

LAND DIVISION

State of Hawaii
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION
Honolulu, Hawaii

BOARD OF LAND AND NATURAL RESOURCES

Dawn N.S. Chang
Chairperson

CONTRACT SPECIFICATIONS AND PLANS

Job No. E00BO42A
DEMOLISH ABANDONED BUILDINGS
87-028 FARRINGTON HWY, WAIANAE, OAHU, HAWAII

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May 2024

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DEPARTMENT OF LAND AND NATURAL RESOURCES INTERIM GENERAL
CONDITIONS, DATED OCTOBER 1994 (Bound Separately)

NOTICE TO BIDDERS
(Chapter 103D, HRS)

COMPETITIVE BIDS for Job No. **E00BO42A, Demolish Abandoned Buildings, 87-028 Farrington Hwy,** Waianae, Oahu, Hawaii, shall be submitted to the Department of Land and Natural Resources, Engineering Division on the specified date and time through the Hawaii State e-Procurement (HIePRO). HIePRO is accessible through the State Procurement Office website at www.spo.hawaii.gov.

The Department of Land and Natural Resources Interim General Condition, dated October 1994, as amended, and the General Conditions –AG008, latest revision shall be made part of the specifications.

The project is located at 87-028 Farrington Hwy (TMK 8-7-001: 029), Lualualei, Waianae, Oahu, Hawaii.

The work shall generally consist of demolition, removal, and abatement of two (2) abandoned houses containing hazardous material (lead-based paint & asbestos floor tiles) with additive work to include demolition and removal of a converted carport workshop, shed, and two (2) damaged boats.

To be eligible to submit a bid, the Bidder must possess a valid State of Hawaii Contractor's license classification "A" or "B".

A voluntary pre-bid conference and site visit will be held at the project site, 87-028 Farrington Hwy, Waianae, Hawaii, 96792 on **May 3, 2024, at 10:30 a.m.**

The estimated cost of construction is \$150,000.00.

The award of the contract, if it be awarded, will be subject to the availability of funds.

This project is subject to preference to Hawaii Products established by Section 103D, Hawaii Revised Statutes. The Hawaii Product List may be examined at the State Procurement Office website.

Since the estimated value of the cost of construction is less than \$250,000, the apprenticeship agreement preference pursuant to Hawaii Revised Statutes §103-55.6 (ACT 17, SLH 2009) shall not apply.

Should there be any questions, please refer to the HIePRO solicitation.

INFORMATION AND INSTRUCTIONS TO BIDDERS

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INFORMATION AND INSTRUCTIONS TO BIDDERS

- A. PROJECT LOCATION AND SCOPE OF WORK: The project location and scope of work shall be as generally described in the Notice to Bidders.
- B. PROPOSALS: Bidders shall submit their bid, including the completed proposal form, bid bond, and any other documents required by the solicitation as part of their bid through the State of Hawaii e-Procurement System (HIePRO). See Item D, PROPOSAL FORM.
- C. GENERAL CONDITIONS: The Department of Land and Natural Resources Interim General Conditions dated October 1994, as amended, shall be made a part of these contract specifications and are referred to hereafter as the General Conditions.
- D. PROPOSAL FORM: **The Bidders shall fill out and upload the electronic copy of the proposal form to the HIePRO website when submitting the bid. Bid Proposals shall not be mailed, faxed or delivered to the State, unless requested to do so after the designated closing date. The successful Bidder shall fill out and print a hard copy of the proposal form, sign and submit the form with the contract award package.**
- E. OMISSIONS OR ERASURES: Any proposal which contains any omission or erasure or alteration not properly initialed, or conditional bid, or other irregularity may be rejected by the Board of Land and Natural Resources (Board).
- F. NOTICE OF INTENT TO BID AND QUESTIONNAIRE:
A Notice of Intent to Bid is not required for this project. In compliance with HRS Section 103D-310, the lowest responsive and responsible bidder may be required to complete a questionnaire. When requested by the State, the completed questionnaire shall be submitted to the Chief Engineer for evaluation. Failure to furnish the requested information within the time allowed may be grounds for a determination of non-responsibility, in accordance with HRS Section 103D-310 and HAR Section 3-122-108.
- G. CONTRACTOR'S LICENSE REQUIRED: The Board will reject all bids received from contractors who have not been licensed by the State Contractors License Board in accordance with Chapter 444, HRS; Title 16, Chapter 77, Hawaii Administrative Rules; and statutes amendatory thereto.
- H. IRREGULAR BIDS: No irregular bids or propositions for doing the work will be considered by the Board.
- I. WITHDRAWAL OF BIDS: No bidder may withdraw his bid between the time of the opening thereof and the award of contract.
- J. SUCCESSFUL BIDDER TO FILE PERFORMANCE AND PAYMENT BONDS: The successful bidder will be required to file performance and payment bonds each; in the amount equal to the total contract price, including amounts estimated to be required for extra work, as provided in sub-section 3.6 of the General Conditions.

K. NUMBER OF EXECUTED ORIGINAL COUNTERPARTS OF CONTRACT DOCUMENTS: If requested by the Board, six copies of the Contract, performance and payment bonds shall be executed.

L. CHANGE ORDERS: No work of any kind in connection with the work covered by the plans and specifications shall be considered as change order work, or entitle the Contractor to extra compensation, except when the work has been ordered in writing by the Chief Engineer (Engineer) and in accordance with sub-section 4.2 of the General Conditions.

The Contractor shall clearly identify and inform the Engineer in writing of any deviations from the contract documents at the time of submission and shall obtain the Engineer's written approval to the specified deviation prior to proceeding with any work.

M. WAGES AND HOURS: In accordance with sub-sections 7.3 to 7.9 of the General Conditions relative to hours of labor, minimum wages and overtime pay, the current minimum wage rates promulgated by the Department of Labor and Industrial Relations (DLIR) shall be paid to the various classes of laborers and mechanics engaged in the performance of this contract on the job site. The minimum wages shall be increased during the performance of the contract in an amount equal to the increase in the prevailing wages for those kinds of work as periodically determined by the DLIR.

The Department of Land and Natural Resources will not recognize any claim for additional compensation because of the payment by the Contractor of any wage rate in excess of the said minimum wage rates. The possibility of wage increase is one of the elements to be considered by the Contractor in determining his bid, and will not, under any circumstances, be considered as the basis of a claim against the Department under this Contract.

No work shall be done on Saturdays, Sundays, legal State holidays, and/or in excess of eight (8) hours each day without the written consent of the Engineer. Should permission be granted to work at such times, the Contractor shall pay for all inspection administrative costs thereof. No work shall be done at night unless authorized by the Engineer.

N. PERMITS: The State will process permit applications whenever possible, and the Contractor shall procure the pre-processed permits and pay the required fees. If permit applications are not processed by the State, the Contractor shall process the permit applications, permits and licenses, and pay all charges and fees. In all cases, the Contractor shall give all notices necessary and incident to the due and lawful prosecution of the work.

- O. PROPERTY DAMAGE: It shall be the responsibility of the contractor to respect State property and to prevent damage to existing improvements. The Contractor will be responsible for damages resulting from construction operations. Immediately upon discovery, the Contractor shall repair such damage to the satisfaction of the Engineer.

All trees and shrubbery outside the excavation, embankment or construction limits shall be fully protected from injury. All areas damaged by construction activities including the laydown area shall be seeded and regressed upon completion of the project.

- P. TIME: The time of completion is specified in the Proposal. It is the Board's intention to insist the Contractor diligently prosecute the work to completion within the specified time.

Prospective bidders are reminded that the State has the option to proceed with or abandon a project depending on whether the project can be completed for occupancy in the specified time.

It is the bidder's responsibility to check the availability of all materials before bidding. The bidder shall select sub-contractors and suppliers who can warrant availability and delivery of all specified or qualified materials to assure project completion within the specified time.

The successful bidder must assume all risks for completing the project by the specified date. There shall be no extension of time for any reason except for delays caused by acts of God, labor disputes involving unions, or actions of the State. If for any reason the project falls behind schedule, the Contractor shall at its own cost, take necessary remedial measures to get the project back on schedule, i.e., working overtime, air freighting all materials, etc. In addition, if the Contractor fails to fully complete the project by the completion date, Contractor will be required to make the facility usable at its own cost.

- Q. BIDDER'S RESPONSIBILITY TO PROVIDE PROPER SUPERINTENDENCE: The successful low bidder shall designate in writing to the Engineer the name of its authorized superintendent (Superintendent), who will be present at the job site whenever any work is in progress. The Superintendent shall be responsible for all work, receiving and implementing instructions from the Engineer in a timely manner. The cost for superintendence shall be considered incidental to the project.

If the Superintendent is not present at the site of work, the Engineer shall have the right to suspend the work as described under sub-section 5.5 c. and 7.20 - Suspension of Work of the General Conditions.

- R. LIQUIDATED DAMAGES: Liquidated damages in the amount specified in the Proposal will be assessed for each and every calendar day from and after the expiration of the time period stated in the Contract for the completion of the project.

- S. HIRING OF HAWAII RESIDENTS: The Contractor shall comply with Act 68, SLH 2010, in the performance and for the duration of this contract. The Contractor shall ensure that Hawaii residents compose not less than eighty percent of the workforce employed to perform

the contract work on the project. The eighty percent requirement shall be determined by dividing the total number of hours worked on the contract by Hawaii residents, by the total number of hours worked on the contract by all employees of the Contractor in the performance of the contract. The hours worked by any Subcontractor of the Contractor shall count towards the calculation for this section. The hours worked by employees with shortage trades, as determined by the Department of Labor and Industrial Relations (DLIR), shall not be included in the calculation for this section.

The requirements shall apply to any subcontract of \$50,000 or more in connection with the Contractor, that is, such Subcontractors must also ensure that Hawaii residents compose not less than eighty percent of the Subcontractor's workforce used to perform the subcontract.

- T. WATER AND ELECTRICITY: The Contractor shall make all necessary arrangements and pay all expenses for water and electricity used in the construction of this project.
- U. PUBLIC CONVENIENCE AND SAFETY: The Contractor shall conduct construction operations with due regard to the convenience and safety of the public at all times. No materials or equipment shall be stored where it will interfere with the safe passage of public traffic. The Contractor shall provide, install, and maintain in satisfactory condition, all necessary signs, flares and other protective facilities and shall take all necessary precautions for the protection of the work and the convenience and safety of the public. The Engineer shall have the right to suspend the performance of the work in accordance with sub-section 7.20 - Suspension of Work of the General Conditions.
- V. WORK TO BE DONE WITHOUT DIRECT PAYMENT: Whenever the contract that the Contractor is to perform work or furnish materials of any kind for which no price is fixed in the contract, it shall be understood that the Contractor shall perform such work or furnish said materials without extra charge or allowance or direct payment of any sort. The cost of performing such work or furnishing said material is to be included by the Contractor in a unit price for the appropriate item unless it is expressly specified that such work or material is to be paid for as extra work.
- W. ASBESTOS CONTAINING MATERIALS: The use of asbestos containing materials or equipment is prohibited. The Contractor shall insure that all materials and equipment incorporated in the project are asbestos-free.
- X. WORKER SAFETY: The Contractor shall provide, install and maintain in satisfactory condition all necessary protective facilities and shall take all necessary precautions for the protection and safety of its workers in accordance with the Occupational Safety and Health Standards for the State of Hawaii. The Engineer shall have the right to suspend the performance of the work in accordance with sub-section 7.20 - Suspension of Work of the General Conditions.
- Y. QUANTITIES: All bids will be compared on the basis of quantities of work to be done as shown in the Proposal; the quantities shown in the Unit Price items are estimated, being given as a basis for comparison of bids. The Board reserves the right to increase or

decrease the quantities given under the items or delete items entirely as may be required during the progress of the work.

Z. OTHER HEALTH MEASURES: Forms of work site exposure or conditions which may be detrimental to the health or welfare of workers or of the general public shall be eliminated or reduced to safe levels as required by the DOH codes, standards, and regulations. Suitable first aid kits and a person qualified to render first aid, as specified in the DOH regulations, shall be provided at all times when work is scheduled.

AA. HAWAII BUSINESS OR COMPLIANT NON-HAWAII BUSINESS REQUIREMENT: Bidders (Contractors) shall be incorporated or organized under the laws of the State or be registered to do business in the State as a separate branch or division that is capable of fully performing under the contract, as stipulated in §3-122-112 HAR.

BB. COMPLIANCE WITH §3-122-112 HAR:

As a condition for award of the contract and as proof of compliance with the requirements of 103D-310(c) HRS, the apparent low bidder shall furnish the required documents to the Department. If the valid required certificates are not submitted on a timely basis for award of a contract, a bidder otherwise responsive and responsible may not receive the award. Bidder is responsible to apply for and submit the following documents to the Department.

- **TAX CLEARANCE REQUIREMENTS (HRS Chapter 237)**: Bidder shall obtain a tax clearance certificate from the Hawaii State Department of Taxation (DOTAX) and the Internal Revenue Service (IRS). The certificate is valid for six months from the most recently approved stamp date on the certificate; the certificate must be valid on the date received by the Department.
- **Department of Labor (DLIR) “Certificate of Compliance”**. (HRS Chapter 383 - Unemployment Insurance, Chapter 386 - Workers’ Compensation, Chapter 392 - Temporary Disability Insurance, and 393 – Prepaid Health Care): Bidder shall obtain a certificate of compliance from the Hawaii State Department of Labor and Industrial relations (DLIR). The certificate is valid for six months from the date of issue; certificates must be valid on the date received by the Department.
- **Department of Commerce and Consumer Affairs (DCCA), Business Registration Division (BREG) “Certificate of Good Standing”**. Bidder shall obtain a certificate of good standing issued by the Department of Commerce and Consumer Affairs (DCCA), Business Registration Division (BREG). The certificate of good standing is valid for six months from the date of issue; certificates must be valid on the date received by the Department.

Alternately, instead of separately applying for these certificates at the various state agencies, bidder may choose to use the Hawaii Compliance Express (HCE), which allows businesses to register online through a simple wizard interface at <http://vendors.ehawaii.gov> to acquire a “Certificate of Vendor Compliance” indicating the bidder’s status is compliant with the requirements of §103D-310(c), HRS, and shall be accepted for contracting and final payment purposes. Bidders that elect to use the new HCE services will be required to pay an annual fee of \$15.00 to the Hawaii Information Consortium, LLC (HIC). Bidders choosing not to participate in the HCE program will be required to provide the paper certificates as instructed in the previous paragraphs.

PROPOSAL

FOR

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION
State of Hawaii

Job No. E00BO42A
DEMOLISH ABANDONED BUILDINGS
87-028 FARRINGTON HWY, WAIANAE, OAHU, HAWAII

_____, 20____

Chief Engineer
Engineering Division
Department of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

Dear Sir:

The undersigned, having carefully examined the local conditions and all available records and information covering conditions which may affect the cost of the work to be performed, and having carefully examined the Plans and Specifications, and other contract documents, hereby proposes to furnish and pay for all materials, tools, equipment, labor and other incidental work necessary to provide demolition, removal and abatement of two (2) abandoned houses at 87-028 Farrington Hwy (TMK 8-7-001: 029), Waianae, Oahu, Hawaii and removal of misc. items, furniture, appliances, trash, debris within the property limit and all other incidentals, as required or called for in this Proposal, all according to the true intent and meaning of the Notice to Bidders, Information and Instructions to Bidders, Proposal, Detailed Specifications, Interim General Conditions, Plans, and any and all addenda for:

Job No. E00BO42A
DEMOLISH ABANDONED BUILDINGS
87-028 FARRINGTON HWY, WAIANAE, OAHU, HAWAII

on file in the office of the Engineering Division for the TOTAL BASE BID (Items 1-4) of:

_____ Dollars (\$_____)

and will fully complete all work under this contract within 45 consecutive calendar days of which, Thirty (30) days on-site construction shall be included in the 45 consecutive days, from the date of written notice to proceed, including date of said order, said total sum being itemized on the following pages.

PROPOSAL

Item No.	Quantity	Unit	Description	Unit Price	Total
<u>BASE BID</u>					
1.		LS	Demolition Work; to include demolition, hauling & disposal of two (2) abandoned houses, misc. items, furniture, appliances, trash, debris within the property limit, and all other incidentals, in place complete.	LS	\$
2.		LS	Removal & disposal (abatement) of asbestos/lead/arsenic containing material.	LS	\$
3.		LS	Testing & monitoring.	LS	\$
Subtotal Base Bid (Items 1-3)					
4.			Mobilization and Demobilization (not to exceed 10% of the Subtotal Base Bid).		\$
Total Base Bid (Items 1-4)					

HAWAII PRODUCTS PREFERENCE AND/OR USE OF HAWAII PRODUCTS

In accordance with Act 175, SLH 2009, the Hawaii products preference is applicable to this solicitation. Bidders offering a Hawaii product (“HP”) shall identify the HP in the table below.

Persons desiring to qualify their product(s) not currently on the Hawaii Product List, shall complete Form SPO-38, *Certification for Hawaii Product Preference*, and submit the completed form no later than the deadline specified in the procurement notice and solicitation. The responsibility for certification and qualification shall rest upon the person requesting the preference. One form shall be completed and submitted for each product. Form SPO-38 is available at <http://hawaii.gov/spo/>

For the purpose of selecting the low bid when a solicitation contains both HP and non-HP, the price offered for a HP item shall be decreased by subtracting 10% for the class I or 15% for the class II HP item(s) offered. The lowest total offer, taking the preference into consideration, shall be awarded the contract, unless the offer provides for additional award criteria. The contract amount of any contract awarded, however, shall be the amount of the price offered, exclusive of the preferences.

In the event of any change that materially alters the bidder’s ability to supply the Hawaii product(s), the bidder shall immediately notify the procurement officer in writing and the parties shall enter into discussions for the purpose of revising the contract or terminating the contract for convenience.

Item No.	Pre-Approved Hawaii Product Description & Manufacturer	Class (I or II)	Quantity	Unit Measure	Unit Price	Total Price
1.	<i>[Product Description, Manufacturer Name]</i>	(I)				
2.						
3.						
4.						

RECYCLED PRODUCTS PREFERENCE

This project allows a 10% price preference for recycled products in accordance with HRS 103D-1005. Please indicate your selection of recycled or non-recycled product by indicating its cost FOB jobsite unloaded in the schedule below, including applicable General Excise & Use Taxes.

<u>DESCRIPTION</u>	<u>RECYCLED PRODUCT COST</u>	<u>NONRECYCLED PRODUCT COST</u>
_____	\$ _____	\$ _____
_____	\$ _____	\$ _____
_____	\$ _____	\$ _____
_____	\$ _____	\$ _____

The bidder requesting a recycled product preference shall also complete and submit the form “CERTIFICATION OF RECYCLED CONTENT” as shown in the Interim General Conditions and provide all supporting information with this proposal. Additional information may be requested to qualify a product.

The following definitions are applicable to the CERTIFICATION OF RECYCLED CONTENT form:

"Post-consumer recovered material" means any product used by a consumer, including a business that purchases the material, that has served its intended end use, and that has been separated or diverted from the solid waste stream for the purpose of use, reuse, or recycling.

"Product" includes materials, manufactures, supplies, merchandise, goods, wares, and foodstuffs.

"Recovered material" means waste material and by-products that have been separated, diverted, or removed from the solid waste stream after a manufacturing process for the purpose of use, reuse, or recycling. Recovered material does not include those materials and by-products that are generated and normally reused on-site or within original manufacturing processes (such as mill broke, in the case of paper products).

"Recycled content" means the percentage of a product composed of recovered material, or post-consumer recovered material, or both.

"Recycled product" means a product containing recovered material, or post-consumer recovered material, or both.

The bidder agrees that preference for recycled products shall be taken into consideration to determine the low bidder in accordance with said Section and the rules promulgated, however, the award of contract will be in the amount of the bid offered exclusive any preference.

APPRENTICESHIP AGREEMENT PREFERENCE

1. If applicable to this project, any bidder seeking the preference must be a party to an apprenticeship agreement registered with the State Department of Labor and Industrial Relations (DLIR) at the time the bid is submitted for each apprenticeable trade the bidder will employ to construct the project. “Employ” means the employment of a person in an employer-employee relationship.
 - a. The apprenticeship agreement shall be registered with the DLIR and conform to the requirements of Hawaii Revised Statutes Chapter 372.
 - b. Subcontractors do not have to be a party to an apprenticeship agreement for the bidder to obtain preference.
 - c. The bidder is not required to have apprentices in its employ at the time the bid is submitted to qualify for the preference.
2. A bidder seeking the preference must state the apprenticeable trade the bidder will employ for each trade to be employed to perform the work by submitting a completed signed original *Certification Form 1* verifying participation in an apprenticeship program registered with DLIR. “Apprenticeable trade” shall have the same meaning as “apprenticeable occupation” pursuant to Hawaii Administrative Rules (HAR) §12-30-5.
 - a. The *Certification Form 1* shall be authorized by an apprenticeship sponsor listed on the DLIR list of registered apprenticeship programs. “Sponsor” means an operator of an apprenticeship program and in whose name the program is approved and registered with the DLIR pursuant to HAR §12-30-1.
 - b. The authorization shall be an original signature by an authorized official of the apprenticeship sponsor.
 - c. The completed signed original *Certification Form 1* for each trade must be submitted with the bid. Previous certifications shall not apply.
 - d. When filling out the *Certification Form 1*, the name of Apprenticeable Trade and Apprenticeship Sponsor must be the same as recorded in the List of Construction Trades in Registered Apprenticeship Programs that is posted on the DLIR website. “Registered apprenticeship program” means a construction trade program approved by the DLIR pursuant to HAR §12-301 and §12-30-4.
 - e. The *Certificate Form 1* and the List of Construction Trades in Registered Apprenticeship Programs is available on the DLIR website at: <http://hawaii.gov/labor/wdd>.
3. Upon receiving the *Certification Form 1*, the Procurement Officer will verify that the apprenticeship program is on the List of Construction Trades in Registered Apprenticeship Programs and that the form is signed by an authorized official of the Apprenticeship Program Sponsor. If the programs and signature are not confirmed by the DLIR, the bidder will not qualify for the preference.

4. If the bidder is certified to participate in an apprenticeship program for each trade which will be employed by the bidder for the project, a preference will be applied to decrease the bidder's bid amount by five percent (5%) for evaluation purposes.
5. Should the bidder qualify for other preferences (e.g. Hawaii Products), all applicable preferences shall be applied to the bid price.

CONTRIBUTIONS BY STATE AND COUNTY CONTRACTORS PROHIBITED

Contractors are hereby notified of the applicability of Section 11-355, HRS, which states that campaign contributions are prohibited from specified State or county government contractors during the term of the contract if the contractors are paid with funds appropriated by a legislative body.

CONDITION OF AWARD

It is understood that the award of the contract will be made on the basis of the lowest responsible Total Base Bid (see attached) selected by the Board of Land and Natural Resources. Write the total of bid.

It is understood and agreed that the Board of Land and Natural Resources reserves the right to reject any and/or all bids and waive any defects when, in the Board's opinion, such rejection or waiver will be for the best interest of the State of Hawaii.

In the event all bids exceed available funds certified by the appropriate fiscal officer, the head of the purchasing agency responsible for the procurement in question is authorized in situations where time or economic considerations preclude resolicitation of work of a reduced scope to negotiate an adjustment of the bid price, including changes in the bid requirements, with the low responsible and responsive bidder, in order to bring the bid within the amount of available funds. It is understood and agreed upon that the head of the purchasing agency may delete a portion or all of any item(s) in the proposal at the stated unit or lump sum price as necessary to stay within the available funding. The bidder is responsible to make an earnest effort to represent the actual cost of each item, including all materials, labor, equipment, overhead and profit in their bid proposal to preclude claims of anticipated profit or loss of profit because of an unbalanced bid proposal.

It is also understood that if a mutually agreeable cost for the reduced scope of work necessitated by a lack of available funds cannot be agreed upon between the bidder and the head of the purchasing agency within 14 calendar days after the bid opening, then the bid may be rejected in the best interest of the purchasing agency, and the head of the purchasing agency may negotiate in progressive order (lowest to highest) with the next lowest responsible and responsive bidder.

It is also understood and agreed that the award of the contract shall be conditioned upon funds being made available for this project and further upon the right of the Board of Land and Natural Resources to hold all bids received for a period of ninety (90) days from the date of the opening thereof, unless otherwise required by law, during which time no bid may be withdrawn.

It is also understood that Notice to Proceed may be delayed up to one (1) year after the bid opening date, and that no additional compensation will be provided for any claim for escalation or delay for issuance of Notice to Proceed on or before that date.

It is also understood and agreed that the quantities given herewith are approximate only and are subject to increase or decrease, and that the undersigned will perform all quantities of work as either increased or decreased, in accordance with the provisions of the Contract Specifications.

It is also understood and agreed that the estimated quantities shown for the items for which a UNIT PRICE is asked in this Proposal are only for the purpose of comparing on a uniform basis, bids offered for the work under this contract, and the undersigned agrees that he is satisfied with and will at no time, dispute said estimated quantities as a means of claims for anticipated profit or loss of profit, because of a difference between the quantities of the various classes of work done or the materials and equipment installed, and the said estimated quantities. On UNIT PRICE bids, payment will be made only for the actual number of units incorporated into the finished project at the contract UNIT PRICE.

After the HIePRO bid due date and time, the figures will be extended and/or totaled in accordance with the bid prices of the acceptable proposals and the totals will be compared. In the comparison of bids, words written in the proposal shall govern over figures and unit prices will govern over totals. Until the award of the contract, however, the right will be reserved to reject any and all proposals and to waive any defects or technicalities as may be deemed best for the interest of the State.

It is also understood and agreed that liquidated damages in the amount of ONE HUNDRED AND NO/100 DOLLARS (\$100.00) for each and every calendar day in excess thereof prior to completion of the contract shall be withheld from payments due to the Contractor.

It is also understood and agreed that if this bid is accepted, the successful bidder must enter into and execute a contract with the Board of Land and Natural Resources and furnish a Performance and Payment Bond, as required by law. These bonds shall conform to provisions of Section 103D-324 and 325, Hawaii Revised Statutes and any law applicable hereto.

It is also understood and agreed that the successful bidder will provide all necessary labor, materials, tools, equipment, and other incidentals necessary to do all the work and furnish all the materials specified in the contract in the manner and time herein prescribed, and according to the requirements of the Engineer as therein set forth.

It is understood that by submitting this proposal, the undersigned is declaring that his firm has not been assisted or represented on this matter by an individual who has, in a State capacity, been involved in the subject matter of this contract in the past two years.

It is understood that by submitting this proposal in accordance with HAR 3-122-192, the undersigned is declaring that the price submitted is independently arrived without collusion.

It is also understood that by submitting this proposal, a Certification for Safety and Health Programs for bids in excess of \$100,000 (in accordance with HRS 396-18), the undersigned certifies that his organization will have a written safety and health plan for this project that will be available and implemented by the Notice to Proceed date of this project. Details of the requirements of this plan may be obtained from the Department of Labor and Industrial Relations, Occupational, Safety and Health Division (HIOSH).

It is further understood and agreed that the successful bidder shall comply with paragraph 3.1.a "SUBCONTRACTING" of the General Provisions which requires that the contractor shall perform with his own organization and with the assistance of workmen under his immediate superintendence, work of a value not less than twenty percent (20%) of the value of all work embraced in the Contract, except that certain contract items of work, if specifically referred to in the special provisions, will be exempted from said twenty percent requirement.

Compliance with §103-310 HRS. As a condition of award all bidders shall comply with all laws governing entities doing business in the State, including Chapter 237 HRS (general excise tax); Chapter 383 HRS (employment security – unemployment insurance); Chapter 386 HRS (workers compensation); Chapter 392 HRS (temporary disability insurance); and Chapter 393 HRS (pre-paid health care), and shall produce all documents to the State (DLNR, Engineering Division) required to demonstrate compliance with these subsections. Any bidder making a false affirmation or certification under this subsection shall be suspended and may be debarred from further offerings or awards pursuant to §103D-702 HRS.

RECEIPT OF ADDENDA

The bidder also acknowledges receipt of any and all addenda issued by the Engineering Division, by recording the date of receipt of the respective addenda in the space provided below:

<u>Addendum</u>	<u>Date Received</u>	<u>Addendum</u>	<u>Date Received</u>
No. 1	_____	No. 5	_____
No. 2	_____	No. 6	_____
No. 3	_____	No. 7	_____
No. 4	_____	No. 8	_____

It is understood that failure to receive any such addendum shall not relieve the Contractor from any obligation under this Proposal as submitted.

It is also understood and agreed that if this Proposal is accepted and the undersigned should fail or neglect to contract as aforesaid, the Board may determine that the bidder has abandoned the Contract, and thereupon, forfeiture of the security accompanying his proposal shall operate and the same shall become the property of the Board.

JOINT CONTRACTORS OR SUBCONTRACTORS
TO BE ENGAGED ON THIS PROJECT

The Bidder agrees that the following is a complete listing of all joint contractors or subcontractors covered under Chapter 444, Hawaii Revised Statutes (HRS), who will be engaged by the Bidder on this project to perform the required work indicated pursuant to Section 103D-302, HRS. It is the sole responsibility of the contractor to review the requirements of this Project and determine the appropriate licenses that are required to complete the Project. The Bidder certifies that the completed listing of joint contractors or subcontractors fulfills the requirements for the project and the Bidder, together with the listed subcontractors or joint contractors have all the specialty contractor's licenses to complete the work, except as provided for in HRS §103D-302(b). Failure of the Bidder to comply with this requirement may be just cause for rejection of the bid.

Joint Contractors or Subcontractors List for the Alternate(s): Bidder agrees that for projects with alternate(s), the joint Contractors or Subcontractor listed in the completed "Joint Contractors or Subcontractors List for the Alternate(s)" will perform work for the respective alternate.

"A" General Engineering Contractors and "B" General Building Contractors are reminded that due to the Hawaii Supreme Court's January 28, 2002, decision in Okada Trucking Co., Ltd. v. Board of Water Supply, et al., 97 Haw. 450 (2002), they are prohibited from undertaking any work, solely or as part of a larger project, which would require the general contractor to act as a specialty contractor in any area in which the general contractor has no license. Although the "A" and "B" contractor may still bid on and act as the "prime" contractor on an "A" or "B" project (See, HRS §444-7 for the definitions of an "A" and "B" project.), respectively, the "A" and "B" contractor may only perform work in the areas in which they have the appropriate contractor's license (*An "A" or "B" contractor obtains "C" specialty contractor's licenses either on its own, or automatically under HAR § 16-77-32*). The remaining work must be performed by appropriately licensed entities.

General Engineering "A" Contractors automatically have these "C" specialty contractor's licenses: C-3, C-9, C-10, C-17, C-24, C-31a, C-32, C-35, C-37a, C-37b, C-38, C-43, C-49, C-56, C-57a, C-57b and C-61.

General Building "B" Contractors automatically have these "C" specialty contractor's licenses: C-5, C-6, C-10, C-12, C-24, C-25, C-31a, C-32a, C-42a and C-42b.

In completing the Joint Contractors or Subcontractors List, describe the specialty contractor's nature and scope of work to be performed for this project and provide the complete firm name of the joint contractor or subcontractor in the respective columns. If the Bidder is a general contractor and providing the work of the required specialty contractor, whose license is not automatically held pursuant to HAR 16-77-32, fill in the Bidder's (general contractor's) name and nature and scope of work to be performed on this project.

List only one joint contractor or subcontractor per required specialty contractor's classification, unless within the same specialty, the work of each joint contractor or subcontractor can be described so that there is no overlap in work descriptions.

If a contractor's license is required by law for the performance of the work which is called for in this bid, the bidder and all subcontractors must have the required license before the submission of the bidder's proposal in the case of a non-federal aid project, and for federal-aid projects, the bidder must have the required license prior to the award of the project and all subcontractors prior to the start of the subcontracted work.

Respectfully submitted,

Name of Company, Joint Venture
or Partnership

Contractor's License No.

By _____
Signature (*4)

Title _____

Print Name _____

Date _____

Address _____

Telephone No. _____

E-Mail Address _____

NOTES:

1. Please attach to this page evidence of the authority of this officer to submit bids on behalf of the Company and also the names and residence addresses of all officers of the Company.
2. Fill in all blank spaces with information asked for or bid may be invalidated. PROPOSAL MUST BE INTACT, MISSING PAGES MAY INVALIDATE YOUR BID.

End of Proposal

SPECIAL PROVISIONS

Amend INTERIM GENERAL CONDITIONS, dated October 1994, as follows:

Section 2 – Proposal Requirements and Conditions

1. **AMEND** Section 2.1 Qualification of Bidder with the following:

Written Notice of Intent to Bid or Offer: A written Notice of Intent to Bid is not required for the Solicitation.

Standard Qualification Questionnaire: Bidders may be required to complete a standard qualifications questionnaire. When requested, the information shall be furnished within two working days or longer at the discretion of the Engineer. Failure to furnish the requested information within the time allowed may be grounds for a determination of non-responsibility, in accordance with HRS Section 103D-310 and HAR Section 3-122-108.

Hawaii Business or Compliant Non-Hawaii Business Requirement: Bidders shall be incorporated or organized under the laws of the State or be registered to do business in the State as a separate branch or division that is capable of fully performing under the contract, as stipulated in §3-122-112 HAR. A certified letter is not required prior to bid opening.

Compliance with §3-122-112 HAR: As a condition for award of the contract and as proof of compliance with the requirements of 103D-310(c) HRS, the apparent low bidder shall furnish the required documents to the Department. If the valid required certificates are not submitted on a timely basis for award of a contract, a bidder otherwise responsive and responsible may not receive the award. Bidder is responsible to apply for and submit the following documents to the Department.

- A. Tax Clearance (HRS Chapter 237): Bidder shall obtain a tax clearance certificate from the Hawaii State Department of Taxation (DOTAX) and the Internal Revenue Service (IRS). The certificate is valid for six months from the most recently approved stamp date on the certificate; the certificate must be valid on the date received by the Department.
- B. Department of Labor (DLIR) “Certificate of Compliance”. (HRS Chapter 383 - Unemployment Insurance, Chapter 386 - Workers’ Compensation, Chapter 392 - Temporary Disability Insurance, and 393 – Prepaid Health Care): Bidder shall obtain a certificate of compliance from the Hawaii State Department of Labor and Industrial relations (DLIR). The certificate is valid for six months from the date of issue; certificates must be valid on the date received by the Department.
- C. Department of Commerce and Consumer Affairs (DCCA), Business Registration Division (BREG) “Certificate of Good Standing”. Bidder shall obtain a certificate of good standing issued by the Department of Commerce and Consumer Affairs (DCCA), Business Registration Division (BREG). The certificate of good standing is valid for six months from the date of issue; certificates must be valid on the date received by the Department.

Hawaii Compliance Express. Alternately, instead of separately applying for these certificates at the various state agencies, bidder may choose to use the Hawaii Compliance Express (HCE), which allows businesses to register online through a simple wizard interface at <http://vendors.ehawaii.gov> to acquire a “Certificate of Vendor compliance” indicating that bidder’s status is compliant with requirements of §103D-310(c), HRS, shall be accepted for contracting and final payment purposes.

Bidders that elect to use the new HCE services will be required to pay an annual fee of \$15.00 to the Hawaii

Information Consortium, LLC (HIC). Bidders choosing not to participate in the HCE program will be required to provide the paper certificates as instructed in the previous paragraphs.

2. **ADD** Section 2.4a, Pre-Bid Conferences

Required Pre-bid Conferences: For construction and design-build projects with an estimated value of \$500,000 or more and solicited under the competitive sealed bid method (103D-302 HRS); and for construction and design-build projects with an estimated value of \$100,000 or more and solicited under the competitive sealed proposal method (103D-303 HRS); a pre-bid conference is required.

Other Pre-Bid Conferences: The Department may require a pre-bid conference for construction or design-build projects that are below the dollar threshold listed in above or when projects have special or unusual requirements.

Other Conditions: The Department may require the prospective Bidders to make a physical inspection of the project site and make attendance at the pre-bid conference a condition for submitting an offer.

Nothing stated at the pre-bid conference shall change the solicitation unless a change is made by written addendum.

3. **DELETE** Section 2.5, Addenda and Interpretations, in its entirety and replace with the following:

“Discrepancies, omissions, or doubts as to the meaning of drawings and specifications should be communicated using the question-and-answer section on the HIEPRO solicitation for interpretation and must be received in the time frame set in the HIEPRO solicitation. Any interpretation, if made and any supplemental instructions will be in the form of written addenda to the plans and specifications and made available prior to the offer due date. It shall be the prospective bidder’s sole responsibility to verify and obtain any said addenda. Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the contract documents.”

Section 3 – Award and Execution of Contract

1. **AMEND** Section 3.3, Award of Contract, by deleting “sixty (60)” and replacing with “ninety (90)” in the first paragraph.

2. **AMEND** Section 3.3, Award of Contract, by adding the following after the first paragraph:

“If the contract is not awarded within the ninety (90) days, the Department may request the successful Bidder to extend the time for the acceptance of its bid. The Bidder may reject such a request without penalty; and in such case, the Department may at its sole discretion make a similar offer to the next lowest responsive and responsible bidder and so on until a bid is duly accepted or until the Department elects to stop making such requests.”

3. **AMEND** Section 3.9, Notice to Proceed, by deleting “180 days” and replacing with “one (1) year” in the last paragraph.

4. **ADD** Section 3.10, Protests:

“3.10 PROTESTS—Pursuant to Section 103D-701, Hawaii Revised Statutes, an actual or prospective

offeror who is aggrieved in connection with the solicitation or award may submit a protest. Any protest shall be submitting in writing to the Chairperson, Department of Land and Natural Resources, 1151 Punchbowl Street, Honolulu, Hawaii 96813, or designee as specified in the solicitation.

A protest shall be submitted in writing within five (5) working days after the aggrieved person knows or should have known the facts giving rise thereto; provided that a protest based upon the content of the solicitation shall be submitted in writing prior to the date set for receipt of offers. Further provided that a protest of an award or proposed award shall be submitted within five (5) working days after the posting of the award of the contract.

The notice of award, if any, resulting from this solicitation shall be posted on the HIePRO website.

Section 5 – Control of Work

AMEND Section 5.8 Value Engineering Incentive by deleting “\$100,000” and replacing with “\$250,000” in the first paragraph.

Section 6 – Substitution of Materials and Equipment

ADD the following to Section 6.3 Sub-paragraph b:

4. If the substitution meets all the requirements of the specifications and plans.

Section 7 – Prosecution and Progress

1. **DELETE** Section 7.2d in its entirety and replace with the following:

“d. Proof of Insurance Coverage

A Certificate of Insurance or other documentary evidence, to the satisfaction of the Engineer, that the Contractor has in place all insurance coverage required by the contract. The Certificate of Insurance shall contain wording which identifies the Project number and Project title for which the certificate of insurance is issued. Refer to the following for insurance requirements:

1. Insurance Requirements

- (a) **Obligation of Contractor** - Contractor shall not commence any work until it obtains, at its own expense, all required herein insurance. Such insurance must have the approval of the Department as to limit, form and amount and must be maintained with a company authorized by laws of the State to issue such insurance in the State of Hawaii. Coverage by a “Non-Admitted” carrier is permissible provided the carrier has a AM Best’s Rating of “A-VII” or better.
- (b) All insurance described herein will be maintained by the Contractor for the full period of the contract and in no event will be terminated or otherwise allowed to lapse prior to written certification of final acceptance of the work by the Department.
- (c) Certificate(s) of Insurance acceptable to the Department shall be filed with the Engineer prior to commencement of the work. Certificates shall identify if the insurance company is a “captive” insurance company or a “Non-Admitted” carrier to the State of Hawaii. The Best’s Rating must be stated for the “Non-Admitted” carrier. Certificates shall contain a provision

that coverages afforded under the policies will not be canceled or changed until at least thirty (30) days written notice has been given to the Engineer by registered mail. The insurance policies shall name the State of Hawaii, its officers and employees as an additional insured and such coverage shall be noted on the certificate. Should any policy be canceled before final acceptance of the work by the Department, and the Contractor fails to immediately procure replacement insurance as specified, the Department, in addition to all other remedies it may have for such breach, reserves the right to procure such insurance and deduct the cost thereof from any money due to the Contractor.

- (d) Nothing contained in these insurance requirements is to be construed as limiting the extent of Contractor's responsibility for payment of damages resulting from its operations under this contract, including the Contractor's obligation to pay liquidated damages, nor shall it affect the Contractor's separate and independent duty to defend, indemnify and hold the Department harmless pursuant to other provisions of this contract. In no instance will the Department's exercise of an option to occupy and use completed portions of the work relieve the Contractor of its obligation to maintain the required insurance until the date of final acceptance of the work.
 - (e) All insurance described herein shall be primary and cover the insured for all work to be performed under the contract, all work performed incidental thereto or directly or indirectly connected therewith, including traffic detour work or other work performed outside the work area, and all change order work.
 - (f) The Contractor shall, from time to time, furnish the Engineer, when requested, satisfactory proof of coverage of each type of insurance required or a copy of the actual policies covering the work. Failure to comply with the Engineer's request may result in suspension of the work and shall be sufficient grounds to withhold future payments due the Contractor and to terminate the contract for Contractor's default.
 - (g) If the Contractor is self-insured, it shall furnish, upon the request and the satisfaction of the Engineer, any documentation to demonstrate the ability to self-insure itself. The Engineer, from time to time, can conduct an audit to determine the ability of the Contractor to be self-insured. Failure to comply with the Engineer's request will be considered a material breach of the contract, and at the discretion of the Engineer, may be sufficient grounds to terminate the contract, suspend any work or withhold future payments.
 - (h) It is the responsibility of the Contractor to notify the Department of any changes to its insurance policies or if the Contractor receives a notice of cancellation of any of its insurance policies. The Contractor will immediately provide written notice to the Department should the insurance policies evidenced on its Certificate of Insurance form be cancelled, limited in scope, or not renewed upon expiration.
- 2. Types of Insurance** - The Contractor shall purchase and maintain insurance described below which shall provide coverage against claims arising out of the Contractor's operations under the contract, whether such operations be by the Contractor itself or by the subcontractor or by anyone directly or indirectly employed by any of them or by anyone for whose acts any of them may be liable.
- (a) **Worker's Compensation.** The Contractor and all subcontractors shall obtain worker's compensation insurance for all persons whom they employ or may employ in carrying out the work under this contract. This insurance shall be in strict conformity with the

requirements of the most current and applicable State of Hawaii Worker's Compensation Insurance laws in effect on the date of the execution of this contract and as modified during the duration of the contract.

- (b) Commercial General Liability. The Contractor shall obtain General Liability insurance with a limit of not less than \$1,000,000 per occurrence and \$2,000,000 aggregate. The insurance policy shall contain the following clauses: 1) "The State of Hawaii is added as an additional insured as respects to operations performed for the State of Hawaii."; and 2) "It is agreed that any insurance maintained by the State of Hawaii will apply in excess of, and not contributed with, insurance provided by this policy." The required limit of insurance may be provided by a single policy or with a combination of primary and excess policies."
- (c) Comprehensive Automobile Liability. The Contractor shall obtain Auto Liability insurance covering all owned, non-owned and hired autos with a combined single Limit of not less than \$1,000,000 per accident for bodily injury and property damage. The insurance policy shall contain the following clauses: 1) "The State of Hawaii is added as an additional insured as respects to operations performed for the State of Hawaii."; and 2) "It is agreed that any insurance maintained by the State of Hawaii will apply in excess of, and not contributed with, insurance provided by this policy." The required limit of insurance may be provided by a single policy or with a combination of primary and excess policies.

Furthermore, the Contractor's commercial general liability insurance and automobile liability insurance shall include coverage for bodily injury, sickness, disease or death of any person, arising directly or indirectly out of, or in connection with, the performance of work under this contract.

The Contractor's property damage liability insurance shall provide for all damages arising out of injury to or destruction of property of others including the Department's, arising directly or indirectly out of or in connection with the performance of the work under this contract including explosion or collapse.

The Contractor shall either:

- i. Require each of its subcontractors to procure and to maintain during the life of its subcontract, subcontractors' comprehensive general liability, automobile liability and property damage liability insurance of the type and in the same amounts specified herein; or
- ii. Insure the activities of its subcontractors in its own policy.

The Contractor will be permitted, in cooperation with insurers, to maintain a self-insured retention for up to 25% of the per occurrence combined single limits of the commercial general liability and the automobile liability policies. The existence of the self-insured retention must be noted on the certificate of insurance coverage submitted to the Department or else it will be understood that the insurer is providing first dollar coverage for all claims. For all claims within the self-insured retention amount, the rights, duties and obligations between the Contractor and the Department shall be identical to that between a liability insurer and the Department, as an additional insured, as if there was no self-insured retention.

- (d) **Builder's Risk Insurance.** Unless included in the Specifications of this project, the Contractor shall not be required to provide builder's risk insurance. If required as noted in the Specifications, builder's risk insurance shall be provided during the progress of work and until final acceptance by the Department upon completion of the contract. It shall be "All Risk" (including but not limited to earthquake, windstorm and flood damage) completed value insurance coverage on all completed work and work in progress to the full replacement value thereof. Such insurance shall include the Department as additional name insured. The insurance policy shall contain the following clauses: 1) "The State of Hawaii is added as an additional insured as respects to operations performed for the State of Hawaii."; and 2) "It is agreed that any insurance maintained by the State of Hawaii will apply in excess of, and not contributed with, insurance provided by this policy." The required limit of insurance may be provided by a single policy or with a combination of primary and excess polices.

The Contractor shall submit to the Engineer for its approval all items deemed to be uninsurable. The policy may provide for a deductible in an amount of up to 25% of the amount insured by the policy. With respect to all losses up to any deductible amount, the relationship between the Contractor and the Department shall be that of insurer and additional insured as if no deductible existed".

2. DELETE Section 7.16 in its entirety and replace with the following:

"RESPONSIBILITY FOR DAMAGE CLAIMS; INDEMNITY – The Contractor shall indemnify the State and the Department against all loss of or damage to the State's or the Department's existing property and facilities arising out of any act or omission committed in the performance of the work by the Contractor, any subcontractor or their employees and agents. Contractor shall defend, hold harmless and indemnify the Department and the State, their employees, officers and agents against all losses, claims, suits, liability and expense, including but not limited to attorneys' fees, arising out of injury to or death of persons (including employees of the State and the Department, the Contractor or any subcontractor) or damage to property resulting from or in connection with performance of the work and not caused solely by the negligence of the State or the Department, their agents, officers and employees. The State or the Department may participate in the defense of any claim or suit without relieving the Contractor of any obligation hereunder. The purchase of liability insurance shall not relieve the Contractor of the obligations described herein.

The Contractor agrees that it will not attempt to hold the State and its Departments and Agencies and their officers, representatives, employees or agents, liable or responsible for any losses or damages to third parties from the action of the elements, the nature of the work to be done under these specifications or from any unforeseen obstructions, acts of God, vandalism, fires or encumbrances which may be encountered in the prosecution of the work.

The Contractor shall pay all just claims for materials, supplies, tools, labor and other just claims against the Contractor or any subcontractor in connection with this contract and the surety bond will not be released by final acceptance and payment by the Department unless all such claims are paid or released. The Department may, but is not obligated to, withhold, or retain as much of the monies due or to become due the Contractor under this contract considered necessary by the Engineer to cover such just claims until satisfactory proof of payment or the establishment of a payment plan is presented.

The Contractor shall defend, indemnify and hold harmless the State and its Departments and Agencies and their officers, representatives, employees or agents from all suits, actions or claims of any character brought

on account of any claims or amounts arising or recovered under the Worker's Compensation Laws or any other law, by-law, ordinance, order or decree.

Section 8 – Measurement and Payment

1. **DELETE** Section 8.7a in its entirety and replace with the following:

- a. Tax Clearances from the State of Hawaii Department of Taxation and Internal Revenue Service, subject to section 103D-328, HRS, current within two months of issuance date indicating that all delinquent taxes levied or accrued under State Statutes against the contractor have been paid.

2. **ADD** Section 8.7d, Certificate of Compliance:

- d. A Certification from the Contractor affirming that the Contractor has, as applicable, remained in compliance with all laws as required by Section 103D-310, HRS, and Section 3-122-112, HAR. A contractor making a false affirmation shall be suspended and may be debarred pursuant to section 103D-702, HRS.

- 1. Certification of Compliance for Final Payment, State Procurement Office Form-22. Must be Signed Original.

3. **ADD** Section 8.7e, Hawaii Compliance Express:

- e. In lieu of submitting the tax clearances from Taxation and IRS, and SPO Form -22, the Contractor may choose to use the Hawaii Compliance Express as described on page SP-1 of this Special Provisions.

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SECTION 01019

GENERAL SPECIFICATIONS

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

Work shall consist of furnishing all labor, tools, materials and equipment necessary and required to construct in place complete all work as indicated on the drawings and as specified herein.

1.2 GENERAL

- A. Examination of Premises: The Contractor shall contact the Engineer and obtain permission before visiting the site.
- B. All lines and grades shall be established by a licensed surveyor, or licensed Civil Engineer, registered in the State of Hawaii. The Contractor shall submit evidence of current and valid registration.
- C. Notices: The Contractor shall notify the Engineer and give at least three (3) working days' notice before starting any work.
- D. Disruption of Utility Services: All work related to the temporary disconnection of electrical system shall be pre-arranged with the Engineer so that any disruption of such services will be kept to a minimum. In the event temporary power hook-up is required, the Contractor shall provide the necessary services.
- E. Contractor's Operations
 - 1. The Contractor must employ, insofar as possible, such methods and means of carrying out the work so as not to cause any interruption or interference to the facility's operations. Where the Contractor's operations would result in interruptions which would hamper the operations of the facilities, the Contractor shall rearrange the schedule of work accordingly.
 - 2. The Contractor shall maintain safe passageway to and from the facility for the user agency personnel and the public at all times.
- F. Lead Paint
 - 1. When the project includes paint to be disturbed that was applied prior to 1980, it shall be assumed to contain lead. The Contractor shall inform its employees, subcontractors, and all other persons engaged in the project that lead containing paints are present in the existing buildings at the job site and to follow the

requirements of the Department of Labor and Industrial Relations, Division of Occupational Safety and Health, Title 12, Subtitle 8, Chapter 148, Lead Exposure in Construction, Hawaii Administrative Rules (Chapter 12-148, HAR).

G. Parking Policy for Contractor

1. The Contractor and its employees will not be allowed to park in zones assigned to facility personnel.
2. Areas to be used by the Contractor shall be as designated by the Engineer. Any lawn damaged by the Contractor shall be restored as instructed by the Engineer at no cost to the State.

H. Toilet Accommodations: The Contractor may NOT use the existing toilet facilities.

I. Protection of Property: The Contractor shall continually maintain adequate protection of all its work from damage and shall protect all property, including but not limited to buildings, equipment, furniture, grounds, vegetation, material, utility systems located at and adjoining the job site. The Contractor shall repair, replace or pay the expense of repair of damages resulting from its operations.

J. Use of Power Driven Equipment: The Contractor is cautioned to take all necessary safety precautions to protect the facility personnel, and the public whenever power driven equipment is used.

K. Safety: The Contractor shall carefully read and strictly comply with the requirements of the Hawaii Occupational Safety and Health Law, Chapter 396, Hawaii Revised Statutes, as amended, is applicable and made a part of the Contract.

L. Clean Up Premises: The Contractor shall clean up and remove from premises all debris accumulated from operations as necessary or as directed. See also Section 7.25 of the General Conditions.

M. Responsibility

1. The State will hold the Contractor liable for all the acts of Subcontractors and shall deal only with the prime Contractor in matters pertaining to other trades employed on the job. The Contractor shall be responsible for coordinating the work of all trades on the job.
2. Should the Contractor discover any discrepancy in the plans or specifications, the Contractor shall immediately notify the Engineer before proceeding any further with the work, otherwise, the Contractor will be held responsible for any cost involved in correction of work placed due to such discrepancy.

N. Cooperation with Other Contractors: The State reserves the right at any time to contract for or otherwise perform other or additional work within the contract zone limits of this Contract. The Contractor of this project shall, to the extent ordered by the State, conduct its work so as not to interfere with or hinder the progress or completion of the work performed by other contractors.

O. Division of the Work: The Divisions and Sections into which these Specifications are divided shall not be considered an accurate or complete segregation of work by trades. This also applies to all work specified within each Section.

P. Drawings and Specifications

1. The Contractor shall not make alterations in the drawings and specifications. In the event the contractor discovers any errors or discrepancies, the Contractor shall immediately notify the Engineer in accordance with the General Conditions.
2. Where devices, or items, or parts thereof are referred to in the singular, it is intended that such reference shall apply to as many such devices, items or parts as are required to properly complete the work.
3. Specifications and drawings are prepared in abbreviated form and include incomplete sentences. Omission of words or phrases such as "the Contractor shall", "as shown on the drawings", "a", "an", and "the" are intentional. Omitted words and phrases shall be provided by inference to form complete sentences.

Q. Required Submittals

1. Required submittals as specified in the Technical Sections of these specifications include one or more of the following: Shop drawings; color samples; material samples; technical data; schedules of materials; schedules of operations; guarantees; operating and maintenance manuals; and as-built drawings.

The Contractor shall make a comprehensive list of the required submittals, by Specification Section, and submit this list to the Engineer within 15 days after notice to proceed.

END OF SECTION

SECTION 01090

STANDARD REFERENCES

PART 1 - GENERAL

Wherever used in the project, the following abbreviations will have the meanings listed:

<u>Abbreviation</u>	<u>Company</u>
Z	Aluminum Association Incorporated 818 Connecticut Avenue, N.W. Washington, D.C. 20006
AASHTO	American Association of State Highway and Transportation Officials 444 North Capitol Street, N.W., Suite 225 Washington, D.C. 20001
ACI	American Concrete Institute P.O. Box 19150 Detroit, MI
AEIC	Association of Edison Illuminating Companies 51 East 42nd Street New York, NY 10017
AFBMA	Anti-Friction Bearing Manufacturer's Association 60 East 42nd Street New York, NY 10017
AGA	American Gas Association 8501 East Pleasant Valley Road Cleveland, OH 44131
AGMA	American Gear Manufacturer's Association 1330 Massachusetts Avenue, N.W. Washington, D.C.
AISC	American Institute of Steel Construction 101 Park Avenue New York, NY 10017
AISI	American Iron and Steel Institute 1000 16th Street, N.W. Washington, D.C. 20036

<u>Abbreviation</u>	<u>Company</u>
AITC	American Institute of Timber Construction 333 West Hampden Avenue Englewood, CO 80110
AMCA	Air Moving and Conditioning Association, Inc. 30 West University Drive Arlington Heights, IL 60004
ANSI	American National Standards Institute, Inc. 1430 Broadway New York, NY 10018
APA	American Plywood Association 1119 A Street Tacoma, WA 98401
API	American Petroleum Institute 1801 K Street N.W. Washington, DC 20006
ARI	Air-Conditioning and Refrigeration Institute 1814 North Fort Myer Drive Arlington, VA 22209
ASCE	American Society of Civil Engineers 345 East 47th Street New York, NY 10017
ASCII	American Standard Code for Information Interchange United States of America Standards Institute 1430 Broadway New York, NY 10018
ASE Code	American Standard Safety Code for Elevators, Dumbwaiter and Escalators American National Standards Institute 1430 Broadway New York, NY 10018
ASHRAE	American Society of Heating, Refrigeration and Air Conditioning Engineers United Engineering Center 345 East 47th Street New York, NY 10017

<u>Abbreviation</u>	<u>Company</u>
ASME	American Society of Mechanical Engineers 345 East 47th Street New York, NY 10017
ASTM	American Society for Testing and Materials 1916 Race Street Philadelphia, PA 19103
AWPA	American Wood Preservers Association 1625 Eye Street Washington, DC 20006
AWS	American Welding Society 2501 N.W. 7th Street Miami, FL 33125
AWWA	American Water Works Association 6666 West Quincy Avenue Denver, CO 80235
CBM	Certified Ballast Manufacturers 2120 Keith Building Cleveland, OH 44115
CMAA	Crane Manufacturers Association of America, Inc. (Formerly called: Overhead Electrical Crane Institute - OECI) 1326 Freeport Road Pittsburgh, PA 15238
CRSI	Concrete Reinforcing Steel Institute 180 North La Salle Street Chicago, IL 60601
CSA	Canadian Standards Association 178 Rexdale Boulevard Rexdale, Ontario, M9W 1R3, Canada
DEMA	Diesel Engine Manufacturer's Association 122 East 42nd Street New York, NY 10017

<u>Abbreviation</u>	<u>Company</u>
DIS	Division of Industrial Safety California Department of Industrial Relations 2422 Arden Way Sacramento, CA 95825
EI	Edison Electric Institute 90 Park Avenue New York, NY 10016
EIA	Electronic Industries Association 2001 Eye Street N.W. Washington, DC 20006
EJMA	Expansion Joint Manufacturer's Association 331 Madison Avenue New York, NY 10017
ESO	Electrical Safety Orders, California Administrative Code, Title 8, Chap. 4, Subarticle 5 Office of Procurement, Publications Section P.O. Box 20191 8141 Elder Creek Road Sacramento, CA 95820
FEDSPEC	Federal Specifications General Services Administration Specification and Consumer Information Distribution Branch Washington Navy Yard, Bldg. 197 Washington, DC 20407
FEDSTDS	Federal Standards (see FEDSPECS)
FM	Factory Mutual Research 1151 Boston-Providence Turnpike Norwood, MA 02062
HEI	Heat Exchange Institute 122 East 42nd Street New York, NY 10017

<u>Abbreviation</u>	<u>Company</u>
HI	Hydraulic Institute 1230 Keith Building Cleveland, OH 44115
IAPMO	International Association of Plumbing and Mechanical Officials 5032 Alhambra Avenue Los Angeles, CA 90032
ICBO	International Conference of Building Officials 5360 South Workman Mill Road Whittier, CA 90601
ICEA	Insulated Cable Engineers Association P.O. Box P South Yarmouth, MA 02664
IEEE	Institute of Electrical and Electronics Engineers, Inc. 345 East 47th Street New York, NY 10017
IES	Illuminating Engineering Society C/O United Engineering Center 345 East 47th Street New York, NY 10017
ISA	Instrument Society of America 400 Stanwix Street Pittsburgh, PA 15222
JIC	Joint Industrial Council 7901 Westpark Drive McLean, VA 22101
MILSPEC	Military Specifications Naval Publications and Forms Center 5801 Tabor Avenue Philadelphia, PA 19120
MSS	Manufacturers Standardization Society of the Valve and Fittings Industry, Inc. 127 Park Street, N.E. Vienna, VA 22180

<u>Abbreviation</u>	<u>Company</u>
NAAMM	National Association of Architectural Metal Manufacturers 100 South Marion Street Oak Park, IL 60302
NACE	National Association of Corrosion Engineers P.O. Box 986 Katy, TX 77450
NEC	National Electric Code National Fire Protection Association 470 Atlantic Avenue Boston, MA 02210
NEMA	National Electrical Manufacturer's Association 155 East 44th Street New York, NY 10017
NESC	National Electric Safety Code American National Standards Institute 1430 Broadway New York, NY 10018
NFPA	National Forest Products Association (Formerly called: National Lumber Manufacturer's Association) 1619 Massachusetts Avenue, N.W. Washington, DC 20036
OSHA	Occupational Safety and Health Act U.S. Department of Labor San Francisco Regional Office 450 Golden Gate Avenue, Box 36017 San Francisco, CA 94102
PPIC	The Plumbing & Piping Industry Council, Inc. Suite 402 510 Shatto Place Los Angeles, CA 90020
SAE	Society of Automotive Engineers 2 Pennsylvania Street New York, NY 10001

<u>Abbreviation</u>	<u>Company</u>
SAMA	Scientific Apparatus Makers Association One Thomas Circle Washington, DC 20005
SBCC	Southern Building Code Congress 1116 Brown-Marx Building Birmingham, AL 35203
SMACNA	Sheet Metal and Air Conditioning Contractors National Association, Inc. 8224 Old Courthouse Road Tysons Corner Vienna, VA 22180
SSPWC	Standard Specifications for Public Works Construction Building News, Inc. 3055 Overland Avenue Los Angeles, CA 90034
TEMA	Tubular Exchanger Manufacturer's Association 331 Madison Avenue New York, NY 10017
UBC	Uniform Building Code Published by ICBO
UL	Underwriters Laboratories Inc. 207 East Ohio Street Chicago, IL 60611
UMC	Uniform Mechanical Code Published by ICBO
UPC	Uniform Plumbing Code Published by IAPMO
USBR	Bureau of Reclamation U.S. Department of Interior Engineering and Research Center Denver Federal Center, Building 67 Denver, CO 80225
WWPA	Western Wood Products Association (Formerly called: West Coast Lumberman's Association - WCLA) Yeon Building Portland, CA 97204

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

- END OF SECTION -

SECTION 01100

ARCHAEOLOGICAL PROTECTION

PART 1 - GENERAL

- 1.1 This section covers the requirements for the protection and preservation of historical sites and values.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

- 3.1 CONSTRUCTION METHOD: Representatives of the State will from time to time examine the area as work proceeds. If historical values are noted, the State may order a halt to the work in the vicinity of the historical values until the State can examine further. The Contractor shall notify the State if he finds anything he suspects to be of historic significance and shall discontinue further work in the vicinity of the find until the State can examine the area. In either case, further work in the vicinity of such historical or suspected historical values may proceed only upon approval by the State. Such approval can be normally expected within one week and shall in no case require more than one month.

END OF SECTION

SECTION 01300

SUBMITTALS

PART 1 - GENERAL

1.1 SUBMITTALS

A. Shop drawings shall be required for:

1. As called for in the plans, specifications or by the Engineer.

B. Other required submittals shall include:

1. Samples, Product Data, and MSDS documents.

2. Manufacturer's Data.

3. Certificates of Warranty.

4. Any others as called for in the plans, specifications, or by the Engineer.

1.2 BIDDER'S SPECIAL RESPONSIBILITY FOR COORDINATING CONTRACTUAL WORK AND SUBMITTALS:

A. The Contractor is responsible for the coordination of all contractual work and submittals.

B. The Contractor shall have a rubber stamp made up in the following format:

CONTRACTOR NAME

PROJECT: _____

JOB NO: _____

THIS SUBMITTAL HAS BEEN CHECKED BY THIS GENERAL CONTRACTOR. IT IS CERTIFIED CORRECT, COMPLETE, AND IN COMPLIANCE WITH CONTRACT DRAWINGS AND SPECIFICATIONS. ALL AFFECTED CONTRACTORS AND SUPPLIERS ARE AWARE OF, AND WILL INTEGRATE THIS SUBMITTAL INTO THEIR OWN WORK.

DATE RECEIVED _____

SPECIFICATION SECTION _____

SPECIFICATION PARAGRAPH _____

DRAWING NUMBER _____

SUBCONTRACTOR NAME _____

SUPPLIER NAME _____

MANUFACTURER NAME _____

CERTIFIED BY: _____

- C. This stamp, "filled in", should appear on the title sheet of each shop drawing, on a cover sheet of submittals in an 8-1/2" x 11" format, or on one face of a cardstock tag (min. 3" x 6") tied to each sample. The tag on the samples should state what the sample is so that, if the tag is accidentally separated from the sample, it can be matched up again. The back of this tag will be used by the Engineer for his receipt, review, and log stamp and for any comments that relate to the sample.
- D. All submittals for material, equipment, and shop drawings listed in the contract documents, including dimensioned plumbing shop drawings, shall be required and shall be reviewed by the Engineer, prior to any ordering of materials and equipment.
- E. Unless otherwise noted, the Contractor shall submit to the Engineer for his review eight copies of all shop drawings, piping layout, and/or catalog cuts for fabricated items and manufactured items (including mechanical and electrical equipment) required for the construction. Drawings shall be submitted in sufficient time to allow the Engineer not less than twenty regular working days for examining the drawings.
- F. The drawing shall be accurate, distinct, and complete and shall contain all required information, including satisfactory identification of items, units and assemblies in relation to the contract drawings and specifications.
- G. Unless otherwise approved by the Engineer, shop drawings shall be submitted only by the Contractor, who shall indicate by a signed stamp on the drawings or other approved means that the Contractor has checked the shop drawings and that the work or equipment shown is in accordance with contract requirements and has been checked for dimensions and relationship with work of all other trades involved. All deviations from the plans and specifications shall be listed. The practice of submitting incomplete or unchecked shop drawings for the Engineer to correct or finish will not be acceptable, and shop drawings which, in the opinion of the Engineer, clearly indicate that they have not been checked by the Contractor will be considered as not complying with the intent of the contract documents and will be returned to the Contractor for resubmission in the proper form.
- H. When the shop drawings have been reviewed by the Engineer, two sets of submittals will be returned to the Contractor appropriately stamped. If major changes or corrections are necessary, the drawing may be rejected and one set will be returned to the Contractor with such changes or corrections indicated, and the Contractor shall correct and resubmit eight copies of the drawings, unless otherwise directed by the Engineer. No changes shall be made by the Contractor to the resubmitted shop drawings other than those changes indicated by the Engineer. The resubmittal shall be so indicated on the shop drawing.

- I. The review of such drawings and catalog cuts by the Engineer shall not relieve the Contractor from responsibility for correctness of the dimensions, fabrication details, and space requirements or for deviations from the contract drawings and specifications, unless the Contractor has called attention to such deviations, in writing, by a letter accompanying the drawings and the Engineer approved the change or deviations, in writing, at the time of submission; nor shall review by the Engineer relieve the Contractor from the responsibility for errors in the shop drawings. When the Contractor does call such deviations to the attention of the Engineer, he shall state in his letter whether or not such deviations involve any deduction or extra cost adjustment.

- J. The approval of the above drawings, lists, prints, specifications, or other data shall in no way release the Contractor from his responsibility for the proper fulfillment of the requirements of this contract nor for fulfilling the purpose of the installation nor from his liability to replace the same should it prove defective or fail to meet the specified requirements.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01505

MOBILIZATION AND DEMOBILIZATION

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

A. Description: This section covers the requirements for mobilization and demobilization.

1.2 MOBILIZATION: Mobilization shall consist of the transporting, assembling, constructing, installing, and making ready for use at the job site, all the equipment, machinery, structures, utilities, materials, labor, and incidentals necessary to do the work covered by this contract.

1.3 DEMOBILIZATION: Demobilization shall consist of the dismantling and removal of the above-mentioned equipment, machinery, structures, utilities, materials, and incidentals, and the cleaning up of the site.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 GUIDELINES: If the Contractor utilizes private lands other than the sites provided by the Department for mobilization purposes, the provisions of this section shall apply, and the mobilization and demobilization work on said private lands shall be in accordance with the agreement between the Contractor and the landowner.

Any and all additional mobilization or demobilization costs in excess of the maximum amounts specified in the Proposal shall be included in the appropriate unit prices bid in the Proposal. The Contractor shall not receive any compensation for mobilization and demobilization in addition to those specified in the Proposal.

All equipment, machinery, buildings, utilities and incidentals mobilized and demobilized under this section shall remain the property of the Contractor.

END OF SECTION

SECTION 01530

BARRICADES

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. Description. This work shall consist of furnishing, installing and maintaining barricades in accordance with the requirements of the contract.

Barricade application shall be provided for in the latest edition of the FHWA publication, Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), and as amended.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Lumber: Lumber for rails, frames and braces shall be dry, sound, undamaged, well seasoned, and free from any defect which may impair their strength and durability.
- B. Hardware: Nails shall be galvanized wire nails. As many and as large a size as is practicable shall be used.
- C. Paints: Paints shall be exterior enamel paint of the best grade, or first line as made by approved manufacturers.
- D. Sheet Reflecting Material: Sheet reflecting material shall conform to the applicable requirements of Subsection 712.20(C) of the "Standard Specifications for Road and Bridge Construction".
- E. Alternate Designs: Alternate barricade designs such as plastic molded barricades may be used subject to the Engineer's approval. The Contractor shall submit shop drawings or catalog cuts for approval.

PART 3 - EXECUTION

3.1 CONSTRUCTION REQUIREMENTS

- A. General: Barricades shall be constructed in a first class, workmanlike manner in accordance with details shown on the plans and as specified herein.

Barricades shall be in good condition and approved by the Engineer for use within the project limits. Barricade application and installation shall be as shown on the plans and as directed by the Engineer in accordance with the guidelines provided in the latest edition of

the FHWA publication, Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), and any amendments or revisions thereof as may be made from time to time.

Sandbags or other approved weights shall be provided where required or as directed by the Engineer. Sandbags or other approved weights shall not be placed on any striped barricade rail.

Steady burn and/or flashing lamps shall be required on selected barricades used during hours of darkness. Locations shall be as shown on the plans and as directed by the Engineer. Lamps shall be attached on the barricade ends closest to the traveled way and shall be visible to the motorist.

Barricades furnished and paid for as provided for as provided herein may be used for temporary detours, construction phasing, or other temporary traffic control work.

Barricades furnished and paid for use in temporary detours or construction phasing may be used for permanent location called for on the plans.

Upon completion of the construction work, barricades shall be left in place, relocated, or removed and disposed of as shown on the plans or as directed by the Engineer. Barricades left in place, or relocated to new permanent locations shall become the property of the State. Barricades directed to be removed and disposed of shall become the property of the Contractor.

- B. Painting: Wooden rails, frames and braces shall be given a prime coat and 2 finish coats of new white exterior enamel paint. Rail faces to be reflectorized may be left unpainted unless otherwise specified or directed.
- C. Reflectorization: Reflectorization of barricade rails shall be done in a first class, workmanlike manner and the attachment of reflective sheeting shall be as shown on the plans, specified herein, or as directed and approved by the Engineer.

Both vertical faces of each barricade rail shall be reflectorized as shown on the plans.

Wooden rails shall be reflectorized with one of the following:

1. Reflective sheeting specified in Subsection 712.20(C)(4) of the "Standard Specifications for Road and Bridge Construction" and backed with a 26-gage galvanized steel sheet, or
2. a hardened aluminum backed reflective sheeting as specified in Subsection 712.20(C)(5) of the "Standard Specifications for Road and Bridge Construction."

D. Color: Rails, frames and braces shall be white.

The front and back faces of barricade rails shall have 6-inch wide alternative colored and white striped sloping downward toward the traveled way at an angle of 45 degrees with the vertical. The colored stripes shall be either orange or red in accordance with the following requirements:

1. Orange and white stripes shall be used in the following conditions:
 - a. Construction work.
 - b. Detours.
 - c. Maintenance work.
2. Red and white stripes shall be used in the following conditions:
 - a. On roadways with no outlet (i.e. dead-ends, cul-de-sacs).
 - b. Ramps or lanes closed for operational purposes.
 - c. Permanent or semipermanent closure or termination of a roadway.

E. Maintenance: Barricades shall be kept in good condition throughout their usage during construction until the end of the contract.

F. The Contractor shall repair, repaint, clean, or replace the barricades as required and as directed by the Engineer to maintain their effectiveness and appearance.

The Constructor shall immediately replace all lost, stolen or damaged barricades, lamps, sandbags and other approved weights.

Barricades used during construction phasing, temporary detours or other temporary traffic control work shall be cleaned and repaired as necessary, prior to being relocated to a permanent location shown on the plans or as directed.

No extra payment will be made for any repair work, repainting, or cleaning of barricades. The Engineer shall determine the suitable condition of each barricade and shall determine when each barricade shall be repaired, repainted, or cleaned.

END OF SECTION

SECTION 01567

POLLUTION CONTROL

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

A. Rubbish Disposal

1. No burning of debris and/or waste materials shall be permitted on the project site.
2. No burying of debris and/or waste material except for materials which are specifically indicated elsewhere in these specifications as suitable for backfill shall be permitted on the project site.
3. All unusable debris and waste material shall be hauled away to an appropriate off-site dump area. During loading operations, debris and waste materials shall be watered down to allay dust.
4. No dry sweeping shall be permitted in cleaning rubbish and fines which can become airborne from floors or other paved areas. Vacuuming, wet mopping or wet or damp sweeping is permissible.
5. Enclosed chutes and/or containers shall be used for conveying debris from above to ground floor level.
6. Clean-up shall include the collection of all wastepaper and wrapping materials, cans, bottles, construction waste materials and other objectionable materials, and removal as required. Frequency of clean-up shall coincide with rubbish producing events.

B. Dust

1. The Contractor shall prevent dust from becoming airborne at all times including non-working hours, weekends and holidays in conformance with the State Department of Health, Administrative Rules, Title 11, Chapter 60 - Air Pollution Control.
2. The method of dust control and costs shall be the responsibility of the Contractor. Methods of dust control shall include the use of water, chemicals or asphalt over surfaces which may create airborne dust.
3. The Contractor shall be responsible for all damage claims in accordance with Section 7.16 - "Responsibility for Damage Claims" of the GENERAL CONDITIONS.

C. Noise

1. Noise shall be kept within acceptable levels at all times in conformance with the State Department of Health, Administrative Rules, Title 11, Chapter 46 - Community Noise Control for Oahu. The Contractor shall obtain and pay for the Community Noise Permit from the State Department of Health when the construction equipment or other devices emit noise at levels exceeding the allowable limits.
2. All internal combustion engine-powered equipment shall have mufflers to minimize noise and shall be properly maintained to reduce noise to acceptable levels.
3. Starting-up of construction equipment meeting allowable noise limits shall not be done prior to 6:45 a.m. without prior approval of the Engineer. Equipment exceeding allowable noise levels shall not be started-up prior to 7:00 a.m.

D. Erosion

1. During interim grading operations, the grade shall be maintained so as to preclude any damage to adjoining property from water and eroding soil.
2. Temporary berms, cut-off ditches and other provisions which may be required because of the Contractor's method of operations shall be installed at no cost to the State.
3. Drainage outlets and silting basing shall be constructed and maintained as shown on the plans to minimize erosion and pollution of waterways during construction.

E. Others

1. Wherever trucks and/or vehicles leave the site and enter surrounding paved streets, the Contractor shall prevent any material from being carried onto the pavement. Wastewater shall not be discharged into existing streams, waterways, or drainage systems such as gutters and catch basins unless treated to comply with the State Department of Health water pollution regulations.
2. Trucks hauling debris shall be covered as required by PUC Regulation. Trucks hauling fine materials shall be covered.
3. No dumping of waste concrete will be permitted at the jobsite.

4. Except for rinsing of the hopper and delivery chute, and for wheel washing where required, concrete trucks shall not be cleaned on the jobsite.
5. Except in an emergency, such as a mechanical breakdown, all vehicles fueling, and maintenance shall be done in a designated area. A temporary berm shall be constructed around the area when runoff can cause a problem.
6. When spray painting is allowed such spray painting shall be done by the "airless spray" process. Other types of spray painting will not be allowed.

F. Suspension of Work

1. Violations of any of the above requirements or any other pollution control requirements which may be specified in the Technical Specifications herein shall be cause for suspension of the work creating such violation. No additional compensation shall be due the Contractor for remedial measures to correct the offense. Also, no extension of time will be granted for delays caused by such suspensions.
2. If no corrective action is taken by the Contractor within 72 hours after a suspension is ordered by the Engineer, the State reserves the right to take whatever action is necessary to correct the situation and to deduct all costs incurred by the State in taking such action from monies due the Contractor.
3. The Engineer may also suspend any operations which he feels are creating pollution problems although they may not be in violation of the above-mentioned requirements. In this instance, the work shall be done by force account as described in Subsection 4.2b -"Additional Work" of the GENERAL CONDITIONS and paid for in accordance with Subsection 8.4b - "Force - Account Work" therein. The count of elapsed working days to be charged against the contract in this situation shall be computed in accordance with Subsection 7.18 - "Contract Time" of the GENERAL CONDITIONS.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01715

EXISTING CONDITIONS - ASBESTOS / LEAD / HAZARDOUS MATERIAL SURVEY

PART 1 - GENERAL

1.1 SUMMARY

- A. This section includes the results of the State's surveys for Asbestos Containing Materials, Lead-Containing Paint, and other hazardous materials; and is provided for the Contractor's information.
- B. Related Sections include the following:
 - 1. SECTION 13281 – REMOVAL AND DISPOSAL OF ASBESTOS-CONTAINING MATERIALS (ACM) for requirements of all work which disturbs asbestos-containing material (ACM). Also, refer to the drawings.
 - 2. SECTION 13288 – ASBESTOS TESTING AND MONITORING for all testing and air monitoring of asbestos-containing material (ACM). Also, refer to the drawings.

1.2 ASBESTOS

- A. The structure or structures to be renovated or demolished under this contract were surveyed for the presence of asbestos-containing materials (ACM), using NESHAP requirements. A copy of the initial survey report, as well as any subsequent supplemental survey report(s) if performed, are included in this Section.
 - 1. The report(s) are included, even when no ACM was found, for the Contractor's information. Review the attached report(s) for the basis on which the negative ACM finding was made. Contractor may perform further surveys at its own expense, if ACM not shown in the report(s) is suspected in the areas of the building(s) in which work will be performed. If ACM is found, notify the Contracting Officer immediately. The State will reimburse the Contractor for the testing cost if ACM is found.
 - 2. If there is ACM outside of the areas in which work will be performed, this ACM shall not be disturbed in any way.
- B. If applicable, notify employees, subcontractors and all other persons engaged on the project of the presence of asbestos in existing buildings in accordance with the requirements of State of Hawaii: Occupational Safety and Health Administration 29 CFR 1926.1101, Asbestos.
- C. In the event work is required in any building or buildings on the site other than the one(s) designated within this project scope, request copies of the asbestos survey report(s) for such building(s) from the Contracting Officer assuming they are available. Based on the information contained in the additional survey(s), notify affected personnel per paragraph

1.02 B. If not available, Contracting Officer and/or DLNR Project Coordinator must decide to perform additional hazardous materials survey as soon as practicable.

1.3 LEAD-CONTAINING PAINT

- A. Inform employees, Subcontractors and all other persons engaged in the project that lead containing paints (LCP) is present in the existing building(s) and at the job site. Conduct work in accordance with the requirements of Occupational Safety and Health Administration 29 CFR 1926.62 Lead.
- B. Review the attached lead testing data which identifies locations where LCP was found and ensure that all workers that need to be involved understand the contents of the report(s) referring to areas in which work is to be performed. Contractor must understand that lead testing was for design purposes only, and the results do not satisfy any of the requirements of Occupational Safety and Health Administration 29 CFR 1926.62 Lead.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SURVEY (Attached)

- A. [Hazardous Materials Survey Report, Abandoned Buildings, 87-028 Farrington Hwy \(TMK 8-7-001: 029\), Waianae, Oahu, Hawaii 96792, February 2024.](#)

END OF SECTION

HAZARDOUS MATERIALS SURVEY

Abandoned Buildings
87-028 Farrington Hwy (TMK 8-7-001: 029)
Waianae, Oahu, Hawaii 96792

EXECUTIVE SUMMARY

Department of Land and Natural Resources (DLNR), Engineering Division, conducted a hazardous materials assessment for the proposed demolition of abandoned buildings at 87-028 Farrington Hwy, Waianae, Oahu, Hawaii, 96792. The property is designated by the Tax Map Key (TMK) 8-7-001: 029. This survey was performed in accordance with federal, state, and local regulatory requirements and evaluated suspect asbestos and lead. Summary findings of the site investigation are detailed below. Samples were collected of materials which are anticipated to be disturbed during demolition work. [Sample locations and laboratory analytical and sample results are provided in project plan, Exhibit A \(sheet 9 to 21\).](#)

ASBESTOS-CONTAINING MATERIAL

According to the United States Occupational Safety and Health Administration (OSHA) regulations 1926.1101, prior to the start of renovation or construction work, a building owner must identify the presence, location, and quantity of asbestos-containing materials (ACM) and/or presumed ACM (PACM) in the work area. This information must be communicated to contractors bidding on work, contractors performing other work, and employees and tenants in or adjacent to the work area.

Samples were submitted to Hawaii Analytical Laboratory, LLC (HAL) for asbestos analysis by the Occupational Safety and Health Administration (OSHA) Method 7400. ACM identified at the Site consisted of:

1. Black vinyl floor tile from House-1 kitchen floor (Sample 16, Lab Report # 202400520, Lab Sample # 202404117)
2. Black vinyl floor tile from House-1 living room floor (Sample 17, Lab Report # 202400520, Lab Sample # 202404118)
3. Dark brown vinyl floor tile from House-1 hallway floor (Sample 18, Lab Report # 202400520, Lab Sample # 202404119)
4. Green vinyl floor tile from House-1 bedroom floor (Sample 20, Lab Report # 202400520, Lab Sample # 202404121)

[Sample results and laboratory analytical data reports are provided in project plan, Exhibit A \(sheet 9 to 30\).](#) Should additional suspect ACM be encountered during demolition activities, these materials should be handled as asbestos containing materials, until they can be adequately characterized for asbestos content.

LEAD-CONTAINING PAINTS

The OSHA considers any detectable concentration of lead to be a potential hazard during construction activities. Samples were submitted to Hawaii Analytical Laboratory, LLC for total lead (Pb) analysis by EPA Method 7082. Lead Containing Paint (LCP) identified at the Site consisted of:

1. Paint chip from House-1 interior living room wall (Sample 1, Lab Report # 202311090, Lab Sample # 202380464)
2. Paint chip from House-1 interior bedroom wall (Sample 2, Lab Report # 202311090, Lab Sample # 202380465)
3. Paint chip from House-1 interior main hallway wall (Sample 3, Lab Report # 202311090, Lab Sample # 202380466)
4. Paint chip from House-1 exterior back wall (Sample 5, Lab Report # 202311090, Lab Sample # 202380468)
5. Paint chip from House-2 interior living room wall (Sample 8, Lab Report # 202311090, Lab Sample # 202380471)
6. Paint chip from House-2 interior bedroom wall (Sample 9, Lab Report # 202311090, Lab Sample # 202380472)
7. Paint chip from House-2 exterior back wall (Sample 10, Lab Report # 202311090, Lab Sample # 202380473)
8. Paint chip from House-2 exterior front wall (Sample 11, Lab Report # 202311090, Lab Sample # 202380474)
9. Paint chip from House-2 exterior front wall (Sample 12, Lab Report # 202311090, Lab Sample # 202380475)
10. Paint chip from House-1 interior bedroom 2 wall (Sample 13a, Lab Report # 202400520, Lab Sample # 202404114)
11. Paint chip from House-1 interior office wall (Sample 15, Lab Report # 202400520, Lab Sample # 202404116)
12. Paint chip from House-2 exterior front door (Sample 25, Lab Report # 202400520, Lab Sample # 202404126)
13. Paint chip from House-2 exterior front wall (Sample 26, Lab Report # 202400520, Lab Sample # 202404127)
14. Paint chip from House-2 living room canec ceiling (Sample 27, Lab Report # 202404808, Lab Sample # 202433305) **
15. Paint chip from House-1 kitchen canec wall (Sample 29, Lab Report # 202404808, Lab Sample # 202433307) **
16. Paint chip from House-1 kitchen canec ceiling (Sample 30, Lab Report # 202404808, Lab Sample # 202433308) **

[Sample results and laboratory analytical data reports are provided in project plan, Exhibit A \(sheet 9 to 30\).](#)

Note: ** indicates arsenic containing results are also provided.

Addendum No. 1

If other painted areas not previously sampled are disturbed, they should be considered lead containing until confirmation samples are collected. Appropriate health and safety precaution should be taken when working with these materials. The general contractor performing the demolition work should be informed of the presence of lead in the project area. All personnel impacting lead-containing paint (or other lead-containing materials) should be provided additional training concerning the health effects of lead, proper work methods, appropriate use of personal protective equipment, and regulations governing lead exposures. Air monitoring to assess lead exposures should be performed for all personnel involved in the work process where lead-containing paint may be removed.

RECOMMENDATIONS

Asbestos containing materials were observed in this assessment. These materials are subject to regulatory control. The presence and location of ACM must be communicated to contractors bidding on work, contractors performing other work, and employees and tenants in or adjacent to the work area.

For ACM identified, all personnel impacting asbestos-containing materials should be provided additional training concerning the health effects of asbestos, proper work methods, appropriate use personal protective equipment, and regulations governing lead exposures. Air monitoring to assess asbestos-containing material may be removed.

Should additionally suspect ACM materials be encountered during renovation activities, these materials should be handled as asbestos containing materials until they can be adequately characterized for asbestos content.

Lead-containing materials were identified at the Site. If suspected lead-containing materials, not identified during this survey, are uncovered during demolition work. The suspect material should be addressed by qualified professionals.

For all material to be disturbed, general safe work practices are recommended. These practices include:

1. Respiratory protection.
2. Protective clothing.
3. Clean change area.
4. Clean hand-washing facilities.

If during demolition, ballasts with an unknown PCB-status are encountered, they should be assumed to contain PCBs and disposed of accordingly. PCB-containing light ballasts that do not have the "No PCB" designation must be assumed to be PCB-containing. Alternatively, each ballast without a "No PCB" label could undergo analytical testing. If test results are less than 50 ppm for PCBs and the ballast is not leaking, it may be disposed as non-hazardous regular construction debris. PCB-containing ballasts must be properly disposed of via a hazardous waste disposal facility.

SECTION 02070

SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

As specified in Section 01019 - GENERAL SPECIFICATIONS, Special Provisions, and the General Conditions of the Contract.

1.2 DESCRIPTION OF WORK

Accomplish all demolition, removal, patching and related work indicated on or required by the drawings, and as specified herein.

1.3 GENERAL REQUIREMENTS

- A. The Contractor shall visit the project site, examine the premises and note all existing conditions and the extent involved for the complete and proper execution of all work as called for on the plans and as hereinafter specified.
- B. Obvious conditions which exist on the site shall be accepted as part of the work, even though they may not be clearly indicated on the Drawings and/or described herein, or may vary there from.
- C. All debris of any kind accumulated from the work of this Section shall be disposed off the site.
- D. Permits, Notice, Etc. The Contractor shall serve proper notice and consult with the State regarding any temporary disconnections of electrical or other utility lines in the area which may interfere with the removal work, and all such lines where necessary shall be properly disconnected or relocated before commencing with the work.
- E. Protection: Throughout the work, protection shall be provided for walks, property, etc., scheduled to remain. Safe working conditions shall be maintained at all times for all personnel, and temporary lights and barricades shall be provided and maintained.

1.4 JOB CONDITIONS

- A. Utility Services: The existence of utility lines other than those shown on the drawings is not definitely known. Should any utility lines be encountered, the Contractor shall immediately notify the State and follow his direction as to procedure. Maintain existing utilities indicated to remain, keep in service, and protect against damage during demolition operations. Do not interrupt existing utilities serving occupied building or facilities, except when authorized in writing by the State.
- B. Outages and interruptions must be approved in advance by the State. Submit written notice of outages and interruptions not less than fifteen days in advance of intended outage. Report damage, immediately. Do not repair or reconstruct any pipe, conduit, or installation without authorization, except perform emergency repairs immediately.

PART 2: PRODUCTS

2.1 MATERIALS

Asbestos Prohibition: No asbestos containing materials or equipment shall be used under this section. The Contractor shall ensure that all materials and equipment incorporated in the project are asbestos-free.

PART 3: EXECUTION

3.1 EXECUTION OF WORK

- A. Water and sewer facilities shall NOT be available and in operating condition at all times.
- B. Demolish and remove existing piping and other obstructions or encumbrances of any kind or character within the Contract Zone Limits, with the exception of any structures to remain and any active water, drainage, electrical, lines, boxes, etc., unless otherwise directed by the State.
- C. Abandoned utility lines shall be removed.
- D. Every precaution must be taken at all times for the protection and safety of the public.

3.2 BARRICADE

Erect temporary barricades as required, to prevent people from entering into project area to the extent as approved by the State. The extent of barricade may be adjusted as necessary with the approval of the State. This work shall be accomplished at no extra cost to the State.

3.3 CONTRACT ZONE LIMITS

The Contract (Property Line) Zone Limits shall generally be as indicated on the plan; however, work outside the Zone Limits necessary to complete the project shall be included.

3.4 MAINTAINING LIFE SAFETY SYSTEMS

The Contractor shall maintain the existing life safety systems in proper operation, such as fire alarm systems, exits, lighting, and other necessary aspects of life safety.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

Remove debris, rubbish, and other materials resulting from demolition operations from building site daily. Transport and legally dispose of materials off site.

- A. If additional hazardous materials are encountered during demolition operations, comply with applicable regulations, laws, and ordinances concerning removal, handling, and protection against exposure or environmental pollution.
- B. Burning of removed materials is not permitted on project site.

3.6 CLEAN UP

Debris and rubbish shall be removed from the site daily. Debris and rubbish shall not be

allowed to accumulate on site. Debris shall be removed and transported in a manner that will prevent spillage on streets or adjacent areas.

END OF SECTION

DIVISION 13 - SPECIAL CONSTRUCTION

SECTION 13281

ASBESTOS ABATEMENT

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. In performing this project, all possible safeguards, precautions and protective measures shall be utilized to prevent exposure of any individual to asbestos particulates.

1.2 DESCRIPTION OF WORK

- A. Furnish all labor, materials, equipment, and services, necessary to carry out the safe removal and disposal of asbestos-containing material in compliance with these specifications, EPA, OSHA, State of Hawaii regulations, and any other applicable Federal and State regulations. Whenever there is a conflict or overlap of the above references, the most stringent shall apply. The asbestos work at the site, if applicable, shall generally include:

1. Removal and disposal of the skim coating on concrete column and any penetrations through skim coating.
2. Removal and disposal of the vinyl floor tile (VFT) and associated mastic.
3. Contractor to coordinate all work with the Contracting Officer and the Contractor's hired Qualified Consultant. Contractor is responsible to satisfy himself as to the total extent of all work, including to but not limited to the quantity, location, thickness, layers, accessibility, etc. of all material prior to commencement of any work.

- B. In general, the principal items of the asbestos removal work shall be as follows:

1. Worker Protection
2. Decontamination Enclosure System
3. Preparation of Work Area
4. Removal of asbestos-containing materials
5. Removal of protective sheeting

6. Disposal

- C. Cleaning shall include areas within and immediately around the work area affected by the abatement work and all areas contaminated by the Contractor's work.
- D. The asbestos abatement work shall include removal of all asbestos-containing materials within the work area as specified herein and noted on the drawing.
- E. Contractor shall comply with all regulations pertaining to asbestos removal. If there is a conflict with the specifications, the more stringent requirement shall apply.

1.3 COORDINATION WITH OTHER SECTIONS

- A. Prior to commencement of work, an annotated description of all existing damaged and missing items shall be submitted to the Contracting Officer. It will be the Contractor's responsibility to repair and/or replace to the Contracting Officer satisfaction all items identified as damaged and/or missing that cannot be proven to have been in this condition prior to the commencement of this project.

1.4 SUBMITTALS PRIOR TO WORK

- A. Submit in accordance with SECTION 01330 - SUBMITTAL PROCEDURES.
- B. Final payment will not be made until copies of all submittals have been furnished to and accepted by DLNR. Submit 6 copies of the submittal package, no later than 10 consecutive working days from award notice, which will include the items listed below.
- C. Notices: As early as possible but prior to commencement of work, as regulated by each agency and before commencement of any on-site project activity, send a courtesy 10-day notice in accordance with 40 CFR Part 61.145 of Subpart M, of the proposed asbestos abatement work with copies to the Contracting Officer and to the following agencies:
 - 1. The Administrator of the Environmental Protection Agency (EPA) Regional Office having jurisdiction over the project.
 - 2. State of Hawaii, Department of Health, "Notification of Demolition and Renovation" form. Send to: Noise, Radiation and Indoor Air Quality Branch, Asbestos Abatement Office, State Department of Health, P.O. Box 3378, Honolulu, Hawaii 76801-9984.
- D. Permits & Licenses: Copies of all permits, licenses (C-19) and arrangements for removal, transportation and disposal of asbestos-containing materials and wastewater, no later than 20 consecutive working days from notice of award unless otherwise instructed in writing by the Contracting Officer.
- E. Insurance: Proof of insurance for Workman's Compensation and General Liability that

covers asbestos, lead, and pollution.

- F. Qualifications of the Qualified Consultant
- G. Manufacturer's Data: Copies of manufacturer's specifications, installation instructions and field test procedures for each material and all equipment related to asbestos handling and abatement and include other data as may be required to show compliance with these specifications and proposed uses.
- H. Samples: Samples of the following items for approval prior to ordering materials:
 - 1. Surfactant: copies of manufacturer's literature including all laboratory data, mixing and application instructions.
 - 2. Tapes and Adhesives: copies of manufacturer's literature including all laboratory data.
 - 3. Warning Labels and Signs: copies of examples of all required signage.
 - 4. Protective Clothing: copies of manufacturer's literature on all protective clothing and one sample of each item which will be returned to the Contractor.
 - 5. Respirator Equipment: copies of manufacturer's literature on all respirator equipment and one sample of each item which will be returned to the Contractor.
 - 6. Asbestos Encapsulant(s): copies of manufacturer's literature including all laboratory data, application instructions.
- I. Work Plan: Submit a project Work Plan for the asbestos-containing material disturbance work written and signed by the Contractor's State of Hawaii, Department of Health certified Asbestos Project Designer. The Contractor shall also provide detailed information concerning:
 - 1. Preparation of the work area including erecting a negative pressure enclosure system for the removal of interior floor tiles/adhesives and exterior paint/coat.
 - 2. Personal protective equipment including respiratory protection and protective clothing.
 - 3. Decontamination procedures for the personnel who may be exposed to asbestos.
 - 4. Handling and disposal methods and procedures to be used.
 - 5. Required air monitoring procedures and sampling protocols.
 - 6. Procedures for final cleanup.

7. A sequence of work and performance schedule in coordination with other trades.
 8. Emergency procedures.
- J. Shop Drawings: Submit shop drawings for the following items as a minimum:
1. Descriptions of any equipment to be employed not discussed in this section.
 2. Security provisions, if any, in and around the project area.
 3. Outline of work procedures to be employed.
 4. Location and construction of all airtight barriers including temporary airtight negative pressure enclosure containment system for the removal of exterior paint and coating material.
 5. Location of waste dumpster.
 6. Staging of the work, the sequence.
 7. Entrances and exits to the workplace.
 8. Location and construction of worker decontamination units
 9. Water filtration system for all contaminated water. Description of water disposal and copy of water disposal permit from the City & County of Honolulu, Environmental Services, Division of Environmental Quality, Temporary Industrial Wastewater Discharge Permit.
 10. Proposed method of attaching plasticizing (polyethylene sheeting) shall be approved in advance to minimize damage to equipment and surfaces. Method of attachment may include any combination of duct tape or other approved waterproof tape, furring strips, spray glue, staples, nails screws or other effective procedures capable of sealing adjacent sheets of polyethylene sheeting and capable of sealing polyethylene to dissimilar finished or unfinished surfaces both under wet and dry conditions (including amended water).
 11. Proposed method of patching and repairing all damage to existing finishes from the attachment of polyethylene sheeting (as applicable).
- K. Documentation for Instruction: Submit documentation that each and every individual, including foremen, supervisors, and other company personnel or agents and any other individual who may be exposed to airborne asbestos fibers, who may be responsible for any aspect of abatement activities, or who is allowed or permitted to enter areas where such exposure may occur has currently attended and passed the Abatement Worker and/or Abatement Contractor/Supervisor course whichever is relevant to that workers responsibilities as specified in 40 CFR Part 763, "Asbestos Materials in Schools". These

courses shall be EPA-approved or approved by a State Accreditation Program in the most current listing of the Federal Register. No worker shall be allowed on site if they are found to have either an expired accreditation certificate or does not comply with the requirements set forth in 40 CFR Part 763 on training. All workers shall be certified for asbestos related work in accordance with Department of Health, Chapter 11-504, Hawaii Administrative Rules, *Asbestos Abatement Certification Program*.

The Contractor shall be responsible for keeping the documentation up to date and subsequent submittals to the Contracting Officer before any additional employee or individual, not currently on the list, is allowed within the project site.

Submit completed and signed "Employee Acknowledgment of Instruction and Release" forms. A sample "Employee Acknowledgment of Instruction and Release" form is provided at the end of this section.

- L. Documentation from Physician: Submit documentation from a physician that all employees or agents who may be exposed to airborne asbestos have been provided with an opportunity to be medically monitored to determine whether they are physically capable of working while wearing the respirator required without suffering adverse health effects. In addition, document that all individuals permitted within the project site have received medical monitoring or had such monitoring made available to them as required in OSHA 29 CFR 1926.1101, and HIOSH 12-145.1. The Contractor must be aware of and provide information to the examining physician about unusual conditions in the workplace environment (e.g., high temperatures, humidity, chemical contaminants) that may impact on the employee's ability to perform work activities. The Contractor shall keep and make available to all affected individuals a record and the results of such examinations.
- M. HEPA Vacuums: Submit manufacturer's certification that vacuums conform to ANSI Z9.2-79, Fundamentals Governing the Design and Operation of Local Exhaust Systems as applicable to this project.
- N. Rental Equipment: When rental equipment is to be used in abatement areas or to transport asbestos contaminated waste, a written notification concerning intended use of the rental equipment must be provided to the rental agency with a copy submitted to the Contracting Officer.
- O. Emergency Planning Procedures: Contractor shall submit for review and acceptance by the Contracting Officer, an emergency plan prior to abatement initiation.
 - 1. Emergency procedures shall be in written form and prominently posted adjacent to the Worker Protection Notices specified hereinafter. Everyone prior to entering the work area must read and sign these procedures to acknowledge receipt of emergency exits and emergency procedures.
 - 2. Emergency planning shall include notification of police, fire, and emergency medical personnel of planned abatement activities work schedule, and layout of the work area, particularly barriers that may affect response capabilities.

3. Emergency planning shall include considerations of fire, explosion, toxic atmospheres, electrical hazards, slips, trips and falls, and heat related injury. Written procedures shall be developed, and employee training procedures shall be provided in Contractors plan.

1.5 SUBMITTAL AFTER WORK IS COMPLETED

- A. Submit in accordance with SECTION 01330 - SUBMITTAL PROCEDURES.
- B. At the completion of the work, a final report shall be prepared by the Contractor for acceptance by the Contracting Officer. Six copies of the report shall be submitted and shall include the items listed below.
- C. The project name, Abatement Contractor, Abatement Contractor license number, notification form to the Hawaii Department of Health and EPA, work duration, material removed, respiratory protection employed, asbestos waste manifest, total quantity of waste, employee exposure air sample results, and results of the most current PAT round results for the laboratory or laboratories conducting the employee exposure, ambient, and TEM air sample analysis (if applicable).
- D. Certification of the Abatement Contractor's employees.
- E. Visitor/Worker Entry Log: The daily log of all personnel including the Contractor's employees and agents who enter the work area while asbestos abatement operations are in progress, until final clearance is received that the work area is asbestos free. The log shall contain the listed information as a minimum and shall be certified by the Qualified Consultant.
 1. Date of visit/worker entry.
 2. Visitor/Worker's name, employer, business address and telephone number.
 3. Time of entry and exit from work area.
 4. Purpose of visit.
 5. Type of protective clothing and respirator worn.
 6. Certificate of release signed and filed with the contractor.
- F. Clearance certifications received from the Qualified Consultant.
- G. A statement signed by the Asbestos Abatement Contractor that all asbestos abatement and disposal was completed in compliance with this specification, Federal and State regulations, and the approved Work Plan.

1.6 PRODUCT HANDLING

- A. Delivery and Storage of Materials: Deliver materials to the site in original packages, containers or bags fully identified with manufacturer's name, brand and lot number. Store materials in a dry well-ventilated space, under cover, off the ground and away from surfaces subject to dampness or condensation as approved by the Contracting Officer. Material that becomes contaminated with asbestos shall be disposed of in accordance with applicable regulations. Replacement materials shall be stored outside the contaminated work area until abatement is completed.

1.7 PROTECTION

- A. Site Security: The work area is to be restricted only to authorized, trained, and protected personnel. These may include the Contractor's employees, employees of subcontractors, the Contracting Officer and its representatives, State and local inspectors and any other designated individuals. A list of authorized personnel shall be established prior to job start.
 - 1. Entry to the work area by unauthorized individuals shall not be permitted without the express approval of the Contracting Officer and any such entry shall be reported immediately to the Contracting Officer by the Contractor.
 - 2. A Visitor/Worker Entry Log shall be maintained.
 - 3. The Contractor shall have control, subject to approval of the Contracting Officer, of security in the work area and in proximity of Contractor's equipment and materials.
- B. Site Protection and Safety: As a minimum follow the requirements of EPA, HIOSH (State of Hawaii), OSHA and NIOSH. Take all necessary precaution to ensure there is no asbestos contamination to those areas not included in the work schedule.
- C. Protective Covering: The Contractor shall provide and install protective covering on an "as required" or "upon request" by the Qualified Consultant. Protective covering shall be clean plastic sheets minimum thickness of 6-mil.
- D. Safeguarding of Property: The Contractor shall take whatever steps necessary to safeguard his work and the property of the State and other individuals in the vicinity of his work area during the execution of this Contract. He shall be responsible for and make good on any and all damages by his employees' negligence. Do not load structure with weight that will endanger the structure.
- E. Completed Work: The Contractor shall provide all necessary protection for surfaces encapsulated under this section.

1.8 ABBREVIATIONS

- A. ANSI: American National Standards Institute, Inc.
- B. CFR: Code of Federal Regulations

- C. HIOSH: Division of Occupational Safety and Health, Department of Labor and Industrial Relations, State of Hawaii
- D. EPA: U.S. Environmental Protection Agency
- E. NESHAP: National Emission Standards for Hazardous Air pollutants
- F. NIOSH: National Institute for Occupation Safety and Health
- G. OSHA: Occupational Safety and Health Administration

1.9 GENERAL REQUIREMENTS

- A. Contractor shall examine and have at all times in his possession at his office (one copy) and in view at each job site office (one copy) a current issue of the following publications:
 - 1. State of Hawaii: Occupational Safety and Health Standards; Title 12, Subtitle 8, Chapter 145.1, Asbestos
 - 2. State of Hawaii, Department of Health, Title 11, Chapter 501-1, Asbestos Requirements
 - 3. State of Hawaii, Department of Health, Title 11, Chapter 501-2, Asbestos Containing Materials in Schools
 - 4. State of Hawaii, Department of Health, Title 11, Chapter 501-4, Asbestos Abatement Certification Program
 - 5. Title 29, Code of Federal Regulations, Section 1910.134 - General Industry Standard for Respiratory Protection, Occupational Safety and Health Administration (OSHA), U.S. Department of Labor
 - 6. Title 29, Code of Federal Regulations, Section 1926.1101 - Asbestos, Construction Industry, Occupational Safety and Health Administration (OSHA), U.S. Department of Labor
 - 7. Title 29, Code of Federal Regulations, Section 1910.2 - Access to Employee Exposure and Medical Records, Occupational Safety and Health Administration (OSHA), U.S. Department of Labor
 - 8. Title 29, Code of Federal Regulations, Section 1910.1200 - Hazard Communication, Occupational Safety and Health Administration (OSHA), U.S. Department of Labor
 - 9. Title 40, Code of Federal Regulations, Part 61, Subparts A and M (Revised Subpart B), National Emission of Standards for Hazardous Air Pollutants, U.S.

Environmental Protection Agency (EPA)

10. Guidance for Controlling Asbestos-Containing Materials in Buildings, EPA 560/5-85-024 (Purple Book), U.S. Environmental Protection Agency (EPA)
 11. Title 34, Code of Federal Regulations, Part 231, Appendix C, Procedures For Containing and Removing Building Materials Containing Asbestos, U.S. Environmental Protection Agency (EPA)
 12. Title 29, Code of Federal Regulations, Section 1910.145 Specifications for Accident Prevention, Signs and Tags, Occupational Safety and Health Administration (OSHA), U.S. Department of Labor
 13. ANSI Z88.2-80 Practice for Respiratory Protection
 14. EPA, Final Response to the Asbestos Hazard Emergency Response Act (AHERA), 40 CFR, Part 763, Subpart E.
- B. The Contractor shall comply with the above requirements and any applicable State and City & County regulations. Where conflict or any inconsistency among requirements or with this specification exists, the more stringent requirements shall apply. Ignorance of the above requirements and any applicable State and City & County regulations resulting in additional cost to the Contractor shall be solely the Contractor's responsibility.
- C. All regulations shall govern over these specifications, except that any more stringent specification or specification providing greater protection against asbestos exposure, injury, loss or liability, shall control to the extent permitted by regulation. Any question regarding conflict or inconsistency between specification and/or regulations should be directed to the Contracting Officer.
- D. Whenever approval of the Contracting Officer is required prior to proceeding with other work, the following shall be complied with:
1. The Contractor shall allow the Contracting Officer 72 hours from notification to respond to the request for inspection.
 2. The Contractor shall designate one person (either a foreman or superintendent) who will be authorized to request for inspections. The name of the designated person shall be submitted in writing to the Contracting Officer prior to commencing with the work. Request from any other person will not be considered an official request.
 3. The designated person when requesting for inspection shall provide the following information:
 - a. Name of caller.
 - b. Building and rooms to be inspected (as applicable).

- c. Work phase of inspection, as specified.

1.10 DEFINITIONS

- A. Abatement: Procedure to control fiber release from asbestos-containing building materials.
 - 1. Removal: All herein specified procedures necessary to remove asbestos-containing materials at an approved site in an acceptable manner.
 - 2. Post-Removal Surface Encapsulation: Procedures necessary to coat surfaces from which asbestos-containing materials have been removed and where designated on the drawings to control any residual fiber release.
- B. Air Monitoring: The process of measuring the fiber content of a specific, known, volume of air in a stated period of time.
- C. Amended Water: Water to which a surfactant has been added to reduce water surface tension and thereby provide a more rapid penetration.
- D. Authorized Visitor: The Contracting Officer, the Qualified Consultant, his representatives, air monitoring personnel, or a representative of any regulatory or other agency having jurisdiction over the project.
- E. Holding Area: A secure area used for the storage of double-bagged asbestos containing material before removal from the project site to an approved disposal site.
- F. Fixed Object: A unit of equipment or furniture in the work area which cannot be removed from the work area without dismantling.
- G. Friable Asbestos: Asbestos containing material which can be crumbled to dust, when dry, under hand pressure.
- H. HEPA Filter: A High Efficiency Particulate Absolute filter capable of trapping and retaining 99.97% of asbestos fibers greater than 0.3 micron in length.
- I. HEPA Vacuum Equipment: Vacuuming equipment that utilizes a High Efficiency Particulate Absolute (HEPA) filter.
- J. Surfactant: A chemical wetting agent added to water to improve penetration, thus reducing the quantity of water required for a given operation or area.
- K. Post-Removal Encapsulation: A liquid material which can be applied to surfaces from which asbestos-containing material has been removed to control the possible release of residual fibers, either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components (penetrating encapsulant). Selected product shall be compatible with the existing finishes including wood, metal, and

plastic.

- L. Qualified Consultant: Consultant hired by the Contractor who will perform air monitoring and inspection during abatement work and shall have the authority to initiate engineering controls. The Qualified Consultant will be accredited as a State of Hawaii Department of Health accredited Asbestos Building Inspector, Contractor Supervisor, Project Monitor; and NIOSH 582 certified.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Plastic Sheeting: Minimum thickness is 6-mil polyethylene film.
- B. Plastic Bags: Minimum thickness 6-mil polyethylene film labeled as specified hereinafter.
- C. Tapes: Tape shall be capable of sealing joints of adjacent sheets of polyethylene and for attaching polyethylene sheets to finished or unfinished surfaces of dissimilar materials and capable of adhering under both dry and wet conditions, including the use of amended water. Silver cloth duct tape, minimum 2 inches wide; red or NATO orange tape, minimum 2 inches wide for exit arrows; and double-faced foam tapes, by Nashua, 3-M, Arno, or approved equal.
- D. Adhesives: Adhesives (3-M #76, #77, or approved equal) shall be capable of sealing joints of adjacent sheets of polyethylene and for attachment of polyethylene sheet to finished or unfinished surfaces of dissimilar materials and capable of adhering under both dry and wet conditions, including use of amended water.
- E. Surfactant (Wetting Agent): 50 percent polyoxyethylene ester and 50 percent polyoxyethylene ether, or equivalent, and shall be mixed with water to provide a concentration of one ounce, or more as needed, of surfactant to 5 gallons of water. (An equivalent surfactant shall be understood to mean material with a surface tension of 29 dynes/cm as tested in its properly mixed concentration, using ASTM method D 1331-56 (R 1980), "Surface and Interfacial Tension of Solutions of Surface-Active Agents.")
- F. Warning Labels and Signs: As required by OSHA regulations 29 CFR 1926.1101 and HIOSH 12-145.1. Permanent signage for access panels and areas with encapsulated asbestos-containing materials shall be as specified hereinafter. Signage shall be as approved by the Contracting Officer.
- G. Protective Clothing: As specified hereinafter. The Contractor shall have all the required sets of coveralls required for this project on island prior to the start of work. There will be no time extension for the unavailability of coveralls or related equipment.
- H. Post-Removal Encapsulation: The encapsulant shall be applied to surfaces from which

asbestos-containing material has been removed to control the possible release of residual fibers, either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components (penetrating encapsulant) and shall be compatible with the existing finishes including wood, metal, and plastic.

- I. Other Materials: Provide all other materials, such as, but not limited to lumber, plywood, nails, fasteners, metal studs, hardware, foam sealants, and caulking which may be required to properly prepare and complete this project.

2.2 TOOLS AND EQUIPMENT

- A. General: Provide and fabricate suitable tools for the asbestos abatement procedures.
- B. Water Sprayer: Airless or a pressure sprayer for amended water application as applicable.
- C. Air Purification Equipment: High Efficiency Particulate Absolute (HEPA) filtration systems.
- D. Paint/Encapsulant Sprayer: Airless type.
- E. Other tools and equipment as necessary.

2.3 PERSONNEL PROTECTION REQUIREMENTS

- A. The contractor acknowledges he alone is responsible for instruction and for enforcing personnel protection requirements and that these specifications provide only a minimum acceptable standard.
- B. Provide workers with sufficient sets of disposable protective full body clothing consisting of material impenetrable by asbestos fibers and of the proper size for each individual to accommodate movement without tearing. Such clothing shall consist of full body coveralls, footwear, gloves, and headgear. Provide hard hats as required by applicable safety regulations. Disposable clothing shall not be allowed to accumulate and shall be disposed of as asbestos contaminated waste. Protective clothing shall be worn by all personnel within the work area from the start of the removal and post-removal encapsulation work until the work area has received its final clearance.
- C. Insulated non-skid rubber boots or an approved equal shall be required for all individuals entering the work area. Protective full body clothing without elastic at sleeves and legs shall require separate elastic or taped protection to seal the opening. Visitors shall be provided full body protective clothing.
- D. No visitors shall be allowed in work areas, except as authorized by the Contracting Officer. Visitors must supply their own respiratory protection and show proof training in accordance with DOH 11-501-504.

Provide authorized visitors with suitable disposable protective full body clothing consisting of material impenetrable by asbestos fibers and of the proper size for each individual to accommodate movement without tearing. Such clothing shall consist of full body coveralls, footwear, gloves and headgear including hard hat when required and insulated rubber boots or equal. The Contractor shall include in his Bid the expense of a total of 4 changes of clothing per day for each day of asbestos abatement work for visitor's use. The quantity shall accumulate and may be used at any time during asbestos abatement work at the discretion of the Contracting Officer.

- E. All electrical systems used for asbestos abatement operations shall as a minimum be protected with "Ground Fault Circuit Interrupters" selected and installed in strict accordance with the manufacturer's instructions, the National Electric Code and all other pertinent codes.
- F. Additional safety equipment (e.g. hardhats meeting the requirements of ANSI Z-89.1-1981, eye protection meeting the requirements of ANSI Z87.1-1979, safety shoes meeting the requirements of ANSI Z41.1-1967, disposable PVC gloves), as necessary, shall be provided to all workers and authorized visitors.

PART 3 - EXECUTION

3.1 SEPARATION OF WORK AREAS FROM NON-WORK AREAS

- A. Visual Separation: Visual separation shall be accomplished at all glazed areas using opaque polyethylene. This separation shall not be incorporated within the other seals required on this project.
- B. Air Systems: Shut down and isolate all ventilation air systems to prevent contamination and fiber dispersal to other areas of the building. During the abatement operations, air intake vents within the work area shall all be sealed with tape and two layers of 6-mil polyethylene sheeting.
- C. Penetrations: Ceiling and wall penetrations, windows and doors, shall be sealed with two layers of 6-mil poly sheeting and secured with duct tape.
- D. For exterior paint/coating removal work, the Contractor shall construct an air-tight negative pressure mini enclosure.
- E. Emergency Exits: Designate and maintain emergency and fire exits from the work area in accordance with local codes and regulations. Provide knockout/cut away panels in the barriers in the direction of emergency egress. Properly mark the knockout/cut away panels, seal them airtight, and on a continuing basis instruct workers and authorized personnel as to their locations. Post a diagram in each Clean Room and Equipment Room locating the emergency exits. In case of fire while doing work in the work areas, emergency exit procedures have priority over normal work exiting procedures.

- F. Inspection: The Contractor shall inspect all barriers at least twice a day (once prior to the start of each day's abatement operations and following the day's abatement operations). Document the inspections and observations in a daily project log.

3.2 DECONTAMINATION ENCLOSURE SYSTEMS

- A. General: The Contractor shall construct the decontamination enclosure system or use portable units acceptable to the Qualified Consultant and as described in the approved Work Plan.
- B. Personnel Decontamination Unit: As deemed necessary by the Qualified Consultant, provide a personnel decontamination enclosure system contiguous to the work area consisting of three totally enclosed chambers as follows:
 - 1. An Equipment Room with two curtained doorways, one to the work area and one to the shower.
 - 2. A Shower Room with two curtained doorways, one to the Equipment Room and one to the Clean Room. The Shower Room shall contain at least one shower. Careful attention must be paid to the shower enclosure to insure against leakage of any kind. Ensure a supply of soap at all times in the shower. Drainage from the shower shall be disposed of as contaminated wastewater or filtered as specified hereinafter.
 - 3. A Clean Room with one curtained doorway to the Shower Room and one entrance/exit door to non-contaminated area. The Clean Room shall have sufficient space for storage of worker's street clothes and personal effects, towels, and other non-contaminated items.
- C. Maintenance of Decontamination Units: At the beginning of each work shift and throughout abatement operations, all seals and curtained doorways shall be inspected and if not found in proper condition, repaired immediately. All areas shall be kept clean at all times. Ensure that drainage filtering systems are kept clean and operational at all times.
 - 1. Personnel Decontamination Unit:
 - a. The Contractor shall maintain Clean Room and shall repair and sanitize respirator equipment after each use.
 - b. Soap and shampoo shall be in the showers at all times.
 - c. Fresh towels shall be available at all times.
 - d. Provide a disposal bag for contaminated filters in the Shower Room at all times.
 - e. Provide storage for wet and dry towels.

- f. Provide a fine bristle brush outside the Equipment Room in the work area.
 - g. At the end of each work shift the shower shall be thoroughly disinfected, the filter bag (if applicable) shall be returned to the Equipment Room for disposal, and the Equipment Room shall be thoroughly HEPA vacuumed and wet cleaned. The decontamination enclosures shall be sealed and removed (as necessary) and area restored after each workday.
- D. Worker Protection Notice: Post the following notice in each Clean Room and Equipment Room:
- 1. Workers and authorized personnel, in order to enter the work area, shall:
 - a. Remove all clothing, unless it is to remain in the Equipment room for eventual disposal.
 - b. Don the appropriate respiratory protection, follow all training procedures and manufacturer's instructions. Once all of the above has been completed, proceed to the shower. Check the equipment out for proper operation before proceeding any further.
 - c. Don protective clothing (full body coveralls, gloves, boots, headgear etc.) after donning respirator.
 - 2. All workers and authorized personnel, in order to leave the work area, shall:
 - a. Remove gross (visible) contamination from themselves and their equipment. Brush off dust with a fine bristle brush and leave the brush outside the Equipment Room in the work area.
 - b. Enter the Equipment Room and, keeping your respirator in place, remove all protective clothing, including full body coveralls, gloves, boots, and headgear. Place contaminated clothing in the bag(s) provided. Store reusable gloves and boots in their respective areas in the Equipment Room.
 - c. Respirator still in place, move into the Shower Room and rinse off thoroughly.
 - d. Accomplish complete showering, thoroughly soaping and shampooing.
 - e. Proceed to the Clean Room: Dry off, get dressed and return respirator to its proper place.
 - f. No smoking, eating, drinking shall be allowed inside the work area or the decontamination enclosures.

3.3 WASTEWATER FILTERING SYSTEM

- A. Prior to any wastewater disposal into the sanitary sewer system, the Contractor shall be responsible for obtaining from the City and County of Honolulu, Environmental Services, Division of Environmental Quality, *Temporary Industrial Wastewater Discharge Permit*.
- B. Filter: All wastewater that will be discharged into the sanitary sewer system shall be treated as contaminated with asbestos and shall be filtered using two in-line filter cartridges with 2" inlets and outlets. The outlet of the first cartridge shall connect to the inlet of the second cartridge. The first cartridge shall contain six 100-micron prefilters and a second cartridge shall contain six 0.5-micron filters or equal staging according to type filtering unit.
- C. One spare set of 100-micron prefilters shall be maintained at the site at all times to replace prefilters during cleaning. Maintain at least one set of 0.5-micron or equal filters at the site at all items form replacement as necessary.
- D. When prefilters become clogged, replace with spares, and wash out the prefilters in the Shower Room, allowing drainage from the cleaning operation to go through the filtering system.
- E. When the final filters become clogged, remove the filters, replace with new, and dispose of the clogged filters as contaminated waste.
- F. Provide a holding tank for contaminated wastewater as required to prevent backup of water into the shower when the amount of water generated exceeds the flow rate of the filters.

3.4 COMMUNICATIONS

- A. Provide a communications system suitable to monitor all activities within the work area and to readily transfer messages from one location to another.

3.5 WORK AREA PREPARATION

- A. Work by the Asbestos Abatement Contractor:
 - 1. Step 1:
 - a. Posting of Danger Signs: Post danger signs in and around the work area to comply with 29 CFR 1926.1101, HIOSH 12-145.1 and all other Federal, State and local requirements. Signs shall be posted at a distance sufficiently far enough away from the work area to permit a person to read the sign and take the necessary protective measures to avoid exposure.
 - b. Inspect the Building Openings: At the beginning of each workday, the Contractor shall inspect and ensure that all doors, windows and other

openings of affected building(s) and all surrounding buildings are closed and locked (as applicable).

- c. Barrier Enclosures: Cover all openings between the work area and the occupied portions of the building with opaque plastic. Construct all general and separation barriers.
- d. Sealing Openings: Seal all openings including but not limited to ducts, vents, electrical penetrations, and any other penetrations of the work areas, with plastic sheeting sealed with tape.
- e. Erect an airtight negative pressure enclosure containment system attached to the exterior surfaces for the removal of paint/coating material.

2. Step 2:

- a. Provide Decontamination Units where appropriate: Personnel Decontamination Unit(s) specified hereinafter shall be required.
- b. Air Filtration Units: Install sufficient number of HEPA air filtration units to create a minimum of four air changes per hour and create a negative pressure differential of 0.2 inches of water. Contractor to monitor the pressure differential for the duration of the project using a portable manometer. Contractor will keep one spare unit at the job site for the duration of the work.
- c. Pre-cleaning/Wet-wiping:
 - 1) Preclean fixed object within the work area, first using HEPA vacuum equipment and then wet cleaning methods as appropriate and separately enclose with minimum 6-mil plastic sheeting sealed with tape. Fixed objects shall include, but not be limited to exposed electrical conduits and all other permanently fixed items.

3. Step 3:

- a. Plasticizing: Objects which may be contaminated during abatement or difficult to clean shall be taped and sealed in a minimum of 6-mil polyethylene plastic sheeting. A minimum of 2 layers of 6-mil polyethylene plastic sheeting shall be used for preparation of critical barriers and containments.
- b. When sealing (plasticizing), plastic sheet shall be protected against damages by sharp edges, projections, etc. Provide 2" squares of duct tape

at all sharp projections prior to applying plastic sheet to prevent puncture and tearing.

- c. NOTE: Combining lower mil thickness sheets to total the minimum mil thickness is not acceptable.
- d. Marking Exits: Maintain and mark both normal and emergency exits from the work areas to include large tape or spray-painted orange arrows in the direction of egress and at curtained doorways which side of plastic sheeting to access first. One arrow marking shall be visible from every work location. Establish a color or designation system to distinguish normal exiting to the personnel decontamination unit and emergency exiting when life safety conditions prevail.

- 4. Step 5: After the sealing and temporary facility work is completed, notify the Qualified Consultant and get his approval prior to proceeding with abatement.

3.6 REMOVAL/PENETRATION OF PAINT/SKIM COATING

- A. A minimum of 4-mil polyethylene shall be laid beneath the area where the paint/skim coat will be removed.
- B. The chemical peel will be applied to the paint in accordance to the manufactures directions. After the recommended contact time the chemical peel will be removed using painters' spatulas or hand razors. The peel will be removed and placed directly into waste disposal bags. The process will be repeated until a surface free of paint and coating material is obtained to allow for the safe installation of new electrical system including all associated conduits.
- C. In the event mechanical removal becomes necessary, Desco deck crawlers will be used. The Desco units will be attached to a HEPA vacuum to collect all emissions generated by the units.
- D. It shall be the responsibility of the Contractor to verify the thickness of the material and satisfy himself as to the total work and/or effort to remove said material. No additional payment will be considered by the State for any deviations of the actual thickness from the thickness noted on the drawings.
- E. The Contractor is prohibited from using methods of removal that create excessive amounts of dust and debris.
- F. The Contractor shall take whatever steps necessary to safeguard and protect the surrounding areas during the execution of this Contract. He shall be responsible for any and all damages including contamination of surrounding areas caused by the compromised containment and/or safeguards.
- G. Exposed raw surface edges will be completely sealed using an appropriate encapsulant.

3.7 VINYL FLOOR TILE WITH MASTIC REMOVAL

- A. Removal work will be conducted in a negative pressure enclosure containment system.
- B. Thoroughly wet the affected floor covering with amended water before starting the removal.
- C. Spray the flooring material repeatedly during the removal operations to maintain a wet condition and to minimize asbestos fiber dispersion. The Qualified Consultant shall have the authority to stop all work due to improper work techniques.
- D. The asbestos-containing materials shall be removed in small sections. Before beginning the next section, the material shall be packed while still moist into 6-mil double polyethylene bags and sealed airtight. No removed material, bagged or unbagged, shall be allowed to dry, fall to the ground, be crumbled into small pieces, pulverized, or made friable.
- E. The Contractor is prohibited from using methods of removal that create excessive amounts of dust and debris.
- F. Exposed raw surfaces will be completely sealed using an appropriate encapsulant.

3.8 EQUIPMENT CLEANING

- A. All contaminated equipment and tools used for removal work shall be washed and cleaned in the work area prior to removing them from the work area. No washing of contaminated equipment and tools will be allowed outside the work area.

3.9 ASBESTOS-CONTAINING WASTE HANDLING

- A. Collect and bag all asbestos debris and any other contaminated debris found in the work area. Clean the visible residual by HEPA vacuuming.
- B. Clean fixed object within the work area, using HEPA vacuum equipment. Fixed objects shall include, but not be limited to pipes, wiring and all other permanently fixed items. Do not use methods that raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters. Do not use HEPA vacuum equipment on wet surfaces.
- C. Debris shall be bagged and sealed in 6-mil plastic bags immediately after removal. All gross debris created by the removal process shall be bagged and sealed at the end of each removal day.
- D. The bags containing the asbestos waste material shall be checked for evidence of waste material attached to the outside of the bags. If dirty, the bags shall be washed down in the work area. The bags are then moved to the Holding bin. Bags and containers shall be marked with OSHA label prescribed by the Hawaii OSHA regulations referenced in these specifications. Label shall state, "DANGER – CONTAINS ASBESTOS FIBERS – AVOID CREATING DUST – CANCER AND LUNG DISEASE HAZARD." Additionally, label bags in accordance with OSHA 40 CFR 61.150; or EPA 40 CFR 763 if

more restrictive. Labeling shall include the name of the waste generator and the site where the waste was generated.

- E. Asbestos contaminated waste with sharp edges (e.g., nails, screws, metal lath, etc.) will tear the polyethylene bags and sheeting and therefore shall be placed in drums or enclosed with cardboard and double wrapped and sealed with plastic.
- F. During the removal process, if plastic sheeting tears, or the duct tape loosens from the surface, the Abatement Contractor shall immediately stop work, cleanup loose asbestos-containing materials, and then reseal the surface by taping over the torn or loosened surface, before commencing again.
- G. Protect the plastic sheeting against tearing caused by sharp projection, corners, edges, etc., of all equipment being used in the removal process. However, if the plastic sheeting tears, the Abatement Contractor shall follow repair procedure specified above.
- H. Any housing or penetration concealing asbestos-containing materials shall be removed and protected to provide access to the materials. Replacement or reattachment of these shall be in a manner such that function and appearance is equal or exceeds the original condition.

3.10 CLEANING AND CLEARANCE OF THE WORK AREA

- A. Should the Contractor fail to commence work to clean-up and make the work area asbestos free within one working day after the clean-up thereof has been requested by the Contracting Officer, and thereafter to expeditiously complete the said clean-up, Contracting Officer may without further notice and without termination of contract, have the clean-up done and deduct the cost thereof from the contract.
- B. Visual Clearance of Removal Work Areas: Remove all visible accumulation of asbestos-containing materials and debris by HEPA vacuums, sponging, and wet-wiping. The work areas shall be totally visibly clean and remaining material encapsulated. The Contractor, in the presence of the Qualified Consultant, shall make a complete visual inspection of the work area to ensure dust-free conditions.
- C. Once the Qualified Consultant verifies that the work areas are essentially clean of visible asbestos-containing debris, the Qualified Consultant will collect post abatement PCM air clearance samples.
- D. For interior removal work, air clearance samples will be collected by the Qualified Consultant until an air clearance level of 0.01 fibers/cc is obtained.
- E. Should the Contractor fail to achieve the respective clearance level lower than 0.01 f/cc in the removal work area. The Contractor will re-clean the area at no additional cost to the State and all additional fees to perform the sampling and analysis by the Qualified Consultant shall be paid for by the Contractor.
- F. After achieving a respective clearance level lower than 0.01 f/cc, the work area will be cleared of all remaining containment enclosure sheeting and released to the Contracting

Officer. Signage applicable to job site safety and the performance of the remaining portions of the work shall remain as applicable.

3.11 DISPOSAL OF ASBESTOS-CONTAINING MATERIAL

- A. Painted asbestos-containing waste shall be TCLP tested by the Contractor prior to disposal to determine if the asbestos-containing waste must be disposed of as hazardous waste or as asbestos-containing waste. If painted asbestos-containing waste passes the TCLP test, the waste may be disposed of as asbestos-containing waste. If the painted asbestos-containing waste fails the TCLP test, the waste must be disposed of as hazardous waste.
- B. As the work progresses asbestos-containing waste is generated the Contractor shall transport all waste generated on a pre-scheduled day to the State of Hawaii, Department of Health's authorized disposal site, or as specifically approved by the Contracting Officer to delay a disposal operation. Transport all waste to the predesignated disposal site in accordance with EPA regulations and specific landfill requirements.
- C. Contaminated material shall be double bagged in bags with OSHA label prescribed by the HIOSH regulations referenced in these specifications. Label shall state, "DANGER – CONTAINS ASBESTOS FIBERS – AVOID CREATING DUST – CANCER AND LUNG DISEASE HAZARD." Additionally, label bags in accordance with OSHA requirement 29 CFR 1926.1101, HIOSH 12–145.1 or EPA 40 CFR 61.150 if more restrictive. Labeling shall include the name of the waste generator and the site where the waste was generated.
- D. Mark vehicles used to transport asbestos-containing waste material during the loading and unloading of the waste so that the signs are visible. The marking must be displayed in such a manner and location that a person can easily read the legend. Refer to 40 CFR Part 61.149 for lettering size, fonts and wording of sign requirements. For all loading and unloading activities, the sign referred to in 40 CFR Part 61.150 (b) (3) shall be displayed prominently.
- E. Vehicles used for transporting waste to the disposal sites shall have a completely enclosed, lockable storage compartment. Storage compartments shall be plasticized and sealed with a minimum of one layer of 6 mil polyethylene sheeting on the sides and top and two layers of 6 mil polyethylene on the floor (bed). Waste materials, except those with sharp edges (metal lath, screws, nails, metal suspension system, etc.), properly double bagged may be transported to the disposal site without being placed in drums if the transporting vehicle is prepared as specified above in addition to any more stringent requirements by HIOSH. The compartments shall be thoroughly wet-cleaned and/or HEPA vacuumed following the disposal of each load at the disposal sites at an approved location with electrical power as required. At the conclusion of the asbestos abatement, or before transport vehicles are used for other purposes, the polyethylene sheeting shall be properly removed and disposed of as contaminated waste. After this has been accomplished, compartments shall once again be wet-cleaned and HEPA vacuumed in order to eliminate all debris.
- F. At the landfill, upon delivery of the waste for disposal, the Contractor shall notify the Scale Attendant and Landfill Spotter that the waste to be disposed of is asbestos material.

- G. Workers unloading bags at the disposal sites shall be dressed in full body protective clothing and dual cartridge respirators.
- H. Waste disposal manifest forms shall be properly completed to assure custody and disposal of all asbestos-containing material and asbestos contaminated waste at approved disposal sites. Forms shall be kept on file as directed by the Contracting Officer with copies submitted to the Qualified Consultant the next working day after each trip.

NOTE: IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASSURE THAT ANY LANDFILL USED FOR DISPOSAL OF ASBESTOS-CONTAINING OR ASBESTOS CONTAMINATED WASTE IS APPROVED FOR THAT PURPOSE.

- I. Bags must be placed in the hole for burial. Dumping of bags from the containers will not be allowed. However, if a bag is torn and if acceptable by the landfill, the entire container may be buried.
- J. Liquid waste for disposal shall be filtered as specified herein.
- K. The Contractor shall pay the waste disposal charge and any special handling charges at the landfills. All expenses for landfills shall be the complete responsibility of the Contractor. The bagged material shall be loaded in drums except as noted previously and transported to a landfill authorized by the State Department of Health to accept material containing asbestos. In the event the bag is torn, the tear shall be immediately mended with duct tape and the bag placed into another bag and sealed, and the wrapped material covered with another wrap and sealed. The Contractor shall make all prior arrangements with the landfill.

3.12 LOCK DOWN

- A. After clean-up of gross contamination and final visual inspection, a compatible post removal (lockdown) encapsulant shall then be spray applied to all surfaces. The removal area shall include but not to be limited to constructed enclosures, barriers, polyethylene sheeting that covers any equipment articles to be discarded, critical barriers, air locks, load out units for bag removal, and on-site constructed decontamination unit.

TEN DAY NOTICE FORM
(sample)
page 1

This two-page form is to be filled in and filed with both state and regional officials a minimum of ten (10) working days before start of the asbestos abatement contract.

State of Hawaii
DEPARTMENT OF HEALTH

For Office Use Only Record No.

NOTIFICATION OF DEMOLITION AND RENOVATION

Ref: Title 40 CFR 61
National Emission Standards for Hazardous Air Pollutants
Asbestos NESHAP Revision, Final Rule, November 20, 1990

MAIL ORIGINAL #1 TO:
State Department of Health
Noise, Radiation &
Indoor Air Quality Branch
Asbestos Abatement Office
591 Ala Moana Boulevard
Honolulu, Hawaii 96813

COPY #2 TO:
Asbestos Notification EPA
NESHAP Region IX
75 Hawthorne St., A-3-3
San Francisco, CA 94105
Phone: (415) 744-1253

COPY #3:
Contractor's Copy

OFFICE USE ONLY: Operator Project # _____ Postmark Date _____ Date Received _____
Notification/Record # _____ Date Entered/Initials _____

I. **NOTIFICATION TYPE:** O - Original *R - Revised C - Cancelled: _____
*If R (Revision), please complete Sections III and V in full as shown on your original and make changes only where applicable on this form.

II. **OPERATIONS:** D - Demo O - Ordered Demo R - Renovation E - Emer. Renovation: _____

III. **FACILITY INFORMATION:** (Owner, Removal Contractor, Other Operator)

A. **OWNER NAME:** _____
Address _____ City _____
State _____ Zip _____ Contact _____ Telephone (____) _____

B. **REMOVAL CONTRACTOR:** _____
Address _____ City _____
State _____ Zip _____ Contact _____ Telephone (____) _____

C. **OTHER OPERATOR:** _____
Address _____ City _____
State _____ Zip _____ Contact _____ Telephone (____) _____

IV. **IS ASBESTOS PRESENT?** (YES/NO) _____

V. **FACILITY DESCRIPTION:** (Including building name, number, floor and/or room number)

Building Name: _____
Address _____
City _____ State _____ County _____
Site Location: _____
Building Size: (Sq. ft.) _____ (No. of Floors) _____ Age in Years: _____
Present Use: _____ Prior Use: _____

VI. **PROCEDURE, INCLUDING ANALYTICAL METHOD, IF APPROPRIATE, USED TO DETECT THE PRESENCE OF ASBESTOS MATERIAL:**

VII. APPROXIMATE AMOUNT OF ASBESTOS, INCLUDING: 1. Regulated ACM to be removed 2. Category I ACM not removed 3. Category II ACM not removed	RACM To Be Removed	Nonfriable Asbestos Material Not To Be Removed		Indicated Unit of Measurement Below	
		CAT I	CAT II	Ln Ft:	Ln m:
Pipes					
Surface Area				Sq Ft:	Sq m:
Vol RACM off Facility Component				Cu Ft:	Cu m:

Nature of materials: (e.g. VAT, roofing, etc.) _____

VIII. **SCHEDULED DATES ASBESTOS REMOVAL:** (MM/DD/YY) Start: ____/____/____ Complete ____/____/____

IX. **SCHEDULED DATES DEMO/RENOVATION:** (MM/DD/YY) Start: ____/____/____ Complete ____/____/____

TEN DAY NOTICE FORM
(sample)
page 2

This form is to be filled in and filed with both state and regional officials a minimum of ten (10) working days before start of the asbestos abatement contract.

NOTIFICATION OF DEMOLITION AND RENOVATION, Continued

X. DESCRIPTION OF PLANNED DEMOLITION/RENOVATION WORK & METHOD(S) TO BE USED:

XI. DESCRIPTION OF WORK PRACTICE AND ENGINEERING CONTROLS TO BE USED TO PREVENT EMISSIONS OF ASBESTOS AT THE DEMOLITION/RENOVATION SITE:

XII. PROJECT SUPERVISOR: Name _____
Certification #: _____ Course Provider: _____

XIII. WASTE TRANSPORTER: #1
Name _____
Address _____ City _____ State _____ Zip _____
Contact Person: _____ Telephone (____) _____

WASTE TRANSPORTER: #2
Name _____
Address _____ City _____ State _____ Zip _____
Contact Person: _____ Telephone (____) _____

XIV. WASTE DISPOSAL SITE:
Name _____
Location _____ City _____ State _____ Zip _____
Telephone (____) _____

XV. IF DEMOLITION ORDERED BY A GOVERNMENT AGENCY, IDENTIFY THE AGENCY BELOW:
Name _____ Title _____
Authority: _____
Date of Order (MM/DD/YY): ____/____/____ Date Ordered to Begin (MM/DD/YY): ____/____/____

XVI. DESCRIPTION OF PROCEDURES TO BE FOLLOWED IN THE EVENT THAT UNEXPECTED ASBESTOS IS FOUND, OR PREVIOUSLY NONFRIABLE ASBESTOS MATERIAL BECOMES CRUMBLD, PULVERIZED, OR REDUCED TO POWDER.

XVII. I CERTIFY THAT AN INDIVIDUAL TRAINED IN THE PROVISION OF THIS REGULATION (40 CFR PART 61, SUBPART M) WILL BE ON-SITE DURING THE DEMOLITION OR RENOVATION, AND EVIDENCE THAT THE REQUIRED TRAINING HAS BEEN ACCOMPLISHED BY THIS PERSON WILL BE AVAILABLE FOR INSPECTION DURING NORMAL BUSINESS HOURS (required 1 year after promulgation).

Signature of Owner/Operator _____
Date

XVII. I CERTIFY THAT ALL INFORMATION PROVIDED IS CORRECT.

Signature of Owner/Operator _____
Date

XIX. FOR EMERGENCY RENOVATIONS: Date & Hour of Emergency (MM/DD/YY): ____/____/____
Description of the sudden, unexpected event: _____

Explanation of how the event caused unsafe conditions or would cause equipment damage or an unreasonable financial burden:

OFFICIAL USE ONLY:

BY: _____ TITLE: _____ DATE APPROVED/DISAPPROVED: _____

EMPLOYEE ACKNOWLEDGMENT OF INSTRUCTION AND RELEASE FORM
(sample)

Employee Name:

Employee Address:

Employee Telephone No.:

DOH Asbestos Certification Number:

Classification of Worker:

Have you had in the past, or present, any respiratory problems?

Yes No

Have you worked in the past with asbestos or fiberglass type materials?

Yes No

The project you will be working on involves the use of asbestos and the removal of the asbestos from the building. Asbestos is considered a health hazard.

The company is supplying all necessary safety clothing and working conditions required and necessary for your protection from asbestos hazard.

You shall be instructed a commencement of the job on the required use of safety equipment, clothing, working conditions and procedures. These must be rigidly adhered to. Smoking is not permitted in the work areas. Disregarding of safety instructions shall result in instant dismissal.

I acknowledge that safety instructions have been given to me by the company at my work commencement and I am thoroughly conversant with them and have answered the above questions truthfully.

Signed:

Employee

Date:

ASBESTOS DISPOSAL FORM
(sample)

Date: .

Owner or Operator of Landfill

Name

Address

City State Zip

Phone:

Name of Landfill

Name

Address

City State Zip

Phone:

Hauler

Approximate Volume of Asbestos Received

Type of Container Asbestos in

Asbestos Container Labeled? YES NO

I certify that the above statements are true and that the landfill has been approved for the disposal of asbestos. The delivered material will be covered within 6 inches (15 cm.) of non-asbestos material within 24 hours.

signed
Landfill Owner-Operator

END OF SECTION

SECTION 13282

LEAD-BASED PAINT CONTROL MEASURES

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

Provided lead abatement work as indicated and as specified herein.

1.2 GENERAL REQUIREMENTS

- A. In performing demolition of surfaces with lead-containing paint, all possible safeguards, precautions, and protective measures shall be utilized to prevent exposure of any individual to lead.
- B. The disturbance or dislocation of lead-containing materials may cause lead- containing dust and fumes to be released into the atmosphere, thereby creating a potential health hazard to workers and other personnel within the project area. The Contractor shall apprise all workers, supervisory personnel, subcontractors, and consultants who will be at the job site of the potential health hazards and of proper work procedures that must be followed when disturbing lead-containing painted surfaces.
- C. The Contractor and his subcontractors shall review the plans and specifications and shall be sure that he and his subcontractors fully understand its contents, which identify lead-containing paint on the surfaces of the existing structures on which he and his subcontractors will be working.
- D. The Contractor and his subcontractors shall inform their respective employees and other individuals performing work around the structures being demolished of the presence of lead-containing paint on all painted items on the structures.
- E. The Contractor shall take appropriate and continuous measures and methods to provide all necessary information and devices, as necessary, to protect all workers from the potential hazards of lead exposure through respirable airborne dust. Such measures shall comply with applicable Federal, State and local regulations.
- F. The Contractor shall ensure that only workers who have been trained in accordance with 29 CFR 1926.62 and HIOSH 12-148.1 are allowed to perform the work specified in this section.
- G. All work under this contract shall be done in strict accordance with all applicable Federal, State and local regulations, standards, and codes governing the preparation, treatments, handling, storage, transport, and disposal of lead-based paint. The most recent edition of the aforementioned shall govern the execution of this project.

1.3 WORK SPECIFIED IN THIS SECTION

- A. The Scope of Work for this section consists of the demolition of structures that contain lead-containing paint. Structures shall be demolished with adequate protection to contain and mitigate any lead-contaminated dust and debris generated during the demolition. See drawings for exact description of structures included in this scope of work.
- B. The Contractor shall employ work practices to prevent harmful worker exposure to lead and to contain lead dust to prevent its spread during demolition.
- C. Properly dispose of construction debris and comply with Federal, State, and Local requirements for disposing of lead-containing construction debris.

1.4 COORDINATION WITH OTHER SECTIONS

- A. Prior to commencement of work, an annotated description of all existing damaged and missing items shall be submitted to the Engineer. It will be the Contractor's responsibility to repair and/or replace to the Engineer's satisfaction all items identified as damaged and/or missing that cannot be proven to have been in this condition prior to the commencement of this project.
- B. Comply with and coordinate work with general demolition requirements provided elsewhere.

1.5 ABBREVIATIONS

- A. CFR: Code of Federal Regulations
- B. HIOSH: State of Hawaii, Department of Labor and Industrial Relations, Division of Occupational Safety and Health
- C. EPA: U.S. Environmental Protection Agency
- D. OSHA: Occupational Safety and Health Administration

1.6 GENERAL REQUIREMENTS

- A. Contractor shall examine and have at all times in his possession at his office (one copy) and in view at each job site office (one copy) a current issue of the following publications:
 - 1. State of Hawaii: Occupational Safety and Health Standards; Rule 12- 148.1, Lead
 - 2. Title 29, Code of Federal Regulations, Section 1926.62 Lead in Construction
 - 3. Title 29, Code of Federal Regulations, Part 1910.134 Respiratory Protection

1.7 SUBMITTALS

- A. Submit under provisions of Section 01300-SUBMITTALS
- B. Pre-Work Submittals:

1. Furnish contractor certification within 10 consecutive calendar days from award that Contractor is experienced with the EPA, OSHA, and HIOSH regulations related to lead in construction.
2. Furnish employee certification within 10 consecutive calendar days from award that employees have had instructions on the dangers of lead, on respirator use, and decontamination (OSHA).
3. Furnish a complete and detailed work plan that describes the phasing of the work, methods to be used to remove the loose and peeling paint, perimeter controls, clean-up procedures, dust control measures, equipment to be used to demolish the structures, schedule for waste shipment. Plan to include "Written Compliance Program" required by 29 CFR 1926.62 (e)(2) and a Hazardous Waste Management Plan.
4. Furnish the name of the laboratory to be used and ensure that the laboratory is certified to perform the analysis intended to be analyzed by the Contractor.
5. Furnish product data and manufacturer's instructions for all equipment and materials used.
6. Rental equipment notification: If rental equipment is to be used during lead-based paint handling, notify the rental agency in writing concerning the intended use of the equipment. Furnish a copy to the Project Manager.
7. Submit applicable Material Safety Data Sheets for all chemicals used in paint removal work. Use the least toxic product approved by the Project Manager.
8. Identification and classification of hazardous waste associated with the work.
9. EPA Generator Identification Number for the site.
10. Estimated quantities of waste to be generated and disposed of.
11. EPA Transporter Identification Numbers, names, and qualifications of each contractor that will be transporting, storing, treating, and disposing of the wastes.
12. Names and qualifications (experience and training) of personnel who will be working on-site with hazardous wastes.
13. List of waste handling equipment to be used in performing the work, to include cleaning, volume reduction, and transport equipment.
14. Spill prevention, containment, and cleanup contingency measures including a health and safety plan.
15. Work plan and schedule for waste containment, removal, and disposal. Wastes shall be cleaned up and containerized daily.
16. Name and qualifications of the Contractor's Qualified Consultant to be used for the testing. Must be at the minimum, a Hawaii Lead Certified Risk Assessor in good standing at the time

of the work.

17. Provide a detailed method of TCLP testing, wipe testing, and air monitoring.

C. During Work Submittals:

1. Submit personal air monitoring data and other testing within one week of sample collection.
2. Daily log of all lead disturbance work done.
3. Hazardous Waste Disposal Documentation. If hazardous waste is being disposed of, submit written evidence that the hazardous waste treatment, storage and disposal facility is approved for lead disposal by the EPA and State or local regulatory agencies. Submit one copy of the completed manifest, signed and dated by the initial transporter in accordance with 40 CFR 262. Payment will not be made until a signed copy of the manifest is received.
4. Receipts (Waste Manifest Forms) from the landfill operator.
5. The Contractor shall complete the Hazardous Waste Disposal Log and the Project Hazardous Waste Log for each site.
6. Abatement Report: Abatement Report. An abatement report shall be submitted as required by 40 CFR 745 Subpart L. In addition to the requirements in 40 CFR 745 Subpart L, the Abatement Report shall include all items listed under Submittals (Item 5.3). 3 copies shall be submitted to the Engineer. Final payment shall not be made until this document is furnished.

PART 2 - MATERIALS (not used)

PART 3 - EXECUTION

3.1 DEMOLITION

- A. Establish lead control area. Post warning notices at building entrances as required by applicable State and Federal regulations. Lead control area should ensure airborne lead levels are below HIOSH's Action Levels outside the work area.
- B. Remove all loose and flaking paint prior to demolition. Contractor shall be responsible for containerizing and separating lead paint waste from other waste that may not be highly suspected of becoming hazardous when TCLP tested. Waste shall be cleaned and containerized on a daily basis.
- C. Demolish components as indicated on the plans without contaminating the surrounding area with lead dust.

3.2 LEAD CONCENTRATION IN THE WORK AREA

The maximum permissible exposure to airborne concentrations of lead within the work area shall be in accordance with 29 CFR 1926.62 and HIOSH 12-148.1. The work shall stop whenever these limits are exceeded and the Contractor shall remedy the condition prior to commencing the work. The expense resulting from the delays shall be the Contractor's responsibility and shall not be paid by the State.

3.3 PROHIBITED PRACTICES AND MATERIALS

- A. Dry sanding or chipping, and other abrasive methods on painted surfaces are prohibited.
- B. The use of heat guns or hot knives which reach temperatures above 1100 degrees Fahrenheit on painted surfaces are prohibited.
- C. The use of vacuum equipment without HEPA filters in lead control areas is prohibited.
- D. Sandblasting of painted surfaces is prohibited.
- E. Chemical Paint Strippers: The use of chemical paint strippers containing methylene chloride is prohibited.

3.4 WASTE DISPOSAL

Demolition debris has been determined to be nonhazardous by TCLP testing and shall be disposed of at a landfill that accepts such construction debris. Loose and peeling paint that are removed by the Contractor shall be tested by the Contractor's Consultant prior to disposal. Copies of weigh tickets and landfill receipts shall be provided to the Engineer. If hazardous waste is encountered, Contractor shall furnish an EPA Generator Identification Number for the site and dispose of the waste at a hazardous waste facility. Waste shall be removed from the site no later than 90 days from the day that it had been generated. Contractor shall provide a secure storage site for the waste and ensure that it remains secure on a 24-hour basis.

3.5 AIR MONITORING AND TESTING

- A. Any test initiated by the Contractor shall be paid for by the Contractor.
- B. Contractor shall conduct daily personal monitoring on at least 25% of workers that may be exposed to lead dust.
- C. Contractor's Consultant shall conduct perimeter air sampling at the Lead Control Area to ensure unprotected personnel are not exposed at or above the Action Level. If Action Level is exceeded, stop work and correct conditions causing the high levels. Resume work only after approval of the Project Manager or its representative.
- D. Contractor's Consultant shall conduct TCLP testing on Contractor's waste and debris prior to disposal.

- E. Contractor's Consultant shall collect pre and post soil samples around the perimeter of the Lead Control Area. Post soil samples shall be analyzed for total lead to ensure that it does not exceed the Hawaii DOH criteria of 400 ppm. If soil samples exceed 400 ppm, then the pre soil samples shall be analyzed. The pre soil samples shall determine what levels the Contractor must clean to.
- F. Wastewater, if generated shall be sampled to determine whether the wastewater can be disposed of in County sewer system. Wastewater shall not be disposed of in storm drain or dumped on ground regardless of test results.
- G. A visual inspection conducted by the Contractor's Consultant, and the Contractor shall be conducted prior to completion of work. Barriers and signs shall not be removed until a written clearance letter provided by the Contractor's Consultant has been received by the Engineer.

PROJECT HAZARSDOUS WASTE LOG
(Contractor to complete one per site)

PROJECT: _____

D.A.G.S. JOB NO.: _____

START DATE: _____ COMPLETION DATE: _____

GENERAL CONTRACTOR: _____

ADDRESS: _____

TELEPHONE: _____ FAX NUMBER: _____

NAME OF SUPERINTENDENT FOR THIS PROJECT: _____

NAME OF GENERATOR (FACILITY) _____

ADDRESS: _____

TELEPHONE: _____ FAX NUMBER: _____

DESCRIPTION OF HAZARDOUS WASTE: _____

APPROXIMATE WEIGHT (IN POUNDS): _____

MONTHLY DISPOSAL LOG:

MONTH: _____ WEIGHT IN POUNDS: _____

MONTH: _____ WEIGHT IN POUNDS: _____

MONTH: _____ WEIGHT IN POUNDS: _____

DISPOSAL SITE: _____

CONTRACTOR DISPOSING OF HAZARDOUS WASTE: _____

ADDRESS: _____

TELEPHONE: _____ FAX NUMBER: _____

DISPOSAL CONTRACTOR IS A (CHECK ONE OF THE FOLLOWING):

CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR: _____

SMALL GENERATOR: _____

LARGE GENERATOR: _____

APPROVAL:

STATE DESIGNATED COMPETENT PERSON: _____

COMPANY: _____

ADDRESS: _____

TELEPHONE NUMBER: _____

SIGNATURE _____

DATE _____

END OF SECTION

SECTION 13288

TESTING AND AIR MONITORING

PART 1 - GENERAL

1.8 GENERAL REQUIREMENTS

- A. Abatement Contractor's Responsibilities for personnel monitoring and record keeping.
- B. Project air monitoring and inspectional services for the purposes of:
 - 1. Verifying compliance with the specifications listed in Section 13281 – REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIALS (ACM).
 - 2. Ensuring that the State's legally required documentation is collected.
 - 3. Providing engineering control during the project.

1.9 DEFINITIONS

- A. ACM: asbestos containing materials.
 - B. Air Monitoring Specialist: A qualified person who enters the work area to set up the air monitoring device and then collects the various air samples to be sent to the laboratory for analysis.
 - C. Building Representative(s): The person or persons designated by the users of the building to act on their behalf.
 - D. Contractor: The construction firm engaged to remove, encapsulate and/or dispose of the ACM.
 - E. Consultant: The firm contracted by the Contractor to inspect the work of the Contractor during the removal, encapsulation and disposal of the ACM and is capable or has a subcontractor to perform air monitoring, sampling and testing before, during and after the asbestos removal and/or encapsulation.
 - F. Engineering Controls: Eliminate or reduce exposure to asbestos through the use or substitution of engineered machinery or equipment.
 - G. Project Designer: The person or firm who prepared the plans and specifications to remove, encapsulate and dispose of the ACM. The Project Designer shall be certified by the State of Hawaii Department of Health as an Asbestos Project Designer.
- 1.10 Project Monitor: A person hired by the Contractor that is certified by the State of Hawaii Department of Health as an Asbestos Project Monitor.

1.11 COORDINATION

- A. Coordinate with the Contractor's Inspector for the testing/air monitoring requirements included in Section 13281 – REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL for testing/ air monitoring consultants or inspectors, and all applicable Federal, State, and local regulations.

1.12 PRE-CONSTRUCTION CONFERENCE

- A. Hold conference prior to construction and shall be conducted by the Contracting Officer assisted by the Project Designer.
 - 1. Attendance: Present also shall be the Contractor, Project Designer and/or the Project Monitor, Building Representative(s). When the abatement Contractor is a subcontractor to a General Contractor, a representative of the General Contractor shall also attend.
 - 2. Agenda:
 - a. Review final schedule for project.
 - b. Verify legal requirements and special conditions.
 - c. Verify compliance with pre-construction requirement.
 - d. Obtain copies of all mandatory notifications.
 - e. Inspect sample respiratory equipment and other abatement equipment.
 - f. Review procedures and responsibilities.
 - g. Clarify the scope of work and its best impact on the users of the building.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 CONTRACTOR'S RESPONSIBILITIES

- A. The Contractor shall be responsible for providing the daily personal air monitoring and necessary records for all of the Contractor's employees for the duration of the project as required by OSHA (29 CFR 1926.1101), and all other applicable laws.
- B. The Contractor shall obtain the OSHA required reports for personnel air monitoring as part of the contract.
- C. The Contractor shall be responsible for daily personal air samples that shall be collected on at least 25% of the personnel performing removal work on similar tasks and for the duration of the project. Submit within 1 working day to the Contracting Officer.
- D. The Contractor is solely responsible for protecting his workers, other personnel, and the public from any of his work activities at the work site and on State property regardless of the testing and monitoring conducted by the State.
- E. Monitoring information developed by the Contractor's Project Monitor's activities shall be for the use of the Contracting Officer. The information will be available and offered to the Contractor when developed, but not thereafter, and shall not waive the Contractor's obligations stated elsewhere in this section.
- F. Air monitoring and testing becomes necessary to follow up on work by the Contractor which is rejected as not conforming to the requirements will be supplied by the Contracting Officer. However, the full cost of such additional monitoring and testing shall be borne by the Contractor and shall be deducted from the final contract payment.
- G. Personal air monitoring that becomes part of the Contractor's Consultant scope of work shall be accommodated by the Contractor.

3.2 AIR MONITORING AND INSPECTIONAL SERVICES

- A. Duties of the Contractor's Consultant:
 - 1. Photographic Record of Project: Record the asbestos abatement project with representative photos. All photos shall become the property of the State and are to be accompanied by a detailed log.
 - 2. Project Log: Maintain daily field reports detailing all key activities during abatement and make a summary of project activities to the project designer and the Contractor's project coordinator. Incorporate the contents of the daily field reports with other project data into a final project report.
 - 3. Visual Inspection of all Containment Areas: Perform regular inspection of all containment areas. Conduct inspections during the actual work performance of the Contractor to document the work practices employed by the Contractor and prior to air testing in each area to verify that all materials scheduled for abatement were removed and the area was properly cleaned.

B. Air Monitoring: The Contractor's on-site Project Monitor shall perform the following activities associated with this portion of the project:

1. On-site environmental and personnel air monitoring as required by EPA, HDOH, OSHA, HIOSH, and the project specifications (See methodology below).
2. Laboratory analysis by PCM analysis using NIOSH 7400 method.
3. Monitoring of decontamination procedures at site entry/exit.
4. Monitoring of containment maintenance by visual and instrumental inspection.
5. Interface with project inspectors, building representatives, representatives of regulatory agencies, and project designers during site visits.
6. Ensure that proper respiratory protection is utilized by all persons at the project site.
7. Relay to the Contracting Officer any discrepancies in contractor's action with provisions of project specifications.
8. Act quickly in case of emergencies with appropriate response.

3.3 SAMPLING DESIGN

A. The following is a typical sampling design per containment area during the actual abatement. The number of samples and volume quantities may vary, depending on each project's specifications.

1. Background Samples: Background baseline samples shall be taken prior to abatement to establish pre-abatement airborne fiber concentration levels. Three high volume continuous flow samples shall be taken per estimated containment area. All work area samples shall be analyzed by the NIOSH 7400 method. All personal samples shall be analyzed in accordance with OSHA 29 CFR 1926.1101. The reference TWA (time weighted average) shall be established one day prior to the masking and sealing operations.
2. Work Area Samples: Low volume samples of 480 liters each shall be taken in the work area. Ambient air samples shall be taken in the work area for comparison to barrier samples in an to ensure that containment systems are secure and that the persons entering the work area are wearing proper respiratory protection. If monitoring inside and outside the asbestos abatement work area shows airborne concentrations have reached the predetermined specified TWA, the consultant shall stop all work, notify the State immediately, have the contractor correct the condition(s) causing the increase and ensure that the contractor obtains the State's approval prior to restarting the removal work.

3. Barrier Samples: Monitoring outside the temporary barriers determines if leakage is occurring outside the work area due to loss of negative pressure or faulty seals.
 4. Outside Environmental Samples: Each removal area shall be sealed so that airborne fibers cannot escape into occupied areas. Air is forcibly drawn from the removal area by a negative air machine, filtered and exhausted to the outside environment. Samples shall be taken at the negative air unit exhaust to ensure compliance with the levels required by the project specifications and/or any applicable regulations. One sample per eight-hour day per containment area shall be taken.
- 3.4 Final Clearance Samples: Visual inspections will be conducted at the completion of removal work. After air in containment has been exchanged by High Efficiency Particulate Absolute (HEPA) filtration at least 72 times, (air clearance) samples shall be taken to determine if air is cleaned below the specified rate. If not, the area must be cleaned again, and a second set of clearance samples run. When the fiber count is below the specified level, a final set of samples shall be collected for analysis by phase contrast microscopy depending on the size of the abatement area. If these tests reveal that the air has been cleaned to the acceptable standards, the area may be opened for re-occupancy.
- 3.5 LABORATORY ANALYSIS
- A. All air samples collected by the Contractor's Project Monitor shall be analyzed by an AIHA certified laboratory for the analysis being requested. All laboratories shall be registered with the Hawaii Department of Health.
- 3.6 DAILY TESTING RECORDS
- A. At the conclusion of every day's testing, the Contractor's Project Monitor shall provide copies of all air monitoring records of each containment area to the State within 5 working days of collection.

END OF SECTION