

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE 1 OF 2
2. AMENDMENT/MODIFICATION NO. Am-0004	3. EFFECTIVE DATE 07/13/04	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
6. ISSUED BY U.S. Army Engineer District, Honolulu Corps of Engineers, Bldg. 230 ATTN: CEPOH-CT-C (Jennifer Ko) Fort Shafter, Hawaii 96858-5440	CODE	7. ADMINISTERED BY (If other than Item 6) CODE	

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)	(X)	9A. AMENDMENT OF SOLICITATION NO. W9128A-04-R-0012
		9B. DATED (SEE ITEM 11) 06/02/04
		10A. MODIFICATION OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. Accounting and Appropriation Data (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(X)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc). SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not, is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Solicitation No. W9128A-04-R-0012, FY04 MCA PN 52268, Buildings 549 and 552, Whole Barracks Renewal, Phase 4B, Quad E, Schofield Barracks, Oahu, HI

(Continued on Page 2)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF SIGNER (Type or print)	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY _____	16C. DATE SIGNED
(Signature of person authorized to sign)		(Signature of Contracting Officer)	

1. **CHANGES TO SPECIFICATIONS.** Attached hereto are revised and new pages to the solicitation. The revision mark (Am-0004) is shown on each revised and new page.

a. REVISED SECTIONS/PAGES/PARAGRAPH. Following are revised pages to the solicitation. Changes are indicated in **bold** print. Although the entire section is being re-issued under (Am-0004) only the following section/page/paragraph changed in this section.

Section 00010, Standard Form 1442, Solicitation, Offer, and Award (Block 13A)

b. NEW SECTION/CHAPTER/PAGES. The following items are added to the solicitation:

Section 00900, Responses to Questions submitted by Planholders (Pages A.5 to A.7)
Chapter 16, Environmental Requirements (SOW 16-1 to 16-5)

c. DELETED SECTION/CHAPTER. The following item is deleted from the solicitation:

Chapter 16, Environmental Requirements (SOW 16-1 to 16-5)

2. The proposal closing date of July 14, 2004, has been EXTENDED to July 28, 2004, 2:00 P.M., Hawaiian Standard Time.

SOLICITATION, OFFER, AND AWARD <i>(Construction, Alteration, or Repair)</i>	1. SOLICITATION NUMBER	2. TYPE OF SOLICITATION	3. DATE ISSUED	PAGE OF PAGES
	W9128A-04-R-0012	<input type="checkbox"/> SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (RFP)	2 June 2004	2

IMPORTANT - The "offer" section on the reverse must be fully completed by the offeror.

4. CONTRACT NUMBER	5. REQUISITION/PURCHASE REQUEST NUMBER	6. PROJECT NUMBER
7. ISSUED BY U.S. Army Engineer District, Honolulu ATTN: CEPOH-CT-C Building 230 Fort Shafter, Hawaii 96858-5440	8. ADDRESS OFFER TO U.S. Army Engineer District, Honolulu ATTN: CEPOH-CT-C Building 230 Fort Shafter, Hawaii 96858-5440 (Deliver hand-carried proposal to Building 200, Fort Shafter, Hawaii)	

9. FOR INFORMATION CALL	A. NAME JENNIFER KO	B. TELEPHONE NUMBER (Include area code) (NO COLLECT CALLS) (808) 438-8564
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SOLICITATION

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS (Title, identifying number, date):

Request for Proposal No. W9128A-04-R-0012, FY04 MCA PN 52268, Buildings 549 and 552, Whole Barracks Renewal, Phase 4B, Quad E, Schofield Barracks, Oahu, HI

(See Main Table of Contents)

11. The Contractor shall begin performance within 7 calendar days and complete it within 730 calendar days after receiving

award, notice to proceed. This performance period is mandatory, negotiable. /See Section 00700, 52.211-10.

12A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE PAYMENT BONDS?
(If "YES," indicate within how many calendar days after award in Item 12B.)

YES NO

12B. CALENDAR DAYS

14

13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 2 copies to perform the work required are due at the place specified in Item 8 by 2:00pmHST (hour, local time 07/28/2004 (date). If this is a sealed bid solicitation, offers will be publicly opened at that time. Sealed envelope containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

B. An offer guarantee is, is not required.

C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.

D. Offers providing less than 90 calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

OFFER (Must be fully completed by offeror)

14. NAME AND ADDRESS OF OFFEROR (Include ZIP Code)	15. TELEPHONE NUMBER (Include area code)
CODE	16. REMITTANCE ADDRESS (Include only if different than Item 14)
FACILITY CODE	

17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within _____ calendar days after the date offers are due. (Insert any number equal or greater than the minimum requirement stated in 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.)

AMOUNTS (See Section 00010, Proposal Schedule)

18. The offeror agrees to furnish any required performance and payment bonds.

19. ACKNOWLEDGEMENT OF AMENDMENTS

(The offeror acknowledges receipt of amendments to the solicitation - give number and date of each)

AMENDMENT NO.											
DATE											

20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)	20B. SIGNATURE	20C. OFFER DATE
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AWARD (To be completed by Government)

21. ITEMS ACCEPTED

22. AMOUNT	23. ACCOUNTING AND APPROPRIATION DATA
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24. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified)	ITEM	25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO <input type="checkbox"/> 10 U.S.C. 2304(c) () <input type="checkbox"/> 41 U.S.C. 253(c) ()
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26. ADMINISTERED BY CODE	27. PAYMENT WILL BE MADE BY
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CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

<input type="checkbox"/> 28. NEGOTIATED AGREEMENT (Contractor is required to sign this document and return _____ copies to the issuing office.) Contractor agrees to furnish and deliver all items or perform all work requirements identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications incorporated by reference in or attached to this contract.	<input type="checkbox"/> 29. AWARD. (Contractor is not required to sign this document.) You offer on this solicitation is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.
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30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN (Type or print)	31A. NAME OF CONTRACTING OFFICER (Type or print)		
30B. SIGNATURE	30C. DATE	31B. UNITED STATES OF AMERICA	31C. AWARD DATE
		BY	

SECTION 00900
RESPONSES TO QUESTIONS
SUBMITTED BY PLANHOLDERS
FOR
SOLICITATION NO. W9128A-04-R-0012

Q9. From Dick Pacific, RFI #2, dated 6/15/04 –

1. Relating to UST's environmental SOW 16.6

Please clarify whether or not all USTs are to be removed as part of this project including those tanks associated with Bldgs 551 and 550.

RESPONSE: See Am-0004

2. Are we to assume that undocumented UST's mentioned are present and must be removed.

RESPONSE: See Am-0004

3. How much petroleum-contaminated soil should be allowed for each tank? Or are we to treat the contaminated soil removal as a separate action in accordance with section SOW 16.6.1.1 and 16.6.2

RESPONSE: See Am-0004

Q10. From Dick Pacific, RFI #8, dated 6/21/04 –

1. RFP paragraph 10-4.3 states that the equipment sizes shown on the attached documents are minimums. Please clarify if this requires the bid to include the indicated sizes as a minimum. Is smaller equipment allowed if design load calculations show the load to be less than what is called out in the RFP.

RESPONSE: Equipment sizes shown on the attached documents are minimums. Smaller equipment is not allowed.

2. Are the pipe sizes shown on the concept drawings mandatory minimums?

RESPONSE: Yes.

3. RFP specifies glazing to be used on the project. If the glazing does not meet the other criteria specified by the RFP (such as energy efficiency), is the glazing to be changed?

RESPONSE: Yes. The glazing shall meet all minimum criteria required.

4. Is electrical reheat acceptable for the Arms vault?

RESPONSE: Yes.

5. Are the number of zones shown on the concept drawings mandatory? Is consolidation of similar thermal spaces into common zones for administration spaces acceptable?

RESPONSE: Mechanical layouts shown on drawings are conceptual. Contractor is required to do his/her own calculations; sizing and selection of equipment, piping, ductwork, and related accessories, and layout to ensure proper fit and function.

6. Air intake and exhaust grilles or louvers on the mechanical concept drawings are not shown on the Architectural concept drawings. Are they allowed to penetrate the exterior walls and satisfy the Historic Preservation requirements as shown?

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SUBMITTED BY PLANHOLDERS
FOR
SOLICITATION NO. W9128A-04-R-0012

RESPONSE: Air intakes or exhaust grilles should be consolidated to a maximum size of 609 mm x 609 mm (24" x 24") to reduce the number of penetrations thru the walls.

7. What capacity excess should be provided for backup chilling of Quad F?

RESPONSE: Per Corps of Engineers, Quad E cooling system is sized for serving Buildings 549, 550, 551 and 552. Interconnection between Quad E and Quad F is for supplemental use only.

8. What pumping consideration is to be made to backup Quad F, i.e. head loss and flow?

RESPONSE: Per Corps of Engineers, Quad E chilled water pumping system is sized for serving Buildings 549, 550, 551 and 552. Interconnection between Quad E and Quad F is for supplemental use only.

9. Cooling tower specified by RFP conflicts with selection in the attached concept design calculations/selections.

RESPONSE: Cooling tower in the attached concept design calculations/selections is provided for information only. Cooling tower provided should be in accordance with the RFP.

10. Paragraph 10-5-2.15 requires cooling tower noise control to "meet maximum sound level indicated." None was found. Please provide the maximum sound level criteria.

RESPONSE: Mechanical systems including cooling tower shall comply with ASHRAE Handbook and Manuals sound criteria. Acoustical treatment shall be provided to meet these levels.

Q11. From Dick Pacific, RFI #13, dated 6/28/04 –

Please provide functional and area requirements information for the Chaplains Office and waiting area shown on the third floor building 549 Sht. A1.3. We have been unable to locate this information.

RESPONSE: See Sheet T-3.

Q12. From Nan, Inc., RFI #2, dated 6/28/04 –

Architectural/Historical Questions

1. Door Type DF2A is noted on the Building 549 – Third Floor Renovated Plan (ref. Sheet A-1.3). However, it is not listed in the Door Schedule on Sheet A-3.1. Please provide door schedule information for Door Type DF2A.

RESPONSE: All door type DF2A should be a door type SF2A.

2. Is acoustical treatment of the cooling tower required due to proximity of adjacent residential areas? If so, what is the desired STC rating of the equipment/enclosure or sound level?

RESPONSE: Mechanical systems including cooling tower shall comply with ASHRAE Handbook and Manuals sound criteria. Acoustical treatment shall be provided to meet these levels.

3. Government Historical Consultants/Representatives have taken exception to the parking lot light fixtures on Quad C, disagreeing with the use of standard seamless aluminum pole fixtures

SECTION 00900
RESPONSES TO QUESTIONS
SUBMITTED BY PLANHOLDERS
FOR
SOLICITATION NO. W9128A-04-R-0012

specified in the RFP, preferring a more "historical" look. However, after review of the Quad E RFP, we found that this is not addressed in the RFP's historical section. Furthermore, the RFP does not require wholesale replacement, and a fixture change would not be sensible unless they are all replaced.

RESPONSE: New historical type streetlights were recently installed along Trimble Road, which lies within the historical boundary area of the base. Similar type streetlights may be installed for this project. The issue of wholesale replacement must be verified with the Army, as this will depend on budget and schedule.

4. SOW Para. 9-4-21 says to provide area lighting as shown on the RFP drawings. Where is it shown, and does it mean to provide a uniform level of lighting along the entire perimeter of each building? In addition, Government Historical Consultants/Representatives have taken exception to the noted fixture type to be mounted on seamless aluminum poles. Does the government have an acceptable light fixture that can be used for this area? A similar area lighting requirement is also noted in SOW Para. 9-1.11, Building Security Lights. This is a relatively high level of lighting, particularly for facilities that border a residential area. And again, does the government have a light fixture that is acceptable to the Government Historical Consultants/Representatives? There is a wide range of fixture costs, when historical appearance is necessary.

RESPONSE: As indicated above, this type of streetlights may be installed for this project. Lighting layouts of the parking areas were provided in the revised drawing set.

5. What are the "structures" shown at the roof of the appendages of Bldg. 552, at Gridlines 6 and 16? And how do they need to be addressed within the contract?

RESPONSE: "Structures" are existing and to remain.

Q13. From Dick Pacific, RFI #15, dated 6/30/04 –

1. "Although not indicated on the SSFM conceptual structural drawings, we assume that the two new cooling towers on the roof of Building 552 will require new structural framing to support the equipment's gravity, wind and seismic forces. It is stated in Section 10-5.2 Cooling Towers (SOW 10-9) that "Framework, structural supports and equipment supports shall be Type 304 stainless steel." Please verify whether or not structural steel added within the attic space of the structure (such as new wide flange support beams) need to be stainless steel".

RESPONSE: The contractor shall provide additional framing and necessary reinforcement to the existing framing to support the new cooling tower.

2. Mechanical design analysis attachment 9 page 3 states that "the SIPRNET server secure area shall be provided with a chilled water fan coil unit. The mechanical concept drawings Sht. M-3 do not show the room being served by its own individual unit. Please clarify which design concept we should follow.

RESPONSE: Follow Mechanical design analysis for air conditioning SIPERNET server secure area.

CHAPTER 16**ENVIRONMENTAL REQUIREMENTS**

16-1 ENVIRONMENTAL ISSUES: Overall environmental goal for the Whole Barracks Renewal Brigade Complex QUAD E (buildings 549 - 552) is to provide a safe and healthy environment for residents, facility users and the installation.

16-2 POTENTIAL ENVIRONMENTAL CONCERNS:

- 1) Proper removal of asbestos building materials and deteriorated lead paint;
- 2) Proper disposal of barracks and administrative space demolition debris which contain asbestos and lead paint;
- 3) Proper handling and disposal of the PCB containing light ballast from the fluorescent light fixtures;
- 4) Proper disposal of excavated soil resulting from removal and disposal of possible leaking underground heating oil storage tanks associated with former boiler room activities;
- 5) Proper handling and disposal of mercury lamp switches.
- 6) Worker safety protection due to exposure during construction.

16-3 ASBESTOS: An asbestos survey for QUAD E has been completed. A copy of the report prepared by Soil and Land Use Technologies, Inc. is provided in Attachments 14, Asbestos Inspection Reports, Schofield Barracks, Quad E, Buildings 549 and 552.

16-3.1 Notification. Under 40 CFR Part 61, Subpart M, owners of buildings and/or their Contractors are required to notify applicable State and Local agencies and/or EPA Regional Office prior to any demolitions, or renovations of "facilities" where asbestos material will be disturbed. In addition, the Asbestos National Emissions Standards for Hazardous Air Pollutants (NESHAPS) requires special removal, handling, and disposal practices to be followed during demolitions and renovations of all facilities.

Contractor shall complete EPA notification form, postmarked at least 10 working days prior to the start of any demolition (including where no asbestos is present) or renovation activity that will disturb asbestos.

16-3.2 Removal: The selected contractor shall remove all asbestos containing material identified on project drawings for the renovation. The removal shall be in accordance with 29 CFR 1926.1101, Asbestos in Construction and Hawaii Administrative rules (HAR) Chapters 11-501 - 11-504. If additional asbestos is identified, that was not identified in the report, it shall be brought to the attention of the Government before proceeding with any action. After abatement, encapsulation shall be applied to these surfaces. Please see Asbestos Specification 13280 - Asbestos Abatement in Attachment 14.

16-3.3 Disposal. Asbestos containing building materials shall only be disposed of at Federal/State or local landfills approved for this purpose. Please see applicable State of Hawaii Laws under Section 16.9. Please review the document, State of Hawaii Department of Health Solid and Hazardous Waste Branch Office of Solid Waste Management Disposal of Asbestos-Containing Waste Materials (Eff. January 1, 2003)." All applicable laws under this guidance must be followed.

16-4 LEAD: Due to the age of the facility (Quad E), it is assumed that lead is present on all painted surfaces.

16-4.1 Removal. The selected contractor shall remove lead in accordance with 29 CFR 1926.62 and be a listed EPA certified lead firm on the EPA Region 9 website. Contractor shall remove all loose and flaking paint observed above the false ceiling and on walls, pillars that will not be demolished. The selected Contractor shall conduct work in accordance with 29 CFR 1926.62 and Section 13282, Lead in Construction (Attachment 15).

16-4.2 Disposal. Please review the document "State of Hawaii Department of Health Solid and

Hazardous Waste Branch Office of Solid Waste Management Disposal of Lead-Based Paint Waste (eff. January 1, 2003." Please see applicable Federal and State Laws under Section 16.9. The waste generated for Quad E is exempt from hazardous waste laws.

16-5 PCB LIGHT BALLASTS. The PCB Containing Ballasts in the fluorescent light fixtures must be removed prior to the disposal of the light fixture. A hazardous material survey has been conducted for Quad E), by Myounhee Noh and Associates. Please Refer to Attachment 13, "UST, PCB Ballast and Mercury Light Switch Inspection for Quad B, D, E and Building 3004. Schofield Barracks."

16-5.1 Identification of PCB Light Ballast (Capacitors):

The following guidelines should be used in identifying capacitors that contain PCB's:

- ❖ All capacitors manufactured through 1979 contain PCB's
- ❖ Capacitors manufactured after 1979 that do not contain PCBs are labeled "NO PCBs".
- ❖ If a capacitor is not labeled "NO PCBs", it is assumed to contain PCBs.

16-5.2 Disposal Options. Disposal of the PCB containing light ballasts is to be accomplished in accordance with 40 CFR 761, Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and use Prohibitions.

16-5.2.1 Subtitle D Landfills: Many small capacitors are disposed of in this manner due to low cost; however, the PCB's are not eliminated from the environment.

16-5.2.2 PCB Removal/Recycling. This option involves the removal of the four-ounce capacitor and the potting material from the ballast. The remaining materials are recycled for scrap metal. The only PCB recycling company on island is Saleesco USA, Honolulu HI and can be reached at 1-800-368-9095.

16-6 UNDERGROUND STORAGE TANKS: Disposal of contaminated soil resulting from the removal of underground heating oil tanks shall be sampled to determine if it is to be considered hazardous/non-hazardous or State of Hawaii Department of Health (HDOH) chemicals of concern in accordance with the Technical Guidance Manual for Underground Storage Tank Closure and Release Response. Chemicals of concern are associated with past site activities. If the soil is hazardous, it must be remediated locally or shipped to the mainland for disposal at a RCRA permitted landfill or incinerated. If the soil is non-hazardous it can be handled locally provided HDOH criteria are observed.

16-6.1 When petroleum impacted soil (discoloration and strong petroleum odor) is uncovered by the Contractor while excavating soil for the project, the COR representative from the Corps of Engineers, shall be notified of the discovery. The Contractor shall then notify the Directorate of Public Works (DPW) and the excavation shall stop. The Corps of Engineers technical advisor will visit the site and indicate the quantity of samples to be taken.

16.6.1.1 If UST's are located at the project site, the Contractor shall notify the COR. The COR will immediately notify the DPW and the excavation work around the UST shall stop until Government Representatives from DPW are able to observe site.

16.6.1.2 If an unsuspected UST is located and damaged during the excavation, the area shall be immediately coned off and the COR notified. The Government (DPW) shall be responsible in notifying State Department of Health that a spill occurred. The Contractor shall be responsible for providing information about the tank location and possible size to the COR.

16.6.1.3 The DPW shall inform the Army Corps of Engineers COR if they request the tank be removed. The tank shall be left in place until authorization by the DPW is provided..

16-6.2 The Contractor will be requested to conduct a Site Investigation (SI) at the project site by

collecting subsurface soil samples (using hydraulic direct push technique or drilling of borings) to fully delineate the vertical and horizontal extent of the contamination. Soil samples shall be analyzed in accordance with *Table 7.2 - Recommended Chemical Analysis for UST Closure and Release Response dated 9/18/92 of the Hawaii Department of Health (HDOH) Technical Guidance Manual for Underground Storage Tank Closure and Release Response (UST-TGM)*. Based on the laboratory analytical, and the site’s characteristics, the Contractor shall evaluate the migration pathways of the contaminant through the soil and the potential receptors of such contamination. Any required remediation of contamination shall be done under a separate action.

16-6.3 Sampling Analysis Plan (SAP)

16-6.3.1 The Contractor shall prepare a site-specific sampling and analysis plan. The plan shall identify responsibilities and qualifications of all personnel, the Contractor’s methods, equipment, procedures and tentative schedule for conducting fieldwork. The SAP shall contain maps showing the tentative sampling locations and rationale for selecting those locations. The plan shall be reviewed by the Government before the start of fieldwork. The plan shall include a detailed discussion of the technical approach to be used to implement the requirements for field activities, laboratory activities, and report of analytical data.

16-6.3.2 The SAP shall address chemical quality management including data quality objectives (DQOs) for on-site testing as well as laboratory testing. The SAP shall propose the process for assigning sample identification, field documentation, QA/QC samples, test methods, sample packing, chain of custody, and shipping etc. The SAP shall include provision for collecting and analyzing ten percent field QA/QC samples. The Government will designate an USACE validated laboratory for QA sample analysis.

16-6.3.3 Test Items and Suggested Analytical Methods

<i>Analyses and Sites</i>	<i>Method</i>
<i>-Polynuclear Aromatic Hydrocarbons (PAHs)</i>	<i>8100 8310 8270C</i>
<i>Aromatic and Halogenated Volatile Organic Compounds (including Methyl Ethyl Ketone)</i>	<i>8021B 8260B</i>
<i>Lead/Cadmium</i>	<i>6000/ 7000</i>
<i>PolyChlorinated Biphenyls (PCBs)</i>	<i>8082</i>
<i>TPH- Diesel/Oil Range Organics (excavated area)</i>	<i>8015B</i>
<i>TPH-Gasoline Range Organics</i>	<i>8015B</i>
<i>TCLP (stockpile)</i>	<i>TCLP</i>
<i>TPH- Diesel/Oil Range Organics (stockpiles)</i>	<i>8015B</i>

16-6.3.4 Site Investigation (SI) Report. The Contractor shall prepare a SI report to be submitted after evaluation of laboratory data.

The report shall, at a minimum, include the following elements:

- Summary of work performed including but not limited to the narrative of the field work, mobilization and demobilization, site set up, analytical data and location maps where samples were taken, etc.

- Relevant Conversation Records that had impacted the SOW, project costs.
- Evaluation of potential migration pathways and receptors.
- Source of contamination and recommended course of action.

The report shall be submitted to the Government for review. Should the levels exceed the regulatory clean up levels, determination of the disposal method will be discussed with the Contracting Officer's Representative and the State of Hawaii Department of Health, Hazard Evaluation & Emergency Response (HEER) Office.

16-7 MERCURY SWITCHES. The mercury containing switches, usually found in thermostats and silent light switches must be removed and disposed of properly prior to building demolition. Each switch may contain approximately 3,500 milligrams of mercury in a small electrical switch. The mercury may be disposed of at a hazardous waste landfill or recycled. A hazardous material survey has been conducted for Quad E. The report is located in Attachment 13, "UST, PCB Ballast and Mercury Light Switch Inspection for Quad B, D, E and Building 3004. Schofield Barracks."

16-8 SAFETY. Occupational Safety and Health Administration (OSHA) 29 CFR 1926, Safety and Health Regulations for Construction, will be followed at all times during construction for worker safety protection. Debris and soil containing fuels and hazardous construction materials are assumed to be a concern to worker health and the appropriate personnel protection equipment shall be used.

16-9 APPLICABLE FEDERAL AND STATE LAWS AND ACTIONS. Except as specified otherwise in the RFP, design and construction facilities shall comply with the latest editions (as of the date on the RFP) of the following. Major environmental federal/State and local guidance and regulations are listed below:

16-9.1 Asbestos

16-9.1.1 29 CFR 1926.1101 Asbestos in Construction

16-9.1.2 Hawaii Revised Statute (HRS) Chapter 342P.

16-9.1.3 Hawaii Administrative Rules (HAR), Title 11, Chapters 501 - 504.

16-9.1.4 Hawaii Administrative Rules, Title 12 Chapter 145.1, HIOSH Construction Standard, Asbestos.

16-9.1.5 Hawaii Administrative Rules, Title 16, Chapter 77, Subchapter 19, Asbestos Contractors, Department of Commerce and Consumer Affairs (DCCA)

16-9.1.6 Resource Conservation Recovery Act , Subtitle D

16-9.2 Lead

16.9.2.1 According to Section 403 of the Toxic Substance Control Act (TSCA), as amended, the Environmental Protection Agency (EPA) defines lead-based paint (LBP) as paint with lead levels equal to or exceeding 1.0 milligram per square centimeter (mg/cm²) or 0.5% by weight.

16-9.2.2 The Department of Housing and Urban Development (HUD) had similarly defined lead-based paint as any paint, varnish, shellac or other coating that contains lead equal of greater than 1.0 mg/cm² as measure by x-ray fluorescent (XRF) or laboratory analysis, or 0.5% by weight (5,000 ug/g, 5,000 ppm or 5,000 mg/kg) as measured by laboratory analysis.

16-9.2.3 In 1978, the consumer product Safety Commission (CPSC) banned the sale of residential paint containing greater than 0.06% lead (a trace amount). The CPSC also prohibited the used of such

paint in residences and other areas where consumers have direct contact with painted surfaces.

16-9.2.4 The EPA policy entitled, "Update on Lead-based Paint", dated August 2000 states that residential LBP waste is not subject to Resource Conservation & Recovery Act (RCRA) Subtitle C (federal hazardous waste) regulations. "Contractors can manage residential lead based paint waste as household waste." Residential sources of LBP waste include, but are not limited to single-family homes, apartment buildings, row houses, military barracks and college dormitories.

16-9.2.5 EPA defined "residential lead-based paint waste" in a Federal Register "Proposed Rule", October 23, 2001 (Vol. 66, No. 205). Residential lead-based paint waste is waste generated as a result of lead-based paint activities (including abatement, renovation, rehabilitation, and remodeling) in homes and other residences. The term includes, but is not limited to lead-based paint debris, chips, dust, and sludge. The term does not include LBP waste from demolition activities.

16-9.2.6 The EPA interprets residential LBP waste to be household waste under 40 CFR 261.4(b)(1).

16-9.2.7 Hazardous waste regulations, known on the federal level as RCRA Subtitle C are enforced within the State of Hawaii Under Hawaii Revised Statutes (HRS) 342J and Hawaii Administrative rules (HAR) Title 11, Chapters 261 through 280. Chapter 11-261, HAR defines "household waste" as "any material derived from households (including single and multiple residences, hotels and motel, bunk houses, ranger stations, crew quarters, campgrounds, picnic grounds and day use recreation areas)

16-9.2.8 Solid waste regulations, are enforced within the State of Hawaii under HRS 342H and HAR Title 11, Chapters 58.1 (11-58.1), and provide broader authority to the Department of Health (DOH) than Federal regulations, known as RCRA subtitle D.

16-9.2.9 Hawaii Administrative Rules, Title 12 Chapter 148.1, HIOSH Construction Standard, Lead.

16.10 MERCURY & UST

Solid and Hazardous Disposal Act as amended by the Resource Conservation and Recovery Act, and amendments (RCRA), Public Law 94-580, Solid Waste Disposal Act. Among other items, this Act requires Federal Agencies must obtain permits for their hazardous waste treatment, storage and disposal facilities. Proper shipping papers (manifests), packaging, and labeling must be used when transporting hazardous waste. The 1984 amendments apply the requirements to persons who generate as little as 100 kilograms of hazardous waste in any month and require registration and controls on underground tanks used for storing oil and hazardous waste.

16-11 POLYCHLORINATED BIPHENYLS (PCB)

16-11.1 Hawaii Administrative Rule (HAR) 11-273 and 40 CFR Part 273, Hazardous Waste Management Standards for Universal Waste Management.

16-11.2 Toxic Substances Control Act, Public Law 94-469, as amended. This Act requires Federal Agencies to properly manage the use and disposal of all toxic substances and management of Polychlorinated Biphenols (PCB) and items that contain PCB.

16.12 SAFETY AND HEALTH

Hawaii Revised Statute, Chapter 396, Occupational Safety and Health Law and Corps of Engineers, Engineering Manual (EM-385-1-1), Safety and Health Requirements Manual.