be decided by the State's Contract Officer, who may consider written or verbal evidence submitted by the Contractor. The decision of the Contract Officer shall be issued in writing and shall be conclusive and binding on both parties to the contract on all questions of fact considered and determined by the Contract Officer.

B. Neither the pendency of a dispute nor its consideration by the Contract Officer will excuse the Contractor from full and timely performance in accordance with the terms of the contract.

## ARTICLE XIII- CANCELLATION

A. The State reserves the right to cancel this contract without cause upon ten (10) calendar days written notice to the Contractor or immediately in the event of material breach by the contractor.

B. Caltrans reserves the right to terminate, withdraw, or postpone Task Orders at will. Payment will be limited to work performed. If Caltrans exercises its option to terminate a Task Order or this agreement, the Contractor, upon termination, shall deliver to Caltrans the originals of all reports, calculations, photographs, maps, records, and other documents relating to each Task Order undertaken by the Contractor.

C. The Contractor shall undertake all work requested by Caltrans in a timely manner. Failure to make continuous reasonable progress on a Task Order, as defined by the Caltrans Contract Manager, or to perform a specific task within the agreed time frame shall be grounds for cancellation of the Task Order. Repeated failure may be grounds for cancellation of the contract. Failure to provide the Contract Administrator with a certificate of insurance within one (1) working day of the request may be grounds for cancellation of the Task Order and contract.

## ARTICLE XIV – NONDISCRIMINATION

A. During the performance of this contract, Contractor and its subcontractors shall not unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, denial of family and medical care leave, and denial of pregnancy disability leave. Contractor and subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. Contractor and sub-contractors shall comply with the provisions of the Fair Employment and Housing Act (Government Code, Section 12900 et seq.) and applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285.0 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code, Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations are incorporated into this contract by reference and made a part hereof as if set forth in full. Contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.

B. Contractor shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under this contract.

C. Appendix C relative to nondiscrimination on federally assisted projects is attached hereto and made a part of this contract.

D. Contractor shall comply with Title VI of the Civil Rights Act of 1964, as amended. Accordingly, 49 CFR 21 through Appendix C and 23 CFR 710.405(b) are applicable to this contract by reference.

## ARTICLE XV - DISADVANTAGED BUSINESS ENTERPRISE (DBE) PARTICIPATION

A. Disadvantaged Business Enterprise: This project is subject to Part 23, Title 49, Code of Federal Regulations. The regulations in their entirety are incorporated herein by this reference.

B. It is the policy of the Department that Disadvantaged Business Enterprises (DBEs), as defined in said Part 23, Title 49 CFR, shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with Federal funds. The Contractor shall ensure that DBEs as defined in said Part 23, Title 49 CFR have the maximum opportunity to participate in the performance of this contract and shall take all necessary and reasonable steps as set forth in said Part 23, Title 49 CFR for such assurance. The Contractor shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of subcontracts. Failure to carry out the requirements of this paragraph shall constitute a breach of contract and may result in termination of this contract or such other remedy the Department may deem appropriate.

C. Bidders shall be fully informed respecting the requirements of the Regulations and are to obtain DBE participation in this project.

D. Caltrans has established an 18% goal for DBE participation. It is the prospective Contractor's responsibility to make a sufficient portion of the work available to subcontractors and suppliers, and to select those portions of the work or material needs consistent with the availability of DBE subcontractors and suppliers, so as to assure meeting the 18% goal for DBE participation. See Attachment 5

E. The Contractor shall maintain records of all subcontracts entered into with DBE subcontractors and records of materials purchased from DBE suppliers. Such records shall show the name and business address of each DBE subcontractor or vendor and the total dollar amount actually paid each DBE subcontractor or vendor. Upon completion of each Task Order, a summary of these records shall be prepared and certified correct by the Contractor or its authorized representative and the summary shall be furnished to the State’s Contract Manager.

## ARTICLE XVI – SUBCONTRACTING

A. The Contractor shall perform the work contemplated with resources available within its own organization and no portion of the work shall be subcontracted without written authorization by the Contract Administrator, except that which is expressly identified by the Contractor in the List of Proposed Subcontractors and the Subcontractor Qualifications Statement of the Invitation for Bid. All subcontractors that are to be used for the duration of the contract shall be identified in the above-mentioned documents of the Contractor’s bid.

B. The Task Order Manager or Field Supervisor shall be present when a subcontractor is performing field work. Field work is as defined in the task order or, lacking such definition, work such as geophysical, asbestos, and lead surveys; drilling, trenching, sampling, mobile lab analysis, and drum removal.

C. During the term of this contract, the Contractor may petition the Caltrans Contract Administrator in writing to amend the list of approved subcontractors. In the petition the Contractor must provide sufficient justification for adding the subcontractor to the list. Approval or disapproval of the petition will be at the discretion of the Caltrans Contract Administrator and the Contractor shall secure written approval from the Contract Administrator in advance of assigning Task Order work to those subcontractors. If the petition is approved, the list of subcontractors will be amended and the Contractor notified in writing. Payment will be denied for any work performed by an unapproved subcontractor and no change in bid costs will be paid.

D. When a special service or an item of extra work cannot be performed by the Contractor or any of his subcontractors, such service or extra work item may be performed by a specialist. Proposed specialists must be approved, in writing, by the Contract Administrator before the service or extra work is performed.

E. Substitution of subcontractors may be allowed under the following circumstances:

1. Failure of a subcontractor to execute a written contract with the prime contractor after having a reasonable opportunity to do so;
2. Subcontractor is bankrupt or insolvent;
3. Failure to perform the subcontracted service or furnish equipment/materials;
4. Failure or refusal to meet bond requirements, if a bond was a condition of the subcontract;
5. Unsatisfactory work which is not in substantial accordance with the requirements of the contract or delaying or disrupting the progress of work, and;
6. Substitution would be in the best interests of the State.

F. Any subcontract resulting from this contract shall contain all the provisions stipulated in this contract.

G. Contractors shall pay all subcontractors used under a task order within 10 days of being paid by Caltrans for work performed. Payment records shall be subject to audit per the provisions of Article IX.

## ARTICLE XVII - NATIONAL LABOR RELATIONS BOARD CERTIFICATION

In accordance with Public Contract Code Section 10296, the Contractor hereby states under penalty of perjury that no more than one final unappealable finding of contempt of court by a Federal court has been issued against the Contractor within the immediately preceding two-year period because of the Contractor's failure to comply with an order of a Federal court that orders the Contractor to comply with an order of the National Labor Relations Board.

## ARTICLE XVIII - LIABILITY INSURANCE PROVISIONS

A. Contractor shall furnish to the State a certificate of liability insurance (OBM Form 367) listing all exclusions, presently in effect for the Contractor with coverage of not

less than $2,000,000 limit per occurrence for combined personal injuries and property damage. The certificate of insurance will provide:

1. That the insurer will not cancel or reduce the insured's coverage without 30 days prior written notice to the State.
2. That the State of California, its officers, agents, employees, and servants are included as additional insureds, but only insofar as the operations under this contract are concerned.
3. That the State will not be responsible for any premiums or assessments on the policy.

B. Contractor agrees that the liability insurance herein provided for shall be in effect at all times during the term of this contract. Contractor agrees to provide a new certificate of insurance, evidencing insurance coverage as provided for herein for not less than the remainder of the term of the contract, or for a period of not less than one (1) year, prior to the insurance expiration date for that replacement policy. New certificates of insurance are subject to the approval of the State, Contractor agrees that no work or services shall be performed prior to the giving of such approval. In the event Contractor fails to keep in effect at all times insurance coverage as herein provided, the State may, in addition to any other remedies it may have, terminate this contract upon the occurrence of such event. (See Attachment 3.)

**ARTICLE XIX – PUBLICATION**

A. The Contractor shall not copyright the reports required by this agreement.

B. The reports required by this agreement shall become the property of the State, and all publication rights are reserved to the State.

C. The title page of reports shall bear an appropriate inscription acknowledging the sources of funds used to produce the report.

D. The reports shall contain the following disclaimer in a separate section preceding the main body of the document:

*"The contents of this report reflect the views of the author who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation."*

**ARTICLE XX - CONFLICT OF INTEREST**

The Contractor shall make full disclosure of any agreements or affiliations which may create a conflict of interest or the appearance of a conflict of interest for the Contractor during performance of Task Order work. If such conflicts or potential conflicts exist, the Contractor must provide a plan to eliminate or avoid conflicts. The plan must include the name of the management-level employee whose responsibility it is to investigate and report to the State potential and real conflict on each Task Order, before the work described in the Caltrans approved work plan is initiated.

## ARTICLE XXI – CONFIDENTIALITY

The Contractor shall hold Caltrans as a confidential client. The Contractor shall make no statements or publish any materials regarding any investigation to any party on behalf of Caltrans without prior written authorization from Caltrans. The Contractor shall refer all questions regarding investigations to the Caltrans Contract Manager.

## ARTICLE XXII - STATEMENT OF COMPLIANCE

The Contractor's signature affixed hereon and dated shall constitute a certification under the penalty of perjury under the laws of the State of California that the contractor has, unless exempted, complied with the nondiscrimination program requirements of Government Code Section 12990 and Title 2, California Code of Regulations, Section 8103.

## ARTICLE XXIII - PROHIBITION FROM BIDDING

A. Contractors who perform site investigations, or survey and testing work shall beprohibited from bidding on or being awarded a contract for a site-specific remediation method or design which is recommended or suggested as a result of the Contractor's previous work.

B. Subcontractors who provide services, other than primarily mechanical or technical services which are non-advisory in nature, are subject to the prohibition from bidding if the cost of work performed is more than ten percent (10%) of the monetary value of the Task Order.

C. The Contractor shall include the provisions of this Article in all subcontracts resulting from this contract.

## ARTICLE XXIV - DRUG FREE WORKPLACE CERTIFICATION

By signing this contract, the contractor hereby certifies under penalty of perjury under the laws of the State of California that the contractor will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code Section 8350 et seq.) and will provide a drug-free workplace by doing all of the following:

A. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations, as required by Government Code Section 8355(a).

B. Establish a Drug-Free Awareness Program as required by Government Code Section 8355(b), to inform employees about all of the following:

   1. the dangers of drug abuse in the workplace.
   2. the person's or organization's policy of maintaining a drug-free workplace.
   3. any available counseling, rehabilitation and employee assistance programs, and.
   4. penalties that may be imposed upon employees for drug abuse violations.

C. Provide as required by Government Code Section 8355(c) that every employee who works on the proposed contract or grant:

   1. will receive a copy of the company's drug-free policy statement, and

2. will agree to abide by the terms of the company's statement as a condition of employment on the contract or grant.

Failure to comply with these requirements may result in suspension of payments under the contract or termination of the contract or both and the contractor may be ineligible for award of any future state contracts if the Department determines that any of the following has occurred: (1) the contractor has made a false certification or, (2) violates the certification by failing to carry out the requirements as noted above.

**ARTICLE XXV- DEBARMENT AND SUSPENSION CERTIFICATION**

A. The Contractor's signature affixed herein shall constitute a certification under penalty of perjury under the laws of the State of California, that the Contractor or any person associated therewith in the capacity of owner, partner, director, officer, or manager:

1. is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency;
2. has not been suspended, debarred, voluntarily excluded, or determined ineligible by any federal agency within the past three (3) years;
3. does not have a proposed debarment pending; and
4. has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any manner involving fraud or official misconduct within the past three (3) years.

B. Any exceptions to this certification must be disclosed to the Department of Transportation. Exceptions will not necessarily result in denial of recommendation for award, but will be considered in determining bidder responsibility. Disclosures must indicate the party to whom the exceptions apply, the initiating agency, and the dates of agency action.

**ARTICLE XXVI- FEDERAL LOBBYING ACTIVITIES CERTIFICATION**

The Contractor certifies, to the best of his/her knowledge and belief, that:

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

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

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

D. The Contractor also agrees by signing this document that he/she shall require that the language of this certification be included in all lower tier subcontracts which exceed $100,000 and that all such subrecipients shall certify and disclose accordingly.

## ARTICLE XXVII - STATEMENT OF WORK

Services from the Contract will be requested through the issuance of Task Orders for specific work (See Article III.). Task Orders are an extension of this contract and all terms and conditions of the contract shall apply. All reports shall use metric units and payment for metric conversion shall be included in bid items used for reporting (See Article XXVIII Special Provisions - **SP-18** for details.).

### Part 1 - INITIAL SITE ASSESSMENTS (ISA)

The scope of work under this section of the contract includes all steps necessary to conduct an Initial Site Assessment (ISA). The ISA is undertaken to identify hazardous and potentially contaminated areas, and hazardous waste problems within and next to existing and proposed right of way, for Caltrans projects. The ISA shall present all pertinent information regarding listed hazardous waste sites and potential hazardous waste sites in the project vicinity. Caltrans will provide project mapping for each Task Order that delineates the project limits, alignment, right of way and survey limits. Areas where focused studies are needed will be specified. ISA's may also be used to fulfill the background research requirements of a Preliminary Endangerment Assessment (PEA), following the guidance developed by the California Department of Toxic Substances Control (DTSC). (The background research requirements of the PEA are similar to the ISA except that the preliminary endangerment assessment focuses on impacts to public health and the environment.) The data collection portion of the United States Environmental Protection Agency Risk Assessment guidance may also be a required part of the ISA work.

### Health & Safety

Conditions expected during ISA field work should not pose health and safety problems. However, if conditions in the subject area warrant health and safety considerations they will be addressed at the Task Order meeting prior to start of work. The Caltrans Contract Manager shall be notified at least 24 hours before the commencement of any investigative or field work.

### Records Review

The Contractor shall review the following published lists of hazardous waste sites:

A. Environmental Protection Agency (EPA).

   1. NPL - National Priority List.
   2. FINDS - Facility Index System.

B California Environmental Protection Agency.

Hazardous Waste and Substances Sites List (known as the Cortese list) - contains FINDS, CALSITES, HWIS, LTANK, SWRCB, UTANK, SWIS, AGT25, and A1025, however the individual agency's lists may be updated more frequently.

C. Department of Toxic Substances Control (DTSC).

1. CALSITES - Abandoned Sites Program Information System.
2. HWIS - Hazardous Waste Information System.

D. California State Water Resources Control Board.

1. LTANK - Leaking Underground Storage Tanks.
2. SWRCB - Waste Discharger System.
3. UTANK - Underground Tanks.

E. California Integrated Waste Management Board.

SWIS - Solid Waste Disposal Facilities.

F. California Air Resources Control Board.

1. AGT25 - Dischargers of criteria air pollutant (>25 tons).
2. A1025 - Dischargers of criteria air pollutants (10 to 25 tons).

When requested in the Task Order the records and information sources listed below shall be researched:

A. California Regional Water Quality Control Board (RWQCB) (lists, reports, violations & permits).

B. Office of Emergency Services (hazardous materials management plans).

C. Department of Water Resources (maps, well logs, and files).

D. Department of Conservation Division of Oil and Gas (maps, well logs, and files).

E. Environment Affairs Agency Office of Hazardous Materials Data Management/SARA Title III, Section 313.

F. Local health departments (site lists, permits, reports).

G. Local fire departments (site lists, permits, reports).

H. County Recorder's Office (parcel maps and files).

I. County Court House, (maps and files).

J. Utility companies (maps, plans, records).

K. Caltrans (right-of-way maps, aerial photos & files).

L. Sanborn Fire Insurance Maps.

M. Aerial photograph repositories.

Records on the above lists shall be reviewed to determine past and present land uses and to identify known or potential hazardous waste sites on parcels of land within and adjacent to the proposed right of way as specified in the Task Order. The Contractor shall research the entire period extending to when the land was undeveloped or agricultural.

The Contractor shall review published data from the United States Geological Survey (USGS), State, and other available maps and reports in order to compile a general geologic map and general hydrologic profile of the right of way.

**Field Review**

As directed, the Contractor shall conduct a field survey for potential hazardous waste sites of all parcels of land within and adjacent to the proposed right of way as specified in the Task Order. It is not necessary to confirm the actual presence of hazardous waste in soil or ground water during the ISA. Coordination and contacts with property owners and/or regulatory agencies shall conform to Article XXVIII - Special Provision **SP-17**.

**Historic Research and Report**

When requested as part of the Task Order the Contractor shall research appropriate sources of historic information to identify historic land uses within the project area and identify those that used hazardous materials and/or may have generated hazardous waste. Sources such as, but not necessarily limited to the following shall be researched, as appropriate:

A. Historic maps.
    1. Sanborn maps.
    2. United States Geodetic Survey maps.
    3. Flood control maps.
    4. Oil survey maps.

B City directories.

C. State, City and County libraries.

D. County Recorder's office.

E. Business License and other business records.

F. Planning departments.

G. Newspapers.

H. State Archives.

I. Historical Societies.

The Contractor shall research and analyze material gathered from such sources and prepare a report describing the research and results, focusing on those land uses that were likely to result in deposition of hazardous waste.

Historic research and reporting are to be undertaken by personnel with minimum qualifications of a master's degree in history and demonstrated competence in local history and primary document and historic land use research.

The historic research bid item in Appendix A is an hourly rate which covers the costs of research, analysis, and reporting.

**ISA Reports**

**Refer to Article XXVII, Part 4 and Article IV.**

**Part 2 - SITE INVESTIGATIONS**

The scope of work for site investigations includes such items of work as work plans, health and safety plans, surface geophysical investigations, trenching, drilling, sampling, chemical analysis, and reporting.

The bid items for drilling, sampling, work plans, health and safety plans, soil gas survey, surface geophysics, mobile laboratory and chemical analysis are found in Appendix A. Laboratory testing is included as part of this work and is the responsibility of the site investigation contractor and not a separate item of work.

All elements of the site investigation must meet standards set by local, state and federal regulatory agencies. Deviations from standards must be approved in advance, and in writing, by the Caltrans Contract Manager. The investigative techniques (drilling methods, sampling plan and sample handling procedures and analytical methods and equipment) must be procedurally acceptable to the regulatory agencies. State and Federal standards include, but are not limited to, the following:

A. “Minimum Standards for Management of Hazardous and Extremely Hazardous Wastes,” Title 22, California Code of Regulations, Division 4 and 4.5, including all revisions through Register 85, No. 38 -- 9-21-85 or latest revision.

B. "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," U. S. Environmental Protection Agency, SW-846, U. S. Environmental Protection Agency, 1987 (or latest edition).

C. Title 8 California Code of Regulations, Section 5192 and 1532.1.

D. "Standard Methods for Chemical Analysis of Water and Wastes," EPA-600/4-79-020, 18th edition, 1992.

E. "Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA," OSWER Directive 9335.3-01, Draft, March 1988 (or latest edition).

F. "Leaking Underground Fuel Tank Field Manual: Guidelines for Site Assessment, Cleanup, and Underground Storage Tank Closure," State Water Resources Control Board, October 1989.

G. "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites," North Coast, San Francisco and Central Valley Regional Water Quality Control Boards, August 10, 1990.

H. "Preliminary Endangerment Assessment Guidance Manual)," State of California, Environmental Protection Agency, Department of Toxic Substances Control, January 1994.

I. "Risk Assessment Guidance for Superfund, Human Health Risk Assessment (RAGS)” Volumes A, B, C, United States Environmental Protection Agency.

J. "Standard Guide for Risk-Based Corrective Action applied at Petroleum Release Sites,” ASTM E 1739-95.

**General Site Investigation Requirements**

The Contractor shall complete the following requirements:

A. Perform all work in accordance with a site specific Health and Safety Plan.

B. Provide well construction design, acquire drilling permits, and check for utilities and other underground obstacles including but not limited to water, electric, gas, and sewer lines (See Article XXVIII - Special Provision **SP-16)**.

C. Ensure that all necessary equipment and materials are present at the site and in good operating condition at the beginning of each workday. Contractor shall supply backup equipment, as needed on-site for each job. This includes, but is not limited to, extra drill bits, auger flights, cables, fuel, and soil sampling equipment.

D. Have, or be able to obtain, all the personnel, energy sources, equipment and materials necessary to comply with the provisions of this contract throughout the contract term. Contractor personnel must hold all appropriate California licenses, including, but not limited to C-57 and/or C-61 licenses.

E. Obtain all necessary regulatory and/or Caltrans permits, including encroachment permits. (See Article XXVIII - Special Provision **SP-10** and **SP-13**.)

F. Conduct all drilling and sampling under the responsible charge of a Certified Engineering Geologist (C.E.G.) or Registered Geologist (R.G.) who shall act as the Contractor's Task Order Manager. The R.G. or C.E.G. shall sign the final boring logs. If requested in the task order, the R.G. or C.E.G. shall provide field supervision during the investigation. Field time shall be compensated by bid item hours in Appendix A.

G. Notify the Caltrans Contract Manager at least 24 hours before the commencement of any fieldwork.

**Basic Work Plan Preparation**

For most site investigations, Caltrans will develop a Task Order which includes the general scope of the required investigation. The Task Order will specify the number of borings and/or wells, approximate location, depth, sampling methodology, number of samples and test methods to be used. For Task Orders of this nature, the Contractor shall review the work scope and recommend any changes needed to address regulatory requirements, perform work more efficiently, and to improve the overall objectives of the investigation.

The Contractor shall prepare a basic workplan that describes means of accomplishing the scope of work outlined in the Task Order. The workplan shall include maps of proposed sampling locations, sampling and analysis methodology, work scheduling, plans for accomplishing the work and for disposing of drill cuttings and any other wastes. The workplan shall be signed by the Contractor’s Task Order Manager.

**Site Investigation Scope of Work Development by the Contractor**

In some situations, a specific project may require development of a detailed site investigation scope of work with—or without—subsequent field work. A Task Order will be used to direct the Contractor to prepare the investigation work scope.
The scope of work developed by the Contractor will include:

A. Preliminary scoping of investigation including any available ISA information (See Article XXVII, Part I, *Records Review*).

B. Review of available information on the site and vicinity.

C. Site visit and review.

D. Evaluation of available area ground water data.

E. Evaluation of available area geology data.

F. Investigation strategy and rationale for number and location of borings, number of borings, and sample analysis.

G. Revision of site investigation objectives as necessary.

Formulation of site investigation elements using the bid items in Appendix A.

The Contractor shall provide a draft scope of work for the Caltrans Contract Manager to review and comment upon. The final scope of work shall address all Caltrans comments. The draft and final scope of work will be completed within the completion schedule presented in the Task Order.

The scope of work shall be developed by appropriate professional personnel under the direction of the Contractor's Contract Manager. Interpretation of geology, hydrogeologic, and/or hydrologic information shall be completed under the supervision of a California Registered Geologist and/or Certified Engineering Geologist. The final work plan shall be signed by the Registered Geologist and/or Certified Engineering Geologist that supervised the work.

Once the scope of work has been accepted, Caltrans may issue a separate Task Order for the site investigation. The final scope of work will become part of this site investigation Task Order. The Contractor undertaking the site investigation will be chosen in a manner consistent with this contract and may be a different Contractor from the one who developed the scope of work. If this is the case, the site investigation Contractor will be provided the opportunity to review and comment on the draft scope of work, and his/her comments may be transmitted to the scope of work Contractor in connection with revisions toward completion of the final scope of work.

**Health and Safety Plans**

All site investigations will require development of a site-specific Health & Safety Plan. The Contractor shall submit the plan to the Caltrans Contract Manager at the Task Order meeting or at least one (1) week prior to the start of field work. The Caltrans Contract Manager shall review the plan prior to start of work. The health and safety plan shall conform to all regulatory requirements and shall be signed by a Certified Industrial Hygienist.

The plan shall include all of the following elements, unless otherwise specified in the Task Order:

A. Identification of key personnel for the project, including:

   1. Site safety officer.

   2. Specific assignments for the project.

   3. Health and safety responsibilities.

B. Job hazard analysis for each work assignment at the site.

C. Summary of risk assessment for the project, including:

   1. Workers.

   2. Nearby community.

3. Environmental receptors.

D. Air monitoring plan for the project, if applicable, including:

1. Ambient air quality.
2. Assessment of community exposure.
3. Assessment of worker exposure.

E. Personal protective equipment selected for the project.

F. Delineation of work zones on-site and decontamination procedures for personnel and equipment.

G. Listing of general safe work practices for on-site activities.

H. Description of security measures established for the site.

I. Emergency response plans established for the project, including:

1. On-site emergencies.
2. Off-site emergencies.
3. Access for emergency personnel and vehicles.
4. Nearby community protection.
5. Location and direction of emergency care.
6. Phone and communication options.

J. Worker training requirements for the project.

K. Medical surveillance program for field staff that complies with Title 8 CCR, Section 5192.

The Contractor shall complete all work in accordance with the site health and safety plan as provided to the Caltrans Contract Manager. The Contractor shall ensure that all employees, while on the project site, comply with the plan requirements. All personnel engaged in field investigation work shall be appropriately trained for such activity. Training shall include but not be limited to use of personnel protection equipment (including respirators), decontamination, hazard recognition, and safe operation procedures. The site safety plan shall be signed and dated by all site workers before beginning task order investigative work in accordance with Article XXVII-Special Provision **SP-5**.

The Contractor shall provide certification that provisions of Title 8 CCR Section 5192 have been met for all employees who are on-site when respirator use becomes necessary. If any site personnel are not certified in the use of Level C protection, the Contractor shall take immediate and prudent actions to remove uncertified site personnel from the work location.

Throughout the performance of the site investigation, the Contractor shall, at a minimum, fully comply with Level D protection requirements. The Site Safety Officer (SSO—See Article XXVIII - Special Provision **SP-6**), designated in the Health and Safety Plan shall be responsible for informing the Contractor's work crew and Contractor’s Task Order Manager of the need to upgrade to Level C. On-site upgrade to Level C may be determined by PID (Photo Ionization Detector) readings for gasoline contamination, or FID (Flame Ionization Detector) reading for diesel contamination during field activities. The personnel defined in the normal operating costs shall be accounted for when level C protection is needed. The equipment to be either worn, carried, or otherwise required under Level C protection shall be listed in the health and safety plan and be available on site, as described in *Occupational Safety and Health Guidance Manual*

*for Hazardous Waste Site Activities*, NIOSH, OSHA, USCG, and EPA, DHHS (NIOSH) publication No. 85-115, 1985. See Article XXVIII - Special Provision **SP-5** for additional health and safety requirements.

**Traffic Control**

When requested in the Task Order, the Contractor shall provide traffic control. Traffic control bid items relate only to shoulder closures. When other traffic control methods are necessary, they shall be paid as extra work per Article VIII.C.

The Contractor shall fulfill the following requirements:

A. Comply with the traffic control requirements in Caltrans' "Standard Specifications" Section 7 (Public Convenience, Public Safety) and Caltrans' "Standard Plans", Section 12 and Standard Plan T10 for shoulder closures. Standard Plan T10 is presented in Attachment 2 of this contract.

B. Obtain the necessary encroachment permits and approvals.

C. Comply with the Conventional Highway Mobile Work Special Provisions and Standard Plans T11 and T13, included in Attachment 2 of this contract.

D. Provide all labor, equipment, and materials that are required for placing, operating, maintaining, repairing, replacing, transporting and removing of traffic control and traffic control devices.

E. Conduct operations so as to offer the least possible obstruction and inconvenience to the public and to have under traffic control no greater length or amount of work than can prosecuted properly with due regard to the rights of the public. All public traffic shall be permitted to pass though the work with a minimum of inconvenience and delay.

F. Implement protective measures that are necessary to prevent accidents or damage or injury to the public. No operations shall create a condition hazardous to traffic or to the public.

G. Enter and leave the highway via existing ramps and crossover in the direction of public traffic. There will be no movement across lanes.

H. All trucks or other mobile equipment leaving the public traffic lane to enter the work area shall slow down gradually in advance of the turnoff to allow following traffic an opportunity to slow down.

**Soil Gas Survey**

When requested, the Contractor shall provide subsurface soil gas sampling and analysis services. The soil gas monitoring service is to include field personnel, equipment, and quantitative and qualitative data to provide rapid and cost effective definition of volatile organic compounds (VOC's) present in soil. A mobile laboratory with gas chromatographic capability shall be available and provide personnel and sampling equipment capable of extracting soil gases and identifying a broad range of VOC's and their concentrations. Gas survey personnel on site shall include a chemist or other experienced professional responsible for equipment operation.

The Contractor shall fulfill the following requirements:

A. Have the capability of sampling though native material of varying densities, engineered fill, asphalt, and concrete in on-road and off-road locations. All necessary equipment shall be provided by the Contractor.

B. Drive sample probes to varying depths, with a nominal probe depth of five (5) feet, depending on soil conditions and as specified in the Task Order.

C. Decontaminate all necessary equipment prior to sampling.

D. Ensure that all equipment is maintained and operated in conformance with the manufacturer's recommendations.

E. Supply all electrical power and energy sources required.

F. Provide a sufficient number of probes so that no equipment is reused without cleaning.

G. Run ambient air through the entire sampling system from probe (above ground) through the adapter to collect a system blank at the start of each day, after every 10 samples, and before reusing any sampling system component.

H. Collect soil gas samples from the gas stream being withdrawn from the sample probe. The withdrawal of the soil gas shall be measured on a cubic-centimeter-per-minute basis. An in-line flow meter placed between the sample probe and vacuum pump shall be used to monitor flow rates during sampling. Three to five probe volumes shall be evacuated prior to withdrawing the first soil gas sample for analysis. After purging the sample extraction device with soil gas, a sample shall be collected.

I. Backfill boreholes with local soil or granulated bentonite after sampling, and replace removed concrete or asphalt with new patch material.

J. Decontaminate all equipment per Article XXVIII - Special Provision **SP-7** upon completion of sampling and analysis and before leaving the site.

K. The Contractor shall maintain a log book which contains pertinent sampling, environmental and technical information for each location. This log will be provided to Caltrans as part of the soil gas survey report. The following information shall be included in the log book:

1. Time
2. Ambient air and soil temperature
3. Sample number
4. Sampling depth
5. Evacuation time between samples
6. Flowrate (cubic centimeters per minute)
7. Probe and adapter numbers and volume of the sample probe
8. Number of sampling points used
9. Observations (including, but not limited to, ground conditions, presence of concrete or asphalt, paving, soil appearance, surface water, odors, and vegetation).
10. Backfill procedure and materials
11. Actual sample location marked on the site map

**Surface Geophysics**

The Contractor shall have the capability to mobilize a surface geophysics team for the purpose of acquiring data as specified in the Task Order. The surface geophysical work shall be interpreted by and conducted under the responsible charge of a California Registered Geophysicist.

The Caltrans Contract Manager will provide access, mark the area to be investigated, and in consultation with the geophysicist, determine the appropriate method to attain quality resolution of the subsurface features of interest.

The Contractor shall fulfill the following requirements:

A. Provide and operate all equipment necessary to perform geophysical surveys (i.e., ground penetrating radar, magnetic, EM, and utility surveys, etc) to usual maximums for specific equipment under normal conditions. Utility surveys shall be performed on property that can not be cleared by Underground Services Alert (USA) and where critical utilities may be present. Utility surveys are not to be done in lieu of a USA clearance.

B. Procure licenses and/or permits necessary to perform the work as specified in the Task Order. See Article XXVIII - Special Provision **SP-10** and **SP-13.**

C. Ensure that all necessary equipment, materials, and personnel are present and in normal operating condition at the beginning of each workday.

D. Ensure that equipment operators have the necessary training and certification to operate and handle geophysical devices.

E. Supply all electrical power and any other energy sources required for Contractor's work at each site.

**Trenching**

Caltrans may require trenching for shallow site investigation purposes. Excavation may be needed to determine shallow subsurface conditions or to excavate and expose subsurface structures such as tanks, pipes or sumps. The Contractor shall provide backhoe equipment capable of excavating to a depth of 4–5 meters, personnel, sampling equipment, and decontamination equipment.

The Contractor shall fulfill the following requirements:

A. Comply with all state, federal, and local laws and regulations regarding trench shoring and worker safety.

B. Remove from the site all equipment, unused materials, temporary facilities and other miscellaneous items resulting from or used in the operation and replace or repair any items damaged during the activities.

C. Restore the trenching site to prework condition unless otherwise directed by the Caltrans Contract Manager.

Trenching activities shall be observed and supervised by a site geologist or engineering geologist. The subsurface geologic and geotechnical conditions found during trenching shall be logged by the site geologist or engineering geologist, as included in the bid item prices in Appendix A. Under normal circumstances, OVA (organic vapor analyzer) or PID (photo ionization detector) measurements shall be taken to monitor the materials excavated and for

the health and safety of workers. Material removed from the trench shall be properly collected in containers or stockpiled on plastic sheeting provided by the Contractor. If the materials are non-hazardous, they shall be returned to the trench or otherwise legally disposed of by the Contractor. If contaminated, the material may be returned to the trench or temporarily stored as directed by the Caltrans Contract Manager and ultimately disposed of in compliance with regulatory requirements. Backfilling of the trench is included in the normal operating costs. All trenching activities and temporary storage and ultimate disposal of containerized materials will be paid as extra work per Article VII.C**.** See Article XXVIII - Special Provision **SP-7** and **SP-8** for decontamination and disposal requirements.

**Drilling**

Contractor shall have the capability to drill through, core, and sample soft or poorly consolidated material, engineered fill, asphalt, PCC and waste. Contractor shall also have the capability to properly drill, construct and develop wells.

At the direction of the Caltrans Contract Manager as part of a Task Order work scope, Contractor shall provide site boundary and borehole locations within one meter accuracy in either geographic coordinates or California State Plane Coordinates. The locations of drilling shall be provided in one of the following digital formats (as directed by the Contract Manager):

A. Arc/Info or ArcView Geographic Information System files.

B. Trimble SSF or RINEX Global Positioning System files.

C. Excel (ver. 5.0/Win-95) spreadsheet format.

D. Delimited text files.

This information shall be paid by Bid Items 53, and 54. This information shall be submitted in digital format pursuant to Article IV.B.4. If requested by the Caltrans Contract Manager, DXF (CADD) files shall be included in the report and will be paid by Bid Item 2.

<u>Drilling, Driven Bailer, Direct Push, Hand Augering, and Sampling Capabilities</u>

Drill rigs shall have the ability to drill and sample boreholes which are at least 203.2 mm (8 inches) in diameter to a depth of at least 30.5 meters, and 305 mm (12 inches) in diameter to a depth of at least 15 meters Drill rigs must also be capable of hydraulically pushing thin-walled soil samplers or driving thick-walled soil samplers or coring sediments. In addition, drill rigs must be capable of obtaining continuous samples of soil through hollow-stem augers by either wireline method, using thin-walled sample tubes or by a 1.5 meters (5 foot) sample tube used within the lead auger. Soil samples shall be obtained in stainless steel sample tubes. Glass jars may be used for non-volatile samples from containers, stockpiles, and excavations, if approved by the Caltrans Contract Manager.

All borings shall be logged by the field geologist or engineering geologist. Borings shall be logged in accordance with *Soil & Rock Logging Classification Manual* (Field Guide), State of California, Department of Transportation, Engineering Service Center, Office of Structural Foundations, August 1995. Fill materials shall be logged for content, color, texture, and cultural items. At a minimum, samples for logging purposes shall be taken every 1.5 meters. Field instrument readings shall be noted on the log corresponding to the depth of the sample. When borings are completed as monitoring wells, graphic representation of the well construction shall be added to the log. The Contractor's Task Order Manager (a California Registered Geologist or Certified Engineering Geologist) shall sign the final boring logs.

The driven bailer (hydropunch or equivalent) technique shall use a temporary tool emplacement to obtain undisturbed water samples or product samples from ahead of the lead auger. Drill rigs or cone penetrometer rigs shall have the ability to sample ground water by use of a driven bailer to a depth of 30.5 meters in unconsolidated material. The sample inlet area shall be in hydraulic contact with the water-bearing zone and sample a discrete water interval. The water samples shall be unaltered and uncontaminated by drilling fluids or cuttings. The sampler shall be chemically inert.

All emplacements shall be overseen, described, and signed in the field log by the field geologist or engineering geologist. The Contractor's Task Order Manager shall also sign the final field log. The field log shall include, but not be limited to, description of materials penetrated, drilling method, drill penetration rate, bit pressure and drill chatter. When the sampling is complete, the sampler shall be retrieved and the borehole backfilled with grout or neat cement during the same day or as directed by the Caltrans Contract Manager.

Direct push drilling method shall consist of a dual tube sampling system with continuous small diameter 25.4 mm to 50.4 mm (1" to 2") steel tubes that are pushed or vibrated into the ground and generate minimal drill cutting waste. Clear acetate sleeves may be used for sample and core collection where samples will not be compromised by incompatibilities between the acetate and chemical contamination in the soil or ground water. Direct push rigs shall have the capability to drill to a depth of 15 meters in unconsolidated materials. This method may be used for soil core lithologic logging, soil vapor sampling, groundwater sampling, product sampling and soil sampling. In cases where soil samples are not required below a depth of 5 meters and access or space is limited, a compact and/or mobile direct push rig may be required. A compact direct push rig shall employ the same technology as a standard direct push rig, but can be used from a smaller platform and is only required to drill to a maximum depth of 5 meters. Direct push (dual tube) drilling systems may be used at: limited-space work areas, under low overhead structures that are less than 3 meters in height, in buildings, on uneven/sloping topography, or on soft terrain such as wetlands. Mobile (i.e., pickup truck mounted) rigs will be needed for aerially deposited lead surveys next to roads.

For all drilling methods the Contractor shall have available all necessary equipment to perform the following functions:

A. tremie materials into boreholes

B. maintain drilling fluids

C. mix grout or grout mixtures

D. pump grout in one continuous motion, beginning at the bottom of the space to be grouted

Borings that are not turned into monitoring wells shall be backfilled with grout, neat cement or bentonite grout during the same day or as directed by the Caltrans Contract Manager and as required by permitting agencies. Payment for backfilling is included in Appendix A's drilling bid item prices.

Hand augering may be used to collect soil samples for laboratory analysis, or for detecting utility lines ahead of other drilling methods. Hand augering for the purpose of collecting soil samples for laboratory analysis shall be performed by either a registered, or unregistered professional. All hand augered borings shall be logged using the unified soil classification system. All hand augering devices shall be cleaned prior to use in each borehole. All hand auger sampling devices shall be cleaned prior to collection of each sample.

Samples collected for laboratory analysis shall be obtained using a drive hammer sampler equipped with stainless steel sample tubes unless the Caltrans Contract Manager specifies otherwise (in writing). At the Caltrans Contract Manager's direction, samples collected to analyze for non-volatiles may be obtained using methods other than a drive hammer and shall be placed in individual glass jars for delivery to the laboratory.

Contractor shall provide containers for waste materials and shall control and collect all drill cuttings and fluids for proper disposal. See Article XXVIII - Special Provision **SP-7** and **SP-8** for decontamination and disposal requirements.

Well Installation and Development and Temporary Wells

Monitoring wells may be required to determine if ground water contamination is present, the extent of any contamination, and the general characteristics of subsurface hydrogeological conditions. Monitoring wells shall be designed and constructed to obtain water samples representative of the formation water. Monitoring wells shall include the following elements:

A. Wells shall be screened and filter packed to match the formation material of the screened zone. Sieve analysis may be required to fulfill this task. A filter bridge of finer sand than used for the filter pack shall be placed above the screen and below the bentonite.

B. Payment for field sieve analysis is included in the well installation bid item prices in Appendix A. Custom filter pack mixes and custom screens shall be paid as extra work per Article VII.C.

C. Filter pack material shall extend 460 to 610 mm above the screen, 9.53 mm (3/8") bentonite pellets shall be placed 1 to 1.5 meters above the filter pack, and cement or cement bentonite grout shall be used to fill the annular space. Well surface completion shall be concrete which is integral with the concrete annular seal in the upper 600 mm of the hole. The materials shall be tremied into the annular space around the casing. Filter pack material shall be clean, inert material; bentonite shall be non-beneficiated.

D. Grout shall be mixed in correct proportions so as to not affect ground water chemistry.

E. Grout shall consist of approximately 5% bentonite and 95% cement.

F. Bentonite and/or grout shall not be allowed to free fall down the annular space if greater than 1.5 meters deep.

G. Centralizers shall be used when wells are not completed within a hollow stem auger.

H. Monitoring wells shall not provide a conduit for cross contamination of water bearing zones.

I. Wells shall be completed at the surface to prevent damage and tampering. Traffic proof covers or monument covers shall be used. Waterproof well caps shall be used in flush-mounted wells.

J. Screen lengths shall be appropriate to the monitoring task and shall meet regulatory agency requirements.

K. Wells shall be designed to meet the requirements of appropriate regulatory agency requirements.

L. Wells shall be completed so as to prevent surface water from entering the well or ground water table.

M. A third order survey shall be completed by a professional engineer (P.E.) or a licensed surveyor as required by the Task Order. All monitoring wells will be surveyed for X, Y and Z coordinates. Horizontal (X and Y) coordinates will be surveyed to the nearest 0.15 meter, with the vertical, or top of PVC elevations (Z coordinate) measured to the nearest 0.003 meter. The California Coordinate System coordinate shall be calculated for each well. All vertical measurements will be to mean sea level. When noted in the Task Order survey data shall be submitted in GIS-ready format and shall be paid as extra work per Article VII.C. Water level elevations will be calculated based on the top of casing elevations and depth to water measurements. A reference point (notch or mark) will be placed at the top of casing to ensure consistent and accurate measurements. The elevation of the ground or the top of the concrete slab adjacent to the monitoring well shall also be surveyed, to the nearest 0.03-meter. This data will be used to determine the direction and gradient of groundwater flow beneath the site. Well or boring surveys shall be paid as extra work per Article VII.C at the prevailing wage rate for the job location.

Wells shall be developed after construction by surging with a vented surge block, or equivalent technology, as approved by the Caltrans Contract Manager, and pumped to remove sediments.

Wells will be surged and pumped as often as necessary to produce sediment free water samples (with a goal of less than 5 NTU's). Contractor shall measure turbidity in NTU's once per hour during development and once at the end of development. Contractor shall keep a well development log documenting development method, temperature, pH, conductivity, NTU's, and volume of water produced. Costs of any additional work required to obtain sediment free water samples during the field contract period are included in the bid item prices in Appendix A for well development and no additional compensation shall be allowed.

Necessary well permit(s) shall be obtained by the Contractor prior to drilling and installation of wells. Wells shall be registered by the Contractor with the Department of Water Resources. Copies of these records shall be included in the final Task Order report.

Boring and well cuttings placed in drums may be stored at the site or transported to a storage site in the vicinity.

Temporary wells may be completed in open holes advanced by hollow stem auger or direct push methods for the purposes of water level measurements and water sample collection. Temporary wells are intended for use in situations where a water sample can not be obtained by driven bailer within one hour due to formation permeability. Temporary wells shall be constructed of 25.4 or 50.8 mm (1 or 2 inch) PVC, remain in place for as long as it takes to collect a water sample, but no more then 24 hours or as directed by the contract manager, and only be used in borings completed to the first water bearing zone. The surface of the temporary well shall be protected from surface water infiltration and vandalism. The installation and removal of temporary wells shall be paid by the per 0.3 meter drilling price and PVC bid items.

Well Destruction

Contractor shall destroy 50.8 mm (2 inch) and 101.6 mm (4 inch) PVC wells up to 30.5 meters deep in accordance with applicable local and state requirements (DWR Bulletins 74-81 and 74-90). The bid item shall include the requirements of Section 23 E for wells in urban areas. Reports of well destruction shall be filed with the Department of Water Resources (per the requirements of California Department of Water Resources, Bulletin 74-81 and Part III section 19, A-1, 2a) and copies of these reports shall be included in the draft and final report. Caltrans

will provide site access when necessary. Neat cement or sand cement shall be used to decommission wells.

The Contractor shall fully describe the well destruction in a report included with the final site investigation report and well destruction log, unless separately requested by the Caltrans Contract Manager.

**Sampling**

Soil Sampling

The objective of sampling is to obtain a representative sample of the subsurface ground materials and level of contamination at a site. The Contractor shall communicate to the laboratory the analyses required on samples and any special criteria for performing analyses. Soil samples shall be obtained using thin and/or thick walled sample barrels with stainless steel inserts (Acetate may be used for direct push core barrels). Soil samples obtained using the Standard Penetrometer Test shall be accomplished according to ASTM D 1586-84. Thin-walled Shelby tube samples shall be obtained in accordance with ASTM D 1587-83. Cost for sample barrels, tubes, teflon tape, caps, and sealers are included in the sampling bid item prices in Appendix A. Thin walled samplers shall be pushed into the soil while thick walled samplers may be driven. Continuous coring of unconsolidated materials or rock may be requested in the Task Order.

Soil samples shall be obtained in as undisturbed a state as possible. Soil samples shall be obtained in stainless steel sleeves during drilling or hand sampling. This requirement may be waived by the Caltrans Contract Manager on a case by case basis. At the discretion of the Caltrans Contract Manager, glass jars may be used for aerial deposited lead samples and acetate liners may be used for direct push samples where there is no chemical incompatibility. No fluids shall be introduced into sample boring except in special cases approved by the Caltrans Contract Manager. Sample tubes shall be capped with teflon film or aluminum foil and plastic caps, sealed with appropriate taping (not electrical or duct tape), preserved immediately at $4^{o}$ C and delivered to the laboratory for analysis within 24 hours of sampling. Soil samples to be analyzed for volatile organic compounds shall be preserved with dry ice. For metals analysis of soil samples, when the total metal concentration (TTLC) is greater than ten times the soluble threshold limit concentration (STLC) the laboratory shall contact the Contractor, who shall contact the Caltrans Contract Manager for approval before proceeding with the waste extraction test (WET).

In some cases soil samples will be obtained using EPA Method 5035, the Closed-System Purge-and Trap and Extraction for Volatile Organics in Soil and Waste Sample. Contractor will be directed in the task order to collect samples using this procedure and shall be responsible for supplying all equipment and trained personnel for performing Method 5035. Procedure shall be paid for as a surcharge on soil sampling per Bid Item No.106.

**Aerially Deposited Lead Investigation Data Evaluation**

The Contractor shall use EPA Test Methods for Evaluating Solid Waste Physical/Chemical Methods SW 846, Chapter 9 to evaluate aerially deposited lead survey data:

Normalizing Data and Handling Nondetects

The presence of nondetects in the lead analysis data can strongly skew sample data toward low values. Classical statistical methods do not work properly in these cases. A natural log (ln(x)) transformation of the data allows calculation of upper confidence intervals for the mean. A histogram of the data set shall be developed to determine if the data are skewed and if transformation is necessary. If a data set is skewed, the data will be transformed using a ln(x) transformation and a new histogram developed to document the transformation.

Please note: analytical results for total and soluble lead will have results below the method detection limits. Nondetect results should be numerically set at one half the detection limit and all results used in calculations.

Total lead levels are often below 50mg/kg and a follow up WET analysis will not be necessary. Consequently, a project may have, for example, 30 total lead analysis and five (5) WET analysis. Of the five (5) WET analysis, three (3) may have lead levels which exceed the regulatory limit for hazardous waste of 5 mg/l. In this case, three (3) out of 30 samples would not necessarily make the sediment next to the road a hazardous waste. On the other hand, a single very high lead level out of many samples may not be representative of the concentrations of lead in sediment at a project and would not be considered representative of the waste. Good judgment and documentation of the data and how it is used is very important. In general, all sample data should be considered and used when evaluating lead levels and determining if a material is hazardous, triggers the Variance, and consequently which cover controls are necessary.

Correlation of Total and Soluble Lead

Total lead and soluble lead (California WET) are bivariate data with a linear structure. The plot of the data shows basically a straight line trend except for some randomness. A lack of correlation usually means that the total and soluble lead samples were not pulled from the same sample aliquot. The correlation coefficient can be used as a quality check of the data. A correlation/regression analysis shall be performed on the data comparing soluble lead levels to total lead levels.

The following correlation coefficient formula (or equivalent) shall be used:

$$r = \frac{\left(\overline{XY}\right) - X \times Y}{S_x \times S_y} \times \frac{n}{n-1}$$

Where: $\overline{(XY)}$= the average of products or the average of each soluble lead level multiplied by the matching total lead level.

X = the soluble lead average.

Y = the total lead average.

Sx = the standard deviation of soluble lead

Sy = the standard deviation of total lead.

n = the number of samples.

If the analysis indicates a correlation coefficient below 0.8, this must be explained in the report or the sample procedures adjusted and the sample reanalyzed for both total and soluble lead (see the section on Laboratory Sample Handling procedures, page 6). The best time to look at

this data is at the lab where problems can be resolved quickly and within the task order schedule.

For the linear regression analysis the soluble levels vs. the total levels will be graphed and a best fit line plotted for the data. A least squares method shall be used to estimate a straight line. This estimate is easily (and routinely) done by computer. The formula to be used for determining the least squares straight line shall be:

The slope of the line =(correlation) x (standard deviation of the total lead)/(standard deviation of the soluble lead).

The intercept of the line = (average total lead concentration) - (line slope) x (average soluble lead level).

Once the slope and the intercept are found, the line itself is known and can be drawn in the bivariate plot of the data. This graph can be used to approximate the expected solubility concentration from the average total concentrations.

Water Sampling

Water samples may be taken from surface sources, undeveloped borings, by direct push or CPT systems or from monitoring wells. Samples taken from undeveloped borings shall be obtained with clean stainless steel or teflon bailers within the hollow stem auger. Water samples may also be obtained from monitoring wells after the well has been developed and purged. Well water shall be monitored for temperature, pH, and conductivity during purging. A minimum of 3 well volumes shall be purged prior to sampling. Purging shall continue until measurements of temperature, pH, and conductivity have stabilized (reproducible within 10%). This information shall be documented on a well purge log. These requirements may be waived in the case of low yielding wells that would be pumped dry during purging. This monitoring shall be done during development and sampling and no additional compensation shall be allowed. Direct push or CPT systems may not use bailer systems which agitate the water sample.

Samples shall be placed in sterilized VOC bottles, preserved immediately at $4^{o}$ C and delivered to the laboratory within 24 hours of sampling. A trip blank shall be included in each ice chest. When sample preservation in the field is necessary, containers with the added preservative for water samples shall be supplied by the laboratory. Water samples shall be packed or secured in such a manner so as to prevent cross contamination of samples and freezing or breaking of containers. When wells are installed to determine if a chemical product is present, the well shall be sampled to determine if such a product exists before purging the well for dissolved constituents.

Requirements for filtering shall also be communicated to the laboratory. If a sample is to be filtered before analysis for metals, no preservatives or acid shall be added until after filtration. Samples taken for dissolved metal determination shall be filtered through a 0.45 um filter. Filtration shall not be done for total metal analyses. If filtration is performed, it shall be done in-line or in the field immediately following sampling.

The Contractor shall obtain new samples without expense to Caltrans if QA/QC data shows any of the following:

A. Cross contamination has occurred.

B. Samples were held too long before analysis.

C. Samples were compromised while in the custody of the Contractor prior to delivery for analysis.

D. Any chain of custody violation.

Payment will be denied for unapproved chemical testing.

**Laboratory**

General Information

Laboratories performing chemical analyses shall be certified by the California Department of Health Services Environmental Laboratory Accreditation Program (DHS-ELAP) for the specific laboratory test methods listed in the bid item prices in Appendix A. For specific test methods not as yet certified by DHS, the laboratory may perform laboratory analysis only if presently certified by DHS for comparable test methods (e.g., volatile organics, semivolatile organics, etc.), or if it is a currently certified US EPA Contract laboratory. Water sample analysis shall be considered to include surface water, ground water, rinsewater, monitoring well samples, etc. Standard turnaround time for chemical analysis shall not exceed ten working days.

The Contractor shall be responsible for sample transport from worksite to the laboratory, and for providing decontaminated or new sample containers, labels, appropriate preservation and chain of custody records. Costs of these services and materials are included in the bid item prices for laboratory analysis in Appendix A.

Remaining and unused portions of samples shall be stored in a chilled state ($4^{o}$ C) at the laboratory for 30 days following completion of the last analysis for that group of samples listed on the same chain of custody form. Costs for such storage are included in the bid item prices for laboratory testing. Disposal of samples shall be the responsibility of the laboratory.

Retention of samples beyond the 30-day period following the last analysis for a sample or set of samples and additional laboratory work not listed in Appendix A shall be by written request from the Caltrans Contract Manager to the Contractor and will be paid as extra work per Article VII.C**.**

The Contractor and the laboratory provide clear and accurate explanation of analytical results including graphical presentations and summaries of the laboratory data in reports.

Laboratory Sampling Handling Procedures for Aerially-Deposited Lead Investigation Samples

Soil samples taken from roadside sites are not homogeneous. Aerially deposited lead tends to be very soluble and total lead levels as low as 100 to 150 ppm can produce soluble lead levels greater than 5mg/l using the California Waste Extraction Test (WET). After the total analysis is run on a sample, it is very important to run a solubility test on sediment that is representative of the original total lead test.

Each sample shall be homogenized. A sample aliquot sufficient to cover the amount necessary for the Total and WET analysis shall then be taken. This aliquot shall be homogenized a second time and the total and soluble (if necessary) run on this aliquot. The homogenization process shall not include grinding the samples.

The lab shall then compare the solubility versus total lead results for the sample set. The lab should see a high correlation factor using a regression analysis on the data. If the correlation is less than 0.8, the lab should re-examine the sample and determine if re-analysis is needed.

Mobile Laboratory

Mobile laboratories shall be certified by the Department of Health Services Environmental Laboratory Accreditation Program (DHS-ELAP) for analyses which are specified in the Task Order. Mobile laboratory gas chromatograph equipment shall be calibrated on-site at the beginning of each working day as follows: Mobile laboratories shall record gas chromatograph system parameters on the first page of each day's chromatograms. The parameters include the temperatures of the injector, column, and detector; integrator parameters of the injector, peak markers, and baseline offset; column type, length and diameter; and packing material. The name of the operator and the date shall also be included. Any changes to the system parameters shall be documented.

Quality Assurance/Quality Control

Quality Assurance/Quality Control (QA/QC) shall be performed for each method of analysis with specificity for every appropriate analyte requested and/or representative analytes listed in the test method's QA/QC. QA/QC data shall be reported in summary form for all samples submitted. QA/QC procedures specified by each test method shall include the following:

A. one method blank for every ten samples, batch of samples or type of matrix, whichever is more frequent;

B. one sample analyzed in duplicate for every ten samples, batch of samples or type of matrix, whichever is more frequent;

C. one spiked sample for every ten samples, batch of samples or type of matrix, whichever if more frequent, with spike made at ten times the detection limit or at the analyte level;

D. one equipment blank for every chain of custody by pouring deionized water onto the sampling device and into a laboratory container;

E. one trip blank for every ice chest or sample shipment container. Water samples will require one laboratory prepared trip blank for each individual group of water samples transported to the laboratory. The contents of each ice chest or refrigerated container constitute an individual group of water samples. The trip blank is a clean water sample that shall be opened at the site in the same location as the field sampling. The trip blank shall be analyzed for the same compounds as the other samples.

Where the test method does not specify QA/QC procedures, all of the above will apply. Trip blank(s), laboratory blank(s), spiked samples, and duplicate sample analyses shall be reported on either the laboratory testing report or the QA/QC summary report. Spiked samples shall be reported as percent spike recovery.

Acetone, methylene chloride, chloroform, and methyl ethyl ketone (MEK) detected in soil and ground water contaminants shall be considered laboratory contaminants. It shall be the lab's responsibility to determine if the laboratory processes introduced these chemicals to the samples.

With the draft Site Investigation report, the Contractor shall submit to Caltrans the lab's written discussion documenting QA/QC evaluation and analytical checks.

Task Orders which have more than 50 soil or ground water samples shall also include a holding timetable. The holding timetable shall include the sample collection date, the date the sample was received at the laboratory and the dates the sample was extracted and analyzed.

All costs for QA/QC work and reporting are included in the bid item prices for each test method in Appendix A.

The QA/QC summary reports shall include:

A. temperature of incoming samples

B. constituent/analyte

C. specific test method

D. date (include holding timetable for more than 50 samples)

E. detection limit of the specific test method (mg/kg or mg/liter)

F. percent accuracy

G. percent precision

H. signature of laboratory manager or director

**Remedial Action Options Reports**

Refer to Article IV and Article XXVII, Part 4.

**Part 3 - SURVEYS OF STRUCTURES AND CONTAINERS**

The scope of services under this section of the contract includes surveying and testing, as applicable, of buildings, structures, stored materials, tank contents and containers to determine whether hazardous waste or materials are present. Typical surveys would include inspections for:

A. Asbestos containing materials (ACM) in buildings, bridges, and utilities.

B. Lead based paint on surfaces of bridges, buildings, and yellow traffic striping.

C. PCB-containing materials in transformers, equipment and containers.

D. Fuels and other chemicals in tanks, barrels and storage containers.

E. Hazardous materials being used or stored in buildings or structures.

**Health & Safety Plans**

All survey work shall be completed in accordance with a site specific health and safety plan developed by the Contractor and signed by a Certified Industrial Hygienist (CIH) for conditions expected during the survey work. The health and safety plan shall be reviewed by the Caltrans Contract Manager prior to the start of work. The Caltrans Contract Manager shall be notified at least 24 hours before the commencement of any investigative or field work. If the nature of the work requires the presence of the CIH during field work, time for the CIH will be paid per bid item 3. Costs for development of the health and safety plan will be paid per the health and safety plan bid item price in Appendix A.

**Asbestos Survey**

The Contractor shall conduct a pre sampling survey of all accessible areas of structures and facilities to determine the presence of ACM requiring removal prior to demolition. Caltrans will provide the Contractor with as-built drawings, if available, prior to the inspection.

In the asbestos survey Work Plan the Contractor shall provide documentation that Contractor's personnel who conduct asbestos surveys have, as a minimum, current Asbestos Hazard Emergency Response Act (AHERA) training for building inspections and sampling, and that they comply with Title 8, California Code of Regulations certification requirements for asbestos consultants and site surveillance technicians. After the Work Plan has been submitted and reviewed by Caltrans, representative samples of suspect materials shall be taken, as delineated in the Task Order and Work Plan, and analyzed using State-certified laboratory procedures.

Payment for asbestos survey personnel shall be under bid item 2 for actual time used collecting samples. Mobilization, pre sampling evaluation, and sampling will be paid under bid items 147, 149, 150 and 153. Asbestos survey reports will be paid per bid item 151. If, in the judgment of the Caltrans Contract Manager, additional services not listed in Appendix A are required, they will be paid as extra work per Article VII.C**.**

**Lead Based Paint Survey**

The Contractor shall conduct a pre sampling survey of all accessible areas of structures and facilities to determine the presence of lead based paint and the condition of paint. Samples may be collected from bridges, buildings, yellow traffic striping and other surfaces as directed by the Task Order.

In the survey Work Plan the Contractor shall provide documentation that personnel who conduct lead surveys have, as a minimum, current Certified Lead Inspector/Assessor training for building inspections and sampling and that they comply with California Department of Health Services (Title 17, CCR, Sections 36000 and 36001). After the Work Plan has been submitted and reviewed by Caltrans, samples representative of the suspect painted material (wood, steel, asphalt, concrete, dry wall, etc.) shall be analyzed using State-certified laboratory procedures. Paint chip samples may be placed in individual containers, including self sealing plastic bags, or glass jars.

Payment for lead based paint survey personnel shall be under bid item 2 for actual time used collecting samples. Mobilization, pre-sampling evaluation, and sampling will be paid under bid items 147, 149, and 151. Lead based paint survey reports will be paid per bid item 153.

**Tanks, Barrels, Storage Containers Survey**

The Contractor shall conduct a pre-sampling survey of the designated site. Samples may be collected from aboveground or underground tanks, barrels or storage containers.

The survey Work Plan shall provide a container sampling plan including recommended analysis and sampling equipment. The Contractor shall pay particular attention to Health and Safety and recommend any specific sampling safety requirements for unknown materials. After the Work Plan has been submitted and reviewed by Caltrans, samples from aboveground or underground tanks, barrels or storage containers shall be analyzed using State-certified laboratory procedures.

Payment for container survey personnel mobilization, pre sampling evaluation, and sampling efforts shall be under bid items 147, 149, and 152. Container survey reports will be paid per bid item 153. If, in the judgment of the Contractor, this work appears to be dangerous or requires more than Level C safety protection, the Contractor shall stop work and contact the Caltrans Contract Manager. If in the judgment of the Caltrans Contract Manager, additional services not listed in Appendix A are required, they will be paid as extra work per Article VII.C**.**

**Survey Reports**

Refer to Article IV and Article XXVII, Part 4.

**Part 4 - REPORT REQUIREMENTS**

Metric conversion is part of the reporting requirements for this contract and payment for the conversion shall be included in Appendix A bid item prices. (See Article XXVIII - Special Provision **SP-18.**).

**Initial Site Assessment Reports**

The Initial Site Assessment (ISA) report shall include but not necessarily be limited to the following (See Article IV for further information on report requirements.):

A. Title sheet identifying Task Order number, all EA's included in the report, project name, project location, contract number, Contractor name, name of author and date prepared.

B. Signature page with signature and title of the Contractor's Task Order Manager.

C. Table of Contents.

D. Investigative Summary - This section shall present and summarize the findings of the investigation.

E. Project Description - This section shall briefly describe the project for which the investigation was undertaken.

F. Background section including:

   1. Aquifer descriptions (depth to ground water, gradient, conductivity, yield, quality and beneficial uses). Public sources such as Department of Water Resources (DWR) reports, area site investigations, and United States Geologic Survey (USGS) reports will be typical sources of this information.

   2. Geologic units. Geologic and Hydrologic information should be scaled to the freeway project. The shallow subsurface conditions, i.e. less than 15 meters, will have the greatest impact on construction.

   3. Location and use of ground water monitoring wells in the project vicinity. Public sources such as the Department of Water Resources, Regional Water Quality Control Boards, cities and counties will have well records.

G. Historical background summary.

H. Investigative narrative including:

   1. Investigative methods and evaluation criteria

2. Known hazardous waste sites (problem type, Federal or State, impact, schedule for cleanup, etc.)
3. Potential hazardous waste sites (name, type of operation, why suspect, potential area of impact)
4. The following information for all known and potential hazardous waste sites:
    a. The name, address and telephone number of the business/owner(s) of each such site.
    b. The type of hazardous waste/material containers involved at each site, such as, sludge pits, ponds, underground or aboveground storage tanks, etc.
    c. Chemicals/hazardous materials that have been stored/used in the past at each site, and the known generators (if available) of that material.
    d. Permits, violations, plans, records and any other information reviewed.
    e. Site sketches, site photographs and descriptive comments to identify important features such as major utilities at each site.
    f. Site maps for every site with features of concern identified, at a scale of 1:1000 unless otherwise specified in the Task Order, and depicting the relationship between the contamination and the proposed right of way and pertinent project features.

I. Maps including site features, corresponding symbols and physical features such as geologic units, aquifer descriptions, and depth to ground water.

J. A description of how project work will affect, or impinge upon, the suspect site (i.e., area of soil contamination in relation to construction excavation).

K. When requested as part of the Task Order, for prediction of impact on the public, a description of how the suspect site will affect public health and the surrounding environment if that suspected contamination is impacted by the project (for preliminary endangerment assessment work).

L. A list of sites that are recommended for detailed site investigations. To facilitate scheduling these future site investigations, the sites on this list shall be prioritized—ranked by magnitude of potential hazardous waste problem and estimated expense for follow-up investigations, monitoring and mitigation. The rationale used for this prioritizing of sites shall be fully explained in the report.

M. Description of the magnitude of each hazardous waste problem in terms of length of time and approximate costs for mitigating the problem.

N. Description of future plans, if any, (by the U.S. Environmental Protection Agency, California Department of Toxic Substances Control, Regional Water Quality Control Board, or others) to remediate the hazardous waste sites listed in the ISA.

O. Resumes of staff performing the ISA.

P. Reference list.

The Contractor shall describe the ISA development process he/she followed and identify individuals or agencies contacted in developing the information included in the ISA. The Contractor shall include a complete list of contact names, phone numbers, dates contacted, and information reviewed. The Contractor shall explain any limitations in the adequacy and/or conclusions reached in the assessment.

Historic Research Report

Historic research reports that are prepared for Initial Site Assessments shall include the following, in addition to the standard title sheet, table of contents, investigative summary, and project description required for ISA reports:

A. Survey scope and methods.

B. Results of the research, focusing on properties which used or may have used hazardous materials and/or generated or may have generated hazardous waste.

C. Interpretation of results.

D. Recommendations.

E. Sources consulted.

F. Maps and figures, both historic and recent, depicting properties of interest.

Historic research reports shall be prepared and signed by an historian with, a Master's degree in History.

**Site Investigation Reports**

The site investigation report shall include the following items in the format described below (Also see Article IV):

A. Title sheet identifying Task Order number, all EA's included in the report, project name, project location, contract number, Contractor name, name of author and date prepared.

B. Signature page with signature, title and registration number of the geologist or the engineering geologist who is licensed in the State of California and is the Contractor's Task Order Manager for the investigation.

C. Table of Contents

D. Investigative Summary - This section shall present and summarize the findings of the investigation.

E. Project Description - This section shall provide a brief description of the project for which the site investigation work was undertaken.

F. Introduction -This section shall include the general objectives of the investigation, a short chronology of site activities, previous site work, and items of work completed for the investigation.

G. Investigative Methods -This section shall describe the field methods used for the investigation and any deviations from the workplan.

H. Investigative Results and Field Observations -This section shall include a discussion of the site geology, hydrogeologic conditions observed during the investigation, and chemical test results (to be further described in "Laboratory Testing"). The data shall be presented clearly and concisely, including reference to previous work or results, and shall be summarized in table form.

I. Description of any contacts with regulatory agencies or personnel.

J. Data Evaluation and Discussion - Site investigation results shall be evaluated in the report. Data evaluation shall include:

1. Maps showing the site, feature locations, boring and well locations, vertical and horizontal extent of contamination, contour maps of contaminant concentrations, and hydraulic gradient. All maps shall have title blocks, scale and north arrow. Contractor shall obtain the Caltrans Contract Manager's approval of map scales.
2. Cross sections showing subsurface geologic and hydrologic conditions, sample results and estimated extent of contamination. Contractor shall estimate the volumes of contaminated soil and ground water present and shall describe fully the assumptions and calculations on which estimates are based.
3. Charts showing contamination levels of soil and/or ground water in specific, identifiable locations.
4. Color photographs that document the site surroundings, the investigation area with flagged boring locations, and any significant geological features. If specified in the Task Order or requested by Caltrans' Contract Manager, Contractor shall provide additional photographs that document the progress of the investigation and any significant areas or activities.
5. Statistical analysis of sample results, estimating trends, contaminant distribution and average concentration.
6. Maps, cross sections, and graphs that shall be supported by data and shall be included in the reports.
7. Summary of laboratory results.

K. Conclusions and Recommendations - This section shall describe the type, extent, and estimated amount of contamination. Recommendations for any necessary additional work to characterize the site and the estimated cost of that work shall be included in this section.

L. Identification of subcontractors and staff performing work, including resumes, if they were not provided in the bid proposal or work plan.

M. Appendices that contain all data used to support the report, such as:

1. Well and boring logs for both existing and new wells and soil borings. This includes all wells that can influence hydrogeologic conditions of the site, not just wells used to develop cross sections. Both field and final logs shall be included in the report.
2. Copies of well permits from the State Department of Water Resources, county regulatory agencies or other applicable permits.
3. Laboratory analysis of each sample tested. Laboratory reports shall include Chain of Custody forms that contain required EPA and Department of Health Services information (See Laboratory Test Report section for reporting requirements).
4. Surveyed elevations and horizontal positions of wells and borings, bench marks and monuments (third order survey). Map showing relative positions and coordinates of these features.

N. Reference list.

The Caltrans Contract Manager may reduce the level of reporting in an individual Task Order. If the Task Order requires significantly less than the standard report described above, payment for the Site Investigation Report will be based on Appendix A Bid Items and unit quantities mutually agreed upon by the Contract Manager and the Contractor.

<u>Lead in Soil Investigation Report</u>

The lead in soil investigation report shall include the following items in the format described below:

A. Title sheet identifying task order number, all EA's in the task order project name, project locations, contract number, Contractor name, name of author and the date prepared.

B. Signature page with signature, title and registration number of the geologist, or engineering geologist, licensed in the State of California, who is the Task Order Manager for the investigation.

C. Table of Contents.

D. Investigative Summary - This section shall present and summarize the findings of the investigation.

E. Project Description - This section shall include the general objectives of the investigation, a short chronology of site activities, previous site work, and items of work completed for the investigation.

F. Investigative methods - This section shall describe the field methods used for the investigation and any deviations from the workplan.

G. Investigative Results and Field observations - This section shall include a discussion of the sediment conditions observed during the investigation, and chemical tests results (as described in laboratory testing). The data shall be presented in clear, concise form and summarized in table form, including previous work or results.

H. Data Evaluation and Discussion - Site investigation results shall be evaluated in the report. Data evaluation shall include:

   1. Maps showing the site, boring locations, total and soluble lead levels found in each boring. All maps shall have title blocks, scale and north arrow. Map scale shall be approved by the Caltrans Contract Manager. Map sheets supplied by the Caltrans Contract Manager shall have the Engineers stamp removed from the maps used in the report.

   2. Tables of laboratory results showing total and soluble lead levels in soil samples with specific locations identified. Extraction ratio for total versus soluble shall be included.

   3. Statistical evaluation, tables and graphs. The mean, median, standard deviation, and the 80% and 95% (if required by the Task Order) confidence level shall be calculated and histograms of the original data and transformations shall be supplied. The report shall include a graph showing the total versus soluble lead levels and a least squares regression line. The H-statistic used to determine the confidence interval shall be referenced or reproduced in the report. The report shall include a determination of the concentration and show the total and soluble lead concentrations that would be expected in each layer of soil depending on how the various levels of soil were segregated. The data shall be compared to Title 22 criteria and the DTSC Variance. The statistical results shall be clearly described in the text.

I. All maps, cross sections, and graphs shall be backed up by data and shall be included in the reports.

J. Conclusions and Recommendations - This section shall describe the type, extent, and estimated amount of contamination. Recommendations for material handling shall be presented based on DTSC Variance requirements or exceptions.

K. Identification of subcontractors and staff performing work, including resumes, if they were not provided in the bid proposal.

L. Laboratory analysis of each sample tested. Laboratory reports must include Chain of Custody forms that contain required EPA and Department of Health Services information (See Laboratory Test Report section for reporting requirements).

M. Reference List

Monitoring Well Reports

Monitoring well reports shall include a summary of any field activities and observations, water level measurements, groundwater gradient and a summary of the laboratory results and conclusions from the work. The following shall be included as appendices, as appropriate to the investigation or as specified by the Caltrans Contract Manager:

A. Site Background.

B. Base maps with groundwater gradient.

C. Discussion of changes noted from last season or monitoring event. Base maps with contaminant concentrations.

D. Charts of changes in ground water elevation with time, elevation vs. contaminant concentrations.

E. Groundwater sampling field data sheets.

F. Cumulative tables of well elevations, analytical and water data.

G. Laboratory reports (in tabular form).

H. Chain of Custody forms.

Soil Gas Survey Reports

When soil gas activities are included in the Task Order the following categories of information shall be included in the report, in addition to the general site investigation reporting requirements:

A. Data Presentation:

1. concentration contour map of sample area with the property boundaries indicated and probe location (logged and numbered) shown.

2. explanation of data anomalies.

B. Description of Soil Gas Survey:

1. daily logs of sampling procedures and results.

2. chronology of daily sampling and probe hole logs.

C. Quality Assurance/Quality Control (QA/QC) Summary:

1. description of procedures, results, corrective action taken and effect on data.

2. table comparing QA sample results with known QA sample concentrations.

Geophysical Reports

Geophysical reports shall be signed by a California Registered Geophysicist. When geophysical activities are included in the Task Order, the following additional categories of information shall be presented in the site investigation report:

A. Data Presentation, including:

   1. survey area with property boundaries;

   2. mapping at a scale no smaller than 1:1000;

   3. sampling points for magnetometer surveys measured at no greater than 1.5 meter intervals, unless greater intervals are approved by the Caltrans Contract Manager;

   4. cross sections along lines of investigation;

B. Description of field work;

C. Interpretation of all data, conclusions, and recommendations for additional work;

D. Excel or ACSII - compatible format computer files of the site investigation and evaluation data including a summary of all supporting data used to compile the report, if requested by the Caltrans Contract Manager;

E. Raw data if requested by the Caltrans Contract Manager.

Trenching Reports

When trenching activities are included in the Task Order the following additional categories of information shall be included in the site investigation report:

A. A detailed description of the subsurface conditions with color photographs and sketches to illustrate subsurface features;

B. A description of the field activities;

C. A summary table of OVA (organic vapor analyzer) and PID (photo ionization detector) readings, when they were taken, and summary tables of the sample results;

D. A map showing the trench locations and the sampling locations within the trenches, as well as other relevant site features, such as boring and monitoring well locations;

E. An analysis of the subsurface conditions found in the trench and how the results relate to conditions found in any other phase of the investigation.

Risk Based Corrective Action (RBCA) Reports

A. The reporting format shall follow the general Site Investigation format requirements. The contents shall follow ASTM Designation E 1739-95, *Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites*.

B. Tier 1 or Tier 2 evaluations may be completed as directed in the Task Order.

C. Reporting shall follow ASTM E1739 6.11.

Laboratory Test Reports

Complete copies of all laboratory reports, including QA/QC summary reports, shall be placed in an appendix of the laboratory report. Chromatographs, graphical presentations and summaries of the laboratory data shall be provided with the laboratory reports at no additional cost to

Caltrans. The Contractor shall keep the chromatographs on file and shall provide them upon Caltrans' request. Laboratory test reports shall contain all of the following information:

A. Name of analytical laboratory.

B. Address of laboratory.

C. Telephone number of laboratory.

D. Laboratory number for each sample reported.

E. Contractor's number for each sample reported, if applicable.

F. Date sample(s) collected.

G. Date sample(s) received by laboratory.

H. Date of laboratory testing.

I. Brief sample description (i.e. soil, water, sludge, etc.).

J. Specific test method.

K. Extraction method utilized (if not unique to test method).

L. Test result for each sample and method (reported in mg/kg or mg/liter as appropriate).

M. Limit of detection for each test method (reported in mg/kg or mg/liter as appropriate).

N. Written explanation of higher detection limits, dilution factors, laboratory contaminants, or other unusual results.

O. Samples which failed QA/QC procedures and why.

P. Date of test report.

Signature and title of the director of the laboratory.

**Remedial Action Options Report**

The Remedial Action Options Report shall be a separate report prepared at the request of the Caltrans Contract Manager. This report includes a review of all potentially feasible remedial actions and their costs. The review must be of sufficient depth and breadth for Caltrans to make an informed decision on the most appropriate remedial technology for a specific hazardous waste problem at a specific site. The development of a Remedial Action Options Report does not include the design of a remedial action or cleanup. The options report shall include:

A. An analysis of the "do nothing" alternative and analyses of at least two other remedial alternatives. The analysis of each alternative should address time; operation and maintenance requirements; risks to health and environment; cost-effectiveness; level of cleanup; potential economic impact on the responsible party; the physical limitations of the site; and the impact of the cleanup methods on the continuing site activities, future construction activities and use by Caltrans.

B. Prediction of each treatment alternative's effectiveness on the material in question, and the applicability of the alternative relative to the project life.

C. Reliability of each alternative in terms of its demonstrated degree of effectiveness at other sites and its operation and maintenance requirements.

D. Ability to implement each alternative, in the context of the site conditions, location and time frame.

E. Discussion of any possible adverse impacts to public and site-worker health and safety presented by alternative treatments.

F. The regulations that will control each alternative and the permits required to implement the alternative.

G. Identification of the public health concerns of the current site conditions, as well as those during and after the treatment or alternative action.

H. Direct and indirect capital costs, including engineering, equipment, labor and materials for the installation and construction of each remedial action alternative.

If the Contractor finds that any additional data and information are needed before a remedial action alternative can be chosen and designed, the Contractor shall describe them in the report.

Payment for preparation of Remedial Action Options Reports shall be per hour. At the time of Task Order acceptance the Contractor shall transmit to the Contract Manager an itemized estimate of hours that will be required to report upon each component described above. Contractor and Caltrans Contract Manager shall concur on this estimate of hours, prior to award of the Task Order.

**Survey Reports**

This section describes standard reporting requirements for all types of surveys (e.g., asbestos, lead based paint, PCBs, containers, barrels, tanks, etc.). See Article IV for further information on report requirements.

The report shall include but not be limited to:

A. Title Sheet identifying the Task Order number, project name, project location, contract number, Contractor name, name and/or title of the author and date prepared.

B. Signature page with signature, title and registration number of the geologist, or engineering geologist, licensed in the State of California, who is the Contractor's Task Order Manager for the investigation. Additionally the report shall be signed by the certified asbestos or lead inspector responsible for asbestos or lead survey work.

C. Table of Contents.

D. Investigative Summary of Survey - This section shall present and summarize the findings of the survey.

E. Project Description - This section shall provide a brief description of the project for which the survey work was undertaken.

F. Introduction - This section shall describe the general objective of the investigation, a short chronology of the site, previous site work, and items of work completed for the survey investigation.

G. Investigative Results and Observations - This section shall be written in clear concise form and summarized in table form. It shall include a discussion of the following:

1. Location of ACM, lead based paint, PCB, barrel(s), tank(s), etc.

2. Estimated quantities of ACM, PCB, barrel(s), tank(s), etc.

3. Type of material (tiles, acoustical spray-on, insulation, etc.).
4. Condition/distribution of material.
5. Locations where obvious flaking lead based paint would have to be removed prior to demolition.
6. Drawing or plan showing location of the following (at a scale no greater than 1:200, unless otherwise specified in the Task Order):
   a. Sampling points.
   b. ACM - friable or non-friable.
   c. Containers - barrels, tanks, etc.
   d. Hazardous materials/waste storage.

H. Photographs of the exterior of structures, of sample locations, of representative surface conditions, and of any significant areas, as requested by the Caltrans Contract Manager.

I. Chemical Test Results - As stated in Part 4 - Laboratory Test Reports.

J. Naturally-occurring asbestos lab results shall include point counting, as per ARB Method 435, Section 7.

K. The Contractor shall also discuss whether there is a need for NESHAP and Air Quality Management District notifications during construction and/or demolition.

L. Appendices - Reports shall contain, or be accompanied by appendices that contain, all data used to support statements of the report, such as:
   1. Copies of permits needed to gain access to site (if applicable).
   2. Laboratory analysis of each sample tested. Lab reports must include Chain of Custody forms that contain required EPA and Department of Health Services information. Refer to the Laboratory Testing section reporting requirements.

## ARTICLE XXVIII - SPECIAL PROVISIONS:

### SP-1: Cost

The Contractor shall bear the cost of meeting the conditions of the Special Provisions. The Contractor shall provide all technical personnel, labor, material, equipment, tools, field and office support services and incidental items necessary to accomplish any or all of the items of work listed in the bid item prices in Appendix A, at the prices the Contractor bid for that item of work.

### SP-2: Caltrans and Contractor Representation

A. The Caltrans Contract Manager will monitor the work performed by the Contractor under each Task Order. The Caltrans Contract Manager may consult with and be advised by representatives of the applicable local and/or State regulatory agencies.

B. The Contractor shall always be represented by senior staff personnel who have experience in the performance of the work detailed in the Task Order when work is in progress on the site.

C. The Task Order Manager or Field Supervisor shall be present when a subcontractor is performing field work. Field work includes geophysical, asbestos, and lead surveys, drilling, trenching, sampling, mobile lab analysis, and drum removal.

**SP-3: Non-Detailed/Other Work**

A. The Contractor shall perform items of work not mentioned or completely detailed in this contract, that are necessary or normally required as part of a Task Order, without additional compensation from Caltrans. Examples of items of "non- detailed or other work" are administrative time to prepare reports and sample preparation, among others.

B. Caltrans may encounter certain site-specific conditions that cannot reasonably be foreseen at the time of the Task Order. Where these conditions clearly impose an unreasonable cost burden on the Contractor due to changed conditions, Caltrans may amend a Task Order.

C. Work elements not listed in the bid item prices in Appendix A will be paid as extra work per the provisions of Article VII.C.

**SP-4: Investigation Completion Schedule**

A. A preliminary investigation completion schedule based on the overall project schedule requirements will be included in the Task Order offered to the Contractor. The Contractor may request a schedule modification if the requested schedule can not be met. The Caltrans Contract Manager shall review the requested modification and may approve or deny the request. If the Contractor cannot accept the proposed schedule modification, the Task Order will be offered to the next lowest bidder.

B. The typical schedule elements for completing a site investigation are:

| | | Delivery Date | Penalty |
|---|---|---|---|
| 1. | Task Order meeting/site visit | | |
| 2. | Site investigation work plan | | |
| 3. | Health & Safety plan | | |
| 4. | Begin field work | | |
| 5. | Complete field work | | |
| 6. | Task Order progress meetings | | |
| 7. | Draft report | | |
| 8. | Transmit Final report | | |
| 9. | Drum removal/disposal | | |

C. As work progresses, the schedule may be amended and updated as agreed between the Contractor and Caltrans Contract Manager.

D. Failure by the Contractor to meet completion dates agreed upon with Caltrans may result in assessment of per day liquidated damages, as detailed in the applicable Task Order. Because actual damages would be difficult to determine, liquidated damages shall be $100.00 for each day after the date scheduled for a Task Order element's completion. This penalty may be withheld from any payments due the Contractor.

**SP-5: Health and Safety**

A. Contractor shall be solely responsible for the health and safety protection of its employees, subcontractors and subcontractors' employees in performance of this contract.

B. The Contractor shall conform to all applicable occupational health and safety standards, rules and regulations established by the State of California and the U.S. Government as applicable.

C. The site health and safety plan shall be developed by an industrial hygienist, who shall characterize the potential task order site hazards. The site health and safety plan will be signed by a Certified Industrial Hygienist. During site investigation activities a site safety officer will be designated and will be responsible for enforcing the site safety plan.

D. Before the field investigation begins, a copy of the Health And Safety Plan shall be distributed to all field investigation workers and they shall certify by signing the Health and Safety Plan that they have read, understand, and agree to comply with the site health and safety plan.

E. Noncompliance by Contractor or Contractor personnel with the site health and safety plan is grounds for a stop work order or dismissal of Contractor.

F. The Contractor shall provide safe access to the Task Order worksite for the Caltrans Contract Manager and representatives of the applicable local and/or state regulatory agencies during normal field investigations work hours. Designated observation areas outside the work zone shall be established for these site visits. The site safety officer shall accompany the representatives while on the site.

**SP-6: Site Safety Officer**

A. The Contractor shall designate a site safety officer for each site that is under active investigation. The site safety officer shall present the health and safety plan before the start of work. A site safety officer or his designated representative shall be present at all times at each site under active investigation. The site safety officer must be familiar with hazardous waste laws and regulations in California and with Cal/OSHA requirements.

B. The site safety officer or his designated representative shall be available to accompany the Caltrans Contract Manager (and/or his representatives) and/or representatives of the applicable regulatory agencies while they are on-site.

C. The site safety officer shall direct the implementation and operation of the health and safety plan. The site safety officer shall enforce compliance with the health and safety plan by all persons while they are on-site.

**SP-7: Decontamination**

A. All personnel shall be decontaminated before leaving the site exclusion zone as specified in the site health and safety plan.

B. Contractor shall equip, supply, and maintain an on-site decontamination station for the drilling, installation and sampling equipment. Contractor shall ensure that this station has the capacity to contain all decontamination fluids used in the decontamination procedure. Contractor shall collect these fluids in appropriate containers. Contractor shall manage

and dispose of these materials as part of the Task Order in compliance with all applicable regulations and permits.

C. Contractor shall wash and clean all equipment before initiating work at the site. This includes drilling machines, pipe, rods, samplers, pumps, casing, screens and any other material brought onsite. Before reuse of any equipment at another drilling location at the site, all equipment shall be decontaminated.

D. General requirements for decontamination include:

1. Auger flights and other tools used in drilling, monitoring and sampling shall be steam-cleaned before initial use and between boreholes.

2. Before each use sampling tubes, stainless steel liners and bailers shall be rinsed in a mixture of Liquinox, or similar non-phosphate product, and clear water, rinsed in clear water, rinsed in distilled water and air dried.

E. The Contractor shall avoid contamination of the project area and shall not dump waste oil, drilling fluids, rubbish or other materials on the ground. All equipment, unused materials, temporary facilities and other miscellaneous items resulting from or used in the operation shall be removed from the site. Any existing facilities damaged during site activities will be replaced or repaired at the Contractor's expense. Site cleanup shall be completed to the satisfaction of the Caltrans Contract Manager.

**SP-8: Disposal (decontamination water, well development and purge water, and boring cuttings)**

A. These materials shall be properly collected in containers (drums/dumpsters, etc.) by the Contractor. All containers shall be properly labeled with the Contractor's name and borehole identification. The Contractor shall properly dispose of the containers with contaminated materials within 21 days after results of laboratory chemical analysis from the investigation are available to the Contractor. Soils found to be clean may be disposed of on the Task Order site, depending on site conditions, or other sites acceptable to the Caltrans Contract Manager. No liquid or solid wastes shall be allowed to enter storm drains or water ways. Trash, rags, tyvec or similar materials shall not be disposed of with the cuttings.

B. Failure to remove storage containers within the prescribed 21-day time frame will result in per day liquidated damages as detailed in the applicable Task Order. Storage and disposal of contaminated material will be paid as extra work per Article VII.C.

C. Task order work under this contract shall conform to the requirements of National Pollutant Discharge Elimination System (NPDES) Permit for the State of California Department of Transportation Properties, Facilities, and Activities, No. CAS000003, issued by the State Resources Control Board. This permit, hereafter referred to as the “Permit,” regulates storm water discharges associated with construction activities.

**SP-9: Project Diary/Time sheets**

A. A Project Diary shall be maintained to document the conditions of all work performed for all hourly paid bid items under this contract. The diary shall be filled out and signed to affirm its accuracy, shall identify the Contractor’s employee who is responsible for project management and include, at minimum, the following:

1. Task Order number and contract number.
2. Project name and location.
3. Name and title of the personnel performing the work, including subcontractors.
4. Name of company performing work.
5. Date work is performed.
6. Actual start and end times of work.
7. Description of work being performed.
8. Additional notations, observations or remarks to further characterize or clarify work being performed.

B. A copy of the signed project diary must be included with invoices submitted for payment to support all hours shown as billed on the invoice. Costs for completing and maintaining the project diary are included in the bid item prices in Appendix A and no additional hours will be paid for this item. Copies of actual time sheets or payroll records shall be furnished if requested by the Caltrans Contract Manager to substantiate hours submitted for payment.

**SP-10: Permit Fees**

All permits (i.e. well permits) will be paid at actual cost plus a 10% markup, with the exception of encroachment permits. See Special Provision **SP-13** concerning encroachment permits.

**SP-11: Site Access**

During work hours the Contractor shall provide the Caltrans Contract Manager (or designees) with safe access to the worksite during the field investigation and shall furnish adequate safety equipment for such visits. The worksite is defined for this special provision as the areas of the site generally outside of the immediate exclusion zone in which such work as drilling is taking place. Equipment shall include hard hats, tyvec coveralls, gloves, and boot covers. The Contractor shall be prepared for a maximum of six (6) visitors at any one time. All work performed and all materials furnished shall be subject to inspection by the Caltrans Contract Manager.

**SP-12: Right of Entry**

The conditions of the right of entry agreement to the property will be communicated to the Contractor during the Task Order meeting. The Contractor shall know and follow the terms and conditions of the right of entry agreement. Encroachment permits will be required for all work within the State operating rights of way.

**SP-13: Encroachment Permits**

Prior to start of work within State highway right of way, Contractor shall secure an Encroachment Permit from the District Permit Engineer in the district where the work takes place or at the direction of the Caltrans Contract Manager shall obtain verbal approval from the regional maintenance managers 48 hours prior to the start of field work. No fee will be charged the Contractor by the State for this permit and/or approval.

**SP-14: Traffic Control**

Traffic control (barricades, portable flashing beacons, and detours) necessary to accomplish the contract work within Caltrans right-of-way will be performed by Caltrans unless otherwise specified in the Task Order. When Caltrans is to provide the traffic control, the Contractor must request traffic control in advance of the work and obtain proper clearance. Traffic control which is necessary outside of the Caltrans right-of-way will be the responsibility of the Contractor in coordination with the appropriate local jurisdiction and will be paid per bid items 59, 60, and 61 for shoulder closures or as extra work per Article VII.C for traffic control other than shoulder closures.

**SP-15: Hazardous Waste Manifest**

The Caltrans Contract Manager or his/her designated representative will sign all Hazardous Waste Manifests for hazardous waste removed from the site. The Contractor shall not sign the Hazardous Waste Manifest as the generator.

**SP-16: Underground Services Alert (USA)**

Before any Task Order work involving disturbance of the ground beyond surface sampling begins, the Contractor shall obtain an inquiry identification number from USA, documentation of which must be given to the Caltrans Contract Manager. In Northern California the Contractor should call 1-800-642-2444. In Southern California the Contractor should call 1-800-422-4133. USA should respond within 48 hours.

**SP-17: Owner/Regulatory Contracts**

The Contractor shall only contact property owners as directed by the Caltrans Contract Manager. The Contractor shall coordinate with other agencies, such as federal Environmental Protection Agency (EPA), California Environmental Protection Agency (Cal-EPA), Department of Toxic Substances Control (DTSC), Regional Water Quality Control Board (RWQCB), local environmental health agency, and others as necessary to complete the field survey. The Caltrans Contract Manager shall notify and invite the Contractor to all regulatory agency meetings related to this investigation. All written correspondence with regulatory agencies shall be submitted to the Caltrans Contract Manager and sent to the agencies by Caltrans.

**SP-18: Metrication**

A federal mandate to use the metric system for all federally financed highway projects requires metric conversion of certain information generated on this contract. Metrication can be a “soft conversion” that is an exact restating of the English units in Metric units or a “hard conversion,” where the US unit is converted to a new rounded, rationalized metric number that is convenient to work with.

Metrication applies to the following elements of reports:

A. Existing background data shall be soft converted to metric units only when that data is to be incorporated into a new Task Order report, e.g. boring logs from a previous investigation are used to generate cross sections in a second investigation.

B. Boring logs shall be soft converted to metric

C. Task Order work that generates information to be incorporated into plans, specifications and estimates (PS&E) must be hard converted to metric, e.g., seismic retrofit Task Orders that involve volume estimates of potential hazardous waste generated. The Caltrans Contract Manager shall specify in the Task Order when it involves information for PS&E.

## ARTICLE XXIX - AMERICANS WITH DISABILITIES ACT

By signing this contract, Contractor assures the State that it complies with the Americans with Disabilities Act (ADA) of 1990, which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA. (42 U.S.C. 12101 et seq.)

## ARTICLE XXX - CONTRACTOR'S PRIORITY HIRING CONSIDERATIONS

The Contractor shall give priority consideration in filling vacancies for positions funded by this contract to qualified recipients of aid under Chapter 2 commencing with Section 11200 of the Welfare and Institutions Code, in accordance with Article 3.9 commencing with Section 11349 of the welfare and Institutions Code.

## ARTICLE XXXI - AUDIT REVIEW PROCEDURES

A. Any dispute concerning a questions of fact arising under an interim or post audit of this contract that is not disposed of by agreement shall be reviewed by the Chairperson of the Audit Review Committee (ARC). The ARC will consist of the Deputy Director, Audits & Investigations (Chairperson); Deputy Director of the functional Program area; the Chief Counsel, Legal Division, or their designated alternates; and if the Department chooses, two representatives, of the Department's choosing, from private industry. The two representatives from private industry will be advisory in nature only and will not have voting rights. Additional members or their alternates may serve on the ARC.

B. Not later than thirty (30) days after issuance of the final audit report, the Contractor may request a review by the ARC of unresolved audit issues. The request for review will be submitted in writing to the Chairperson of the ARC. The request must contain detailed information of the factors involved in the dispute as well as justifications for reversal. A meeting by the ARC will be scheduled if the Chairperson concurs that further review is warranted. After the meeting, the ARC will make recommendations to the Chief Deputy Director. The Chief Deputy Director will make the final decision for the Department. The final decision will be made within three (3) months of receipt of the notification of dispute.

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

## ARTICLE XXXII - WORKERS' COMPENSATION LIABILITY

The Contractor's signature affixed herein shall constitute a certification under penalty of perjury under the laws of the State of California, that the Contractor is aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with provisions of that code and agrees to comply with such provisions before commencing the performance of the work of this contract.

## ARTICLE XXXIII – RECYCLE CONTENT COMPLIANCE

The Contractor's signature affixed hereon and dated shall constitute a certification under the penalty of perjury under the laws of the State of California that the Contractor has, unless exempted, complied with the recycle services, materials, goods, and supplies program requirements of California Public Contract Code Sections 12200, 12205, and 12161. (If you have questions about the State Recycle Program and its requirements, please contact the Integrated Waste Management Board, California Environmental Protection Agency, State of California at (916) 255-4454).

## ARTICLE XXXIV – STATE PREVAILING WAGE RATES

A. The attention of the Contractor is directed to, and the Contractor agrees to comply with all of the applicable provisions of the Labor Code including those provisions requiring the payment of not less than the general prevailing rate of wages, and the Contractor further agrees to the penalties and forfeitures provided in said Code in the event a violation of any of the provisions occurs in the execution of this contract.

B. Pursuant to Section 1771.5 of the Labor Code, not less than the general prevailing wage rate of per diem wages and the general prevailing rate of per diem wages for holiday and overtime work for work of a similar character in the county in which the work is to be performed shall be paid to all workers employed on this contract, if a task order is for:

   1. More than $15,000 for the alteration, demolition, repair, or maintenance of public works.

   2. Projects in the design phase.

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

## ARTICLE XXXV - STATE PREVAILING WAGE RATE DETERMINATIONS

A. The General Prevailing Wage Rate Determinations applicable to the project are available and on file with the Department's Regional/District Labor Compliance Office. These wage rate determinations are made a specific part of this contract by reference pursuant to Labor Code Section 1773.2. Any special wage rate determinations applicable to this contract are attached.

B. General Prevailing Wage Rate Determinations applicable to this contract may also be obtained from the Department of Industrial Relations Internet site at: http://www.dir.ca.gov/

C. After award of the contract, and prior to commencing work, all applicable General Prevailing Wage Rate Determinations are to be obtained by the Contractor from the Department's District/Regional Labor Compliance Officer. These wage rate determinations are to be posted by the Contractor at the job site in accordance with Section 1773.2 of the California Labor Code.

D. Questions pertaining to predetermined wage rates should be directed to the Department of Industrial Relations, Division of Labor Statistics and Research, P. O. Box 420603, San Francisco, CA 94142-0603, (415) 972-8628.

## ARTICLE XXXVI - HOURS OF LABOR

A. Eight (8) hours labor constitutes a legal day's work. The Contractor shall forfeit, as a penalty to the State of California, $25.00 for each worker employed in the execution of the contract by the Contractor or any subcontractor under the Contractor for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of the Labor Code, and in particular Sections 1810 to 1815 thereof, inclusive, except that work performed by employees in excess of eight (8) hours per day, and 40 hours during any one week, shall be permitted upon compensation for all hours worked in excess of eight (8) hours per day and 40 hours in any week, at not less than one and one-half times the basic rate of pay, as provided in Section 1815.

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

## ARTICLE XXXVII - TRAVEL SUBSISTENCE AND HOLIDAY PAYMENT

Attention is directed to the requirements of Section 1773.9 of the Labor Code. Refer to footnotes as contained in the wage determinations attached or in Article VII and Appendix A of the contract.

## ARTICLE XXXVIII - EMPLOYMENT OF APPRENTICES

A. Attention is directed to the provisions in Section 1777.5, 1777.6 and 1777.7 of the Labor Code concerning the employment of apprentices by the Contractor or any subcontractor under him/her. (Section 1777.5 shall not apply to contracts of general contractors or to contracts of specialty contractors not bidding/proposing work through a general or prime contractor, involving less than 20 working days or $30,000.)

B. The Contractor and any subcontractors under him/her shall comply with the requirements of 1777.6 and, where applicable, of 1777.5 in the employment of apprentices.

B. To insure compliance and complete understanding of the law regarding apprentices, and specifically the required ratio thereunder, each contractor or subcontractor should, where some question exists, contact the State Division of Apprenticeship Standards, P. O. Box 420603, San Francisco, California 94142-0603, or one of its branch offices, prior to commencement of work on the public works contract. Responsibility for compliance with Section 1777.5 lies with the prime Contractor. Penalties are specified in Labor Code Section 1777.7.

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

## ARTICLE XXXIX - PENALTY

A. The Contractor and any subcontractor under the Contractor shall comply with Labor Code Sections 1774 and 1775. In accordance with said Section 1775, the Contractor shall forfeit, as a penalty to the State of California, not more than $50 for each calendar day, or portion thereof, for each worker paid less than the prevailing rates for such work or craft in which such worker is employed for any public work done under the contract by him or

her, or by any subcontractor under him/her, in violation of the provisions of the Labor Code and, in particular, Labor Code Sections 1775 to 1780, inclusively.

The amount of this forfeiture shall be determined by the Labor Commissioner and shall be based on consideration of the mistake, inadvertence, or neglect of the Contractor or subcontractor in failing to pay the correct rate of prevailing wages, or the previous record of the Contractor or subcontractor in meeting his or her prevailing wage obligations, or a Contractor's willful failure to pay the correct rates of prevailing wages. A mistake, inadvertence, or neglect in failing to pay the correct rate of prevailing wages is not excusable if the Contractor or subcontractor had knowledge of the obligations under the Labor Code. In addition, to the penalty and pursuant to Labor Code Section 1775, the difference between the prevailing wage rates and the amount paid to each worker for each calendar day, or portion thereof, for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the Contractor or subcontractor.

If a worker employed by a subcontractor on a public works project is not paid the general prevailing per diem ages by the subcontractor, the prime contractor of the project is not liable for any penalties described above, unless the prime contractor had knowledge of that failure of the subcontractor to pay the specified prevailing rate of wages to those workers or unless the prime contractor fails to comply with all of the following requirements:

1. The contract executed between the Contractor and the subcontractor for the performance of work on the public works project shall include a copy of the provisions of Sections 1771, 1775, 1775.5, 1776, 1813 and 1815 of the Labor Code.
2. The contractor shall monitor the payment of the specified general prevailing rate of per diem wages by the subcontractor to the employees by periodic review of the certified payroll records of the subcontractor.
3. Upon becoming aware of the failure of the subcontractor to pay his or her workers the specific prevailing rate of wage, the contractor shall diligently take corrective action to halt or rectify the failure, including, but not limited, to retaining sufficient funds due the subcontractor for work performed on the public works project.
4. Prior to making final payment to the subcontractor for work performed on the public works project, the contractor shall obtain an affidavit signed under penalty of perjury for the subcontractor that the subcontractor has paid the specified general prevailing rate of per diem wages to his or her employees on the public works project and any amounts due pursuant to Section 1813.

B. Pursuant to Section 1775 of the Labor Code, the Division of Labor Standards Enforcement shall notify the Contractor on a public works project within 15 days of the receipt by the Division of Labor Standards Enforcement of a complaint of the failure of a subcontractor to pay workers the general prevailing rate of per diem wages.

C. If the Division of Labor Standards Enforcement determines that employees of a subcontractor were not paid the general prevailing rate of per diem wages and if the Department did not retain sufficient money under the contract to pay those employees the balance of wages owed under the general prevailing rate of per diem wages, the contractor shall withhold an amount of moneys due the subcontractor sufficient to pay those employees the general prevailing rate of per diem wages if requested by the Division of Labor Standards Enforcement.

D. The Contractor shall pay any money retained from and owed to a subcontractor upon receipt of notification by the Division of Labor Standards Enforcement that the wage

complaint has been resolved. If notice of the resolution of the wage complaint has not been received by the contractor within 180 days of the filing of a valid notice of completion or acceptance of the public works project, whichever occurs later, the contractor shall pay all moneys retained from the subcontractor to the Department. The moneys shall be retained by the Department pending the final decision of an enforcement action.

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

**ARTICLE XXXX - PAYROLL RECORDS**

A. The Contractor and each subcontractor shall comply with the following provisions. The Contractor shall be responsible for compliance by his/her subcontractors.

1. *Each Contractor and Subcontractor shall keep an accurate payroll record and supporting documents as mandated by Section 1776 of the California Labor Code and as defined in Section 16000 of Title 8 of the California Code of Regulations, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by the Contractor or subcontractor in connection with the public work. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following:*

   a. The information contained in the payroll record is true and correct.

   b. The employer has complied with the requirements of Sections 1771, 1811, and 1815 for any work performed by his or her employees on the public works project.

2. The payroll records, enumerated under paragraph 1 above, shall be certified and shall be available for inspection at all reasonable hours at the principal office of the Contractor on the following basis:

   a. A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or the employee's authorized representative on request.

   b. A certified copy of all payroll records enumerated in paragraph 1 above shall be made available for inspection or furnished upon request to a representative of the body awarding the contract, the Division of Labor Standards Enforcement and the Division of Apprenticeship Standards of the Department of Industrial Relations.

   c. A certified copy of all payroll records, enumerated in paragraph 1 above, shall be made available upon request by the public for inspection or copies thereof made; provided, however, that a request by the public shall be made through either the body awarding the contract, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to paragraph (b), the requesting party shall, prior to being provided the records, reimburse the costs of copy preparation by the Contractor, subcontractors, and the entity through which the request was made. The public shall not be given access to the records at the principal office of the Contractor.

3. Each Contractor shall file a certified copy of the records enumerated in paragraph 1 above with the entity that requested the records within ten (10) days after receipt of a written request.

4. Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the awarding body, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of each individual's name, address and social security number. The name and address of the Contractor awarded the contract or performing the contract shall not be marked or obliterated.

5. The Contractor shall inform the body awarding the contract of the location of the records enumerated under paragraph 1 above, including the street address, city and county, and shall, within five working days, provide a notice of a change of location and address.

6. *The Contractor or subcontractor shall have 10 days in which to comply subsequent to receipt of written notice requesting the records enumerated in paragraph 1 above. In the event the Contractor or subcontractor fails to comply within the ten-day period, he or she shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit twenty-five dollars ($25) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, such penalties shall be withheld from progress payments then due. A contractor is not subject to a penalty assessment pursuant to this section due to the failure of a subcontractor to comply with this section.*

B. The penalties specified in paragraph 6 above for noncompliance with the provisions of said Section 1776 may be deducted from any monies due or which may become due to the Contractor.

C. Payrolls shall contain the full name, address and social security number of each employee, the correct work classification (including apprentices), rate of pay, daily and weekly number of hours worked, itemized deductions made and actual wages paid. The employee's address and social security number need only appear on the first payroll on which his name appears. The payroll shall be accompanied by a "Statement of Compliance" signed by the employer or employer's agent indicating that the payrolls are correct and complete and that the wage rates contained therein are not less than those required by the contract. The "Statement of Compliance" shall be on forms furnished by the Department or on any form with identical wording. The Contractor shall be responsible for the submission of copies of payrolls of all subcontractors.

D. The Contractor and each subcontractor shall preserve their payroll records for a period of three (3) years from the date of completion of the contract.

E. The Contractor shall submit a certified copy of all payroll records for verification by the District Labor Compliance office with the Contractor's invoices within ten days, not including Saturdays, Sundays or legal holidays, following completion of the work to the Contract Manager. When progress payments are called for, the Contractor shall submit a certified copy of all payroll records for verification for the work completed to date along with their invoices for verification by the District Labor Compliance office. Delinquent payrolls or other required documents will cause payment to be withheld pending receipt of such documents.

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

**ARTICLE XXXXI - HOURS OF LABOR**

A. Even when the California "Public Works" prevailing wage standards do not apply to this contract, the Contractor's employees are still afforded protection under the State Minimum Wage Order and/or one of the Industrial Welfare Commission Orders. The Contractor is encouraged to contact the Division of Labor Standards Enforcement, P. O. Box 420603, San Francisco, CA 94142-0603, or one of its branch offices, if they have any questions or need additional information relative to hours of labor.

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

**ARTICLE XXXXII - EMPLOYMENT OF APPRENTICES**

A. To insure compliance and complete understanding of the law regarding apprentices, and specifically the required ratio thereunder, each contractor or subcontractor should, where some question exists, contact the State Division of Apprenticeship Standards, P. O. Box 420603, San Francisco, CA 94142-06031, or one of its branch offices prior to commencement of work on public works contracts. Compliance with Section 1777.5 lies with the prime contractor.

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