FORT BRAGG
NORTH CAROLINA

US Army Corps
of Engineers
Savannah District

Solicitation Number
DACA21-02-R-0047
16TH MILITARY POLICE BRIGADE BARRACKS COMPLEX
FY-03, Line Item 41631
Volume I of II – Sections 00010 through 01010 and
Appendices A through D of Section 01010
January 2003

PHASE TWO OF TWO PHASE DESIGN/BUILD SUBMITTAL PROCEDURE

THIS SOLICITATION IS UNRESTRICTED PURSUANT TO THE
"BUSINESS OPPORTUNITY DEVELOPMENT REFORM ACT OF 1988"
(PUBLIC LAW 100-656)

U.S. ARMY ENGINEER DISTRICT, SAVANNAH
CORPS OF ENGINEERS
100 WEST OGLETHORPE AVENUE
SAVANNAH, GEORGIA 31401-3640

NOTICE TO BIDDERS

- -

IMPORTANT

ON THE ENVELOPE SUBMITTING YOUR BID, IT IS IMPERATIVE:

1. THAT YOUR NAME AND ADDRESS APPEAR IN THE UPPER LEFT CORNER.

2. THAT THE FOLLOWING INFORMATION APPEAR IN THE LOWER LEFT CORNER:

SEALED BID

SOLICITATION NO. _____

DATE OF OPENING _____

TIME OF OPENING _____ **A.M.** _____ **P.M.**

BID FOR _____

- -

NOTES

1. CLAUSE 52.214-4001(c) "FACSIMILE MODIFICATION OF BIDS" NOW CONTAINS THE FOLLOWING LANGUAGE:

ALL FACSIMILE BID MODIFICATIONS SHALL CONTAIN A COMPLETED BID SCHEDULE. THE SPACES SHALL BE FILLED IN FOR UNIT PRICES, EXTENDED PRICES AND TOTAL BID PRICE.

2. For those contracts over $1,000,000 a SUBCONTRACTING PLAN is required of the successful LARGE BUSINESS bidder/offeror. LARGE BUSINESS bidders/offerors should submit this plan with the bid/offer. This requirement shall be one of the elements addressed by the Contracting Officer in determination of Contractor responsibility prior to award of a contract.

3. SMALL BUSINESSES are exempt from the requirement to submit a subcontracting plan. They are NOT exempt from the requirement in FAR 52.219-8 to make maximum practicable opportunity available to other small businesses for subcontracting.

4. SUBCONTRACTING PLAN REQUIREMENTS:

a. FAR CLAUSE 52.219-9: Paragraphs (d) and (e) address the items that shall be included in the subcontracting plan.

b. DFARS 219.704(a)(1) addresses the use of Historically Black Colleges and Universities and Minority Institutions (HBCU/MI) subcontractors which is a composite of the small disadvantaged business (SDB) goal.

5. DFARS 219.705-4(d) addresses review of the subcontracting plan for positive goals and the extent to which an offeror plans to use competition restricted to small disadvantaged business concerns (SDB), historically black colleges and universities, or minority institutions (HBCU/MI).

6. For additional information concerning subcontracting plan requirements, please call Ms. Gwennette Parker, Small Business Specialist, telephone (912) 652-5340.

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SOLICITATION, OFFER, AND AWARD *(Construction, Alteration, or Repair)*	1. SOLICITATION NO. DACA21-02-R-0047-0008	2. TYPE OF SOLICITATION [ ] SEALED BID (IFB) [X] NEGOTIATED *(RFP)*	3. DATE ISSUED 07-Oct-2002	PAGE OF PAGES 1 OF 240

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

4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO.	6. PROJECT NO.

7. ISSUED BY CODE DACA21	8. ADDRESS OFFER TO *(If Other Than Item 7)* CODE
U.S. ARMY ENGINEER DISTRICT, SAVANNAH 100 WEST OGLETHORPE AVE SAVANNAH GA 31401-3640	**See Item 7**
TEL: FAX:	TEL: FAX:

9. FOR INFORMATION CALL:	A. NAME	B. TELEPHONE NO. *(Include area code)* *(NO COLLECT CALLS)*
	ROSETTA J BRIGHTWELL	912/652-5903

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 no., date):*

Contract Specialist: Linda Elliott, Phone: (912) 652-5076
E-Mail: linda.g.elliott@sas02.usace.army.mil

Contracting Officer: Colleen O'Keefe, Phone: (912) 652-5075
E-Mail: colleen.j.okeefe@sas02.usace.army.mil

16th MP Barracks Complex
Fort Bragg, North Carolina
FY-03, Line Item 41631

The Construction Cost Limitation for this project is $44,750,000.00.

11. The Contractor shall begin performance within 5 calendar days and complete it within 900 calendar days after receiving [ ] award, [X] notice to proceed. This performance period is [X] mandatory, [ ] negotiable. *(See _____.)*

12 A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? *(If "YES," indicate within how many calendar days after award in Item 12B.)* [X] YES [ ] NO	12B. CALENDAR DAYS 10

13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 6 copies to perform the work required are due at the place specified in Item 8 by 02:00 PM *(hour)* local time 20 Mar 2003 *(date).* If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes 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 [X] 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.

SOLICITATION, OFFER, AND AWARD (Continued)

(Construction, Alteration, or Repair)

OFFER ***(Must be fully completed by offeror)***

14. NAME AND ADDRESS OF OFFEROR *(Include ZIP Code)*	15. TELEPHONE NO. *(Include area code)*
	16. REMITTANCE ADDRESS *(Include only if different than Item 14)* **See Item 14**
CODE / 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 to or greater than the minimum requirements stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.)*

AMOUNTS	SEE SCHEDULE OF PRICES

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

19. ACKNOWLEDGMENT 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

AWARD ***(To be completed by Government)***

21. ITEMS ACCEPTED:

22. AMOUNT	23. ACCOUNTING AND APPROPRIATION DATA

24. SUBMIT INVOICES TO ADDRESS SHOWN IN *(4 copies unless otherwise specified)*	**ITEM**	25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO ☐ 10 U.S.C. 2304(c) ☐ 41 U.S.C. 253(c)
26. ADMINISTERED BY CODE		27. PAYMENT WILL BE MADE BY: CODE

CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

☐ 28. NEGOTIATED AGREEMENT *(Contractor is required to sign this document and return _____ copies to issuing office.)* Contractor agrees to furnish and deliver all items or perform all work, requisitions 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 or incorporated by reference in or attached to this contract.

☐ 29. AWARD *(Contractor is not required to sign this document.)* Your 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.

30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN *(Type or print)*		31A. NAME OF CONTRACTING OFFICER *(Type or print)* TEL: EMAIL:	
30B. SIGNATURE	30C. DATE	31B. UNITED STATES OF AMERICA BY	31C. AWARD DATE

Section 00010 - Solicitation Contract Form

SUPPLIES OR SERVICES AND PRICES/COSTS

SCHEDULE

16TH MILITARY POLICE BRIGADE BARRACKS COMPLEX
FORT BRAGG, NORTH CAROLINA

TOTAL BASE BID PLUS OPTION NOS. 1 THROUGH 6
(ITEMS 0001 THROUGH 00012)---------- $_____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	BASE BID - Design Effort and Engineering Services During Construction for the Base Bid and Options Complete	1	Lump Sum	$_____	$_____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002	Base Bid - Construction of 16th Military Police Brigade Barracks Buildings, Complete to the 5-Foot Building Line	1	Lump Sum	$_____	$_____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003	BASE BID - Construction of 16th Military Police Brigade Company Operations Facilities Complete to the 5-Foot Building Line	1	Lump Sum	$_____	$_____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004		1	Lump Sum	$_____	$_____
	BASE BID - Construction of 16th Military Police Brigade Battalion Headquarters Building, Complete to the 5-Foot Building Line				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0005		1	Lump Sum	$_____	$_____
	BASE BID - Construction of16th Military Police Brigade Headquarters Building, Complete to the 5-Foot Building Line				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0006		1	Lump Sum	$_____	$_____
	BASE BID - Site Preparation and Development Including Utilities (Everything Outside the 5-Foot Building Line for Barracks Building, Company Operations Faciities, Battalion Headquarters Building and Brigade Headquarters, Complete, Except Option 1)				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0007	OPTION 1 - Demolition of Building Numbers 26105, 26807, 25713, 25517, 25519 and 25420, capping of utilities and related pavement removal, Complete	1	Lump Sum	$_____	$_____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0008	OPTION 2 - Construction of 16th Military Police Brigade Military Police (MP) Station, Complete to the 5-Foot Building Line	1	Lump Sum	$_____	$_____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0009	OPTION 3 - Site Preparation and Development Including Utilities (Everything Outside the 5-Foot Building Line for the Military Police Station, Complete	1	Lump Sum	$_____	$_____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0010	OPTION 4 - Extended Warranties for All Facilities Except the MP Station, Complete	1	Lump Sum	$_____	$_____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0011	OPTION 5 - Extended Warranties for the MP Station, Complete	1	Lump Sum	$_____	$_____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0012	OPTION 6 - Addition (Circuit) to Woodruff Street Substation and New Primary Distribution Feeder from Substation to Project Site, Complete	1	Lump Sum	$_____	$_____

PREPROPOSAL CONFERENCE (Also see Section 00100, Clause 52.236-27, for additional details)

1. GENERAL: The Government will hold a preproposal conference at Fort Bragg, NC on 30 January 2003 beginning at 8:30 a.m. in the conference room at the Corps of Engineers Area Office at Bldg. 3-1933, Butner Road. All Offerors are strongly encouraged to attend this conference. The conference will be conducted in two parts. In the first part, the Government will hold an information session, at which time it will explain the evaluation process and the key elements of the technical requirements. Government will then conduct a site visit of the site designated for this project and adjacent facilities. Following the site visit, there will be a question and answer session. On the evening of 30 January , the Government will present an overview and brief training on the RFI database.

NOTES:

NOTE NO. 1. To better facilitate the evaluation of prices, all pricing modifications are to be submitted on copies of the latest schedules as published in the solicitation or the latest amendment thereto on the Internet. In lieu of indicating additions/deductions to contract line items (CLINS), all offerors should state their revised prices for each item. The company name should be indicated on the face of the schedule to preclude being misplaced.

NOTE NO. 2. Offerors must insert a price on all numbered items of the Schedule. Failure to do so will disqualify the bid.

NOTE NO. 3. If a modification to an offer is submitted and provides for a lump-sum adjustment to the total estimated cost, the application of the lump-sum adjustment to each unit price and/or lump-sum price in the schedule must be stated. If it is not stated, the offeror agrees that the lump-sum adjustment shall be applied on a pro-rata basis to every CLIN on the schedule.

NOTE NO. 4. The field overhead costs through the contract duration are inclusive in the offered price for the contract, regardless of whether a compressed schedule is proposed.

NOTE NO. 5. **COST LIMITATION**:

a. The contract award for design and construction shall not exceed the following limitations (offerors are under no obligation to approach these amounts):

Total Work FY 03 $44,750,000.00

b. The above cost limitations are based on Conventional Design/Review/Approval/Construction and/or Fast Track Design/Construction Schedule.

NOTE NO. 6. Technical Evaluation Proposal Rating Worksheet, Factor 2-5b, Schedule Information, states that your proposed schedule will be evaluated more favorably if it indicates project completion prior to the Government indicated maximum duration. In addition to those submittals, indicate below your proposed contract completion period and intent of fast tracking. The contract completion days the offeror proposes will be made part of the contract and of which liquidated damages will apply.

Contract Performance Period _____ calendar days

Fast Tracking _____ yes _____ no

DELIVERY INFORMATION

CLIN	DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
0001	N/A	N/A	N/A	N/A
0002	N/A	N/A	N/A	N/A
0003	N/A	N/A	N/A	N/A
0004	N/A	N/A	N/A	N/A
0005	N/A	N/A	N/A	N/A

0006	N/A	N/A	N/A	N/A
0007	N/A	N/A	N/A	N/A
0008	N/A	N/A	N/A	N/A
0009	N/A	N/A	N/A	N/A

CLAUSES INCORPORATED BY FULL TEXT

52.232-4001 COST LIMITATION – JUNE 1999

The contract award for design and construction shall not exceed $ 44,750,000 for this project. Offerors are under no obligation to approach this amount.

(End of Clause)

Section 00100 - Bidding Schedule/Instructions to Bidders

CLAUSES INCORPORATED BY FULL TEXT

52.204-6 DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER (JUN 99)

(a) The offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation "DUNS" followed by the DUNS number that identifies the offeror's name and address exactly as stated in the offer.

(b) If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one. A DUNS number will be provided immediately by telephone at no charge to the offeror. For information on obtaining a DUNS number, the offeror, if located within the United States, should call Dun and Bradstreet at 1-800-333-0505. The offeror should be prepared to provide the following information:

(1) Company name.

(2) Company address.

(3) Company telephone number.

(4) Line of business.

(5) Chief executive officer/key manager.

(6) Date the company was started.

(7) Number of people employed by the company.

(8) Company affiliation.

(c) Offerors located outside the United States may obtain the location and phone number of the local Dun and Bradstreet Information Services office from the Internet Home Page at http://www.customerservice@dnb.com. If an offeror is unable to locate a local service center, it may send an e-mail to Dun and Bradstreet at globalinfo@mail.dnb.com.

(End of provision)

52.211-2 AVAILABILITY OF SPECIFICATIONS LISTED IN THE DOD INDEX OF SPECIFICATIONS AND STANDARDS (DODISS) AND DESCRIPTIONS LISTED IN THE ACQUISITION MANAGEMENT SYSTEMS AND DATA REQUIREMENTS CONTROL LIST, DOD 5010.12-L (DEC 1999)

Copies of specifications, standards, and data item descriptions cited in this solicitation may be obtained--

(a) From the ASSIST database via the Internet at http://assist.daps.mil; or

(b) By submitting a request to the--Department of Defense Single Stock Point (DoDSSP), Building 4, Section D, 700 Robbins Avenue, Philadelphia, PA 19111-5094, Telephone (215) 697-2667/2179, Facsimile (215) 697-1462.

(End of provision)

52.211-14 NOTICE OF PRIORITY RATING FOR NATIONAL DEFENSE USE (SEP 1990)

Any contract awarded as a result of this solicitation will be a DO rated order certified for national defense use under the Defense Priorities and Allocations System (DPAS) (15 CFR 700), and the Contractor will be required to follow all of the requirements of this regulation.

(End of provision)

52.214-4002 HAND-CARRIED OR MAILED BIDS/PROPOSALS:

All bids/proposals must be clearly identified with the contractor's name and address and Notice to Bidder OF-17 label affixed to the lower left corner of the outermost wrapper indicating the Invitation No., Date of Bid/Proposal Opening, Time of Opening, and Bid/Proposals For (title of Project). Bids/Proposals not properly identified on the outermost wrapper may not be accepted if received later than the time set for opening of bids/proposals, as there may be no way to determine the exact time of receipt.

The Government will not be responsible for bids/proposals delivered to any location or to anyone other than those designated to receive bids/proposals on its behalf as indicated below.

Bids/Proposals delivered by commercial carrier and those sent by U.S. Mail, including U.S. Express Mail, must be addressed as indicated below. Bids/proposals shall not be addressed to any specific person.

U.S. Army Engineer District, Savannah
ATTN: CESAS-CT-C
100 West Oglethorpe Avenue
Savannah, Georgia 31401-3640

Bids/Proposals sent by U.S. Mail or delivered by commercial carrier must be received by mailroom personnel on the first floor of 100 West Oglethorpe Avenue in sufficient time to be delivered to the bid opening room prior to the time set for opening of bids/proposals.

Even if bids/proposals are addressed correctly according to this clause, use of United States Postal Service Express Mail may result in delivery to the Savannah District Post Office Box instead of 100 West Oglethorpe Avenue, which may delay receipt of bids/proposals.

Hand-carried bids/proposals delivered more than a half-hour before bid opening must also be delivered to mailroom personnel on the first floor.

Hand-carried bids/proposals delivered within a half-hour of bid opening must be delivered to the bid opening room on the second floor. Bidders must allow sufficient time to pass through security on the first floor and be escorted to the second floor.

52.214-5000 APPARENT CLERICAL MISTAKES (MAR 1995)--EFARS

(a) For the purpose of initial evaluations of bids, the following will be utilized in the resolving arithmetic discrepancies found on the face of bidding schedule as submitted by the bidder:

(1) Obviously misplaced decimal points will be corrected;
(2) Discrepancy between unit price and extended price, the unit price will govern;
(3) Apparent errors in extension of unit prices will be corrected;
(4) Apparent errors in addition of lump-sum and extended prices will be corrected.
(b) For the purpose of bid evaluation, the government will proceed on the assumption that the bidder intends his bid to be evaluated on basis of the unit prices, the totals arrived at by resolution of arithmetic discrepancies as provided above and the bid will be so reflected on the abstract of bids.
(c) These correction procedures shall not be used to resolve any ambiguity concerning which bid is low.
(End of statement)

52.215-1 INSTRUCTIONS TO OFFERORS--COMPETITIVE ACQUISITION (MAY 2001)

(a) Definitions. As used in this provision--

“Discussions” are negotiations that occur after establishment of the competitive range that may, at the Contracting Officer's discretion, result in the offeror being allowed to revise its proposal.

“In writing or written” means any worded or numbered expression which can be read, reproduced, and later communicated, and includes electronically transmitted and stored information.

“Proposal modification” is a change made to a proposal before the solicitation's closing date and time, or made in response to an amendment, or made to correct a mistake at any time before award.

“Proposal revision” is a change to a proposal made after the solicitation closing date, at the request of or as allowed by a Contracting Officer as the result of negotiations.

“Time”, if stated as a number of days, is calculated using calendar days, unless otherwise specified, and will include Saturdays, Sundays, and legal holidays. However, if the last day falls on a Saturday, Sunday, or legal holiday, then the period shall include the next working day.

(b) Amendments to solicitations. If this solicitation is amended, all terms and conditions that are not amended remain unchanged. Offerors shall acknowledge receipt of any amendment to this solicitation by the date and time specified in the amendment(s).

(c) Submission, modification, revision, and withdrawal of proposals. (1) Unless other methods (e.g., electronic commerce or facsimile) are permitted in the solicitation, proposals and modifications to proposals shall be submitted in paper media in sealed envelopes or packages (i) addressed to the office specified in the solicitation, and (ii) showing the time and date specified for receipt, the solicitation number, and the name and address of the offeror. Offerors using commercial carriers should ensure that the proposal is marked on the outermost wrapper with the information in paragraphs (c)(1)(i) and (c)(1)(ii) of this provision.

(2) The first page of the proposal must show--

(i) The solicitation number;

(ii) The name, address, and telephone and facsimile numbers of the offeror (and electronic address if available);

(iii) A statement specifying the extent of agreement with all terms, conditions, and provisions included in the solicitation and agreement to furnish any or all items upon which prices are offered at the price set opposite each

item;

(iv) Names, titles, and telephone and facsimile numbers (and electronic addresses if available) of persons authorized to negotiate on the offeror's behalf with the Government in connection with this solicitation; and

(v) Name, title, and signature of person authorized to sign the proposal. Proposals signed by an agent shall be accompanied by evidence of that agent's authority, unless that evidence has been previously furnished to the issuing office.

(3) Submission, modification, or revision, of proposals.

(i) Offerors are responsible for submitting proposals, and any modifications, or revisions, so as to reach the Government office designated in the solicitation by the time specified in the solicitation. If no time is specified in the solicitation, the time for receipt is 4:30 p.m., local time, for the designated Govemment office on the date that proposal or revision is due.

(ii)(A) Any proposal, modification, or revision received at the Government office designated in the solicitation after the exact time specified for receipt of offers is “late” and will not be considered unless it is received before award is made, the Contracting Officer determines that accepting the late offer would not unduly delay the acquisition; and--

(1) If it was transmitted through an electronic commerce method authorized by the solicitation, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of proposals; or

(2) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of offers and was under the Government's control prior to the time set for receipt of offers; or

(3) It is the only proposal received.

(B) However, a late modification of an otherwise successful proposal that makes its terms more favorable to the Government, will be considered at any time it is received and may be accepted.

(iii) Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the proposal wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

(iv) If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at the office designated for receipt of proposals by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation, the time specified for receipt of proposals will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume.

(v) Proposals may be withdrawn by written notice received at any time before award. Oral proposals in response to oral solicitations may be withdrawn orally. If the solicitation authorizes facsimile proposals, proposals may be withdrawn via facsimile received at any time before award, subject to the conditions specified in the provision at 52.215-5, Facsimile Proposals. Proposals may be withdrawn in person by an offeror or an authorized representative, if the identity of the person requesting withdrawal is established and the person signs a receipt for the proposal before award.

(4) Unless otherwise specified in the solicitation, the offeror may propose to provide any item or combination of items.

(5) Offerors shall submit proposals in response to this solicitation in English, unless otherwise permitted by the

solicitation, and in U.S. dollars, unless the provision at FAR 52.225-17, Evaluation of Foreign Currency Offers, is included in the solicitation.

(6) Offerors may submit modifications to their proposals at any time before the solicitation closing date and time, and may submit modifications in response to an amendment, or to correct a mistake at any time before award.

(7) Offerors may submit revised proposals only if requested or allowed by the Contracting Officer.

(8) Proposals may be withdrawn at any time before award. Withdrawals are effective upon receipt of notice by the Contracting Officer.

(d) Offer expiration date. Proposals in response to this solicitation will be valid for the number of days specified on the solicitation cover sheet (unless a different period is proposed by the offeror).

(e) Restriction on disclosure and use of data. Offerors that include in their proposals data that they do not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes, shall--

(1) Mark the title page with the following legend: This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed--in whole or in part--for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this offeror as a result of--or in connection with-- the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in sheets [insert numbers or other identification of sheets]; and

(2) Mark each sheet of data it wishes to restrict with the following legend: Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal.

(f) Contract award. (1) The Government intends to award a contract or contracts resulting from this solicitation to the responsible offeror(s) whose proposal(s) represents the best value after evaluation in accordance with the factors and subfactors in the solicitation.

(2) The Government may reject any or all proposals if such action is in the Government's interest.

(3) The Government may waive informalities and minor irregularities in proposals received.

(4) The Government intends to evaluate proposals and award a contract without discussions with offerors (except clarifications as described in FAR 15.306(a)). Therefore, the offeror's initial proposal should contain the offeror's best terms from a cost or price and technical standpoint. The Government reserves the right to conduct discussions if the Contracting Officer later determines them to be necessary. If the Contracting Officer determines that the number of proposals that would otherwise be in the competitive range exceeds the number at which an efficient competition can be conducted, the Contracting Officer may limit the number of proposals in the competitive range to the greatest number that will permit an efficient competition among the most highly rated proposals.

(5) The Government reserves the right to make an award on any item for a quantity less than the quantity offered, at the unit cost or prices offered, unless the offeror specifies otherwise in the proposal.

(6) The Government reserves the right to make multiple awards if, after considering the additional administrative costs, it is in the Government's best interest to do so.

(7) Exchanges with offerors after receipt of a proposal do not constitute a rejection or counteroffer by the Government.

(8) The Government may determine that a proposal is unacceptable if the prices proposed are materially unbalanced between line items or subline items. Unbalanced pricing exists when, despite an acceptable total evaluated price, the price of one or more contract line items is significantly overstated or understated as indicated by the application of cost or price analysis techniques. A proposal may be rejected if the Contracting Officer determines that the lack of balance poses an unacceptable risk to the Government.

(9) If a cost realism analysis is performed, cost realism may be considered by the source selection authority in evaluating performance or schedule risk.

(10) A written award or acceptance of proposal mailed or otherwise furnished to the successful offeror within the time specified in the proposal shall result in a binding contract without further action by either party.

(11) The Government may disclose the following information in postaward debriefings to other offerors:

(i) The overall evaluated cost or price and technical rating of the successful offeror;

(ii) The overall ranking of all offerors, when any ranking was developed by the agency during source selection;

(iii) A summary of the rationale for award; and

(iv) For acquisitions of commercial items, the make and model of the item to be delivered by the successful offeror.

(End of provision)

52.215-1 INSTRUCTIONS TO OFFERORS--COMPETITIVE ACQUISITION (MAY 2001)—ALTERNATE I (OCT 1997)

(a) Definitions. As used in this provision--

“Discussions” are negotiations that occur after establishment of the competitive range that may, at the Contracting Officer's discretion, result in the offeror being allowed to revise its proposal.

In writing, writing, or written” means any worded or numbered expression which can be read, reproduced, and later communicated, and includes electronically transmitted and stored information.

“Proposal modification” is a change made to a proposal before the solicitation's closing date and time, or made in response to an amendment, or made to correct a mistake at any time before award.

“Proposal revision” is a change to a proposal made after the solicitation closing date, at the request of or as allowed by a Contracting Officer as the result of negotiations.

“Time”, if stated as a number of days, is calculated using calendar days, unless otherwise specified, and will include Saturdays, Sundays, and legal holidays. However, if the last day falls on a Saturday, Sunday, or legal holiday, then the period shall include the next working day.

(b) Amendments to solicitations. If this solicitation is amended, all terms and conditions that are not amended remain unchanged. Offerors shall acknowledge receipt of any amendment to this solicitation by the date and time specified in the amendment(s).

(c) Submission, modification, revision, and withdrawal of proposals. (1) Unless other methods (e.g., electronic commerce or facsimile) are permitted in the solicitation, proposals and modifications to proposals shall be submitted

in paper media in sealed envelopes or packages (i) addressed to the office specified in the solicitation, and (ii) showing the time and date specified for receipt, the solicitation number, and the name and address of the offeror. Offerors using commercial carriers should ensure that the proposal is marked on the outermost wrapper with the information in paragraphs (c)(1)(i) and (c)(1)(ii) of this provision.

(2) The first page of the proposal must show--

(i) The solicitation number;

(ii) The name, address, and telephone and facsimile numbers of the offeror (and electronic address if available);

(iii) A statement specifying the extent of agreement with all terms, conditions, and provisions included in the solicitation and agreement to furnish any or all items upon which prices are offered at the price set opposite each item;

(iv) Names, titles, and telephone and facsimile numbers (and electronic addresses if available) of persons authorized to negotiate on the offeror's behalf with the Government in connection with this solicitation; and

(v) Name, title, and signature of person authorized to sign the proposal. Proposals signed by an agent shall be accompanied by evidence of that agent's authority, unless that evidence has been previously furnished to the issuing office.

(3) Submission, modification, or revisions of proposals. (i) Offerors are responsible for submitting proposals, and any modifications, revisions, or withdrawals, so as to reach the Government office designated in the solicitation by the time specified in the solicitation. If no time is specified in the solicitation, the time for receipt is 4:30 p.m., local time, for the designated Government office on the date that proposal or revision is due.

(ii)(A) Any proposal, modification, or revision received at the Government office designated in the solicitation after the exact time specified for receipt of offers is “late” and will not be considered unless it is received before award is made, the Contracting Officer determines that accepting the late offer would not unduly delay the acquisition; and--

(1) If it was transmitted through an electronic commerce method authorized by the solicitation, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of proposals; or

(2) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of offers and was under the Government's control prior to the time set for receipt of offers; or

(3) It is the only proposal received.

(B) However, a late modification of an otherwise successful proposal that makes its terms more favorable to the Government, will be considered at any time it is received and may be accepted.

(iii) Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the proposal wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

(iv) If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at the office designated for receipt of proposals by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation, the time specified for receipt of proposals will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume.

(v) Proposals may be withdrawn by written notice received at any time before award. Oral proposals in response to oral solicitations may be withdrawn orally. If the solicitation authorizes facsimile proposals, proposals may be withdrawn via facsimile received at any time before award, subject to the conditions specified in the provision at 52.215-5, Facsimile Proposals. Proposals may be withdrawn in person by an offeror or an authorized representative, if the identity of the person requesting withdrawal is established and the person signs a receipt for the proposal before award.

(4) Unless otherwise specified in the solicitation, the offeror may propose to provide any item or combination of items.

(5) Offerors shall submit proposals in response to this solicitation in English, unless otherwise permitted by the solicitation, and in U.S. dollars, unless the provision at FAR 52.225-17, Evaluation of Foreign Currency Offers, is included in the solicitation.

(6) Offerors may submit modifications to their proposals at any time before the solicitation closing date and time, and may submit modifications in response to an amendment, or to correct a mistake at any time before award.

(7) Offerors may submit revised proposals only if requested or allowed by the Contracting Officer.

(8) Proposals may be withdrawn at any time before award. Withdrawals are effective upon receipt of notice by the Contracting Officer.

(d) Offer expiration date. Proposals in response to this solicitation will be valid for the number of days specified on the solicitation cover sheet (unless a different period is proposed by the offeror).

(e) Restriction on disclosure and use of data. Offerors that include in their proposals data that they do not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes, shall--

(1) Mark the title page with the following legend: This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed--in whole or in part--for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this offeror as a result of--or in connection with-- the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in sheets [insert numbers or other identification of sheets]; and

(2) Mark each sheet of data it wishes to restrict with the following legend: Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal.

(f) Contract award. (1) The Government intends to award a contract or contracts resulting from this solicitation to the responsible offeror(s) whose proposal(s) represents the best value after evaluation in accordance with the factors and subfactors in the solicitation.

(2) The Government may reject any or all proposals if such action is in the Government's interest.

(3) The Government may waive informalities and minor irregularities in proposals received.

(4) The Government intends to evaluate proposals and award a contract after conducting discussions with offerors whose proposals have been determined to be within the competitive range. If the Contracting Officer determines that the number of proposals that would otherwise be in the competitive range exceeds the number at which an efficient competition can be conducted, the Contracting Officer may limit the number of proposals in the competitive range to the greatest number that will permit an efficient competition among the most highly rated proposals. Therefore, the offeror's initial proposal should contain the offeror's best terms from a price and technical standpoint.

(5) The Government reserves the right to make an award on any item for a quantity less than the quantity offered, at the unit cost or prices offered, unless the offeror specifies otherwise in the proposal.

(6) The Government reserves the right to make multiple awards if, after considering the additional administrative costs, it is in the Government's best interest to do so.

(7) Exchanges with offerors after receipt of a proposal do not constitute a rejection or counteroffer by the Government.

(8) The Government may determine that a proposal is unacceptable if the prices proposed are materially unbalanced between line items or subline items. Unbalanced pricing exists when, despite an acceptable total evaluated price, the price of one or more contract line items is significantly overstated or understated as indicated by the application of cost or price analysis techniques. A proposal may be rejected if the Contracting Officer determines that the lack of balance poses an unacceptable risk to the Government.

(9) If a cost realism analysis is performed, cost realism may be considered by the source selection authority in evaluating performance or schedule risk.

(10) A written award or acceptance of proposal mailed or otherwise furnished to the successful offeror within the time specified in the proposal shall result in a binding contract without further action by either party.

(11) The Government may disclose the following information in postaward debriefings to other offerors:

(i) The overall evaluated cost or price and technical rating of the successful offeror;

(ii) The overall ranking of all offerors, when any ranking was developed by the agency during source selection;

(iii) A summary of the rationale for award; and

(v) For acquisitions of commercial items, the make and model of the item to be delivered by the successful offeror.

(End of provision)

52.215-4001 FACSIMILE MODIFICATION OF OFFERS (Ref. FAR 52.215-1(c)) (JUL 1999)

(a) Definition. "Facsimile proposal modification," as used in this solicitation means a modification to a proposal that has been submitted in accordance with the solicitation.
(b) Offerors may submit facsimile proposal modifications to this solicitation. These facsimile proposal modifications must arrive at the place, and by the time specified in the solicitation.
(c) ALL FACSIMILE BID MODIFICATIONS SHALL CONTAIN A COMPLETED BID SCHEDULE. THE SPACES SHALL BE FILLED IN FOR UNIT PRICES, EXTENDED PRICES AND TOTAL BID PRICE.
(d) Facsimile proposal modifications must contain the signature of an official of the company.
(e) Facsimile receiving data and compatibility characteristics are as follows:
(1) Telephone number of receiving facsimile equipment: 912-652-6001
(2) Compatibility characteristics - CCTTT Group 3, 2, 1

(f) If the offeror chooses to transmit a facsimile proposal modification, the Government will not be responsible for any failure attributable to the transmission or receipt of the facsimile modification, including, but not limited to, the following:

(1) Receipt of garbled or incomplete modification.
(2) Availability or condition of the receiving facsimile equipment.
(3) Incompatibility between the sending and receiving equipment.
(4) Delay in transmission or receipt of modification.
(5) Failure of the offeror to properly identify the modification.
(6) Illegibility of modification.
(7) Security of modification data.

(End of provision)

52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a Firm-Fixed Price contract resulting from this solicitation.

(End of clause)

52.219-4001 SUBCONTRACTING PLAN FOR SMALL BUSINESS CONCERNS
(SEP 2002 CESAS-CT)

(a) In accordance with FAR Clause 52.219-9, large businesses must submit a subcontracting plan. A sample subcontracting plan is located in Section 00800.

(b) The subcontracting targets (expressed in terms of percentages of total planned subcontracting dollars) of the Savannah District are as follows:

Small Business	-	57.2%
Small Disadvantaged Business	-	8.9%
HUBZone Small Business		3.0%
Women-Owned Business	-	8.1%
Veteran-Owned Small Business		0%*
Service-Disabled Veteran-Owned Small Business	-	3.0%**

If you cannot reach the above-stated targets, you must provide written justification with your subcontracting plan detailing the reasons you cannot meet the requirements.

*(c) While Savannah District does not have a specific target for subcontracting with Veteran-Owned small businesses, this must be addressed in any subcontracting plan.

**(d) Service-disabled Veteran-owned Small Business (SD/VOSB) is a composite of Veteran-Owned Small Business. The SD/VOSB target must be included in the Veteran-Owned small business target.

52.225-12 NOTICE OF BUY AMERICAN ACT REQUIREMENT-- CONSTRUCTION MATERIALS UNDER TRADE

AGREEMENTS (MAY 2002)

(a) Definitions. Construction material, designated country construction material, domestic construction material, foreign construction material, and NAFTA country construction material, as used in this provision, are defined in the clause of this solicitation entitled “Buy American Act--Construction Materials under Trade Agreements” (Federal Acquisition Regulation (FAR) clause 52.225-11).

(b) Requests for determination of inapplicability. An offeror requesting a determination regarding the inapplicability of the Buy American Act should submit the request to the Contracting Officer in time to allow a determination before submission of offers. The offeror shall include the information and applicable supporting data required by paragraphs (c) and (d) of FAR clause 52.225-11 in the request. If an offeror has not requested a determination regarding the inapplicability of the Buy American Act or Balance of Payments Program before submitting its offer, or has not received a response to a previous request, the offeror shall include the information and supporting data in the offer.

(c) Evaluation of offers. (1) The Government will evaluate an offer requesting exception to the requirements of the Buy American Act, based on claimed unreasonable cost of domestic construction materials, by adding to the offered price the appropriate percentage of the cost of such foreign construction material, as specified in paragraph (b)(4)(i) of FAR clause 52.225-11.

(2) If evaluation results in a tie between an offeror that requested the substitution of foreign construction material based on unreasonable cost and an offeror that did not request an exception, the Contracting Officer will award to the offeror that did not request an exception based on unreasonable cost.

(d) Alternate offers. (1) When an offer includes foreign construction material, other than designated country or NAFTA country construction material, that is not listed by the Government in this solicitation in paragraph (b)(3) of FAR clause 52.225-11, the offeror also may submit an alternate offer based on use of equivalent domestic, designated country, or NAFTA country construction material.

(2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer, and a separate price comparison table prepared in accordance with paragraphs (c) and (d) of FAR clause 52.225-11 for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.

(3) If the Government determines that a particular exception requested in accordance with paragraph (c) of FAR clause 52.225-11 does not apply, the Government will evaluate only those offers based on use of the equivalent domestic, designated country, or NAFTA country construction material, and the offeror shall be required to furnish such domestic, designated country, or NAFTA country construction material. An offer based on use of the foreign construction material for which an exception was requested--

(i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or

(ii) May be accepted if revised during negotiations.

(End of provision)

52.225-12 NOTICE OF BUY AMERICAN ACT REQUIREMENT-- CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (MAY 2002) ALTERNATE II (MAY 2002)

(a) Definitions. “Construction material,” “designated country construction material,” “domestic construction material,” and “foreign construction material,” as used in this provision, are defined in the clause of this solicitation

entitled “Buy American Act --Construction Materials under Trade Agreements” (Federal Acquisition Regulation (FAR) clause 52.225-11).

(b) Requests for determination of inapplicability. An offeror requesting a determination regarding the inapplicability of the Buy American Act should submit the request to the Contracting Officer in time to allow a determination before submission of offers. The offeror shall include the information and applicable supporting data required by paragraphs (c) and (d) of FAR clause 52.225-11 in the request. If an offeror has not requested a determination regarding the inapplicability of the Buy American Act before submitting its offer, or has not received a response to a previous request, the offeror shall include the information and supporting data in the offer.

(c) Evaluation of offers. (1) The Government will evaluate an offer requesting exception to the requirements of the Buy American Act, based on claimed unreasonable cost of domestic construction materials, by adding to the offered price the appropriate percentage of the cost of such foreign construction material, as specified in paragraph (b)(4)(i) of FAR clause 52.225-11.

(2) If evaluation results in a tie between an offeror that requested the substitution of foreign construction material based on unreasonable cost and an offeror that did not request an exception, the Contracting Officer will award to the offeror that did not request an exception based on unreasonable cost.

(d) Alternate offers. (1) When an offer includes foreign construction material, other than designated country construction material, that is not listed by the Government in this solicitation in paragraph (b)(3) of FAR clause 52.225-11, the offeror also may submit an alternate offer based on use of equivalent domestic or designated country construction material.

(2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer, and a separate price comparison table prepared in accordance with paragraphs (c) and (d) of FAR clause 52.225-11 for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.

(3) If the Government determines that a particular exception requested in accordance with paragraph (c) of FAR clause 52.225-11 does not apply, the Government will evaluate only those offers based on use of the equivalent domestic or designated country construction material, and the offeror shall be required to furnish such domestic or designated country construction material. An offer based on use of the foreign construction material for which an exception was requested--

(i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or

(ii) May be accepted if revised during negotiations.

(End of provision)

52.232-4001 COST LIMITATION – JUNE 1999

The contract award for design and construction shall not exceed $44,750,000.00 for this project. Offerors are under no obligation to approach this amount.

(End of Clause)

52.232-4006 SUBJECT TO AVAILABILITY OF FUNDS STATEMENT (SEP 1999

SASCT) (Ref. AFARS 5101.602-2)

"This is a high priority requirement as defined in Army Federal Acquisition Regulation (AFAR) Supplement 5101.602-2. Subject to the availability of funds, the accounting classification will be: 213 2050 308 8021 P100000 3200 S09133. This statement is not a commitment of funds. Funds will not be available for this project until the FY-03 Military Construction Authorization and Appropriation Bills are signed."

(End of provision)

52.233-2 SERVICE OF PROTEST (AUG 1996)

(vi) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from

District Engineer
U.S. Army Engineer District, Savannah
ATTN: CESAS-CT-C
100 West Oglethorpe Avenue
Savannah, Georgia 31401-3640

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of provision)

52.236-27 SITE VISIT (CONSTRUCTION) (FEB 1995)

(a) The clauses at 52.236-2, Differing Site Conditions, and 52.236-3, Site Investigations and Conditions Affecting the Work, will be included in any contract awarded as a result of this solicitation. Accordingly, offerors or quoters are urged and expected to inspect the site where the work will be performed.

(b) Site visits may be arranged during normal duty hours by contacting:
Name: Mr. Allen Hand
Address: Bldg. 3-1933, Butner Road, Fort Bragg, North Carolina 23810-5000
Telephone: (910) 396-1211 ext. 103

(c) An organized site visit has been scheduled for:

PREPROPOSAL CONFERENCE

1. GENERAL: The Government will hold a preproposal conference at Fort Bragg, NC on 30 January 2003 beginning at 8:30 a.m. in the conference room at the Corps of Engineers Area Office at Bldg. 3-1933, Butner Road. All Offerors are strongly encouraged to attend this conference. The conference will be conducted in two parts. In the first part, the Government will hold an information session, at which time it will explain the evaluation process and the key elements of the technical requirements. Government will then conduct a site visit of the site designated for this project and adjacent facilities. Following the site visit, there will be a question and answer session. On the evening of 30 January , the Government will present an overview and brief training on the RFI database.

2. QUESTIONS/ANSWERS: The Government requests that questions be provided in writing in advance of the conference. Questions may be submitted via e-mail to Mr. Cleveland Harding at cleveland.i.harding@sas02.usace.army.mil. Alternatively, questions may be mailed or faxed to (912) 652-6006, Attention: Cleveland Harding. At the conference the Government will accept and attempt to answer additional written questions after it has addressed advance questions.

3. REGISTRATION: Contractors are requested to register prior to the conference by providing the name and firm for each attendee. This information should be submitted to John Moore at linda.g.elliott@sas02.usace.army.mil (912) 652-5828.

4. ENTERING FORT BRAGG: At the Fort Bragg gate, attendees will be required to show proof of insurance and registration for the vehicle, a picture I.D. for each person in the vehicle, and should be prepared for a vehicle search. Allow sufficient time to be processed through the gate.

5. ACCOMMODATIONS: Attendees are responsible for their own travel and hotel accommodations.

(End of provision)

52.236-28 PREPARATION OF PROPOSALS--CONSTRUCTION (OCT 1997)

(a) Proposals must be (1) submitted on the forms furnished by the Government or on copies of those forms, and (2) manually signed. The person signing a proposal must initial each erasure or change appearing on any proposal form.

(b) The proposal form may require offerors to submit proposed prices for one or more items on various bases, including--

(1) Lump sum price;

(2) Alternate prices;

(3) Units of construction; or

(4) Any combination of paragraphs (b)(1) through (b)(3) of this provision.

(c) If the solicitation requires submission of a proposal on all items, failure to do so may result in the proposal being rejected without further consideration. If a proposal on all items is not required, offerors should insert the words “no proposal” in the space provided for any item on which no price is submitted.

(d) Alternate proposals will not be considered unless this solicitation authorizes their submission.

(End of provision)

52.236-4011 Disclosure of Magnitude of Construction (FAR 36.204 and DFARS 236.204)

The estimated price range for this project is between $25,000,000.00 and $50,000,000.00. .

252.204-7004 REQUIRED CENTRAL CONTRACTOR REGISTRATION (NOV 2001)

(a) Definitions.

As used in this clause--

(1) Central Contractor Registration (CCR) database means the primary DoD repository for contractor information required for the conduct of business with DoD.

(2) Data Universal Numbering System (DUNS) number means the 9-digit number assigned by Dun and Bradstreet Information Services to identify unique business entities.

(3) Data Universal Numbering System +4 (DUNS+4) number means the DUNS number assigned by Dun and Bradstreet plus a 4-digit suffix that may be assigned by a parent (controlling) business concern. This 4-digit suffix may be assigned at the discretion of the parent business concern for such purposes as identifying subunits or affiliates of the parent business concern.

(4) Registered in the CCR database means that all mandatory information, including the DUNS number or the DUNS+4 number, if applicable, and the corresponding Commercial and Government Entity (CAGE) code, is in the CCR database; the DUNS number and the CAGE code have been validated; and all edits have been successfully completed.

(b)(1) By submission of an offer, the offeror acknowledges the requirement that a prospective awardee must be registered in the CCR database prior to award, during performance, and through final payment of any contract resulting from this solicitation, except for awards to foreign vendors for work to be performed outside the United States.

(2) The offeror shall provide its DUNS or, if applicable, its DUNS+4 number with its offer, which will be used by the Contracting Officer to verify that the offeror is registered in the CCR database.

(3) Lack of registration in the CCR database will make an offeror ineligible for award.

(4) DoD has established a goal of registering an applicant in the CCR database within 48 hours after receipt of a complete and accurate application via the Internet. However, registration of an applicant submitting an application through a method other than the Internet may take up to 30 days. Therefore, offerors that are not registered should consider applying for registration immediately upon receipt of this solicitation.

(c) The Contractor is responsible for the accuracy and completeness of the data within the CCR, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. To remain registered in the CCR database after the initial registration, the Contractor is required to confirm on an annual basis that its information in the CCR database is accurate and complete.

(d) Offerors and contractors may obtain information on registration and annual confirmation requirements by calling 1-888-227-2423, or via the Internet at http://www.ccr.gov.

(End of clause)

Section 00110 - Proposal Submission, Requirements and Instructions

PROPOSAL SUBMISSION

Section 00110

PROPOSAL SUBMISSION REQUIREMENTS AND INSTRUCTIONS

1. PROPOSAL OVERVIEW.

1.1 General. In as much as the proposal will describe the capability of the offeror to perform any resultant contract, as well as describe its understanding of the requirements of the Statement of Work, it should be specific and complete in every detail. The proposal should be prepared simply and economically, providing straight-forward, concise delineation of capabilities to satisfactorily perform the contract being sought. The proposal should therefore be practical, legible, clear and coherent.

1.2 Proposal Submissions and the Two (2) Phase Design-Build Process. This process requires potential contractors to submit their performance and capability information initially (Phase 1) for review and consideration by the Government. Following the review, evaluation, and rating of these proposals, the Government will select up to five of the highest rated contractors to receive the technical requirements package and provide a technical and cost proposal for consideration by the Government at Phase 2. The technical and cost proposals of the selected contractors, will be reviewed by the Government. The technical information contained in this Phase 2 proposal will be reviewed and evaluated by the Government in accordance with the evaluation criteria set out in Section 00120 – PART 2, PHASE 2 EVALUATION MANUAL. The final evaluation rating used for comparison, selection, and award will reflect both the rating received in Phase 1 and the evaluation rating received in Phase 2.

1.3 FOR ALL THOSE CONTRACTORS WHO COMPETE IN BOTH PHASE 1 AND PHASE 2, THE CONTRACTOR'S PROPOSAL SHALL BE DEFINED AS ALL INFORMATION WHICH WAS SUBMITTED IN RESPONSE TO THE REQUIREMENTS OF BOTH PHASES OF THE SOLICITATION.

1.4 Compliance Statement: The Offerors selected to compete in Phase 2 are required to certify that all items submitted in its technical proposal comply with the RFP requirements and any differences, deviations or exceptions have been identified and explained. Offerors are required to complete the statement and submit it with their technical proposal. Even if there are no differences, deviations or exceptions, the Offeror must submit the Compliance Statement and state that none exist.

Statement of Compliance

[*Insert name of the offeror*] hereby certifies that all items submitted in this proposal and final design documents (after contract award) comply with the solicitation requirements. The criteria specified in Request for Proposal No. [*Insert RFP Number*] are binding contract criteria and in case of any conflict after award, between [*Insert RFP Number*] and the contractor's proposal, the Request for Proposal criteria shall govern unless there is a written and signed agreement between the contractor and the Government waiving a specific requirement. Should this proposal result in the award of a contract. this statement will be included on each sheet of drawings and on the cover of the specifications.

1.5 Exceptions. Exceptions to the contractual terms and conditions of the solicitation (e.g., standard company terms and conditions) must not be included in the proposal.

2. PHASE 1 PROPOSAL SUBMISSION INSTRUCTIONS

2.1 Who May Submit.

2.1.1 Proposals may be submitted by firms formally organized as design/build entities, or by design firms and construction contractors that have associated specifically for this project. In the latter case, a single design firm or construction contractor may offer more than one proposal by entering into more than one such association. For the purpose of this solicitation, no distinction is made between formally organized design/build entities and project-specific design/build associations. Both are referred to as the design/build offeror, (or simply "Offeror"), or the design/build contractor, (or simply "Contractor"), after award of a contract.

2.1.2 Any legally organized Offeror may submit a proposal.

2.2 Where to Submit. Offerors shall submit their proposal packages to the Savannah District at the address shown in Block 7 of Standard Form 1442.

2.3 Submission Deadline. Proposals shall be received by the Savannah District no later than the time and date specified in Block 13 of Standard Form 1442.

2.4 General Requirements.

2.4.1 In order to effectively and equitably evaluate all proposals, the Contracting Officer must receive information sufficiently detailed to allow review and evaluation by the Government.

2.4.2 Tabs. Proposal shall be organized and tabbed as shown.

2.4.3 Size of Printed Matter Submissions.

2.4.3.1 Written materials shall be on 8-1/2" x 11" paper.

2.4.3.2 The proposals shall contain a detailed table of contents. If more than one binder is used, the complete table of contents shall be included in each. Any materials submitted but not required by this solicitation, (such as company brochures), shall be relegated to appendices.

2.4.4 Number of Copies. Offerors shall submit six (6) hard copies of their Phase One Proposal.

2.4.5 Electronic Copy of Submissions. In addition to the hard copies of the proposal, Offerors shall also submit the Phase 1 Proposal on a CD ROM disk. The proposal should be in MS Word, Adobe Acrobat PDF file, or WordPerfect format. The electronic version shall be either a single file tabbed in the same order as the hard copy or multiple files hyperlinked to a single table of contents.

2.5 Submission Format.

2.5.1 The Phase One Proposal will be tabbed and submitted in a three ring binder in the following format:

PHASE 1 PROPOSAL

TAB A

SF 1442

Section 00600 – Representations and Certifications

PROPOSAL DATA SHEET – include Offeror's DUNS # and A-E ACASS ID # and Contractor's CCASS #

TAB B – FACTOR 1-1 Offeror Past Performance Information

PAST PERFORMANCE INFORMATION Sheets

TAB C – FACTOR 1-2 Technical Approach Narrative

TAB D – FACTOR 1-3 Corporate Relevant Specialized Experience

CORPORATE RELEVANT SPECIALIZED EXPERIENCE Sheets (Example Projects)

TAB E – FACTOR 1-4 Offeror Sustainable Design Experience

SUSTAINABLE DESIGN EXPERIENCE Sheets (Example Projects)

TAB F - Other Information

2.6 TAB B – FACTOR 1-1 Offeror Past Performance Information. A sample Past Performance Evaluation Questionnaire is included at the end of this section. The offeror shall identify the three completed projects (or substantially complete) to be used for reference and evaluation purposes and provide a questionnaire to the Point of Contact for each project listed for completion. When completed, these forms shall be mailed, faxed or e-mailed to the Savannah District Contract Specialist identified in the sample transmittal letter provided. It is the contractor's responsibility to ensure that the reference documentation is provided. The Government may not make additional requests for past performance information from the references. Copies of the evaluation form shall be provided to the Savannah District directly from the reference. Projects from which questionnaires are received shall have been completed within three years of the date of the solicitation. The Government may contact sources other than those provided by the Offeror for information with respect to past performance. These other sources may include CCASS (Construction Contractor Appraisal Support System), ACASS (Architect-Engineer Contractor Appraisal Support System), telephone interviews with organizations familiar with the Offeror's performance, and Government personnel with personal knowledge of the Offeror's performance capability. The experience of individuals will not be credited under this factor but will be evaluated under "Project Key Personnel" in Phase 2.

2.7 TAB C – FACTOR 1-2 Technical Approach Narrative. Describe in general terms how the offeror will approach the design and construction of these facilities. Technical Approach Narrative shall be limited to a maximum of ten (10) typewritten pages, 12 pitch, and single spaced**.** At a minimum the narrative should address the following:

Does the Offeror demonstrate a suitable understanding of the process to enable it to adequately address and anticipate the risks associated with Design/Build processes?

The roles and responsibilities of the various sub-contractors for both design and construction shall be addressed.

How does the Offeror continue the design phase of the project and incorporate User comments and reviews into the process?

The Offeror's Design Quality Control Program shall be briefly described.

What is the design team's involvement throughout the construction period?

How does the Offeror integrate construction subcontractors into the design process?

What are the Offeror's processes for handling construction and design problems.

Offeror's implementation plans to utilize "fast track" procedures on this project whereby preliminary site construction activities can begin prior to 100% completion of the design documents.

Offerors are cautioned that this narrative shall not exceed ten (10) pages and that the Government review staff will review and evaluate only the information contained on the first ten pages in this section.

2.8 TAB D – FACTOR 1-3 Corporate Relevant Specialized Experience. Provide examples (at least three) of projects for which the offeror has been responsible. The examples should be as similar as possible to this solicitation in project type and scope. Provide references (with contract names and telephone numbers) for all examples cited. Each example shall indicate the general character, scope, location, cost, and date of completion of the project. If the offeror represents the combining of two or more companies for the purpose of this RFP, each company shall list project examples. Example projects must have been completed not later than three years prior to the date of the solicitation. The experience of individuals will not be credited under this factor but will be evaluated under "Project Key Personnel" in Phase 2.

2.9 TAB E – FACTOR 1-4 Offeror Sustainable Design Experience. Provide examples of at least three projects for which the Offeror has been responsible and which included sustainable features. Specific experience in LEED/SPIRIT application will be given more favorable consideration. Provide references (with contract names and telephone numbers) for all examples cited. Each example shall indicate the general character, scope, location, cost, and date of completion of the project. Each example shall also indicate what sustainable features the project included, a quantification of the results as applicable (i.e. "diverted 25% of construction waste") and the role(s) the Offeror had in the accomplishment of each sustainable goal. If the Offeror represents the combining of two or more companies for the purpose of this RFP, each company shall list project examples. Example projects must have been completed not later than three years prior to the date of the solicitation.

2.10 No cost information shall be included in the Phase 1 proposal package.

3. PHASE 2 PROPOSAL SUBMISSION INSTRUCTIONS

3.1 Who May Submit. Proposals may be submitted by the Offerors who receive written notification from the Savannah District Contracting Officer that their firm has been selected to participate in Phase 2 of this solicitation. No more than five Offerors will compete in Phase 2 under typical circumstances. The Government intends to announce the names of Offerors selected for Phase 2 in the FEDBIZOPS website unless an Offeror provides written notification and explanation for not wanting this information released.

3.2 General Requirements.

3.2.1 Title Page. Include the title of the solicitation, solicitation number, Offeror name, and date of the submittal.

3.2.2 Table of Contents. The proposals shall contain a detailed table of contents. If more than one binder is used, the complete table of contents shall be included in each. Any materials submitted but not required by this solicitation, (such as company brochures), shall be relegated to appendices.

3.2.3 Tabs. Proposal shall be organized and tabbed as shown.

3.2.4 Size of Printed Matter Submissions.

3.2.4.1 Written materials: 8-1/2" x 11" format.

3.2.5.2 Drawing sheets:

3.2.5.2.1 Offerors shall submit one set of full size drawings.

3.2.5.2.2 Offerors shall submit six sets of half size drawings.

3.2.5.3.3 Drawings shall be bound.

3.2.5.3.4 Drawings submitted for the proposal may be done with any CAD software available to the Offeror. However, the drawings for 60% and Final design submittals will be done and submitted in the latest version of Microstation format only. Conversions from AutoCAD are discouraged because of file incompatibility and the added work necessary for the conversion.

3.2.5.4 Electronic Submission. In addition to the hard copies required above, all Offerors that advance to Phase 2 shall submit on a CD-ROM their complete submittal. This includes the Phase One Submission and the Phase Two Submission (Volumes I and II) including all drawings. Written portions of the proposal should be in MS Word, Adobe Acrobat PDF, or WordPerfect format. The electronic version shall be either a single file tabbed in the same order as the hard copy or multiple files hyperlinked to a single table of contents. Drawings should be in one of the following formats: Microstation DGN, Adobe Acrobat PDF, Max View CAL (with Sendable INDEX.SVD), or Auto Cad DWG. Any portion of the proposal not available in electronic format, i.e. cut sheets, should be scanned in Adobe Acrobat PDF format. The CD ROM must be clearly labeled by solicitation number, project name, installation, and Offeror's name.

3.3 PHASE 2 PROPOSAL, VOLUME I – Contract Requirements & Price Proposal

3.3.1 Submit original and one (1) copy of VOLUME I - Contract Requirements & Price Proposal. This information shall be submitted in separate three-ring binders labeled "Contract Requirements & Price Proposal."

3.3.2 Volume I – CONTRACT REQUIREMENTS & PRICE PROPOSAL shall be organized as follows:

VOLUME I - Contract Requirements & Price Proposal

TAB A – Standard Form 1442, completed and signed by an authorized person from the company or team.

TAB B – Proposal Schedule “Supplies or Services Price/Cost”

TAB C – Bid Bond

TAB D – Section 00600 – Representations and Certifications .

TAB E – Financial Information (e.g. latest financial statement, annual reports, Dun & Bradstreet Ratings, and or number, etc.)

TAB F – Statement of Compliance (See paragraph 1.4)

3.4 PHASE 2 PROPOSAL, VOLUME II – Technical information.

3.4.1 Number of copies. Offerors shall submit six (6) copies of VOLUME II of their Phase 2 Proposal and six (6) half-size copies of all drawings and one (1) full-size copy of all drawings.

3.4.2 This information shall be submitted in separate three-ring binders labeled "Technical Information." This category consists of design documents, drawings, sketches, outline specifications, design analysis, catalog cuts, and other information.

3.4.3 VOLUME II – TECHNICAL INFORMATION shall be organized as follows:

VOLUME II – TECHNICAL INFORMATION

TAB A – BETTERMENTS

TAB B – FACTOR 2-1: BUILDING FUNCTION AND AESTHETICS

TAB C – FACTOR 2-2: BUILDING SYSTEMS

TAB D – FACTOR 2-3: SITE DESIGN

TAB E – FACTOR 2-4: SUSTAINABLE DESIGN CONSIDERATIONS

TAB F – FACTOR 2-5: OFFEROR MANAGEMENT PLANS AND SCHEDULES

TAB G – Any other information provided by the Offeror

DRAWINGS (Minimum drawings required are outlined in each section)

3.4.4 The technical data described in Paragraphs 4 through 9 below shall be submitted as part of the formal proposal. All altemate designs shall be graphically described on separate drawings from the basic proposal. Offerors are advised that the required data listed below will be utilized for technical review and evaluation and used for determination of a "Quality Rating" by a Technical Evaluation Team. Materials indicated in the design/construction criteria, but not indicated in the Offeror's specifications, will be assumed to be included and a part of the proposal.

3.4.5 Incomplete proposals. Failure to submit all the data indicated in this section may be cause for determining a proposal incomplete and, therefore, not considered for technical evaluation in Phase 2, or for subsequent award.

4. TAB A – BETTERMENTS

4. 1 Definition of Betterments. A “Betterment” is defined as any component or system, which meets and exceeds the minimum requirements, stated in the Request for Proposal. This includes all proposed betterments listed in accordance with the “Proposal Submission Requirements” of this TAB, and all Government identified betterments.

4.2 During discussions, the Government may request that betterments be removed from the Offeror’s proposal in order to reduce costs.

4.3 The minimum requirements of the contract are identified in the Request for Proposal. All betterments offered in the proposal become a requirement of the awarded contract.

4.4 Submission of Betterments. The Offeror shall identify “Betterments” in the following manner:

Short descriptive title of the betterment and how it exceeds RFP requirements.

Narrative of the proposed betterment and rationale as to why it has been included.

Reference in the Offeror's proposal where the betterment is shown or specified.

Estimated value of the betterment.

5. TAB B – FACTOR 2-1: BUILDING FUNCTION AND AESTHETICS

5.1 Architectural Narrative. State the proposed image or design theme of this proposal. Describe interior design theme. Describe any special features or finishes that contribute to the proposed design theme. Describe construction of typical interior partitions. List all architectural deviations included in the proposal.

5.2 Certifications.

5.2.1 "U" Value Certification. Provide signed and dated certification that the final design shall meet "U" values required in the RFP for each exterior wall assembly and roof assemblies.

5.2.2 Mechanical Room Certification. Provide signed and dated certification that the mechanical room is of sufficient size to accommodate and serve all mechanical equipment shown and specified by the mechanical design.

5.3 List of Specifications. Provide a list of titles of specifications proposed to use in the design. It is not necessary to include sections required in this RFP.

5.4 Architectural Drawings. Drawings shall be provided in sufficient detail for reviewers to visualize how the designer has interpreted the RFP functional and operational requirements in his proposal. Drawings shall include, but not be limited to, the following:

5.4.1 Floor Plan(s). Floor plans for each floor shall be drawn accurately to scale and shall be shown at 1/8 " = 1'-0" minimum scale unless otherwise noted. Show gross floor area tabulations on lower portion of plate. Label all spaces. Indicate net area of all spaces. Show all doors, windows, plumbing fixtures, toilet partitions and built-in casework. Show required workstations as dashed-line blocks to demonstrate that the spaces accommodate the required workstations. Show overall building dimensions. If the floor plan(s) must be drawn in segments in order to comply with the requirements on the proper scale, provide a separate 1/16"=1'-0" or smaller scale composite floor plan showing exterior walls, interior partitions, circulation elements and cross referencing for enlarged floor plans.

5.4.2 Building Elevations. Exterior elevations shall be drawn to 1/8"=1'-0" scale for all four major building elevations. If elevations must be drawn in segments in order to comply with the requirements on proper scale, provide separate 1/16"=1'-0" or smaller composite elevations as required to fit on one sheet. Elevations shall show all windows, doors, canopies, and platforms. All building exterior materials and roof pitches shall be noted clearly.

5.4.3 Typical Wall Section. Provide one exterior wall section indicating the predominant exterior wall and wall/roof intersection condition. Show overall wall thickness and eave height. Note all materials. Wall section shall be unbroken where practical and drawn at ¾"= 1'-0" scale.

5.4.4 Roof Plan. Roof plans for each building shall be drawn accurately to scale and shall be shown at least 1/16 " = 1'-0" minimum scale unless otherwise noted. All roof slopes shall be indicated.

5.4.5 Room Finish Schedule. Provide a room finish schedule indicating the following for all spaces: floor, wall base, wainscot, wall and ceiling finishes; wainscot height, wall base height and ceiling height.

5.4.6 Enlarged Barracks Module Plan. Provide an enlarged plan of typical barracks module at minimum ¼" = 1'0" scale with furnishings and appliances shown.

6 TAB C – FACTOR 2-2: BUILDING SYSTEMS

6.1. STRUCTURAL SUBMITTAL REQUIREMENTS. The structural portion of the proposal must outline the proposed methods and materials of design and construction. The submittal shall include the following:

6.1.1 Structural Narrative. Provide a general description of the scope of the project and all of the major structures. Give overall building dimensions and a description of the principal features such as wall and roof construction proposed. If the building is irregularly shaped, explain where seismic joints will be placed to create regular shapes or provide a statement that a dynamic analysis of the building will be performed.

6.1.1.1 Provide a description of the framing system chosen.

6.1.1.2 Provide a description of the lateral load resisting system and how these loads will be transmitted to the foundations.

6.1.1.3 Provide a description of the anticipated foundations based on information provided in the RFP.

6.1.1.4 Provide a list of special design features including features to be used in compliance with the AT/FP requirements.

6.1.2 Fire Resistance Statement. State the required fire resistance criteria for all portions of the structural system and the proposed method of meeting these requirements.

6.1.3 Design Analysis. State the live loads for which the facility is to be designed. Include roof and floor loads. Provide the wind loads, lateral earth pressure loads, seismic loads, etc. as applicable. Complete analysis is not necessary, only tabulation of loads is required.

6.1.4 Outline Specifications. The proposer shall provide a list of titles of specifications he proposes to use in the design, if sections are not provided in this RFP.

6.2 MECHANICAL SUBMITTAL REQUIREMENTS.

6.2.1 Heating, Ventilating, and Air Conditioning Narrative. Narrative of design analysis will contain the following:

6.2.1.1 Design conditions used in calculations - inside and outside temperatures, personnel load, outside air or ventilation requirements, U-factors, and other special conditions.

6.2.1.2 Block loads for heating and cooling shall be calculated using ASHRAE-based methods. Where passive solar applications prove feasible and cost effective, the Offeror shall employ a load calculation method that can incorporate all applicable passive solar factors. All load calculation software must be traditionally used by the industry.

6.2.1.3 A description of all HVAC systems to be considered in a life cycle cost analysis (LCCA). A LCCA, using the program LCCID, of each of the HVAC systems described shall be submitted by the successful contractor – after

contract award, verifying that the system selected for the building is the most efficient and is within the energy budget. For additional requirements, see Section 01020.

6.2.1.4. A description of piping systems including type of pipe, insulation requirements, and whether concealed or exposed, including catalog cuts.

6.2.1.5 Energy Budget Certification. Provide a certification that the final design will comply with Energy Budget requirements of specification Section 01020.

6.2.1.6 Controls System Narrative. A description of the proposed Direct Digital Controls System to be used.

6.2.1.7 Catalog Cuts. Brief description of various items of equipment, including catalog cuts. Manufacturers, level of quality, warranties, etc. are more important to the evaluators than selections of specific sizes or capacities.

6.2.1.8 Specifications. List of specifications to be used.

6.2.2 Plumbing Narrative. Plumbing analysis to determine number of fixture units, cold and hot water capacity requirements, and equipment or capacities of miscellaneous and special systems.

6.2.2.1 Fixture determination listing quantity and type of fixtures for both men's and women's toilets, and other fixtures such as drinking water fountains, service sinks, etc.

6.2.2.2 Description of domestic water heating and storage equipment, including capacity, type (gas, electric, boiler, water), materials, and insulation.

6.2.2.3 Piping types and location (concealed or exposed), together with material proposed and insulation requirements.

6.2.2.4. Brief description of miscellaneous systems such as compressed air (capacity, pressure, piping, location of air outlets, etc.), roof drainage, natural gas (pressure, quantity, and equipment to be served), and other special systems.

6.2.2.5 Catalog Cuts. Brief description of various items of equipment, including catalog cuts. Manufacturers, level of quality, warranties, etc. are more important to the evaluators than selections of specific sizes or capacities.

6.2.2.6 Specifications. The proposer shall provide a list of titles of specifications he proposes to use in the design, if section not provided in this RFP.

6.2.3 Mechanical Drawings. Provide plan view showing the following:

6.2.3.1 Heating, Ventilating, and Air Conditioning Drawings. Heating, ventilating, and air conditioning equipment layout - chillers or refrigeration compressors, boilers, pumps, condensers or cooling tower, air handling units, fans, hoods, and other items of major equipment required for the facility.

6.2.3.2 Plumbing Drawings. Plumbing fixture layout, floor and area drains, and plumbing equipment layout (hot water generator, storage tank, air compressors, etc.).

6.2.3.3 Mechanical Room(s) Drawings. Provide a 1/4 inch = 1 foot scale (1:50) plan showing equipment layout of major components in mechanical rooms. The Engineer/ Architect of record will be required to certify that adequate space has been provided for safe operation of equipment and maintenance capability. Mechanical equipment layouts shall comply with Section 01020.

6.3 ELECTRICAL DESIGN SUBMITTAL REQUIREMENTS.

6.3.1 Interior Electrical System Design Narrative. Provide an overview of the interior electrical design describing the major features of the power, lighting, communication and security systems.

6.3.2 Interior Lighting System. Provide an Interior Concept Lighting Schedule tabulating room names, fixture types, lighting intensities, and basis of design (e.g., IES criteria, RFP requirement). The schedule shall include but not be limited to the following typical areas:

6.3.2.1 Barracks Building. Building Exterior, Laundry Room, Communications Room, Corridors, and Barracks Typical Module (Clothes Closet, Bathroom, Living/Sleeping Area, Kitchen/Dining Area and Interior Corridor).

6.3.2.2 MP Station. Building Exterior, Open Office, Private Office, Executive Office, Corridor, Lobby, Conference Room, Cell, Aerobics Room, Evidence Room, Physical Conditioning Room, Locker Room, Classroom and Sullivan Room.

6.3.2.3 Brigade Headquarters. Building Exterior, Open Office, Private Office, Executive Office, Corridor, Lobby and Conference Room.

6.3.2.4 Battalion Headquarters. Building Exterior, Open Office, Private Office, Executive Office, Corridor, Lobby and Conference Room.

6.3.2.5 Company Operations Facility (COF). Building Exterior, Open Office, Private Office, Corridor, Lobby, Classroom and Conference Room.

6.3.3 Interior Electrical Distribution. For typical areas within the various buildings, describe the type of power and communication wiring systems proposed (e.g., cable tray, rigid metallic conduit, rigid nonmetallic conduit, electrical metallic tubing, nonmetallic-sheathed cable).

6.3.4 Interior Lighting Fixture Catalog Cuts. Provide a single catalog cut sheet for each fixture type. This cut sheet shall be correlated to the Concept Lighting Schedule and shall establish the aesthetic, physical, functional and photometric characteristics of the fixture and shall establish a level of quality.

6.3.5 Interior Electrical Equipment Catalog Cuts. Provide catalog cuts of electrical devices and equipment.

6.3.6 Interior Electrical Drawings. Provide lighting, power and signal plans for the proposed Barracks Typical Module Plan. The plans shall indicate locations of devices and fixtures only; no wiring shall be shown. Fixtures shall be marked to correlate to the Interior Concept Lighting Schedule.

6.3.7 Exterior Electrical Distribution System Design Narrative. Provide an overview of the exterior electrical design describing the major features of the power, lighting and communication systems.

6.3.8 Exterior Lighting System. Provide an Exterior Concept Lighting Schedule tabulating areas (e.g., roadway, walkway, parking, security), fixture types, pole heights, lighting intensities, and basis of design (e.g., IES criteria, RFP requirement).

6.3.9 Exterior Lighting Fixture Catalog Cuts. Provide a single catalog cut sheet for each fixture type and pole. This cut sheet shall be correlated to the Exterior Concept Lighting Schedule and shall establish the aesthetic, physical, functional and photometric characteristics of the fixture and shall establish a level of quality.

6.3.10 Exterior Electrical Equipment Catalog Cuts. Provide catalog cuts of electrical distribution equipment.

6.3.11 Exterior Electrical Drawings. Provide a separate electrical site plan indicating all existing to be removed, existing to remain, and new utility lines and equipment required to serve the project. Utility lines shown shall include electrical power lines, telephone and other communication lines. The plan shall also show all buildings, trees, roads and driveways, parking areas, and any other items necessary for functional and operating adequacy. Indicate the connection points and the approximate routing of lines through the site. Indicate the locations of transformers, switches and cable termination cabinets. Also indicate on the drawings the lighting fixture type proposed within each area (no layout is required).

6.3.12 Specifications. Provide a list of specifications proposed for use in the design but not included in the RFP.

6.3.13 Energy Conservation Design Narrative. Energy conservation measures shall be indicated. The narrative shall describe measures and techniques that are proposed in the electrical design that will conserve energy.

6.4 FIRE PROTECTION DESIGN SUBMITTAL REQUIREMENTS.

6.4.1. Fire Protection Narrative. A narrative will be provided addressing the following items for each building type in this project:

6.4.1.1 Automatic fire extinguishing systems and hose standpipe systems: Identification of all areas provided with sprinkler protection and the type of sprinkler system provided, sprinkler hazard classification for these areas, areas protected by other automatic suppression systems and the type system provided, and buildings provided with hose standpipe systems and the type of standpipe system provided and indication if a fire pump is required and where the pump will be located.

6.4.1.2 The type of alarm and detection system, location of the fire alarm and detection equipment including fire alarm control panel, and catalog data sheets of major components

6.4.2 Life Safety Certification. Provide certification by the fire protection engineer that the building design shall comply with the life safety/fire protection provisions of the applicable criteria indicated in Section 01020.

6.4.3 Credentials of Fire Protection Engineer. Provide the credentials of the fire protection engineer in the proposal submittal. The design of the fire protection features shall be by a qualified fire protection engineer meeting one of the following conditions: a.) An engineer with a Bachelor of Science or Masters of Science Degree in fire protection engineering from an accredited university engineering program, plus a minimum of 5 years' work experience in fire protection engineering. b.) A registered professional engineer who has passed the National Council of Examiners for Engineering and Surveys (NCEE) fire protection engineering written examination. c.) A registered P.E. in a related engineering discipline with a minimum of 5 years' experience dedicated to fire protection engineering.

6.4.4 Specifications. Provide a list of all UFGS guide specifications to be used.

7. TAB D – FACTOR 2-3 SITE DEVELOPMENT SUBMITTAL REQUIREMENTS. The site development portion of the proposal must outline the proposed site demolition, layout, grading, storm drainage, and erosion control practices of design and construction. A topographic survey will be provided at Phase II to the Offerors in English units. The proposal shall include the following:

7.1 General Site Development Narrative. State the purpose, functional layout of all major structures in relation to parking and access drives, the extent of grading and drainage system, as well as erosion control measures in sufficient detail to delineate and characterize functional features and the desired image or visual appearance of this project. The narrative shall reflect setbacks requirements as indicated in Section 01020, as well as the visual characteristics of the surrounding topography. Include a statement addressing Force Protection Compliance, as well as a statement addressing Storm Water Management such that post development runoff does not exceed pre development runoff flows. Also include a statement of any requirements for traffic control signals and signage plans. Provide a brief statement of the exterior construction materials to be used in the project.

7.2 Erosion Control Narrative. Provide a narrative of the erosion control measures to be used in this project.

7.3 Landscape Narrative. The landscape design narrative shall include an analysis of existing site conditions, including an indication of existing trees and plant materials that are to be saved and remain on the project site. The narrative shall indicate specific site problems related to proposed development and the rationale for proposed plant selection and locations. The narrative shall also include a list of suggested types and sizes of plant materials to be used (use native plants as much as possible). It shall also discuss type of irrigation to be provided, type, quantity and location of site furniture, per Fort Bragg Installation Design Guide's (IDG). The narrative shall discuss what materials are being included in the project that comes from recycled materials and renewable resources. It shall also indicate coordination with AT/FP requirements.

7.4 Site Utilities Narrative. Design Narrative shall include Description of the utility systems chosen.

7.5 Design Calculations. Submit calculations for the following:

7.5.1 Storm drainage pipe design calculations shall not be required for the proposal submittal. Storm drainage pipe design calculations for the final design submittal shall show that the pipes are adequately sized using the Rational Method in accordance with technical instructions.

7.5.2 Storm water detention pond calculation shall show that the pond is adequately sized such that post development runoff does not exceed pre-development runoff in accordance with Fort Bragg Installation Design Guide requirements. Storm water detention can be designed as an underground system.

7.6 Outline Specifications. Provide a list of titles of specifications proposed for use in the design, if the section is not provided in this RFP.

7.7 Site Development Drawings. Drawings shall be shown at 1 in = 30ft scale (or 1:400 in metric units). All drawings shall have a Legend, North Arrow, and graphic bar scales. Drawings shall be provided in sufficient detail and annotated so that Government may visualize how the designer has interpreted the user's functional and operational requirements in his proposal for final design. Drawings shall include, the following:

7.7.1 Demolition Plan and Tree Removal Plan. The demolition plan shall also show the limits of tree removal.

7.7.2 Layout Plan. This plan should show the building layout in relation to parking areas, access drives, and pedestrian walkways. This plan should show overall dimensions of parking lots, minimum building setbacks (in compliance with Force Protection), minimum setback from Streets or Roads, utility pad locations (this includes dumpster, electrical and mechanical equipment pads). The Layout Plan will also show location of sidewalks, access drives, retaining walls, fencing, site steps, service vehicle drives, pedestrian bridges, sports fields, handicap parking spaces, and curb and gutter. The use of patterning shall be required to distinguish between concrete pavement and bituminous asphalt pavement. The submitted layout plan shall also show dimensions of major items such as building, parking lot rather than coordinates of corner points.

7.7.3 Grading and Drainage Plan. This Plan should show contour elevations at 1-foot (250mm) minimum interval and critical spot elevations, as well as finish floor elevations. This plan should also show the locations of storm inlets, curb inlets, manholes, storm drainage pipes, culverts, headwalls, storm water control structure, detention pond area, and drainage ditches. Drainage ditches shall be kept to a minimum due to the highly erodable soil. Curb cuts for drainage of parking lots and access drives are prohibited.

7.7.4 Landscape Design Plan. This plan shall include existing trees and under story to be saved, new trees to be planted, screens, buffers, lawns, and mulched area for the project. Both large shade trees and small under story and ornamental trees shall be shown. Plant labels shall be provided for the plans. Also to be provided is a drawing at a larger scale of the building entrance of the project site to indicate the Landscape Architect's ideas or intent for a more detailed planting plan as used in foundation plantings including plant labels.

7.7.5 Site Utility Plan. Indicate locations of outside utilities where required to support the project. Show same scale as other site work drawings. The plan shall include a general utility layout with connection points, valve fittings and requirements for pneumatic ejector, sewage pumps and sump pumps and the relative placement of water and sanitary sewer systems. The layout plans should take into account the ease of maintenance and utility corridors.

8. TAB E – FACTOR 2-4. SUSTAINABLE DESIGN SUBMITTAL REQUIREMENTS.

8.1 SPIRIT Summary Table. Submit Appendix H of Section 01010 DESIGN REQUIREMENTS, "SPIRIT Requirements and Summary Table" with the "Proposal Points" column filled in to reflect the points contained in your proposal, including the total. A "SPIRIT Requirements and Summary Table" shall be provided for each individual occupied building type in project. The requirement is to achieve a minimum of 35 points with a goal of achieving at least 50 points in each summary table using the SPIRIT Project Rating Tool for Sustainable Design. NOTE: The points indicated on this summary will be considered contract requirements upon award. Do not modify any of the spaces in this column that were filled in on the solicitation.

8.2 Sustainable Design Narrative. Organize the narrative in the same order as SPIRIT summary table with one paragraph devoted to each proposed item on the chart. Briefly describe the activities and/or features proposed to earn each point indicated on your proposal. For mandatory points and requirements the narrative may be limited to repeating the statement found in the "Remarks" column of the SPIRIT summary table.

9. TAB F – FACTOR 2-5 Project Management Plans and Schedules. The offeror shall provide a Management Plan. This is an overall plan showing how the offeror will control the job. The term "management plan" is defined as a plan that includes the following subplans:

9.1 SUBFACTOR 2-5 a. Project Key Personnel.

9.1.1 Provide the names, resumes, and levels of responsibility of the principal managers and technical personnel who will be directly responsible for the day-to-day design and construction activities. Include, as a minimum the following:

Project Manager

Project Achitect

Construction Manager

Construction Quality Control Manager

Design Quality control Manager

9.1.2 Indicate whether each individual has had a significant part in any of the project examples cited. If reassignment of personnel is considered possible, provide the names and resumes of the alternative professionals in each assignment.

9.1.3 Provide a narrative and/or diagram that outlines the relationships and interaction between each of the key personnel above.

9.1.4 Project key personnel shall include the key construction subcontractors and the extent of their role with respect to the design phases of this project. For each subcontractor, the prime contractor's experience working with that sub should be indicated and the subs past experience in work similar in nature to the project being evaluated should be submitted. Key subcontractors shall include, but are not limited to:

Masonry subcontractor(s)

Mechanical subcontractor(s)

Site Development subcontractor(s).

9.2 SUBFACTOR 2-5 b. Schedule.

9.2.1 Integrated Design and Construction Schedule with all areas clearly identified. The schedule for design and construction shall be task oriented, indicating dates by which milestones are to be achieved. The offeror may use a critical path or other method of his/her choice; however, the schedules shall be graphically represented.

9.2.2 The offeror shall also submit a narrative explaining how the schedules will be achieved.

9.3 SUBFACTOR 2-5 c. Small and Small Disadvantaged Business Utilization.

9.3.1 ALL OFFERORS are required to provide a narrative discussion of their plan for utilization of small and small disadvantaged businesses. At a minimum, the narrative shall discuss:

Goals for subcontracting with small and small disadvantaged businesses in sufficient detail to allow Government evaluators to determine that these goals are realistic, justifiable, positive, and in accordance with the Government's policy to maximize opportunities for these types of businesses.

The extent to which small disadvantaged businesses, and where appropriate, historically black colleges and universities/minority institutions (HBCU/MI) have been identified for participation as part of the Offeror's team.

The Offeror's past and present commitment to providing subcontracting opportunities and encouragement to small and small disadvantaged businesses.

9.3.2 For Offerors information the following are the U.S. Army Corps of Engineers Subcontracting Targets for FY03:

71.1% of planned subcontracting dollars placed with Small business concerns

10.2% of planned subcontracting dollars placed with Small Disadvantaged business concerns

3% of planned subcontracting dollars placed with HubZone small business concerns

10.6% of planned subcontracting dollars placed with Women owned small business concerns

3% of planned subcontracting dollars placed with Service-Disabled Veteran-owned small business concerns

PROPOSAL DATA SHEET – PHASE 1

NOTE TO OFFERORS
This OFFEROR PERFORMANCE CAPABILITY PROPOSAL DATA SHEET must be completed and attached as the first page of the body of your proposal. The information required by this data sheet may be completed directly on this form or attached to the form as supplemental data sheets.

1. NAME OF OFFEROR.

Name of Offeror(s):

If a joint venture or contractor-subcontractor association of firms, list the individual firms and briefly describe the nature of the association.

Firm 1:

Firm 2:

Nature of Association:

2. DUNS NUMBER FOR OFFEROR
(If more than one DUNS number is to be considered explain affiliation to offeror)

3. ACASS identification number for design firm

4. AUTHORIZED NEGOTIATORS. FAR 52.215-11

The offeror represents that the following persons are authorized to negotiate on its behalf with the Government in connection with this Request for Proposals (RFP).

[List names, titles, and telephone number of the authorized negotiator.]

Name of Person Authorized to Negotiate:

Negotiator's Address:

Negotiator's Telephone:

5. PAST PERFORMANCE PROJECTS.

5.1 Provide information for three completed or substantially completed projects, that are being or have been constructed by the Offeror to be used for reference and evaluation purposes. These should be the same projects for which Past Performance Questionnaires have been provided to the Procurement Point of Contact.

5.2 If the offeror is made up of separate design and construction companies that have combined for this project, then this item must be completed twice (once for each company), for a total of six projects.

5.3 For each project provide the information shown. Failure to provide this minimum information may result in lower ratings.

6. LIQUIDATED DAMAGES. On an attached sheet, list any projects within the last three years that have been assessed liquidated damages. Provide an explanation.

7. TERMINATED PROJECTS. On an attached sheet, list any projects within the last five years that have been terminated. Provide an explanation.

8. GOVERNMENT PROJECTS. On an attached sheet, list all contracts with the Government within the last three years. Indicate Government contract number and contracting agency (with contact names and telephone numbers).

9. CADD CAPABILITIES. On an attached sheet, describe your office capabilities for using CADD (Computer Aided Design and Drafting) and other forms of automation on this project. This information shall be limited to two 8 ½ by 11 sheets of paper, double spaced, 12 pitch font.

SAMPLE

FACTOR 1-1 PAST PERFORMANCE INFORMATION
(Offerors should submit for at least three projects)

Project Title:

Location:

Contract number:

Procuring activity:

Procurement point of contact and telephone number:

List date of construction completion or percent completion if construction is underway:

Address of building(s):

Address and telephone number of owner:

Indicate type of project (private sector, Government, planned unit development, etc.):

General character:

Total cost:

Total cost of all modifications:

SAMPLE

FACTOR 1-3 CORPORATE RELEVANT SPECIALIZED EXPERIENCE.

Project Title:

Location:

Contract number:

Nature of involvement in this project, i.e. General Contractor, subcontractor, designer:

Procuring activity:

Procurement point of contact and telephone number:

List date of construction completion or percent completion if construction is underway:

Address of building(s):

Address and telephone number of owner:

Indicate type of project (private sector, Government, planned unit development, etc.):

General character:

Total cost:

SAMPLE

FACTOR 1-4 SUSTAINABLE DESIGN EXPERIENCE.

On an attached sheet, provide information for in-progress or completed projects that include sustainable design features, that have been done by the offeror to be used for reference and evaluation purposes. For each project provide the following information:

Project Title:

Location:

Contract number:

Nature of involvement in this project, i.e. General Contractor, subcontractor, designer:

Procuring activity:

Procurement point of contact and telephone number:

List date of construction completion or percent completion if construction is underway:

Address of building(s):

Address and telephone number of owner:

Indicate type of project (private sector, Government, planned unit development, etc.):

General character:

Total cost:

Sustainable design features in project - for each provide the following:

Brief description of SDD feature.

Quantified SDD accomplishment or goals

Nature of involvement in this SDD feature, i.e. General Contractor, subcontractor, designer:

SAMPLE TRANSMITTAL LETTER
AND
PAST PERFORMANCE EVALUATION QUESTIONNAIRE

Date: _____

To: _____
_____
_____

We have listed your firm as a reference for work we have performed for you as listed below. Our firm has submitted a proposal under a project advertised by the U.S. Army Corps of Engineers, Savannah District: **16th MP Brigade Barracks Complex, Fort Bragg, North Carolina** . In accordance with Federal Acquisition Regulations (FAR), an evaluation of our firm's past performance will be completed by the Corps of Engineers. Your candid response to the attached questionnaire will assist the evaluation team in this process.

We understand that you have a busy schedule and your participation in this evaluation is greatly appreciated. Please complete the enclosed questionnaire as thoroughly as possible. Space is provided for comments. Understand that while the responses to this questionnaire may be released to the offeror, FAR 15.306 (e)(4) prohibits the release of the names of the persons providing the responses. Complete confidentiality will be maintained. Furthermore, a questionnaire has also been sent to _____ of your organization. Only one response from each office is required. If at all possible, we suggest that you individually answer this questionnaire and then coordinate your responses with that of _____, to forge a consensus on one overall response from your organization.

Please send your completed questionnaire to the following address to arrive NOT LATER THAN *(edit with the date and time set for receipt of Phase I proposals)* to:

U.S. Army Engineer District, Savannah
Contracting Division (CESAS-CT-C)
ATTN: Linda Elliott
100 W. Oglethorpe Ave.
Savannah, GA 31402

The questionnaires can also be emailed to; linda.g.elliott@sas02.usace.army.mil or faxed to; 912-652-5828, ATTN: Linda Elliott. If you have questions regarding the attached questionnaire, or require assistance, please contact Linda Elliott at 912-652-5076. Thank you for your assistance.

PAST PERFORMANCE EVALUATION QUESTIONNAIRE

Upon completion of this form, please send directly to the U.S. Army Corps of Engineers in the enclosed addressed envelope or fax to 912-652-5828, ATTN: Linda Elliott or e-mail to linda.g.elliott@sas02.usace.army.mil **. Do not return this form to our offices. Thank you.**

1. Contractor/Name & Address (City and State):

2. Type of Contract: Fixed Price _____ Cost Reimbursement _____
Other (Specify) _____

3. Title of Project/Contract Number:
_____
_____
_____

4. Description of Work: (Attach additional pages as necessary)

5. Complexity of Work: High _____ Mid _____ Routine _____

6. Location of Work:_____

7. Date of Award: _____

8. Status: Active _____ (provide percent complete)

Complete _____ (provide completion date)

9. Name, address and telephone number of person completing this questionnaire:

10. QUALITY OF CONSTRUCTION:

Evaluate the contractor's performance in complying with contract requirements, quality achieved and overall technical expertise demonstrated.

Outstanding Quality	
Above Average Quality	
Satisfactory Quality	
Marginal Quality	
Unsatisfactory or Experienced Significant Quality Problems	

Remarks: _____

_____

_____

_____

11. TIMELINESS OF PERFORMANCE:

To what extent did the contractor meet the contract and/or individual task order schedules if the contract was an indefinite delivery type contract?

Completed Substantially Ahead of Schedule (Outstanding)	
Completed Ahead of Schedule (Above Average)	
Completed on Schedule with Minor Delays Under Extenuating Circumstances (Satisfactory)	
Completed Behind Schedule (Marginal)	
Experienced Significant Delays without Justification (Unstaisfactory)	

Remarks: _____

_____

_____

12. CUSTOMER SATISFACTION:

To what extent were the end users satisfied with:

	Quality?	**Cost?**	**Schedule?**
Exceptionally Satisfied (Outstanding)			
Highly Satisfied (Above Average)			
Satisfied (Satisfactory)			
Somewhat Dissatisfied (Marginal)			
Highly Dissatisfied (Unsatisfactory)			

Remarks:

_____

_____

_____

13. If given the opportunity, would you work with this contractor again?

Yes _____ No _____ Not Sure _____

Remarks:

_____

_____

_____

_____

_____

14. OTHER REMARKS:

Use the space below to provide other information related to the contractor's performance. This may include the contractor's selection and management of subcontractors, flexibility in dealing with contract challenges, their overall concern for the Government's interest (if applicable), project awards received, etc.

_____

_____

_____

_____

_____

_____

_____

_____

Section 00120 - Evaluation Manual

PHASE 1 EVALUATION MANUAL

Section 00120 – PART 1
PHASE 1 EVALUATION MANUAL

1. GENERAL

The purpose of this document is to establish a uniform evaluation procedure for Phase 1 of the solicitation based on contractually defined criteria. The Evaluation Team will evaluate each proposal individually using the procedures which follow. Each proposal will be reviewed and rated by each of the evaluators. During this process, discrepancies between evaluations will be discussed and resolved within the team. Following the completion of the individual evaluations, a consensus evaluation will be derived. The results of this consensus evaluation will be documented and presented to the Contracting Officer/Source Selection Authority for determination of which proposals proceed into Phase 2 of the solicitation process.

2. PROPOSAL REQUIREMENTS

2.1 Section 00110, Proposal Submission Requirements and Instructions identifies all the necessary submittal information to be included in the proposals. Proposals which reach the evaluation stage have passed an initial Contracting Division review to assure that they are complete and responsive. All proposals which are provided to the evaluation team will be evaluated and rated.

2.2 Past Performance Questionnaires. Each Offeror has been requested to have at least three questionnaires from previous projects completed and forwarded directly to the Savannah District for use by the evaluation team in past performance evaluation and risk analysis. The Government may contact the points of contact indicated on these questionnaires for additional information and to assure validity of the information received. The Government may contact sources other than those provided by the Offeror for information with respect to past performance. These other sources may include ACASS (Architect-Engineer Contract Administration Support System), CCASS (Construction Contractor Appraisal Support System), telephone interviews, and Government personnel with personal knowledge of the Offeror's performance capability. If more than three questionnaires are returned, the evaluation team shall evaluate all questionnaires. If less than three questionnaires are returned, the proposal shall receive a rating commensurate with the contractor's performance risk as determined by the evaluation team.

3. INDIVIDUAL PROPOSAL RATING WORKSHEETS

3.1 Worksheets are provided on the following pages that the evaluators will use to review and rate the individual proposals.

3.2 Comments are required to support all ratings.

4. RATING METHODOLOGY

4.1 Proposals will be evaluated in each Evaluation Factor based on the following rating scheme:

RATING	EXPLANATION
Outstanding/Very Low Performance Risk	Based on the Offeror's Phase One Submittal, no doubt exists that the Offeror will successfully perform the required effort.
Above Average/Low Performance Risk	Based on the Offeror's Phase One Submittal, little doubt exists that the Offeror will successfully perform the required effort.
Satisfactory/Moderate Performance Risk	Based on the Offeror's Phase One Submittal, some doubt exists that the Offeror will successfully perform the required effort. Normal contractor emphasis should preclude any problems.
Marginal/High Performance Risk	Based on the Offeror's Phase One Submittal, substantial doubt exists that the Offeror will successfully perform the required effort.
Unsatisfactory/Unacceptable Performance Risk	Based on the Offeror's Phase One Submittal, extreme doubt exists that the Offeror will successfully perform the required effort.

4.2 Yes - No Ratings. Where the specific evaluation sheets indicate a YES – NO Rating these items shall be treated as information items. They are included in the evaluation worksheets to assure a similar focus among the evaluators and to ensure that individual evaluators do not overlook proposal information provided.

4.3 Weighting of Factors. Relative Importance Definitions: For the purpose of this evaluation, the following terms will be used to establish the relative importance of the factors and subfactors:

Significantly More Important*:* The criterion is at least two times greater in value than another criterion.

More Important: The criterion is greater in value than another criterion but less than two times greater.

Equal: The criterion is of the same value or nearly the same as another criterion.

5. EVALUATION FACTORS.

5.1 Factor Relative Weights. The following factors will be evaluated and rated for each proposal:

FACTOR 1-1: OFFEROR PAST PERFORMANCE: This factor is significantly more important than Factors 1-2,1-3, and 1-4.

FACTOR 1-2: TECHNICAL APPROACH NARRATIVE: This factor is equal in importance to Factors 1-3 and 1-4.

FACTOR 1-3: CORPORATE RELEVANT SPECIALIZED EXPERIENCE: This factor is equal in importance to Factors 1-2 and 1-4.

FACTOR 1-4: OFFEROR SUSTAINABLE DESIGN EXPERIENCE: This factor is equal in importance to Factors 1-2 and 1-3.

5.2 FACTOR 1-1: OFFEROR PAST PERFORMANCE. The Government will evaluate the Offeror's past performance using the sources available to it including, the example projects identified by the Offeror, Past Performance Evaluation Questionnaires received, ACASS, and CCASS. Offerors may be provided an opportunity to address any negative past performance information about which the Offeror has not previously had an opportunity to respond. The Government treats an Offeror's lack of past performance as having no positive or negative evaluation significance. The experience of individuals will not be credited under this factor but will be evaluated under "key personnel." The Government will evaluate past performance based on the elements listed below:

5.2.1 Quality of Construction. Based on information provided in the questionnaire and other information, the Government will assess the quality of the actual construction undertaken and the standards of workmanship exhibited by the Offeror's team.

5.2.2 Timeliness of Performance. The Government will evaluate all information available with respect to the Offeror completing past projects within the scheduled completion times.

5.2.3 Documentation. The Government will evaluate all information available with respect to the Offeror's level of meeting customer satisfaction on timeliness and quality of the documentation, reports, and other written materials completed by the Offeror on past projects.

5.2.4 Customer Satisfaction. The Government will evaluate all information available with respect to the Offeror's past customer satisfaction, cooperation with customers, and interaction on past projects.

5.2.5 Subcontractor Management. The Government will evaluate all information available with respect to the Offeror's management of subcontractors on past projects.

5.3 FACTOR 1-2: TECHNICAL APPROACH NARRATIVE. The Government will evaluate the overall understanding of the two phase design-build process being used in this solicitation including the following:

Does the Offeror demonstrate a suitable understanding of the process to enable it to adequately address and anticipate the risks associated with Design/Build processes?

The roles and responsibilities of the various sub-contractors for both design and construction shall be addressed.

How does the Offeror continue the design phase of the project and incorporate User comments and reviews into the process?

The Offeror's Design Quality Control Program shall be briefly described.

What is the design team's involvement throughout the construction period?

How does the Offeror integrate construction subcontractors into the design process?

What are the Offeror's processes for handling construction and design problems.

Offeror's implementation plans to utilize "fast track" procedures on this project whereby preliminary site construction activities can begin prior to 100% completion of the design documents.

5.4. FACTOR 1-3: CORPORATE RELEVANT SPECIALIZED EXPERIENCE. The Government will review the example projects provided by the Offeror to evaluate and rate the recent experience of the Offeror in similar projects. The example projects which most closely resemble the project identified in this solicitation will receive the highest

consideration. If the Offeror cannot provide suitable relevant experience and the evaluators consider that the information provided indicates that the Offeror has no relevant experience, a determination will be made as to the risk this lack of corporate experience presents to the Government and the proposal will be evaluated accordingly. Experience will be evaluated using the elements listed below. The experience of individuals will not be credited under this factor but will be evaluated under "key personnel" in Phase 2.

5.4.1 Similar construction projects completed: The Government will evaluate the number and size of contracts completed, or substantially complete, by the Offeror of similar scope and complexity in the past three (3) years.

5.4.2 Multiple phasing type construction projects completed: The Government will evaluate overall corporate experience in performing construction contracts in which phasing, maintaining facilities in operations and close coordination with the customer was involved.

5.4.3 Military construction projects completed: The Government will evaluate the number and size of large military construction projects undertaken by the Offeror in the past three (3) years.

5.5 FACTOR 1-4: OFFEROR SUSTAINABLE DESIGN EXPERIENCE. The Government will evaluate the example projects provided by the Offeror to evaluate and rate the recent experience of the Offeror in similar construction and/or design projects that contain sustainable features. The example projects which most closely resemble the project requirements identified in this solicitation will receive the highest consideration. If the Offeror cannot provide suitable sustainable design experience and the evaluators consider that the information provided indicates that the Offeror has no sustainable design experience, a determination will be made as to the risk this lack of sustainable design experience presents to the Government and the proposal will be evaluated accordingly.

6. OVERALL PROPOSAL RATING

6.1 Each member of the Government evaluation team will independently will consider all information provided in the Phase 1 proposal. Once these individual analyses are completed, the team will meet and determine a rating for each of the evaluation factors for Phase 1 by consensus decision.

6.2 Following completion of the consensus rating, each proposal will be assigned a single overall adjectival rating. This final overall rating, along with ratings on individual factors, will be provided to the Contracting Officer/Source Selection Authority and used in making the determination of which Offerors will proceed to Phase 2 of the solicitation. In no case will more than five (5) proposals be included in the Phase 2 process.

6.3 No proposals which receive an overall rating of Unsatisfactory or Marginal will be forwarded to Phase 2 regardless of the total number of proposals received.

Offeror: _____

Evaluator:_____

Factor 1-1 Summary and Overall Rating

Item No.	Description	Rating
1.	Were three Past Performance Questionnaires Received?	YES/NO
2.	Do All the Questionnaires Received Reflect Projects Completed Within the Last 3 Years?	YES/NO
3.	Were ACASS/CCASS Ratings available?	YES/NO
4.	Do you have any Personal Experience with the Offeror?	YES/NO
5.	PAST PERFORMANCE	
OVERALL FACTOR 1-1 RATING		

- **Strengths.**

- **Weaknesses.**

- **Other.**

Offeror: _____

Evaluator:_____

Factor 1-2 Summary and Overall Rating

Item No.	Description	Rating
1.	Technical Approach Narrative Included in Proposal?	YES – NO
2.	Understanding of the Design/Build Process	
OVERALL FACTOR 1-2 RATING		

- **Strengths.**

- **Weaknesses.**

- **Other.**

Offeror: _____

Evaluator:_____

Factor 1-3 Summary and Overall Rating

OFFEROR RELEVANT EXPERIENCE

Item No.	Description	Rating
1.	Does the Proposal Include an Example Project Listing with Suitable Explanation?	YES – NO
2.	Offeror's Relevant Experience	
OVERALL FACTOR 1-3 RATING		

- **Strengths.**

- **Weaknesses.**

- **Other.**

Offeror: _____

Evaluator:_____

Factor 1-4 Summary and Overall Rating

OFFEROR SUSTAINABLE DESIGN EXPERIENCE

Item No.	Description	Rating
1.	Does the Proposal Include an Example Project Listing with Suitable Explanation?	YES – NO
2.	Offeror's Sustainable Design Experience	
OVERALL FACTOR 1-4 RATING		

- **Strengths.**

- **Weaknesses.**

- **Other.**

Offeror: _____

Evaluator:_____

Phase 1 Summary and Overall Rating

Item No.	Description	Rating
1.	Factor 1-1 Offeror Past Performance	
2.	Factor 1-2 Technical Approach Narrative	
3.	Factor 1-3 Offeror Relevant Experience	
4.	Factor 1-4 Offeror Sustainable Design Experience	
OVERALL PHASE 1 RATING		

_____
Board Member

Offeror: _____

PHASE 1 SOURCE SELECTION BOARD SUMMARY RATINGS

FACTOR No.	Description	Board Member 1	Board Member 2	Board Member 3	Board Member 4	Board Member 5	CONSENSUS
1-1	Offeror Past Performance						
1-2	Technical Approach Narrative						
1-3	Offeror Relevant Experience						
1-4	Offeror Sustainable Design Experience						
OVERALL PHASE 1 RATING							

_____
Board Member 1

_____
Board Member 2

_____
Board Member 3

_____
Board Member 4

_____
Board Member 5

_____
Board Chairperson

Offeror: _____

PHASE 1 CONSENSUS SUMMARY RATING

FACTOR 1-1 OFFEROR PAST PERFORMANCE

STRENGTHS:

WEAKNESSES:

OTHER COMMENTS:

Offeror: _____

PHASE 1 CONSENSUS SUMMARY RATING
(Continued)

FACTOR 1-2 OFFEROR TECHNICAL APPROACH NARRATIVE

STRENGTHS:

WEAKNESSES:

OTHER COMMENTS:

Offeror: _____

PHASE 1 CONSENSUS SUMMARY RATING
(Continued)

FACTOR 1-3 OFFEROR RELEVANT EXPERIENCE

STRENGTHS:

WEAKNESSES:

OTHER COMMENTS:

Offeror: _____

PHASE 1 CONSENSUS SUMMARY RATING
(Continued)

FACTOR 1-4 OFFEROR SUSTAINABLE DESIGN EXPERIENCE

STRENGTHS:

WEAKNESSES:

OTHER COMMENTS:

PHASE 2 EVALUATION MANUAL

Section 00120 – PART 2
PHASE 2 EVALUATION MANUAL

1. GENERAL. The purpose of this document is to establish a uniform evaluation procedure for Phase 2 of the solicitation based on contractually defined criteria. This process will be an extension of the Phase 1 evaluation process. The Evaluation Team will evaluate each proposal individually using the qualitative/quantitative procedures that follow. Each proposal will be reviewed and rated by each of the evaluators. During this process, discrepancies

between evaluations will be discussed and resolved within the team. Following the completion of the individual evaluations, a consensus evaluation will be derived. The results of this consensus evaluation will be used to set the competitive range for the purposes of discussions and as the basis for the best value decision by the Contracting Officer/ Source Selection Authority.

2. PROPOSAL REQUIREMENTS. Section 00110, Proposal Submission Requirements and Instructions identifies all the necessary submittal information to be included in the proposals. Proposals that reach the evaluation stage have passed an initial Contracting Division review to assure that they are complete and responsive. All proposals that are provided to the evaluation team will be evaluated and rated.

3. INDIVIDUAL PROPOSAL RATING WORKSHEETS

3.1 Worksheets are provided on the following pages that the evaluators will use to review and rate the individual proposals.

3.2 Comments are required to support all ratings.

4. RATING METHODOLOGY

4.1 General. The proposals from the Offerors who reach Phase 2 will be evaluated by a team to determine compliance with this solicitation (as a minimum), and to evaluate the quality of the proposed materials, methods, and procedures. Each of the evaluation Factors for Phase 2 will be evaluated by the Government and a final overall rating for the proposals will be determined by consensus of the Government evaluation team. Evaluation criteria (factors and subfactors) will be rated using the following adjectival descriptions. Evaluators will apply the appropriate adjective to each criterion rated. The evaluator's narrative explanation must clearly establish that the Offeror's submittal meets the definitions established below:

> **OUTSTANDING:** Information submitted in the proposal demonstrates the Offeror's potential to significantly exceed performance or capability standards identified in the solicitation. The Offeror has clearly demonstrated an understanding of all aspects of the requirements to the extent that timely and highest quality performance is anticipated and risk to the Government is very low. The Offeror has convincingly demonstrated that the RFP requirements have been analyzed, evaluated, and synthesized into approaches, plans, and techniques that, when implemented, should result in outstanding, effective, efficient, and economical performance under the contract. An assigned rating within "outstanding" indicates that, in terms of the specific factor (or subfactor), the submittal contains essentially no significant weaknesses, deficiencies or disadvantages. The proposal has exceptional strengths that will significantly benefit the Government. The proposal exceeds an "Above Average" rating. **The proposal significantly exceeds most or all solicitation requirements. The proposal presents very low risk to the Government.**
>
> **ABOVE AVERAGE -** Information submitted in the proposal demonstrates the Offeror's potential to exceed performance or capability standards. The proposal has one or more strengths that will benefit the Government. The areas in which the Offeror exceeds the requirements are anticipated to result in a high level of efficiency or productivity or quality. An assigned rating within "Above Average" indicates that, in terms of the specific factor (or subfactor), any deficiencies noted are of a minor nature that should not seriously affect the Offeror's performance. The submittal demonstrates that the requirements of the RFP are well understood and the approach will likely result in a high quality of performance which represents low risk to the Government. A rating within "Above Average" is used when there are no indications of exceptional features or innovations that could prove to be beneficial, or contrarily, weaknesses that could diminish the quality of the effort or increase the risk of failure. Disadvantages are minimal. The submittal contains excellent features that will likely produce results very beneficial to the Government. Response exceeds a

"Satisfactory" rating. **The proposal fully meets all RFP requirements and significantly exceeds many of the RFP requirements. The proposal presents low risk to the Government.**

SATISFACTORY - Information submitted in the proposal demonstrates the Offeror's potential to meet performance or capability standards. The proposal presents an acceptable solution to the Government's requirements. The proposal meets minimum RFP requirements. Few or no advantages or strengths are presented. The Offeror's proposal contain weaknesses in several areas that are not offset by strengths in other areas. Complete and comprehensive proposal; exemplifies an understanding of the scope and depth of the task requirements and the Offeror's understanding of the Government's requirements. A rating of "Satisfactory" indicates that, in terms of the specific factor (or subfactor), there is sufficient confidence that a fully compliant level of performance will be achieved with moderate risk to the Government. Response exceeds a "Marginal" rating. **No significant advantages or disadvantages. The proposal presents moderate risk to the Government.**

MARGINAL - Information submitted in the proposal demonstrates the Offeror's potential to marginally meet performance or capability standards necessary for minimal, but still acceptable contract performance. The proposal is not adequately responsive or does not address the specific factor(s) (or subfactor(s)). The Offeror's interpretation of the Government's requirements is so superficial, incomplete, vague, incompatible, incomprehensible, or incorrect as to be unacceptable. The assignment of a rating within the bounds of "Marginal" indicates that the evaluator feels that mandatory corrective action would be required to prevent significant deficiencies from affecting the overall project. The Offeror's qualifications demonstrate an acceptable understanding of the requirements of the RFP and the approach will likely result in an adequate quality of performance, which represents a high level of risk to the Government. Low probability of success, although the proposal has a reasonable chance of becoming at least acceptable. Response exceeds an "Unsatisfactory" rating. **Significant disadvantages. Substantial doubt exists that the Offeror will successfully perform the required effort. The proposal presents high risk to the Government.**

UNSATISFACTORY - The proposal fails to demonstrate that it meets performance or capability standards required in the RFP. The proposal is unacceptable. Requirements can only be met with major changes to the proposal. The proposal does not meet the minimum requirements of the RFP. There is no reasonable expectation that acceptable performance would be achieved. The Offeror's proposal has many deficiencies and/or gross omissions; fails to provide a reasonable, logical approach to fulfilling much of the Government's requirements; or, fails to meet many of the minimum requirements. The Offeror's proposal is so unacceptable that they would have to be completely revised in order to make it acceptable. **Very significant disadvantages. Extreme doubt that the Offeror will perform the required effort. The proposal presents unacceptably high risk to the Government.**

4.7 YES – NO Ratings. Where the specific evaluation sheets indicate a YES – NO Rating these items shall be treated as information items. They are included in the evaluation worksheets to assure a similar focus among the evaluators and to ensure that individual evaluators do not overlook proposal information provided.

4.8 Weighting of Factors. Relative Importance Definitions: For the purpose of this evaluation, the following terms will be used to establish the relative importance of the factors and subfactors:

Significantly More Important: The criterion is at least two times greater in value than another criterion.

More Important: The criterion is greater in value than another criterion but less than two times greater.

Equal: The criterion is of the same value or nearly the same as another criterion.

5. EVALUATION FACTORS

5.1 Factor Relative Weights. The following factors will be evaluated and rated for each proposal:

5.1.1 PRICE is more important than TECHNICAL FACTORS.

5.1.2 Weight among technical factors:

PHASE ONE OVERALL RATING is equal in importance to Factor 2-1.

FACTOR 2-1: BUILDING FUNCTION AND AESTHETICS: This factor is more important than Factors 2-2, and 2-3 and significantly more important than factors 2-4 and 2-5.

FACTOR 2-2: BUILDING SYSTEMS: This factor is equal in importance to Factor 2-3 and more important than Factors 2-4 and 2-5.

FACTOR 2-3: SITE DESIGN: This factor is equal in importance to Factor 2-2 and more important than Factors 2-4 and 2-5.

FACTOR 2-4: SUSTAINABLE DESIGN CONSIDERATIONS: This factor is more important than Factor 2-5.

FACTOR 2-5: OFFEROR MANAGEMENT PLANS AND SCHEDULES.

6. OVERALL PROPOSAL RATING

6.1 The intent of the evaluation worksheets that follow is to focus the evaluators on the key issues and concerns with respect to construction, operation, and function of the facilities. These worksheets are meant to stimulate thought and analysis and provide a framework in which to document concerns, strengths, weaknesses, and deficiencies. Evaluators are encouraged to document all observations and analyses when analyzing the individual proposals, and to share that analysis with the team during the consensus discussions.

6.2 It is the responsibility of the evaluation team to provide and document strengths, weaknesses, and deficiencies to support the assigned rating in each Factor as well as the overall Phase 2 rating.

6.3 The Chairperson shall provide a copy of the Phase 1 ratings for each Offeror. The evaluation team, will weigh the assigned ratings from Phase 1 and Phase 2, take into account the assembled strengths and weaknesses, and provide an overall proposal rating for each Offeror. During the consensus evaluation, a single “consensus rating” worksheet shall be completed for each proposal.

7. BASIS OF AWARD

7.1 In order to determine which proposal represents the best overall value, the Government will compare proposals to one another. The Government will award a firm fixed-price contract to that responsible Offeror whose submittal and price proposal contain the combination of those criteria described in this document offering the best overall value to the Government. Best value will be determined by a comparative assessment of proposals against all source selection criteria in this RFP.

7.2 It is the Government’s intent to award the total project including the option within the Construction Cost Limit identified. The Government is more concerned with making an award of the total scope than with obtaining superior technical features. However, the Government will not make an award based on a proposal with significantly inferior

technical features in order to achieve a small savings in cost to the Government or to achieve the full scope of the project.

7.3 As technical ratings and relative advantages and disadvantages become less distinct, differences in price between proposals are of increased importance in determining the most advantageous proposal. Conversely, as differences in price become less distinct, differences in scoring and relative advantages and disadvantages between proposals are of increased importance to the determination.

7.4 The Government reserves the right to accept other than the lowest priced offer. The right is also reserved to reject any and all offers. The basis of award will be a conforming offer, the price or cost of which may or may not be the lowest. If other than the lowest offer, it must be sufficiently more advantageous than the lowest offer to justify the payment of additional amounts.

7.5 Offerors are reminded to include their best technical and price terms in their initial offer and not to automatically assume that they will have an opportunity to participate in discussions or be asked to submit a revised offer. The Government may make award of a conforming proposal without discussions, if deemed to be within the best interests of the Government.

EVALUATION CRITERIA

FACTOR 2-1: BUILDING FUNCTION AND ASTHETICS

This factor considers the overall functional layout and interaction of the spaces in the facilities as well as the "appeal" of the facility considering interior as well as exterior considerations. The subfactors to be considered deal with the planning and design of the spaces with respect to soldier living and working conditions and the operations of a Barracks Complex. Closely associated with the functional layout of the spaces and facilities, this factor considers the aesthetics of the interior areas as well as the exterior finishes and design of the facilities, up to and including pedestrian ways and the overall environment created by the design proposed. The subfactors described below will be evaluated in the following order of importance:

Subfactor a is more important than subfactor b.

Subfactors c and d are "GO/NO GO" factors and will be rated as pass/fail without an adjectival component.

SUBFACTOR 2-1 a. FUNCTIONAL ARRANGEMENT The following items will be considered in the evaluation of the functional arrangement of the various facilities:

(1A) 343-Soldier Barracks

(a) Does the building floor plan provide space arrangement well suited to the mission of the facility?

(b) Does the building floor plan provide acceptable life safety and fire safety measures? Is the Life Safety Analysis for the facility acceptable and in conformance with the Statement of Work requirements?

(c) Evaluate the Offeror's floor plan with respect to the functional and spatial relationship requirements established in the Statement of Work.

(d) Does the Offeror's floor plan demonstrate compliance with the mandatory requirements for furnishings while allowing suitable space for circulation and other requirements?

(e) Does the Offeror's floor plan allow for suitable workflow and access necessary to successfully operate this facility in accordance with its mission.

(1B) Brigade Headquarters

(a) Does the building floor plan provide space arrangement well suited to the mission of the facility?

(b) Does the building floor plan provide acceptable life safety and fire safety measures? Is the Life Safety Analysis for the facility acceptable and in conformance with the Statement of Work requirements?

(c) Evaluate the Offeror's floor plan with respect to the functional and spatial relationship requirements established in the Statement of Work.

(d) Does the Offeror's floor plan demonstrate compliance with the mandatory requirements for furnishings while allowing suitable space for circulation and other requirements?

(e) Does the Offeror's floor plan allow for suitable workflow and access necessary to successfully operate this facility in accordance with its mission.

(1C) Battalion Headquarters

(a) Does the building floor plan provide space arrangement well suited to the mission of the facility?

(b) Does the building floor plan provide acceptable life safety and fire safety measures? Is the Life Safety Analysis for the facility acceptable and in conformance with the Statement of Work requirements?

(c) Evaluate the Offeror's floor plan with respect to the functional and spatial relationship requirements established in the Statement of Work.

(d) Does the Offeror's floor plan demonstrate compliance with the mandatory requirements for furnishings while allowing suitable space for circulation and other requirements?

(e) Does the Offeror's floor plan allow for suitable workflow and access necessary to successfully operate this facility in accordance with its mission.

(1D) Company Operations Facilities

(a) Does the building floor plans provide space arrangements well suited to the mission of the facilities?

(b) Does the building floor plans provide acceptable life safety and fire safety measures? Are the Life Safety Analysis for the facilities acceptable and in conformance with the Statement of Work requirements?

(c) Evaluate the Offeror's floor plans with respect to the functional and spatial relationship requirements established in the Statement of Work.

(d) Does the Offeror's floor plans demonstrate compliance with the mandatory requirements for furnishings while allowing suitable space for circulation and other requirements?

(e) Does the Offeror's floor plans allow for suitable workflow and access necessary to successfully operate this facilities in accordance with its mission.

(1E) Military Police Station

(a) Does the building floor plan provide space arrangement well suited to the mission of the facility?

(b) Does the building floor plan provide acceptable life safety and fire safety measures? Is the Life Safety Analysis for the facility acceptable and in conformance with the Statement of Work requirements?

(c) Evaluate the Offeror's floor plan with respect to the functional and spatial relationship requirements established in the Statement of Work.

(d) Does the Offeror's floor plan demonstrate compliance with the mandatory requirements for furnishings while allowing suitable space for circulation and other requirements?

(e) Does the Offeror's floor plan allow for suitable workflow and access necessary to successfully operate this facility in accordance with its mission.

SUBFACTOR 2-1 b. Building Aesthetics. The following items will be considered (Materials will be evaluated in Factor 2-2):

(1) Exterior Considerations:

(a) Facades, roof lines, and delineation of entrances.
(b) Proportions of fenestration in relation to elevations.
(c) Shadow effects, materials, and textures.
(d) Proportion and scale within the structure.
(e) Compliance with Installation Design Guide Recommendations
(f) Conformance to adjacent structures architectural styles
(g) Exterior color schemes proposed.
(h) Other aesthetic considerations.

(2) Interior Considerations:

(a) Are the proposed colors and details conducive to the mission of the facility?

(b) Do the proposed materials and finishes represent a positive working environment?

(c) Do the ceiling heights, hallway widths, and other space sizes and configurations provided develop a workable solution to the facility mission?

(d) Does the interior design package provide for an interesting, attractive environment?

(e) Is the interior system and finishes proposed suitable for use in a facility where the primary occupants are soldiers? Are these systems suitable for a heavy usage environment?

SUBFACTOR 2-1 c. APPROPRIATE FACILITIES

From an overall perspective, does the proposal include all the required facilities as described in the Statement of Work?

SUBFACTOR 2-1 d. MINIMUM SPACE AND FACILITY SIZE

Does the proposal include all the mandatory spaces in response to the requirements set forth in the Statement of Work? For each of the spaces with a minimum or maximum size limitation, does the proposal comply with these requirements? Insufficient information contained in the proposal to evaluate this item will be considered a “NO GO” and will represent a “FAIL” rating.

EVALUATION CRITERIA
FACTOR 2-2: BUILDING SYSTEMS

This factor considers the materials, layout, maintainability, quality, durability, maintenance considerations, and any aspects of the proposed building systems and materials. Additional consideration will be given to all proposed systems or materials which exceed the minimum requirements of the RFP. Offerors are encouraged to present energy, maintenance, and life cycle cost improvements which will lead to the overall improvement in the final facilities constructed. The following subfactors shall be considered in evaluating this factor. The levels of importance are as follows:

Subfactor a is more important than Subfactors b and c.

Subfactor b and c are equal in weight.

SUBFACTOR 2-2 a. Building Heating, Ventilating, Air Conditioning, Plumbing Systems and Fire Protection Systems. Evaluate the heating, air conditioning, and ventilating systems proposed. Evaluation will concentrate on the proposed schematic drawing information presented, the design approach narratives, and the equipment and material catalog information included in the proposals. The systems proposed must meet the minimum requirements set out in the Statement of Work and shall represent systems which are fully integrated into the building structure and are fully capable of environmental control of the spaces. Within this subfactor, the automatic temperature controls will also be considered. Where addressed in the Statement of Work, the proposed automatic temperature controls systems proposed shall be 100% compatible and integrated into the existing Installation-Wide UMCS without translators or third party interface devices. Additional considerations will be given to proposals that incorporate energy recovery systems, high efficiency systems, energy conservation considerations, thermal storage systems, and other systems and features designed to enhance the overall performance of the facility while reducing the operating and maintenance costs expected. Evaluate the proposed fire detection and suppression systems. Ensure that the design will be accomplished by a fire protection professional.

SUBFACTOR 2-2 b. Building Structural Systems. Evaluate the structural systems and sub-systems proposed for installation in the facilities. While no detail drawings or calculations are required or desired, this subfactor will evaluate the narrative descriptions of the structural systems proposed. Consideration will be given to overall life cycle maintenance of the systems and also to considerations of materials selected with respect to the expected use by soldiers. Additional considerations will be given to proposed systems with a long expected life (greater than 25 years) vs. a system requiring greater cyclical replacement.

SUBFACTOR 2-2 c. Electrical Power, Lighting, Grounding, and Communications Systems. Evaluate the electrical power and lighting systems proposed for installation. Evaluation will concentrate on the proposed schematic drawing information presented, the design approach narratives, and the equipment and material catalog information included in the proposals. The systems proposed must meet the minimum requirements set forth in the Statement of Work and shall represent systems that are fully integrated into the building structure. Additional consideration will be given to proposals which incorporate energy saving materials or materials which represent a lower life cycle cost to the Base.

EVALUATION CRITERIA
FACTOR 2-3: SITE DESIGN CONSIDERATIONS

This factor considers the layout and planning of the site and various specialties that comprise a good site development plan. The goal and direction of the Barracks Complex is to produce a "campus like" setting and to encourage a positive relationship between the site development and soldier needs. All elements of site design will be considered in this factor, with the exception of the design and materials utilized for utility systems that will be evaluated under a different factor. The following subfactors shall be considered in evaluating this factor. The levels of importance are as follows:

Subfactor a is more important than Subfactors b and c.

Subfactor b and c are equal in weight.

SUBFACTOR 2-3 a. Area Development Plan. This subfactor evaluates the overall development concept proposed in the Offeror's plan with respect to the placement and orientation of the facilities, parking areas, pedestrian ways, circulation paths, site lighting, and other aspects which comprise the overall site development. Proposals that reflect the design intent and direction as outlined in the Statement of Work will receive the most consideration during the evaluation process.

SUBFACTOR 2-3 b. Force Protection Considerations. This subfactor evaluates the inclusion of the site restraints imposed by the Force Protection requirements in the Statement of Work into the Offeror's proposal. The proposal must address this subfactor specifically. If a proposal is rated "unsatisfactory" in this subfactor the proposal may be eliminated from further consideration.

SUBFACTOR 2-3 c. Site Utilities. This factor evaluates the technical performance of the proposed site utility and exterior utility distribution systems. The quality of the proposed design as well as the materials selected will be considered in this item. Emphasis will be placed on durability, corrosion resistance, ease of maintenance, and life cycle cost of materials selected. Consideration will be given to the suitability of the chosen materials for the site soil conditions present. Site engineering will consider all aspects of the proposal beyond the 5-ft line from all new facilities.

EVALUATION CRITERIA
FACTOR 2-4: SUSTAINABLE DESIGN CONSIDERATIONS

Offerors shall include a preliminary ranking of the sustainable design considerations included in the proposal. The successful proposal shall be required to complete a detailed analysis on the final design that meets or exceeds the preliminary ranking established at proposal level. The evaluation of this factor shall be as follows:

FACTOR RATING	SPIRIT POINTS PROPOSED
Unsatisfactory	Less than 25 points
Marginal	25 to 34 points
Satisfactory	35 to 41 points
Above Average	42 to 50 points
Outstanding	ABOVE 50 points

EVALUATION CRITERIA
FACTOR 2-5: OFFEROR MANAGEMENT PLANS AND SCHEDULES

This factor evaluates the Offeror's Project Management Plans as well as the proposed schedule for completion of the entire design-build project. Through this factor the Government will evaluate the Offeror's understanding of the solicitation provisions with respect to an integrated design-build process and the associated quality control, scheduling, coordination, and contract close out provisions. Subfactors a and b are equal in importance and each is more important than Subfactor c.

SUBFACTOR 2-5 a. Offeror Project Key personnel. The Government will evaluate and rate the Key Personnel identified. The resumes and levels of responsibility of the principal managers and technical personnel who will be directly responsible for the day-to-day design and construction activities will be evaluated. Data should indicate whether each individual has had a significant part in any of the project examples cited. If reassignment of personnel is considered possible, the names and resumes of the alternative professionals for each assignment will be evaluated. Additional consideration will be given to individuals who have past experience with Corps of Engineers construction project operations and who have completed the Corps sponsored Quality Control Class.

SUBFACTOR 2-5 b. Schedule Information. The schedule will be evaluated to assess the inclusion of "fast tracking" and the rationale of how the Offeror intends to comply with the submitted schedule. The schedule must reflect a single task oriented structure for both design and construction. The schedule will be reviewed for completeness and the inclusion of required milestones. A schedule that improves on the Government supplied maximum duration will be considered more favorably during the evaluation.

SUBFACTOR 2-5 c. Small and Small Disadvantaged Business Utilization.
The Government will evaluate narratives provided for the following elements. Greater detail and specificity will be given greater credit than general statements and commitments:

The extent to which the goals for subcontracting with small and small disadvantaged businesses are realistic, justifiable, positive, and in accordance with the Government's policy to maximize opportunities for these types of businesses.

The extent to which small disadvantaged businesses, and where appropriate, historically black colleges and universities/minority institutions (HBCU/MI) have been identified for participation as part of the Offeror's team.

The Offeror's past commitment to providing subcontracting opportunities and encouragement to small and small disadvantaged businesses.

Offeror: _____

Evaluator:_____

PROPOSAL RATING WORKSHEET

FACTOR 2-1

BUILDING FUNCTION AND AESTHETICS

General: In some areas the evaluators will be required to use subjective judgment based on experience and expertise to arrive at a rating adjective. In this most basic area the subfactors are concerned with the "appeal" of the facility as well as its functionality in space arrangement and work/living space circulation patterns. This subfactor will also consider the aesthetics of the interior and exterior of the proposed facilities. The last two subfactors are GO/NO GO items. If either of these items is a "NO GO" rating, the entire factor (2-1) shall be rated as "UNACCEPTABLE".

SUBFACTOR 2-1 a. Functional Arrangement.

/__ / Outstanding

/__ / Above Average

/__ / Satisfactory

/__ / Marginal

/__ / Unsatisfactory

- Strengths.

- Weaknesses.

- Other Comments.

Offeror: _____

Evaluator:_____

PROPOSAL RATING WORKSHEET

BUILDING FUNCTION AND AESTHETICS
FACTOR 2-1
(Continued)

SUBFACTOR 2-1 b. Building Aesthetics.

/__ / Outstanding

/__ / Above Average

/__ / Satisfactory

/__ / Marginal

/__ / Unsatisfactory

- Strengths.

- Weaknesses.

- Other Comments.

Offeror: _____

Evaluator:_____

PROPOSAL RATING WORKSHEET

BUILDING FUNCTION AND AESTHETICS
FACTOR 2-1
(Continued)

SUBFACTOR 2-1 c. Appropriate Facilities. Has the offeror provided the facilities as required by the Statement of Work? This subfactor is to be evaluated on the "gross scale" of buildings and types of building provided. The actual evaluation of the technical quality of those facilities will be done in other factors and subfactors.

/__ / GO /__ / NO GO

Other Comments.

SUBFACTOR 2-1 d. Minimum Space and Facility Size. Does the proposal include all the spaces required by the statement of work and do those spaces comply with the minimum size or dimension requirements of the statement of work? Insufficient or incomplete information in the proposal will be scored as a "NO GO".

/__ / GO /__ / NO GO

Other Comments.

Offeror: _____

Evaluator:_____

PROPOSAL RATING WORKSHEET

FACTOR 2-2 BUILDING SYSTEMS

SUBFACTOR 2-2 a BUILDING HVAC, PLUMBING, AND FIRE PROTECTION

/__ / Outstanding

/__ / Above Average

/__ / Satisfactory

/__ / Marginal

/__ / Unsatisfactory

- Strengths.

- Weaknesses.

- Other Comments.

Offeror: _____

Evaluator:_____

PROPOSAL RATING WORKSHEET

FACTOR 2-2 BUILDING SYSTEMS

SUBFACTOR 2-2 b BUILDING STRUCTURAL SYSTEMS

/__ / Outstanding

/__ / Above Average

/__ / Satisfactory

/__ / Marginal

/__ / Unsatisfactory

- Strengths.

- Weaknesses.

- Other Comments.

Offeror: _____

Evaluator:_____

PROPOSAL RATING WORKSHEET

FACTOR 2-2 BUILDING SYSTEMS

SUBFACTOR 2-2 c BUILDING ELECTRICAL POWER, LIGHTING, GROUNDING, AND COMMUNICATIONS SYSTEMS

/__ / Outstanding

/__ / Above Average

/__ / Satisfactory

/__ / Marginal

/__ / Unsatisfactory

- Strengths.

- Weaknesses.

- Other Comments.

Offeror: _____

Evaluator:_____

PROPOSAL RATING WORKSHEET

FACTOR 2-3 SITE DESIGN CONSIDERATIONS

SUBFACTOR 2-3 a AREA DEVELOPMENT PLAN

/__ / Outstanding

/__ / Above Average

/__ / Satisfactory

/__ / Marginal

/__ / Unsatisfactory

- Strengths.

- Weaknesses.

- Other Comments.

Offeror: _____

Evaluator:_____

PROPOSAL RATING WORKSHEET

FACTOR 2-3 SITE DESIGN CONSIDERATIONS

SUBFACTOR 2-3 b FORCE PROTECTION CONSIDERATIONS

/__ / Outstanding

/__ / Above Average

/__ / Satisfactory

/__ / Marginal

/__ / Unsatisfactory

- Strengths.

- Weaknesses.

- Other Comments.

Offeror: _____

Evaluator:_____

PROPOSAL RATING WORKSHEET

FACTOR 2-3 SITE DESIGN CONSIDERATIONS

SUBFACTOR 2-3 c SITE UTILITIES

/__ / Outstanding

/__ / Above Average

/__ / Satisfactory

/__ / Marginal

/__ / Unsatisfactory

- Strengths.

- Weaknesses.

- Other Comments.

Offeror: _____

Evaluator:_____

PROPOSAL RATING WORKSHEET

FACTOR 2-4

SUSTAINABLE DESIGN CONSIDERATIONS

SUSTAINABILITY RATINGS		
Offeror Prepared Sustainability Level	***Associated Factor Rating***	***Comments***
SPIRIT POINTS		
OVER 50	Outstanding	
42 to 50	Above Average	
35 to 41	Satisfactory	
25 to 34	Marginal	
< 25	Unsatisfactory	

Factor Rating: _____

- Strengths.

- Weaknesses.

- Other Comments.

Offeror: _____

Evaluator:_____

PROPOSAL RATING WORKSHEET

FACTOR 2-5

OFFEROR MANAGEMENT PLANS AND SCHEDULES

2-5 a. Key Personnel:

/__/ Outstanding

/__/ Above Average

/__ / Satisfactory

/__ / Marginal

/__ / Unsatisfactory

- Strengths.

- Weaknesses.

- Other Comments.

Offeror: _____

Evaluator:_____

PROPOSAL RATING WORKSHEET
FACTOR 2-5 OFFEROR MANAGEMENT PLANS AND SCHEDULES
(Continued)

SUBFACTOR 2-5 b. Schedule Information.

/__ / Outstanding

/__ / Above Average

/__ / Satisfactory

/__ / Marginal

/__ / Unsatisfactory

- Strengths.

- Weaknesses.

- Other Comments.

Offeror: _____

Evaluator:_____

PROPOSAL RATING WORKSHEET
FACTOR 2-5 OFFEROR MANAGEMENT PLANS AND SCHEDULES
(Continued)

SUBFACTOR 2-5 c Small and Small Disadvantaged Business Utilization.

/__ / Outstanding

/__ / Above Average

/__ / Satisfactory

/__ / Marginal

/__ / Unsatisfactory

- Strengths.

- Weaknesses.

- Other Comments.

Offeror:_____

Evaluator:_____

INDIVIDUAL RATING SUMMARY		
Item No.	**Description**	**Rating**
1.	**Factor 2-1 Building Function and Aesthetics**	
	Subfactor 2-2 a Functional Arrangement	
	Subfactor 2-2 b Building Aesthetics	
	Subfactor 2-2 c Appropriate Facilities	
	Subfactor 2-2 d Minimum Space and Facility Size	
2.	**Factor 2-2 Building Systems**	
	Subfactor 2-2 a HVAC, Plunbing, Fire Protection	
	Subfactor 2-2 b Structural	
	Subfactor 2-2 c Electrical Power, Lighting, Grounding, Communications	
3.	**Factor 2-3 Site Design**	
	Subfactor 2-3 a Area Development Plan	
	Subfactor 2-3 b Force Protection Considerations	
	Subfactor 2-3 c Site Utilities	
4.	**Factor 2-4 Sustainable Design Considerations**	
5.	**Factor 2-5 Offeror Management Plans and Schedules**	
	Subfactor 2-5 a Key Personnel	
	Subfactor 2-5 b Schedule Information	
	Subfactor 2-5 c Small and SDBusiness Utilization	

OVERALL PHASE 2 RATING	

CONSENSUS SUMMARY RATINGS

FACTOR DESCRIPTION	Board Member 1	Board Member 2	Board Member 3	Board Member 4	Board Member 5	CONSENSUS
Factor 2-1 Building Function and Aesthetics						
Subfactor 2-1 a Functional Arrangement						
Subfactor 2-1 b Building Aesthetics						
Subfactor 2-1 c Appropriate Facilities						
Subfactor 2-1 d Minimum Space & Facility Size						
Factor 2-2 Building Systems						
Subfactor 2-2 a HVAC, Plunbing, Fire Protection						
Subfactor 2-2 b Structural						
Subfactor 2-2 c Electrical Power, Lighting, Grounding, Communications						
Factor 2-3 Site Design						
Subfactor 2-3 a Area Development Plan						
Subfactor 2-3 b Force Protection						
Subfactor 2-3 c Site Utilities						
Factor 2-4 Sustainable Design						
Factor 2-5 Offeror Management Plans and Schedules						
Subfactor 2-5 a Key Personnel						
Subfactor 2-5 b Schedule Information						
Subfactor 2-5 c Small and SDB Utilization						

OVERALL PHASE 2 RATING						

Section 00600 - Representations & Certifications

CLAUSES INCORPORATED BY FULL TEXT

52.222-38 COMPLIANCE WITH VETERANS' EMPLOYMENT REPORTING REQUIREMENTS (DEC 2001)

By submission of its offer, the offeror represents that, if it is subject to the reporting requirements of 38 U.S.C. 4212(d) (i.e., if it has any contract containing Federal Acquisition Regulation clause 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans), it has submitted the most recent VETS-100 Report required by that clause.

(End of provision)

52.203-2 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (APR 1985)

(a) The offeror certifies that --

(vii) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to –

(i) Those prices,

(1) The intention to submit an offer, or

(iii) The methods of factors used to calculate the prices offered:

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory --

(1) Is the person in the offeror's organization responsible for determining the prices offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision; or

(2) (i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provison _____ (insert full name of person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the offeror's organization);

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) above have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision.

(c) If the offeror deletes or modifies subparagraph (a)(2) of this provision, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

(End of provision)

52.203-11 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (APR 1991)

(a) The definitions and prohibitions contained in the clause, at FAR 52.203-12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph (b) of this Certification.

(b) The offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that on or after December 23, 1989,--

(1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement;

(2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the offeror shall complete and submit, with its offer, OMB standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and

(3) He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of $100,000 shall certify and disclose accordingly.

(viii) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes an expenditure prohibited under this provision, shall be subject to a civil penalty of not less than $10,000, and not more than $100,000, for each such failure.

(End of provision)

52.204-5 WOMEN-OWNED BUSINESS (OTHER THAN SMALL BUSINESS) (MAY 1999)

(a) Definition. Women-owned business concern, as used in this provision, means a concern that is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of its stock is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(b) Representation. [Complete only if the offeror is a women-owned business concern and has not represented itself as a small business concern in paragraph (b)(1) of FAR 52.219-1, Small Business Program Representations, of this solicitation.] The offeror represents that it ( ) is a women-owned business concern.

(End of provision)

52.204-4003 TAXPAYER IDENTIFICATION

Taxpayer Identification Number (TIN)," as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.

(a) Taxpayer Identification Number (TIN).

___ TIN:._____

___ TIN has been applied for.

___ TIN is not required because:

___ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;

___ Offeror is an agency or instrumentality of a foreign government;

___ Offeror is an agency or instrumentality of the Federal Government.

(b) Type of organization.

___ Sole proprietorship;

___ Partnership;

___ Corporate entity (not tax-exempt);

___ Corporate entity (tax-exempt);

___ Government entity (Federal, State, or local);

___ Foreign government;

___ International organization per 26 CFR 1.6049-4;

___ Other _____

(c) Common parent.

___ Offeror is not owned or controlled by a common parent

___ Name and TIN of common parent:

Name _____

TIN _____

(End of provision)

52.209-5 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS (DEC 2001)

(a)(1) The Offeror certifies, to the best of its knowledge and belief, that--

(i) The Offeror and/or any of its Principals --

(A) Are ( ) are not ( ) presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have ( ) have not ( ), within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

(C) Are ( ) are not ( ) presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision (a)(1)(i)(B) of this provision.

(ii) The Offeror has ( ) has not ( ), within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

THIS CERTIFICATION CONCERNS A MATTER WITHIN THE JURISDICTION OF AN AGENCY OF THE UNITED STATES AND THE MAKING OF A FALSE, FICTITIOUS, OR FRAUDULENT CERTIFICATION MAY RENDER THE MAKER SUBJECT TO PROSECUTION UNDER SECTION 1001, TITLE 18, UNITED STATES CODE.

(b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

(End of provision)

52.219-1 SMALL BUSINESS PROGRAM REPRESENTATIONS (APR 2002) - ALTERNATE I (APR 2002)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is 236220

(2) The small business size standard is $28,500,000.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b) Representations. (1) The offeror represents as part of its offer that it ( ) is, ( ) is not a small business concern.

(2) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents, for general statistical purposes, that it ( ) is, ( ) is not a small disadvantaged business concern as defined in 13 CFR 124.1002.

(3) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it ( ) is, ( ) is not a women-owned small business concern.

(4) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it ( ) is, ( ) is not a veteran-owned small business concern.

(5) (Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (b)(4) of this provision.) The offeror represents as part of its offer that it ( ) is, ( ) is not a service-disabled veteran-owned small business concern.

(6) [Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.] The offeror represents, as part of its offer, that--

(i) It ( ) is, ( ) is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal office, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR part 126; and

(ii) It ( ) is, ( ) is not a joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (b)(6)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating in the joint venture. (The offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture:_____.) Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.

(7) (Complete if offeror represented itself as disadvantaged in paragraph (b)(2) of this provision.) The offeror shall check the category in which its ownership falls:

____ Black American.

____ Hispanic American.

____ Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians).

____ Asian-Pacific American (persons with origins from Burma, Thailand, Malaysia, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia (Kampuchea), Vietnam, Korea, The Philippines, U.S. Trust Territory of the Pacific Islands (Republic of Palau), Republic of the Marshall Islands, Federated States of Micronesia, the Commonwealth of the Northem Mariana Islands, Guam, Samoa, Macao, Hong Kong, Fiji, Tonga, Kiribati, Tuvalu, or Nauru).

____ Subcontinent Asian (Asian-Indian) American (persons with origins from India, Pakistan, Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal).

____ Individual/concern, other than one of the preceding.

(c) Definitions. As used in this provision--

Service-disabled veteran-owned small business concern--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Small business concern," means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and the size standard in paragraph (a) of this provision.

Veteran-owned small business concern means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned small business concern," means a small business concern --

(1) That is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; or

(2) Whose management and daily business operations are controlled by one or more women.

(d) Notice.

(1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.

(2) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a small, HUBZone small, small disadvantaged, or women-owned small business concern in order to obtain a contract to be awarded under the preference programs established pursuant to section 8(a), 8(d), 9, or 15 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall--

(i) Be punished by imposition of fine, imprisonment, or both;

(ii) Be subject to administrative remedies, including suspension and debarment; and

(iii) Be ineligible for participation in programs conducted under the authority of the Act.

(End of provision)

52.219-19 SMALL BUSINESS CONCERN REPRESENTATION FOR THE SMALL BUSINESS COMPETITIVENESS DEMONSTRATION PROGRAM (OCT 2000)

(a) Definition.

"Emerging small business" as used in this solicitation, means a small business concern whose size is no greater than 50 percent of the numerical size standard applicable to the North American Industry Classification System (NAICS) code assigned to a contracting opportunity.

(b) [Complete only if the Offeror has represented itself under the provision at 52.219-1 as a small business concern under the size standards of this solicitation.] The Offeror [ ] is, [ ] is not an emerging small business.

(c) (Complete only if the Offeror is a small business or an emerging small business, indicating its size range.)

Offeror's number of employees for the past 12 months (check this column if size standard stated in solicitation is expressed in terms of number of employees) or Offeror's average annual gross revenue for the last 3 fiscal years (check this column if size standard stated in solicitation is expressed in terms of annual receipts). (Check one of the following.)

No. of Employees	Avg. Annual Gross Revenues
____ 50 or fewer	____ $1 million or less
____ 51 - 100	____ $1,000,001 - $2 million
____ 101 - 250	____ $2,000,001 - $3.5 million
____ 251 - 500	____ $3,500,001 - $5 million
____ 501 - 750	____ $5,000,001 - $10 million
____ 751 - 1,000	____ $10,000,001 - $17 million
____ Over 1,000	____ Over $17 million

(End of provision)

52.222-22 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (FEB 1999)

The offeror represents that --

(a) ( ) It has, ( ) has not participated in a previous contract or subcontract subject to the Equal Opportunity clause of this solicitation;

(b) ( ) It has, ( ) has not, filed all required compliance reports; and

(c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

(End of provision)

52.223-4 RECOVERED MATERIAL CERTIFICATION (OCT 1997)

As required by the Resource Conservation and Recovery Act of 1976 (42 U.S.C. 6962(c)(3)(A)(i)), the offeror certifies, by signing this offer, that the percentage of recovered materials to be used in the performance of the contract will be at least the amount required by the applicable contract specifications.

(End of provision)

52.223-13 CERTIFICATION OF TOXIC CHEMICAL RELEASE REPORTING (OCT 2000)

(a) Submission of this certification is a prerequisite for making or entering into this contract imposed by Executive Order 12969, August 8, 1995.

(b) By signing this offer, the offeror certifies that--

(1) As the owner or operator of facilities that will be used in the performance of this contract that are subject to the filing and reporting requirements described in section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023) and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106), the offeror will file and continue to file for such facilities for the life of the contract the Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of EPCRA and section 6607 of PPA; or

(2) None of its owned or operated facilities to be used in the performance of this contract is subject to the Form R filing and reporting requirements because each such facility is exempt for at least one of the following reasons: (Check each block that is applicable.)

( ) (i) The facility does not manufacture, process or otherwise use any toxic chemicals listed under section 313(c) of EPCRA, 42 U.S.C. 11023(c);

( ) (ii) The facility does not have 10 or more full-time employees as specified in section 313.(b)(1)(A) of EPCRA 42 U.S.C. 11023(b)(1)(A);

( ) (iii) The facility does not meet the reporting thresholds of toxic chemicals established under section 313(f) of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

( ) (iv) The facility does not fall within Standard Industrial Classification Code (SIC) major groups 20 through 39 or their corresponding North American Industry Classification System (NAICS) sectors 31 through 33; or

( ) (v) The facility is not located within any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Northern Mariana Islands, or any other territory or possession over which the United States has jurisdiction.

(End of clause)

52.236-28 PREPARATION OF PROPOSALS--CONSTRUCTION (OCT 1997)

(a) Proposals must be (1) submitted on the forms furnished by the Government or on copies of those forms, and (2) manually signed. The person signing a proposal must initial each erasure or change appearing on any proposal form.

(b) The proposal form may require offerors to submit proposed prices for one or more items on various bases, including--

(1) Lump sum price;

(2) Alternate prices;

(3) Units of construction; or

(4) Any combination of paragraphs (b)(1) through (b)(3) of this provision.

(c) If the solicitation requires submission of a proposal on all items, failure to do so may result in the proposal being rejected without further consideration. If a proposal on all items is not required, offerors should insert the words “no proposal” in the space provided for any item on which no price is submitted.

(d) Alternate proposals will not be considered unless this solicitation authorizes their submission.

(End of provision)

252.209-7001 DISCLOSURE OF OWNERSHIP OR CONTROL BY THE GOVERNMENT OF A TERRORIST COUNTRY (MAR 1998)

(a) "Definitions."

As used in this provision --

(a) "Government of a terrorist country" includes the state and the government of a terrorist country, as well as any political subdivision, agency, or instrumentality thereof.

(2) "Terrorist country" means a country determined by the Secretary of State, under section 6(j)(1)(A) of the Export Administration Act of 1979 (50 U.S.C. App. 2405(j)(i)(A)), to be a country the government of which has repeatedly provided support for such acts of international terrorism. As of the date of this provision, terrorist countries include:

Cuba, Iran, Iraq, Libya, North Korea, Sudan, and Syria.

(3) "Significant interest" means --

(i) Ownership of or beneficial interest in 5 percent or more of the firm's or subsidiary's securities. Beneficial interest includes holding 5 percent or more of any class of the firm's securities in "nominee shares," "street names," or some other method of holding securities that does not disclose the beneficial owner;

(ii) Holding a management position in the firm, such as a director or officer;

(iii) Ability to control or influence the election, appointment, or tenure of directors or officers in the firm;

(iv) Ownership of 10 percent or more of the assets of a firm such as equipment, buildings, real estate, or other tangible assets of the firm; or

(v) Holding 50 percent or more of the indebtness of a firm.

(b) "Prohibition on award."

In accordance with 10 U.S.C. 2327, no contract may be awarded to a firm or a subsidiary of a firm if the government of a terrorist country has a significant interest in the firm or subsidiary or, in the case of a subsidiary, the firm that owns the subsidiary, unless a waiver is granted by the Secretary of Defense.

(c) "Disclosure."

If the government of a terrorist country has a significant interest in the Offeror or a subsidiary of the Offeror, the Offeror shall disclosure such interest in an attachment to its offer. If the Offeror is a subsidiary, it shall also disclose any significant interest the government of a terrorist country has in any firm that owns or controls the subsidiary. The disclosure shall include --

(1) Identification of each government holding a significant interest; and

(2) A description of the significant interest held by each government.

(End of provision)

252.247-7022 REPRESENTATION OF EXTENT OF TRANSPORTATION BY SEA (AUG 1992)

(a) The Offeror shall indicate by checking the appropriate blank in paragraph (b) of this provision whether transportation of supplies by sea is anticipated under the resultant contract. The term supplies is defined in the Transportation of Supplies by Sea clause of this solicitation.

(b) Representation. The Offeror represents that it:

____ (1) Does anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

____ (2) Does not anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

(c) Any contract resulting from this solicitation will include the Transportation of Supplies by Sea clause. If the

Offeror represents that it will not use ocean transportation, the resulting contract will also include the Defense FAR Supplement clause at 252.247-7024, Notification of Transportation of Supplies by Sea.

(End of provision)

Section 00700 - Contract Clauses

CLAUSES INCORPORATED BY FULL TEXT

252.226-7001 Utilization of Indian Organizations and Indian-Owned Economic Enterprises-DoD Contracts (Sep 2001)

(a) Definitions. As used in this clause--

“Indian” means any person who is a member of any Indian tribe, band, group, pueblo, or community that is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs (BIA) in accordance with 25 U.S.C. 1452(c) and any “Native” as defined in the Alaska Native Claims Settlement Act (43 U.S.C. 1601).

“Indian organization” means the governing body of any Indian tribe or entity established or recognized by the governing body of an Indian tribe for the purposes of 25 U.S.C. Chapter 17.

“Indian-owned economic enterprise” means any Indian-owned (as determined by the Secretary of the Interior) commercial, industrial, or business activity established or organized for the purpose of profit, provided that Indian ownership constitutes not less than 51 percent of the enterprise.

“Indian tribe” means any Indian tribe, band, group, pueblo, or community, including native villages and native groups (including corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act, that is recognized by the Federal Government as eligible for services from BIA in accordance with 25 U.S.C. 1452 (c).

“Interested party” means a contractor or an actual or prospective offeror whose direct economic interest would be affected by the award of a subcontract or by the failure to award a subcontract.

(b) The Contract shall use its best efforts to give Indian organizations and Indian-owned economic enterprises the maximum practicable opportunity to participate in the subcontracts it awards, to the fullest extent consistent with efficient performance of the contract.

(c) The Contracting Officer and the Contractor, acting in good faith, may rely on the representation of an Indian organization or Indian-owned economic enterprise as to its eligibility, unless and interested party challenges its status or the Contracting Officer has independent reason to question that status.

(d) In the event of a challenge to the representation of a subcontractor, the Contracting Officer will refer the matter to the U.S. Department of the Interior, Bureau of Indian Affairs, Attn: Chief, Division of Contracting and Grants Administration, 1849 C Street NW, MS-2626-MIB, Washington, DC 20240-4000. The BIA will determine the eligibility and will notify the Contracting Officer. No incentive payment will be made--

(1) Within 59 working days of subcontract award;

(2) While a challenge is pending; or

(3) If a subcontractor is determined to be an ineligible participant.

(e)(1) The Contractor, on its own behalf or on behalf of a subcontractor at any tier, may request an adjustment under the Indian Incentive Program to the following:

(i) The estimated cost of cost-type contract.

(ii) The target cost of a cost-plus-incentive-fee contract.

(iii) The target cost and ceiling price of a fixed-price incentive contract.

(iv) The price of a firm-fixed-price contract.

(2) The amount of the adjustment that may be made to the contract is 5 percent of the estimated cost, target cost, or firm-fixed price included in the subcontract initially awarded to the Indian organization or Indian-owned economic enterprise.

(3) The Contractor has the burden of proving the amount claimed and must assert its request for an adjustment prior to completion of contract performance.

(4) The Contracting Officer, subject to the terms and conditions of the contract and the availability of funds, will authorize an incentive payment of 5 percent of the amount paid to the subcontractor.

(5) If the Contractor requests and receives an adjustment on behalf of a subcontractor, the Contractor is obligated to pay the subcontractor the adjustment.

(f) The Contractor shall insert the substance of this clause, including this paragraph (f), in all subcontracts that--

(1) Are for other than commercial items; and

(2) Are expected to exceed the simplified acquisition threshold in Part 2 of the Federal Acquisition Regulation.

(End of clause)

52.202-1 DEFINITIONS (DEC 2001) --ALTERNATE I (MAY 2001)

(a) Agency head or head of the agency means the Secretary (Attorney General, Administrator, Governor, Chairperson, or other chief official, as appropriate) of the agency, unless otherwise indicated, including any deputy or assistant chief official of the executive agency.

(b) "Commercial component" means any component that is a commercial item.

(c) Any item, other than real property, that is of a type customarily used by the general public or by non-governmental entities for purposes other than governmental purposes, and that--

(i) Has been sold, leased, or licensed to the general public; or

(ii) Has been offered for sale, lease, or license to the general public;

(2) Any item that evolved from an item described in paragraph (c)(1) of this clause through advances in technology or performance and that is not yet available in the commercial marketplace, but will be available in the commercial marketplace in time to satisfy the delivery requirements under a Government solicitation;

(3) Any item that would satisfy a criterion expressed in paragraphs (c)(1) or (c)(2) of this clause, but for--

(i) Modifications of a type customarily available in the commercial marketplace; or

(ii) Minor modifications of a type not customarily available in the commercial marketplace made to meet Federal Government requirements. "Minor" modifications means modifications that do not significantly alter the

nongovernmental function or essential physical characteristics of an item or component, or change the purpose of a process. Factors to be considered in determining whether a modification is minor include the value and size of the modification and the comparative value and size of the final product. Dollar values and percentages may be used as guideposts, but are not conclusive evidence that a modification is minor;

(4) Any combination of items meeting the requirements of paragraphs (c)(1), (2), (3), or (5) of this clause that are of a type customarily combined and sold in combination to the general public;

(5) Installation services, maintenance services, repair services, training services, and other services if--

(i) Such services are procured for support of an item referred to in paragraph (c)(1), (2), (3), or (4) of this definition, regardless of whether such services are provided by the same source or at the same time as the item; and

(ii) The source of such services provides similar services contemporaneously to the general public under terms and conditions similar to those offered to the Federal Government;

(6) Services of a type offered and sold competitively in substantial quantities in the commercial marketplace based on established catalog or market prices for specific tasks performed under standard commercial terms and conditions. This does not include services that are sold based on hourly rates without an established catalog or market price for a specific service performed. For purposes of these services--

(i) Catalog price means a price included in a catalog, price list, schedule, or other form that is regularly maintained by the manufacturer or vendor, is either published or otherwise available for inspection by customers, and states prices at which sales are currently, or were last, made to a significant number of buyers constituting the general public; and

(ii) Market prices means current prices that are established in the course of ordinary trade between buyers and sellers free to bargain and that can be substantiated through competition or from sources independent of the offerors.

(7) Any item, combination of items, or service referred to in subparagraphs (c)(1) through (c)(6), notwithstanding the fact that the item, combination of items, or service is transferred between or among separate divisions, subsidiaries, or affiliates of a Contractor; or

(8) A nondevelopmental item, if the procuring agency determines the item was developed exclusively at private expense and sold in substantial quantities, on a competitive basis, to multiple State and local Governments.

(d) Component means any item supplied to the Government as part of an end item or of another component, except that for use in 52.225-9, and 52.225-11 see the definitions in 52.225-9(a) and 52.225-11(a).

(e) Contracting Officer means a person with the authority to enter into, administer, and/or terminate contracts and make related determinations and findings. The term includes certain authorized representatives of the Contracting Officer acting within the limits of their authority as delegated by the Contracting Officer.

(f) Nondevelopmental item means--

(1) Any previously developed item of supply used exclusively for governmental purposes by a Federal agency, a State or local government, or a foreign government with which the United States has a mutual defense cooperation agreement;

(2) Any item described in paragraph (f)(1) of this definition that requires only minor modification or modifications of a type customarily available in the commercial marketplace in order to meet the requirements of the procuring department or agency; or

(3) Any item of supply being produced that does not meet the requirements of paragraph (f)(1) or (f)(2) solely because the item is not yet in use.

(End of clause)

52.203-3 GRATUITIES (APR 1984)

(a) The right of the Contractor to proceed may be terminated by written notice if, after notice and hearing, the agency head or a designee determines that the Contractor, its agent, or another representative--

(1) Offered or gave a gratuity (e.g., an entertainment or gift) to an officer, official, or employee of the Government; and

(2) Intended, by the gratuity, to obtain a contract or favorable treatment under a contract.

(b) The facts supporting this determination may be reviewed by any court having lawful jurisdiction.

(c) If this contract is terminated under paragraph (a) of this clause, the Government is entitled--

(1) To pursue the same remedies as in a breach of the contract; and

(2) In addition to any other damages provided by law, to exemplary damages of not less than 3 nor more than 10 times the cost incurred by the Contractor in giving gratuities to the person concerned, as determined by the agency head or a designee. (This subparagraph (c)(2) is applicable only if this contract uses money appropriated to the Department of Defense.)

(d) The rights and remedies of the Government provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

52.203-5 COVENANT AGAINST CONTINGENT FEES (APR 1984)

(a) The Contractor warrants that no person or agency has been employed or retained to solicit or obtain this contract upon an agreement or understanding for a contingent fee, except a bona fide employee or agency. For breach or violation of this warranty, the Government shall have the right to annul this contract without liability or, in its discretion, to deduct from the contract price or consideration, or otherwise recover, the full amount of the contingent fee.

(b) "Bona fide agency," as used in this clause, means an established commercial or selling agency, maintained by a contractor for the purpose of securing business, that neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds itself out as being able to obtain any Government contract or contracts through improper influence.

"Bona fide employee," as used in this clause, means a person, employed by a contractor and subject to the contractor's supervision and control as to time, place, and manner of performance, who neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds out as being able to obtain any Government contract or contracts through improper influence.

"Contingent fee," as used in this clause, means any commission, percentage, brokerage, or other fee that is contingent upon the success that a person or concern has in securing a Government contract.

"Improper influence," as used in this clause, means any influence that induces or tends to induce a Government employee or officer to give consideration or to act regarding a Government contract on any basis other than the merits of the matter.

(End of clause)

52.203-6 RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT (JUL 1995)

(a) Except as provided in (b) of this clause, the Contractor shall not enter into any agreement with an actual or prospective subcontractor, nor otherwise act in any manner, which has or may have the effect of restricting sales by such subcontractors directly to the Government of any item or process (including computer software) made or furnished by the subcontractor under this contract or under any follow-on production contract.

(b) The prohibition in (a) of this clause does not preclude the Contractor from asserting rights that are otherwise authorized by law or regulation.

(c) The Contractor agrees to incorporate the substance of this clause, including this paragraph (c), in all subcontracts under this contract which exceed $100,000.

52.203-7 ANTI-KICKBACK PROCEDURES. (JUL 1995)

(a) Definitions.

"Kickback," as used in this clause, means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided, directly or indirectly, to any prime Contractor, prime Contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a subcontract relating to a prime contract.

"Person," as used in this clause, means a corporation, partnership, business association of any kind, trust, joint-stock company, or individual.

"Prime contract," as used in this clause, means a contract or contractual action entered into by the United States for the purpose of obtaining supplies, materials, equipment, or services of any kind.

"Prime Contractor," as used in this clause, means a person who has entered into a prime contract with the United States.

"Prime Contractor employee," as used in this clause, means any officer, partner, employee, or agent of a prime Contractor.

"Subcontract," as used in this clause, means a contract or contractual action entered into by a prime Contractor or subcontractor for the purpose of obtaining supplies, materials, equipment, or services of any kind under a prime contract.

"Subcontractor," as used in this clause, (1) means any person, other than the prime Contractor, who offers to furnish or furnishes any supplies, materials, equipment, or services of any kind under a prime contract or a subcontract entered into in connection with such prime contract, and (2) includes any person who offers to furnish or furnishes general supplies to the prime Contractor or a higher tier subcontractor.

"Subcontractor employee," as used in this clause, means any officer, partner, employee, or agent of a subcontractor.

(b) The Anti-Kickback Act of 1986 (41 U.S.C. 51-58) (the Act), prohibits any person from -

(1) Providing or attempting to provide or offering to provide any kickback;

(2) Soliciting, accepting, or attempting to accept any kickback; or

(3) Including, directly or indirectly, the amount of any kickback in the contract price charged by a prime Contractor to the United States or in the contract price charged by a subcontractor to a prime Contractor or higher tier subcontractor.

(c)(1) The Contractor shall have in place and follow reasonable procedures designed to prevent and detect possible violations described in paragraph (b) of this clause in its own operations and direct business relationships.

(2) When the Contractor has reasonable grounds to believe that a violation described in paragraph (b) of this clause may have occurred, the Contractor shall promptly report in writing the possible violation. Such reports shall be made to the inspector general of the contracting agency, the head of the contracting agency if the agency does not have an inspector general, or the Department of Justice.

(3) The Contractor shall cooperate fully with any Federal agency investigating a possible violation described in paragraph (b) of this clause.

(4) The Contracting Officer may (i) offset the amount of the kickback against any monies owed by the United States under the prime contract and/or (ii) direct that the Prime Contractor withhold, from sums owed a subcontractor under the prime contract, the amount of any kickback. The Contracting Officer may order the monies withheld under subdivision (c)(4)(ii) of this clause be paid over to the Government unless the Government has already offset those monies under subdivision (c)(4)(i) of this clause. In either case, the Prime Contractor shall notify the Contracting Officer when the monies are withheld.

(5) The Contractor agrees to incorporate the substance of this clause, including this subparagraph (c)(5) but excepting subparagraph (c)(1), in all subcontracts under this contract which exceed $100,000.

52.203-8 CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)

(a) If the Government receives information that a contractor or a person has engaged in conduct constituting a violation of subsection (a), (b), (c), or (d) of Section 27 of the Office of Federal Procurement Policy Act (41 U.S.C. 423) (the Act), as amended by section 4304 of the 1996 National Defense Authorization Act for Fiscal Year 1996 (Pub. L. 104-106), the Government may--

(1) Cancel the solicitation, if the contract has not yet been awarded or issued; or

(2) Rescind the contract with respect to which--

(i) The Contractor or someone acting for the Contractor has been convicted for an offense where the conduct constitutes a violation of subsection 27(a) or (b) of the Act for the purpose of either--

(A) Exchanging the information covered by such subsections for anything of value; or

(B) Obtaining or giving anyone a competitive advantage in the award of a Federal agency procurement contract; or

(ii) The head of the contracting activity has determined, based upon a preponderance of the evidence, that the Contractor or someone acting for the Contractor has engaged in conduct constituting an offense punishable under subsections 27(e)(1) of the Act.

(b) If the Government rescinds the contract under paragraph (a) of this clause, the Government is entitled to recover, in addition to any penalty prescribed by law, the amount expended under the contract.

(c) The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law, regulation, or under this contract.

(End of clause)

52.203-10 PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)

(a) The Government, at its election, may reduce the price of a fixed-price type contract and the total cost and fee under a cost-type contract by the amount of profit or fee determined as set forth in paragraph (b) of this clause if the head of the contracting activity or designee determines that there was a violation of subsection 27 (a), (b), or (c) of the Office of Federal Procurement Policy Act, as amended (41 U.S.C. 423), as implemented in section 3.104 of the Federal Acquisition Regulation.

(b) The price or fee reduction referred to in paragraph (a) of this clause shall be--

(1) For cost-plus-fixed-fee contracts, the amount of the fee specified in the contract at the time of award;

(2) For cost-plus-incentive-fee contracts, the target fee specified in the contract at the time of award, notwithstanding any minimum fee or "fee floor" specified in the contract;

(3) For cost-plus-award-fee contracts--

(i) The base fee established in the contract at the time of contract award;

(ii) If no base fee is specified in the contract, 30 percent of the amount of each award fee otherwise payable to the Contractor for each award fee evaluation period or at each award fee determination point.

(4) For fixed-price-incentive contracts, the Government may--

(i) Reduce the contract target price and contract target profit both by an amount equal to the initial target profit specified in the contract at the time of contract award; or

(ii) If an immediate adjustment to the contract target price and contract target profit would have a significant adverse impact on the incentive price revision relationship under the contract, or adversely affect the contract financing provisions, the Contracting Officer may defer such adjustment until establishment of the total final price of the contract. The total final price established in accordance with the incentive price revision provisions of the contract shall be reduced by an amount equal to the initial target profit specified in the contract at the time of contract award and such reduced price shall be the total final contract price.

(5) For firm-fixed-price contracts, by 10 percent of the initial contract price or a profit amount determined by the Contracting Officer from records or documents in existence prior to the date of the contract award.

(c) The Government may, at its election, reduce a prime contractor's price or fee in accordance with the procedures of paragraph (b) of this clause for violations of the Act by its subcontractors by an amount not to exceed the amount of profit or fee reflected in the subcontract at the time the subcontract was first definitively priced.

(d) In addition to the remedies in paragraphs (a) and (c) of this clause, the Government may terminate this contract for default. The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

52.203-12 LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (JUN 1997)

(a) Definitions.

"Agency," as used in this clause, means executive agency as defined in 2.101.

"Covered Federal action," as used in this clause, means any of the following Federal actions:

(1) The awarding of any Federal contract.

(2) The making of any Federal grant.

(3) The making of any Federal loan.

(4) The entering into of any cooperative agreement.

(5) The extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

"Indian tribe" and "tribal organization," as used in this clause, have the meaning provided in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450B) and include Alaskan Natives.

"Influencing or attempting to influence," as used in this clause, means making, with the intent to influence, any communication to or appearance before an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any covered Federal action.

"Local government," as used in this clause, means a unit of government in a State and, if chartered, established, or otherwise recognized by a State for the performance of a governmental duty, including a local public authority, a special district, an intrastate district, a council of governments, a sponsor group representative organization, and any other instrumentality of a local government.

"Officer or employee of an agency," as used in this clause, includes the following individuals who are employed by an agency:

(1) An individual who is appointed to a position in the Government under Title 5, United States Code, including a position under a temporary appointment.

(2) A member of the uniformed services, as defined in subsection 101(3), Title 37, United States Code.

(3) A special Government employee, as defined in section 202, Title 18, United States Code.

(4) An individual who is a member of a Federal advisory committee, as defined by the Federal Advisory Committee Act, Title 5, United States Code, appendix 2.

"Person," as used in this clause, means an individual, corporation, company, association, authority, firm, partnership, society, State, and local government, regardless of whether such entity is operated for profit, or not for profit. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Reasonable compensation," as used in this clause, means, with respect to a regularly employed officer or employee of any person, compensation that is consistent with the normal compensation for such officer or employee for work that is not furnished to, not funded by, or not furnished in cooperation with the Federal Government.

"Reasonable payment," as used in this clause, means, with respect to professional and other technical services, a payment in an amount that is consistent with the amount normally paid for such services in the private sector.

"Recipient," as used in this clause, includes the Contractor and all subcontractors. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Regularly employed," as used in this clause, means, with respect to an officer or employee of a person requesting or receiving a Federal contract, an officer or employee who is employed by such person for at least 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person for receipt of such contract. An officer or employee who is employed by such person for less than 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person shall be considered to be regularly employed as soon as he or she is employed by such person for 130 working days.

"State," as used in this clause, means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, a territory or possession of the United States, an agency or instrumentality of a State, and multi-State, regional, or interstate entity having governmental duties and powers.

(b) Prohibitions.

(1) Section 1352 of Title 31, United States Code, among other things, prohibits a recipient of a Federal contract, grant, loan, or cooperative agreement from using appropriated funds to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions: the awarding of any Federal contract; the making of any Federal grant; the making of any Federal loan; the entering into of any cooperative agreement; or the modification of any Federal contract, grant, loan, or cooperative agreement.

(2) The Act also requires Contractors to furnish a disclosure if any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a Federal contract, grant, loan, or cooperative agreement.

(3) The prohibitions of the Act do not apply under the following conditions:

(i) Agency and legislative liaison by own employees.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of a payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action if the payment is for agency and legislative liaison activities not directly related to a covered Federal action.

(B) For purposes of subdivision (b)(3)(i)(A) of this clause, providing any information specifically requested by an agency or Congress is permitted at any time.

(C) The following agency and legislative liaison activities are permitted at any time where they are not related to a specific solicitation for any covered Federal action:

(1) Discussing with an agency the qualities and characteristics (including individual demonstrations) of the person's products or services, conditions or terms of sale, and service capabilities.

(2) Technical discussions and other activities regarding the application or adaptation of the person's products or services for an agency's use.

(D) The following agency and legislative liaison activities are permitted where they are prior to formal solicitation of any covered Federal action--

(1) Providing any information not specifically requested but necessary for an agency to make an informed decision about initiation of a covered Federal action;

(2) Technical discussions regarding the preparation of an unsolicited proposal prior to its official submission; and

(3) Capability presentations by persons seeking awards from an agency pursuant to the provisions of the Small Business Act, as amended by Pub. L. 95-507, and subsequent amendments.

(E) Only those services expressly authorized by subdivision (b)(3)(i)(A) of this clause are permitted under this clause.

(ii) Professional and technical services.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of--

(1) A payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action, if payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action.

(2) Any reasonable payment to a person, other than an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action if the payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action. Persons other than officers or employees of a person requesting or receiving a covered Federal action include consultants and trade associations.

(B) For purposes of subdivision (b)(3)(ii)(A) of this clause, "professional and technical services" shall be limited to advice and analysis directly applying any professional or technical discipline. For example, drafting of a legal document accompanying a bid or proposal by a lawyer is allowable. Similarly, technical advice provided by an engineer on the performance or operational capability of a piece of equipment rendered directly in the negotiation of a contract is allowable. However, communications with the intent to influence made by a professional (such as a licensed lawyer) or a technical person (such as a licensed accountant) are not allowable under this section unless they provide advice and analysis directly applying their professional or technical expertise and unless the advice or analysis is rendered directly and solely in the preparation, submission or negotiation of a covered Federal action. Thus, for example, communications with the intent to influence made by a lawyer that do not provide legal advice or

analysis directly and solely related to the legal aspects of his or her client's proposal, but generally advocate one proposal over another are not allowable under this section because the lawyer is not providing professional legal services. Similarly, communications with the intent to influence made by an engineer providing an engineering analysis prior to the preparation or submission of a bid or proposal are not allowable under this section since the engineer is providing technical services but not directly in the preparation, submission or negotiation of a covered Federal action.

(C) Requirements imposed by or pursuant to law as a condition for receiving a covered Federal award include those required by law or regulation and any other requirements in the actual award documents.

(D) Only those services expressly authorized by subdivisions (b)(3)(ii)(A)(1) and (2) of this clause are permitted under this clause.

(E) The reporting requirements of FAR 3.803(a) shall not apply with respect to payments of reasonable compensation made to regularly employed officers or employees of a person.

(c) Disclosure.

(1) The Contractor who requests or receives from an agency a Federal contract shall file with that agency a disclosure form, OMB standard form LLL, Disclosure of Lobbying Activities, if such person has made or has agreed to make any payment using nonappropriated funds (to include profits from any covered Federal action), which would be prohibited under subparagraph (b)(1) of this clause, if paid for with appropriated funds.

(2) The Contractor shall file a disclosure form at the end of each calendar quarter in which there occurs any event that materially affects the accuracy of the information contained in any disclosure form previously filed by such person under subparagraph (c)(1) of this clause. An event that materially affects the accuracy of the information reported includes--

(i) A cumulative increase of $25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; or

(ii) A change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or

(iii) A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal action.

(3) The Contractor shall require the submittal of a certification, and if required, a disclosure form by any person who requests or receives any subcontract exceeding $100,000 under the Federal contract.

(4) All subcontractor disclosure forms (but not certifications) shall be forwarded from tier to tier until received by the prime Contractor. The prime Contractor shall submit all disclosures to the Contracting Officer at the end of the calendar quarter in which the disclosure form is submitted by the subcontractor. Each subcontractor certification shall be retained in the subcontract file of the awarding Contractor.

(d) Agreement. The Contractor agrees not to make any payment prohibited by this clause.

(e) Penalties.

(1) Any person who makes an expenditure prohibited under paragraph (a) of this clause or who fails to file or amend the disclosure form to be filed or amended by paragraph (b) of this clause shall be subject to civil penalties as provided for by 31 U.S.C. 1352. An imposition of a civil penalty does not prevent the Government from seeking any other remedy that may be applicable.

(2) Contractors may rely without liability on the representation made by their subcontractors in the certification and disclosure form.

(f) Cost allowability. Nothing in this clause makes allowable or reasonable any costs which would otherwise be unallowable or unreasonable. Conversely, costs made specifically unallowable by the requirements in this clause will not be made allowable under any other provision.

(End of clause)

52.204-4 PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER (AUG 2000)

(a) Definitions. As used in this clause--

“Postconsumer material” means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. Postconsumer material is a part of the broader category of “recovered material.” For paper and paper products, postconsumer material means “postconsumer fiber” defined by the U.S. Environmental Protection Agency (EPA) as--

(1) Paper, paperboard, and fibrous materials from retail stores, office buildings, homes, and so forth, after they have passed through their end-usage as a consumer item, including: used corrugated boxes; old newspapers; old magazines; mixed waste paper; tabulating cards; and used cordage; or

(2) All paper, paperboard, and fibrous materials that enter and are collected from municipal solid waste; but not

(3) Fiber derived from printers' over-runs, converters' scrap, and over-issue publications.

“Printed or copied double-sided” means printing or reproducing a document so that information is on both sides of a sheet of paper.

“Recovered material,” for paper and paper products, is defined by EPA in its Comprehensive Procurement Guideline as “recovered fiber” and means the following materials:

(1) Postconsumer fiber; and

(2) Manufacturing wastes such as--

(i) Dry paper and paperboard waste generated after completion of the papermaking process (that is, those manufacturing operations up to and including the cutting and trimming of the paper machine reel into smaller rolls or rough sheets) including: envelope cuttings, bindery trimmings, and other paper and paperboard waste resulting from printing, cutting, forming, and other converting operations; bag, box, and carton manufacturing wastes; and butt rolls, mill wrappers, and rejected unused stock; and

(ii) Repulped finished paper and paperboard from obsolete inventories of paper and paperboard manufacturers, merchants, wholesalers, dealers, printers, converters, or others.

(b) In accordance with Section 101 of Executive Order 13101 of September 14, 1998, Greening the Government through Waste Prevention, Recycling, and Federal Acquisition, the Contractor is encouraged to submit paper documents, such as offers, letters, or reports, that are printed or copied double-sided on recycled paper that meet minimum content standards specified in Section 505 of Executive Order 13101, when not using electronic commerce methods to submit information or data to the Government.

(c) If the Contractor cannot purchase high-speed copier paper, offset paper, forms bond, computer printout paper, carbonless paper, file folders, white wove envelopes, writing and office paper, book paper, cotton fiber paper, and cover stock meeting the 30 percent postconsumer material standard for use in submitting paper documents to the Government, it should use paper containing no less than 20 percent postconsumer material. This lesser standard should be used only when paper meeting the 30 percent postconsumer material standard is not obtainable at a reasonable price or does not meet reasonable performance standards.

(End of clause)

52.209-6 PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT (JUL 1995)

(a) The Government suspends or debars Contractors to protect the Government's interests. The Contractor shall not enter into any subcontract in excess of the $25,000 with a Contractor that is debarred, suspended, or proposed for debarment unless there is a compelling reason to do so.

(b) The Contractor shall require each proposed first-tier subcontractor, whose subcontract will exceed $25,000, to disclose to the Contractor, in writing, whether as of the time of award of the subcontract, the subcontractor, or its principles, is or is not debarred, suspended, or proposed for debarment by the Federal Government.

(c) A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party that is debarred, suspended, or proposed for debarment (see FAR 9.404 for information on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs). The notice must include the following:

(1) The name of the subcontractor.

(2) The Contractor's knowledge of the reasons for the subcontractor being on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.

(3) The compelling reason(s) for doing business with the subcontractor notwithstanding its inclusion on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.

(4) The systems and procedures the Contractor has established to ensure that it is fully protecting the Government's interests when dealing with such subcontractor in view of the specific basis for the party's debarment, suspension, or proposed debarment.

(End of clause)

52.211-15 DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS (SEP 1990)

This is a rated order certified for national defense use, and the Contractor shall follow all the requirements of the Defense Priorities and Allocations System regulation (15 CFR 700).

(End of clause)

52.215-2 AUDIT AND RECORDS--NEGOTIATION (JUN 1999)

(a) As used in this clause, "records" includes books, documents, accounting procedures and practices, and other data, regardless of type and regardless of whether such items are in written form, in the form of computer data, or in any other form.

(b) Examination of costs. If this is a cost-reimbursement, incentive, time-and-materials, labor-hour, or price redeterminable contract, or any combination of these, the Contractor shall maintain and the Contracting Officer, or an authorized representative of the Contracting Officer, shall have the right to examine and audit all records and other evidence sufficient to reflect properly all costs claimed to have been incurred or anticipated to be incurred directly or indirectly in performance of this contract. This right of examination shall include inspection at all reasonable times of the Contractor's plants, or parts of them, engaged in performing the contract.

(c) Cost or pricing data. If the Contractor has been required to submit cost or pricing data in connection with any pricing action relating to this contract, the Contracting Officer, or an authorized representative of the Contracting Officer, in order to evaluate the accuracy, completeness, and currency of the cost or pricing data, shall have the right to examine and audit all of the Contractor's records, including computations and projections, related to--

(1) The proposal for the contract, subcontract, or modification;

(2) The discussions conducted on the proposal(s), including those related to negotiating;

(3) Pricing of the contract, subcontract, or modification; or

(4) Performance of the contract, subcontract or modification.

(d) Comptroller General--(1) The Comptroller General of the United States, or an authorized representative, shall have access to and the right to examine any of the Contractor's directly pertinent records involving transactions related to this contract or a subcontract hereunder.

(2) This paragraph may not be construed to require the Contractor or subcontractor to create or maintain any record that the Contractor or subcontractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e) Reports. If the Contractor is required to furnish cost, funding, or performance reports, the Contracting Officer or an authorized representative of the Contracting Officer shall have the right to examine and audit the supporting records and materials, for the purpose of evaluating (1) the effectiveness of the Contractor's policies and procedures to produce data compatible with the objectives of these reports and (2) the data reported.

(f) Availability. The Contractor shall make available at its office at all reasonable times the records, materials, and other evidence described in paragraphs (a), (b), (c), (d), and (e) of this clause, for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in Subpart 4.7, Contractor Records Retention, of the Federal Acquisition Regulation (FAR), or for any longer period required by statute or by other clauses of this contract. In addition--

(1) If this contract is completely or partially terminated, the Contractor shall make available the records relating to the work terminated until 3 years after any resulting final termination settlement; and

(2) The Contractor shall make available records relating to appeals under the Disputes clause or to litigation or the settlement of claims arising under or relating to this contract until such appeals, litigation, or claims are finally resolved.

(g) The Contractor shall insert a clause containing all the terms of this clause, including this paragraph (g), in all subcontracts under this contract that exceed the simplified acquisition threshold, and--

(1) That are cost-reimbursement, incentive, time-and-materials, labor-hour, or price-redeterminable type or any combination of these;

(2) For which cost or pricing data are required; or

(3) That require the subcontractor to furnish reports as discussed in paragraph (e) of this clause.

The clause may be altered only as necessary to identify properly the contracting parties and the Contracting Officer under the Government prime contract.

(End of clause)

52.215-11 PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA--MODIFICATIONS (OCT 1997)

(a) This clause shall become operative only for any modification to this contract involving a pricing adjustment expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, except that this clause does not apply to any modification if an exception under FAR 15.403-1 applies.

(b) If any price, including profit or fee, negotiated in connection with any modification under this clause, or any cost reimbursable under this contract, was increased by any significant amount because (1) the Contractor or a subcontractor furnished cost or pricing data that were not complete, accurate, and current as certified in its Certificate of Current Cost or Pricing Data, (2) a subcontractor or prospective subcontractor furnished the Contractor cost or pricing data that were not complete, accurate, and current as certified in the Contractor's Certificate of Current Cost or Pricing Data, or (3) any of these parties furnished data of any description that were not accurate, the price or cost shall be reduced accordingly and the contract shall be modified to reflect the reduction. This right to a price reduction is limited to that resulting from defects in data relating to modifications for which this clause becomes operative under paragraph (a) of this clause.

(c) Any reduction in the contract price under paragraph (b) of this clause due to defective data from a prospective subcontractor that was not subsequently awarded the subcontract shall be limited to the amount, plus applicable overhead and profit markup, by which--

(1) The actual subcontract; or

(2) The actual cost to the Contractor, if there was no subcontract, was less than the prospective subcontract cost estimate submitted by the Contractor; provided, that the actual subcontract price was not itself affected by defective cost or pricing data.

(d)(1) If the Contracting Officer determines under paragraph (b) of this clause that a price or cost reduction should be made, the Contractor agrees not to raise the following matters as a defense:

(i) The Contractor or subcontractor was a sole source supplier or otherwise was in a superior bargaining position and thus the price of the contract would not have been modified even if accurate, complete, and current cost or pricing data had been submitted.

(ii) The Contracting Officer should have known that the cost or pricing data in issue were defective even though the Contractor or subcontractor took no affirmative action to bring the character of the data to the attention of the Contracting Officer.

(iii) The contract was based on an agreement about the total cost of the contract and there was no agreement about the cost of each item procured under the contract.

(iv) The Contractor or subcontractor did not submit a Certificate of Current Cost or Pricing Data.

(2)(i) Except as prohibited by subdivision (d)(2)(ii) of this clause, an offset in an amount determined appropriate by the Contracting Officer based upon the facts shall be allowed against the amount of a contract price reduction if--

(A) The Contractor certifies to the Contracting Officer that, to the best of the Contractor's knowledge and belief, the Contractor is entitled to the offset in the amount requested; and

(B) The Contractor proves that the cost or pricing data were available before the “as of” date specified on its Certificate of Current Cost or Pricing Data, and that the data were not submitted before such date.

(ii) An offset shall not be allowed if--

(A) The understated data were known by the Contractor to be understated before the “as of” date specified on its Certificate of Current Cost or Pricing Data; or

(B) The Government proves that the facts demonstrate that the contract price would not have increased in the amount to be offset even if the available data had been submitted before the “as of” date specified on its Certificate of Current Cost or Pricing Data.

(e) If any reduction in the contract price under this clause reduces the price of items for which payment was made prior to the date of the modification reflecting the price reduction, the Contractor shall be liable to and shall pay the United States at the time such overpayment is repaid--

(1) Simple interest on the amount of such overpayment to be computed from the date(s) of overpayment to the Contractor to the date the Government is repaid by the Contractor at the applicable underpayment rate effective for each quarter prescribed by the Secretary of the Treasury under 26 U.S.C. 6621(a)(2); and

A penalty equal to the amount of the overpayment, if the Contractor or subcontractor knowingly submitted cost or pricing data that were incomplete, inaccurate, or noncurrent.

(End of clause)

52.215-13 SUBCONTRACTOR COST OR PRICING DATA--MODIFICATIONS (OCT 1997)

(a) The requirements of paragraphs (b) and (c) of this clause shall--

(1) Become operative only for any modification to this contract involving a pricing adjustment expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4; and

(2) Be limited to such modifications.

(b) Before awarding any subcontract expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, on the date of agreement on price or the date of award, whichever is later; or before pricing any subcontract modification involving a pricing adjustment expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, the Contractor shall require the subcontractor to submit cost or pricing data (actually or by specific identification in writing), unless an exception under FAR 15.403-1 applies.

(c) The Contractor shall require the subcontractor to certify in substantially the form prescribed in FAR 15.406-2 that, to the best of its knowledge and belief, the data submitted under paragraph (b) of this clause were accurate, complete, and current as of the date of agreement on the negotiated price of the subcontract or subcontract modification.

The Contractor shall insert the substance of this clause, including this paragraph (d), in each subcontract that exceeds the threshold for submission of cost or pricing data at FAR 15.403-4 on the date of agreement on price or the date of award, whichever is later.

(End of clause)

52.217-7 OPTION FOR INCREASED QUANTITY--SEPARATELY PRICED LINE ITEM (MAR 1989)

The Government may require the delivery of the numbered line item, identified in the Schedule as an option item, in the quantity and at the price stated in the Schedule. The Contracting Officer may exercise the option by written notice to the Contractor within 150 days of award of the basic contract. Delivery of added items shall continue at the same rate that like items are called for under the contract, unless the parties otherwise agree.

(End of clause)

52.219-4 NOTICE OF PRICE EVALUATION PREFERENCE FOR HUBZONE SMALL BUSINESS CONCERNS (JAN 1999)

(a) Definition. HUBZone small business concern, as used in this clause, means a small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.

(b) Evaluation preference. (1) Offers will be evaluated by adding a factor of 10 percent to the price of all offers, except--

(i) Offers from HUBZone small business concerns that have not waived the evaluation preference;

(ii) Otherwise successful offers from small business concerns;

(iii) Otherwise successful offers of eligible products under the Trade Agreements Act when the dollar threshold for application of the Act is exceeded (see 25.402 of the Federal Acquisition Regulation (FAR)); and

(iv) Otherwise successful offers where application of the factor would be inconsistent with a Memorandum of Understanding or other international agreement with a foreign government.

(2) The factor of 10 percent shall be applied on a line item basis or to any group of items on which award may be made. Other evaluation factors described in the solicitation shall be applied before application of the factor.

(3) A concern that is both a HUBZone small business concern and a small disadvantaged business concern will receive the benefit of both the HUBZone small business price evaluation preference and the small disadvantaged business price evaluation adjustment (see FAR clause 52.219-23). Each applicable price evaluation preference or adjustment shall be calculated independently against an offeror's base offer.

These individual preference amounts shall be added together to arrive at the total evaluated price for that offer.

(c) Waiver of evaluation preference. A HUBZone small business concern may elect to waive the evaluation preference, in which case the factor will be added to its offer for evaluation purposes. The agreements in paragraph (d) of this clause do not apply if the offeror has waived the evaluation preference.

___ Offeror elects to waive the evaluation preference.

(d) Agreement. A HUBZone small business concern agrees that in the performance of the contract, in the case of a contract for

(1) Services (except construction), at least 50 percent of the cost of personnel for contract performance will be spent for employees of the concern or employees of other HUBZone small business concerns;

(2) Supplies (other than procurement from a nonmanufacturer of such supplies), at least 50 percent of the cost of manufacturing, excluding the cost of materials, will be performed by the concern or other HUBZone small business concerns;

(3) General construction, at least 15 percent of the cost of the contract performance incurred for personnel will be will be spent on the concern's employees or the employees of other HUBZone small business concerns; or

(4) Construction by special trade contractors, at least 25 percent of the cost of the contract performance incurred for personnel will be spent on the concern's employees or the employees of other HUBZone small business concerns.

(e) A HUBZone joint venture agrees that in the performance of the contract, the applicable percentage specified in paragraph (d) of this clause will be performed by the HUBZone small business participant or participants.

(f) A HUBZone small business concern nonmanufacturer agrees to furnish in performing this contract only end items manufactured or produced by HUBZone small business manufacturer concerns. This paragraph does not apply in connection with construction or service contracts.

(End of clause)

52.219-8 UTILIZATION OF SMALL BUSINESS CONCERNS (OCT 2000)

(a) It is the policy of the United States that small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns shall have the maximum practicable opportunity to participate in performing contracts let by any Federal agency, including contracts and subcontracts for subsystems, assemblies, components, and related services for major systems. It is further the policy of the United States that its prime contractors establish procedures to ensure the timely payment of amounts due pursuant to the terms of their subcontracts with small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns.

(b) The Contractor hereby agrees to carry out this policy in the awarding of subcontracts to the fullest extent consistent with efficient contract performance. The Contractor further agrees to cooperate in any studies or surveys as may be conducted by the United States Small Business Administration or the awarding agency of the United States as may be necessary to determine the extent of the Contractor's compliance with this clause.

Definitions. As used in this contract--

HUBZone small business concern means a small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.

Service-disabled veteran-owned small business concern--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

Small business concern means a small business as defined pursuant to Section 3 of the Small Business Act and relevant regulations promulgated pursuant thereto.

Small disadvantaged business concern means a small business concern that represents, as part of its offer that--

(1) It has received certification as a small disadvantaged business concern consistent with 13 CFR part 124, subpart B;

(2) No material change in disadvantaged ownership and control has occurred since its certification;

(3) Where the concern is owned by one or more individuals, the net worth of each individual upon whom the certification is based does not exceed $750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and

(4) It is identified, on the date of its representation, as a certified small disadvantaged business in the database maintained by the Small Business Administration (PRO-Net).

Veteran-owned small business concern means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

Women-owned small business concern means a small business concern--

(1) That is at least 51 percent owned by one or more women, or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

(d) Contractors acting in good faith may rely on written representations by their subcontractors regarding their status as a small business concern, a veteran-owned small business concern, a service-disabled veteran-owned small business concern, a HUBZone small business concern, a small disadvantaged business concern, or a women-owned small business concern.

(End of clause)

52.219-9 SMALL BUSINESS SUBCONTRACTING PLAN (JAN 2002)--ALTERNATE II (OCT 2001).

(a) This clause does not apply to small business concerns.

(b) Definitions. As used in this clause--

Commercial item means a product or service that satisfies the definition of commercial item in section 2.101 of the Federal Acquisition Regulation.

Commercial plan means a subcontracting plan (including goals) that covers the offeror's fiscal year and that applies to the entire production of commercial items sold by either the entire company or a portion thereof (e.g., division, plant, or product line).

Individual contract plan means a subcontracting plan that covers the entire contract period (including option periods), applies to a specific contract, and has goals that are based on the offeror's planned subcontracting in support of the specific contract, except that indirect costs incurred for common or joint purposes may be allocated on a prorated basis to the contract.

Master plan means a subcontracting plan that contains all the required elements of an individual contract plan, except goals, and may be incorporated into individual contract plans, provided the master plan has been approved.

Subcontract means any agreement (other than one involving an employer-employee relationship) entered into by a Federal Government prime Contractor or subcontractor calling for supplies or services required for performance of the contract or subcontract.

(c) Proposals submitted in response to this solicitation shall include a subcontracting plan that separately addresses subcontracting with small business, veteran-owner small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns. If the offeror is submitting an individual contract plan, the plan must separately address subcontracting with small business, veteran-owner small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns, with a separate part for the basic contract and separate parts for each option (if any). The plan shall be included in and made a part of the resultant contract. The subcontracting plan shall be negotiated within the time specified by the Contracting Officer. Failure to submit and negotiate a subcontracting plan shall make the offeror ineligible for award of a contract.

(d) The offeror's subcontracting plan shall include the following:

(1) Goals, expressed in terms of percentages of total planned subcontracting dollars, for the use of small business, veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns as subcontractors. The offeror shall include all subcontracts that contribute to contract performance, and may include a proportionate share of products and services that are normally allocated as indirect costs.

(2) A statement of--

(i) Total dollars planned to be subcontracted for an individual contract plan; or the offeror's total projected sales, expressed in dollars, and the total value of projected subcontracts to support the sales for a commercial plan;

(ii) Total dollars planned to be subcontracted to small business concerns;

(iii) Total dollars planned to be subcontracted to veteran-owned small business concerns;

(iv) Total dollars planned to be subcontracted to HUBZone small business concerns;

(v) Total dollars planned to be subcontracted to small disadvantaged business concerns; and

(vi) Total dollars planned to be subcontracted to women-owned small business concerns.

(3) A description of the principal types of supplies and services to be subcontracted, and an identification of the types planned for subcontracting to--

(i) Small business concerns;

(ii) Veteran-owned small business concerns;

(iii) HUBZone small business concerns;

(iv) Small disadvantaged business concerns; and

(v) Women-owned small business concerns.

(4) A description of the method used to develop the subcontracting goals in paragraph (d)(1) of this clause.

(5) A description of the method used to identify potential sources for solicitation purposes (e.g., existing company source lists, the Procurement Marketing and Access Network (PRO-Net) of the Small Business Administration (SBA), veterans service organizations, the National Minority Purchasing Council Vendor Information Service, the Research and Information Division of the Minority Business Development Agency in the Department of Commerce, or small, HUBZone, small disadvantaged, and women-owned small business trade associations). A firm may rely on the information contained in PRO-Net as an accurate representation of a concern's size and ownership characteristics for the purposes of maintaining a small, veteran-owned small, HUBZone small, small disadvantaged, and women-owned small business source list. Use of PRO-Net as its source list does not relieve a firm of its responsibilities (e.g., outreach, assistance, counseling, or publicizing subcontracting opportunities) in this clause.

(6) A statement as to whether or not the offeror in included indirect costs in establishing subcontracting goals, and a description of the method used to determine the proportionate share of indirect costs to be incurred with—

(i) Small business concerns;

(ii) Veteran-owned small business concerns;

(iii) HUBZone small business concerns;

(iv) Small disadvantaged business concerns; and

(v) Women-owned small business concerns.

(7) The name of the individual employed by the offeror who will administer the offeror's subcontracting program, and a description of the duties of the individual.

(8) A description of the efforts the offeror will make to assure that small business, veteran-owned small business, HUBZone small business, small disadvantaged business and women-owned small business concerns have an equitable opportunity to compete for subcontracts.

(9) Assurances that the offeror will include the clause of this contract entitled ``Utilization of Small Business Concerns'' in all subcontracts that offer further subcontracting opportunities, and that the offeror will require all subcontractors (except small business concerns) that receive subcontracts in excess of $500,000 ($1,000,000 for construction of any public facility) to adopt a subcontracting plan that complies with the requirements of this clause.

(10) Assurances that the offeror will--

(i) Cooperate in any studies or surveys as may be required;

(ii) Submit periodic reports so that the Government can determine the extent of compliance by the offeror with the subcontracting plan;

(iii) Submit Standard Form (SF) 294, Subcontracting Report for Individual Contracts, and/or SF 295, Summary Subcontract Report, in accordance with paragraph (j) of this clause. The reports shall provide information on subcontract awards to small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, small disadvantaged business concerns, women-owned small business concerns, and Historically Black Colleges and Universities and Minority Institutions. Reporting shall be in accordance with the instructions on the forms or as provided in agency regulations.

(iv) Ensure that its subcontractors agree to submit SF 294 and SF 295.

(11) A description of the types of records that will be maintained concerning procedures that have been adopted to comply with the requirements and goals in the plan, including establishing source lists; and a description of the offeror's efforts to locate small business, veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns and award subcontracts to them. The records shall include at least the following (on a plant-wide or company-wide basis, unless otherwise indicated)

(i) Source lists (e.g., PRO-Net), guides, and other data that identify small business, veteran-owner small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.

(ii) Organizations contacted in an attempt to locate sources that are small business, veteran-owned small business, HUBZone small business, small disadvantaged business, or women-owned small business concerns.

(iii) Records on each subcontract solicitation resulting in an award of more than $100,000, indicating--

(A) Whether small business concerns were solicited and, if not, why not;

(B) Whether veteran-owned small business concerns were solicited and, if not, why not;

(C) Whether HUBZone small business concerns were solicited and, if not, why not;

(D) Whether small disadvantaged business concerns were solicited and, if not, why not;

(E) Whether women-owned small business concerns were solicited and, if not, why not; and

(F) If applicable, the reason award was not made to a small business concern.

(iv) Records of any outreach efforts to contact--

(A) Trade associations;

(B) Business development organizations;

(C) Conferences and trade fairs to locate small, HUBZone small, small disadvantaged, and women-owned small business sources; and

(D) Veterans service organizations.

(v) Records of internal guidance and encouragement provided to buyers through--

(A) Workshops, seminars, training, etc.; and

(B) Monitoring performance to evaluate compliance with the program's requirements.

(vi) On a contract-by-contract basis, records to support award data submitted by the offeror to the Government, including the name, address, and business size of each subcontractor. Contractors having commercial plans need not comply with this requirement.

(e) In order to effectively implement this plan to the extent consistent with efficient contract performance, the Contractor shall perform the following functions:

(1) Assist small business, veteran-owner small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation by such concerns. Where the Contractor's lists of potential small business, veteran-owner small business, HUBZone small business, small disadvantaged business, and women-owned small business subcontractors are excessively long, reasonable effort shall be made to give all such small business concerns an opportunity to compete over a period of time.

(2) Provide adequate and timely consideration of the potentialities of small business, veteran-owner small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns in all ``make-or-buy'' decisions.

(3) Counsel and discuss subcontracting opportunities with representatives of small business, veteran-owner small business, HUBZone small business, small disadvantaged business, and women-owned small business firms.

(4) Provide notice to subcontractors concerning penalties and remedies for misrepresentations of business status as small, veteran-owner small business, HUBZone small, small disadvantaged, or women-owned small business for the purpose of obtaining a subcontract that is to be included as part or all of a goal contained in the Contractor's subcontracting plan.

(f) A master plan on a plant or division-wide basis that contains all the elements required by paragraph (d) of this clause, except goals, may be incorporated by reference as a part of the subcontracting plan required of the offeror by this clause; provided--
(1) the master plan has been approved, (2) the offeror ensures that the master plan is updated as necessary and provides copies of the approved master plan, including evidence of its approval, to the Contracting Officer, and (3) goals and any deviations from the master plan deemed necessary by the Contracting Officer to satisfy the requirements of this contract are set forth in the individual subcontracting plan.

(g) A commercial plan is the preferred type of subcontracting plan for contractors furnishing commercial items. The commercial plan shall relate to the offeror's planned subcontracting generally, for both commercial and Government business, rather than solely to the Government contract. Commercial plans are also preferred for subcontractors that provide commercial items under a prime contract, whether or not the prime contractor is supplying a commercial item.

(h) Prior compliance of the offeror with other such subcontracting plans under previous contracts will be considered by the Contracting Officer in determining the responsibility of the offeror for award of the contract.

(i) The failure of the Contractor or subcontractor to comply in good faith with (1) the clause of this contract entitled "Utilization Of Small Business Concerns," or (2) an approved plan required by this clause, shall be a material breach of the contract.

(j) The Contractor shall submit the following reports:

(1) Standard Form 294, Subcontracting Report for Individual Contracts. This report shall be submitted to the Contracting Officer semiannually and at contract completion. The report covers subcontract award data related to this contract. This report is not required for commercial plans.

(2) Standard Form 295, Summary Subcontract Report. This report encompasses all of the contracts with the awarding agency. It must be submitted semi-annually for contracts with the Department of Defense and annually for contracts with civilian agencies. If the reporting activity is covered by a commercial plan, the reporting activity must report annually all subcontract awards under that plan. All reports submitted at the close of each fiscal year (both individual and commercial plans) shall include a breakout, in the Contractor's format, of subcontract awards, in whole dollars, to small disadvantaged business concerns by North American Industry Classification System (NAICS) Industry Subsector. For a commercial plan, the Contractor may obtain from each of its subcontractors a predominant NAICS Industry Subsector and report all awards to that subcontractor under its predominant NAICS Industry Subsector.

(End of clause)

52.219-14 LIMITATIONS ON SUBCONTRACTING (DEC 1996)

(a) This clause does not apply to the unrestricted portion of a partial set-aside.

(b) By submission of an offer and execution of a contract, the Offeror/Contractor agrees that in performance of the contract in the case of a contract for--

(1) Services (except construction). At least 50 percent of the cost of contract performance incurred for personnel shall be expended for employees of the concern.

(2) Supplies (other than procurement from a nonmanufacturer of such supplies). The concern shall perform work for at least 50 percent of the cost of manufacturing the supplies, not including the cost of materials.

(3) General construction. The concern will perform at least 15 percent of the cost of the contract, not including the cost of materials, with its own employees.

(4) Construction by special trade contractors. The concern will perform at least 25 percent of the cost of the contract, not including the cost of materials, with its own employees.

52.219-16 LIQUIDATED DAMAGES-SUBCONTRACTING PLAN (JAN 1999)

(a) Failure to make a good faith effort to comply with the subcontracting plan, as used in this clause, means a willful or intentional failure to perform in accordance with the requirements of the subcontracting plan approved under the clause in this contract entitled "Small Business Subcontracting Plan," or willful or intentional action to frustrate the plan.

(b) Performance shall be measured by applying the percentage goals to the total actual subcontracting dollars or, if a commercial plan is involved, to the pro rata share of actual subcontracting dollars attributable to Government contracts covered by the commercial plan. If, at contract completion or, in the case of a commercial plan, at the close of the fiscal year for which the plan is applicable, the Contractor has failed to meet its subcontracting goals and the Contracting Officer decides in accordance with paragraph (c) of this clause that the Contractor failed to make a good faith effort to comply with its subcontracting plan, established in accordance with the clause in this contract entitled “Small Business Subcontracting Plan,” the Contractor shall pay the Government liquidated damages in an amount stated. The amount of probable damages attributable to the Contractor's failure to comply shall be an amount equal to the actual dollar amount by which the Contractor failed to achieve each subcontract goal.

(c) Before the Contracting Officer makes a final decision that the Contractor has failed to make such good faith effort, the Contracting Officer shall give the Contractor written notice specifying the failure and permitting the Contractor to demonstrate what good faith efforts have been made and to discuss the matter. Failure to respond to the notice may be taken as an admission that no valid explanation exists. If, after consideration of all the pertinent data, the Contracting Officer finds that the Contractor failed to make a good faith effort to comply with the subcontracting plan, the Contracting Officer shall is sue a final decision to that effect and require that the Contractor pay the Government liquidated damages as provided in paragraph (b) of this clause.

(d) With respect to commercial plans, the Contracting Officer who approved the plan will perform the functions of the Contracting Officer under this clause on behalf of all agencies with contracts covered by the commercial plan.

(e) The Contractor shall have the right of appeal, under the clause in this contract entitled Disputes, from any final decision of the Contracting Officer.

(f) Liquidated damages shall be in addition to any other remedies that the Government may have.

(End of clause)

52.222-3 CONVICT LABOR (AUG 1996)

The Contractor agrees not to employ in the performance of this contract any person undergoing a sentence of imprisonment which has been imposed by any court of a State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or the Trust Territory of the Pacific Islands. This limitation, however, shall not prohibit the employment by the Contractor in the performance of this contract of persons on parole or probation to work at paid employment during the term of their sentence or persons who have been pardoned or who have served their terms. Nor shall it prohibit the employment by the Contractor in the performance of this contract of persons confined for violation of the laws of any of the States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or the Trust Territory of the Pacific Islands who are authorized to work at paid employment in the community under the laws of such jurisdiction, if--

(a)(1) The worker is paid or is in an approved work training program on a voluntary basis;

(2) Representatives of local union central bodies or similar labor union organizations have been consulted;

(3) Such paid employment will not result in the displacement of employed workers, or be applied in skills, crafts, or trades in which there is a surplus of available gainful labor in the locality, or impair existing contracts for services; and

(4) The rates of pay and other conditions of employment will not be less than those paid or provided for work of a similar nature in the locality in which the work is being performed; and

(b) The Attorney General of the United States has certified that the work-release laws or regulations of the jurisdiction involved are in conformity with the requirements of Executive Order 11755, as amended by Executive Orders 12608 and 12943.

(End of clause)

52.222-4 CONTRACT WORK HOURS AND SAFETY STANDARDS ACT - OVERTIME COMPENSATION. (SEP 2000)

(a) Overtime requirements. No Contractor or subcontractor employing laborers or mechanics (see Federal Acquisition Regulation 22.300) shall require or permit them to work over 40 hours in any workweek unless they are paid at least 1 and 1/2 times the basic rate of pay for each hour worked over 40 hours.

(b) Violation; liability for unpaid wages; liquidated damages. The responsible Contractor and subcontractor are liable for unpaid wages if they violate the terms in paragraph (a) of this clause. In addition, the Contractor and subcontractor are liable for liquidated damages payable to the Government. The Contracting Officer will assess liquidated damages at the rate of $10 per affected employee for each calendar day on which the employer required or permitted the employee to work in excess of the standard workweek of 40 hours without paying overtime wages required by the Contract Work Hours and Safety Standards Act.

(c) Withholding for unpaid wages and liquidated damages. The Contracting Officer will withhold from payments due under the contract sufficient funds required to satisfy any Contractor or subcontractor liabilities for unpaid wages and liquidated damages. If amounts withheld under the contract are insufficient to satisfy Contractor or subcontractor liabilities, the Contracting Officer will withhold payments from other Federal or Federally assisted contracts held by the same Contractor that are subject to the Contract Work Hours and Safety Standards Act.

(d) Payrolls and basic records.

(1) The Contractor and its subcontractors shall maintain payrolls and basic payroll records for all laborers and mechanics working on the contract during the contract and shall make them available to the Government until 3 years after contract completion. The records shall contain the name and address of each employee, social security number, labor classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. The records need not duplicate those required for construction work by Department of Labor regulations at 29 CFR 5.5(a)(3) implementing the Davis-Bacon Act.

(2) The Contractor and its subcontractors shall allow authorized representatives of the Contracting Officer or the Department of Labor to inspect, copy, or transcribe records maintained under paragraph (d)(1) of this clause. The Contractor or subcontractor also shall allow authorized representatives of the Contracting Officer or Department of Labor to interview employees in the workplace during working hours.

(e) Subcontracts. The Contractor shall insert the provisions set forth in paragraphs (a) through (d) of this clause in subcontracts exceeding $100,000 and require subcontractors to include these provisions in any lower tier subcontracts. The Contractor shall be responsible for compliance by any subcontractor or lower-tier subcontractor with the provisions set forth in paragraphs (a) through (d) of this clause.

(End of clause)

52.222-6 DAVIS-BACON ACT (FEB 1995)

(a) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (d) of this clause; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred

during such period. Such laborers and mechanics shall be paid not less than the appropriate wage rate and fringe benefits in the wage determination for the classification of work actually performed, without regard to skill, except as provided in the clause entitled Apprentices and Trainees. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph (b) of this clause) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(b)(1) The Contracting Officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The Contracting Officer shall approve an additional classification and wage rate and fringe benefits therefor only when all the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination.

(ii) The classification is utilized in the area by the construction industry.

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Contracting Officer agree on the classification and wage rate (including the amount designated for fringe benefits, where appropriate), a report of the action taken shall be sent by the Contracting Officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator or an authorized representative will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(3) In the event the Contractor, the laborers or mechanics to be employed in the classification, or their representatives, and the Contracting Officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Contracting Officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting Officer, to the Administrator of the Wage and Hour Division for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits, where appropriate) determined pursuant to subparagraphs (b)(2) and (b)(3) of this clause shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(c) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(ix) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; provided, That the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(End of clause)

52.222-7 WITHHOLDING OF FUNDS (FEB 1988)

The Contracting Officer shall, upon his or her own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same Prime Contractor, or any other Federally assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same Prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(End of clause)

52.222-8 PAYROLLS AND BASIC RECORDS (FEB 1988)

(a) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of 3 years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Secretary of Labor has found, under paragraph (d) of the clause entitled Davis-Bacon Act, that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(b)(1) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Contracting Officer. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under paragraph (a) of this clause. This information may be submitted in any form desired. Optional Form WH-347 (Federal Stock Number 029-005-00014-1) is available for this purpose and may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. The Prime Contractor is responsible for the submission of copies of payrolls by all subcontractors.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify--

(i) That the payroll for the payroll period contains the information required to be maintained under paragraph (a) of this clause and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no

deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR Part 3; and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph (b)(2) of this clause.

(4) The falsification of any of the certifications in this clause may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 3729 of Title 31 of the United States Code.

(c) The Contractor or subcontractor shall make the records required under paragraph (a) of this clause available for inspection, copying, or transcription by the Contracting Officer or authorized representatives of the Contracting Officer or the Department of Labor. The Contractor or subcontractor shall permit the Contracting Officer or representatives of the Contracting Officer or the Department of Labor to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit required records or to make them available, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(End of clause)

52.222-9 APPRENTICES AND TRAINEES (FEB 1988)

(a) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in this paragraph, shall be paid not less than the applicable wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(b) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed in the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate in the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate in the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate in the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(c) Equal employment opportunity. The utilization of apprentices, trainees, and journeymen under this clause shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

(End of clause)

52.222-10 COMPLIANCE WITH COPELAND ACT REQUIREMENTS (FEB 1988)

The Contractor shall comply with the requirements of 29 CFR Part 3, which are hereby incorporated by reference in this contract.

(End of clause)

52.222-11 SUBCONTRACTS (LABOR STANDARDS (FEB 1988)

(a) The Contractor or subcontractor shall insert in any subcontracts the clauses entitled Davis-Bacon Act, Contract Work Hours and Safety Standards Act-Overtime Compensation, Apprentices and Trainees, Payrolls and Basic Records, Compliance with Copeland Act Requirements, Withholding of Funds, Subcontracts (Labor Standards), Contract Termination-Debarment, Disputes Concerning Labor Standards, Compliance with Davis-Bacon and Related Act Regulations, and Certification of Eligibility, and such other clauses as the Contracting Officer may, by appropriate instructions, require, and also a clause requiring subcontractors to include these clauses in any lower tier subcontracts. The Prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with all the contract clauses cited in this paragraph.

(b)(1) Within 14 days after award of the contract, the Contractor shall deliver to the Contracting Officer a completed Statement and Acknowledgment Form (SF 1413) for each subcontract, including the subcontractor's signed and dated acknowledgment that the clauses set forth in paragraph (a) of this clause have been included in the subcontract.

(2) Within 14 days after the award of any subsequently awarded subcontract the Contractor shall deliver to the Contracting Officer an updated completed SF 1413 for such additional subcontract.

(End of clause)

52.222-12 CONTRACT TERMINATION--DEBARMENT (FEB 1988)

A breach of the contract clauses entitled Davis-Bacon Act, Contract Work Hours and Safety Standards Act--Overtime Compensation, Apprentices and Trainees, Payrolls and Basic Records, Compliance with Copeland Act Requirements, Subcontracts (Labor Standards), Compliance with Davis-Bacon and Related Act Regulations, or Certification of Eligibility may be grounds for termination of the contract, and for debarment as a Contractor and subcontractor as provided in 29 CFR 5.12.

(End of clause)

52.222-13 COMPLIANCE WITH DAVIS-BACON AND RELATED ACT REGULATIONS (FEB 1988)

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are hereby incorporated by reference in this contract.

(End of clause)

52.222-14 DISPUTES CONCERNING LABOR STANDARDS (FEB 1988)

The United States Department of Labor has set forth in 29 CFR Parts 5, 6, and 7 procedures for resolving disputes concerning labor standards requirements. Such disputes shall be resolved in accordance with those procedures and not the Disputes clause of this contract. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(End of clause)

52.222-15 CERTIFICATION OF ELIGIBILITY (FEB 1988)

(a) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(b) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(c) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

(End of clause)

52.222-21 PROHIBITION OF SEGREGATED FACILITIES (FEB 1999)

(a) Segregated facilities, as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees,

that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

(b) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Opportunity clause in this contract.

(c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Opportunity clause of this contract.

(End of clause)

52.222-26 EQUAL OPPORTUNITY (APR 2002)

(a) Definition. United States, as used in this clause, means the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, and Wake Island.

(b) If, during any 12-month period (including the 12 months preceding the award of this contract), the Contractor has been or is awarded nonexempt Federal contracts and/or subcontracts that have an aggregate value in excess of $10,000, the Contractor shall comply with paragraphs (b)(1) through (b)(11) of this clause, except for work performed outside the United States by employees who were not recruited within the United States. Upon request, the Contractor shall provide information necessary to determine the applicability of this clause.

(1) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. However, it shall not be a violation of this clause for the Contractor to extend a publicly announced preference in employment to Indians living on or near an Indian reservation, in connection with employment opportunities on or near an Indian reservation, as permitted by 41 CFR 60-1.5.

(2) The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. This shall include, but not be limited to, (i) employment, (ii) upgrading, (iii) demotion, (iv) transfer, (v) recruitment or recruitment advertising, (vi) layoff or termination, (vii) rates of pay or other forms of compensation, and (viii) selection for training, including apprenticeship.

(3) The Contractor shall post in conspicuous places available to employees and applicants for employment the notices to be provided by the Contracting Officer that explain this clause.

(4) The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(5) The Contractor shall send, to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, the notice to be provided by the Contracting Officer advising the labor union or workers' representative of the Contractor's commitments under this clause, and post copies of the notice in conspicuous places available to employees and applicants for employment.

(6) The Contractor shall comply with Executive Order 11246, as amended, and the rules, regulations, and orders of the Secretary of Labor.

(7) The Contractor shall furnish to the contracting agency all information required by Executive Order 11246, as amended, and by the rules, regulations, and orders of the Secretary of Labor. The Contractor shall also file Standard Form 100 (EEO-1), or any successor form, as prescribed in 41 CFR part 60-1. Unless the Contractor has filed within the 12 months preceding the date of contract award, the Contractor shall, within 30 days after contract award, apply to either the regional Office of Federal Contract Compliance Programs (OFCCP) or the local office of the Equal Employment Opportunity Commission for the necessary forms.

(8) The Contractor shall permit access to its premises, during normal business hours, by the contracting agency or the OFCCP for the purpose of conducting on-site compliance evaluations and complaint investigations. The Contractor shall permit the Government to inspect and copy any books, accounts, records (including computerized records), and other material that may be relevant to the matter under investigation and pertinent to compliance with Executive Order 11246, as amended, and rules and regulations that implement the Executive Order.

(9) If the OFCCP determines that the Contractor is not in compliance with this clause or any rule, regulation, or order of the Secretary of Labor, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts, under the procedures authorized in Executive Order 11246, as amended. In addition, sanctions may be imposed and remedies invoked against the Contractor as provided in Executive Order 11246, as amended; in the rules, regulations, and orders of the Secretary of Labor; or as otherwise provided by law.

(10) The Contractor shall include the terms and conditions of subparagraphs (b)(1) through (11) of this clause in every subcontract or purchase order that is not exempted by the rules, regulations, or orders of the Secretary of Labor issued under Executive Order 11246, as amended, so that these terms and conditions will be binding upon each subcontractor or vendor.

(11) The Contractor shall take such action with respect to any subcontract or purchase order as the contracting officer may direct as a means of enforcing these terms and conditions, including sanctions for noncompliance; provided, that if the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of any direction, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

(c) Notwithstanding any other clause in this contract, disputes relative to this clause will be governed by the procedures in 41 CFR 60-1.1.

(End of clause)

52.222-27 AFFIRMATIVE ACTION COMPLIANCE REQUIREMENTS FOR CONSTRUCTION (FEB 1999)

(a) Definitions. "Covered area," as used in this clause, means the geographical area described in the solicitation for this contract.

"Deputy Assistant Secretary," as used in this clause, means Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, or a designee.

"Employer's identification number," as used in this clause, means the Federal Social Security number used on the employer's quarterly federal tax return, U.S. Treasury Department Form 941.

"Minority," as used in this clause, means--

(1) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

(2) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands);

(3) Black (all persons having origins in any of the black African racial groups not of Hispanic origin); and

(4) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race).

(b) If the Contractor, or a subcontractor at any tier, subcontracts a portion of the work involving any construction trade, each such subcontract in excess of $10,000 shall include this clause and the Notice containing the goals for minority and female participation stated in the solicitation for this contract.

(c) If the Contractor is participating in a Hometown Plan (41 CFR 60-4) approved by the U.S. Department of Labor in a covered area, either individually or through an association, its affirmative action obligations on all work in the plan area (including goals) shall comply with the plan for those trades that have unions participating in the plan. Contractors must be able to demonstrate participation in, and compliance with, the provisions of the plan. Each Contractor or subcontractor participating in an approved plan is also required to comply with its obligations under the Equal Opportunity clause, and to make a good faith effort to achieve each goal under the plan in each trade in which it has employees. The overall good-faith performance by other Contractors or subcontractors toward a goal in an approved plan does not excuse any Contractor's or subcontractor's failure to make good-faith efforts to achieve the plan's goals.

(d) The Contractor shall implement the affirmative action procedures in subparagraphs (g)(1) through (16) of this clause. The goals stated in the solicitation for this contract are expressed as percentages of the total hours of employment and training of minority and female utilization that the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for the geographical area where that work is actually performed. The Contractor is expected to make substantially uniform progress toward its goals in each craft.

(e) Neither the terms and conditions of any collective bargaining agreement, nor the failure by a union with which the Contractor has a collective bargaining agreement, to refer minorities or women shall excuse the Contractor's obligations under this clause, Executive Order 11246, as amended, or the regulations thereunder.

(f) In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

(g) The Contractor shall take affirmative action to ensure equal employment opportunity. The evaluation of the Contractor's compliance with this clause shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully and implement affirmative action steps at least as extensive as the following:

(1) Ensure a working environment free of harassment, intimidation, and coercion at all sites and in all facilities where the Contractor's employees are assigned to work. The Contractor, if possible, will assign two or more women to each construction project. The Contractor shall ensure that foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at these sites or facilities.

(2) Establish and maintain a current list of sources for minority and female recruitment. Provide written notification to minority and female recruitment sources and community organizations when the Contractor or its unions have

employment opportunities available, and maintain a record of the organizations' responses.

(3) Establish and maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant, referrals of minorities or females from unions, recruitment sources, or community organizations, and the action taken with respect to each individual. If an individual was sent to the union hiring hall for referral and not referred back to the Contractor by the union or, if referred back, not employed by the Contractor, this shall be documented in the file, along with whatever additional actions the Contractor may have taken.

(4) Immediately notify the Deputy Assistant Secretary when the union or unions with which the Contractor has a collective bargaining agreement has not referred back to the Contractor a minority or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

(5) Develop on-the-job training opportunities and/or participate in training programs for the area that expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under subparagraph (g)(2) of this clause.

(6) Disseminate the Contractor's equal employment policy by--

(i) Providing notice of the policy to unions and to training, recruitment, and outreach programs, and requesting their cooperation in assisting the Contractor in meeting its contract obligations;

(ii) Including the policy in any policy manual and in collective bargaining agreements;

(iii) Publicizing the policy in the company newspaper, annual report, etc.;

(iv) Reviewing the policy with all management personnel and with all minority and female employees at least once a year; and

(v) Posting the policy on bulletin boards accessible to employees at each location where construction work is performed.

(7) Review, at least annually, the Contractor's equal employment policy and affirmative action obligations with all employees having responsibility for hiring, assignment, layoff, termination, or other employment decisions. Conduct review of this policy with all on-site supervisory personnel before initiating construction work at a job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

(8) Disseminate the Contractor's equal employment policy externally by including it in any advertising in the news media, specifically including minority and female news media. Provide written notification to, and discuss this policy with, other Contractors and subcontractors with which the Contractor does or anticipates doing business.

(9) Direct recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students, and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than 1 month before the date for acceptance of applications for apprenticeship or training by any recruitment source, send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

(10) Encourage present minority and female employees to recruit minority persons and women. Where reasonable, provide after-school, summer, and vacation employment to minority and female youth both on the site and in other areas of the Contractor's workforce.

(11) Validate all tests and other selection requirements where required under 41 CFR 60-3.

(12) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities. Encourage these employees to seek or to prepare for, through appropriate training, etc., opportunities for promotion.

(13) Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment-related activities to ensure that the Contractor's obligations under this contract are being carried out.

(14) Ensure that all facilities and company activities are nonsegregated except that separate or single-user rest rooms and necessary dressing or sleeping areas shall be provided to assure privacy between the sexes.

(15) Maintain a record of solicitations for subcontracts for minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

(16) Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's equal employment policy and affirmative action obligations.

(h) The Contractor is encouraged to participate in voluntary associations that may assist in fulfilling one or more of the affirmative action obligations contained in subparagraphs (g)(1) through (16) of this clause. The efforts of a contractor association, joint contractor-union, contractor-community, or similar group of which the contractor is a member and participant may be asserted as fulfilling one or more of its obligations under subparagraphs (g)(1) through (16) of this clause, provided the Contractor--

(1) Actively participates in the group;

(2) Makes every effort to ensure that the group has a positive impact on the employment of minorities and women in the industry;

(3) Ensures that concrete benefits of the program are reflected in the Contractor's minority and female workforce participation;

(4) Makes a good-faith effort to meet its individual goals and timetables; and

(5) Can provide access to documentation that demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply is the Contractor's, and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

(i) A single goal for minorities and a separate single goal for women shall be established. The Contractor is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and nonminority. Consequently, the Contractor may be in violation of Executive Order 11246, as amended, if a particular group is employed in a substantially disparate manner.

(j) The Contractor shall not use goals or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

(k) The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts under Executive Order 11246, as amended.

(l) The Contractor shall carry out such sanctions and penalties for violation of this clause and of the Equal

Opportunity clause, including suspension, termination, and cancellation of existing subcontracts, as may be imposed or ordered under Executive Order 11246, as amended, and its implementing regulations, by the OFCCP. Any failure to carry out these sanctions and penalties as ordered shall be a violation of this clause and Executive Order 11246, as amended.

(m) The Contractor in fulfilling its obligations under this clause shall implement affirmative action procedures at least as extensive as those prescribed in paragraph (g) of this clause, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of Executive Order 11246, as amended, the implementing regulations, or this clause, the Deputy Assistant Secretary shall take action as prescribed in 41 CFR 60-4.8.

(n) The Contractor shall designate a responsible official to--

(1) Monitor all employment-related activity to ensure that the Contractor's equal employment policy is being carried out;

(2) Submit reports as may be required by the Government; and

(3) Keep records that shall at least include for each employee the name, address, telephone number, construction trade, union affiliation (if any), employee identification number, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, separate records are not required to be maintained.

Nothing contained herein shall be construed as a limitation upon the application of other laws that establish different standards of compliance or upon the requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

(End of clause)

52.222-35 AFFIRMATIVE ACTION FOR DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA (APR 1998)

(a)) Definitions. As used in this clause--

All employment openings includes all positions except executive and top management, those positions that will be filled from within the contractor's organization, and positions lasting 3 days or less. This term includes full-time employment, temporary employment of more than 3 days' duration, and part-time employment.

Appropriate office of the State employment service system means the local office of the Federal-State national system of public employment offices with assigned responsibility to serve the area where the employment opening is to be filled, including the District of Columbia, Guam, the Commonwealth of Puerto Rico, and the Virgin Islands.

Positions that will be filled from within the Contractor's organization means employment openings for which no consideration will be given to persons outside the Contractor's organization (including any affiliates, subsidiaries, and parent companies) and includes any openings that the Contractor proposes to fill from regularly established “recall” lists. The exception does not apply to a particular opening once an employer decides to consider applicants outside of its organization.

Veteran of the Vietnam era means a person who--

(1) Served on active duty for a period of more than 180 days, any part of which occurred between August 5, 1964, and May 7, 1975, and was discharged or released therefrom with other than a dishonorable discharge; or

(2) Was discharged or released from active duty for a service-connected disability if any part of such active duty was performed between August 5, 1964, and May 7, 1975.

(b) General. (1) Regarding any position for which the employee or applicant for employment is qualified, the Contractor shall not discriminate against the individual because the individual is a disabled veteran or a veteran of the Vietnam era. The Contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified disabled veterans and veterans of the Vietnam era without discrimination based upon their disability or veterans' status in all employment practices such as--

(i) Employment;

(ii) Upgrading;

(iii) Demotion or transfer;

(iv) Recruitment;

(v) Advertising;

(vi) Layoff or termination;

(vii) Rates of pay or other forms of compensation; and

(viii) Selection for training, including apprenticeship.

(2) The Contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor (Secretary) issued under the Vietnam Era Veterans' Readjustment Assistance Act of 1972 (the Act), as amended.

(c) Listing openings. (1) The Contractor agrees to list all employment openings existing at contract award or occurring during contract performance, at an appropriate office of the State employment service system in the locality where the opening occurs. These openings include those occurring at any Contractor facility, including one not connected with performing this contract. An independent corporate affiliate is exempt from this requirement.

(2) State and local government agencies holding Federal contracts of $10,000 or more shall also list all their employment openings with the appropriate office of the State employment service.

(3) The listing of employment openings with the State employment service system is required at least concurrently with using any other recruitment source or effort and involves the obligations of placing a bona fide job order, including accepting referrals of veterans and nonveterans. This listing does not require hiring any particular job applicant or hiring from any particular group of job applicants and is not intended to relieve the Contractor from any requirements of Executive orders or regulations concerning nondiscrimination in employment.

(4) Whenever the Contractor becomes contractually bound to the listing terms of this clause, it shall advise the State employment service system, in each State where it has establishments, of the name and location of each hiring location in the State. As long as the Contractor is contractually bound to these terms and has so advised the State system, it need not advise the State system of subsequent contracts. The Contractor may advise the State system when it is no longer bound by this contract clause.

(d) Applicability. This clause does not apply to the listing of employment openings that occur and are filled outside the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, and the Virgin Islands.

(e) Postings. (1) The Contractor agrees to post employment notices stating (i) the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified disabled veterans and veterans of the Vietnam era, and (ii) the rights of applicants and employees.

(2) These notices shall be posted in conspicuous places that are available to employees and applicants for employment. They shall be in a form prescribed by the Deputy Assistant Secretary for Federal Contract Compliance Programs, Department of Labor (Deputy Assistant Secretary), and provided by or through the Contracting Officer.

(3) The Contractor shall notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of the Act, and is committed to take affirmative action to employ, and advance in employment, qualified disabled veterans and veterans of the Vietnam Era.

(f) Noncompliance. If the Contractor does not comply with the requirements of this clause, appropriate actions may be taken under the rules, regulations, and relevant orders of the Secretary issued pursuant to the Act.

(g) Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order of $10,000 or more unless exempted by rules, regulations, or orders of the Secretary. The Contractor shall act as specified by the Deputy Assistant Secretary to enforce the terms, including action for noncompliance.

(End of clause)

52.222-36 AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES (JUN 1998)

(a) General. (1) Regarding any position for which the employee or applicant for employment is qualified, the Contractor shall not discriminate against any employee or applicant because of physical or mental disability. The Contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified individuals with disabilities without discrimination based upon their physical or mental disability in all employment practices such as--

(i) Recruitment, advertising, and job application procedures;

(ii) Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff, and rehiring;

(iii) Rates of pay or any other form of compensation and changes in compensation;

(iv) Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;

(v) Leaves of absence, sick leave, or any other leave;

(vi) Fringe benefits available by virtue of employment, whether or not administered by the Contractor;

(vii) Selection and financial support for training, including apprenticeships, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;

(viii) Activities sponsored by the Contractor, including social or recreational programs; and

(ix) Any other term, condition, or privilege of employment.

(2) The Contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor (Secretary) issued under the Rehabilitation Act of 1973 (29 U.S.C. 793) (the Act), as amended.

(b) Postings. (1) The Contractor agrees to post employment notices stating--

(i) The Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified individuals with disabilities; and

(ii) The rights of applicants and employees.

(2) These notices shall be posted in conspicuous places that are available to employees and applicants for employment. The Contractor shall ensure that applicants and employees with disabilities are informed of the contents of the notice (e.g., the Contractor may have the notice read to a visually disabled individual, or may lower the posted notice so that it might be read by a person in a wheelchair). The notices shall be in a form prescribed by the Deputy Assistant Secretary for Federal Contract Compliance of the U.S. Department of Labor (Deputy Assistant Secretary) and shall be provided by or through the Contracting Officer.

(3) The Contractor shall notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of Section 503 of the Act and is committed to take affirmative action to employ, and advance in employment, qualified individuals with physical or mental disabilities.

(c) Noncompliance. If the Contractor does not comply with the requirements of this clause, appropriate actions may be taken under the rules, regulations, and relevant orders of the Secretary issued pursuant to the Act.

(d) Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order in excess of $10,000 unless exempted by rules, regulations, or orders of the Secretary. The Contractor shall act as specified by the Deputy Assistant Secretary to enforce the terms, including action for noncompliance.

(End of clause)

52.222-37 EMPLOYMENT REPORTS ON DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA (JAN 1999)

(a) Unless the Contractor is a State or local government agency, the Contractor shall report at least annually, as required by the Secretary of Labor, on--

(1) The number of disabled veterans and the number of veterans of the Vietnam era in the workforce of the contractor by job category and hiring location; and

(2) The total number of new employees hired during the period covered by the report, and of that total, the number of disabled veterans, and the number of veterans of the Vietnam era.

(b) The above items shall be reported by completing the form entitled "Federal Contractor Veterans' Employment Report VETS-100."

(c) Reports shall be submitted no later than September 30 of each year beginning September 30, 1988.

(d) The employment activity report required by paragraph (a)(2) of this clause shall reflect total hires during the most recent 12-month period as of the ending date selected for the employment profile report required by paragraph (a)(1) of this clause. Contractors may select an ending date: (1) As of the end of any pay period during the period January through March 1st of the year the report is due, or (2) as of December 31, if the contractor has previous written

approval from the Equal Employment Opportunity Commission to do so for purposes of submitting the Employer Information Report EEO-1 (Standard Form 100).

(e) The count of veterans reported according to paragraph (a) of this clause shall be based on voluntary disclosure. Each Contractor subject to the reporting requirements at 38 U.S.C. 4212 shall invite all disabled veterans and veterans of the Vietnam era who wish to benefit under the affirmative action program at 38 U.S.C. 4212 to identify themselves to the Contractor. The invitation shall state that the information is voluntarily provided; that the information will be kept confidential; that disclosure or refusal to provide the information will not subject the applicant or employee to any adverse treatment; and that the information will be used only in accordance with the regulations promulgated under 38 U.S.C. 4212.

(f) Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order of $10,000 or more unless exempted by rules, regulations, or orders of the Secretary.

(End of clause)

52.222-41 SERVICE CONTRACT ACT OF 1965, AS AMENDED (MAY 1989)

(a) Definitions. "Act," as used in this clause, means the Service Contract Act of 1965, as amended (41 U.S.C. 351, et seq.).

"Contractor," as used in this clause or in any subcontract, shall be deemed to refer to the subcontractor, except in the term "Government Prime Contractor."

"Service employee," as used in this clause, means any person engaged in the performance of this contract other than any person employed in a bona fide executive, administrative, or professional capacity, as these terms are defined in Part 541 of Title 29, Code of Federal Regulations, as revised. It includes all such persons regardless of any contractual relationship that may be alleged to exist between a Contractor or subcontractor and such persons.

(b) Applicability. This contract is subject to the following provisions and to all other applicable provisions of the Act and regulations of the Secretary of Labor (29 CFR Part 4). This clause does not apply to contracts or subcontracts administratively exempted by the Secretary of Labor or exempted by 41 U.S.C. 356, as interpreted in Subpart C of 29 CFR Part 4.

(c) Compensation. (1) Each service employee employed in the performance of this contract by the Contractor or any subcontractor shall be paid not less than the minimum monetary wages and shall be furnished fringe benefits in accordance with the wages and fringe benefits determined by the Secretary of Labor, or authorized representative, as specified in any wage determination attached to this contract.

(2)(i) If a wage determination is attached to this con- tract, the Contractor shall classify any class of service employee which is not listed therein and which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination) so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed class of employees shall be paid the monetary wages and furnished the fringe benefits as are determined pursuant to the procedures in this paragraph (c).

(ii) This conforming procedure shall be initiated by the Contractor prior to the performance of contract work by the unlisted class of employee. The Contractor shall submit Standard Form (SF) 1444, Request For Authorization of Additional Classification and Rate, to the Contracting Officer no later than 30 days after the unlisted class of employee performs any contract work. The Contracting Officer shall review the proposed classification and rate and promptly submit the completed SF 1444 (which must include information regarding the agreement or disagreement of the employees' authorized representatives or the employees themselves together with the agency recommendation),

and all pertinent informa-tion to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor. The Wage and Hour Division will approve, modify, or disapprove the action or render a final determination in the event of disagreement within 30 days of receipt or will notify the Contracting Officer within 30 days of receipt that additional time is necessary.

(iii) The final determination of the conformance action by the Wage and Hour Division shall be transmitted to the Contracting Officer who shall promptly notify the Contractor of the action taken. Each affected employee shall be furnished by the Contractor with a written copy of such determination or it shall be posted as a part of the wage determination.

(iv)(A) The process of establishing wage and fringe benefit rates that bear a reasonable relationship to those listed in a wage determination cannot be reduced to any single formula. The approach used may vary from wage determination to wage determination depending on the circumstances. Standard wage and salary administration practices which rank various job classifications by pay grade pursuant to point schemes or other job factors may, for example, be relied upon. Guidance may also be obtained from the way different jobs are rated under Federal pay systems (Federal Wage Board Pay System and the General Schedule) or from other wage determina- tions issued in the same locality. Basic to the establishment of any conformable wage rate(s) is the concept that a pay relationship should be maintained between job classifications based on the skill required and the duties performed.

(B) In the case of a contract modification, an exercise of an option, or extension of an existing contract, or in any other case where a Contractor succeeds a contract under which the classification in question was previously conformed pursuant to paragraph (c) of this clause, a new conformed wage rate and fringe benefits may be assigned to the conformed classification by indexing (i.e., adjusting) the previous conformed rate and fringe benefits by an amount equal to the average (mean) percentage increase (or decrease, where appropriate) between the wages and fringe benefits specified for all classifications to be used on the contract which are listed in the current wage determination, and those specified for the corresponding classifications in the previously applicable wage determination. Where conforming actions are accomplished in accordance with this paragraph prior to the performance of contract work by the unlisted class of employees, the Contractor shall advise the Contracting Officer of the action taken but the other procedures in subdivision (c)(2)(ii) of this clause need not be followed.

(C) No employee engaged in performing work on this contract shall in any event be paid less than the currently applicable minimum wage specified under section 6(a)(1) of the Fair Labor Standards Act of 1938, as amended.

(v) The wage rate and fringe benefits finally determined under this subparagraph (c)(2) of this clause shall be paid to all employees performing in the classification from the first day on which contract work is performed by them in the classification. Failure to pay the unlisted employees the compensation agreed upon by the interested parties and/or finally determined by the Wage and Hour Division retroactive to the date such class of employees commenced contract work shall be a violation of the Act and this contract.

(vi) Upon discovery of failure to comply with subparagraph (c)(2) of this clause, the Wage and Hour Division shall make a final determination of conformed classification, wage rate, and/or fringe benefits which shall be retroactive to the date such class or classes of employees commenced contract work.

(3) Adjustment of Compensation. If the term of this contract is more than 1 year, the minimum monetary wages and fringe benefits required to be paid or fur- nished thereunder to service employees under this contract shall be subject to adjustment after 1 year and not less often than once every 2 years, under wage determinations is sued by the Wage and Hour Division.

(d) Obligation to Furnish Fringe Benefits. The Contractor or subcontractor may discharge the obligation to furnish fringe benefits specified in the attachment or determined under subparagraph (c)(2) of this clause by furnishing equivalent combinations of bona fide fringe benefits, or by making equivalent or differential cash payments, only in accordance with Subpart D of 29 CFR Part 4.

(e) Minimum Wage. In the absence of a minimum wage attachment for this contract, neither the Contractor nor any subcontractor under this contract shall pay any person performing work under this contract (regardless of whether the person is a service employee) less than the minimum wage specified by section 6(a)(1) of the Fair Labor Standards Act of 1938. Nothing in this clause shall relieve the Contractor or any subcontractor of any other obligation under law or contract for payment of a higher wage to any employee.

(f) Successor Contracts. If this contract succeeds a contract subject to the Act under which substantially the same services were furnished in the same locality and service employees were paid wages and fringe benefits provided for in a collective bargaining agreement, in the absence of the minimum wage attachment for this contract setting forth such collectively bargained wage rates and fringe benefits, neither the Contractor nor any subcontractor under this contract shall pay any service employee performing any of the contract work (regardless of whether or not such employee was employed under the predecessor contract), less than the wages and fringe benefits provided for in such collective bargaining agreement, to which such employee would have been entitled if employed under the predecessor contract, including accrued wages and fringe benefits and any prospective increases in wages and fringe benefits provided for under such agreement. No Contractor or subcontractor under this contract may be relieved of the foregoing obligation unless the limitations of 29 CFR 4.1b(b) apply or unless the Secretary of Labor or the Secretary's authorized representative finds, after a hearing as provided in 29 CFR 4.10 that the wages and/or fringe benefits provided for in such agreement are substantially at variance with those which prevail for services of a character similar in the locality, or determines, as provided in 29 CFR 4.11, that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's length negotiations. Where it is found in accordance with the review procedures provided in 29 CFR 4.10 and/or 4.11 and Parts 6 and 8 that some or all of the wages and/or fringe benefits contained in a predecessor Contractor's collective bargaining agreement are substantially at variance with those which prevail for services of a character similar in the locality, and/or that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's length negotiations, the Department will issue a new or revised wage determination setting forth the applicable wage rates and fringe benefits. Such determination shall be made part of the contract or subcontract, in accordance with the decision of the Administrator, the Administrative Law Judge, or the Board of Service Contract Appeals, as the case may be, irrespective of whether such issuance occurs prior to or after the award of a contract or subcontract (53 Comp. Gen. 401 (1973)). In the case of a wage determination issued solely as a result of a finding of substantial variance, such determination shall be effective as of the date of the final administrative decision.

(g) Notification to Employees. The Contractor and any subcontractor under this contract shall notify each service employee commencing work on this contract of the minimum monetary wage and any fringe benefits required to be paid pursuant to this contract, or shall post the wage determination attached to this contract. The poster provided by the Department of Labor (Publication WH 1313) shall be posted in a prominent and accessible place at the worksite. Failure to comply with this requirement is a violation of section 2(a)(4) of the Act and of this contract.

(h) Safe and Sanitary Working Conditions. The Contractor or subcontractor shall not permit any part of the services called for by this contract to be performed in buildings or surroundings or under working conditions provided by or under the control or supervision of the Contractor or subcontractor which are unsanitary, hazardous, or dangerous to the health or safety of the service employees. The Contractor or subcontractor shall comply with the safety and health standards applied under 29 CFR Part 1925.

(i) Records. (1) The Contractor and each subcontractor performing work subject to the Act shall make and maintain for 3 years from the completion of the work, and make them available for inspection and transcription by authorized representatives of the Wage and Hour Division, Employment Standards Administration, a record of the following:

(i) For each employee subject to the Act--

(A) Name and address and social security number;

(B) Correct work classification or classifications, rate or rates of monetary wages paid and fringe benefits provided,

rate or rates of payments in lieu of fringe benefits, and total daily and weekly compensation;

(C) Daily and weekly hours worked by each employee; and

(D) Any deductions, rebates, or refunds from the total daily or weekly compensation of each employee.

(ii) For those classes of service employees not included in any wage determination attached to this contract, wage rates or fringe benefits determined by the interested parties or by the Administrator or authorized representative under the terms of paragraph (c) of this clause. A copy of the report required by subdivision (c)(2)(ii) of this clause will fulfill this requirement.

(iii) Any list of the predecessor Contractor's employees which had been furnished to the Contractor as prescribed by paragraph (n) of this clause.

(2) The Contractor shall also make available a copy of this contract for inspection or transcription by authorized representatives of the Wage and Hour Division.

(3) Failure to make and maintain or to make available these records for inspection and transcription shall be a violation of the regulations and this contract, and in the case of failure to produce these records, the Contracting Officer, upon direction of the Department of Labor and notification to the Contractor, shall take action to cause suspension of any further payment or advance of funds until the violation ceases.

(4) The Contractor shall permit authorized representatives of the Wage and Hour Division to conduct interviews with employees at the worksite during normal working hours.

(j) Pay Periods. The Contractor shall unconditionally pay to each employee subject to the Act all wages due free and clear and without subsequent deduction (except as otherwise provided by law or regulations, 29 CFR Part 4), rebate, or kickback on any account. These payments shall be made no later than one pay period following the end of the regular pay period in which the wages were earned or accrued. A pay period under this Act may not be of any duration longer than semi-monthly.

(k) Withholding of Payments and Termination of Contract. The Contracting Officer shall withhold or cause to be withheld from the Government Prime Contractor under this or any other Government contract with the Prime Contractor such sums as an appropriate official of the Department of Labor requests or such sums as the Contracting Officer decides may be necessary to pay underpaid employees employed by the Contractor or subcontractor. In the event of failure to pay any employees subject to the Act all or part of the wages or fringe benefits due under the Act, the Contracting Officer may, after authorization or by direction of the Department of Labor and written notification to the Contractor, take action to cause suspension of any further payment or advance of funds until such violations have ceased. Additionally, any failure to comply with the requirements of this clause may be grounds for termination of the right to proceed with the contract work. In such event, the Government may enter into other contracts or arrangements for completion of the work, charging the Contractor in default with any additional cost.

(l) Subcontracts. The Contractor agrees to insert this clause in all subcontracts subject to the Act.

(m) Collective Bargaining Agreements Applicable to Service Employees. If wages to be paid or fringe benefits to be furnished any service employees employed by the Government Prime Contractor or any subcontractor under the contract are provided for in a collective bargaining agreement which is or will be effective during any period in which the contract is being performed, the Government Prime Contractor shall report such fact to the Contracting Officer, together with full information as to the application and accrual of such wages and fringe benefits, including any prospective increases, to service employees engaged in work on the contract, and a copy of the collective bargaining agreement. Such report shall be made upon commencing performance of the contract, in the case of collective bargaining agreements effective at such time, and in the case of such agreements or provisions or amendments thereof effective at a later time during the period of contract performance such agreements shall be reported promptly

after negotiation thereof.

(n) Seniority List. Not less than 10 days prior to completion of any contract being performed at a Federal facility where service employees may be retained in the performance of the succeeding contract and subject to a wage determination which contains vacation or other benefit provisions based upon length of service with a Contractor (predecessor) or successor (29 CFR 4.173), the incumbent Prime Contractor shall furnish the Contracting Officer a certified list of the names of all service employees on the Contractor's or subcontractor's payroll during the last month of contract performance. Such list shall also contain anniversary dates of employment on the contract either with the current or predecessor Contractors of each such service employee. The Contracting Officer shall turn over such list to the successor Contractor at the commencement of the succeeding contract.

(o) Rulings and Interpretations. Rulings and interpretations of the Act are contained in Regulations, 29 CFR Part 4.

(p) Contractor's Certification. (1) By entering into this contract, the Contractor (and officials thereof) certifies that neither it (nor he or she) nor any person or firm who has a substantial interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of the sanctions imposed under section 5 of the Act.

(2) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract under section 5 of the Act.

(3) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

(q) Variations, Tolerances, and Exemptions Involving Employment. Notwithstanding any of the provisions in paragraphs (b) through (o) of this clause, the following employees may be employed in accordance with the following variations, tolerances, and exemptions, which the Secretary of Labor, pursuant to section 4(b) of the Act prior to its amendment by Pub. L. 92-473, found to be necessary and proper in the public interest or to avoid serious impairment of the conduct of Government business:

(1) Apprentices, student-learners, and workers whose earning capacity is impaired by age, physical or mental deficiency, or injury may be employed at wages lower than the minimum wages otherwise required by section 2(a)(1) or 2(b)(1) of the Act without diminishing any fringe benefits or cash payments in lieu thereof required under section 2(a)(2) of the Act, in accordance with the conditions and procedures prescribed for the employment of apprentices, student-learners, handicapped persons, and handicapped clients of sheltered workshops under section 14 of the Fair Labor Standards Act of 1938, in the regulations issued by the Administrator (29 CFR Parts 520, 521, 524, and 525).

(2) The Administrator will issue certificates under the Act for the employment of apprentices, student-learners, handicapped persons, or handicapped clients of sheltered workshops not subject to the Fair Labor Standards Act of 1938, or subject to different minimum rates of pay under the two acts, authorizing appropriate rates of minimum wages (but without changing requirements concerning fringe benefits or supplementary cash payments in lieu thereof), applying procedures prescribed by the applicable regulations issued under the Fair Labor Standards Act of 1938 (29 CFR Parts 520, 521, 524, and 525).

(3) The Administrator will also withdraw, annul, or cancel such certificates in accordance with the regulations in 29 CFR Parts 525 and 528.

(r) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed and individually registered in a bona fide apprenticeship program registered with a State Apprenticeship Agency which is recognized by the U.S. Department of Labor, or if no such recognized agency exists in a State, under a program registered with the Bureau of Apprenticeship and Training, Employment and Training Administration, U.S. Department of Labor. Any employee who is not registered as an apprentice in an approved program shall be paid the wage rate and fringe benefits contained in the applicable wage determination for the journeyman classification of work actually performed. The wage rates paid apprentices shall not be less than the wage rate for their level of progress set forth in the registered program, expressed as the appropriate percentage of

the journeyman's rate contained in the applicable wage determination. The allowable ratio of apprentices to journeymen employed on the contract work in any craft classification shall not be greater than the ratio permitted to the Contractor as to his entire work force under the registered program.

(s) Tips. An employee engaged in an occupation in which the employee customarily and regularly receives more than $30 a month in tips may have the amount of these tips credited by the employer against the minimum wage required by section 2(a)(1) or section 2(b)(1) of the Act, in accordance with section 3(m) of the Fair Labor Standards Act and Regulations, 29 CFR Part 531. However, the amount of credit shall not exceed $1.34 per hour beginning January 1, 1981. To use this provision--

(1) The employer must inform tipped employees about this tip credit allowance before the credit is utilized;

(2) The employees must be allowed to retain all tips (individually or through a pooling arrangement and regardless of whether the employer elects to take a credit for tips received);

(3) The employer must be able to show by records that the employee receives at least the applicable Service Contract Act minimum wage through the combination of direct wages and tip credit; and

(4) The use of such tip credit must have been permitted under any predecessor collective bargaining agreement applicable by virtue of section 4(c) of the Act.

Disputes Concerning Labor Standards. The U.S. Department of Labor has set forth in 29 CFR Parts 4, 6, and 8 procedures for resolving disputes concerning labor standards requirements. Such disputes shall be resolved in accordance with those procedures and not the Disputes clause of this contract. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(End of clause)

52.222-42 STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES (MAY 1989)

In compliance with the Service Contract Act of 1965, as amended, and the regulations of the Secretary of Labor (29 CFR Part 4), this clause identifies the classes of service employees expected to be employed under the contract and states the wages and fringe benefits payable to each if they were employed by the contracting agency subject to the provisions of 5 U.S.C. 5341 or 5332.

THIS STATEMENT IS FOR INFORMATION ONLY: IT IS NOT A WAGE DETERMINATION
Employee Class Monetary Wage-Fringe Benefits

(End of clause)

52.222-44 FAIR LABOR STANDARDS ACT AND SERVICE CONTRACT ACT--PRICE ADJUSTMENT (FEB 2002)

(a) This clause applies to both contracts subject to area prevailing wage determinations and contracts subject to Contractor collective bargaining agreements.

(b) The Contractor warrants that the prices in this contract do not include any allowance for any contingency to cover increased costs for which adjustment is provided under this clause.

(c) The contract price or contract unit price labor rates will be adjusted to reflect increases or decreases by the Contractor in wages and fringe benefits to the extent that these increases or decreases are made to comply with--

(1) An increased or decreased wage determination applied to this contract by operation of law; or

(2) An amendment to the Fair Labor Standards Act of 1938 that is enacted subsequent to award of this contract, affects the minimum wage, and becomes applicable to this contract under law.

(d) Any such adjustment will be limited to increases or decreases in wages and fringe benefits as described in paragraph (c) of this clause, and to the accompanying increases or decreases in social security and unemployment taxes and workers' compensation insurance; it shall not otherwise include any amount for general and administrative costs, overhead, or profit.

(e) The Contractor shall notify the Contracting Officer of any increase claimed under this clause within 30 days after the effective date of the wage change, unless this period is extended by the Contracting Officer in writing. The Contractor shall promptly notify the Contracting Officer of any decrease under this clause, but nothing in the clause shall preclude the Government from asserting a claim within the period permitted by law. The notice shall contain a statement of the amount claimed and any relevant supporting data that the Contracting Officer may reasonably require. Upon agreement of the parties, the contract price or contract unit price labor rates shall be modified in writing. The Contractor shall continue performance pending agreement on or determination of any such adjustment and its effective date.

(f) The Contracting Officer or an authorized representative shall, until the expiration of 3 years after final payment under the contract, have access to and the right to examine any directly pertinent books, documents, papers, and records of the Contractor.

(End of clause)

52.223-5 POLLUTION PREVENTION AND RIGHT-TO-KNOW INFORMATION (APR 1998)

(a) Executive Order 12856 of August 3, 1993, requires Federal facilities to comply with the provisions of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA)(42 U.S.C. 11001-11050) and the Pollution Prevention Act of 1990 (PPA)(42 U.S.C. 13101-13109).

(b) The Contractor shall provide all information needed by the Federal facility to comply with the emergency planning reporting requirements of Section 302 of EPCRA; the emergency notice requirements of Section 304 of EPCRA; the list of Material Safety Data Sheets required by Section 311 of EPCRA; the emergency and hazardous chemical inventory forms of Section 312 of EPCRA; the toxic chemical release inventory of Section 313 of EPCRA, which includes the reduction and recycling information required by Section 6607 of PPA; and the toxic chemical reduction goals requirements of Section 3-302 of Executive Order 12856.

(End of clause)

52.223-6 DRUG-FREE WORKPLACE (MAY 2001)

(a) Definitions. As used in this clause --

"Controlled substance" means a controlled substance in schedules I through V of section 202 of the Controlled Substances Act (21 U.S.C. 812) and as further defined in regulation at 21 CFR 1308.11 - 1308.15.

"Conviction" means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to deter- mine violations of the Federal or State criminal drug statutes.

"Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, possession, or use of any controlled substance.

"Drug-free workplace" means the site(s) for the performance of work done by the Contractor in connection with a specific contract at which employees of the Contractor are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.

"Employee" means an employee of a Contractor directly engaged in the performance of work under a Government contract. "Directly engaged" is defined to include all direct cost employees and any other Contractor employee who has other than a minimal impact or involvement in contract performance.

"Individual" means an offeror/contractor that has no more than one employee including the offeror/contractor.

(b) The Contractor, if other than an individual, shall-- within 30 days after award (unless a longer period is agreed to in writing for contracts of 30 days or more performance duration), or as soon as possible for contracts of less than 30 days performance duration--

(1) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition;

(2) Establish an ongoing drug-free awareness program to inform such employees about--

(i) The dangers of drug abuse in the workplace;

(ii) The Contractor's policy of maintaining a drug-free workplace;

(iii) Any available drug counseling, rehabilitation, and employee assistance programs; and

(iv) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(3) Provide all employees engaged in perfomance of the contract with a copy of the statement required by subparagraph (b)(1) of this clause;

(4) Notify such employees in writing in the statement required by subparagraph (b)(1) of this clause that, as a condition of continued employment on this contract, the employee will--

(i) Abide by the terms of the statement; and

(ii) Notify the employer in writing of the employee's conviction under a criminal drug statute for a violation occurring in the workplace no later than 5 days after such conviction.

(5) Notify the Contracting Officer in writing within 10 days after receiving notice under subdivision (b)(4)(ii) of this clause, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee;

(6) Within 30 days after receiving notice under subdivision (b)(4)(ii) of this clause of a conviction, take one of the following actions with respect to any employee who is convicted of a drug abuse violation occurring in the workplace:

(i) Taking appropriate personnel action against such employee, up to and including termination; or

(ii) Require such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency; and

(7) Make a good faith effort to maintain a drug-free workplace through implementation of subparagraphs (b)(1) though (b)(6) of this clause.

(c) The Contractor, if an individual, agrees by award of the contract or acceptance of a purchase order, not to engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance while performing this contract.

(d) In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraph (b) or (c) of this clause may, pursuant to FAR 23.506, render the Contractor subject to suspension of contract payments, termination of the contract for default, and suspension or debarment.

(End of clause)

52.223-14 TOXIC CHEMICAL RELEASE REPORTING (OCT 2000)

(a) Unless otherwise exempt, the Contractor, as owner or operator of a facility used in the performance of this contract, shall file by July 1 for the prior calendar year an annual Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023(a) and (g)), and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106). The Contractor shall file, for each facility subject to the Form R filing and reporting requirements, the annual Form R throughout the life of the contract.

(b) A Contractor owned or operated facility used in the performance of this contract is exempt from the requirement to file an annual Form R if--

(1) The facility does not manufacture, process, or otherwise use any toxic chemicals listed under section 313(c) of EPCRA, 42 U.S.C. 11023(c);

(2) The facility does not have 10 or more full-time employees as specified in section 313(b)(1)(A) of EPCRA, 42 U.S.C. 11023(b)(1)(A);

(3) The facility does not meet the reporting thresholds of toxic chemicals established under of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

(4) The facility does not fall within Standard Industrial Classification Code (SIC) major groups 20 through 39 or their corresponding North American Industry Classification System (NAICS) sectors 31 through 33; or

(5) The facility is not located within any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Northern Mariana Islands, or any other territory or possession over which the United States has jurisdiction.

(c) If the Contractor has certified to an exemption in accordance with one or more of the criteria in paragraph (b) of this clause, and after award of the contract circumstances change so that any of its owned or operated facilities used in the performance of this contract is no longer exempt--

(1) The Contractor shall notify the Contracting Officer; and

(2) The Contractor, as owner or operator of a facility used in the performance of this contract that is no longer exempt, shall (i) submit a Toxic Chemical Release Inventory Form (Form R) on or before July 1 for the prior calendar year during which the facility becomes eligible; and (ii) continue to file the annual Form R for the life of the contract for such facility.

(d) The Contracting Officer may terminate this contract or take other action as appropriate, if the Contractor fails to comply accurately and fully with the EPCRA and PPA toxic chemical release filing and reporting requirements.

(e) Except for acquisitions of commercial items, as defined in FAR Part 2, the Contractor shall--

(1) For competitive subcontracts expected to exceed $100,000 (including all options), include a solicitation provision substantially the same as the provision at FAR 52.223-13, Certification of Toxic Chemical Release Reporting; and

(2) Include in any resultant subcontract exceeding $100,000 (including all options), the substance of this clause, except this paragraph (e).

(End of clause)

52.225-5 TRADE AGREEMENTS (DEC 2001)

(a) Definitions. As used in this clause.

Caribbean Basin country means any of the following countries: Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, British Virgin Islands, Costa Rica, Dominica, El Salvador, Grenada, Guatemala, Guyana, Haiti, Jamaica, Montserrat, Netherlands Antilles, Nicaragua, Panama, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Trinidad and Tobago.

Caribbean Basin country end product means an article that--

(1) Is wholly the growth, product, or manufacture of a Caribbean Basin country; or

(2) In the case of an article that consists in whole or in part of materials from another country, has been substantially transformed in a Caribbean Basin country into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed. The term refers to a product offered for purchase under a supply contract, but for purposes of calculating the value of the end product includes services (except transportation services) incidental to the article, provided that the value of those incidental services does not exceed that of the article itself. The term excludes products that are excluded from duty-free treatment for Caribbean countries under 19 U.S.C. 2703(b), which presently are--

(i) Textiles and apparel articles that are subject to textile agreements;

(ii) Footwear, handbags, luggage, flat goods, work gloves, and leather wearing apparel not designated as eligible articles for the purpose of the Generalized System of Preferences under Title V of the Trade Act of 1974;

(iii) Tuna, prepared or preserved in any manner in airtight containers;

(iv) Petroleum, or any product derived from petroleum; and

(v) Watches and watch parts (including cases, bracelets, and straps) of whatever type including, but not limited to, mechanical, quartz digital, or quartz analog, if such watches or watch parts contain any material that is the product of any country to which the Harmonized Tariff Schedule of the United States (HTSUS) column 2 rates of duty apply.

Designated country means any of the following countries: Aruba, Austria, Bangladesh Belgium, Benin, Bhutan, Botswana, Burkina Faso, Burundi, Canada, Cape Verde, Central African Republic, Chad, Comoros, Denmark, Djibouti, Equatorial Guinea.

Finland, France, Gambia, Germany, Greece, Guinea, Guinea-Bissau, Haiti, Hong Kong, Iceland, Ireland, Israel, Italy, Japan.

Kiribati, Korea, Republic of Lesotho, Liechtenstein, Luxembourg, Malawi, Maldives, Mali, Mozambique, Nepal, Netherlands, Niger, Norway, Portugal, Rwanda.

Sao Tome and Principe, Sierra Leone, Singapore, Somalia, Spain, Sweden, Switzerland, Tanzania U.R., Togo, Tuvalu, Uganda, United Kingdom, Vanuatu, Western Samoa, Yemen.

Designated country end product means an article that--

(1) Is wholly the growth, product, or manufacture of a designated country; or

(2) In the case of an article that consists in whole or in part of materials from another country, has been substantially transformed in a designated country into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed. The term refers to a product offered for purchase under a supply contract, but for purposes of calculating the value of the end product includes services, (except transportation services) incidental to the article, provided that the value of those incidental services does not exceed that of the article itself.

End product means supplies delivered under a line item of a Government contract.

North American Free Trade Agreement country means Canada or Mexico.

North American Free Trade Agreement country end product means an article that--

(1) Is wholly the growth, product, or manufacture of a North American Free Trade Agreement (NAFTA) country; or

(2) In the case of an article that consists in whole or in part of materials from another country, has been substantially transformed in a NAFTA country into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed. The term refers to a product offered for purchase under a supply contract, but for purposes of calculating the value of the end product includes services, (except transportation services) incidental to the article, provided that the value of those incidental services does not exceed that of the article itself.

United States means the 50 States and the District of Columbia, U.S. territories and possessions, Puerto Rico, the Northern Mariana Islands, and any other place subject to U.S. jurisdiction, but does not include leased bases.

U.S.-made end product means an article that is mined, produced, or manufactured in the United States or that is substantially transformed in the United States into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed.,

(b) Implementation. This clause implements the Trade, Agreements Act (19 U.S.C. 2501, et seq.) and the North American Free Trade Agreement Implementation Act of 1993, (NAFTA) (19 U.S.C. 3301 note), by restricting the acquisition of end products that are not U.S.-made, designated country, Caribbean Basin country, or NAFTA country end products.,

(c) Delivery of end products. The Contracting Officer has determined that the Trade Agreements Act and NAFTA apply to this acquisition. Unless otherwise specified, these trade agreements apply to all items in the Schedule. The Contractor shall deliver under this contract only U.S.-made, designated country, Caribbean Basin country, or NAFTA country end products except to the extent that, in its offer, it specified delivery of other end products in the provision entitled "Trade Agreements Certificate."

(End of clause)

52.225-11 BUY AMERICAN ACT --CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (MAY 2002)

(a) Definitions. As used in this clause--

Component means an article, material, or supply incorporated directly into a construction material.

Construction material means an article, material, or supply brought to the construction site by the Contractor or subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

Cost of components means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.

Designated country means any of the following countries: Aruba, Austria, Bangladesh, Belgium, Benin, Bhutan, Botswana, Burkina Faso, Burundi, Canada, Cape Verde, Central African Republic, Chad, Comoros, Denmark, Djibouti, Equatorial Guinea, Finland, France, Gambia, Germany, Greece, Guinea, Guinea-Bissau, Haiti, Hong Kong, Iceland, Ireland, Israel, Italy, Japan.

Kiribati, Korea, Republic of, Lesotho, Liechtenstein, Luxembourg, Malawi, Maldives, Mali, Mozambique, Nepal, Netherlands, Niger, Norway, Portugal, Rwanda.

Sao Tome and Principe, Sierra Leone, Singapore, Somalia, Spain, Sweden, Switzerland, Tanzania U.R., Togo, Tuvalu, Uganda, United Kingdom, Vanuatu, Western Samoa, Yemen.

Designated country construction material means a construction material that--

(1) Is wholly the growth, product, or manufacture of a designated country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a designated country into a new and different construction material distinct from the materials from which it was transformed.

Domestic construction material means--

(1) An unmanufactured construction material mined or produced in the United States; or

(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic.

Foreign construction material means a construction material other than a domestic construction material.

North American Free Trade Agreement country means Canada or Mexico.

North American Free Trade Agreement country construction material means a construction material that--

(1) Is wholly the growth, product, or manufacture of a North American Free Trade Agreement (NAFTA) country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a NAFTA country into a new and different construction material distinct from the materials from which it was transformed.

United States means the 50 States and the District of Columbia, U.S. territories and possessions, Puerto Rico, the Northern Mariana Islands, and any other place subject to U.S. jurisdiction, but does not include leased bases.

(b) Construction materials. (1) This clause implements the Buy American Act (41 U.S.C. 10a-10d) by providing a preference for domestic construction material. In addition, the Contracting Officer has determined that the Trade Agreements Act and the North American Free Trade Agreement (NAFTA) apply to this acquisition. Therefore, the Buy American Act restrictions are waived for designated country and NAFTA country construction materials.

(2) The Contractor shall use only domestic, designated country, or NAFTA country construction material in performing this contract, except as provided in paragraphs (b)(3) and (b)(4) of this clause.

(3) The requirement in paragraph (b)(2) of this clause does not apply to the construction materials or components listed by the Government as follows: None

(4) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(3) of this clause if the Government determines that--

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the restrictions of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American Act to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American Act. (1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(4) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American Act applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(4)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American Act applies, use of foreign construction material is noncompliant with the Buy American Act.

(d) Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

Construction material description	Unit of measure	Quantity	Price (dollars) \1\
Item 1:			
Foreign construction material....	.....	.....	.....
Domestic construction material...	.....	.....	.....
Item 2:			
Foreign construction material....	.....	.....	.....
Domestic construction material...	.....	.....	.....

\1\ Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).

List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.

Include other applicable supporting information.

(End of clause)

52.225-13 RESTRICTIONS ON CERTAIN FOREIGN PURCHASES (JUL 2000)

(a) The Contractor shall not acquire, for use in the performance of this contract, any supplies or services originating from sources within, or that were located in or transported from or through, countries whose products are banned from importation into the United States under regulations of the Office of Foreign Assets Control, Department of the Treasury. Those countries are Cuba, Iran, Iraq, Libya, North Korea, Sudan, the territory of Afghanistan controlled by the Taliban, and Serbia (excluding the territory of Kosovo).

(b) The Contractor shall not acquire for use in the performance of this contract any supplies or services from entities controlled by the government of Iraq.

(c) The Contractor shall insert this clause, including this paragraph (c), in all subcontracts.

(End of clause)

52.226-1 UTILIZATION OF INDIAN ORGANIZATIONS AND INDIAN-OWNED ECONOMIC ENTERPRISES (JUN 2000)

(a) Definitions. As used in this clause:

"Indian" means any person who is a member of any Indian tribe, band, group, pueblo or community that is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs (BIA) in accordance with 25 U.S.C. 1452(c) and any ``Native" as defined in the Alaska Native Claims Settlement Act (43 U.S.C. 1601).

"Indian organization" means the governing body of any Indian tribe or entity established or recognized by the governing body of an Indian tribe for the purposes of 25 U.S.C., chapter 17.

"Indian-owned economic enterprise" means any Indian-owned (as determined by the Secretary of the Interior) commercial, industrial, or business activity established or organized for the purpose of profit, provided that Indian ownership constitutea not less than 51 percent of the enterprise.

"Indian tribe" means any Indian tribe, band, group, pueblo or community, including native villages and native groups (including corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act, that is recognized by the Federal Government as eligible for services from BIA in accordance with 25 U.S.C. 1542(c).

"Interested party" means a prime contractor or an actual or prospective offeror whose direct economic interest would be affected by the award of a subcontract or by the failure to award a subcontract.

(b) The Contractor shall use its best efforts to give Indian organizations and Indian-owned economic enterprises (25 U.S.C. 1544) the maximum practicable opportunity to participate in the subcontracts it awards to the fullest extent consistent with efficient performance of its contract.

(1) The Contracting Officer and the Contractor, acting in good faith, may rely on the representation of an Indian organization or Indian-owned economic enterprise as to its eligibility, unless an

interested party challenges its status or the Contracting Officer has independent reason to question that status. In the event of a challenge to the representation of a subcontractor, the Contracting Officer will refer the matter to the U.S. Department of the Interior, Bureau of Indian Affairs (BIA), Attn: Chief, Division of Contracting and Grants Administration, 1849 C Street, NW., MS 2626-MIB, Washington, DC 20240-4000.

The BIA will determine the eligibility and notify the Contracting Officer. No incentive payment will be made within 50 working days of subcontract award or while a challenge is pending. If a subcontractor is determined to be an ineligible participant, no incentive payment will be made under the Indian Incentive Program.

(2) The Contractor may request an adjustment under the Indian Incentive Program to the following:

(i) The estimated cost of a cost-type contract.

(ii) The target cost of a cost-plus-incentive-fee prime contract.

(iii) The target cost and ceiling price of a fixed-price incentive prime contract.

(iv) The price of a firm-fixed-price prime contract.

(3) The amount of the adjustment to the prime contract is 5 percent of the estimated cost, target cost, or firm-fixed-price included in the subcontract initially awarded to the Indian organization or Indian-owned economic enterprise.

(4) The Contractor has the burden of proving the amount claimed and must assert its request for an adjustment prior to completion of contract performance.

(c) The Contracting Officer, subject to the terms and conditions of the contract and the availability of funds, will authorize an incentive payment of 5 percent of the amount paid to the subcontractor. The Contracting Officer will seek funding in accordance with agency procedures.

(End of clause)

52.227-1 AUTHORIZATION AND CONSENT (JUL 1995)

(a) The Government authorizes and consents to all use and manufacture, in performing this contract or any subcontract at any tier, of any invention described in and covered by a United States patent (1) embodied in the structure or composition of any article the delivery of which is accepted by the Government under this contract or (2) used in machinery, tools, or methods whose use necessarily results from compliance by the Contractor or a subcontractor with (i) specifications or written provisions forming a part of this contract or (ii) specific written instructions given by the Contracting Officer directing the manner of performance. The entire liability to the Government for infringement of a patent of the United States shall be determined solely by the provisions of the indemnity clause, if any, included in this contract or any subcontract hereunder (including any lower-tier subcontract), and the Government assumes liability for all other infringement to the extent of the authorization and consent hereinabove granted.

(b) The Contractor agrees to include, and require inclusion of, this clause, suitably modified to identify the parties, in all subcontracts at any tier for supplies or services (including construction, architect-engineer services, and materials, supplies, models, samples, and design or testing services expected to exceed the simplified acquisition threshold (however, omission of this clause from any subcontract, including those at or below the simplified acquisition threshold, does not affect this authorization and consent.)

(End of clause)

52.227-2 NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (AUG 1996)

(a) The Contractor shall report to the Contracting Officer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this contract of which the Contractor has knowledge.

(b) In the event of any claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this contract or out of the use of any supplies furnished or work or services performed under this contract, the Contractor shall furnish to the Government, when requested by the Contracting Officer, all evidence and information in possession of the Contractor pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Government except where the Contractor has agreed to indemnify the Government.

(x) The Contractor agrees to include, and require inclusion of, this clause in all subcontracts at any tier for supplies or services (including construction and architect-engineer subcontracts and those for material, supplies, models, samples, or design or testing services) expected to exceed the simplified acquisition threshold at (FAR) 2.101.to exceed the dollar amount set forth in 13.000 of the Federal Acquisition Regulation (FAR).

(End of clause)

52.227-4 PATENT INDEMNITY--CONSTRUCTION CONTRACTS (APR 1984)

Except as otherwise provided, the Contractor agrees to indemnify the Government and its officers, agents, and employees against liability, including costs and expenses, for infringement upon any United States patent (except a patent issued upon an application that is now or may hereafter be withheld from issue pursuant to a Secrecy Order under 35 U.S.C. 181) arising out of performing this contract or out of the use or disposal by or for the account of the Government of supplies furnished or work performed under this contract.

(End of clause)

52.228-1 BID GUARANTEE (SEP 1996)

(a) Failure to furnish a bid guarantee in the proper form and amount, by the time set for opening of bids, may be cause for rejection of the bid.

(b) The bidder shall furnish a bid guarantee in the form of a firm commitment, e.g., bid bond supported by good and sufficient surety or sureties acceptable to the Government, postal money order, certified check, cashier's check, irrevocable letter of credit, or, under Treasury Department regulations, certain bonds or notes of the United States. The Contracting Officer will return bid guarantees, other than bid bonds, (1) to unsuccessful bidders as soon as practicable after the opening of bids, and (2) to the successful bidder upon execution of contractual documents and bonds (including any necessary coinsurance or reinsurance agreements), as required by the bid as accepted.-

(c) The amount of the bid guarantee shall be twenty (20%) percent of the bid price or $3,000,000., whichever is less.-

(d) If the successful bidder, upon acceptance of its bid by the Government within the period specified for acceptance, fails to execute all contractual documents or furnish executed bond(s) within 10 days after receipt of the forms by the

bidder, the Contracting Officer may terminate the contract for default.-

(e) In the event the contract is terminated for default, the bidder is liable for any cost of acquiring the work that exceeds the amount of its bid, and the bid guarantee is available to offset the difference.

(End of clause)

52.228-2 ADDITIONAL BOND SECURITY (OCT 1997)

The Contractor shall promptly furnish additional security required to protect the Government and persons supplying labor or materials under this contract if--

(a) Any surety upon any bond, or issuing financial institution for other security, furnished with this contract becomes unacceptable to the Government.

(b) Any surety fails to furnish reports on its financial condition as required by the Government;

(c) The contract price is increased so that the penal sum of any bond becomes inadequate in the opinion of the Contracting Officer; or

(d) An irrevocable letter of credit (ILC) used as security will expire before the end of the period of required security. If the Contractor does not furnish an acceptable extension or replacement ILC, or other acceptable substitute, at least 30 days before an ILC's scheduled expiration, the Contracting officer has the right to immediately draw on the ILC.

(End of clause)

52.228-5 INSURANCE--WORK ON A GOVERNMENT INSTALLATION (JAN 1997)

(a) The Contractor shall, at its own expense, provide and maintain during the entire performance of this contract, at least the kinds and minimum amounts of insurance required in the Schedule or elsewhere in the contract.

(b) Before commencing work under this contract, the Contractor shall notify the Contracting Officer in writing that the required insurance has been obtained. The policies evidencing required insurance shall contain an endorsement to the effect that any cancellation or any material change adversely affecting the Government's interest shall not be effective (1) for such period as the laws of the State in which this contract is to be performed prescribe, or (2) until 30 days after the insurer or the Contractor gives written notice to the Contracting Officer, whichever period is longer.

(c) The Contractor shall insert the substance of this clause, including this paragraph (c), in subcontracts under this contract that require work on a Government installation and shall require subcontractors to provide and maintain the insurance required in the Schedule or elsewhere in the contract. The Contractor shall maintain a copy of all subcontractors' proofs of required insurance, and shall make copies available to the Contracting Officer upon request.

(End of clause)

52.228-11 PLEDGES OF ASSETS (FEB 1992)

(a) Offerors shall obtain from each person acting as an individual surety on a bid guarantee, a performance bond, or a payment bond--

(1) Pledge of assets; and

(2) Standard Form 28, Affidavit of Individual Surety.

(b) Pledges of assets from each person acting as an individual surety shall be in the form of--

(1) Evidence of an escrow account containing cash, certificates of deposit, commercial or Government securities, or other assets described in FAR 28.203-2 (except see 28.203-2(b)(2) with respect to Government securities held in book entry form) and/or;

(2) A recorded lien on real estate. The offeror will be required to provide--

(i) Evidence of title in the form of a certificate of title prepared by a title insurance company approved by the United States Department of Justice. This title evidence must show fee simple title vested in the surety along with any concurrent owners; whether any real estate taxes are due and payable; and any recorded encumbrances against the property, including the lien filed in favor of the Government as required by FAR 28.203-3(d);

(ii) Evidence of the amount due under any encumbrance shown in the evidence of title;

(iii) A copy of the current real estate tax assessment of the property or a current appraisal dated no earlier than 6 months prior to the date of the bond, prepared by a professional appraiser who certifies that the appraisal has been conducted in accordance with the generally accepted appraisal standards as reflected in the Uniform Standards of Professional Appraisal Practice, as promulgated by the Appraisal Foundation.

(End of clause)

52.228-12 PROSPECTIVE SUBCONTRACTOR REQUESTS FOR BONDS. (OCT 1995)

In accordance with Section 806(a)(3) of Pub. L. 102-190, as amended by Sections 2091 and 8105 of Pub. L. 103-355, upon the request of a prospective subcontractor or supplier offering to furnish labor or material for the performance of this contract for which a payment bond has been furnished to the Government pursuant to the Miller Act, the Contractor shall promptly provide a copy of such payment bond to the requester.

(End of clause)

52.228-14 IRREVOCABLE LETTER OF CREDIT (DEC 1999)

(a) “Irrevocable letter of credit” (ILC), as used in this clause, means a written commitment by a federally insured financial institution to pay all or part of a stated amount of money, until the expiration date of the letter, upon presentation by the Government (the beneficiary) of a written demand therefor. Neither the financial institution nor the offeror/Contractor can revoke or condition the letter of credit.

(b) If the offeror intends to use an ILC in lieu of a bid bond, or to secure other types of bonds such as performance and payment bonds, the letter of credit and letter of confirmation formats in paragraphs (e) and (f) of this clause shall be used.

(c) The letter of credit shall be irrevocable, shall require presentation of no document other than a written demand and the ILC (including confirming letter, if any), shall be issued/confirmed by an acceptable federally insured financial institution as provided in paragraph (d) of this clause, and--

(1) If used as a bid guarantee, the ILC shall expire no earlier than 60 days after the close of the bid acceptance period;

(2) If used as an alternative to corporate or individual sureties as security for a performance or payment bond, the offeror/Contractor may submit an ILC with an initial expiration date estimated to cover the entire period for which financial security is required or may submit an ILC with an initial expiration date that is a minimum period of one year from the date of issuance. The ILC shall provide that, unless the issuer provides the beneficiary written notice of non-renewal at least 60 days in advance of the current expiration date, the ILC is automatically extended without amendment for one year from the expiration date, or any future expiration date, until the period of required coverage is completed and the Contracting Officer provides the financial institution with a written statement waiving the right to payment. The period of required coverage shall be:

(i) For contracts subject to the Miller Act, the later of--

(A) One year following the expected date of final payment;

(B) For performance bonds only, until completion of any warranty period; or

(C) For payment bonds only, until resolution of all claims filed against the payment bond during the one-year period following final payment.

(ii) For contracts not subject to the Miller Act, the later of--

(A) 90 days following final payment; or

(B) For performance bonds only, until completion of any warranty period.

(d) Only federally insured financial institutions rated investment grade or higher shall issue or confirm the ILC. The offeror/Contractor shall provide the Contracting Officer a credit rating that indicates the financial institution has the required rating(s) as of the date of issuance of the ILC. Unless the financial institution issuing the ILC had letter of credit business of less than $25 million in the past year, ILCs over $5 million must be confirmed by another acceptable financial institution that had letter of credit business of less than $25 million in the past year.

(e) The following format shall be used by the issuing financial institution to create an ILC:

_____

[Issuing Financial Institution's Letterhead or Name and Address]

Issue Date _____

IRREVOCABLE LETTER OF CREDIT NO. _____

Account party's name _____

Account party's address _____

For Solicitation No. _____(for reference only)

TO: [U.S. Government agency]

[U.S. Government agency's address]

1. We hereby establish this irrevocable and transferable Letter of Credit in your favor for one or more drawings up to

United States $_____. This Letter of Credit is payable at [issuing financial institution's and, if any, confirming financial institution's] office at [issuing financial institution's address and, if any, confirming financial institution's address] and expires with our close of business on _____, or any automatically extended expiration date.

2. We hereby undertake to honor your or the transferee's sight draft(s) drawn on the issuing or, if any, the confirming financial institution, for all or any part of this credit if presented with this Letter of Credit and confirmation, if any, at the office specified in paragraph 1 of this Letter of Credit on or before the expiration date or any automatically extended expiration date.

3. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this Letter of Credit that it is deemed to be automatically extended without amendment for one year from the expiration date hereof, or any future expiration date, unless at least 60 days prior to any expiration date, we notify you or the transferee by registered mail, or other receipted means of delivery, that we elect not to consider this Letter of Credit renewed for any such additional period. At the time we notify you, we also agree to notify the account party (and confirming financial institution, if any) by the same means of delivery.

4. This Letter of Credit is transferable. Transfers and assignments of proceeds are to be effected without charge to either the beneficiary or the transferee/assignee of proceeds. Such transfer or assignment shall be only at the written direction of the Government (the beneficiary) in a form satisfactory to the issuing financial institution and the confirming financial institution, if any.

5. This Letter of Credit is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, 1993 Revision, International Chamber of Commerce Publication No. 500, and to the extent not inconsistent therewith, to the laws of _____ [state of confirming financial institution, if any, otherwise state of issuing financial institution].

6. If this credit expires during an interruption of business of this financial institution as described in Article 17 of the UCP, the financial institution specifically agrees to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

_____

[Issuing financial institution]

(f) The following format shall be used by the financial institution to confirm an ILC:

_____
[Confirming Financial Institution's Letterhead or Name and Address]

(Date) _____

Our Letter of Credit Advice Number _____

Beneficiary: _____ [U.S. Government agency]

Issuing Financial Institution: _____

Issuing Financial Institution's LC No.: _____

Gentlemen:

1. We hereby confirm the above indicated Letter of Credit, the original of which is attached, issued by _____ [name of issuing financial institution] for drawings of up to United States dollars _____/U.S. $_____ and expiring with our close of business on _____ [the expiration date], or any automatically extended expiration date.

2. Draft(s) drawn under the Letter of Credit and this Confirmation are payable at our office located at _____.

3. We hereby undertake to honor sight draft(s) drawn under and presented with the Letter of Credit and this Confirmation at our offices as specified herein.

4. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this confirmation that it be deemed automatically extended without amendment for one year from the expiration date hereof, or any automatically extended expiration date, unless:

(a) At least 60 days prior to any such expiration date, we shall notify the Contracting Officer, or the transferee and the issuing financial institution, by registered mail or other receipted means of delivery, that we elect not to consider this confirmation extended for any such additional period; or

(b) The issuing financial institution shall have exercised its right to notify you or the transferee, the account party, and ourselves, of its election not to extend the expiration date of the Letter of Credit.

5. This confirmation is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, 1993 Revision, International Chamber of Commerce Publication No. 500, and to the extent not inconsistent therewith, to the laws of _____ [state of confirming financial institution].

6. If this confirmation expires during an interruption of business of this financial institution as described in Article 17 of the UCP, we specifically agree to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

_____

[Confirming financial institution]

(g) The following format shall be used by the Contracting Officer for a sight draft to draw on the Letter of Credit:

SIGHT DRAFT

_____

[City, State]

(Date) _____

[Name and address of financial institution]

Pay to the order of _____ [Beneficiary Agency] _____ the sum of United States $_____. This draft is drawn under Irrevocable Letter of Credit No. _____.

_____

[Beneficiary Agency]

By: _____

(End of clause)

52.228-15 PERFORMANCE AND PAYMENT BONDS--CONSTRUCTION (JUL 2000)-

(a) Definitions. As used in this clause--

Original contract price means the award price of the contract; or, for requirements contracts, the price payable for the estimated total quantity; or, for indefinite-quantity contracts, the price payable for the specified minimum quantity. Original contract price does not include the price of any options, except those options exercised at the time of contract award.

(b) Amount of required bonds. Unless the resulting contract price is $100,000 or less, the successful offeror shall furnish performance and payment bonds to the Contracting Officer as follows:

(1) Performance bonds (Standard Form 25). The penal amount of performance bonds at the time of contract award shall be 100 percent of the original contract price.

(2) Payment Bonds (Standard Form 25-A). The penal amount of payment bonds at the time of contract award shall be 100 percent of the original contract price.

(3) Additional bond protection. (i) The Government may require additional performance and payment bond protection if the contract price is increased. The increase in protection generally will equal 100 percent of the increase in contract price.

(ii) The Government may secure the additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond.

(c) Furnishing executed bonds. The Contractor shall furnish all executed bonds, including any necessary reinsurance agreements, to the Contracting Officer, within the time period specified in the Bid Guarantee provision of the solicitation, or otherwise specified by the Contracting Officer, but in any event, before starting work.

(d) Surety or other security for bonds. The bonds shall be in the form of firm commitment, supported by corporate sureties whose names appear on the list contained in Treasury Department Circular 570, individual sureties, or by other acceptable security such as postal money order, certified check, cashier's check, irrevocable letter of credit, or, in accordance with Treasury Department regulations, certain bonds or notes of the United States. Treasury Circular 570 is published in the Federal Register or may be obtained from the U.S. Department of Treasury, Financial Management Service, Surety Bond Branch, 401 14th Street, NW, 2nd Floor, West Wing, Washington, DC 20227.

(e) Notice of subcontractor waiver of protection (40 U.S.C. 270b(c). Any waiver of the right to sue on the payment bond is void unless it is in writing, signed by the person whose right is waived, and executed after such person has first furnished labor or material for use in the performance of the contract.

(End of clause)

52.229-2 NORTH CAROLINA STATE AND LOCAL SALES AND USE TAX (APR 1984)

(a) "Materials," as used in this clause, means building materials, supplies, fixtures, and equipment that become a part of or are annexed to any building or structure erected, altered, or repaired under this contract.

(b) If this is a fixed-price contract, the contract price includes North Carolina State and local sales and use taxes to be paid on materials, notwithstanding any other provision of this contract. If this is a cost-reimbursement contract, any North Carolina State and local sales and use taxes paid by the Contractor on materials shall constitute an allowable cost under this contract.

(c) At the time specified in paragraph (d) below, the Contractor shall furnish the Contracting Officer certified statements setting forth the cost of the materials purchased from each vendor and the amount of North Carolina State and local sales and use taxes paid. In the event the Contractor makes several purchases from the same vendor, the certified statement shall indicate the invoice numbers, the inclusive dates of the invoices, the total amount of the invoices, and the North Carolina State and local sales and use taxes paid. The statement shall also include the cost of any tangible personal property withdrawn from the Contractor's warehouse stock and the amount of North Carolina State and local sales or use tax paid on this property by the Contractor. Any local sales or use taxes included in the Contractor's statements must be shown separately from the State sales or use taxes. The Contractor shall furnish any additional information the Commissioner of Revenue of the State of North Carolina may require to substantiate a refund claim for sales or use taxes. The Contractor shall also obtain and furnish to the Contracting Officer similar certified statements by its subcontractors.

(d) If this contract is completed before the next October 1, the certified statements to be furnished pursuant to paragraph (c) above shall be submitted within 60 days after completion. If this contract is not completed before the next October 1, the certified statements shall be submitted on or before November 30 of each year and shall cover taxes paid during the 12-month period that ended the preceding September 30.

(e) The certified statements to be furnished pursuant to paragraph (c) above shall be in the following form: I hereby certify that during the period . . . . to . . . .[insert dates], ... [insert name of Contractor or subcontractor] paid North Carolina State and local sales and use taxes aggregating $ . . . . (State) and $ . . . . (local), with respect to building materials, supplies, fixtures, and equipment that have become a part of or annexed to a building or structure erected, altered, or repaired by . . . . [insert name of Contractor or subcontractor] for the United States of America, and that the vendors from whom the property was purchased, the dates and numbers of the invoices covering the purchases, the total amount of the invoices of each vendor, the North Carolina State and local sales and use taxes paid on the property (shown separately), and the cost of property withdrawn from warehouse stock and North Carolina State and local sales or use taxes paid on this property are as set forth in the attachments.

(End of clause)

52.229-3 FEDERAL, STATE, AND LOCAL TAXES (JAN 1991)

(a) "Contract date," as used in this clause, means the date set for bid opening or, if this is a negotiated contract or a modification, the effective date of this contract or modification.

"All applicable Federal, State, and local taxes and duties," as used in this clause, means all taxes and duties, in effect on the contract date, that the taxing authority is imposing and collecting on the transactions or property covered by this contract.

"After-imposed Federal tax," as used in this clause, means any new or increased Federal excise tax or duty, or tax that was exempted or excluded on the contract date but whose exemption was later revoked or reduced during the contract period, on the transactions or property covered by this contract that the Contractor is required to pay or bear as the result of legislative, judicial, or administrative action taking effect after the contract date. It does not include social security tax or other employment taxes.

"After-relieved Federal tax," as used in this clause, means any amount of Federal excise tax or duty, except social security or other employment taxes, that would otherwise have been payable on the transactions or property covered by this contract, but which the Contractor is not required to pay or bear, or for which the Contractor obtains a refund or drawback, as the result of legislative, judicial, or administrative action taking effect after the contract date.

(b) The contract price includes all applicable Federal, State, and local taxes and duties.

(c) The contract price shall be increased by the amount of any after-imposed Federal tax, provided the Contractor warrants in writing that no amount for such newly imposed Federal excise tax or duty or rate increase was included in the contract price, as a contingency reserve or otherwise.

(d) The contract price shall be decreased by the amount of any after-relieved Federal tax.

(e) The contract price shall be decreased by the amount of any Federal excise tax or duty, except social security or other employment taxes, that the Contractor is required to pay or bear, or does not obtain a refund of, through the Contractor's fault, negligence, or failure to follow instructions of the Contracting Officer.

(f) No adjustment shall be made in the contract price under this clause unless the amount of the adjustment exceeds $250.

(g) The Contractor shall promptly notify the Contracting Officer of all matters relating to any Federal excise tax or duty that reasonably may be expected to result in either an increase or decrease in the contract price and shall take appropriate action as the Contracting Officer directs.

(h) The Government shall, without liability, furnish evidence appropriate to establish exemption from any Federal, State, or local tax when the Contractor requests such evidence and a reasonable basis exists to sustain the exemption.

(End of clause)

52.229-5 TAXES--CONTRACTS PERFORMED IN U.S. POSSESSIONS OR PUERTO RICO (APR 1984)

The term "local taxes," as used in the Federal, State, and local taxes clause of this contract, includes taxes imposed by a possession of the United States or by Puerto Rico.

(End of clause)

52.232-5 PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS (MAY 1997)

(a) Payment of price. The Government shall pay the Contractor the contract price as provided in this contract.

(b) Progress payments. The Government shall make progress payments monthly as the work proceeds, or at more frequent intervals as determined by the Contracting Officer, on estimates of work accomplished which meets the standards of quality established under the contract, as approved by the Contracting Officer.

(1) The Contractor's request for progress payments shall include the following substantiation:

(i) An itemization of the amounts requested, related to the various elements of work required by the contract covered by the payment requested.

(ii) A listing of the amount included for work performed by each subcontractor under the contract.

(iii) A listing of the total amount of each subcontract under the contract.

(iv) A listing of the amounts previously paid to each such subcontractor under the contract.

(v) Additional supporting data in a form and detail required by the Contracting Officer.

(2) In the preparation of estimates, the Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into consideration. Material delivered to the Contractor at locations other than the site also may be taken into consideration if--

(i) Consideration is specifically authorized by this contract; and

(ii) The Contractor furnishes satisfactory evidence that it has acquired title to such material and that the material will be used to perform this contract.

(c) Contractor certification. Along with each request for progress payments, the Contractor shall furnish the following certification, or payment shall not be made: (However, if the Contractor elects to delete paragraph (c)(4) from the certification, the certification is still acceptable.)

I hereby certify, to the best of my knowledge and belief, that--

(1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;

(2) Payments to subcontractors and suppliers have been made from previous payments received under the contract, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements and the requirements of chapter 39 of Title 31, United States Code;

(3) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract; and

(4) This certification is not to be construed as final acceptance of a subcontractor's performance.

_____

(Name)

_____

(Title)

_____

(Date)

(d) Refund of unearned amounts. If the Contractor, after making a certified request for progress payments, discovers that a portion or all of such request constitutes a payment for performance by the Contractor that fails to conform to the specifications, terms, and conditions of this contract (hereinafter referred to as the "unearned amount"), the Contractor shall--

(1) Notify the Contracting Officer of such performance deficiency; and

(2) Be obligated to pay the Government an amount (computed by the Contracting Officer in the manner provided in

paragraph (j) of this clause) equal to interest on the unearned amount from the 8th day after the date of receipt of the unearned amount until--

(i) The date the Contractor notifies the Contracting Officer that the performance deficiency has been corrected; or

(ii) The date the Contractor reduces the amount of any subsequent certified request for progress payments by an amount equal to the unearned amount.

(e) Retainage. If the Contracting Officer finds that satisfactory progress was achieved during any period for which a progress payment is to be made, the Contracting Officer shall authorize payment to be made in full. However, if satisfactory progress has not been made, the Contracting Officer may retain a maximum of 10 percent of the amount of the payment until satisfactory progress is achieved. When the work is substantially complete, the Contracting Officer may retain from previously withheld funds and future progress payments that amount the Contracting Officer considers adequate for protection of the Government and shall release to the Contractor all the remaining withheld funds. Also, on completion and acceptance of each separate building, public work, or other division of the contract, for which the price is stated separately in the contract, payment shall be made for the completed work without retention of a percentage.

(f) Title, liability, and reservation of rights. All material and work covered by progress payments made shall, at the time of payment, become the sole property of the Government, but this shall not be construed as--

(1) Relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or

(2) Waiving the right of the Government to require the fulfillment of all of the terms of the contract.

(g) Reimbursement for bond premiums. In making these progress payments, the Government shall, upon request, reimburse the Contractor for the amount of premiums paid for performance and payment bonds (including coinsurance and reinsurance agreements, when applicable) after the Contractor has furnished evidence of full payment to the surety. The retainage provisions in paragraph (e) of this clause shall not apply to that portion of progress payments attributable to bond premiums.

(h) Final payment. The Government shall pay the amount due the Contractor under this contract after--

(1) Completion and acceptance of all work;

(2) Presentation of a properly executed voucher; and

(3) Presentation of release of all claims against
the Government arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. A release may also be required of the assignee if the Contractor's claim to amounts payable under this contract has been assigned under the Assignment of Claims Act of 1940 (31 U.S.C. 3727 and 41 U.S.C. 15).

(i) Limitation because of undefinitized work. Notwithstanding any provision of this contract, progress payments shall not exceed 80 percent on work accomplished on undefinitized contract actions. A "contract action" is any action resulting in a contract, as defined in FAR Subpart 2.1, including contract modifications for additional supplies or services, but not including contract modifications that are within the scope and under the terms of the contract, such as contract modifications issued pursuant to the Changes clause, or funding and other administrative changes.

(j) Interest computation on unearned amounts. In accordance with 31 U.S.C. 3903(c)(1), the amount payable under subparagraph (d)(2) of this clause shall be--

(1) Computed at the rate of average bond equivalent rates of 91-day Treasury bills auctioned at the most recent auction of such bills prior to the date the Contractor receives the unearned amount; and

(2) Deducted from the next available payment to the Contractor.

(End of clause)

52.232-10 PAYMENTS UNDER FIXED-PRICE ARCHITECT-ENGINEER CONTRACTS (AUG 1987)

(a) Estimates shall be made monthly of the amount and value of the work and services performed by the Contractor under this contract which meet the standards of quality established under this contract. The estimates shall be prepared by the Contractor and accompanied by any supporting data required by the Contracting Officer.

(b) Upon approval of the estimate by the Contracting Officer, payment upon properly executed vouchers shall be made to the Contractor, as soon as practicable, of 90 percent of the approved amount, less all previous payments; provided, that payment may be made in full during any months in which the Contracting Officer determines that performance has been satisfactory. Also, whenever the Contracting Officer determines that the work is substantially complete and that the amount retained is in excess of the amount adequate for the protection of the Government, the Contracting Officer may release the excess amount to the Contractor.

(c) Upon satisfactory completion by the Contractor and acceptance by the Contracting Officer of the work done by the Contractor under the "Statement of Architect-Engineer Services", the Contractor will be paid the unpaid balance of any money due for work under the statement, including retained percentages relating to this portion of the work. Upon satisfactory completion and final acceptance of the construction work, the Contractor shall be paid any unpaid balance of money due under this contract.

(d) Before final payment under the contract, or before settlement upon termination of the contract, and as a condition precedent thereto, the Contractor shall execute and deliver to the Contracting Officer a release of all claims against the Government arising under or by virtue of this contract, other than any claims that are specifically excepted by the Contractor from the operation of the release in amounts stated in the release.

(e) Notwithstanding any other provision in this contract, and specifically paragraph (b) of this clause, progress payments shall not exceed 80 percent on work accomplished on undefinitized contract actions. A "contract action" is any action resulting in a contract, as defined in FAR Subpart 2.1, including contract modifications for additional supplies or services, but not including contract modifications that are within the scope and under the terms of the contract, such as contract modifications issued pursuant to the Changes clause, or funding and other administrative changes.

(End of clause)

52.232-17 INTEREST (JUNE 1996)

(a) Except as otherwise provided in this contract under a Price Reduction for Defective Cost or Pricing Data clause or a Cost Accounting Standards clause, all amounts that become payable by the Contractor to the Government under this contract (net of any applicable tax credit under the Internal Revenue Code (26 U.S.C. 1481)) shall bear simple interest from the date due until paid unless paid within 30 days of becoming due. The interest rate shall be the interest rate established by the Secretary of the Treasury as provided in Section 12 of the Contract Disputes Act of 1978 (Public Law 95-563), which is applicable to the period in which the amount becomes due, as provided in paragraph (b) of this clause, and then at the rate applicable for each six-month period as fixed by the Secretary until the amount is paid. reproduce, prepare derivative works, distribute copies to the public, and (b) Amounts shall be due at the earliest of the following dates:

(1) The date fixed under this contract.

(2) The date of the first written demand for payment consistent with this contract, including any demand resulting from a default termination.

(3) The date the Government transmits to the Contractor a proposed supplemental agreement to confirm completed negotiations establishing the amount of debt.

(4) If this contract provides for revision of prices, the date of written notice to the Contractor stating the amount of refund payable in connection with a pricing proposal or a negotiated pricing agreement not confirmed by contract modification.

(c) The interest charge made under this clause may be reduced under the procedures prescribed in 32.614-2 of the Federal Acquisition Regulation in effect on the date of this contract.

(End of clause)

52.232-23 ASSIGNMENT OF CLAIMS (JAN 1986)

(a) The Contractor, under the Assignment of Claims Act, as amended, 31 U.S.C. 3727, 41 U.S.C. 15 (hereafter referred to as "the Act"), may assign its rights to be paid amounts due or to become due as a result of the performance of this contract to a bank, trust company, or other financing institution, including any Federal lending agency. The assignee under such an assignment may thereafter further assign or reassign its right under the original assignment to any type of financing institution described in the preceding sentence.

(b) Any assignment or reassignment authorized under the Act and this clause shall cover all unpaid amounts payable under this contract, and shall not be made to more than one party, except that an assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in the financing of this contract.

(c) The Contractor shall not furnish or disclose to any assignee under this contract any classified document (including this contract) or information related to work under this contract until the Contracting Officer authorizes such action in writing.

(End of clause)

52.232-26 PROMPT PAYMENT FOR FIXED-PRICE ARCHITECT-ENGINEER CONTRACTS (FEB 2002)

Notwithstanding any other payment terms in this contract, the Government will make invoice payments under the terms and conditions specified in this clause. The Government considers payment as being made on the day a check is dated or the date of an electronic funds transfer. Definitions of pertinent terms are set forth in sections 2.101, 32.001, and 32.902 of the Federal Acquisition Regulation. All days referred to in this clause are calendar days, unless otherwise specified. (However, see paragraph (a)(3) of this clause concerning payments due on Saturdays, Sundays, and legal holidays.)

(a) Invoice payments--(1) Due date. The due date for making invoice payments is --

(i) For work or services completed by the Contractor, the later of the following two events:

(A) The 30th day after the designated billing office receives a proper invoice from the Contractor (except as provided in paragraph (a)(1)(iii) of this clause).

(B) The 30th day after Government acceptance of the work or services completed by the Contractor. For a final invoice, when the payment amount is subject to contract settlement actions (e.g., release of claims), acceptance is deemed to occur on the effective date of the settlement.

(ii) The due date for progress payments is the 30th day after Government approval of Contractor estimates of work or services accomplished.

(iii) If the designated billing office fails to annotate the invoice or payment request with the actual date of receipt at the time of receipt, the payment due date is the 30th day after the date of the Contractor's invoice or payment request, provided the designated billing office receives a proper invoice or payment request and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(2) Contractor's invoice. The Contractor shall prepare and submit invoices to the designated billing office specified in the contract. A proper invoice must include the items listed in paragraphs (a)(2)(i) through (a)(2)(x) of this clause. If the invoice does not comply with these requirements, the designated billing office will return it within 7 days after receipt, with the reasons why it is not a proper invoice. When computing any interest penalty owed the Contractor, the Government will take into account if the Government notifies the Contractor of an improper invoice in an untimely manner.

(i) Name and address of the Contractor.

(ii) Invoice date and invoice number. (The Contractor should date invoices as close as possible to the date of mailing or transmission.)

(iii) Contract number or other authorization for work or services performed (including order number and contract line item number).

(iv) Description of work or services performed.

(v) Delivery and payment terms (e.g., discount for prompt payment terms).

(vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).

(vii) Name (where practicable), title, phone number, and mailing address of person to notify in the event of a defective invoice.

(viii) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.

(ix) Electronic funds transfer (EFT) banking information.

(A) The Contractor shall include EFT banking information on the invoice only if required elsewhere in this contract.

(B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision (e.g., 52.232-38, Submission of Electronic Funds Transfer Information with Offer), contract clause (e.g., 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration, or 52.232-34,Payment by Electronic Funds Transfer--Other Than Central Contractor Registration), or applicable agency procedures.

(C) EFT banking information is not required if the Government waived the requirement to pay by EFT.

(x) Any other information or documentation required by the contract.

(3) Interest penalty. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if payment is not made by the due date and the conditions listed in paragraphs (a)(3)(i) through (a)(3)(iii) of this clause are met, if applicable. However, when the due date falls on a Saturday, Sunday, or legal holiday, the designated payment office may make payment on the following working day without incurring a late payment interest penalty.

(i) The designated billing office received a proper invoice.

(ii) The Government processed a receiving report or other Government documentation authorizing payment and there was no disagreement over quantity, quality, Contractor compliance with any contract term or condition, or requested progress payment amount.

(iii) In the case of a final invoice for any balance of funds due the Contractor for work or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.

(4) Computing penalty amount. The Government will compute the interest penalty in accordance with the Office of Management and Budget prompt payment regulations at 5 CFR part 1315.

(i) For the sole purpose of computing an interest penalty that might be due the Contractor, Government acceptance or approval is deemed to occur constructively as shown in paragraphs (a)(4)(i)(A) and (B) of this clause. If actual acceptance or approval occurs within the constructive acceptance or approval period, the Government will base the determination of an interest penalty on the actual date of acceptance or approval. Constructive acceptance or constructive approval requirements do not apply if there is a disagreement over quantity, quality, Contractor compliance with a contract provision, or requested progress payment amounts. These requirements also do not compel Government officials to accept work or services, approve Contractor estimates, perform contract administration functions, or make payment prior to fulfilling their responsibilities.

(A) For work or services completed by the Contractor, Government acceptance is deemed to occur constructively on the 7th day after the Contractor completes the work or services in accordance with the terms and conditions of the contract.

(B) For progress payments, Government approval is deemed to occur on the 7th day after the designated billing office receives the Contractor estimates.

(ii) The prompt payment regulations at 5 CFR 1315.10(c) do not require the Government to pay interest penalties if payment delays are due to disagreement between the Government and the Contractor over the payment amount or other issues involving contract compliance, or on amounts temporarily withheld or retained in accordance with the terms of the contract. The Government and the Contractor shall resolve claims involving disputes, and any interest that may be payable in accordance with the clause at FAR 52.233-1, Disputes.

(5) Discounts for prompt payment. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if the Government takes a discount for prompt payment improperly. The Government will calculate the interest penalty in accordance with 5 CFR part 1315.

(6) Additional interest penalty. (i) The designated payment office will pay a penalty amount, calculated in accordance with the prompt payment regulations at 5 CFR part 1315, in addition to the interest penalty amount only if--

(A) The Government owes an interest penalty of $1 or more;

(B) The designated payment office does not pay the interest penalty within 10 days after the date the invoice amount is paid; and

(C) The contractor makes a written demand to the designated payment office for additional penalty payment, in accordance with paragraph (a)(6)(ii) of this clause, postmarked not later than 40 days after the date the invoice amount is paid.

(ii)(A) The Contractor shall support written demands for additional penalty payments with the following data. The Government will not request any additional data. The Contractor shall--

(1) Specifically assert that late payment interest is due under a specific invoice, and request payment of all overdue late payment interest penalty and such additional penalty as may be required;

(2) Attach a copy of the invoice on which the unpaid late payment interest is due; and

(3) State that payment of the principal has been received, including the date of receipt.

(B) If there is no postmark or the postmark is illegible--

(1) The designated payment office that receives the demand will annotate it with the date of receipt, provided the demand is received on or before the 40th day after payment was made; or

(2) If the designated payment office fails to make the required annotation, the Government will determine the demand's validity based on the date the Contractor has placed on the demand, provided such date is no later than the 40th day after payment was made.

(iii) The additional penalty does not apply to payments regulated by other Government regulations (e.g., payments under utility contracts subject to tariffs and regulation).

(b) Contract financing payments. If this contract provides for contract financing, the Government will make contract financing payments in accordance with the applicable contract financing clause.

(c) Overpayments. If the Contractor becomes aware of a duplicate payment or that the Government has otherwise overpaid on an invoice payment, the Contractor shall immediately notify the Contracting Officer and request instructions for disposition of the overpayment.

(End of clause)

52.232-27 PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS (FEB 2002)

Notwithstanding any other payment terms in this contract, the Government will make invoice payments under the terms and conditions specified in this clause. The Government considers payment as being made on the day a check is dated or the date of an electronic funds transfer. Definitions of pertinent terms are set forth in sections 2.101, 32.001, and 32.902 of the Federal Acquisition Regulation. All days referred to in this clause are calendar days, unless otherwise specified. (However, see paragraph (a)(3) concerning payments due on Saturdays, Sundays, and legal holidays.)

(a) Invoice payments--(1) Types of invoice payments. For purposes of this clause, there are several types of invoice payments that may occur under this contract, as follows:

(i) Progress payments, if provided for elsewhere in this contract, based on Contracting Officer approval of the estimated amount and value of work or services performed, including payments for reaching milestones in any project.

(A) The due date for making such payments is 14 days after the designated billing office receives a proper payment request. If the designated billing office fails to annotate the payment request with the actual date of receipt at the time of receipt, the payment due date is the 14th day after the date of the Contractor's payment request, provided the designated billing office receives a proper payment request and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(B) The due date for payment of any amounts retained by the Contracting Officer in accordance with the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts, is as specified in the contract or, if not specified, 30 days after approval by the Contracting Officer for release to the Contractor.

(ii) Final payments based on completion and acceptance of all work and presentation of release of all claims against the Government arising by virtue of the contract, and payments for partial deliveries that have been accepted by the Government (e.g., each separate building, public work, or other division of the contract for which the price is stated separately in the contract).

(A) The due date for making such payments is the later of the following two events:

(1) The 30th day after the designated billing office receives a proper invoice from the Contractor.

(2) The 30th day after Government acceptance of the work or services completed by the Contractor. For a final invoice when the payment amount is subject to contract settlement actions (e.g., release of claims), acceptance is deemed to occur on the effective date of the contract settlement.

(B) If the designated billing office fails to annotate the invoice with the date of actual receipt at the time of receipt, the invoice payment due date is the 30th day after the date of the Contractor's invoice, provided the designated billing office receives a proper invoice and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(2) Contractor's invoice. The Contractor shall prepare and submit invoices to the designated billing office specified in the contract. A proper invoice must include the items listed in paragraphs (a)(2)(i) through (a)(2)(xi) of this clause. If the invoice does not comply with these requirements, the designated billing office must return it within 7 days after receipt, with the reasons why it is not a proper invoice. When computing any interest penalty owed the Contractor, the Government will take into account if the Government notifies the Contractor of an improper invoice in an untimely manner.

(i) Name and address of the Contractor.

(ii) Invoice date and invoice number. (The Contractor should date invoices as close as possible to the date of mailing or transmission.)

(iii) Contract number or other authorization for work or services performed (including order number and contract line item number).

(iv) Description of work or services performed.

(v) Delivery and payment terms (e.g., discount for prompt payment terms).

(vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).

(vii) Name (where practicable), title, phone number, and mailing address of person to notify in the event of a defective invoice.

(viii) For payments described in paragraph (a)(1)(i) of this clause, substantiation of the amounts requested and certification in accordance with the requirements of the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts.

(ix) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.

(x) Electronic funds transfer (EFT) banking information.

(A) The Contractor shall include EFT banking information on the invoice only if required elsewhere in this contract.

(B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision (e.g., 52.232-38, Submission of Electronic Funds Transfer Information with Offer), contract clause (e.g., 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration, or 52.232-34, Payment by Electronic Funds Transfer--Other Than Central Contractor Registration), or applicable agency procedures.

(C) EFT banking information is not required if the Government waived the requirement to pay by EFT.

(xi) Any other information or documentation required by the contract.

(3) Interest penalty. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if payment is not made by the due date and the conditions listed in paragraphs (a)(3)(i) through (a)(3)(iii) of this clause are met, if applicable. However, when the due date falls on a Saturday, Sunday, or legal holiday, the designated payment office may make payment on the following working day without incurring a late payment interest penalty.

(i) The designated billing office received a proper invoice.

(ii) The Government processed a receiving report or other Government documentation authorizing payment and there was no disagreement over quantity, quality, Contractor compliance with any contract term or condition, or requested progress payment amount.

(iii) In the case of a final invoice for any balance of funds due the Contractor for work or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.

(4) Computing penalty amount. The Government will compute the interest penalty in accordance with the Office of Management and Budget prompt payment regulations at 5 CFR part 1315.

(i) For the sole purpose of computing an interest penalty that might be due the Contractor for payments described in paragraph (a)(1)(ii) of this clause, Government acceptance or approval is deemed to occur constructively on the 7th day after the Contractor has completed the work or services in accordance with the terms and conditions of the contract. If actual acceptance or approval occurs within the constructive acceptance or approval period, the Government will base the determination of an interest penalty on the actual date of acceptance or approval. Constructive acceptance or constructive approval requirements do not apply if there is a disagreement over quantity, quality, or Contractor compliance with a contract provision. These requirements also do not compel Government officials to accept work or services, approve Contractor estimates, perform contract administration functions, or make payment prior to fulfilling their responsibilities.

(ii) The prompt payment regulations at 5 CFR 1315.10(c) do not require the Government to pay interest penalties if payment delays are due to disagreement between the Government and the Contractor over the payment amount or other issues involving contract compliance, or on amounts temporarily withheld or retained in accordance with the

terms of the contract. The Government and the Contractor shall resolve claims involving disputes, and any interest that may be payable in accordance with the clause at FAR 52.233-1, Disputes.

(5) Discounts for prompt payment. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if the Government takes a discount for prompt payment improperly. The Government will calculate the interest penalty in accordance with the prompt payment regulations at 5 CFR part 1315.

(6) Additional interest penalty. (i) The designated payment office will pay a penalty amount, calculated in accordance with the prompt payment regulations at 5 CFR part 1315 in addition to the interest penalty amount only if--

(A) The Government owes an interest penalty of $1 or more;

(B) The designated payment office does not pay the interest penalty within 10 days after the date the invoice amount is paid; and

(C) The Contractor makes a written demand to the designated payment office for additional penalty payment, in accordance with paragraph (a)(6)(ii) of this clause, postmarked not later than 40 days after the date the invoice amount is paid.

(ii)(A) The Contractor shall support written demands for additional penalty payments with the following data. The Government will not request any additional data. The Contractor shall--

(1) Specifically assert that late payment interest is due under a specific invoice, and request payment of all overdue late payment interest penalty and such additional penalty as may be required;

(2) Attach a copy of the invoice on which the unpaid late payment interest was due; and

(3) State that payment of the principal has been received, including the date of receipt.

(B) If there is no postmark or the postmark is illegible--

(1) The designated payment office that receives the demand will annotate it with the date of receipt provided the demand is received on or before the 40th day after payment was made; or

(2) If the designated payment office fails to make the required annotation, the Government will determine the demand's validity based on the date the Contractor has placed on the demand, provided such date is no later than the 40th day after payment was made.

(b) Contract financing payments. If this contract provides for contract financing, the Government will make contract financing payments in accordance with the applicable contract financing clause.

(c) Subcontract clause requirements. The Contractor shall include in each subcontract for property or services (including a material supplier) for the purpose of performing this contract the following:

(1) Prompt payment for subcontractors. A payment clause that obligates the Contractor to pay the subcontractor for satisfactory performance under its subcontract not later than 7 days from receipt of payment out of such amounts as are paid to the Contractor under this contract.

(2) Interest for subcontractors. An interest penalty clause that obligates the Contractor to pay to the subcontractor an interest penalty for each payment not made in accordance with the payment clause--

(i) For the period beginning on the day after the required payment date and ending on the date on which payment of the amount due is made; and

(ii) Computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contract Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty.

(3) Subcontractor clause flowdown. A clause requiring each subcontractor to use:

(i) Include a payment clause and an interest penalty clause conforming to the standards set forth in paragraphs (c)(1) and (c)(2) of this clause in each of its subcontracts; and

(ii) Require each of its subcontractors to include such clauses in their subcontracts with each lower-tier subcontractor or supplier.

(d) Subcontract clause interpretation. The clauses required by paragraph (c) of this clause shall not be construed to impair the right of the Contractor or a subcontractor at any tier to negotiate, and to include in their subcontract, provisions that--

(1) Retainage permitted. Permit the Contractor or a subcontractor to retain (without cause) a specified percentage of each progress payment otherwise due to a subcontractor for satisfactory performance under the subcontract without incurring any obligation to pay a late payment interest penalty, in accordance with terms and conditions agreed to by the parties to the subcontract, giving such recognition as the parties deem appropriate to the ability of a subcontractor to furnish a performance bond and a payment bond;

(2) Withholding permitted. Permit the Contractor or subcontractor to make a determination that part or all of the subcontractor's request for payment may be withheld in accordance with the subcontract agreement; and

(3) Withholding requirements. Permit such withholding without incurring any obligation to pay a late payment penalty if--

(i) A notice conforming to the standards of paragraph (g) of this clause previously has been furnished to the subcontractor; and

(ii) The Contractor furnishes to the Contracting Officer a copy of any notice issued by a Contractor pursuant to paragraph (d)(3)(i) of this clause.

(e) Subcontractor withholding procedures. If a Contractor, after making a request for payment to the Government but before making a payment to a subcontractor for the subcontractor's performance covered by the payment request, discovers that all or a portion of the payment otherwise due such subcontractor is subject to withholding from the subcontractor in accordance with the subcontract agreement, then the Contractor shall--

(1) Subcontractor notice. Furnish to the subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon ascertaining the cause giving rise to a withholding, but prior to the due date for subcontractor payment;

(2) Contracting Officer notice. Furnish to the Contracting Officer, as soon as practicable, a copy of the notice furnished to the subcontractor pursuant to paragraph (e)(1) of this clause;

(3) Subcontractor progress payment reduction. Reduce the subcontractor's progress payment by an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (e)(1) of this clause;

(4) Subsequent subcontractor payment. Pay the subcontractor as soon as practicable after the correction of the identified subcontract performance deficiency, and--

(i) Make such payment within--

(A) Seven days after correction of the identified subcontract performance deficiency (unless the funds therefor must be recovered from the Government because of a reduction under paragraph
(e)(5)(i)) of this clause; or

(B) Seven days after the Contractor recovers such funds from the Government; or

(ii) Incur an obligation to pay a late payment interest penalty computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contracts Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty;

(5) Notice to Contracting Officer. Notify the Contracting Officer upon--

(i) Reduction of the amount of any subsequent certified application for payment; or

(ii) Payment to the subcontractor of any withheld amounts of a progress payment, specifying--

(A) The amounts withheld under paragraph (e)(1) of this clause; and

(B) The dates that such withholding began and ended; and

(6) Interest to Government. Be obligated to pay to the Government an amount equal to interest on the withheld payments (computed in the manner provided in 31 U.S.C. 3903(c)(1)), from the 8th day after receipt of the withheld amounts from the Government until--

(i) The day the identified subcontractor performance deficiency is corrected; or

(ii) The date that any subsequent payment is reduced under paragraph (e)(5)(i) of this clause.

(f) Third-party deficiency reports--(1) Withholding from subcontractor. If a Contractor, after making payment to a first-tier subcontractor, receives from a supplier or subcontractor of the first-tier subcontractor (hereafter referred to as a “second-tier subcontractor”) a written notice in accordance with section 2 of the Act of August 24, 1935 (40 U.S.C. 270b, Miller Act), asserting a deficiency in such first-tier subcontractor's performance under the contract for which the Contractor may be ultimately liable, and the Contractor determines that all or a portion of future payments otherwise due such first-tier subcontractor is subject to withholding in accordance with the subcontract agreement, the Contractor may, without incurring an obligation to pay an interest penalty under paragraph (e)(6) of this clause--

(i) Furnish to the first-tier subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon making such determination; and

(ii) Withhold from the first-tier subcontractor's next available progress payment or payments an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (f)(1)(i) of this clause.

(2) Subsequent payment or interest charge. As soon as practicable, but not later than 7 days after receipt of satisfactory written notification that the identified subcontract performance deficiency has been corrected, the Contractor shall--

(i) Pay the amount withheld under paragraph (f)(1)(ii) of this clause to such first-tier subcontractor; or

(ii) Incur an obligation to pay a late payment interest penalty to such first-tier subcontractor computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments

under section 12 of the Contracts DisputesAct of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty.

(g) Written notice of subcontractor withholding. The Contractor shall issue a written notice of any withholding to a subcontractor (with a copy furnished to the Contracting Officer), specifying--

(1) The amount to be withheld;

(2) The specific causes for the withholding under the terms of the subcontract; and

(3) The remedial actions to be taken by the subcontractor in order to receive payment of the amounts withheld.

(h) Subcontractor payment entitlement. The Contractor may not request payment from the Government of any amount withheld or retained in accordance with paragraph (d) of this clause until such time as the Contractor has determined and certified to the Contracting Officer that the subcontractor is entitled to the payment of such amount.

(i) Prime-subcontractor disputes. A dispute between the Contractor and subcontractor relating to the amount or entitlement of a subcontractor to a payment or a late payment interest penalty under a clause included in the subcontract pursuant to paragraph (c) of this clause does not constitute a dispute to which the Government is a party. The Government may not be interpleaded in any judicial or administrative proceeding involving such a dispute.

(j) Preservation of prime-subcontractor rights. Except as provided in paragraph (i) of this clause, this clause shall not limit or impair any contractual, administrative, or judicial remedies otherwise available to the Contractor or a subcontractor in the event of a dispute involving late payment or nonpayment by the Contractor or deficient subcontract performance or nonperformance by a subcontractor.

(k) Non-recourse for prime contractor interest penalty. The Contractor's obligation to pay an interest penalty to a subcontractor pursuant to the clauses included in a subcontract under paragraph (c) of this clause shall not be construed to be an obligation of the Government for such interest penalty. A cost-reimbursement claim may not include any amount for reimbursement of such interest penalty.

(l) Overpayments. If the Contractor becomes aware of a duplicate payment or that the Government has otherwise overpaid on an invoice payment, the Contractor shall immediately notify the Contracting Officer and request instructions for disposition of the overpayment.

(End of clause)

52.232-33 PAYMENT BY ELECTRONIC FUNDS TRANSFER—CENTRAL CONTRACTOR REGISTRATION (MAY 1999)

(a) Method of payment. (1) All payments by the Government under this contract shall be made by electronic funds transfer (EFT), except as provided in paragraph (a)(2) of this clause. As used in this clause, the term “EFT” refers to the funds transfer and may also include the payment information transfer.

(2) In the event the Government is unable to release one or more payments by EFT, the Contractor agrees to either--

(i) Accept payment by check or some other mutually agreeable method of payment; or

(ii) Request the Government to extend the payment due date until such time as the Government can make payment by EFT (but see paragraph (d) of this clause).

(b) Contractor's EFT information. The Government shall make payment to the Contractor using the EFT information contained in the Central Contractor Registration (CCR) database. In the event that the EFT information changes, the Contractor shall be responsible for providing the updated information to the CCR database.

(c) Mechanisms for EFT payment. The Government may make payment by EFT through either the Automated Clearing House (ACH) network, subject to the rules of the National Automated Clearing House Association, or the Fedwire Transfer System. The rules governing Federal payments through the ACH are contained in 31 CFR part 210.

(d) Suspension of payment. If the Contractor's EFT information in the CCR database is incorrect, then the Government need not make payment to the Contractor under this contract until correct EFT information is entered into the CCR database; and any invoice or contract financing request shall be deemed not to be a proper invoice for the purpose of prompt payment under this contract. The prompt payment terms of the contract regarding notice of an improper invoice and delays in accrual of interest penalties apply.

(e) Contractor EFT arrangements. If the Contractor has identified multiple payment receiving points (i.e., more than one remittance address and/or EFT information set) in the CCR database, and the Contractor has not notified the Government of the payment receiving point applicable to this contract, the Government shall make payment to the first payment receiving point (EFT information set or remittance address as applicable) listed in the CCR database.

(f) Liability for uncompleted or erroneous transfers. (1) If an uncompleted or erroneous transfer occurs because the Government used the Contractor's EFT information incorrectly, the Government remains responsible for--

(i) Making a correct payment;

(ii) Paying any prompt payment penalty due; and

(iii) Recovering any erroneously directed funds.

(2) If an uncompleted or erroneous transfer occurs because the Contractor's EFT information was incorrect, or was revised within 30 days of Government release of the EFT payment transaction instruction to the Federal Reserve System, and--

(i) If the funds are no longer under the control of the payment office, the Government is deemed to have made payment and the Contractor is responsible for recovery of any erroneously directed funds; or

(ii) If the funds remain under the control of the payment office, the Government shall not make payment, and the provisions of paragraph (d) of this clause shall apply.

(g) EFT and prompt payment. A payment shall be deemed to have been made in a timely manner in accordance with the prompt payment terms of this contract if, in the EFT payment transaction instruction released to the Federal Reserve System, the date specified for settlement of the payment is on or before the prompt payment due date, provided the specified payment date is a valid date under the rules of the Federal Reserve System.

(h) EFT and assignment of claims. If the Contractor assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the Contractor shall require as a condition of any such assignment, that the assignee shall register in the CCR database and shall be paid by EFT in accordance with the terms of this clause. In all respects, the requirements of this clause shall apply to the assignee as if it were the Contractor. EFT information that shows the ultimate recipient of the transfer to be other than the Contractor, in the absence of a proper assignment of claims acceptable to the Government, is incorrect EFT information within the meaning of paragraph (d) of this clause.

(i) Liability for change of EFT information by financial agent. The Government is not liable for errors resulting from changes to EFT information made by the Contractor's financial agent.

(j) Payment information. The payment or disbursing office shall forward to the Contractor available payment information that is suitable for transmission as of the date of release of the EFT instruction to the Federal Reserve System. The Government may request the Contractor to designate a desired format and method(s) for delivery of payment information from a list of formats and methods the payment office is capable of executing. However, the Government does not guarantee that any particular format or method of delivery is available at any particular payment office and retains the latitude to use the format and delivery method most convenient to the Government. If the Government makes payment by check in accordance with paragraph (a) of this clause, the Government shall mail the payment information to the remittance address contained in the CCR database.

(End of Clause)

52.233-1 DISPUTES. (DEC 1998)

(a) This contract is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. 601-613).

(b) Except as provided in the Act, all disputes arising under or relating to this contract shall be resolved under this clause.

(c) "Claim," as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to this contract. A claim arising under a contract, unlike a claim relating to that contract, is a claim that can be resolved under a contract clause that provides for the relief sought by the claimant. However, a written demand or written assertion by the Contractor seeking the payment of money exceeding $100,000 is not a claim under the Act until certified as required by subparagraph (d)(2) of this clause. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim under the Act. The submission may be converted to a claim under the Act, by complying with the submission and certification requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

(d)(1) A claim by the Contractor shall be made in writing and, unless otherwise stated in this contract, submitted within 6 years after accrual of the claim to the Contracting Officer for a written decision. A claim by the Government against the Contractor shall be subject to a written decision by the Contracting Officer.

(2)(i) The contractors shall provide the certification specified in subparagraph (d)(2)(iii) of this clause when submitting any claim -

(A) Exceeding $100,000; or

(B) Regardless of the amount claimed, when using -

(1) Arbitration conducted pursuant to 5 U.S.C. 575-580; or

(2) Any other alternative means of dispute resolution (ADR) technique that the agency elects to handle in accordance with the Administrative Dispute Resolution Act (ADRA).

(ii) The certification requirement does not apply to issues in controversy that have not been submitted as all or part of a claim.

(iii) The certification shall state as follows: "I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the Contractor believes the Government is liable; and that I am duly authorized to

certify the claim on behalf of the Contractor.

(3) The certification may be executed by any person duly authorized to bind the Contractor with respect to the claim.

(e) For Contractor claims of $100,000 or less, the Contracting Officer must, if requested in writing by the Contractor, render a decision within 60 days of the request. For Contractor-certified claims over $100,000, the Contracting Officer must, within 60 days, decide the claim or notify the Contractor of the date by which the decision will be made.

(f) The Contracting Officer's decision shall be final unless the Contractor appeals or files a suit as provided in the Act.

(g) If the claim by the Contractor is submitted to the Contracting Officer or a claim by the Government is presented to the Contractor, the parties, by mutual consent, may agree to use alternative disput resolution (ADR). If the Contractor refuses an offer for ADR, the Contractor shall inform the Contracting Officer, in writing, of the Contractor's specific reasons for rejecting the request.

(h) The Government shall pay interest on the amount found due and unpaid from (1) the date the Contracting Officer receives the claim (certified, if required); or (2) the date that payment otherwise would be due, if that date is later, until the date of payment. With regard to claims having defective certifications, as defined in (FAR) 48 CFR 33.201, interest shall be paid from the date that the Contracting Officer initially receives the claim. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury as provided in the Act, which is applicable to the period during which the Contracting Officer receives the claim and then at the rate applicable for each 6-month period as fixed by the Treasury Secretary during the pendency of the claim.

(i) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under the contract, and comply with any decision of the Contracting Officer.

(End of clause)

52.233-3 PROTEST AFTER AWARD (AUG. 1996)

(a) Upon receipt of a notice of protest (as defined in FAR 33.101) or a determination that a protest is likely (see FAR 33.102(d)), the Contracting Officer may, by written order to the Contractor, direct the Contractor to stop performance of the work called for by this contract. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Upon receipt of the final decision in the protest, the Contracting Officer shall either--

(1) Cancel the stop-work order; or

(2) Terminate the work covered by the order as provided in the Default, or the Termination for Convenience of the Government, clause of this contract.

(b) If a stop-work order issued under this clause is canceled either before or after a final decision in the protest, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule or contract price, or both, and the contract shall be modified, in writing, accordingly, if--

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and

(2) The Contractor asserts its right to an adjustment within 30 days after the end of the period of work stoppage; provided, that if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and

act upon a proposal at any time before final payment under this contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

(e) The Government's rights to terminate this contract at any time are not affected by action taken under this clause.

(f) If, as the result of the Contractor's intentional or negligent misstatement, misrepresentation, or miscertification, a protest related to this contract is sustained, and the Government pays costs, as provided in FAR 33.102(b)(2) or 33.104(h)(1), the Government may require the Contractor to reimburse the Government the amount of such costs. In addition to any other remedy available, and pursuant to the requirements of Subpart 32.6, the Government may collect this debt by offsetting the amount against any payment due the Contractor under any contract between the Contractor and the Government.

(End of clause)

52.236-2 DIFFERING SITE CONDITIONS (APR 1984)

As prescribed in 36.502, insert the following clause in solicitations and contracts when a fixed-price construction contract or a fixed-price dismantling, demolition, or removal of improvements contract is contemplated and the contract amo unt is expected to exceed the small purchase limitation. The Contracting Officer may insert the clause in solicitations and contracts when a fixed-price construction or a fixed-price contract for dismantling, demolition, or removal of improvements is contemplated and the contract amount is expected to be within the small purchase limitation.

(a) The Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Contracting Officer of

(1) subsurface or latent physical conditions at the site which differ materially from those indicated in this contract, or

(2) unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.

(b) The Contracting Officer shall investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the work under this contract, whether or not changed as a result of the conditions, an equitable adjustment shall be made under this clause and the contract modified in writing accordingly.

(c) No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written notice required; provided, that the time prescribed in (a) above for giving written notice may be extended by the Contracting Officer.

(d) No request by the Contractor for an equitable adjustment to the contract for differing site conditions shall be allowed if made after final payment under this contract.

(End of clause)

52.236-3 SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK (APR 1984)

(a) The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to

(1) conditions bearing upon transportation, disposal, handling, and storage of materials;

(2) the availability of labor, water, electric power, and roads;

(3) uncertainties of weather, river stages, tides, or similar physical conditions at the site;

(4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed preliminary to and during work performance. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the Government, as well as from the drawings and specifications made a part of this contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the Government.

(b) The Government assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the Government. Nor does the Government assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers or agents before the execution of this contract, unless that understanding or representation is expressly stated in this contract.

(End of clause)

52.236-5 MATERIAL AND WORKMANSHIP (APR 1984)

(a) All equipment, material, and articles incorporated into the work covered by this contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this contract. References in the specifications to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of the Contracting Officer, is equal to that named in the specifications, unless otherwise specifically provided in this contract.

(b) The Contractor shall obtain the Contracting Officer's approval of the machinery and mechanical and other equipment to be incorporated into the work. When requesting approval, the Contractor shall furnish to the Contracting Officer the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the machinery and mechanical and other equipment. When required by this contract or by the Contracting Officer, the Contractor shall also obtain the Contracting Officer's approval of the material or articles which the Contractor contemplates incorporating into the work. When requesting approval, the Contractor shall provide full information concerning the material or articles. When directed to do so, the Contractor shall submit samples for approval at the Contractor's expense, with all shipping charges prepaid. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection.

(c) All work under this contract shall be performed in a skillful and workmanlike manner. The Contracting Officer may require, in writing, that the Contractor remove from the work any employee the Contracting Officer deems incompetent, careless, or otherwise objectionable.

(End of clause)

52.236-6 SUPERINTENDENCE BY THE CONTRACTOR (APR 1984)

At all times during performance of this contract and until the work is completed and accepted, the Contractor shall directly superintend the work or assign and have on the worksite a competent superintendent who is satisfactory to the Contracting Officer and has authority to act for the Contractor.

(End of clause)

52.236-7 PERMITS AND RESPONSIBILITIES (NOV 1991)

The Contractor shall, without additional expense to the Government, be responsible for obtaining any necessary licenses and permits, and for complying with any Federal, State, and municipal laws, codes, and regulations applicable to the performance of the work. The Contractor shall also be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence. The Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of work which may have been accepted under the contract.

(End of clause)

52.236-8 OTHER CONTRACTS (APR 1984)

The Government may undertake or award other contracts for additional work at or near the site of the work under this contract. The Contractor shall fully cooperate with the other contractors and with Government employees and shall carefully adapt scheduling and performing the work under this contract to accommodate the additional work, heeding any direction that may be provided by the Contracting Officer. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other contractor or by Government employees.

(End of clause)

52.236-9 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS (APR 1984)

(a) The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this contract. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during contract performance, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Contracting Officer.

(b) The Contractor shall protect from damage all existing improvements and utilities

(1) at or near the work site, and

(2) on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in

performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

(End of clause)

52.236-10 OPERATIONS AND STORAGE AREAS (APR 1984)

(a) The Contractor shall confine all operations (including storage of materials) on Government premises to areas authorized or approved by the Contracting Officer. The Contractor shall hold and save the Government, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance.

(b) Temporary buildings (e.g., storage sheds, shops, offices) and utilities may be erected by the Contractor only with the approval of the Contracting Officer and shall be built with labor and materials furnished by the Contractor without expense to the Government. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the work. With the written consent of the Contracting Officer, the buildings and utilities may be abandoned and need not be removed.

(c) The Contractor shall, under regulations prescribed by the Contracting Officer, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the Contracting Officer. When materials are transported in prosecuting the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, State, or local law or regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

(End of clause)

52.236-11 USE AND POSSESSION PRIOR TO COMPLETION (APR 1984)

(a) The Government shall have the right to take possession of or use any completed or partially completed part of the work. Before taking possession of or using any work, the Contracting Officer shall furnish the Contractor a list of items of work remaining to be performed or corrected on those portions of the work that the Government intends to take possession of or use. However, failure of the Contracting Officer to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the contract. The Government's possession or use shall not be deemed an acceptance of any work under the contract.

(b) While the Government has such possession or use, the Contractor shall be relieved of the responsibility for the loss of or damage to the work resulting from the Government's possession or use, notwithstanding the terms of the clause in this contract entitled "Permits and Responsibilities." If prior possession or use by the Government delays the progress of the work or causes additional expense to the Contractor, an equitable adjustment shall be made in the contract price or the time of completion, and the contract shall be modified in writing accordingly.

(End of clause)

52.236-12 CLEANING UP (APR 1984)

The Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials. Before completing the work, the Contractor shall remove from the work and premises any rubbish, tools, scaffolding, equipment, and materials that are not the property of the Government. Upon completing the work, the Contractor shall leave the work area in a clean, neat, and orderly condition satisfactory to the Contracting Officer.

(End of clause)

52.236-13 ACCIDENT PREVENTION (NOV 1991) – ALTERNATE I (NOV 1991)

(a) The Contractor shall provide and maintain work environments and procedures which will

(1) safeguard the public and Government personnel, property, materials, supplies, and equipment exposed to Contractor operations and activities;

(2) avoid interruptions of Government operations and delays in project completion dates; and

(3) control costs in the performance of this contract.

(b) For these purposes on contracts for construction or dismantling, demolition, or removal of improvements, the Contractor shall-

(1) Provide appropriate safety barricades, signs, and signal lights;

(2) Comply with the standards issued by the Secretary of Labor at 29 CFR Part 1926 and 29 CFR Part 1910; and

(3) Ensure that any additional measures the Contracting Officer determines to be reasonably necessary for the purposes are taken.

(xi) If this contract is for construction or dismantling, demolition or removal of improvements with any Department of Defense agency or component, the Contractor shall comply with all pertinent provisions of the latest version of U.S. Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, in effect on the date of the solicitation.

(ii) Whenever the Contracting Officer becomes aware of any noncompliance with these requirements or any condition which poses a serious or imminent danger to the health or safety of the public or Government personnel, the Contracting Officer shall notify the Contractor orally, with written confirmation, and request immediate initiation of corrective action. This notice, when delivered to the Contractor or the Contractor's representative at the work site, shall be deemed sufficient notice of the noncompliance and that corrective action is required. After receiving the notice, the Contractor shall immediately take corrective action. If the Contractor fails or refuses to promptly take corrective action, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor shall not be entitled to any equitable adjustment of the contract price or extension of the performance schedule on any stop work order issued under this clause.

(e) The Contractor shall insert this clause, including this paragraph (e), with appropriate changes in the designation of the parties, in subcontracts.

(f) Before commencing the work, the Contractor shall-

(1) Submit a written proposed plan for implementing this clause. The plan shall include an analysis of the significant hazards to life, limb, and property inherent in contract work performance and a plan for controlling these hazards; and

(2) Meet with representatives of the Contracting Officer to discuss and develop a mutual understanding relative to administration of the overall safety program.

(End of clause)

52.236-15 SCHEDULES FOR CONSTRUCTION CONTRACTS (APR 1984)

(a) The Contractor shall, within five days after the work commences on the contract or another period of time determined by the Contracting Officer, prepare and submit to the Contracting Officer for approval three copies of a practicable schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the several salient features of the work (including acquiring materials, plant, and equipment). The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during the period. If the Contractor fails to submit a schedule within the time prescribed, the Contracting Officer may withhold approval of progress payments until the Contractor submits the required schedule.

(b) The Contractor shall enter the actual progress on the chart as directed by the Contracting Officer, and upon doing so shall immediately deliver three copies of the annotated schedule to the Contracting Officer. If, in the opinion of the Contracting Officer, the Contractor falls behind the approved schedule, the Contractor shall take steps necessary to improve its progress, including those that may be required by the Contracting Officer, without additional cost to the Government. In this circumstance, the Contracting Officer may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction plant, and to submit for approval any supplementary schedule or schedules in chart form as the Contracting Officer deems necessary to demonstrate how the approved rate of progress will be regained.

(c) Failure of the Contractor to comply with the requirements of the Contracting Officer under this clause shall be grounds for a determination by the Contracting Officer that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the contract. Upon making this determination, the Contracting Officer may terminate the Contractor's right to proceed with the work, or any separable part of it, in accordance with the default terms of this contract.

(End of clause)

52.236-17 LAYOUT OF WORK (APR 1984)

The Contractor shall lay out its work from Government established base lines and bench marks indicated on the drawings, and shall be responsible for all measurements in connection with the layout. The Contractor shall furnish, at its own expense, all stakes, templates, platforms, equipment, tools, materials, and labor required to lay out any part of the work. The Contractor shall be responsible for executing the work to the lines and grades that may be established or indicated by the Contracting Officer. The Contractor shall also be responsible for maintaining and preserving all stakes and other marks established by the Contracting Officer until authorized to remove them. If such marks are destroyed by the Contractor or through its negligence before their removal is authorized, the Contracting Officer may replace them and deduct the expense of the replacement from any amounts due or to become due to the Contractor.

(End of clause)

52.236-21 SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (FEB 1997)

(a) The Contractor shall keep on the work site a copy of the drawings and specifications and shall at all times give the Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications, the specifications shall govern. In case of discrepancy in the figures, in the drawings, or in the specifications, the matter shall be promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without such a determination shall be at its own risk and expense. The Contracting Officer shall furnish from time to time such

detailed drawings and other information as considered necessary, unless otherwise provided.

(b) Wherever in the specifications or upon the drawings the words "directed", "required", "ordered", "designated", "prescribed", or words of like import are used, it shall be understood that the "direction", "requirement", "order", "designation", or "prescription", of the Contracting Officer is intended and similarly the words "approved", "acceptable", "satisfactory", or words of like import shall mean "approved by," or "acceptable to", or "satisfactory to" the Contracting Officer, unless otherwise expressly stated.

(c) Where "as shown," as indicated", "as detailed", or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this contract unless stated otherwise. The word "provided" as used herein shall be understood to mean "provide complete in place," that is "furnished and installed".

(d) Shop drawings means drawings, submitted to the Government by the Contractor, subcontractor, or any lower tier subcontractor pursuant to a construction contract, showing in detail (1) the proposed fabrication and assembly of structural elements, and (2) the installation (i.e., fit, and attachment details) of materials or equipment. It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the contractor to explain in detail specific portions of the work required by the contract. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

(e) If this contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with contract requirements and shall indicate its approval thereon as evidence of such coordination and review. Shop drawings submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for resubmission. The Contracting Officer will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate the Government's reasons therefor. Any work done before such approval shall be at the Contractor's risk. Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract, except with respect to variations described and approved in accordance with (f) below.

(f) If shop drawings show variations from the contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Contracting Officer approves any such variation, the Contracting Officer shall issue an appropriate contract modification, except that, if the variation is minor or does not involve a change in price or in time of performance, a modification need not be issued.

(g) The Contractor shall submit to the Contracting Officer for approval four copies (unless otherwise indicated) of all shop drawings as called for under the various headings of these specifications. Three sets (unless otherwise indicated) of all shop drawings, will be retained by the Contracting Officer and one set will be returned to the Contractor.

(End of clause)

52.236-22 DESIGN WITHIN FUNDING LIMITATIONS (APR 1984)

(a) The Contractor shall accomplish the design services required under this contract so as to permit the award of a contract, using standard Federal Acquisition Regulation procedures for the construction of the facilities designed at a price that does not exceed the estimated construction contract price as set forth in paragraph (c) below. When bids or proposals for the construction contract are received that exceed the estimated price, the contractor shall perform such redesign and other services as are necessary to permit contract award within the funding limitation. These additional services shall be performed at no increase in the price of this contract. However, the Contractor shall not be required to perform such additional services at no cost to the Government if the unfavorable bids or proposals are the result of conditions beyond its reasonable control.

(b) The Contractor will promptly advise the Contracting Officer if it finds that the project being designed will exceed or is likely to exceed the funding limitations and it is unable to design a usable facility within these limitations. Upon receipt of such information, the Contracting Officer will review the Contractor's revised estimate of construction cost. The Government may, if it determines that the estimated construction contract price set forth in this contract is so low that award of a construction contract not in excess of such estimate is improbable, authorize a change in scope or materials as required to reduce the estimated construction cost to an amount within the estimated construction contract price set forth in paragraph (c) below, or the Government may adjust such estimated construction contract price. When bids or proposals are not solicited or are unreasonably delayed, the Government shall prepare an estimate of constructing the design submitted and such estimate shall be used in lieu of bids or proposals to determine compliance with the funding limitation.

(c) The estimated construction contract price for the project described in this contract is $44,607,000.00.
(End of clause)

52.236-24 WORK OVERSIGHT IN ARCHITECT-ENGINEER CONTRACTS (APR 1984)

The extent and character of the work to be done by the Contractor shall be subject to the general oversight, supervision, direction, control, and approval of the Contracting Officer.

(End of clause)

52.236-25 REQUIREMENTS FOR REGISTRATION OF DESIGNERS (APR 1984)

The design of architectural, structural, mechanical, electrical, civil, or other engineering features of the work shall be accomplished or reviewed and approved by architects or engineers registered to practice in the particular professional field involved in a State or possession of the United States, in Puerto Rico, or in the District of Columbia.

(End of clause)

52.236-26 PRECONSTRUCTION CONFERENCE (FEB 1995)

If the Contracting Officer decides to conduct a preconstruction conference, the successful offeror will be notified and will be required to attend. The Contracting Officer's notification will include specific details regarding the date, time, and location of the conference, any need for attendance by subcontractors, and information regarding the items to be discussed.

(End of clause)

52.236-4013 CONTRACTOR-PREPARED NETWORK ANALYSIS SYSTEM
(January 2002 SAS) (Ref. DFARS 236.273)

The progress chart to be prepared by the contractor pursuant to FAR 52.236-15, Schedules for Construction Contracts, shall utilize the Critical Path Method (CPM) of network calculation. (See Attachment 1 to Section 00800).

52.239-4001 Year 2000 Compliance

The contractor shall ensure products provided under this contract, to include hardware, software, firmware, and middleware, whether acting alone or combined as a system, are Year 2000 compliant as defined as follows: Year 2000 compliant means with respect to information technology, that the information technology accurately processes date/time data (including, but not limited to, calculating, comparing, and sequencing) from, into, and between the twentieth and twenty-first centuries, and the years 1999 and 2000 and leap year calculations, to the extent that other information, used in combination with the information technology being acquired, properly exchanges date/time data with it.

52.239-4005 Year 2000 Compliance - Construction Contracts

a. In accordance with FAR 39.106, the contractor shall ensure that with respect to any design, construction, goods, or services under this contract as well as any subsequent task/delivery orders issued under this contract (if applicable), all information technology contained therein shall be Year 2000 compliant. Specifically:

The contractor shall:

(1) Perform, maintain, and provide an inventory of all major components to include structures, equipment, items, parts, and furnishings under this contract and each task/delivery order which may be affected by the Y2K compliance requirement.

(2) Indicate whether each component is currently Year 2000 compliant or requires an upgrade for compliance prior to government acceptance.

(End of Clause)

52.242-13 BANKRUPTCY (JUL 1995)

In the event the Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish, by certified mail or electronic commerce method authorized by the contract, written notification of the bankruptcy to the Contracting Officer responsible for administering the contract. This notification shall be furnished within five days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of Government contract numbers and contracting offices for all Government contracts against which final payment has not been made. This obligation remains in effect until final payment under this contract.

(End of clause)

52.242-14 SUSPENSION OF WORK (APR 1984)

(a) The Contracting Officer may order the Contractor, in writing, to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Contracting Officer determines appropriate for the convenience of the Government.

(b) If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted (1) by an act of the Contracting Officer in the administration of this contract, or (2) by the Contracting Officer's failure to act within the time specified in this contract (or within a reasonable time if not specified), an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) necessarily caused by the unreasonable suspension, delay, or interruption, and the contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor, or for which an equitable adjustment is provided for or excluded under any other term or condition of this contract. (c) A claim under this clause shall not be allowed (1) for any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order), and (2) unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, or interruption, but not later than the date of final payment under the contract.

(End of clause)

52.243-1 CHANGES--FIXED-PRICE (AUG 1987) - ALTERNATE III (APR 1984)

(a) The Contracting Officer may at any time, by written order, and without notice to the sureties, if any, make changes within the general scope of this contract in the services to be performed.

(b) If any such change causes an increase or decrease in the cost of, or the time required for, performance of any part of the work under this contract, whether or not changed by the order, the Contracting Officer shall make an equitable adjustment in the contract price, the delivery schedule, or both, and shall modify the contract.

(c) The Contractor must assert its right to an adjustment under this clause within 30 days from the date of receipt of the written order. However, if the Contracting Officer decides that the facts justify it, the Contracting Officer may receive and act upon a proposal submitted before final payment of the contract.

(d) If the Contractor's proposal includes the cost of property made obsolete or excess by the change, the Contracting Officer shall have the right to prescribe the manner of the disposition of the property.

(e) Failure to agree to any adjustment shall be a dispute under the Disputes clause. However, nothing in this clause shall excuse the Contractor from proceeding with the contract as changed.

(f) No services for which an additional cost or fee will be charged by the Contractor shall be furnished without the prior written authorization of the Contracting Officer.

(End of clause)

52.243-4 CHANGES (AUG 1987)

(a) The Contracting Officer may, at any time, without notice to the sureties, if any, by written order designated or

indicated to be a change order, make changes in the work within the general scope of the contract, including changes--

(1) In the specifications (including drawings and designs);

(2) In the method or manner of performance of the work;

(3) In the Government-furnished facilities, equipment, materials, services, or site; or

(4) Directing acceleration in the performance of the work.

(b) Any other written or oral order (which, as used in this paragraph (b), includes direction, instruction, interpretation, or determination) from the Contracting Officer that causes a change shall be treated as a change order under this clause; provided, that the Contractor gives the Contracting Officer written notice stating

(1) the date, circumstances, and source of the order and

(2) that the Contractor regards the order as a change order.

(c) Except as provided in this clause, no order, statement, or conduct of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.

(d) If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work under this contract, whether or not changed by any such order, the Contracting Officer shall make an equitable adjustment and modify the contract in writing. However, except for an adjustment based on defective specifications, no adjustment for any change under paragraph (b) of this clause shall be made for any costs incurred more than 20 days before the Contractor gives written notice as required. In the case of defective specifications for which the Government is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specifications.

(e) The Contractor must assert its right to an adjustment under this clause within 30 days after

(1) receipt of a written change order under paragraph (a) of this clause or (2) the furnishing of a written notice under paragraph (b) of this clause, by submitting to the Contracting Officer a written statement describing the general nature and amount of the proposal, unless this period is extended by the Government. The statement of proposal for adjustment may be included in the notice under paragraph (b) above.

(f) No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract.

(End of clause)

52.244-5 COMPETITION IN SUBCONTRACTING (DEC 1996)

(a) The Contractor shall select subcontractors (including suppliers) on a competitive basis to the maximum practical extent consistent with the objectives and requirements of the contract.

(b) If the Contractor is an approved mentor under the Department of Defense Pilot Mentor-Protege Program (Pub. L. 101–510, section 831 as amended), the Contractor may award subcontracts under this contract on a noncompetitive basis to its proteges.

(End of clause)

52.244-6 SUBCONTRACTS FOR COMMERCIAL ITEMS (MAY 2002)

(a) Definitions. As used this clause--

"Commercial item", has the meaning contained in the clause at 52.202-1, Definitions.

"Subcontract", includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

(b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or nondevelopmental items as components of items to be supplied under this contract.

(c)(1) The Contractor shall insert the following clauses in subcontracts for commercial items:

(i) 52.219-8, Utilization of Small Business Concerns (OCT 2000) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds $500,000 ($1,000,000 for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(ii) 52.222-26, Equal Opportunity (APR 2002) (E.O. 11246).

(iii) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era and Other Eligible Veterans (DEC 2001) (38 U.S.C. 4212(a)).

(iv) 52.222-36, Affirmative Action for Workers with Disabilities (JUN 1998) (29 U.S.C. 793).

(v) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (JUN 2000) (46 U.S.C. Appx 1241) (flowdown not required for subcontracts awarded beginning May 1, 1996).

(2) While not required, the Contractor may flow down to subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(d) The Contractor shall include the terms of this clause, including this paragraph (d), in subcontracts awarded under this contract.

(End of clause)

52.245-2 GOVERNMENT PROPERTY (FIXED-PRICE CONTRACTS) (DEC 1989)

(a) Government-furnished property. (1) The Government shall deliver to the Contractor, for use in connection with and under the terms of this contract, the Government-furnished property described in the Schedule or specifications together with any related data and information that the Contractor may request and is reasonably required for the intended use of the property (hereinafter referred to as "Government-furnished property").

(2) The delivery or performance dates for this contract are based upon the expectation that Government-furnished property suitable for use (except for property furnished "as is") will be delivered to the Contractor at the times stated in the Schedule or, if not so stated, in sufficient time to enable the Contractor to meet the contract's delivery or performance dates.

(3) If Government-furnished property is received by the Contractor in a condition not suitable for the intended use, the Contractor shall, upon receipt of it, notify the Contracting Officer, detailing the facts, and, as directed by the Contracting Officer and at Government expense, either repair, modify, return, or otherwise dispose of the property. After completing the directed action and upon written request of the Contractor, the Contracting Officer shall make an equitable adjustment as provided in paragraph (h) of this clause.

(4) If Government-furnished property is not delivered to the Contractor by the required time, the Contracting Officer shall, upon the Contractor's timely written request, make a determination of the delay, if any, caused the Contractor and shall make an equitable adjustment in accordance with paragraph (h) of this clause.

(b) Changes in Government-furnished property. (1) The Contracting Officer may, by written notice, (i) decrease the Government-furnished property provided or to be provided under this contract, or (ii) substitute other Government-furnished property for the property to be provided by the Government, or to be acquired by the Contractor for the Government, under this contract. The Contractor shall promptly take such action as the Contracting Officer may direct regarding the removal, shipment, or disposal of the property covered by such notice.

(2) Upon the Contractor's written request, the Contracting Officer shall make an equitable adjustment to the contract in accordance with paragraph (h) of this clause, if the Government has agreed in the Schedule to make the property available for performing this contract and there is any--

(i) Decrease or substitution in this property pursuant to subparagraph (b)(1) of this clause; or

(ii) Withdrawal of authority to use this property, if provided under any other contract or lease.

(c) Title in Government property. (1) The Government shall retain title to all Government-furnished property.

(2) All Government-furnished property and all property acquired by the Contractor, title to which vests in the Government under this paragraph (collectively referred to as "Government property"), are subject to the provisions of this clause. However, special tooling accountable to this contract is subject to the provisions of the Special Tooling clause and is not subject to the provisions of this clause. Title to Government property shall not be affected by its incorporation into or attachment to any property not owned by the Government, nor shall Government property become a fixture or lose its identity as personal property by being attached to any real property.

(3) Title to each item of facilities and special test equipment acquired by the Contractor for the Government under this contract shall pass to and vest in the Government when its use in performing this contract commences or when the Government has paid for it, whichever is earlier, whether or not title previously vested in the Government.

(4) If this contract contains a provision directing the Contractor to purchase material for which the Government will reimburse the Contractor as a direct item of cost under this contract--

(i) Title to material purchased from a vendor shall pass to and vest in the Government upon the vendor's delivery of such material; and

(ii) Title to all other material shall pass to and vest in the Government upon--

(A) Issuance of the material for use in contract performance;

(B) Commencement of processing of the material or its use in contract performance; or

(C) Reimbursement of the cost of the material by the Government, whichever occurs first.

(d) Use of Government property. The Government property shall be used only for performing this contract, unless otherwise provided in this contract or approved by the Contracting Officer.

(e) Property administration. (1) The Contractor shall be responsible and accountable for all Government property provided under this contract and shall comply with Federal Acquisition Regulation (FAR) Subpart 45.5, as in effect on the date of this contract.

(2) The Contractor shall establish and maintain a program for the use, maintenance, repair, protection, and preservation of Government property in accordance with sound industrial practice and the applicable provisions of Subpart 45.5 of the FAR.

(3) If damage occurs to Government property, the risk of which has been assumed by the Government under this contract, the Government shall replace the items or the Contractor shall make such repairs as the Government directs. However, if the Contractor cannot effect such repairs within the time required, the Contractor shall dispose of the property as directed by the Contracting Officer. When any property for which the Government is responsible is replaced or repaired, the Contracting Officer shall make an equitable adjustment in accordance with paragraph (h) of this clause.

(4) The Contractor represents that the contract price does not include any amount for repairs or replacement for which the Government is responsible. Repair or replacement of property for which the Contractor is responsible shall be accomplished by the Contractor at its own expense.

(f) Access. The Government and all its designees shall have access at all reasonable times to the premises in which any Government property is located for the purpose of inspecting the Government property.

(g) Risk of loss. Unless otherwise provided in this contract, the Contractor assumes the risk of, and shall be responsible for, any loss or destruction of, or damage to, Government property upon its delivery to the Contractor or upon passage of title to the Government under paragraph (c) of this clause. However, the Contractor is not responsible for reasonable wear and tear to Government property or for Government property properly consumed in performing this contract.

(h) Equitable adjustment. When this clause specifies an equitable adjustment, it shall be made to any affected contract provision in accordance with the procedures of the Changes clause. When appropriate, the Contracting Officer may initiate an equitable adjustment in favor of the Government. The right to an equitable adjustment shall be the Contractor's exclusive remedy. The Government shall not be liable to suit for breach of contract for--

(1) Any delay in delivery of Government-furnished property;

(2) Delivery of Government-furnished property in a condition not suitable for its intended use;

(3) A decrease in or substitution of Government-furnished property; or

(4) Failure to repair or replace Government property for which the Government is responsible.

(i) Final accounting and disposition of Government property. Upon completing this contract, or at such earlier dates as may be fixed by the Contracting Officer, the Contractor shall submit, in a form acceptable to the Contracting Officer, inventory schedules covering all items of Government property (including any resulting scrap) not consumed in performing this contract or delivered to the Government. The Contractor shall prepare for shipment, deliver f.o.b. origin, or dispose of the Government property as may be directed or authorized by the Contracting Officer. The net proceeds of any such disposal shall be credited to the contract price or shall be paid to the Government as the Contracting Officer directs.

(j) Abandonment and restoration of Contractor's premises. Unless otherwise provided herein, the Government--

(1) May abandon any Government property in place, at which time all obligations of the Government regarding such abandoned property shall cease; and

(2) Has no obligation to restore or rehabilitate the Contractor's premises under any circumstances (e.g., abandonment, disposition upon completion of need, or upon contract completion). However, if the Government-furnished property (listed in the Schedule or specifications) is withdrawn or is unsuitable for the intended use, or if other Government property is substituted, then the equitable adjustment under paragraph (h) of this clause may properly include restoration or rehabilitation costs.

(k) Communications. All communications under this clause shall be in writing.

(l) Overseas contracts. If this contract is to be performed outside of the United States of America, its territories, or possessions, the words "Government" and "Government-furnished" (wherever they appear in this clause) shall be construed as "United States Government" and "United States Government-furnished," respectively.

(End of clause)

52.245-3 IDENTIFICATION OF GOVERNMENT-FURNISHED PROPERTY (APR 1984)

(a) The Government will furnish to the Contractor the property identified in the Schedule to be incorporated or installed into the work or used in performing the contract. The listed property will be furnished f.o.b. railroad cars at the place specified in the contract Schedule or f.o.b. truck at the project site. The Contractor is required to accept delivery, pay any demurrage or detention charges, and unload and transport the property to the job site at its own expense. When the property is delivered, the Contractor shall verify its quantity and condition and acknowledge receipt in writing to the Contracting Officer. The Contractor shall als o report in writing to the Contracting Officer within 24 hours of delivery any damage to or shortage of the property as received. All such property shall be installed or incorporated into the work at the expense of the Contractor, unless otherwise indicated in this contract.

(xii) Each item of property to be furnished under this clause shall be identified in the Schedule by quantity, item, and description.

(End of clause)

52.245-4 GOVERNMENT-FURNISHED PROPERTY (SHORT FORM) (APR 1984)

(a) The Government shall deliver to the Contractor, at the time and locations stated in this contract, the Government-furnished property described in the Schedule or specifications. If that property, suitable for its intended use, is not delivered to the Contractor, the Contracting Officer shall equitably adjust affected provisions of this contract in accordance with the Changes clause when--

(1) The Contractor submits a timely written request for an equitable adjustment; and

(2) The facts warrant an equitable adjustment.

(b) Title to Government-furnished property shall remain in the Government. The Contractor shall use the Government-furnished property only in connection with this contract. The Contractor shall maintain adequate property control records in accordance with sound industrial practice and will make such records available for Government inspection at all reasonable times, unless the clause at Federal Acquisition Regulation 52.245-1, Property Records, is included in this contract.

(c) Upon delivery of Government-furnished property to the Contractor, the Contractor assumes the risk and responsibility for its loss or damage, except--

(1) For reasonable wear and tear;

(2) To the extent property is consumed in performing this contract; or

(3) As otherwise provided for by the provisions of this contract.

(d) Upon completing this contract, the Contractor shall follow the instructions of the Contracting Officer regarding the disposition of all Government-furnished property not consumed in performing this contract or previously delivered to the Government. The Contractor shall prepare for shipment, deliver f.o.b. origin, or dispose of the Government property, as may be directed or authorized by the Contracting Officer. The net proceeds of any such disposal shall be credited to the contract price or shall be paid to the Government as directed by the Contracting Officer.

(e) If this contract is to be performed outside the United States of America, its territories, or possessions, the words "Government" and "Government-furnished" (wherever they appear in this clause) shall be construed as "United States Government" and "United States Government-furnished," respectively.

(End of clause)

52.248-3 VALUE ENGINEERING--CONSTRUCTION (FEB 2000)

(a) General. The Contractor is encouraged to develop, prepare, and submit value engineering change proposals (VECP's) voluntarily. The Contractor shall share in any instant contract savings realized from accepted VECP's, in accordance with paragraph (f) below.

(b) Definitions. "Collateral costs," as used in this clause, means agency costs of operation, maintenance, logistic support, or Government-furnished property.

"Collateral savings," as used in this clause, means those measurable net reductions resulting from a VECP in the agency's overall projected collateral costs, exclusive of acquisition savings, whether or not the acquisition cost changes.

"Contractor's development and implementation costs," as used in this clause, means those costs the Contractor incurs on a VECP specifically in developing, testing, preparing, and submitting the VECP, as well as those costs the Contractor incurs to make the contractual changes required by Government acceptance of a VECP.

"Government costs," as used in this clause, means those agency costs that result directly from developing and implementing the VECP, such as any net increases in the cost of testing, operations, maintenance, and logistic support. The term does not include the normal administrative costs of processing the VECP.

"Instant contract savings," as used in this clause, means the estimated reduction in Contractor cost of performance resulting from acceptance of the VECP, minus allowable Contractor's development and implementation costs, including subcontractors' development and implementation costs (see paragraph (h) below).

"Value engineering change proposal (VECP)" means a proposal that--

(1) Requires a change to this, the instant contract, to implement; and

(2) Results in reducing the contract price or estimated cost without impairing essential functions or characteristics; provided, that it does not involve a change--

(i) In deliverable end item quantities only; or

(ii) To the contract type only.

(c) VECP preparation. As a minimum, the Contractor shall include in each VECP the information described in subparagraphs (1) through (7) below. If the proposed change is affected by contractually required configuration management or similar procedures, the instructions in those procedures relating to format, identification, and priority assignment shall govern VECP preparation. The VECP shall include the following:

(1) A description of the difference between the existing contract requirement and that proposed, the comparative advantages and disadvantages of each, a justification when an item's function or characteristics are being altered, and the effect of the change on the end item's performance.

(2) A list and analysis of the contract requirements that must be changed if the VECP is accepted, including any suggested specification revisions.

(3) A separate, detailed cost estimate for

(i) the affected portions of the existing contract requirement and

(ii) the VECP. The cost reduction associated with the VECP shall take into account the Contractor's allowable development and implementation costs, including any amount attributable to subcontracts under paragraph (h) below.

(4) A description and estimate of costs the Government may incur in implementing the VECP, such as test and evaluation and operating and support costs.

(5) A prediction of any effects the proposed change would have on collateral costs to the agency.

(6) A statement of the time by which a contract modification accepting the VECP must be issued in order to achieve the maximum cost reduction, noting any effect on the contract completion time or delivery schedule.

(7) Identification of any previous submissions of the VECP, including the dates submitted, the agencies and contract numbers involved, and previous Government actions, if known.

(d) Submission. The Contractor shall submit VECP's to the Resident Engineer at the worksite, with a copy to the Contracting Officer.

(e) Government action.

(1) The Contracting Officer will notify the Contractor of the status of the VECP within 45 calendar days after the contracting office receives it. If additional time is required, the Contracting Officer will notify the Contractor within the 45-day period and provide the reason for the delay and the expected date of the decision. The Government will process VECP's expeditiously; however, it shall not be liable for any delay in acting upon a VECP.

If the VECP is not accepted, the Contracting Officer will notify the Contractor in writing, explaining the reasons for rejection. The Contractor may withdraw any VECP, in whole or in part, at any time before it is accepted by the Government. The Contracting Officer may require that the Contractor provide written notification before undertaking significant expenditures for VECP effort.

Any VECP may be accepted, in whole or in part, by the Contracting Officer's award of a modification to this contract citing this clause. The Contracting Officer may accept the VECP, even though an agreement on price reduction has not been reached, by issuing the Contractor a notice to proceed with the change. Until a notice to proceed is issued or a contract modification applies a VECP to this contract, the Contractor shall perform in accordance with the existing contract. The decision to accept or reject all or part of any VECP is a unilateral decision made solely at the discretion of the Contracting Officer.

(f) Sharing.

(1) Rates. The Government's share of savings is determined by subtracting Government costs from instant contract savings and multiplying the result by

(i) 45 percent for fixed-price contracts or

(ii) 75 percent for cost-reimbursement contracts.

(2) Payment. Payment of any share due the Contractor for use of a VECP on this contract shall be authorized by a modification to this contract to--

(i) Accept the VECP;

(ii) Reduce the contract price or estimated cost by the amount of instant contract savings; and

(iii) Provide the Contractor's share of savings by adding the amount calculated to the contract price or fee.

(g) Collateral savings. If a VECP is accepted, the Contracting Officer will increase the instant contract amount by 20 percent of any projected collateral savings determined to be realized in a typical year of use after subtracting any Government costs not previously offset. However, the Contractor's share of collateral savings will not exceed the contract's firm-fixed-price or estimated cost, at the time the VECP is accepted, or $100,000, whichever is greater. The Contracting Officer is the sole determiner of the amount of collateral savings.

(h) Subcontracts. The Contractor shall include an appropriate value engineering clause in any subcontract of $50,000 or more and may include one in subcontracts of lesser value. In computing any adjustment in this contract's price under paragraph (f) above, the Contractor's allowable development and implementation costs shall include any subcontractor's allowable development and implementation costs clearly resulting from a VECP accepted by the Government under this contract, but shall exclude any value engineering incentive payments to a subcontractor. The Contractor may choose any arrangement for subcontractor value engineering incentive payments; provided, that these payments shall not reduce the Government's share of the savings resulting from the VECP.

(i) Data. The Contractor may restrict the Government's right to use any part of a VECP or the supporting data by marking the following legend on the affected parts:

"These data, furnished under the Value Engineering-- Construction clause of contract . . . . . , shall not be disclosed outside the Government or duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate a value engineering change proposal submitted under the clause. This restriction does not limit the Government's right to use information contained in these data if it has been obtained or is otherwise available from the Contractor or from another source without limitations." If a VECP is accepted, the Contractor hereby grants the Government unlimited rights in the VECP and supporting data, except that, with respect to data qualifying and submitted as limited rights technical data, the Government shall have the rights specified in the contract modification implementing the VECP and shall appropriately mark the data. (The terms "unlimited rights" and "limited rights" are defined in Part 27 of the Federal Acquisition Regulation.)

(End of clause)

52.249-2 TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE) (SEP 1996) - ALTERNATE I (SEP 1996)

(a) The Government may terminate performance of work under this contract in whole or, from time to time, in part if the Contracting Officer determines that a termination is in the Government's interest. The Contracting Officer shall terminate by delivering to the Contractor a Notice of Termination specifying the extent of termination and the effective date.

(b) After receipt of a Notice of Termination, and except as directed by the Contracting Officer, the Contractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due under this clause:

(1) Stop work as specified in the notice.

(2) Place no further subcontracts or orders (referred to as subcontracts in this clause) for materials, services, or facilities, except as necessary to complete the continued portion of the contract.

(3) Terminate all subcontracts to the extent they relate to the work terminated.

(4) Assign to the Government, as directed by the Contracting Officer, all right, title, and interest of the Contractor under the subcontracts terminated, in which case the Government shall have the right to settle or to pay any termination settlement proposal arising out of those terminations.

(5) With approval or ratification to the extent required by the Contracting Officer, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts; the approval or ratification will be final for purposes of this clause.

(6) As directed by the Contracting Officer, transfer title and deliver to the Government (i) the fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced or acquired for the work terminated, and (ii) the completed or partially completed plans, drawings, information, and other property that, if the contract had been completed, would be required to be furnished to the Government.

(7) Complete performance of the work not terminated.

(8) Take any action that may be necessary, or that the Contracting Officer may direct, for the protection and preservation of the property related to this contract that is in the possession of the Contractor and in which the Government has or may acquire an interest.

(9) Use its best efforts to sell, as directed or authorized by the Contracting Officer, any property of the types referred to in subparagraph (b)(6) of this clause; provided, however, that the Contractor (i) is not required to extend credit to any purchaser and (ii) may acquire the property under the conditions prescribed by, and at prices approved by, the Contracting Officer. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by the Government under this contract, credited to the price or cost of the work, or paid in any other manner directed by the Contracting Officer.

(c) The Contractor shall submit complete termination inventory schedules no later than 120 days from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 120-day period.

(d) After expiration of the plant clearance period as defined in Subpart 45.6 of the Federal Acquisition Regulation, the Contractor may submit to the Contracting Officer a list, certified as to quantity and quality, of termination inventory

not previously disposed of, excluding items authorized for disposition by the Contracting Officer. The Contractor may request the Government to remove those items or enter into an agreement for their storage. Within 15 days, the Government will accept title to those items and remove them or enter into a storage agreement. The Contracting Officer may verify the list upon removal of the items, or if stored, within 45 days from submission of the list, and shall correct the list, as necessary, before final settlement.

(e) After termination, the Contractor shall submit a final termination settlement proposal to the Contracting Officer in the form and with the certification prescribed by the Contracting Officer. The Contractor shall submit the proposal promptly, but no later than 1 year from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 1-year period. However, if the Contracting Officer determines that the facts justify it, a termination settlement proposal may be received and acted on after 1 year or any extension. If the Contractor fails to submit the proposal within the time allowed, the Contracting Officer may determine, on the basis of information available, the amount, if any, due the Contractor because of the termination and shall pay the amount determined.

(f) Subject to paragraph (e) of this clause, the Contractor and the Contracting Officer may agree upon the whole or any part of the amount to be paid or remaining to be paid because of the termination. The amount may include a reasonable allowance for profit on work done. However, the agreed amount, whether under this paragraph (g) or paragraph (g) of this clause, exclusive of costs shown in subparagraph (g)(3) of this clause, may not exceed the total contract price as reduced by (1) the amount of payments previously made and (2) the contract price of work not terminated. The contract shall be modified, and the Contractor paid the agreed amount. Paragraph (g) of this clause shall not limit, restrict, or affect the amount that may be agreed upon to be paid under this paragraph.

(g) If the Contractor and Contracting Officer fail to agree on the whole amount to be paid the Contractor because of the termination of work, the Contracting Officer shall pay the Contractor the amounts determined as follows, but without duplication of any amounts agreed upon under paragraph (f) of this clause:

(1) For contract work performed before the effective date of termination, the total (without duplication of any items) of--

(i) The cost of this work;

(ii) The cost of settling and paying termination settlement proposals under terminated subcontracts that are properly chargeable to the terminated portion of the contract if not included in subdivision (g)(1)(i) of this clause; and

(iii) A sum, as profit on subdivision (g)(1)(i) of this clause, determined by the Contracting Officer under 49.202 of the Federal Acquisition Regulation, in effect on the date of this contract, to be fair and reasonable; however, if it appears that the Contractor would have sustained a loss on the entire contract had it been completed, the Contracting Officer shall allow no profit under this subdivision (iii) and shall reduce the settlement to reflect the indicated rate of loss.

(2) The reasonable costs of settlement of the work terminated, including--

(i) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;

(ii) The termination and settlement of subcontracts (excluding the amounts of such settlements); and

(iii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory.

(h) Except for normal spoilage, and except to the extent that the Government expressly assumed the risk of loss, the Contracting Officer shall exclude from the amounts payable to the Contractor under paragraph (g) of this clause, the

fair value, as determined by the Contracting Officer, of property that is destroyed, lost, stolen, or damaged so as to become undeliverable to the Government or to a buyer.

(i) The cost principles and procedures of Part 31 of the Federal Acquisition Regulation, in effect on the date of this contract, shall govern all costs claimed, agreed to, or determined under this clause.

(j) The Contractor shall have the right of appeal, under the Disputes clause, from any determination made by the Contracting Officer under paragraph (e), (g), or (l) of this clause, except that if the Contractor failed to submit the termination settlement proposal or request for equitable adjustment within the time provided in paragraph (e) or (l), respectively, and failed to request a time extension, there is no right of appeal.

(k) In arriving at the amount due the Contractor under this clause, there shall be deducted--

(1) All unliquidated advance or other payments to the Contractor under the terminated portion of this contract;

(2) Any claim which the Government has against the Contractor under this contract; and

(3) The agreed price for, or the proceeds of sale of, materials, supplies, or other things acquired by the Contractor or sold under the provisions of this clause and not recovered by or credited to the Government.

(l) If the termination is partial, the Contractor may file a proposal with the Contracting Officer for an equitable adjustment of the price(s) of the continued portion of the contract. The Contracting Officer shall make any equitable adjustment agreed upon. Any proposal by the Contractor for an equitable adjustment under this clause shall be requested within 90 days from the effective date of termination unless extended in writing by the Contracting Officer.

(m)(1) The Government may, under the terms and conditions it prescribes, make partial payments and payments against costs incurred by the Contractor for the terminated portion of the contract, if the Contracting Officer believes the total of these payments will not exceed the amount to which the Contractor will be entitled.

(2) If the total payments exceed the amount finally determined to be due, the Contractor shall repay the excess to the Government upon demand, together with interest computed at the rate established by the Secretary of the Treasury under 50 U.S.C. App. 1215(b)(2). Interest shall be computed for the period from the date the excess payment is received by the Contractor to the date the excess is repaid. Interest shall not be charged on any excess payment due to a reduction in the Contractor's termination settlement proposal because of retention or other disposition of termination inventory until 10 days after the date of the retention or disposition, or a later date determined by the Contracting Officer because of the circumstances.

(n) Unless otherwise provided in this contract or by statute, the Contractor shall maintain all records and documents relating to the terminated portion of this contract for 3 years after final settlement. This includes all books and other evidence bearing on the Contractor's costs and expenses under this contract. The Contractor shall make these records and documents available to the Government, at the Contractor's office, at all reasonable times, without any direct charge. If approved by the Contracting Officer, photographs, microphotographs, or other authentic reproductions may be maintained instead of original records and documents.

(End of clause)

52.249-7 TERMINATION (FIXED-PRICE ARCHITECT-ENGINEER) (APR 1984)

(a) The Government may terminate this contract in whole or, from time to time, in part, for the Government's convenience or because of the failure of the Contractor to fulfill the contract obligations. The Contracting Officer shall terminate by delivering to the Contractor a Notice of Termination specifying the nature, extent, and effective date of the termination. Upon receipt of the notice, the Contractor shall (1) immediately discontinue all services

affected (unless the notice directs otherwise), and (2) deliver to the Contracting Officer all data, drawings, specifications, reports, estimates, summaries, and other information and materials accumulated in performing this contract, whether completed or in process.

(b) If the termination is for the convenience of the Government, the Contracting Officer shall make an equitable adjustment in the contract price but shall allow no anticipated profit on unperformed services.

(c) If the termination is for failure of the Contractor to fulfill the contract obligations, the Government may complete the work by contract or otherwise and the Contractor shall be liable for any additional cost incurred by the Government.

(d) If, after termination for failure to fulfill contract obligations, it is determined that the Contractor had not failed, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the Government.

(xiii) The rights and remedies of the Government provided in this clause are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

52.249-10 DEFAULT (FIXED-PRICE CONSTRUCTION) (APR 1984)

(a) If the Contractor refuses or fails to prosecute the work or any separable part, with the diligence that will insure its completion within the time specified in this contract including any extension, or fails to complete the work within this time, the Government may, by written notice to the Contractor, terminate the right to proceed with the work (or the separable part of the work) that has been delayed. In this event, the Government may take over the work and complete it by contract or otherwise, and may take possession of and use any materials, appliances, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to the Government resulting from the Contractor's refusal or failure to complete the work within the specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the Government in completing the work.

(b) The Contractor's right to proceed shall not be terminated nor the Contractor charged with damages under this clause, if--

(1) The delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include

(i) acts of God or of the public enemy,

(ii) acts of the Government in either its sovereign or contractual capacity,

(iii) acts of another Contractor in the performance of a contract with the Government,

(iv) fires,

(v) floods,

(vi) epidemics,

(vii) quarantine restrictions,

(viii) strikes,

(ix) freight embargoes,

(x) unusually severe weather, or delays of subcontractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and the subcontractors or suppliers; and

(2) The Contractor, within 10 days from the beginning of any delay (unless extended by the Contracting Officer), notifies the Contracting Officer in writing of the causes of delay. The Contracting Officer shall ascertain the facts and the extent of delay. If, in the judgment of the Contracting Officer, the findings of fact warrant such action, the time for completing the work shall be extended. The findings of the Contracting Officer shall be final and conclusive on the parties, but subject to appeal under the Disputes clause.

(c) If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of the Government.

The rights and remedies of the Government in this clause are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

52.253-1 COMPUTER GENERATED FORMS (JAN 1991)

(a) Any data required to be submitted on a Standard or Optional Form prescribed by the Federal Acquisition Regulation (FAR) may be submitted on a computer generated version of the form, provided there is no change to the name, content, or sequence of the data elements on the form, and provided the form carries the Standard or Optional Form number and edition date.

(b) Unless prohibited by agency regulations, any data required to be submitted on an agency unique form prescribed by an agency supplement to the FAR may be submitted on a computer generated version of the form provided there is no change to the name, content, or sequence of the data elements on the form and provided the form carries the agency form number and edition date.

(xiv) If the Contractor submits a computer generated version of a form that is different than the required form, then the rights and obligations of the parties will be determined based on the content of the required form.

(End of clause)

252.201-7000 CONTRACTING OFFICER'S REPRESENTATIVE (DEC 1991)

(a) "Definition. Contracting officer's representative" means an individual designated in accordance with subsection 201.602-2 of the Defense Federal Acquisition Regulation Supplement and authorized in writing by the contracting officer to perform specific technical or administrative functions.

(b) If the Contracting Officer designates a contracting officer's representative (COR), the Contractor will receive a copy of the written designation. It will specify the extent of the COR's authority to act on behalf of the contracting officer. The COR is not authorized to make any commitments or changes that will affect price, quality, quantity, delivery, or any other term or condition of the contract.

(End of clause)

252.203-7001 PROHIBITION ON PERSONS CONVICTED OF FRAUD OR OTHER DEFENSE-CONTRACT-RELATED FELONIES (MAR 1999)

(a) Definitions. As used in this clause—

(1) "Arising out of a contract with the DoD" means any act in connection with—

(i) Attempting to obtain;

(ii) Obtaining, or

(iii) Performing a contract or first-tier subcontract of any agency, department, or component of the Department of Defense (DoD).

(2) "Conviction of fraud or any other felony" means any conviction for fraud or a felony in violation of state or Federal criminal statutes, whether entered on a verdict or plea, including a plea of *nolo contendere*, for which sentence has been imposed.

(3) "Date of conviction" means the date judgment was entered against the individual.

(b) Any individual who is convicted after September 29, 1988, of fraud or any other felony arising out of a contract with the DoD is prohibited from serving--

(1) In a management or supervisory capacity on any DoD contract or first-tier subcontract;

(2) On the board of directors of any DoD contractor or first-tier subcontractor;

(3) As a consultant, agent, or representative for any DoD contractor or first-tier subcontractor; or

(4) In any other capacity with the authority to influence, advise, or control the decisions of any DoD contractor or subcontractor with regard to any DoD contract or first-tier subcontract.

(c) Unless waived, the prohibition in paragraph (b) of this clause applies for not less than 5 years from the date of conviction.

(d) 10 U.S.C. 2408 provides that a defense contractor or first-tier subcontractor shall be subject to a criminal penalty of not more than $500,000 if convicted of knowingly—

(1) Employing a person under a prohibition specified in paragraph (b) of this clause; or

(2) Allowing such a person to serve on the board of directors of the contractor or first-tier subcontractor.

(e) In addition to the criminal penalties contained in 10 U.S.C. 2408, the Government may consider other available remedies, such as—

(1) Suspension or debarment;

(2) Cancellation of the contract at no cost to the Government; or

(3) Termination of the contract for default.

(f) The Contractor may submit written requests for waiver of the prohibition in paragraph (b) of this clause to the Contracting Officer. Requests shall clearly identify—

(1) The person involved;

(2) The nature of the conviction and resultant sentence or punishment imposed;

(3) The reasons for the requested waiver; and

(4) An explanation of why a waiver is in the interest of national security.

(g) The Contractor agrees to include the substance of this clause, appropriately modified to reflect the identity and relationship of the parties, in all first-tier subcontracts exceeding the simplified acquisition threshold in Part 2 of the Federal Acquisition Regulation, except those for commercial items or components.

(h) Pursuant to 10 U.S.C. 2408(c), defense contractors and subcontractors may obtain information as to whether a particular person has been convicted of fraud or any other felony arising out of a contract with the DoD by contacting The Office of Justice Programs, The Denial of Federal Benefits Office, U.S. Department of Justice, telephone (202) 616-3507.

(End of clause)

252.203-7002 DISPLAY OF DOD HOTLINE POSTER (DEC 1991)

(a) The Contractor shall display prominently in common work areas within business segments performing work under Department of Defense (DoD) contracts, DoD Hotline Posters prepared by the DoD Office of the Inspector General.

(b) DoD Hotline Posters may be obtained from the DoD Inspector General, ATTN: Defense Hotline, 400 Army Navy Drive, Washington, DC 22202-2884.

(xv) The Contractor need not comply with paragraph (a) of this clause if it has established a mechanism, such as a hotline, by which employees may report suspected instances of improper conduct, and instructions that encourage employees to make such reports.

(End of clause)

252.204-7000 DISCLOSURE OF INFORMATION (DEC 1991)

(a) The Contractor shall not release to anyone outside the Contractor's organization any unclassified information, regardless of medium (e.g., film, tape, document), pertaining to any part of this contract or any program related to this contract, unless--

(1) The Contracting Officer has given prior written approval; or

(2) The information is otherwise in the public domain before the date of release.

(b) Requests for approval shall identify the specific information to be released, the medium to be used, and the purpose for the release. The Contractor shall submit its request to the Contracting Officer at least 45 days before the proposed date for release.

(c) The Contractor agrees to include a similar requirement in each subcontract under this contract. Subcontractors shall submit requests for authorization to release through the prime contractor to the Contracting Officer.

(End of clause)

252.204-7003 CONTROL OF GOVERNMENT PERSONNEL WORK PRODUCT (APR 1992)

The Contractor's procedures for protecting against unauthorized disclosure of information shall not require Department of Defense employees or members of the Armed Forces to relinquish control of their work products, whether classified or not, to the contractor.

(End of clause)

252.204-7004 REQUIRED CENTRAL CONTRACTOR REGISTRATION (NOV 2001)

(a) Definitions.

As used in this clause--

(1) Central Contractor Registration (CCR) database means the primary DoD repository for contractor information required for the conduct of business with DoD.

(2) Data Universal Numbering System (DUNS) number means the 9-digit number assigned by Dun and Bradstreet Information Services to identify unique business entities.

(3) Data Universal Numbering System +4 (DUNS+4) number means the DUNS number assigned by Dun and Bradstreet plus a 4-digit suffix that may be assigned by a parent (controlling) business concern. This 4-digit suffix may be assigned at the discretion of the parent business concern for such purposes as identifying subunits or affiliates of the parent business concern.

(4) Registered in the CCR database means that all mandatory information, including the DUNS number or the DUNS+4 number, if applicable, and the corresponding Commercial and Government Entity (CAGE) code, is in the CCR database; the DUNS number and the CAGE code have been validated; and all edits have been successfully completed.

(b)(1) By submission of an offer, the offeror acknowledges the requirement that a prospective awardee must be registered in the CCR database prior to award, during performance, and through final payment of any contract resulting from this solicitation, except for awards to foreign vendors for work to be performed outside the United States.

(2) The offeror shall provide its DUNS or, if applicable, its DUNS+4 number with its offer, which will be used by the Contracting Officer to verify that the offeror is registered in the CCR database.

(3) Lack of registration in the CCR database will make an offeror ineligible for award.

(4) DoD has established a goal of registering an applicant in the CCR database within 48 hours after receipt of a complete and accurate application via the Internet. However, registration of an applicant submitting an application

through a method other than the Internet may take up to 30 days. Therefore, offerors that are not registered should consider applying for registration immediately upon receipt of this solicitation.

(c) The Contractor is responsible for the accuracy and completeness of the data within the CCR, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. To remain registered in the CCR database after the initial registration, the Contractor is required to confirm on an annual basis that its information in the CCR database is accurate and complete.

(d) Offerors and contractors may obtain information on registration and annual confirmation requirements by calling 1-888-227-2423, or via the Internet at http://www.ccr.gov.

(End of clause)

252.205-7000 PROVISION OF INFORMATION TO COOPERATIVE AGREEMENT HOLDERS (DEC 1991)

(a) Definition.

"Cooperative agreement holder" means a State or local government; a private, nonprofit organization; a tribal organization (as defined in section 4(c) of the Indian Self-Determination and Education Assistance Act (Pub. L. 93-268; 25 U.S.C. 450 (c))); or an economic enterprise (as defined in section 3(e) of the Indian Financing Act of 1974 (Pub. L. 93-362; 25 U.S.C. 1452(e))) whether such economic enterprise is organized for profit or nonprofit purposes; which has an agreement with the Defense Logistics Agency to furnish procurement technical assistance to business entities.

(b) The Contractor shall provide cooperative agreement holders, upon their request, with a list of those appropriate employees or offices responsible for entering into subcontracts under defense contracts. The list shall include the business address, telephone number, and area of responsibility of each employee or office.

(c) The Contractor need not provide the listing to a particular cooperative agreement holder more frequently than once a year.

(End of clause)

252.209-7000 ACQUISITION FROM SUBCONTRACTORS SUBJECT TO ONSITE INSPECTION UNDER THE INTERMEDIATE-RANGE NUCLEAR FORCES (INF) TREATY (NOV 1995)

(a) The Contractor shall not deny consideration for a subcontract award under this contract to a potential subcontractor subject to on-site inspection under the INF Treaty, or a similar treaty, solely or in part because of the actual or potential presence of Soviet inspectors at the subcontractor's facility, unless the decision is approved by the Contracting Officer.

(b) The Contractor shall incorporate this clause, including this paragraph (b), in all solicitations and contracts exceeding the simplified acquisition threshold in part 13 of the Federal Acquisition Regulation, except those for commercial items.

(End of clause)

252.209-7004 SUBCONTRACTING WITH FIRMS THAT ARE OWNED OR CONTROLLED BY THE GOVERNMENT

OF A TERRORIST COUNTRY (MAR 1998)

(a) Unless the Government determines that there is a compelling reason to do so, the Contractor shall not enter into any subcontract in excess of $25,000 with a firm, or subsidiary of a firm, that is identified, on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs, as being ineligible for the award of Defense contracts or subcontracts because it is owned or controlled by the government of a terrorist country.

(b) A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party that is identified, on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs, as being ineligible for the award of Defense contracts or subcontracts because it is owned or controlled by the government of a terrorist country. The notice must include the name of the proposed subcontractor notwithstanding its inclusion on the List of Parties Excluded From Federal Procurement and Nonprocurement Programs.

(End of clause)

252.215-7000 PRICING ADJUSTMENTS (DEC 1991)

The term "pricing adjustment," as used in paragraph (a) of the clauses entitled "Price Reduction for Defective Cost or Pricing Data - Modifications," "Subcontractor Cost or Pricing Data," and "Subcontractor Cost or Pricing Data - Modifications," means the aggregate increases and/or decreases in cost plus applicable profits.

(End of clause)

252.215-7002 COST ESTIMATING SYSTEM REQUIREMENTS (OCT 1998)

(a) "Definition."

"Estimating system" means the Contractor's policies, procedures, and practices for generating estimates of costs and other data included in proposals submitted to customers in the expectation of receiving contract awards. Estimating system includes the Contractor's --

(1) Organizational structure;

(2) Established lines of authority, duties, and responsibilities;

(3) Internal controls and managerial reviews;

(4) Flow of work, coordination, and communication; and

(5) Estimating methods, techniques, accumulation of historical costs, and other analyses used to generate cost estimates.1997

(b) "General."

(1) The Contractor shall establish, maintain, and comply with an estimating system that is consistently applied and produces reliable, verifiable, supportable, and documented cost estimates that are an acceptable basis for negotiation of fair and reasonable prices.

(2) The system should be --

(i) Consistent and integrated with the Contractor's related management systems; and

(ii) Subject to applicable financial control systems.

(c) "Applicability". Paragraphs (d) and (e) of this clause apply if the Contractor is a large business and either --

(1) In its fiscal year preceding award of this contract, received Department of Defense (DoD) prime contracts or subcontracts, totaling $50 million or more for which certified cost or pricing data were required; or

(2) In its fiscal year preceding award of this contract --

(i) Received DoD prime contracts or subcontracts totaling $10 million or more (but less than $50 million) for which certified cost or pricing data were required; and

(ii) Was notified in writing by the Contracting Officer that paragraphs (d) and (e) of this clause apply.

(d) "System requirements."

(1) The Contractor shall disclose its estimating system to the Administrative Contracting Officer (ACO) in writing. If the Contractor wishes the Government to protect the information as privileged or confidential, the Contractor must mark the documents with the appropriate legends before submission.

(2) An estimating system disclosure is adequate when the Contractor has provided the ACO with documentation that--

(i) Accurately describes those policies, procedures, and practices that the Contractor currently uses in preparing cost proposals; and

(ii) Provides sufficient detail for the Government to reasonably make an informed judgment regarding the acceptability of the Contractor's estimating practices.

(3) The Contractor shall --

(i) Comply with its disclosed estimating system; and

(ii) Disclose significant changes to the cost estimating system to the ACO on a timely basis.

(e) "Estimating system deficiencies."

(1) The Contractor shall respond to a written report from the Government that identifies deficiencies in the Contractor's estimating system as follows:

(i) If the Contractor agrees with the report findings and recommendations, the Contractor shall --

(A) Within 30 days, state its agreement in writing; and

(B) Within 60 days, correct the deficiencies or submit a corrective action plan showing proposed milestones and actions leading to elimination of the deficiencies.

(ii) If the Contractor disagrees with the report, the Contractor shall, within 30 days, state its rationale for disagreeing.

(2) The ACO will evaluate the Contractor's response and notify the Contractor of the determination concerning remaining deficiencies and/or the adequacy of any proposed or completed corrective action.

(End of clause)

252.219-7003 SMALL, SMALL DISADVANTAGED AND WOMEN-OWNED SMALL BUSINESS SUBCONTRACTING PLAN (DOD CONTRACTS) (APR. 1996)

This clause supplements the Federal Acquisition Regulation 52.219-9, Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan, clause of this contract.

(a) *Definitions. Historically black colleges and universities,* as used in this clause, means institutions determined by the Secretary of Education to meet the requirements of 34 CFR 608.2. The term also means any nonprofit research institution that was an integral part of such a college or university before November 14, 1986.

Minority institutions, as used in this clause, means institutions meeting the requirements of section 1046(3) of the Higher Education Act of 1965 (20 U.S.C. 1135d-5(3)). The term also includes Hispanic-serving institutions as defined in section 316(b)(1) of such Act (20 U.S.C. 1059c(b)(1)).

(b) Except for company or division-wide commercial items subcontracting plans, the term *small disadvantaged business,* when used in the FAR 52.219-9 clause, includes historically black colleges and universities and minority institutions, in addition to small disadvantaged business concerns.

(c) Work under the contract or its subcontracts shall be credited toward meeting the small disadvantaged business concern goal required by paragraph (d) of the FAR 52.219-9 clause when:

(1) It is performed on Indian lands or in joint venture with an Indian tribe or a tribally-owned corporation, and

(2) It meets the requirements of 10 U.S.C. 2323a.

(d) Subcontracts awarded to workshops approved by the Committee for Purchase from People Who are Blind or Severely Disabled (41 U.S.C. 46-48), may be counted toward the Contractor's small business subcontracting goal.

(e) A mentor firm, under the Pilot Mentor-Protege Program established under Section 831 of Pub. L. 101-510, as amended, may count toward its small disadvantaged business goal, subcontracts awarded--

(f) The master plan approval referred to in paragraph (f) of the FAR 52.219-9 clause is approval by the Contractor's cognizant contract administration activity.

(g) In those subcontracting plans which specifically identify small, small disadvantaged, and women-owned small businesses, the Contractor shall notify the Administrative Contracting Officer of any substitutions of firms that are not small, small disadvantaged, or women-owned small businesses for the firms listed in the subcontracting plan. Notifications shall be in writing and shall occur within a reasonable period of time after award of the subcontract. Contractor-specified formats shall be acceptable.

(End of clause)

252.223-7001 HAZARD WARNING LABELS (DEC 1991)

(a) "Hazardous material," as used in this clause, is defined in the Hazardous Material Identification and Material Safety Data clause of this contract.

(b) The Contractor shall label the item package (unit container) of any hazardous material to be delivered under this contract in accordance with the Hazard Communication Standard (29 CFR 1910.1200 et seq). The Standard requires that the hazard warning label conform to the requirements of the standard unless the material is otherwise subject to the labeling requirements of one of the following statutes:

(1) Federal Insecticide, Fungicide and Rodenticide Act;

(2) Federal Food, Drug and Cosmetics Act;

(3) Consumer Product Safety Act;

(4) Federal Hazardous Substances Act; or

(5) Federal Alcohol Administration Act.

(c) The Offeror shall list which hazardous material listed in the Hazardous Material Identification and Material Safety Data clause of this contract will be labeled in accordance with one of the Acts in paragraphs (b)(1) through (5) of this clause instead of the Hazard Communication Standard. Any hazardous material not listed will be interpreted to mean that a label is required in accordance with the Hazard Communication Standard.

MATERIAL (If None, Insert "None.")	ACT
_____	_____
_____	_____

(d) The apparently successful Offeror agrees to submit, before award, a copy of the hazard warning label for all hazardous materials not listed in paragraph (c) of this clause. The Offeror shall submit the label with the Material Safety Data Sheet being furnished under the Hazardous Material Identification and Material Safety Data clause of this contract.

(e) The Contractor shall also comply with MIL-STD-129, Marking for Shipment and Storage (including revisions adopted during the term of this contract).

(End of clause)

252.223-7004 DRUG-FREE WORK FORCE (SEP 1988)

(a) Definitions.

(1) "Employee in a sensitive position," as used in this clause, means an employee who has been granted access to classified information; or employees in other positions that the Contractor determines involve national security; health or safety, or functions other than the foregoing requiring a high degree of trust and confidence.

(2) "Illegal drugs," as used in this clause, means controlled substances included in Schedules I and II, as defined by section 802(6) of title 21 of the United States Code, the possession of which is unlawful under chapter 13 of that Title. The term "illegal drugs" does not mean the use of a controlled substance pursuant to a valid prescription or other uses authorized by law.

(b) The Contractor agrees to institute and maintain a program for achieving the objective of a drug-free work force. While this clause defines criteria for such a program, contractors are encouraged to implement alternative approaches comparable to the criteria in paragraph (c) that are designed to achieve the objectives of this clause.

(c) Contractor programs shall include the following, or appropriate alternatives:

(1) Employee assistance programs emphasizing high level direction, education, counseling, rehabilitation, and coordination with available community resources;

(2) Supervisory training to assist in identifying and addressing illegal drug use by Contractor employees;

(3) Provision for self-referrals as well as supervisory referrals to treatment with maximum respect for individual confidentiality consistent with safety and security issues;

(4) Provision for identifying illegal drug users, including testing on a controlled and carefully monitored basis. Employee drug testing programs shall be established taking account of the following:

(i) The Contractor shall establish a program that provides for testing for the use of illegal drugs by employees in sensitive positions. The extent of and criteria for such testing shall be determined by the Contractor based on considerations that include the nature of the work being performed under the contract, the employee's duties, and efficient use of Contractor resources, and the risks to health, safety, or national security that could result from the failure of an employee adequately to discharge his or her position.

(ii) In addition, the Contractor may establish a program for employee drug testing--

(A) When there is a reasonable suspicion that an employee uses illegal drugs; or

(B) When an employees has been involved in an accident or unsafe practice;

(C) As part of or as a follow-up to counseling or rehabilitation for illegal drug use;

(D) As part of a voluntary employee drug testing program.

(iii) The Contractor may establish a program to test applicants for employment for illegal drug use.

(iv) For the purpose of administering this clause, testing for illegal drugs may be limited to those substances for which testing is prescribed by section 2..1 of subpart B of the "Mandatory Guidelines for Federal Workplace Drug Testing Programs" (53 FR 11980 (April 11, 1988), issued by the Department of Health and Human Services.

(d) Contractors shall adopt appropriate personnel procedures to deal with employees who are found to be using drugs illegally. Contractors shall not allow any employee to remain on duty or perform in a sensitive position who is found to use illegal drugs until such times as the Contractor, in accordance with procedures established by the Contractor, determines that the employee may perform in such a position.

(e) The provisions of this clause pertaining to drug testing program shall not apply to the extent that are inconsistent with state or local law, or with an existing collective bargaining agreement; provided that with respect to the latter, the Contractor agrees those issues that are in conflict will be a subject of negotiation at the next collective bargaining session.

(End of clause)

252.223-7006 PROHIBITION ON STORAGE AND DISPOSAL OF TOXIC AND HAZARDOUS MATERIALS (APR 1993)

(a) "Definitions".

As used in this clause --

(1) "Storage" means a non-transitory, semi-permanent or permanent holding, placement, or leaving of material. It does not include a temporary accumulation of a limited quantity of a material used in or a waste generated or resulting from authorized activities, such as servicing, maintenance, or repair of Department of Defense (DoD) items, equipment, or facilities.

(2) "Toxic or hazardous materials" means:

(i) Materials referred to in section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (42 U.S.C. 9601(14)) and materials designated under section 102 of CERCLA (42 U.S.C. 9602) (40 CFR part 302);

(ii) Materials that are of an explosive, flammable, or pyrotechnic nature; or

(iii) Materials otherwise identified by the Secretary of Defense as specified in DoD regulations.

(b) In accordance with 10 U.S.C. 2692, the Contractor is prohibited from storing or disposing of non-DoD-owned toxic or hazardous materials on a DoD installation, except to the extent authorized by a statutory exception to 10 U.S.C. 2692 or as authorized by the Secretary of Defense or his designee.

(End of clause)

252.225-7012 PREFERENCE FOR CERTAIN DOMESTIC COMMODITIES (APR 2002)

(a) Definitions. As used in this clause--

(1) Component means any item supplied to the Government as part of an end product or of another component.

(2) End product means supplies delivered under a line item of this contract.

(b) The Contractor shall deliver under this contract only such of the following items, either as end products or components, that have been grown, reprocessed, reused, or produced in the United States, its possessions, or Puerto Rico:

(1) Food.

(2) Clothing.

(3) Tents, tarpaulins, or covers.

(4) Cotton and other natural fiber products.

(5) Woven silk or woven silk blends.

(6) Spun silk yarn for cartridge cloth.

(7) Synthetic fabric, and coated synthetic fabric, including all textile fibers and yarns that are for use in such fabrics.

(8) Canvas products.

(9) Wool (whether in the form of fiber or yarn or contained in fabrics, materials, or manufactured articles).

(10) Any item of individual equipment (Federal Supply Class 8465) manufactured from or containing fibers, yarns, fabrics, or materials listed in this paragraph (b).

(c) This clause does not apply--

(1) To items listed in section 25.104(a) of the Federal Acquisition Regulation (FAR), or other items for which the Government has determined that a satisfactory quality and sufficient quantity cannot be acquired as and when needed at U.S. market prices;

(2) To end products incidentally incorporating cotton, other natural fibers, or wool, for which the estimated value of the cotton, other natural fibers, or wool--

(i) Is not more than 10 percent of the total price of the end product; and (ii) Does not exceed the simplified acquisition threshold in FAR part 2;

(3) To foods that have been manufactured or processed in the United States, its possessions, or Puerto Rico, regardless of where the foods (and any component if applicable) were grown or produced;

(4) To chemical warfare protective clothing produced in the countries listed in subsection 225.872-1 of the Defense FAR Supplement; or

(5) To fibers and yarns that are for use in synthetic fabric or coated synthetic fabric (but does apply to the synthetic or coated synthetic fabric itself), if--

(i) The fabric is to be used as a component of an end product that is not a textile product. Examples of textile products, made in whole or in part of fabric, include--

(A) Draperies, floor coverings, furnishings, and bedding (Federal Supply Group 72, Household and Commercial Furnishings and Appliances);

(B) Items made in whole or in part of fabric in Federal Supply Group 83, Textile/leather/furs/apparel/findings/ tents/flags, or Federal Supply Group 84, Clothing, Individual Equipment and Insignia;

(C) Upholstered seats (whether for household, office, or other use); and

(D) Parachutes (Federal Supply Class 1670); or

(ii) The fibers and yarns are para-aramid fibers and yarns manufactured in the Netherlands.

(End of clause)

252.225-7031 SECONDARY ARAB BOYCOTT OF ISRAEL (JUN 1992)

(a) Definitions. As used in this clause--

(1) "Foreign person" means any person other than a United States person as defined in Section 16(2) of the Export Administration Act of 1979 (50 U.S.C. App. Sec 2415).

(2) "United States person" is defined in Section 16(2) of the Export Administration Act of 1979 and means any United States resident or national (other than an individual resident outside the United States and employed by other than a

United States person), any domestic concern (including any permanent domestic establishment of any foreign concern), and any foreign subsidiary or affiliate (including any permanent foreign establishment) of any domestic concern which is controlled in fact by such domestic concerns, as determined under regulations of the President.

(b) Certification. By submitting this offer, the Offeror, if a foreign person, company or entity, certifies that it--

(1) Does not comply with the Secondary Arab Boycott of Israel; and

(2) Is not taking or knowingly agreeing to take any action, with respect to the Secondary Boycott of Israel by Arab countries, which 50 U.S.C. App. Sec 2407(a) prohibits a United States person from taking.

(End of clause)

252.227-7022 GOVERNMENT RIGHTS (UNLIMITED) (MAR 1979)

The Government shall have unlimited rights, in all drawings, designs, specifications, notes and other works developed in the performance of this contract, including the right to use same on any other Government design or construction without additional compensation to the Contractor. The Contractor hereby grants to the Government a paid-up license throughout the world to all such works to which he may assert or establish any claim under design patent or copyright laws. The Contractor for a period of three (3) years after completion of the project agrees to furnish the original or copies of all such works on the request of the Contracting Officer.

(End of clause)

252.227-7033 RIGHTS IN SHOP DRAWINGS (APR 1966)

(a) Shop drawings for construction means drawings, submitted to the Government by the Construction Contractor, subcontractor or any lower-tier subcontractor pursuant to a construction contract, showing in detail (i) the proposed fabrication and assembly of structural elements and (ii) the installation (i.e., form, fit, and attachment details) of materials or equipment. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

(b) This clause, including this paragraph (b), shall be included in all subcontracts hereunder at any tier.

252.231-7000 SUPPLEMENTAL COST PRINCIPLES (DEC 1991)

When the allowability of costs under this contract is determined in accordance with part 31 of the Federal Acquisition Regulation (FAR), allowability shall also be determined in accordance with part 231 of the Defense FAR Supplement, in effect on the date of this contract.

(End of clause)

252.236-7000 MODIFICATION PROPOSALS - PRICE BREAKDOWN. (DEC 1991)

(a) The Contractor shall furnish a price breakdown, itemized as required and within the time specified by the Contracting Officer, with any proposal for a contract modification.

(b) The price breakdown --

(1) Must include sufficient detail to permit an analysis of profit, and of all costs for --

(i) Material;

(ii) Labor;

(iii) Equipment;

(iv) Subcontracts; and

(v) Overhead; and

(2) Must cover all work involved in the modification, whether the work was deleted, added, or changed.

(c) The Contractor shall provide similar price breakdowns to support any amounts claimed for subcontracts.

(d) The Contractor's proposal shall include a justification for any time extension proposed.

252.236-7001 CONTRACT DRAWINGS, MAPS, AND SPECIFICATIONS (AUG 2000)

(a) The Government will provide to the Contractor, without charge, one set of contract drawings and specifications, except publications incorporated into the technical provisions by reference, in electronic or paper media as chosen by the Contracting Officer.

(b) The Contractor shall--

(1) Check all drawings furnished immediately upon receipt;

(2) Compare all drawings and verify the figures before laying out the work;

(3) Promptly notify the Contracting Officer of any discrepancies;

(4) Be responsible for any errors that might have been avoided by complying with this paragraph (b); and

(5) Reproduce and print contract drawings and specifications as needed.

(c) In general--

(1) Large-scale drawings shall govern small-scale drawings; and

(2) The Contractor shall follow figures marked on drawings in preference to scale measurements.

(d) Omissions from the drawings or specifications or the misdescription of details of work that are manifestly necessary to carry out the intent of the drawings and specifications, or that are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work. The Contractor shall perform such details as if fully and correctly set forth and described in the drawings and specifications.

(e) The work shall conform to the specifications and the contract drawings identified on the following index of drawings:

Title File Drawing No.
See attachment #1 to Section 00800.
(End of clause)

252.236-7005 AIRFIELD SAFETY PRECAUTIONS. (DEC 1991)

(a) Definitions. As used in this clause --

(1) "Landing areas means" --

(i) The primary surfaces, comprising the surface of the runway, runway shoulders, and lateral safety zones. The length of each primary surface is the same as the runway length. The width of each primary surface is 2,000 feet (1,000 feet on each side of the runway centerline);

(ii) The "clear zone" beyond the ends of each runway, i.e., the extension of the primary surface for a distance of 1,000 feet beyond each end of each runway;

(iii) All taxiways, plus the lateral clearance zones along each side for the length of the taxiways (the outer edge of each lateral clearance zone is laterally 250 feet from the far or opposite edge of the taxiway, e.g., a 75-foot-wide taxiway would have a combined width of taxiway and lateral clearance zones of 425 feet); and

(iv) All aircraft parking aprons, plus the area 125 feet in width extending beyond each edge all around the aprons.

(2) "Safety precaution" areas means those portions of approach-departure clearance zones and transitional zones where placement of objects incident to contract performance might result in vertical projections at or above the approach-departure clearance, or the transitional surface.

(i) "The approach-departure clearance surface" is an extension of the primary surface and the clear zone at each end of each runway, for a distance of 50,000 feet, first along an inclined (glide angle) and then along a horizontal plane, both flaring symmetrically about the runway centerline extended.

(A) The inclined plane (glide angle) begins in the clear zone 200 feet past the end of the runway (and primary surface) at the same elevation as the end of the runway. It continues upward at a slope of 50:1 (1 foot vertically for each 50 feet horizontally) to an elevation of 500 feet above the established airfield elevation. At that point the plane becomes horizontal, continuing at that same uniform elevation to a point 50,000 feet longitudinally from the beginning of the inclined plane (glide angle) and ending there.

(B) The width of the surface at the beginning of the inclined plane (glide angle) is the same as the width of the clear zone. It then flares uniformly, reaching the maximum width of 16,000 feet at the end.

(ii) The "approach-departure clearance zone" is the ground area under the approach-departure clearance surface.

(iii) The "transitional surface" is a sideways extension of all primary surfaces, clear zones, and approach-departure clearance surfaces along inclined planes.

(A) The inclined plane in each case begins at the edge of the surface.

(B) The slope of the incline plane is 7:1 (1 foot vertically for each 7 feet horizontally). It continues to the point of intersection with the --

(1) Inner horizontal surface (which is the horizontal plane 150 feet above the established airfield elevation); or

(2) Outer horizontal surface (which is the horizontal plane 500 feet above the established airfield elevation), whichever is applicable.

(iv) The "transitional zone" is the ground area under the transitional surface. (It adjoins the primary surface, clear zone, and approach-departure clearance zone.)

(b) General. (1) The Contractor shall comply with the requirements of this clause while --

(i) Operating all ground equipment (mobile or stationary);

(ii) Placing all materials; and

(iii) Performing all work, upon and around all airfields.

(2) The requirements of this clause are in addition to any other safety requirements of this contract.

(c) The Contractor shall -

(1) Report to the Contracting Officer before initiating any work;

(2) Notify the Contracting Officer of proposed changes to locations and operations;

(3) Not permit either its equipment or personnel to use any runway for purposes other than aircraft operation without permission of the Contracting Officer, unless the runway is -

(i) Closed by order of the Contracting Officer; and

(ii) Marked as provided in paragraph (d)(2) of this clause;

(4) Keep all paved surfaces, such as runways, taxiways, and hardstands, clean at all times and, specifically, free from small stones which might damage aircraft propellers or jet aircraft;

(5) Operate mobile equipment according to the safety provisions of this clause, while actually performing work on the airfield. At all other times, the Contractor shall remove all mobile equipment to locations -

(i) Approved by the Contracting Officer;

(ii) At a distance of at least 750 feet from the runway centerline, plus any additional distance; and

(iii) Necessary to ensure compliance with the other provisions of this clause; and

(6) Not open a trench unless material is on hand and ready for placing in the trench. As soon as practicable after material has been placed and work approved, the Contractor shall backfill and compact trenches as required by the contract. Meanwhile, all hazardous conditions shall be marked and lighted in accordance with the other provisions of this clause.

(d) Landing areas. The Contractor shall -

(1) Place nothing upon the landing areas without the authorization of the Contracting Officer;

(2) Outline those landing areas hazardous to aircraft, using (unless otherwise authorized by the Contracting Officer)

red flags by day, and electric, battery-operated low-intensity red flasher lights by night;

(3) Obtain, at an airfield where flying is controlled, additional permission from the control tower operator every time before entering any landing area, unless the landing area is marked as hazardous in accordance with paragraph (d)(2) of this clause;

(4) Identify all vehicles it operates in landing areas by means of a flag on a staff attached to, and flying above, the vehicle. The flag shall be three feet square, and consist of a checkered pattern of international orange and white squares of 1 foot on each side (except that the flag may vary up to ten percent from each of these dimensions);

(5) Mark all other equipment and materials in the landing areas, using the same marking devices as in paragraph (d)(2) of this clause; and

(6) Perform work so as to leave that portion of the landing area which is available to aircraft free from hazards, holes, piles of material, and projecting shoulders that might damage an airplane tire.

(e) Safety precaution areas. The Contractor shall -

(1) Place nothing upon the safety precaution areas without authorization of the Contracting Officer;

(2) Mark all equipment and materials in safety precaution areas, using (unless otherwise authorized by the Contracting Officer) red flags by day, and electric, battery-operated, low-intensity red flasher lights by night; and

(3) Provide all objects placed in safety precaution areas with a red light or red lantern at night, if the objects project above the approach-departure clearance surface or above the transitional surface.

252.242-7000 POSTAWARD CONFERENCE (DEC 1991)

The Contractor agrees to attend any postaward conference convened by the contracting activity or contract administration office in accordance with Federal Acquisition Regulation subpart 42.5.

(End of clause)

252.242-7004 MATERIAL MANAGEMENT AND ACCOUNTING SYSTEM (SEP 1996)

(a) Definitions. As used in this clause--

(1) Material management and accounting system means the Contractor's system or systems for planning, controlling, and accounting for the acquisition, use, issuing, and disposition of material. Material management and accounting systems may be manual or automated. They may be stand-alone systems or they may be integrated with planning, engineering, estimating, purchasing, inventory, accounting, or other systems.

(2) Valid time-phased requirements means material which is --

Needed to fulfill the production plan, including reasonable quantities for scrap, shrinkage, yield, etc.; and

(ii) Charged/billed to contracts or other cost objectives in a manner consistent with the need to fulfill the production plan.

(3) Contractor means a business unit as defined in section 31.001 of the Federal Acquisition Regulation (FAR).

(b) General. The Contractor agrees to--

(1) Maintain a material management and accounting system (MMAS) that--

(i) Reasonably forecasts material requirements;

(ii) Ensures that costs of purchased and fabricated material charged or allocated to a contract are based on valid time-phased requirements; and

(iii) Maintains a consistent, equitable, and unbiased logic for costing of material transactions.

(2) Assess its MMAS and take reasonable action to comply with the MMAS standards in paragraph (f) of this clause.

(c) Applicability. Paragraphs (d) and (e) of this clause apply only if the Contractor--

(1) Is a large business; and

(2) Received, in its fiscal year preceding award of this contract, Department of Defense prime contracts or subcontracts, and their modifications totaling--

(i) $70 million or more; or

(ii) $30 million or more (but less than $70 million), and is notified in writing by the Contracting Officer that paragraphs (d) and (e) apply.

(d) Disclosure, demonstration, and maintenance requirements. (1) The Contractor shall--

Disclose its MMAS to the Administrative Contracting Officer in writing; and

(ii) If requested by the Administrative Contracting Officer, demonstrate that the MMAS conforms to the standards in paragraph (f) of this clause.

(2) An MMAS disclosure is adequate when the Contractor has provided the Administrative Contracting Officer with documentation which--

(i) Accurately describes those policies, procedures, and practices that the Contractor currently uses in its MMAS; and

(ii) Provides sufficient detail for the Government to reasonably make an informed judgment regarding the adequacy of the MMAS.

(3) An MMAS demonstration is adequate when the Contractor has provided the Administrative Contracting Officer--

(i) Sufficient evidence to demonstrate the degree of compliance of its MMAS with the standards at paragraph (f) of this clause; and

(ii) Identification of any significant deficiencies, the estimated cost impact of the deficiency, and a comprehensive corrective action plan.

(4) The Contractor shall disclose significant changes in its MMAS to the Administrative Contracting Officer within 30 days of implementation.

(5) If the contractor desires the Government to protect such information as privileged or confidential, the Contractor shall--

(i) Notify the Government representative to whom the information is submitted, i.e., the ACO, or the auditor; and

(ii) Ensure an appropriate legend is on the face of the document(s) at the time of submission.

(e) Deficiencies. (1) If the Contractor receives a report which identifies deficiencies in its MMAS, the Contractor agrees to respond as follows--

(i) If the Contractor agrees with the report findings and recommendations, the Contractor shall--

(A) Within 30 days, state its agreement in writing; and

(B) Within 60 days, correct the deficiencies or submit a corrective action plan.

(ii) If the Contractor disagrees with the report findings and recommendations, the Contractor shall, within 30 days, state its rationale for each area of disagreement.

(2) The Administrative Contracting Officer shall evaluate the Contractor's response and notify the Contractor of the--

(i) Determination concerning remaining deficiencies;

(ii) Adequacy of any proposed or completed corrective action plan; and

(iii) Need for any new or revised corrective action plan.

(f) MMAS standards. MMAS systems shall have adequate internal accounting and administrative controls to ensure system and data integrity, and comply with the following:

(1) Have an adequate system description including policies, procedures, and operating instructions which comply with the Federal Acquisition Regulation and Defense FAR Supplement;

(2) Ensure that costs of purchased and fabricated material charged or allocated to a contract are based on valid time-phased requirements as impacted by minimum/economic order quantity restrictions--

(i) A 98 percent bill of material accuracy and a 95 percent master production schedule accuracy are desirable as a goal in order to ensure that requirements are both valid and appropriately time-phased.

(ii) If systems have accuracy levels below these, the Contractor shall demonstrate that--

(A) There is no material harm to the Government due to lower accuracy levels; and

(B) The cost to meet the accuracy goals is excessive in relation to the impact on the Government;

(3) Provide a mechanism to identify, report, and resolve system control weaknesses and manual override. Systems should identify operational exceptions such as excess/residual inventory as soon as known;

(4) Provide audit trails and maintain records (manual and those in machine readable form) necessary to evaluate system logic and to verify through transaction testing that the system is operating as desired;

(5) Establish and maintain adequate levels of record accuracy, and include reconciliation of recorded inventory

quantities to physical inventory by part number on a periodic basis. A 95 percent accuracy level is desirable. If systems have an accuracy level below 95 percent, the Contractor shall demonstrate that--

(i) There is no material harm to the Government due to lower accuracy levels; and

(ii) The cost to meet the accuracy goal is excessive in relation to the impact on the Government;

(6) Provide detailed descriptions of circumstances which will result in manual or system generated transfers of parts;

(7) Maintain a consistent, equitable, and unbiased logic for costing of material transactions--

(i) The Contractor shall maintain and disclose written policies describing the transfer methodology and the loan/pay-back technique.

(ii) The costing methodology may be standard or actual cost, or any of the inventory costing methods in 48 CFR 9904.411-50(b). Consistency shall be maintained across all contract and customer types, and from accounting period to accounting period for initial charging and transfer charging.

(iii) The system should transfer parts and associated costs within the same billing period. In the few instances where this may not be appropriate, the Contractor may accomplish the material transaction using a loan/pay-back technique. The “loan/pay-back technique” means that the physical part is moved temporarily from the contract, but the cost of the part remains on the contract. The procedures for the loan/pay-back technique must be approved by the Administrative Contracting Officer. When the technique is used, the Contractor shall have controls to ensure--

(A) Parts are paid back expeditiously;

(B) Procedures and controls are in place to correct any overbilling that might occur;

(C) Monthly, at a minimum, identification of the borrowing contract and the date the part was borrowed; and

(D) The cost of the replacement part is charged to the borrowing contract;

(8) Where allocations from common inventory accounts are used, have controls (in addition to those in paragraphs (b)(2) and (7) of this clause) to ensure that--

(i) Reallocations and any credit due are processed no less frequently than the routine billing cycle;

(ii) Inventories retained for requirements which are not under contract are not allocated to contracts; and

(iii) Algorithms are maintained based on valid and current data;

(9) Notwithstanding FAR 45.505-3(f)(1)(ii), have adequate controls to ensure that physically commingled inventories that may include material for which costs are charged or allocated to fixed-price, cost-reimbursement, and commercial contracts do not compromise requirements of any of the standards in paragraphs (f)(1) through (8) of this clause. Government furnished material shall not be--

(i) Physically commingled with other material; or

(ii) Used on commercial work; and

(10) Be subjected to periodic internal audits to ensure compliance with established policies and procedures.

(End of clause)

252.243-7001 PRICING OF CONTRACT MODIFICATIONS (DEC 1991)

When costs are a factor in any price adjustment under this contract, the contract cost principles and procedures in FAR part 31 and DFARS part 231, in effect on the date of this contract, apply.

252.243-7002 REQUESTS FOR EQUITABLE ADJUSTMENT (MAR 1998)

(a) The amount of any request for equitable adjustment to contract terms shall accurately reflect the contract adjustment for which the Contractor believes the Government is liable. The request shall include only costs for performing the change, and shall not include any costs that already have been reimbursed or that have been separately claimed. All indirect costs included in the request shall be properly allocable to the change in accordance with applicable acquisition regulations.

(b) In accordance with 10 U.S.C. 2410(a), any request for equitable adjustment to contract terms that exceeds the simplified acquisition threshold shall bear, at the time of submission, the following certificate executed by an individual authorized to certify the request on behalf of the Contractor:

I certify that the request is made in good faith, and that the supporting data are accurate and complete to the best of my knowledge and belief.

(Official's Name)

(Title)

(c) The certification in paragraph (b) of this clause requires full disclosure of all relevant facts, including--

(1) Cost or pricing data if required in accordance with subsection 15.403-4 of the Federal Acquisition Regulation (FAR); and

(2) Information other than cost or pricing data, in accordance with subsection 15.403-3 of the FAR, including actual cost data and data to support any estimated costs, even if cost or pricing data are not required.

(d) The certification requirement in paragraph (b) of this clause does not apply to----

(1) Requests for routine contract payments; for example, requests for payment for accepted supplies and services, routine vouchers under a cost-reimbursement type contract, or progress payment invoices; or

(2) Final adjustment under an incentive provision of the contract.

252.244-7000 SUBCONTRACTS FOR COMMERCIAL ITEMS AND COMMERCIAL COMPONENTS (DOD) (MAR 2000)

In addition to the clauses listed in paragraph (c) of the Subcontracts for Commercial Items and Commercial Components clause of this contract (Federal Acquisition Regulation 52.244-6), the Contractor shall include the terms

of the following clauses, if applicable, in subcontracts for commercial items or commercial components, awarded at any tier under this contract:

252.225-7014 Preference for Domestic Specialty Metals, Alternate I (10 U.S.C. 2241 note).

252.247-7023 Transportation of Supplies by Sea (10 U.S.C. 2631).

252.247-7024 Notification of Transportation of Supplies by Sea (10 U.S.C. 2631).

(End of clause)

252.245-7001 REPORTS OF GOVERNMENT PROPERTY (MAY 1994)

(a) The Contractor shall provide an annual report --

(1) For all DoD property for which the Contractor is accountable under the contract;

(2) Prepared in accordance with the requirements of DD Form 1662, DoD Property in the Custody of Contractors, or approved substitute, including instructions on the reverse side of the form;

(3) In duplicate, to the cognizant Government property administrator, no later than October 31.

(b) The Contractor is responsible for reporting all Government property accountable to this contract, including that at subcontractor and alternate locations.

(End of clause)

252.247-7023 TRANSPORTATION OF SUPPLIES BY SEA (MAY 2002)

(a) Definitions. As used in this clause --

(1) "Components" means articles, materials, and supplies incorporated directly into end products at any level of manufacture, fabrication, or assembly by the Contractor or any subcontractor.

(2) "Department of Defense" (DoD) means the Army, Navy, Air Force, Marine Corps, and defense agencies.

(3) "Foreign flag vessel" means any vessel that is not a U.S.-flag vessel.

(4) "Ocean transportation" means any transportation aboard a ship, vessel, boat, barge, or ferry through international waters.

(5) "Subcontractor" means a supplier, materialman, distributor, or vendor at any level below the prime contractor whose contractual obligation to perform results from, or is conditioned upon, award of the prime contract and who is performing any part of the work or other requirement of the prime contract.

(6) "Supplies" means all property, except land and interests in land, that is clearly identifiable for eventual use by or owned by the DoD at the time of transportation by sea.

(i) An item is clearly identifiable for eventual use by the DoD if, for example, the contract documentation contains a reference to a DoD contract number or a military destination.

(ii) "Supplies" includes (but is not limited to) public works; buildings and facilities; ships; floating equipment and vessels of every character, type, and description, with parts, subassemblies, accessories, and equipment; machine tools; material; equipment; stores of all kinds; end items; construction materials; and components of the foregoing.

(7) "U.S.-flag vessel" means a vessel of the United States or belonging to the United States, including any vessel registered or having national status under the laws of the United States.

(b)(1) The Contractor shall use U.S.-flag vessels when transporting any supplies by sea under this contract.

(2) A subcontractor transporting supplies by sea under this contract shall use U.S.-flag vessels if--

(i) This contract is a construction contract; or

(ii) The supplies being transported are--

(A) Noncommercial items; or

(B) Commercial items that--

(1) The Contractor is reselling or distributing to the Government without adding value (generally, the Contractor does not add value to items that it contracts for f.o.b. destination shipment);

(2) Are shipped in direct support of U.S. military contingency operations, exercises, or forces deployed in humanitarian or peacekeeping operations; or

(3) Are commissary or exchange cargoes transported outside of the Defense Transportation System in accordance with 10 U.S.C. 2643.

(c) The Contractor and its subcontractors may request that the Contracting Officer authorize shipment in foreign-flag vessels, or designate available U.S.-flag vessels, if the Contractor or a subcontractor believes that --

(1) U.S.-flag vessels are not available for timely shipment;

(2) The freight charges are inordinately excessive or unreasonable; or

(3) Freight charges are higher than charges to private persons for transportation of like goods.

(d) The Contractor must submit any request for use of other than U.S.-flag vessels in writing to the Contracting Officer at least 45 days prior to the sailing date necessary to meet its delivery schedules. The Contracting Officer will process requests submitted after such date(s) as expeditiously as possible, but the Contracting Officer's failure to grant approvals to meet the shipper's sailing date will not of itself constitute a compensable delay under this or any other clause of this contract. Requests shall contain at a minimum --

(1) Type, weight, and cube of cargo;

(2) Required shipping date;

(3) Special handling and discharge requirements;

(4) Loading and discharge points;

(5) Name of shipper and consignee;

(6) Prime contract number; and

(7) A documented description of efforts made to secure U.S.-flag vessels, including points of contact (with names and telephone numbers) with at least two U.S.-flag carriers contacted. Copies of telephone notes, telegraphic and facsimile message or letters will be sufficient for this purpose.

(e) The Contractor shall, within 30 days after each shipment covered by this clause, provide the Contracting Officer and the Maritime Administration, Office of Cargo Preference, U.S. Department of Transportation, 400 Seventh Street SW., Washington, DC 20590, one copy of the rated on board vessel operating carrier's ocean bill of lading, which shall contain the following information:

(1) Prime contract number;

(2) Name of vessel;

(3) Vessel flag of registry;

(4) Date of loading;

(5) Port of loading;

(6) Port of final discharge;

(7) Description of commodity;

(8) Gross weight in pounds and cubic feet if available;

(9) Total ocean freight in U.S. dollars; and

(10) Name of the steamship company.

(f) The Contractor shall provide with its final invoice under this contract a representation that to the best of its knowledge and belief--

(1) No ocean transportation was used in the performance of this contract;

(2) Ocean transportation was used and only U.S.-flag vessels were used for all ocean shipments under the contract;

(3) Ocean transportation was used, and the Contractor had the written consent of the Contracting Officer for all non-U.S.-flag ocean transportation; or

(4) Ocean transportation was used and some or all of the shipments were made on non-U.S.-flag vessels without the written consent of the Contracting Officer. The Contractor shall describe these shipments in the following format:

ITEM DESCRIPTION	CONTRACT LINE ITEMS	QUANTITY

TOTAL_____

(g) If the final invoice does not include the required representation, the Government will reject and return it to the Contractor as an improper invoice for the purposes of the Prompt Payment clause of this contract. In the event there has been unauthorized use of non-U.S.-flag vessels in the performance of this contract, the Contracting Officer is entitled to equitably adjust the contract, based on the unauthorized use.

(h) In the award of subcontracts for the types of supplies described in paragraph (b)(2) of this clause, the Contractor shall flow down the requirements of this clause as follows:

(1) The Contractor shall insert the substance of this clause, including this paragraph (h), in subcontracts that exceed the simplified acquisition threshold in part 2 of the Federal Acquisition Regulation.

(2) The Contractor shall insert the substance of paragraphs (a) through (e) of this clause, and this paragraph (h), in subcontracts that are at or below the simplified acquisition threshold in part 2 of the Federal Acquisition Regulation.

(End of clause)

252.247-7024 NOTIFICATION OF TRANSPORTATION OF SUPPLIES BY SEA (MAR 2000)

(a) The Contractor has indicated by the response to the solicitation provision, Representation of Extent of Transportation by Sea, that it did not anticipate transporting by sea any supplies. If, however, after the award of this contract, the Contractor learns that supplies, as defined in the Transportation of Supplies by Sea clause of this contract, will be transported by sea, the Contractor --

(1) Shall notify the Contracting Officer of that fact; and

(2) Hereby agrees to comply with all the terms and conditions of the Transportation of Supplies by Sea clause of this contract.

(b) The Contractor shall include this clause; including this paragraph (b), revised as necessary to reflect the relationship of the contracting parties--

(1) In all subcontracts under this contract, if this contract is a construction contract; or

(2) If this contract is not a construction contract, in all subcontracts under this contract that are for--

(i) Noncommercial items; or

(ii) Commercial items that--

(A) The Contractor is reselling or distributing to the Government without adding value (generally, the Contractor does not add value to items that it subcontracts for f.o.b. destination shipment);

(B) Are shipped in direct support of U.S. military contingency operations, exercises, or forces deployed in humanitarian or peacekeeping operations; or

(C) Are commissary or exchange cargoes transported outside of the Defense Transportation System in accordance with 10 U.S.C. 2643.

(End of clause)

Section 00800 - Special Contract Requirements

CLAUSES INCORPORATED BY FULL TEXT

52.211-10 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)

The Contractor shall be required to (a) commence work under this contract within 5 calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than 900 calendar days. The time stated for completion shall include final cleanup of the premises.

(End of clause)

52.211-12 LIQUIDATED DAMAGES--CONSTRUCTION (SEP 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of $2,366.33 for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

(End of clause)

52.211-13 TIME EXTENSIONS (SEP 2000)

Time extensions for contract changes will depend upon the extent, if any, by which the changes cause delay in the completion of the various elements of construction. The change order granting the time extension may provide that the contract completion date will be extended only for those specific elements related to the changed work and that the remaining contract completion dates for all other portions of the work will not be altered. The change order also may provide an equitable readjustment of liquidated damages under the new completion schedule.

(End of clause)

52.217-7 OPTION FOR INCREASED QUANTITY--SEPARATELY PRICED LINE ITEM (MAR 1989)

The Government may require the delivery of the numbered line item, identified in the Schedule as an option item, in the quantity and at the price stated in the Schedule. The Contracting Officer may exercise the option by written notice to the Contractor within 60 days of award of the basic contract. Delivery of added items shall continue at the same rate that like items are called for under the contract, unless the parties otherwise agree.

(End of clause)

52.219-4002 REPORTING REQUIREMENTS--SUBCONTRACTING PLAN (CESAD-CT JUL 1993)

(a) Retainage will be withheld from progress payments in an amount sufficient to protect the Government's ability to assess Liquidated Damages in accordance with FAR clause 52.219-0016 for failure to submit timely SF 294 and SF 295 Reports. The amount of retainage will be determined in accordance with the following formula:
(b) Total dollar amount proposed for subcontracting to small business multiplied by percentage of actual progress on the contract, up to a maximum of 10% of the given progress payment, shall be withheld from the next progress payment due after a contractor fails to submit a required report. If one or more reports have been submitted before such failure, formula for determining the amount of retainage will be adjusted by deducting any amounts reported as subcontracted to small business from the total dollar amount proposed to be subcontracted and the difference multiplied by the percent of actual progress, up to a maximum of 10% of the given progress payment.
(End of clause)

52.223-9 ESTIMATE OF PERCENTAGE OF RECOVERED MATERIAL CONTENT FOR EPA-DESIGNATED PRODUCTS (AUG 2000)

(a) Definitions. As used in this clause--

Postconsumer material means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. Postconsumer material is a part of the broader category of “recovered material.”

Recovered material means waste materials and by-products recovered or diverted from solid waste, but the term does not include those materials and by-products generated from, and commonly reused within, an original manufacturing process.

(b) The Contractor, on completion of this contract, shall--

(1) Estimate the percentage of the total recovered material used in contract performance, including, if applicable, the percentage of postconsumer material content; and

(2) Submit this estimate to Mr. Allen Hand, U.S. Army Corps of Engineers, Building 3-1933, Butner Road, Fort Bragg, North Carolina 23810-5000. Phone (910) 396-1211 extension 103.
(End of clause)

52.223-4002 U.S. ARMY CORPS OF ENGINEERS SAFETY AND HEALTH REQUIREMENTS MANUAL, EM 385-1-1

This paragraph applies to contracts and purchase orders that require the contractor to comply with EM 385-1-1 (e.g., contracts that include the Accident Prevention clause at FAR 52.236-13 and/or other safety provisions). EM 385-1-1 and its changes are available at http://www.hq.usace.army.mil. (At the HQ homepage, select Safety and Occupational Health.) The Contractor shall be responsible for complying with the current edition and all changes posted on the web through the date that is 10 calendar days prior to the date offers are due. If the solicitation is amended to extend the time set for receipt of offers, the 10 calendar days rule stated above shall be applied against the amended date. (For example, if offers are due on 10 April, all changes posted on or before 31 March shall apply to the contract. If the time for receipt of offers is extended from 10 April to 20 April, all changes posted on or before 10 April shall apply to the contract.)

52.228-4001 RECOMMENDED INSURANCE COVERAGE – MAY 2000

The Design-Build Contractor's attention is invited to the contract requirements concerning "RESPONSIBILITY OF THE CONTRACTOR FOR DESIGN' and 'WARRANTY OF CONSTURCTION WORK". These requirements vest in the Contractor complete responsibility for the professional quality, technical accuracy, and coordination of all design, drawings, specifications and other work or materials furnished by his in-house or consultant forces. The Design-Build Contractor must correct and revise any errors or deficiencies in his work, notwithstanding any review, approval, acceptance or payment by the Government. The Contractor must correct and change any work resulting from his defective design at no additional cost to the Government. The requirements further stipulate that the Design-Build Contractor shall be liable to the Government for the damages to the Government caused by negligent performance. Though it is not am mandatory requirement, this is to recommend that the Design-Build Contractor investigate and obtain appropriate insurance coverage for such liability protection.

(End of Clause)

52.228-4002 REQUIRED INSURANCE (FEB 1987 SAS) (Ref. FAR 28.307)

(a) The Contractor shall procure and maintain during the entire period of his performance under this contract the following minimum insurance:

Comprehensive and Employer's Liability Insurance in the amount required by the State law in which the work is to be performed under this contract.

Comprehensive General Liability Insurance in an amount not less than $500,000 per accident.

Automobile Liability Insurance: $200,000 per person and $500,000 per accident for bodily injury liability and $20,000 property damage liability.

(b) Prior to the commencement of work hereunder, the Contractor shall furnish to the Contracting Officer a certificate or written statement of the above-required insurance. The policies evidencing required insurance shall contain an endorsement to the effect that cancellation, or any material change in the policies adversely affecting the interests of the Government in such insurance, shall not be effective for such period as may be prescribed by the laws of the State in which this contract is to be performed and in no event less than 30 days after written notice thereof to the Contracting Officer.

(c) The Contractor agrees to insert the substance of this clause, including this subparagraph (c), in all subcontracts hereunder.

(End of clause)

52.231-5000 EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE
MAR 1995)--EFARS

(a) This clause does not apply to terminations. See 52.249-5000, Basis for Settlement of Proposals and FAR Part 49.

(b) Allowable cost for construction and marine plant and equipment in sound workable condition owned or controlled and furnished by a contractor or subcontractor at any tier shall be based on actual cost data for each piece of equipment or groups of similar serial and series for which the Government can determine both ownership and operating costs from the contractor's accounting records. When both ownership and operating costs cannot be determined for any piece of equipment or groups of similar serial or series equipment from the contractor's accounting records, costs for that equipment shall be based upon the applicable provisions of EP 1110-1-8, Construction Equipment Ownership and Operating Expense Schedule, Region III. Working conditions shall be considered to be average for determining equipment rates using the schedule unless specified otherwise by the contracting officer. For equipment not included in the schedule, rates for comparable pieces of equipment may be used or a rate may be

developed using the formula provided in the schedule. For forward pricing, the schedule in effect at the time of negotiations shall apply. For retroactive pricing, the schedule in effect at the time the work was performed shall apply.
(c) Equipment rental costs are allowable, subject to the provisions of FAR 31.105(d)(ii) and FAR 31.205-36. Rates for equipment rented from an organization under common control, lease-purchase arrangements, and sale-leaseback arrangements, will be determined using the schedule, except that actual rates will be used for equipment leased from an organization under common control that has an established practice of leasing the same or similar equipment to unaffiliated lessees.
(d) When actual equipment costs are proposed and the total amount of the pricing action exceeds the small purchase threshold, the contracting officer shall request the contractor to submit either certified cost or pricing data, or partial/limited data, as appropriate. The data shall be submitted on Standard Form 1411, Contract Pricing Proposal Cover Sheet.
(End of clause)

(xvi) ACCOUNTING AND APPROPRIATION DATA (APR 1989 CESAS-RM)
See Section 00100, Subject to Availability of Funds. Clause 52.232-4006

(End of clause)

52.232-4008 DESIGNATED BILLING OFFICE (APR 1989 CESAS-RM)

Invoices will be mailed to:
U.S. Army Corps of Engineers, Savannah
ATTN: North Carolina Area Office
Post Office Box 70247
Fort Bragg, North Carolina 28307-0247

(End of Clause)

52.232-4009 DESIGNATED PAYMENT OFFICE (AUG 1998 CESAS-RM-F)

Payment will be made by:
U.S. Army Corps of Engineers Finance Center
ATTN: CEFC-AO-P
5720 Integrity Drive
Millington, TN 38054-5005
(End of clause)

52.236-1 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984)

The Contractor shall perform on the site, and with its own organization, work equivalent to at least (20%) twenty percent of the total amount of work to be performed under the contract. This percentage may be reduced by a

supplemental agreement to this contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the Government.

(End of clause)

(iii) PHYSICAL DATA (APR 1984)

Data and information furnished or referred to below is for the Contractor's information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor.

(xvii) The indications of physical conditions on the drawings and in the specifications are the result of site investigations by soil test borings. Locations and drilling logs of the borings are shown on the contract drawings.

(xviii) Weather conditions . . . . See Time Extensions for Unusually Severe Weather, Section 00800, Clause 52.249-5010.

(c) Transportation facilities . . . The site of the work is available by Public Highway.

(End of clause)

52.236-14 AVAILABILITY AND USE OF UTILITY SERVICES (APR 1984)

(a) The Government shall make all reasonably required amounts of utilities available to the Contractor from existing outlets and supplies, as specified in the contract. Unless otherwise provided in the contract, the amount of each utility service consumed shall be charged to or paid for by the Contractor at prevailing rates charged to the Government or, where the utility is produced by the Government, at reasonable rates determined by the Contracting Officer. The Contractor shall carefully conserve any utilities furnished without charge.

(b) The Contractor, at its expense and in a workmanlike manner satisfactory to the Contracting Officer, shall install and maintain all necessary temporary connections and distribution lines, and all meters required to measure the amount of each utility used for the purpose of determining charges. Before final acceptance of the work by the Government, the Contractor shall remove all the temporary connections, distribution lines, meters, and associated paraphernalia.

(End of clause)

52.236-4001 DESIGN-BUILD CONTRACT-ORDER OF PRECEDENCE – AUG 1997

(a) The contract includes the standard contract clauses and schedules current at the time of award. It also entails: (1) the solicitation in its entirety, including all drawings, cuts and illustrations, and any amendments during proposal evaluation and selection, and (2) the successful Offeror’s accepted proposal. The contract constitutes and defines the entire agreement between the Contractor and the Government. No documentation shall be omitted which in any ways bears upon the terms of that agreement.

(b) In the event of conflict or inconsistency between any of the provisions of the various portions of this contract, precedence shall be given in the following order:

(1) Betterments: Any portions of the Offeror's proposal which both meet and exceed the provisions of the solicitation

(2) The provisions of the solicitation. (see also Contract Clause: SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION.)

(3) All other provisions of the accepted proposal.

(4)Any design products, including but not limited to plans, specifications, engineering studies and analyses, shop drawings, equipment installation drawings, etc. These are "deliverables" under the contract and are not part of the contract itself. Design products must conform to all provisions of the contract, in the order of precedence herein.

(End of Clause)

(e) RESPONSIBILITY OF THE CONTRACTOR FOR DESIGN – FEB 2000

(a) The Contractor shall be responsible for the professional quality, technical accuracy, and the coordination of all designs, drawings, specifications, and other non-construction services furnished by the Contractor under this contract. The Contractor shall, without additional compensation, correct or revise any errors or deficiency in its designs, drawings, specifications, and other non-construction services and perform any necessary rework or modifications, including any damage to real or personal property, resulting from the design error or omission.

(b) Neither the Government's review, approval or acceptance of, nor payment for, the services required under this contract shall be construed to operate as a waiver of any rights under this contract or of any cause of action arising out of the performance of this contract. The Contractor shall be and remain liable to the Government in accordance wit applicable law for all damages to the Government caused by the Contractor's negligent performance of any of these services furnished under this contract.

(c) The rights and remedies of the Government provided for under this contract are in addition to any other rights and remedies provided by law

(d) If the Contractor is comprised of more than one legal entity shall be jointly and severally liable thereunder.

(End of Clause)

52.236-4004 SEQUENCE OF DESIGN-CONSTRUCTION – AUG 1997

(a) After receipt of the Contract Notice to Proceed (NTP) the Contractor shall initiate design, comply with all design submission requirements as covered under Division 01 General Requirements, and obtain Government review of each submission. No construction may be started, <with the exception of….clearing, etc…> until the Government reviews the Final Design submission and determines it satisfactory for purposes of beginning construction. The Contracting Officer will notify the Contractor when the design is cleared for construction. The Government will not grant any time extension for any design resubmittal required when, in the opinion of the Contracting Officer, the initial submission failed to meet the minimum quality requirements as set forth in the Contract.

(b) If the Government allows the Contractor to proceed with limited construction based on pending minor revisions to the reviewed Final Design submission, no payment will be made for any in-place construction related to the pending revisions until they are completed, resubmitted and are satisfactory to the Government.

(c) No payment will be made for any in-place construction until all required submittals have been made, reviewed and are satisfactory to the Government.

(End of Clause)

52.236-4005 SEQUENCE OF DESIGN- CONSTRUCTION (FAST TRACK) – AUG 1997

(iv) After receipt of the Contract Notice to Proceed (NTP) the Contractor shall initiate design, comply with all design submissions requirements as covered under Division 01 General Requirements, and obtain Government review of each submission. The contractor may begin construction on portions of the work for which the Government has reviewed the final design submission and has determined satisfactory for purposes of beginning construction. The Contracting Officer will notify the Contractor when the design is cleared for construction. The Government will not grant any time extension for any design resubmittal required when, in the opinion of the Contracting Officer, the initial submission failed to meet the minimum quality requirements as set forth in the Contract.

(v) If the Government allows the Contractor to proceed with the construction based on pending minor revisions to the reviewed Final Design submission, no payment will be made for any in-place construction related to the pending revisions until they are completed, resubmitted and are satisfactory to the Government.

(vi) No payment will be made for any in-place construction until all required submittals have been made, reviewed and are satisfactory to the Government.

(End of Clause)

52.236-4006 CONSTRUCTOR'S ROLE DURING DESIGN – JUN 1998

The Contractor's construction management key personnel shall be actively involved during the design process to effectively integrate the design and construction requirements of this contract. In addition to the typical required construction activities, the constructor's involvement includes, but is not limited to actions such as: integrating the design schedule into the Master Schedule to maximize the effectiveness of fast-tracking design and construction (within the limits allowed in the contract), ensuring constructability and economy of the design, integrating the shop drawing and installation drawing process into the design, executing the material and equipment acquisition programs to meet critical schedules, effectively interfacing the construction QC program with the design QC program, and maintaining and providing the design team with accurate, up-to-date redline and as-built documentation. The Contractor shall require and manage the active involvement of key trade subcontractors in the above activities.

(End of Clause)

52.236-4007 TRAINING – FEB 2000

The Contractor shall provide operational and maintenance training for all systems furnished under this contract for the operating and maintenance personnel. The system manufacturer shall conduct the training, where feasible. All operation and maintenance manuals shall be submitted and approved prior to conducting the training, where feasible. All operation and maintenance manuals shall be submitted and approved prior to conducting the training and shall be used during training. The Contractor shall video tape the training session on VHS tapes and provide the tapes to the Government.

(End of Clause)

52.236-4008 DESIGN CONFERENCES – AUG 1997

(a) Pre-Work: As part of the Pre-Work Conference conducted after contract award, key representatives of the Government and the Contractor will review the design submission and procedures specified herein, discuss the preliminary design schedule and provisions for phase completion of the D-B documents with construction activities (fast tracking), as appropriate, meet with Corps of Engineers Design Review personnel and key Using Agency points of contract and any other appropriate pre-design discussion items.

(b) Design Charette: After award of the contract, the Contractor shall visit the site and conduct extensive interviews, and problem solving discussions with the individual users, base personnel, Corps of Engineers personnel to acquire all necessary site information, review user options, and discuss user needs. The Contractor shall document all discussions. The design shall be finalized as direct result of these meetings.

(c) Design Review Conferences: Review conferences will be held on base for each design submittal. The Contractor will bring the personnel that developed the design submittal to the review conference. The conferences will take place the week after the review is complete.

(End of Clause)

52.236-4009 PARTNERING – FEB 2000

In order to most effectively accomplish this contract, the Government proposes to form a partnership with the Contractor to develop a cohesive building team. It is anticipated that this partnership would involve the Fort Bragg Public Works Business Center, the Contractor, primary subcontractors and designers and the Corps of Engineers. This partnership would strive to develop a cooperative management team drawing on the strengths of each team member in an effort to achieve quality project within budget and on schedule. This partnership would be bilateral in membership and participation will be totally voluntary. Any cost associated with effectuating this partnership, excluding travel and lodging cost of Government personnel, will be borne by each party. The partnering meetings shall be held in (to be detremined)

(End of Clause)

52.236-4015 PRECONSTRUCTION CONFERENCE (OCT 1988 SAS) (Ref. FAR 36.305)

(a) A preconstruction conference will be arranged by the Area/Resident Engineer after award of contract and before commencement of work. The Area/Resident Engineer will notify the Contractor of the time and date set for the meeting. At this conference, the Contractor shall be oriented with

respect to Government procedures and line of authority, contractual, administrative, and construction matters.

(b) The Contractor shall bring to this conference, in completed form, a Certificate of Insurance, plus the following items in either completed or draft form:

Accident Prevention Plan (5 copies)
(use format shown in Attachment 1 to SECTION 00800)
Quality Control Plan (5 copies)
Letter Appointing Superintendent
Transmittal Register
Power of Attorney and Certified Copy of Resolution
Network Analysis System, when applicable
List of Subcontractors

(c) A letter of record will be written documenting all items discussed at the conference, and a copy will be furnished by the Area/Resident Engineer to all in attendance.

(End of clause)

52.236-4016 VIDEO TAPING OPERATING AND MAINTENANCE INSTRUCTIONS (MAR 1987 SASCD-SQ)

For all of the operating and maintenance instructions which are required in the contract specifications, the Contractor shall video tape these instructions as they are presented to the Government representatives. These tapes shall provide clear and understandable detailed instructions for all items required by the contract specifications. The tapes shall be prepared by an experienced video director/cameraman using good quality half-inch VHS color tape with correct sound equipment, lighting, and backdrop. The sound and picture quality shall be high and subject to approval by the Contracting Officer. The tapes are intended as followup training for other Government representatives at a later date. They must be suitable for this purpose. The Contractor shall be responsible for the contents of the instructions and shall verify that they are correct prior to taping. The Contractor may submit individual equipment manufacturer's instructional tape(s), provided they meet the above qualifications and cover the actual equipment that is installed. The tape(s) shall be for specific equipment identified by contents and contract name and number. The Contractor shall submit one copy of the tape(s) to the Contracting Officer for review and approval. Unacceptable tapes are to be corrected by the Contractor as indicated by the Contracting Officer at no additional cost to the Government.

(End of clause)

52.236-4017 SUBMITTAL OF MODIFICATION COST ESTIMATE PROPOSALS (MAR 1992 SAS)
(Ref. DFARS 52.236-7000)

When submittals of Cost Estimate Proposals are required for additions or deletions to work under this contract by modification, the Contractor shall use DA Form 5418-R titled "Cost Estimate Analysis" (see Attachment 1 to

SECTION 00800). A separate assemblage will be prepared for submittal by each trade affected by the proposed work.
(End of clause)

52.244-4001 KEY PERSONNEL, SUBCONTRACTORS AND OUTSIDE ASSOCIATES OR CONSULTANTS – AUG 1997

In connection with the services covered by this contract, any in-house personnel, subcontractors, and outside associates or consultants will be limited to the individuals or firms that were specifically identified and agreed to during negotiations. The contractor shall obtain the Contracting Officer's written consent before making any substitution for these designated in-house personnel, subcontractors, associates, or consultants.

(End of Clause)

52.246-12 INSPECTION OF CONSTRUCTION (AUG 1996)

(a) Definition. "Work" includes, but is not limited to, materials, workmanship, and manufacture and fabrication of components.

(b) The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. The Contractor shall maintain complete inspection records and make them available to the Government. All work shall be conducted under the general direction of the Contracting Officer and is subject to Government inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.

(c) Government inspections and tests are for the sole benefit of the Government and do not--

(1) Relieve the Contractor of responsibility for providing adequate quality control measures;

(2) Relieve the Contractor of responsibility for damage to or loss of the material before acceptance;

(3) Constitute or imply acceptance; or

(4) Affect the continuing rights of the Government after acceptance of the completed work under paragraph (i) of this section.

(d) The presence or absence of a Government inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specification without the Contracting Officer's written authorization.

(e) The Contractor shall promptly furnish, at no increase in contract price, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Contracting Officer. The Government may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes reinspection or retest necessary. The Government shall perform all inspections and tests in a manner that will not unnecessarily delay the work. Special, full size, and performance tests shall be performed as described in the contract.

(f) The Contractor shall, without charge, replace or correct work found by the Government not to conform to contract requirements, unless in the public interest the Government consents to accept the work with an appropriate

adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.

(g) If the Contractor does not promptly replace or correct rejected work, the Government may (1) by contract or otherwise, replace or correct the work and charge the cost to the Contractor or (2) terminate for default the Contractor's right to proceed.

(h) If, before acceptance of the entire work, the Government decides to examine already completed work by removing it or tearing it out, the Contractor, on request, shall promptly furnish all necessary facilities, labor, and material. If the work is found to be defective or nonconforming in any material respect due to the fault of the Contractor or its subcontractors, the Contractor shall defray the expenses of the examination and of satisfactory reconstruction. However, if the work is found to meet contract requirements, the Contracting Officer shall make an equitable adjustment for the additional services involved in the examination and reconstruction, including, if completion of the work was thereby delayed, an extension of time.

(i) Unless otherwise specified in the contract, the Government shall accept, as promptly as practicable after completion and inspection, all work required by the contract or that portion of the work the Contracting Officer determines can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the Government's rights under any warranty or guarantee.

(End of clause)

52.246-4001 WARRANTY OF CONSTRUCTION WORK – AUG 1997

(a) In addition to any other warranties in this contract, the Contractor warrants, except as provided in paragraph (1) of this clause, that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, or workmanship performed by the Contractor or any subcontractor or supplier at any tier.

(b) This warranty shall contain for a period of year from the date of final acceptance of the work. If the Government takes possession of any part of the work before final acceptance, this warranty shall continue for a period of 1 year from the date the Government takes possession.

(c) The Contractor shall remedy at the Contractor’s expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor’s expense any damage to Government-owned or controlled real or personal property, when that damage is the result of –

(1) The Contractor’s failure to conform to contract requirements; or

(2) Any defect of equipment, material, or workmanship.

(d) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor’s warranty with respect to work repaired or replaced will run for 1 year from the date of repair or replacement.

(e) The Contracting Officer shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage.

(f) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the Government shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor’s expense.

(g) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall –

(1) Obtain all warranties that would be given in normal commercial practice:

(2) Require all warranties to be executed, in writing for the benefit of the Government, if directed by the Contracting Officer; and

(3)Enforce warranties for the benefit of the Government, if directed by the Contracting Officer.

(h) In the event the Contractor's warranty under paragraph (b) of this clause has expired, the Government may bring suit at its expense to enforce a subcontractor's, manufacturer's or supplier's warranty.

(i) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material furnished by the Government nor for the repair of any damage that results from any defect in Government-furnished material or design.

(j) This warranty shall not limit the Government's rights under the Inspection and Acceptance clause of this contract with respect to latent defects, gross mistakes, or fraud.

(End of Clause)

52.248-4003 VALUE ENGINEERING AFTER AWARD

(xix) In reference to Contract Clause 52.248-3, "Value Engineering – Construction", the Government may refuse to entertain a "Value Engineering Change Proposal" (VECP) for those "performance oriented" aspects of the Solicitation documents which were addressed in the Contractor's accepted contract proposal and which were evaluated in competition with other offerors for award of this contract.

(xx) The Government may consider a VECP for those "prescriptive" aspects of the Solicitation documents, not addressed in the Contractor's accepted contract proposal or addressed but evaluated only for minimum conformance with the Solicitation requirements.

(xxi) For purposes of this clause, the term "performance oriented" refers to those aspects of the design criteria or other contract requirements which allow the Offeror or Contractor certain latitude, choice of and flexibility to propose in its accepted contract offer a choice of design, technical approach, design solution, construction approach or other approach to fulfil the contract requirements. Such requirements generally tend to be expressed in terms of functions to be performed, performance required or essential physical characteristics, without dictating a specific process or specific design solution for achieving the desired result.

(xxii) In contrast, for purposes of this clause, the term "prescriptive" refers to those aspects of the design criteria or other Solicitation requirements wherein the Government expressed the design solution or other requirements in terms of specific materials, approaches, systems and/or processes to be used. Prescriptive aspects typically allow the Offerors little or no freedom in the choice of design approach, materials, fabrication techniques, methods of installation or other approach to fulfill the contract requirements.

(End of Clause)

52.249-4001 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER (APR 1991 OCE)
(Ref. FAR 52.249-10)

(a) This provision specifies the procedure for the determination of time extensions for unusually severe weather in accordance with the contract clause entitled DEFAULT (FIXED-PRICE CONSTRUCTION). In order for the Contracting Officer to award a time extension under this clause, the following conditions must be satisfied:

(1) The weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.

(2) The unusually severe weather must actually cause a delay to the completion of the project. The delay must be beyond the control and without the fault or negligence of the Contractor.

(b) The following schedule of monthly anticipated adverse weather delays is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location and will constitute the base line for monthly weather time evaluations. The Contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities.

MONTHLY ANTICIPATED ADVERSE WEATHER DELAY
WORKDAYS BASED ON 5-DAY WORK WEEK

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
10	9	6	4	4	6	8	7	4	4	5	9

(c) Upon acknowledgment of the Notice to Proceed and continuing through-out the contract, the Contractor will record on the daily Contractor Quality Control report the occurrence of adverse weather and resultant impact to normally scheduled work. Actual adverse weather delay days must prevent work on critical activities for 50 percent or more of the Contractor's scheduled workday. The number of actual adverse weather delay days shall include days impacted by actual adverse weather (even if adverse weather occurred in previous month), be calculated chronologically from the first to the last day in each month, and be recorded as full days. If the number of actual adverse weather delay days exceeds the number of days anticipated in paragraph (b) above, the Contracting Officer will convert any qualifying delays to calendar days, giving full consideration for equivalent fair weather workdays, and issue a modification in accordance with the contract clause entitled DEFAULT (FIXED PRICE CONSTRUCTION).

(End of clause)

52.249-5000 BASIS FOR SETTLEMENT OF PROPOSALS - EFARS

Actual costs will be used to determine equipment costs for a settlement proposal submitted on the total cost basis under FAR 49.206-2(b). In evaluating a terminations settlement proposal using the total cost basis, the following principles will be applied to determine allowable equipment costs:

Actual costs for each piece of equipment, or groups of similar serial or series equipment, need not be available in the contractor's accounting records to determine total actual equipment costs. If equipment costs have been allocated to a contract using predetermined rates , those charges will be adjusted to actual costs.

(3) Recorded job costs adjusted for unallowable expenses will be used to determine equipment operating expenses.

(4) Ownership costs (depreciation) will be determined using the contractor's depreciation schedule (subject to the provisions of FAR 31.205-11).

(5) License, taxes, storage and insurance costs are normally recovered as an indirect expense and unless the contractor charges these costs directly to contracts, they will be recovered through the indirect expense rate.

(End of Clause)

ATTACHMENT 1 TO SECTION 00800

LIST OF ATTACHMENTS

1. Contract Drawings:
*4 *5
File No. 721-11-25, Sheets 1 through ~~66~~65
File No. 813-20-01, Sheets 67 through 85 (FOR INFORMATION ONLY)

2. Rates of Wages:

3. Formats:

Sign

Erection Detail

Corps of Engineers Logo

Accident Prevention Plan (Ref. FAR 52.236-13 and EM 385-1-1)

Construction Quality Control Report

Small and Disadvantaged Business Subcontracting Plan

Weekly Temporary Electrical Inspection

4. Minimum Standard for Temporary Electrical Service (Ref. FAR 52.236-14)

5. Forms:

SAS Form 9 - Activity Hazard Analysis

SAD Form 1666a-R - Safety Checklist for Crawler, Truck & Wheel Mounted Cranes

SAD Form 1666b-R - Safety Checklist for Portal, Tower, and Pillar Cranes

SAD Form 1666c-R - Safety Checklist for Rigging

SAD Form 1666d-R - Safety Checklist for Motor Vehicles, Trailers and Trucks

SAD Form 1666e-R - Safety Checklist for Crawler Tractors and Dozers

SAD Form 1666f-R - Safety Checklist for Scrapers, Motor Graders, and Other Mobile Equipment

SAD Form 1666g-R - Safety Checklist for Material Hoists

SAD Form 1666h-R - Safety Checklist for Earth Drilling Equipment

ENG Form 4025 - Transmittal of Shop Drawings, Equipment Data, Material Samples, or Manufacturer's Certificates of Compliance

DA Form 5418-R - Cost Estimate Analysis

DD Form 1354 - Transfer and Acceptance of Military Real Property

Standard Form LLL-A - Disclosure of Lobbying Activities

FB Form 1605 - Directorate of Engineering and Housing Excavation Permits

Landfill Permit Application

Ft. Bragg Asbestos Removal, Transportation, and Disposal

Real Property Inventory

6. Contractor Prepared Network Analysis System

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General Decision Number NC020032

General Decision Number **NC020032**
Superseded General Decision No. NC010032
State: North Carolina
Construction Type:
BUILDING
County(ies):
CUMBERLAND
BUILDING CONSTRUCTION PROJECTS (does not include residential construction consisting of single family homes and apartments up to and including 4 stories).

Modification Number	Publication Date
0	03/01/2002

COUNTY(ies):
CUMBERLAND
SUNC1027A 10/24/1994

	Rates	Fringes
BRICKLAYERS/BLOCKLAYERS	12.50	
CARPENTERS (Including drywall hanging, acoustical tile installation and batt insulation	9.08	
CEMENT MASONS/CONCRETE FINISHERS	8.43	
ELECTRICIANS	9.71	
GLAZIERS	8.77	
HVAC MECHANIC (HVAC pipe only)	9.26	
INSULATORS (pipe)	10.42	.63
IRONWORKERS, STRUCTURAL	10.76	
LABORERS:		
Unskilled	6.23	
PAINTERS (Brush)	7.90	.04
PLUMBERS	10.28	
ROOFERS	6.75	
SHEET METAL WORKERS (Including HVAC Duct Work)	9.36	
SOFT FLOOR LAYERS/CARPET LAYERS	12.00	
TRUCK DRIVERS	7.10	

WELDERS - receive rate prescribed for craft performing operation to which welding is incidential.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(v)).

In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:
* an existing published wage determination

* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

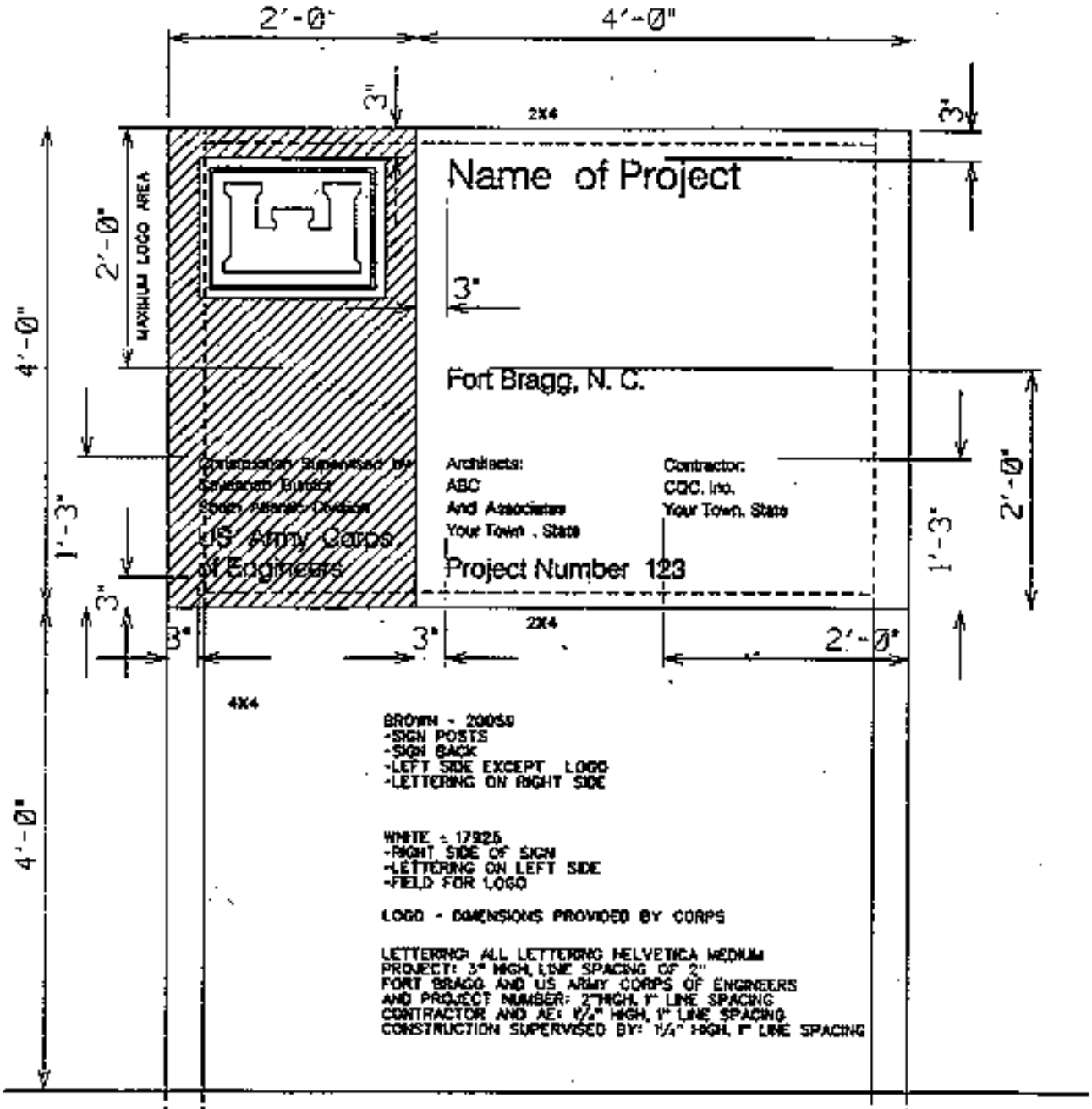
The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

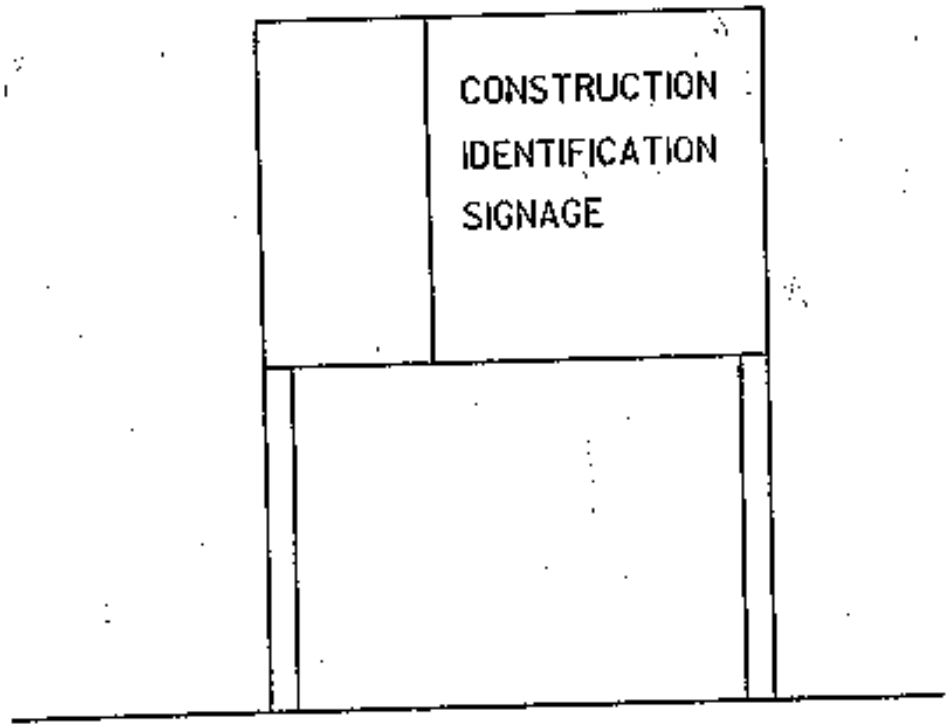
Administrative Review Board
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION



PROJECT SIGN FOR SAVANNAH MANAGED DESIGNS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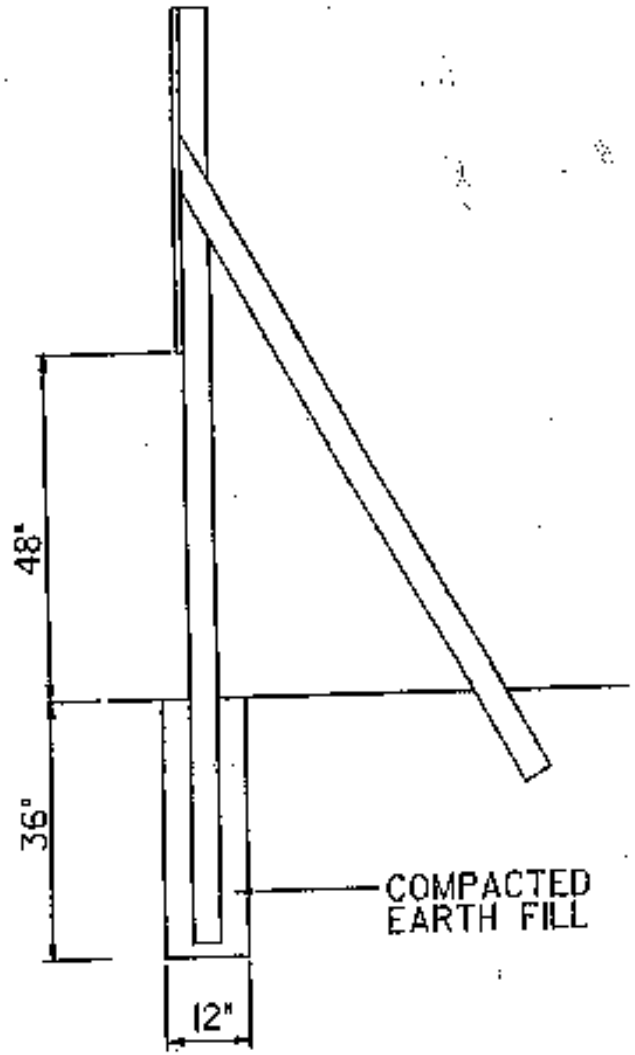
IDENTIFICATION
SIGNAGE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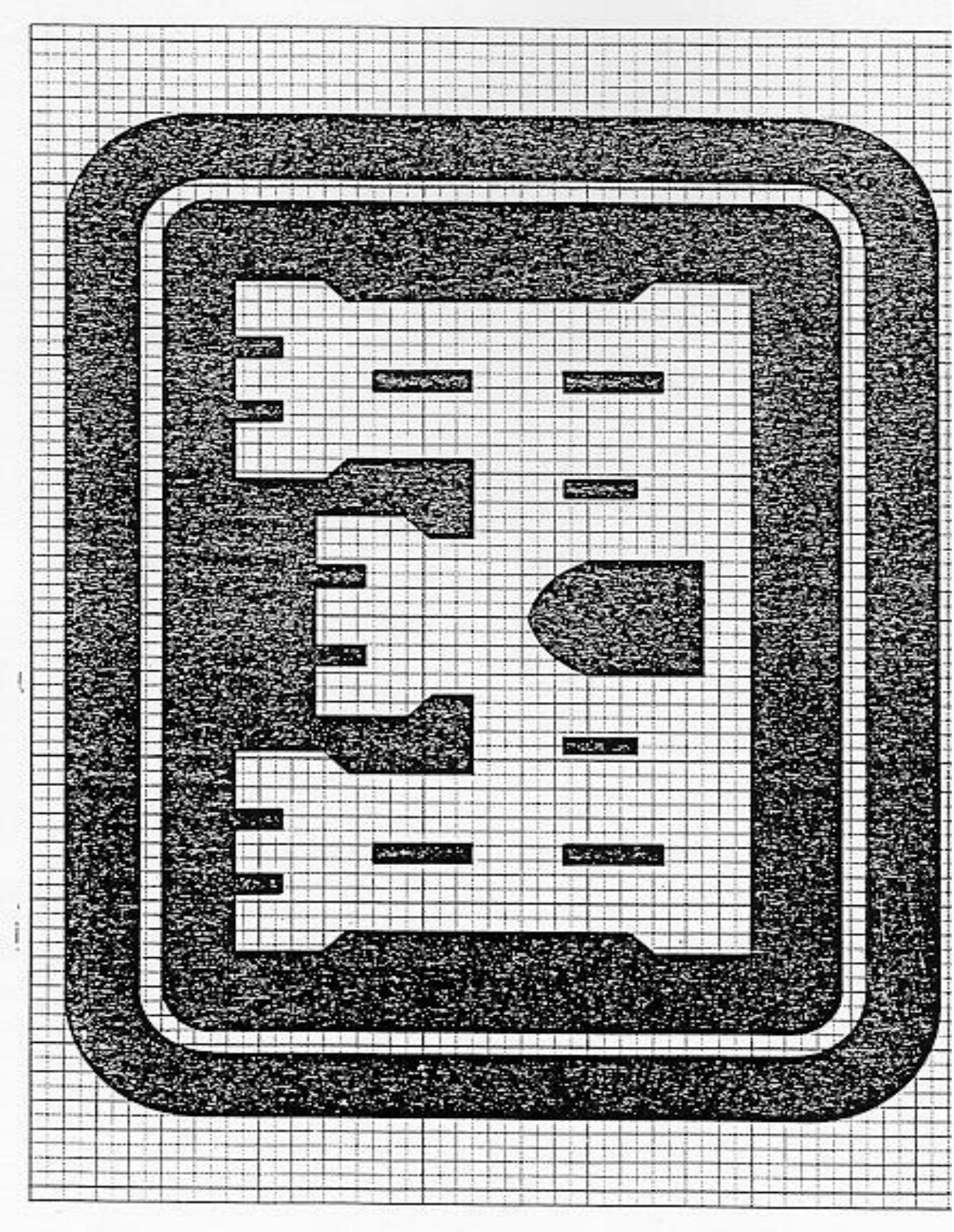

CORPS OF ENGINEERS LOGO
HALF SIZE

Last revised 9 May 97

FORMAT
(Ref. FAR 52.236-13 and EM 385-1-1 dated 3 Sep 96)
ACCIDENT PREVENTION PLAN

MINIMUM BASIC OUTLINE FOR ACCIDENT PREVENTION PLAN

An accident prevention plan is, in essence, a safety and health policy and program document. The following areas are typically addressed in an accident prevention plan, but a plan shall be job specific and shall also address any unusual or unique aspects of the project or activity for which it is written. The accident prevention plan shall interface with the employer's overall safety and health program. Any portions of the overall safety and health program that are referenced in the accident prevention plan shall be included as appropriate.

1. SIGNATURE SHEET. Title, signature, and phone number of the following:

a. Plan preparer (corporate safety staff person, QC);

b. Plan approval, e.g., owner, company president, regional vice president (HTRW activities require approval of a Certified Industrial Hygienist (or qualified Industrial Hygiene personnel for in-house USACE activities; a Certified Safety Professional (or qualified USACE safety personnel for in-house work) may approve the plan for operations involving UST removal where contaminants are known to be petroleum, oils, or lubricants);

c. Plan concurrence (provide concurrence of other applicable corporate and project personnel (contractor)), e.g., Corporate Chief of Operations, Corporate Chief of Safety, Corporate Industrial Hygienist, project manager or superintendent, project safety professional, project QC. The plan will be developed by qualified personnel (plan preparer) and will be signed by a competent person (plan concurrence) and a representative of the prime contractor's project management team (plan approval).

2. BACKGROUND INFORMATION. List the following:

a. Contractor;

b. Contract number;

c. Project name;

d. Brief project description, description of work to be performed, and location (map);

e. Contractor accident experience (provide information such as EMR, OSHA 200 Forms, corporate safety trend analyses);

f. Listing of phases of work and hazardous activities requiring activity hazards analyses.

3. STATEMENT OF SAFETY AND HEALTH POLICY. (In addition to the corporate policy statement, a copy of the corporate safety program may provide a

significant portion of the information required by the accident prevention plan.)

4. RESPONSIBILITIES AND LINES OF AUTHORITIES.

a. Identification and accountability of personnel responsible for safety - at both corporate and project level (contracts specifically requiring safety or industrial hygiene personnel should include a copy of their resume - the District Safety and Occupational Health Office will review the qualifications for acceptance). For items in EM 385-1-1 which require the use of a competent person or a qualified person, the contractor is to maintain documentation demonstrating the competence or qualification of that individual.

b. Lines of authority

5. SUBCONTRACTORS AND SUPPLIERS. Provide the following:

a. Identification of subcontractors and suppliers (if known);

b. Means for controlling and coordinating subcontractors and suppliers;

c. Safety responsibilities of subcontractors and suppliers.

6. TRAINING.

a. List subjects to be discussed with employees in safety indoctrination.

b. List mandatory training and certifications which are applicable to this project (e. g., explosive actuated tools, confined space entry, crane operator, diver, vehicle operator, HAZWOPER training and certification, personal protective equipment) and any requirements for periodic retraining/recertification.

c. Identify requirements for emergency response training.

d. Outline requirements (who attends, when given, who will conduct etc.) for supervisory and employee safety meetings.

e. Identify location at the project site where the records will be maintained.

7. SAFETY AND HEALTH INSPECTIONS. Provide details on:

a. Who will conduct safety inspections (e.g., project manager, safety professional, QC, supervisors, employees, etc.), when inspections will be conducted, how the inspections will be recorded, deficiency tracking system, follow-up procedures, etc;

b. Any external inspections/certifications which may be required (e.g., Coast Guard).

8. SAFETY AND HEALTH EXPECTATIONS, INCENTIVE PROGRAMS, AND COMPLIANCE.

a. The company's written safety program goals, objectives, and accident experience goals for this contract should be provided.

b. A brief description of the company's safety incentive programs (if any) should be provided.

c. Policies and procedures regarding noncompliance with safety requirements (to include disciplinary actions for violation of safety requirements) should be identified.

d. Provide written company procedures for holding managers and supervisors accountable for safety.

9. ACCIDENT REPORTING. The contractor shall identify who shall complete the following, how, and when:

a. Exposure data (man-hours worked);

b. Accident investigations, reports and logs;

c. Immediate notification of major accidents.

10. MEDICAL SUPPORT. Outline on-site medical support and off-site medical arrangements.

11. PERSONAL PROTECTIVE EQUIPMENT. Outline procedures (who, when, how) for conducting hazard assessments and written certifications for use of personal protective equipment.

12. PLANS (PROGRAMS, PROCEDURES) REQUIRED BY THE SAFETY MANUAL (as applicable).

a. Hazard communication program (01.B.04);

b. Emergency response plans:
- procedures and tests (01.E.01)
- spill plans (01.E.01, 06.A.02)
- fire fighting plan (01.E.01, 19.A.04)
- posting of emergency telephone numbers (01.E.04)
- wildfire prevention plan (09.K.01)
- man overboard/abandon ship (19.A.04)

c. Layout plans (04.A.01);

d. Respiratory protection plan (05.E.01);

e. Health hazard control program (06.A.02);

f. Lead abatement plan (06.B.05 & specifications);

g. Asbestos abatement plan (06.B.05 & specifications);

h. Abrasive blasting (06.H.01);

i. Confined space (06.1);

j. Hazardous energy control plan (12.A.07);

k. Critical lift procedures (16.C.17);

l. Contingency plan for severe weather (19.A.03);

m. Access and haul road plan (22.1.10);

n. Demolition plan (engineering and asbestos surveys) (23.A.01);

o. Emergency rescue (tunneling) (26.A.05);

p. Underground construction fire prevention and protection plan (26.D.01);

q. Compressed air plan (26.1.01);

r. Formwork and shoring erection and removal plans (27.B.02);

s. Lift slab plans (27.D.01);

t. SHP and SSHP (for HTRW work an SSHP must be submitted and shall contain all information required by the accident prevention plan - two documents are not required (28.B.01);

u. Blasting plan (29.A.01);

v. Diving plan (30.A.13);

w. Plan for prevention of alcohol and drug abuse (Defense Federal Acquisition Regulation Supplement Subpart 252.223-7004, Drug-Free Work Force).

13. The Contractor shall provide information on how they will meet the requirements of major sections of EM 385-1-1 in the accident prevention plan. Particular attention shall be paid to excavations, scaffolding, medical and first aid requirements, sanitation, personal protective equipment, fire prevention, machinery and mechanized equipment, electrical safety, public safety requirements, and chemical, physical agent, and biological occupational exposure prevention requirements. Detailed site-specific hazards and controls shall be provided in the activity hazard analysis for each phase of the operation. Site-specific hazards are those hazards which would be reasonably be anticipated to occur on the construction site of concern and will be identified through analysis of the activities to be performed. The controls are measures which will be implemented by the contractor to eliminate or reduce each hazard to an acceptable level.

F O R M A T

CONTRACTOR'S NAME
(Address)

CONSTRUCTION QUALITY CONTROL REPORT

Date: _____ Report No. _____

Contract No.: _____

Description and Location of Work: _____

WEATHER: (Clear)(P. Cloudy)(Cloudy); Temperature:___Min,___Max;
Rainfall ___Inches

Contractor/Subcontractors and Area of Responsibility
a._____
b._____
c._____
d._____
e._____
f._____
g._____
h._____

1. Work Performed Today:

(Indicate location and description of work performed. Refer to work performed by prime and/or subcontractors by letter in table above.)

_____

2. Results of Control Activities:

(Indicate whether: P-Preparatory, I-Initial, or F-Followup and include satisfactory work completed or deficiencies with action to be taken.)

_____

3. Test Required by Plans and/or Specifications Performed and Results of Tests:

_____

4. Monitoring of Materials and Equipment:

---

5. Offsite Surveillance Activities:

---

6. Job Safety:

(Daily comment required.)

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7. Remarks:

a. (Cover any conflicts in plans, specifications or instructions.)

b. (Action taken in review of submittal.)

c. (Verbal instructions received.)

_____
Inspector

CONTRACTOR'S VERIFICATION:

The above report is complete and correct and all material and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications except as noted above.

_____
Contractor's Approved
Authorized Representative

***5**

SAMPLE

SMALL AND DISADVANTAGED BUSINESS SUBCONTRACTING PLAN

BETTER BUILDERS, INC.

DATE: February 11, 2003

SOLICITATION NO. DACA21-0X-X-XXXX

TITLE: Barracks Complex, Fort Swampy, Georgia

Type of Work: Design and Construction

In accordance with applicable contract clauses of the solicitation noted above, Better Builders, Inc. submits the following Small Business Subcontracting Plan (includes small, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns).

It is company policy to follow all public laws including P.L. 99-661, Section 1207, P.L. 100-180, Section 806, P.L. 105-135 and P.L. 106-50. We have informed all purchasers to follow these laws in hiring subcontractors and buying materials.

1. The following goals (expressed in terms of percentages of the total dollars available for subcontract/purchase order award) would be applicable to a contract awarded under the cited solicitation. You must also provide the dollar amounts for each of the goals listed below.

    a. Total Proposed Contract Amount: $26,961,000

    b. Total amount available for Subcontract award: $18,300,000

    c. Large Business: $7,832,400 – 42.8%

    d. Total amount to be subcontracted to all small business: $10,467,600 - 57.2%

    e. Small Disadvantaged Business: $1,628,700 – 8.9%

    f. Women-Owned Small Business: $1,482,300 – 8.1%

    g. Service-Disabled Veteran-Owned Small Business: $549,000 - 3%

h. HUBZone Small Business: $549,000 – 3%

i. There are no options in this solicitation. ***(NOTE: If there are options in the solicitation you must provide the same information as listed in paragraph 1 a-h for each option year/period.)***

j. Indirect and overhead costs have not been included in the goals specified in this section for amounts available for subcontract/purchase order award.

k. Consideration was given to HCBU/MI's but no opportunities were found to be included in the small disadvantaged business goals.

NOTE: While Savannah District does not have a specific goal for subcontracting with Veteran-Owned small business, it must be addressed in any subcontracting plan. However, FAR 52.219-9 requires a goal in your subcontracting plan for Veteran-Owned small business concerns.

2. The following principal products and/or services will be subcontracted under this contract, and the distribution among all small business concerns are as follows:

Large Business - Earthwork
Small Business - Windows and Storm Doors, Recreation, Site Utilities Plumbing
Veteran Owned Small Business – Materials, Equipment
Service Disabled Veteran Owned Small Business – Asphalt, Electrical, Doors
HUBZone Small Business - Window Treatment, HVAC, Concrete
Small Disadvantaged Business - Vinyl Siding, Insulation, Gutters
Women Owned Small Business – Carpentry, Ceramic Tile, Fencing

NOTE: Company names should be provided for each product and/or service listed.

The following method was used in developing our subcontracting goals: (1) all areas of potential subcontract work were determined to be available for subcontract award to all types of small business concerns, and (2) will be actively recruited for participation through the many sources described hereinafter.

3. The following individual will administer this Subcontract Plan on behalf of Better Builders, Inc.:

Name: Freddie Better Title: Executive Vice President

Address and Telephone Number: 4845 Tonka Drive
Fair Haven, CT 27413
800-621-4845

The individual's specific duties with regard to the conduct of our firm's Subcontracting Plan will include, but will not be limited to the following:

a. Developing and maintaining bidders lists of all types of small business concerns using sources such as the Pronet System developed by the Small Business Administration, the Minority Business Development Agency of the U.S. Department of Commerce, Local Minority Business Development Centers and Minority Contractor Associations, and the General Business Services Center in the project's Standard Metropolitan Statistical Area.

b. Assuring the inclusion of all types of small business concerns in all solicitations for products or services which they are capable of providing; and ensuring that all solicitations are structured to permit the maximum possible participation by all types of small business concerns.

c. Establishing and maintaining records of all solicitations and subcontract awards to all types of small business concerns to ensure that the members of the firm who review bidders proposals document their reasons for selecting or not selecting a bid.

d. Preparing and submitting the Subcontracting Report for Individual Contracts (SF 294) and the Summary Subcontract Report (SF 295) in accordance with the instructions provided on the forms, and coordinating and preparing for all compliance reviews by Federal agencies.

e. Conducting or arranging for all other activities necessary to further the intent and attainment of goals of the Plan to include motivational training of the firm's purchasing personnel attendance at workshop, seminars and trade fairs conducted by or on behalf of all types of small business concerns, and general cooperation with members of these concerns or their representatives.

4. The following steps will be taken to ensure that all types of small business concerns receive notice and have an equitable opportunity to compete for intended awards of subcontracts and/or purchase orders for the products and/or services described in paragraph 2 above:

a. Sources will be requested through the SBA's ProNet system, business development organizations, small business trade associations and at small business procurement conferences; sources will be contacted and bidding materials will be provided to all respond ing parties with interest.

b. Internally, motivational training will be conducted to guide and encourage purchasing personnel; source lists and guides to all types of small business concerns will be maintained and utilized by purchasing personnel while soliciting subcontracts and purchase orders; activities will be monitored to ensure sufficient time is allowed for interested bidders to prepare their bids and to evaluate continuing compliance with this Subcontracting Plan.

5. Better Builders, Inc. agrees that the clause entitled "Utilization of Small Business Concerns" will be included in all subcontracts which offer further subcontracting opportunities. All subcontractors, except small business concerns, who receive subcontracts in excess of $500,000 ($1,000,000 in the case of construction) will be required to adopt and comply with a subcontracting plan similar to this one. Such plans will be reviewed to assure that all minimum requirements of an acceptable subcontracting plan have been satisfied.

The acceptability of goals shall be determined on a case-by-case basis depending on the supplies/services involved, the availability of all potential small business and prior experience. Once approved and implemented, plans will be monitored through the submission of periodic reports or, as time and availability of funds permit, periodic visits to subcontractor's facilities to review applicable records and subcontracting program progress.

6. Better Builders, Inc. agrees to submit such periodic reports and cooperate in any studies or surveys as may be required by the Contracting agency or the Small Business Administration in order to determine the extent of compliance by the offeror with the subcontracting plan and with the clause entitled "Utilization of Small Business Concerns" contained in the solicitation.

7. Better Builders, Inc. agrees to maintain at least the following types of records to document compliance with this Subcontracting Plan:

a. The names of all organizations, agencies, and associations contacted for all small business sources, along with records of attendance at conferences, seminars and trade fairs where additional sources were developed.

b. Source lists, guides, and other data identifying all types of small business concerns

c. Records on all subcontract solicitations, on a contract-by-contract basis, indicating (1) whether all types of small business concerns were solicited, and if not, why not; and (2) the reasons for the failure of all solicited small businesses to receive a subcontract award.

d. Records of all subcontract award data, to include subcontractor's name and address, to be kept on a contract-by-contract basis.

e. Minutes of internal motivational and training meetings held for the guidance and encouragement of purchasing personnel, and records of all monitoring activities performed for compliance evaluation.

f. Copies of SF 294 and SF 295 showing date and place of filing and copies of all

other reports or results of reviews conducted by the contracting agency or other interested agencies of the Federal government to monitor our compliance with this Subcontracting Plan.

In closing Better Builders, Inc. states that it will be the policy of Better Builders, Inc. to afford every practicable opportunity to all types of small business concerns to participate in construction contracts awarded to Better Builders, Inc. by the Federal Government to ensure that equitable opportunity is provided to all types of small business concerns to compete for award of subcontracts and purchase orders, and to diligently pursue the achievement of our goals by participation of all types of small business concerns in the dollars available for subcontract/purchase order award under the solicitation.

BY_____ DATE _____

_____
Signature

_____
Title, and Company Name

_____ DATE _____
Contract Specialist

Approval Recommended

_____ DATE _____
SADBU

Approve/Disapprove

_____ DATE _____
Contracting Officer

Approve/Disapprove

_____ DATE _____
Procurement Center Representative
Small Business Administration

WEEKLY TEMPORARY ELECTRICAL INSPECTION

Week ending _____

Contract No. _____

Contract Description _____

The following items were inspected in accordance with requirements in National Electrical Code and Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1.

1. Wire (size, type, condition).

2. Systems and devices (polarity, continuity of ground, resistance to ground).

3. Resistance of ground rods (25 OHMS) measured and recorded.

4. Check GFI for 15/20 amp 120 volt circuits.

5. Plugs and receptacles (type, NEMA rating).

6. Circuit breakers and disconnect (size, type, weatherproof).

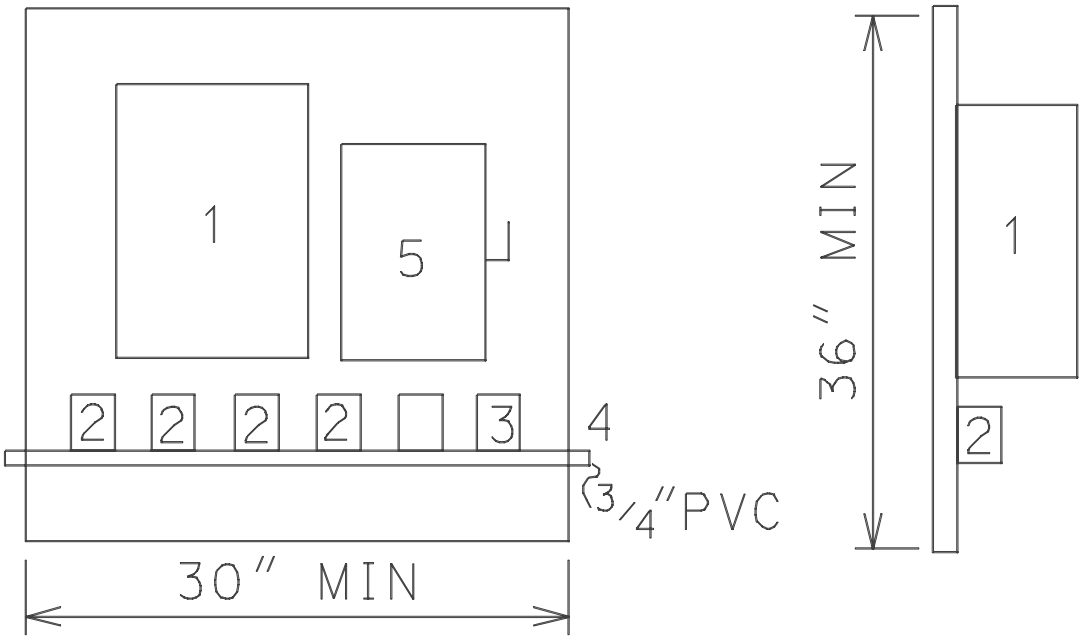
7. Extension cords (type, UL listed, insulation condition, splices, location).

8. Open wiring on insulators, nonmetallic sheathed cable, outside clearance (600 volts or less), Festoon lighting (as applicable).

_____

Signature Electrician/Electrical Engineer

MINIMUM STANDARD FOR TEMPORARY ELECTRICAL SERVICE



(DIMENSIONS ARE APPROXIMATE)

A. The backboard for temporary service shall consist of not less than 1/2 inch plywood of exterior grade.

B. Numbers above correspond to the item below:

Item 1 - NEMA 3R circuit breaker type panelboard. This panelboard shall consist of 1 two-pole 60 amp main circuit breaker, 4* one pole 20 AMP branch circuit breakers, and 1* two pole 20 AMP branch circuit breaker. Breakers shall meet Federal Specifications Standards for Class 1A breakers and shall be plug-in type. (*Number of breakers to be adjusted to suit the job requirements.)

Item 2 - Duplex grounding type convenience outlets in standard utility type outlet boxes with covers, meeting the NEC and NEMA requirements for wet locations. Connections to the branch circuit breakers shall be grounded by two conductors #12 NMC cable.

Item 3 – (Optional) A single three-conductor grounding type outlet rated for 250 volt service meeting the NEC and NEMA requirements for wet locations. Connections from this outlet to the two pole breaker shall be by two conductor grounded type NMC cable.

Item 4 - 3/4 inch PVC. This shall be used to support extension cords.

Item 5 – NEMA 3R service disconnect safety switch – 60 amp minimum.

C. The panelboard shall be grounded by #6 copper wire connected to a 3/4 inch by 10-foot long ground rod.

D. Service to the panel shall consist of three copper conductor #6 minimum service entrance cable. This cable may enter the top or side of the panelboard.

E. Periodic inspections of systems and devices will be made by the Contractor at intervals not to exceed 1 week, and a report will be submitted indicating the results.

F. All receptacle outlets that provide temporary electrical power during construction, remodeling, maintenance, repair, or demolition shall have ground-fault circuit-interrupter (CFCI) protection for personnel. GFCI protection shall be provided on all circuits serving portable electric hand tools or semi-portable electric power tools (such as block/brick saws, table saws, air compressors, welding machines, and drill presses). See EM 385-1-1 for exceptions.

G. Per EM 385-1-1 all temporary power distribution systems shall be submitted to the field office before installation.

ACTIVITY HAZARD ANALYSIS

1. Phase of Construction		
2. Location	3. Contract No.	4. Project
5. Prime Contractor	6. Date of Preparatory	7. Estimated Start Date
Potential Safety Hazard	Procedure to Control Hazard	
8. Contractor's Representative (signature)	9.	

SAS Form 9
1 Jan 82

SAFETY CHECKLIST FOR CRAWLER, TRUCK & WHEEL MOUNTED CRANES

Contract # and title:	
Equipment name & number: owned or leased?	
Contractor:	Subcontractor:
Contract Inspector:	Date inspected:

	Yes	No	N/A
1. Unless the manufacture has specified an on-rubber rating, outriggers will be fully extended and down? (16.D.10)			
2. Are lattice boom cranes equipped with a boom angle indicator, load indicating device, or a load moment indicator? (16.D.01)			
3. Are lattice boom and hydraulic cranes equipped with a means for the operator to visually determine levelness? (16.D.02)			
4. Are lattice boom and hydraulic cranes, except articulating booms cranes, equipped with drum rotation indicators located for use for the operator? (16.D.03)			
5. Are lattice boom and hydraulic mobile cranes equipped with a boom angle or radius indicator within the operator’s view? (16.D.04)			
6. Are lattice boom cranes, with exception of duty cycle cranes, equipped with an anti-two blocking device? (16.D.05)			
7. When duty cycle machines are required to make a non-duty lift, is the crane equipped with an international orange warning device and is a signal person present? (16.D 05)			
8. Are the following with the crane at all times: (16.C.02) a. the manufacturer’s operating manual? b. the load rating chart? c. the crane’s log book documenting use, maintenance, inspections and tests? d. operating manual for crane operator aids used on the crane.			

	Yes	No	N/A
9. Are the following on the project site: a. completed periodic inspection report prior to initial work? (16.C.12) b. pre-operational checklist used for daily inspection? (16.C.12) c. written reports of the operational performance test? (16.C.13) d. written reports of the load performance test? (16.C.13)			
10. Are all operators physically qualified to perform work? (16.C.05)			
11. Are all operators qualified by written and practical exam or by appropriate licensing agency for the type crane they are to operate? (16.C.05)			
12. Is the crane designed and constructed IAW the standards listed in Table 16-1? (16.C.06)			
13. Is a hazard analysis for set-up and set-down available? (16.C.08)			
14. Are accessible areas within the swing radius of the rear of the crane barricaded? (16.C.09)			
15. Are there at least 3 wraps of cable on the drum? (16.C.10)			
16. Are the hoisting ropes installed IAW the manufacturer’s recommendations? (16.C.10)			
17. Are critical lift plans available? (16.C.18)			
18. Are minimum clearance distance for high voltage lines posted at the operator’s position? (11.E.04)			
19. Do older lattice boom cranes with anti-two block warning devices in lieu of anti-two block prevention devices have a written exemption? (16.D.05)			
20. Is the slow moving emblem used on all vehicles which by design move at 25 MPH or less on public roads? (08.A.04)			
21. Are all vehicles which will be parked or moving slower than normal traffic on haul roads equipped with a yellow flashing light or flasher visible from all directions? (16.A.13)			

	Yes	No	N/A
22. Is all equipment to be operated on public roads provided with: (16A.07) a. headlights? b. brake lights? c. taillights? d. back-up lights? e. front and rear turn signals?			
23. Are seat and seat belts provided for the operator and each rider on equipment? (16.A.07 and 16.B.08)			
24. Is all equipment with windshields equipped with powered wipers and defogging or defrosting devices? (16.A.07)			
25. Is the glass in the windshield or other windows clear and unbroken to provide adequate protection and visiblity for the operator? (16.A.07, 16.B.10)			
26. Is all equipment equipped with adequate service brake system and emergency brake system? (16.A.18)			
27. Are areas on equipment where employees walk or climb equipped with platforms, footwalks, steps, handholds, guardrails, toeboards and non-slip surfaces? (16.B.03)			
28. Is all self propelled equipment equipped with automatic, audible, reverse signal alarms? (16.B.01)			
29. Is there a record of manufacturer’s approval of any modification of equipment which affects its capacity or safe operation? (16.A.18)			
30. Are truck and crawler cranes attached to a barge or pontoon by a slack tiedown system? (16.F.06)			
31. Have the following conditions been met for land cranes mounted on barges or pontoons: (16.F.04) a. Have load ratings been modified to reflect the increased loading from list, trim, wave, and wind action? b. Are all deck surfaces above the water? c. Is the entire bottom area of the barge or pontoon submerged? d. Are tie downs available? e. Are cranes blocked and secured?			
32. Are all belts, gears, shafts, spindles, drums, flywheels, or other rotating parts of equipment guarded where is a potential for exposure to workers? (16.B.03)			

	Yes	No	N/A
33. Is the area where the crane is to work level, firm and secured? (16.A.10)			
34. Is a dry chemical or carbon dioxide fire extinguisher rated at least 5-B:C on the crane? (16.A.26)			
35. Are trucks, for truck mounted cranes, equipped with a working reverse signal alarm? (16.B.01)			
36. Is a signal person provided where there is danger from swinging loads, buckets, booms, etc.? (16.B.13)			
37. Is there adequate clearance from overhead structures and electrical sources for the crane to be operated safely? (16.C.09)			
38. Is there adequate lighting for night operations? (16.C.19)			
39. Has the the boom stop test on cable-supported booms been performed? (16.D.06)			
40. Is the boom disenaging device functioning as required? (16.D.06)			
41. Has all rigging and wire rope been inspected? (Section 15)			
Remarks:(Enter actions taken for all “no” answers.)			
Contractor inspector signature			
Contractor QC/safety officer/project manager signature			

SAFETY CHECKLIST FOR PORTAL, TOWER, AND PILLAR CRANES

Contract # and Title:			
Equipment name & number: owned or leased?			
Contractor:	Subcontractor:		
Contract Inspector:	Date Inspected:		
	Yes	No	N/A
1. Are the following available: (16.E.02) a. written erection instructions? b. listing of the weight of each component? c. an activity hazard analysis for the erection? d. does the activity hazard analysis contain (1.) location of crane and adjacent structures? (2.) foundation design and construction requirements? (3.) clearance and bracing requirements?			
2. Is there a boom angle indicator within the operator's view? (16.E.04)			
3. Are luffing jib cranes equipped with: (16.E.05) a. shock absorbing jib stops? b. jib hoist limit switch? c. jib angle indicator visible to operator?			
4. If used, do rail clamps have slack between the point of attachment to the rail and the end fastened to the crane? (16E.06)			
5. Are the following with the crane at all times: (16.C.02) a. the manufacturer's operating manual? b. the load rating chart? c. the crane's log book documenting use, maintenance, inspections and tests? d. the operating manual for crane operational aids used on the crane?			

	Yes	No	N/A
6. Are the following on the project site: a. completed periodic inspection report prior to initial work? (16.C.12) b. pre-operational checklist used for daily inspections? (16.C.12) c. written reports of the operational performance tests? (16.C.13) d. written reports of the load performance tests? (16.C.13)			
7. Is every crane operator certified by a physician to be physically qualified to perform work? (16.C.05)			
8. Are all operators qualified by written and practical exam or by appropriate licensing agency for the type crane they are to operate? (16.C.05)			
9. Is the crane designed and constructed IAW the standards listed in Table 16-1? (16.C.05)			
10. Is a hazard analysis for set-up and set-down available? (16.C.08)			
11. Are there at least 3 wraps of cable on the drum? (16.C.10)			
12. Are the hoisting ropes installed IAW the manufacturer’s recommendations? (16.C.10)			
13. Is the a record of manufacturer’s approval of any modification of equipment which affects its capacity or safe operation? (16.A.07)			
5. Remarks: (Enter actions taken)			
Contractor inspector signature			
Contractor QC/safety officer/project manager signature			

SAFETY CHECKLIST FOR RIGGING

Contract # and title:			
Equipment name & number: owned or leased?			
Contractor	Subcontractor:		
Contractor inspector:	Date inspected:		
	Yes	No	N/A
1. Has all defective rigging been removed? (15.A.01)			
2. Is rigging stored properly? (15.A.01)			
3. Are running lines within 6.5’ of the ground or working level guarded? (15.A.03)			
4. Are all eye splices made in an approved manner with rope thimbles? (sling eyes excepted) (15.A.04)			
5. Are positive latching devices used to secure loads? (15.A.05)			
6. Are all custom lifting accessories marked to indicate their safe working loads? (15A.07)			
7. Are all custom designed lifting accessories proof-tested to 125% of their rated load? (15.A.07)			
8. Are the following conditions met for wire rope: (15.B.01-09) a. Are they free of rust or broken wires? b. Are defective ropes cut up or marked as unusable? c. Do rope clips attached with U-bolts have the U-bolts on the dead end or short end of the rope? d. Are protruding ends of strands in splices on slings and bridles covered or blunted? e. Except for eye splices in the end of wires and for all endless wire rope slings, are all wire ropes used in hoisting, lowering, or pulling loads one continuous piece, free of knots or splices?			

	Yes	No	N/A
f. Do all eye splices have at least 5 full tucks? g. If used, are wedge sockets fastening attached without attached the dead end of the wire rope to the live rope? h. Are they free of eyes or splices formed by wire rope clips or knots?			
9. Are the following conditions met for chain? (15.C.01-04) a. Are all chains alloyed? b. Do all coupling links or other attachments have rated capacities at least equal to that of the chain. c. Are makeshift fasteners restricted from use?			
10. Are the following conditions met for fiber rope:(15.D.01-07) a. Are all ropes protected from freezing, excessive heat or corrosive materials? b. Are all ropes protected from abrasion? c. Are splices made IAW manufacture's recommendations? d. Do all eye splices in manila rope contain at least 3 full tucks and do all short splices contain at least 6 full tucks(3 on each side of the centerline of the splice)? e. Do all splices in layed synthetic fiber rope contain at least 4 full tucks and do short splices contain at least 8 full tucks (4 on each side of the centerline of the splice)? f. Do the tails of fiber rope splices extend at least 6 rope diameters (for rope 1" diameter or greater) past the last full tuck? g. Are all eye splices large enough to provide an included angle of not greater than 60* at the splice when the eye is placed over the load or support?			
11. Are the following conditions met for all slings:(15.E.01-06) a. Is protection provided between the sling and sharp surfaces? b. Do all rope slings have minimum clear length of 40 times the diameter of component ropes between each end fitting or eye splice? c. Do all braided slings have a minimum clear length of 40 times the diameter of component ropes between each end fitting or eye splice?			

	Yes	No	N/A
d. Do all welded alloy steel chain slings have affixed permanent identification stating size, grade, rated capacity and manufacturer? e. Is each synthetic web sling marked or coded to identify its manufacturer, rated capacities for each type hitch and the type material?			
12. Are drums, sheaves, and pulley smooth and free of surface defects? (15.F.01)			
13. Is the ratio of the diameter of the rigging and the drum, block sheave or pulley thread diameter such that the rigging will adjust without excessive wear, deformation, or damage? (15F.02)			
14. Have all damaged drums, sheaves and pulleys been removed from service? (15.F.04)			
15. Are all connections, fittings, fastenings, and attachments of good quality, proper size and strength, and installed IAW manufacturer's recommendations? (15.F.05)			
16. Are all shackles and hooks sized properly? (15.F.06 & .07)			
17. Are hoisting hooks rated at 10 tons or greater provided with safe handling means? (15.F.07)			
18. Do all drums have sufficient rope capacity? (15.F.08)			
19. Is the drum end of the rope anchored by a clamp securely attached to the drum in a manner approved by the manufacturer? (15.F.08)			
20. Do grooved drums have the correct groove pitch for the diameter of the rope and is the groove depth correct? (15.F.08)			
21. Do the flanges on grooved drums project beyond the last layer of rope at a distance of either 2″ or twice the diameter of the rope, whichever is greater? (15.F.08)			
22. Do the flanges on ungrooved drums project beyond the last layer of rope a distance of either 2.5″ or twice the diameter of the rope, which ever is greater.			

	Yes	No	N/A
23. Are the sheaves compatible with the size of rope used and as specified by the manufacture? (15F.09)			
24. Are sheaves properly aligned, lubricated, and in good condition? (15.F.09)			
25. When rope is subject to riding or jumping off a sheave, are sheaves equipped with cablekeepers? 915.F.09)			
26. Are eye bolts loaded in the plane of the eye and at angles less than 45* to the horizontal? (15.F.10)			
27. Remarks: (Enter actions taken for “no” answers.)			
Contractor inspector signature			
Contractor QC/safety/project manager signature			

SAFETY CHECKLIST FOR MOTOR VEHICLES , TRAILERS AND TRUCKS

Contract # and title: owned or leased?	
Equipment name & number:	
Contractor:	Subcontractor:
Contractor inspector:	Date inspected:

	Yes	No	N/A
1. Are records of safety inspections of all vehicles available? (18.A.02)			
2. Are all vehicles to be operated between sunset and sunrise equipped with: (18.A.04) a. 2 headlights? b. taillights and brake lights? c. front and back turn signals? d. 3 emergency flares, reflective markers, or equivalent portable warning devices?			
3. Are vehicles, except trailers or semi-trailers having a gross weight of 5000 lbs or less, equipped with service brakes and manually operated parking brakes? (18.A.05)			
4. Are service brakes on trailers and semitrailers controlled from the driver’s seat of the prime mover? (18A.06)			
5. Does the vehicle have: (18.A.06) a. a speedometer? b. a fuel gage? c. an audible warning device (horn)? d. a windshield & adequate windshield wiper? e. an operable defroster and defogging device? f. an adequate rearview mirror? g. a cab, cab shield, and other protection to protect the driver from the elements and falling or shifting materials? h. non-slip surfaces on steps? I. a power-operated starting device?			

	Yes	No	N/A
6. Is all the glass safety glass and is all broken or cracked glass replace? (18.A.07)			
7. Do trailers meet the following: (18A.08) a. Are all towing devices adequate for the weight drawn? b. Are all towing devices properly mounted? c. Are locking devices or a double safety system provided on every 5th wheel mechanism and tow bar arrangement to prevent accidental separation? d. Are trailers coupled with safety chains or cables to the towing vehicle? e. Are trailers equipped with the power brakes equipped with a break-away device which will lock-up the brakes in the event the trailer separates from the towing vehicle?			
8. Are all dump trucks:(18.A.10) a. equipped with a holding device to prevent accidental lowering of the body? b. equipped with a hoist lever secured to prevent accidental starting or tipping? c. equipped with means to determine (from the operator’s position) if the dump box is lowered? d. equipped with trip handles for tailgates that allow the operator to be clear?			
9. Are all buses, trucks and combination of vehicles with a carrying capacity of 1.5 tons or more, to be operated on public roads equipped with: (18.A.11) a. 3 reflective markers? b. 2 wheel chocks for each vehicle? c. at least one 2A:10B:C fire extinguisher? d. at least two properly rated fire extinguishers (for vehicles carrying flammable cargo)? e. a red flag not less than 1 foot square.			
10. Is vehicle exhaust controlled so as not to present a hazard to personnel? (18.A.13)			
11. Are all rubber tired motor vehicles equipped with fenders or with mud flaps if the vehicle is not designed for fenders? (18.A.14)			

	Yes	No	N/A
12. Are all vehicles, except buses, equipped with seat belts? (18.B.02)			
13. Does all self-propelled construction and industrial equipment have a working reverse signal alarm? (16.B.01)			
14. Are all hot surfaces of equipment, including exhaust pipes or other lines, guarded or insulated to prevent injury or fire? (16.B.03)			
15. If an off the road vehicle, is it equipped with rollover protective structures? (16.B.12)			
16. Remarks: (Enter actions taken for “no” answers)			
Contractor inspector signature			
Contractor QC/safety officer/project manager signature			

SAFETY CHECKLIST FOR CRAWLER TRACTORS AND DOZERS

Contract # and title:	
Equipment name & number: owned or leased?	
Contractor:	Subcontractor:
Contractor inspector:	Date inspected:

	Yes	No	N/A
1. Are initial and daily/shift inspection records available? (16.A.01& .02)			
2. Are only qualified operators assigned to operate mechanized equipment? (16.A.04)			
3. Are sufficient lights provided for night operations? (16.A.11)			
4. Is the unit shut down before refueling? (16.A.14)			
5. Does the unit have as a minimum a 5-B:C fire extinguisher? (16.A.26)			
6. Is there an effective, working reverse alarm? (16.B.01)			
7. Are moving parts, shafts, sprockets, belts, etc., guarded? (16.B.03 ,07, and 13)			
8. Is protections against hot surfaces, exhausts, etc., provided? (16.B.03 and .13)			
9. Are fuel tanks located in a manner to prevent spills or overflows from running onto engine exhaust or electrical equipment?			

	Yes	No	N/A
10. Are exhaust discharges directed so they do not endanger person of obstruct operator vision?(16.B.05)			
11. Are seat belts provided? (16B.08)			
12. Is protection (grills, canopies, screens) provided to shield operator from falling or flying objects? (16.B.10 and .11)			
13. Is roll over protection provided? (16.B.12)			
14. Remarks: (Enter actions taken for “no” answers)			
Contractor inspector signature			
Contractor QC/safety officer/project manager signature			

SAFETY CHECKLIST FOR SCRAPERS, MOTOR GRADERS , AND OTHER MOBILE EQUIPMENT

Contract # and title:	
Equipment name and number: owned or leased?	
Contractor:	Subcontractor:
Contractor inspector:	Date inspected:

	Yes	No	N/A
1. Are initial and daily/shift inspection records available? (16.A.01 & .02)			
2. Are only qualified operators assigned to operate equipment? (16.A.04)			
3. Are sufficient lights provided for night operations? (16.A.11)			
4. Does the unit have as a minimum a 5-B:C fire extinguisher? (16.A.26)			
5. Is there an effective working reverse alarm? (16.B.01)			
6. Is the unit shut down for refueling? (16.A.14)			
7. Are moving parts, shafts, sprockets, belts, etc., guarded? (16.B.03, .07 and .13)			
8. Is protection against hot surfaces, exhausts, etc., provided? (16.B.03 and .13)			
9. Are fuel tanks located in a manner to prevent spills or overflow from running onto engine exhaust or electrical equipment? (16.B.04)			
10. Are exhaust discharges directed so they do not endanger persons or obstruct operator vision? (16.B.05)			

	Yes	No	N/A
11. Are seat belts provided for each person required to ride on the equipment? (16.B.08)			
12. Is protection (grills, canopies, screens) provided to shield operators from falling or flying objects? (16.B.10 and .11)			
13. Is roll over protection provided? (16.B.12)			
14. Is a safe means of access to the cab provided (steps, grab bars, non-slip surfaces)? (16.B.03)_			
15. Are adequate head and tail lights provided? (16.A.07)			
16. Have brakes been tested and found satisfactory? (16.A.07)			
17. Does the unit have an emergency brake which will automatically stop the equipment upon brake failure? Is this system manually operable from the drivers position? (16.A.07)			
18. Is all equipment with windshields equipped with powered wipers and defogging or defrosting system? (16.A.07)			
19. Are all vehicles which will be parked or moving slower than normal traffic on haul roads equipped with a yellow flashing light or flasher visible from all directions? (16.A.13)			
20. Is the slow moving emblem used on all vehicles which by design move at 25 MPH or less on public roads? (08A.04)			

	Yes	No	N/A
21. Have air tanks been tested and certified? (20.A.01)			
22. Is an air pressure gage in working condition installed on the unit? (20.A.12)			
23. Does the air tank have an accessible drain valve? (20.B.17)			
24. Remarks: (Enter action taken for all “no” answers)			
Contractor inspector signature			
Contractor QC/safety officer/project manager			

SAFETY CHECKLIST FOR MATERIAL HOISTS

Contract # and title:	
Equipment name & number:	
Contractor:	Subcontractor:
Contract Inspector:	Date inspected:

	Yes	No	N/A
1. Are all hoist towers, masts, guys or braces, counterweights, drive machinery supports, sheave supports, platforms, supporting structures, and accessories designed by a licensed engineer? (16.K.02)			
2. Is a copy of the hoist operating manual available? (16.K.04)			
3. Do all floors and platforms have slip-resistant surfaces? (16.K.08)			
4. Are landings and runways adequately barricaded and is overhead protection provided where needed? (16.K.08)			
5. Are hoisting ropes installed IAW manufacturer's instructions? (16.K.10)			
6. Are operating rules posted at the hoist operator's station? (16.K.14)			
7. Are air powered hoists connected to an air supply of sufficient capacity and pressure to safely operate the hoist? (16.K.15)			
8. Are pneumatic hoses secured by some positive means to prevent accidental disconnection? (16.K.15)			
9. Remarks: (Enter actions taken for all "no" answers.)			
Contractor inspector signature			
Contractor QC/safety officer/project manager signature			

SAD Form 1666g-R Mar 97 Previous editions may be used for contracts referencing the 1992 edition of EM 385-1-1.

SAFETY CHECKLIST FOR EARTH DRILLING EQUIPMENT

Contract # and title:	
Equipment name & number:	
Contractor:	Subcontractor:
Contractor inspector:	Date inspected:

	Yes	No	N/A
1. Is a copy of the manual for all drilling equipment available? (16.M.01)			
2. Have all overhead electrical hazards and potential ground hazards been identified in a site layout plan and addressed in an activity hazard analysis? (16.M.02)			
3. Are MSDSs for all drilling fluids available? (16.M.05)			
4. Does the drilling equipment have 2 easily accessible emergency shut down devices (one for the operator and one for the helper)? (16.M.06)			
5. Is the equipment posted with a warning of electrical hazards? (16.M.06)			
6. Is there a spotter or an electrical proximity warning device available to ensure safe distances from power lines are maintained? (16.M.06)			
7. Remarks: (Enter actions taken for “no” answers)			
Contractor inspector signature			
Contractor QC/safety officer/project manager			

SAD Form 1666h-R Mar 97 Previous editions may be used for contracts referencing the 1992 edition of EM 385-1-1.

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE *(Read instructions on the reverse side prior to initiating this form)*	DATE	TRANSMITTAL NO.

SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS *(This section will be initiated by the contractor)*

TO:	FROM:	CONTRACT NO.	CHECK ONE: ☐ THIS IS A NEW TRANSMITTAL ☐ THIS IS A RESUBMITTAL OF TRANSMITTAL _____
SPECIFICATION SEC. NO. *(Cover only one section with each transmittal)*	PROJECT TITLE AND LOCATION		CHECK ONE: THIS TRANSMITTAL IS FOR ☐ FIO ☐ GOV'T. APPROVAL

ITEM NO. *a.*	DESCRIPTION OF ITEM SUBMITTED *(Type size, model number/etc.)* *b.*	MFG OR CONTR. CAT., CURVE DRAWING OR BROCHURE NO. *(See instruction no. 8)* *c.*	NO. OF COPIES *d.*	CONTRACT REFERENCE DOCUMENT		FOR CONTRACTOR USE CODE *g.*	VARIATION *(See instruction No. 6)* *h.*	FOR CE USE CODE *i.*
				SPEC. PARA. NO. *e.*	DRAWING SHEET NO. *f.*			

REMARKS	I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as other wise stated. NAME AND SIGNATURE OF CONTRACTOR

SECTION II - APPROVAL ACTION

ENCLOSURES RETURNED *(List by Item No.)*	NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY	DATE

INSTRUCTIONS

1. Section I will be initiated by the Contractor in the required number of copies.

2. Each transmittal shall be numbered consecutively in the space provided for "Transmittal No.". This number, in addition to the contract number, will form a serial number for identifying each submittal. For new submittals or resubmittals mark the appropriate box; on resubmittals, insert transmittal number of last submission as well as the new submittal number.

3. The "Item No." will be the same "Item No." as indicated on ENG FORM 4288-R for each entry on this form.

4. Submittals requiring expeditious handling will be submitted on a separate form.

5. Separate transmittal form will be used for submittals under separate sections of the specifications.

6. A check shall be placed in the "Variation" column when a submittal is not in accordance with the plans and specifications--also, a written statement to that effect shall be included in the space provided for "Remarks".

7. Form is self-transmittal, letter of transmittal is not required.

8. When a sample of material or Manufacturer's Certificate of Compliance is transmitted, indicate "Sample" or "Certificate" in column c, Section I.

9. U.S. Army Corps of Engineers approving authority will assign action codes as indicated below in space provided in Section I, column i to each item submitted. In addition they will ensure enclosures are indicated and attached to the form prior to return to the contractor. The Contractor will assign action codes as indicated below in Section I, column g, to each item submitted.

THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED

A -- Approved as submitted.

B -- Approved, except as noted on drawings.

C -- Approved, except as noted on drawings.
Refer to attached sheet resubmission required.

D -- Will be returned by separate correspondence.

E -- Disapproved (See attached).

F -- Receipt acknowledged.

FX -- Receipt acknowledged, does not comply as noted with contract requirements.

G -- Other *(Specify)*

10. Approval of items does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

(Reverse of ENG Form 4025-R)

COST ESTIMATE ANALYSIS

For use of this form, see TM 5-800-2; the proponent agency is USACE.

PROJECT	INVITATION/CONTRACTOR	EFFECTIVE PRICING DATE	DATE PREPARED
LOCATION	CODE (Check one) ☐ A ☐ B ☐ C ☐ OTHER	DRAWING NO.	SHEET OF SHEETS
		ESTIMATOR	CHECKED BY

TASK DESCRIPTION	QUANTITY		LABOR				EQUIPMENT		MATERIAL		TOTAL	SHIPPING	
	NO. OF UNITS	UNIT MEAS	MH UNIT	TOTAL HRS	UNIT PRICE	COST	UNIT PRICE	COST	UNIT PRICE	COST		UNIT WT	TOTAL WT
TOTAL THIS SHEET													

DA FORM 5418-R, Apr 85

TRANSFER AND ACCEPTANCE OF MILITARY REAL PROPERTY

Form Approved
OMB No. 0704-0188

PAGE OF PAGES

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, Va 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. **FROM** *(Installation/Activity/Service and Zip code)*	2. OPERATING UNIT	3. DISTRICT CODE	4. OPERATING AGENCY	5. DATE	6. JOB NUMBER	7. SERIAL NUMBER	8. CONTRACT NUMBER

9. **TO** *(Installation/Activity/Service and Zip code)*	10. OPERATING UNIT	11. DISTRICT CODE	12. OPERATING AGENCY	13. ACCOUNTING NUMBER	14. ACCOUNTABLE OFFICE NUMBER	15. TYPE OF TRANSACTION		16. PROJECT NUMBER
						A. ☐ NEW CONSTR. ☐ EXISTING FAC. ☐ CAPITAL IMP. ☐ OTHER *(Specify)*	B. ☐ BENF/O ☐ PHYSICAL COM. ☐ FINAN. COM. ☐ OTHER *(Specify)*	

ITEM NO. 17	CATEGORY CODE 18	FACILITY *(Category description)* 19	NO. OF UNITS 20	TYPE 21	UNIT OF MEAS. 22	TOTAL QUANTITY 23	COST 24	DRAWING NUMBERS 25	REMARKS 26

27.		28. ACCEPTED BY *(Signature)*	DATE
TRANSFERRED BY *(Signature)*	DATE	TITLE *(Post Engr./Base Civ. Engr./Navy Rep.)*	29. PROPERTY VOUCHER NUMBER
TITLE *(Area Engr./Base Engr./DPWO)*			

30. CONSTRUCTION DEFICIENCIES

31. REMARKS

INSTRUCTIONS

This form has been designed and issued for use in connection with the transfer of military real property between the military departments and to or from other government agencies. It supersedes ENG Forms 290 and 290B (formerly used by the Army and Air Force) and NAVDOCKS Form 2317 (formerly used by the Navy).

Existing instructions issued by the military departments relative to the preparation of the three superseded forms are applicable to this form to the extent that the various items and columns on the superseded forms have been retained. Additional instructions, as appropriate, will be promulgated by the military departments in connection with any new items appearing hereon.

With the issuance of this DD form, it is not intended that the departments shall revise and reprint manuals and directives simply to show the number of this DD form. Such action can be accomplished through the normal course of revision for other reasons.

Approved by OM 0348-0046

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352
(See reverse for public burden disclosure.)

1. Type of Federal Action:

☐ a. contract
b. grant
c. cooperative agreement
d. loan
e. loan guarantee
f. loan insurance

2. Status of Federal Action:

☐ a. bid/offer/application
b. initial award
c. post-award

3. Report Type:

☐ a. initial filing
b. material change

For Material Change Only:
year _____ quarter _____
date of last report _____

4. Name and Address of Reporting Entity:

☐ Prime ☐ Subawardee
Tier _____, *if known*:

Congressional District, *if known:*

5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime:

Congressional District, *if known*:

6. Federal Department/Agency:

7. Federal Program Name/Description:

CFDA Number, *if applicable*: _____

8. Federal Action Number, *if known*:

9. Award Amount, *if known*:

$

10. a. Name and Address of Lobbying Entity
(*if individual, last name, first name, MI):*

b. Individuals Performing Services *(including address if different from No. 10a)*
(last name, first name, MI):

(attach Continuation Sheet(s) SF-LLL-A, *if necessary*)

11. Amount of Payment *(check all that apply)*:

$ _____ ☐ actual ☐ planned

12. Form of Payment *(check all that apply)*:

☐ a. cash
☐ b. in-kind; specify: nature _____
value _____

13. Type of Payment *(check all that apply)*:

☐ a. retainer
☐ b. one-time fee
☐ c. commission
☐ d. contingent fee
☐ e. deferred
☐ f. other; specify: _____

14. Brief Description of Services Performed or to be Performed and Date(s) of Service, including officer(s), employee(s), or Member(s) contacted, for Payment indicated in Item 11:

(attach Continuation Sheet(s) SF-LLL-A, *if necessary*)

15. Continuation Sheet(s) SF-LLL-A attached: ☐ Yes ☐ No

16. Information requested through this form is authorized by title 31 U.S.C section 1352. This disclosure of lobbyig activities is a materia representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352 . This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to

Signature: _____

Print Name: _____

Title: _____

Telephone No.: _____ **Date:** _____

Federal Use Only:

Authorized for Local Reproduction

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with a covered Federal action. Use the SF-LLL-A Continuation Sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.

2. Identify the status of the covered Federal action.

3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.

4. Enter the full name, address, city, state and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.

5. If the organization filing the report in item 4 checks “Subawardee”, then enter the full name, address, city, state and zip code of the prime Federal recipient. Include Congressional District, if known.

6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.

7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.

8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., “RFP-DE-90-001.”

9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.

10. (a) Enter the full name, address, city, state and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influence the covered Federal action.

    (b) Enter the full names of the individuals(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).

11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.

12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.

13. Check the appropriate box(es). Check all boxes that apply. If other, specify nature.

    Provide a specific and detailed description of the services that the lobbyist has performed, or will be expected to perform, and the date(s) of any services rendered. Include all preparatory and related activity, not just time spent in

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503.

DISCLOSURE OF LOBBYING ACTIVITIES
CONTINUATION SHEET

Approved by OM
0348-0046

Reporting Entity: _____ Page ____ of ____ ____

*U.S. G.P.O. 1990-260-708:00012

DIRECTORATE OF ENGINEERING & HOUSING
EXCAVATION PERMIT

FB Reg 420-13 DATE

1. CLEARANCE IS REQUIRED TO PROCEED WITH WORK AT
_____

ON WORK ORDER NO _____ CONTRACT NO
_____

2. METHOD OF EXCAVATION	A.HAND		B.POWER SHOVEL		C. DITCHER		D. OTHER (SPECIFY)

3. SCOPE OF WORK (DEPTH, WIDTH, LENGTH, LOCATION, AND SKETCH AS APPLICABLE)
IF CONTRACT A COPY OF APPLICABLE DRAWINGS OR SKETCHES MUST BE ATTACHED.

4. DATE CLEARANCE REQUESTED	5. TERMINATION DATE OF CLEARANCE (60 DAYS UNLESS SPECIFIED)	
6. REQUESTING ORGANIZATION OR COMPANY	7. PHONE NUMBER	8. SIGNATURE (REQUESTING OFFICIAL)

9. EXCAVATION CLEARANCE APPROVAL

UTILITY	REMARKS	SIGNATURE OF APPROVING OFFICIAL	DATE
ELECTRICAL UNDERGROUND DISTRIBUTION			
STEAM OR HTW DISTRIBUTION			
CHILLER DISTRIBUTION			
SEWER LINES			
WATER DISTRIBUTION			
NATURAL GAS DISTRIBUTION			
TELEPHONE (DOIM)			
OTHER			
TELEPHONE (CT&T)			

FB Form 1605 DIGGING WILL NOT BE PERMITTED UNLESS SIGNED
1 May 87 (AFZA-DE) Previous Edition is Obsolete.

AFZA-DE-RJ (420-10c) Date: _____

MEMORANDUM FOR DEH ENVIRONMENTAL OFFICE

SUBJECT: Landfill Permit Application

1. Fill in the following information for each Contractor vehicle:

a. Landfill to Be Used: Sanitary _____ Demolition _____ Both _____

b. Company Name: _____

c. Contract Number: _____

d. Project Title: _____

e. Project Location: _____

f. Date of Notice to Proceed: _____

g. Project Length (In Days): _____

h. Vehicle Make: _____

i. Vehicle License Plate Number: _____

j. Contract Inspector: _____

2. Note: Applications must be forwarded to the Environmental Office by a Government Official (e.g., Contracting Officer's Representative or Project Inspector). Applications delivered on any working day will be processed and available for pickup the following workday by 0830.

FORT BRAGG ASBESTOS REMOVAL, TRANSPORTATION, AND
DISPOSAL DOCUMENTATION FORM

1. REMOVAL: ON _____ _____ (SY/LF/CF/OR POUNDS) OF ASBESTOS CONTAINING MATERIAL REMOVED FROM BUILDING #_____, _____ (STREET ADDRESS), FORT BRAGG, NC, PER _____ (WORK ORDER/CONTRACT NUMBER) WAS PREPARED FOR MOVEMENT TO THE LANDFILL UNDER THE SUPERVISION OF _____ (PRINT NAME OF SUPERVISOR) REPRESENTING _____ (NAME OF FIRM/ORGANIZATION.

_____ (SIGNATURE OF SUPERVISOR)

2. TRANSPORTATION: ON _____ THE ACM MENTIONED ABOVE WAS TRANSPORTED ON THE VEHICLE AUTHORIZED BY LANDFILL VEHICLE PERMIT NUMBER _____ BY _____(PRINT NAME OF DRIVER) _____ (SIGNATURE OF DRIVER) TO THE LONGSTREET LANDFILL ON LONGSTREET ROAD, FORT BRAGG, NC.

3. DISPOSAL: THE ACM DESCRIBED IN PARAGRAPH 1 WAS DELIVERED BY THE VEHICLE IDENTIFIED ABOVE TO THE LONGSTREET LANDFILL AND RECEIVED BY _____ (PRINT NAME OF LANDFILL OPERATOR)

I CERTIFY THAT THE LANDFILL HAS BEEN APPROVED FOR THE DISPOSAL OF ASBESTOS. THE MATERIAL DELIVERED WILL BE COVERED WITH NONASBESTOS MATERIAL IN THE PRESCRIBED MANNER.

_____
(PRINT NAME OF OPERATOR)

_____
(SIGNATURE)

_____
(DATE)

REAL PROPERTY INVENTORY

ITEM	TALLY	TOTAL
COMMODES		
LAVATORIES		
URINALS		
EXHAUST FAN (9")		
EXHAUST FAN (OTHER)		
WATER COOLER		
HOTWATER HEATER		
MOP SINK		
AC PLANT	LS 5 TN. 5-25 TN. 25-100 TN. OVER 100 TN.	
AS (WINDOW TYPE)		
FIRE ALARM SYSTEM	MANUAL HALON SPRINKLER	
EMERGENCY LIGHTS		
UNIT HEATER		
STRIP HEATER		
COOLING TOWER		
WALK-IN COOLER		
AIR CURTAIN		
EYE WASH		
SHOWERS		
BOILER	GAS FIRED OIL FIRED STEAM	
FUEL TANK	UNDERGROUND OUTSIDE	

REAL PROPERTY INVENTORY

ITEM	TALLY	TOTAL
WASH BASIN		
AIR COMPRESSOR		
HOISTS		
INVENTORY BY:		DATA:
RECONCILED BY:		DATA:

REAL PROPERTY INVENTORY

ITEM	TALLY	TOTAL
INVENTORIED BY:		DATE:
RECONCILED BY:		DATE:

CONTRACTOR PREPARED NETWORK ANALYSIS SYSTEM (NAS) FOR DESIGN–BUILD CONTRACTS—PROJECT SCHEDULE (SAS Sept 01)

16th MP BARRACKS COMPLEX FORT BRAGG, NC

A. REFERENCES

The publications listed below form a part of the specification to the extent referenced. The publication is referenced in the text by basic designation only.

ER 1-1-11 Progress, Schedules, and Network Analysis Systems (June 1995)

B. CONTRACTOR SCHEDULING REPRESENTATIVE

The Contractor shall designate a scheduling representative (the individual tasked with the responsibility for preparation-updating-revision of the NAS schedule) who shall be responsible for the preparation and submittal of the entire NAS project schedule including all items specified below and revisions to the schedule or supplemental completion schedules, as applicable or directed by the Contracting Officer. The scheduling representative shall be approved by the Contracting Officer based on a resume indicating as a minimum, formal training from software vendor or 5 years experience in working with NAS schedules.

C. GENERAL REQUIREMENTS

Pursuant to the Contract Clause FAR 52.236-15, SCHEDULES FOR CONSTRUCTION CONTRACTS, the Contractor shall prepare the NAS Project Schedule as described below. The NAS Project Schedule shall be a composite schedule including the design and construction activities. The scheduling of construction shall be the responsibility of the Contractor. Contractor management and superintendent personnel shall actively participate in its development. Subcontractors and suppliers working on the project should actively participate in developing and maintaining an accurate NAS Project Schedule and the prime contractor shall verify their support for the submitted schedule in writing. The Contractor shall include this written verification with the initial submittal and all revisions (to logic and durations) of the NAS schedule. The approved NAS Project Schedule shall be used by the Contractor to plan and control the progress of the work, perform evaluations of actual progress, perform time analysis for requests of time extensions on changes, and to provide the basis for the request of all progress payments.

The Government will use the NAS Project Schedule to evaluate the Contractor's progress for timely completion, plan for Quality Assurance verification of the work and evaluate the effects of a proposed modification on the contract duration (critical path activities).

D. BASIS FOR PAYMENT

The approved schedule shall be the basis for progress payments. Lack of an approved schedule or scheduling personnel will result in an inability of the Contracting Officer to evaluate Contractor's progress, may delay progress payments and may result in an interim unsatisfactory performance rating for the area of effectiveness of management. The Contractor shall provide all information/data, as specified below, for the Contracting Officer to evaluate Contractor progress for payment purposes. The Contracting Officer may hold retainage up to the maximum allowed by contract, each payment period, for failure to provide information and data required in this specification.

E. PROJECT SCHEDULE

E.1 Project Schedule Software

***8**

The Contractor shall prepare the NAS schedule using a computer software system. The system utilized by the Contractor shall be capable of satisfying all requirements of this specification and ER 1-1-11 and must be capable of outputting data in Standard Data Exchange format. Manual methods used to produce any required information shall require prior approval by the Contracting Officer. The Contracting Officer intends to use PRIMAVERA P3. The Contractor shall provide to the Government a complete input listing for the initial schedule. The selected software must be able to function so as to provide all information and functions required by this specification in an accessible manner acceptable to the Contracting Officer. The Government's acceptance of the software does not waive any requirements under this specification and shall not require the Government to go to any significant effort to retrieve the required information.

***8**

Should the Contractor utilize software that is different than that utilized by the Contracting Officer, ~~based on the software utilized by the Contractor for the preparation of the NAS schedule,~~ the Contractor shall provide a copy of the software and a license to the Administrative Contracting Officer at the Government field office until final payment. The software and license shall be returned to the Contractor. The Contractor shall submit a copy of the user's manual outlining the selected CPM computer program's mathematical analysis capabilities, details, functions and operation.

The NAS schedule shall be prepared in the Standard Data Exchange Format as required in ER 1-1-11 and approved by the Contracting Officer.

E.2 Use of the Critical Path Method

The Critical Path Method (CPM) of network calculation shall be used to generate the Project Schedule. The Contractor shall provide the Project schedule in the Precedence Diagram Method (PDM).

E.2.1 Level of Detail Required

The Contractor shall develop or update the Project Schedule and provide data to the Contracting officer at the appropriate level of detail necessary to properly evaluate progress as approved by the Contracting Officer.

E.2.2 Activity Durations

Contractor submissions shall follow the direction of the Contracting Officer regarding reasonable activity durations. Reasonable durations are those that allow the progress of activities to be accurately determined between payment

periods (usually less than 2 percent of all non-procurement activities' original durations should be greater than 20 work days).

E.2.3 Key Procurement Activities

Tasks related to the procurement of long lead materials or equipment shall be included as separate activities in the project schedule. Long lead materials and equipment are those materials that have a procurement cycle of over 60 days. Examples of key procurement activities include, but are not limited to: shop drawing submittals/approvals or review and fabrication/delivery.

E.2.4 Government Activities

Government and other agency activities that could impact progress shall be included in the schedule. These activities include, but are not limited to: Government approvals, Government review and verification that design submittals are in accordance with the RFP, inspections, utility tie-in, Government Furnished Equipment (GFE) and Notice to Proceed (NTP) for phasing requirements. Government approval of shop drawings activities should be shown with the duration at least the minimum allowed by the contract. The Contractor's failure to provide reasonable durations in its schedule for Government activities does not establish or change the Government's review or approval periods and the durations established for Government's activities are subject to approval by the Contracting Officer.

E.2.5 Contracts With Multiple Buildings/Facilities

The Contractor shall prepare a separate detailed NAS schedule for each building/facility indicating its critical path for specified interim completion dates or critical milestone date. The master NAS schedule shall indicate the interface/lag/link between buildings/facilities to maximize/level the labor and other resources. The master schedule critical path must be indicated through the various buildings/facilities and total duration equal to the contract duration.

E.3 Project NAS Schedule Submissions

The Contractor shall provide the submissions as described below. The data for each submission are as follows:

E.3.1 Preliminary NAS Project Schedule Submission
***8**
The Preliminary NAS Project Schedule, defining the Contractor's planned operations for the first 90 calendar days shall be submitted for approval ~~at the PRECONSTRUCTION CONFERENCE~~no less than 30 days after NTP. All design milestones shall be incorporated into the overall schedule and be logically tied to the appropriate activities during construction. The approved preliminary schedule shall be used for payment purposes not to exceed 90 calendar days after NTP. The preliminary schedule shall be detailed for the first 90 days and depict the remainder of the project in summary format. The preliminary schedule shall be submitted on data disk or CD (2 copies).
***8**
~~{The number of days of detail scheduling for the preliminary schedule must consider the size and complexity of the project and a reasonable time for the contract to prepare the schedule for the entire project and submit as the initial schedule}~~

E.3.2 Initial NAS Project Schedule Submission
***8**
The Initial NAS Project Schedule shall be submitted for approval within 60 calendar days after NTP is acknowledged. The schedule shall include detailed activities for the ~~entire project with~~design portion of the project and detailed construction activities for any phase that has reached the 60 percent design phase. The schedule shall have a reasonable sequence of activities and shall be at a reasonable level of detail as approved by the Contracting Officer. The initial schedule shall be submitted on data disk or CD (2 copies). As each additional phase of work reaches the 60 percent design phase, the applicable summary construction activities shall be expanded to include the detailed construction activities for that phase. The initial schedule shall be submitted for review and approval no later than 30 calendar days after the applicable 60 percent design review conference.

~~**{Number_*hard copies of all diagrams/summary diagrams, reports/sorts, cash flow curves and narrative report as specified in paragraph E.5 ---ACO option}***~~

E.3.2.1 Completed NAS Project Schedule Submission

After all phases of the project have reached the corrected final design stage, the Contractor shall make necessary corrections/additions to the project schedule. The completed schedule shall be submitted for review and approval no later than 30 calendar days after the last correct final design submission.

E.3.3 Monthly Updates (entire NAS project schedule)
***8**
The Contractor shall submit monthly schedule updates to the Contracting Officer for approval. Monthly updates shall begin approximately 60 calendar days after NTP and shall continue until the Contracting Officer accepts the contract. See paragraph F-2 for further requirements for monthly updates. These submissions shall enable the Contracting Officer to assess Contractor's monthly progress. The monthly updates shall be submitted on data disk or CD (2 copies).
***8**
~~***{Number_hard copies of updates of all diagrams including summary diagram, reports/sorts, cash flow curves and narrative report as specified in paragraph E.5.----ACO option]***~~

The Contractor’s invoice may be deemed as an improper invoice, if it fails to provide monthly updates acceptable to Contracting Officer, this may delay progress payment and may result in an interim unsatisfactory performance rating. The Contractor shall include its requests to revise/adjust the NAS schedule for approval, prior to implementing the revisions into the official schedule.

E.3.4 Standard Activity Coding Dictionary

The Contractor shall use the activity coding structure defined in the Standard Data Exchange Format (SDEF) in ER 1-1-11, Appendix A. This exact structure is mandatory, even if some fields are not used.

E.3.5 Submission Requirements

E.3.5.1 Data Disks

Two data disks containing the project schedule shall be provided. Data on the disks shall adhere to the SDEF format specified in ER 1-1-11, Appendix A.

E.3.5.2 File Medium

Required data shall be submitted on CD including the baseline and all updates (cumulative). Monthly data disks must be 3.5 disks, formatted to hold 1.44 MB of data, under the MS-DOS Version S or 6.x, unless otherwise approved by the Contracting Officer.

E.3.5.3 Disk Label

A permanent exterior label shall be affixed to each disk submitted. The label shall indicate the type of schedule (Preliminary, Initial, Update, or Change), full contract number, project name, project location, data date, name and telephone number or person responsible for the schedule, and the MS-DOS version used to format the disk

E.3.5.4 File Name

Each file submitted shall have a name related to either the schedule data date, project name, or contract number. The Contractor shall develop a naming convention that will ensure that the names of the files submitted are unique. The Contractor shall submit the file naming convention to the Contracting Officer for approval. Provide the naming convention (limited to 4 characters: i.e. Filename (contract 99-47) = 47BL for Baseline and 4701 for 1st monthly).

E.4 Network Logic Diagram
***8**
E.4.1 Two copies of the network diagram shall be required on the preliminary schedule, initial schedule submissions, completed schedule and updated on each monthly schedule submissions. Monthly updates must indicate actual progress as of the data date. The network diagram shall depict and display the order and interdependence of activities and the sequence in which the work is to be accomplished.

E.4.2 Network diagrams shall show the order and interdependence of project activities and the sequence in which the work is to be accomplished, as planned by the Contractor. The network diagramming procedure which will be used will show how the start of a given activity is dependent on the completion of preceding activities, and how its completion restricts the start of following activities.

E.4.3 Activity Duration
***8**
The activity duration shall be indicated in "workdays," and ~~revise the assigned calendar~~the project calendar shall be revised as applicable to show weekends and holidays as non-workdays. The Contractor may request to change the workdays from 5 days/week to 6 or 7 days/week should this action become necessary to regain the schedule due to problems unrelated to the Government actions.

E.4.3.1 Contractor submissions shall include reasonable activity durations as determined by the Contractor and subcontractors. The durations are to be determined by the Contractor using the planned crew size/composition.

*8

~~All activities shall be resource loaded with the crew size and composition.~~With each initial schedule submittal a listing of activities showing the planned crew size, quantity of work, crew production rate and duration shall be submitted. The list shall include all work activities for masonry, mechanical systems, plumbing, drywall installation and finishing, ceramic tile, floor tile, painting and any other activities on the critical path.

~~*{The previous sentence may be deleted on small contracts, (as determined by the ACO)*~~

~~*NOTE: If resource loading requirement for each activity is not required, the manpower resource profile from PRIMAVERA will not be available.*~~

E.4.4 The logic diagrams may be manually or machine drafted. The quality and readability of the diagrams shall be acceptable to the Contracting Officer.

E.4.5 Omitted

E.4.6 Responsibility

All activities shall be identified in the project schedule by the party responsible to perform the work. Responsibility includes, but is not limited to, the subcontracting firm, Contractor work force, or Government agency performing a given task. Activities shall not belong to more than one responsible party. The responsible party for each activity shall be identified by the Responsibility Code. The Government must accept responsibility for activities in writing by the Contracting Officer.

E.4.7 Work Areas

All activities shall be identified in the project schedule by the work area in which the activity occurs. Activities shall not be allowed to cover more than one work area. The work area of each activity shall he identified by the Work Area Code.

E.4.8 Modification

Any activity that is added by a contract modification subnet shall be identified by the modification number. Activities shall not belong to more than one modification.

E.4.9 Bid Item

All activities shall be identified in the project schedule by the Bid Item to which the activity belongs. An activity shall not contain work in more than one bid item. The bid item for each appropriate activity shall be identified by the Bid Item Code.

E.4.10 Phase of Work

All activities shall be identified in the project schedule by the phases of work in which the activity occurs. Activities shall not contain work in more than one phase of work. The project phase of each activity shall be by the unique Phase of Work Code.

E.4.11 Category of Work

All Activities shall be identified in the project schedule according to the category of work, which best describes the activity. Category of work refers, but is not limited, to the procurement chain of activities including such items as submittals, approvals, procurement, fabrication, delivery, installation, start-up, and testing. The category of work for each activity shall be identified by the Category of Work Code.

E.4.12 Feature of Work

All activities shall be identified in the project schedule according to the feature of work to which the activity belongs. Feature of work refers to, but is not limited to, a work breakdown structure for the project. The feature of work for each activity shall be identified by the Feature of Work Code.

E.4.13 Scheduled Project Completion

The schedule duration shall extend from NTP to the official contract completion date as awarded (unless approved by Contracting Officer-for early completion).

The ACO should prepare a contract modification (bilateral) should the Contractor propose a shorter duration than the duration included in the contract award. Should the Contractor refuse to sign the modification the contract and schedule duration must remain as awarded.

E.4.14 Project Start Date

The schedule shall start no earlier than the date on which the NTP was acknowledged. The Contractor shall include as the first activity in the project schedule an activity called "Start Project". The "Start Project" activity shall have a “ES” constraint date equal to the date that the NTP was acknowledged, and a zero day duration.

E.4.15 Constraint of Last Activity

Completion of the last activity in the schedule shall be constrained by the contract completion date. Calculation on project updates shall be such that if the early finish of the last activity falls after the contract completion date, then the float calculation shall reflect a negative float on the critical path. The Contractor shall include as the last activity in the project schedule an activity called "End Project". The "End Project" activity shall have a “LF” constraint date equal to the completion date for the project, and a zero day duration.

E.4.16 Early Project Completion

In the event the project schedule shows completion of the project prior to the contract completion date, the Contractor shall identify those activities that have been accelerated and/or those activities that are scheduled in parallel to support the Contractor's "early" completion. Contractor shall specifically address each of the activities noted in the narrative report at every project schedule update period to assist the Contracting Officer in evaluating the Contractor's ability to actually complete prior to the contract period.

{The Contractor shall include an activity named “contingency” with no cost and a duration equal to the number of calendar days from the date all the contract work is planned to be completed, to the official contract completion date as awarded. This activity shall remain in the schedule, unaltered, throughout the project.}

E.4.17 Interim Completion Dates

Contractually specified interim completion dates shall also be constrained to show negative float if the early finish date of the last activity in that phase falls after the interim completion date.

E.4.18 Design Phase

The Contractor shall include the following design phase activities in the composite design and construction NAS Project schedule

Design Charrette (Preliminary Design) within 21 days after NTP

Submittal of preliminary design (60%)

Design review conference of Preliminary design
Submittal of Final design (95%)

Design review conference of Final design

Submittal of Corrected Final design (100%)

Design review conference of Corrected Final design

Design Complete

The duration of each of these activities must be the duration as included in the contract award.
***8**
E.4.18.A Start Phase for Design and Construction Activities

The Contractor shall include as the first activity for a project phase an activity called "Start Phase _____" where _____ refers to the phase of work. The "Start Phase _____” activity shall have a “ES” constraint date equal to the date on which the NTP was acknowledged, and a zero day duration.
The start phase for construction activities must be as applicable for design-build contracts

E.4.19 End Phase

The Contractor shall include as the last activity in a project phase an activity called "End Phase _____” where _____ refers to the phase of work. The "End Phase _____" activity shall have a “LF” constraint date equal to the completion date for the project, and a zero day duration.

E.4.20 Inspection/Acceptance phase

The Contractor shall include the following work activities with duration and cost:

CQC (all) mechanical systems test(indicate the specific system)

CQC (all) electrical system tests (indicate the specific system)

Government QA (all) mechanical system acceptance/operational test(indicate specific system)

Government QA (all) electrical system acceptance /operational test (indicate specific system)

CQC completion inspection of the entire project

Contractor works off CQC punchlist

Prefinal inspection performed when the facility is completed such that it can be used for it intended function (as determined by the Contracting Officer)

Contractor works off prefinal punchlist

Final/acceptance inspection of the entire project

Contractor works off final punchlist.

Contractor shall allow 60 calendar days total duration prior to current contract completion date for the above stated activities. (See specification section 01451 Contractor Quality Control).

E.4.21 Default Progress Data Disallowed

Actual Start and Finish dates shall not be automatically updated by default mechanisms that may be included in CPM scheduling software systems. Actual Start and Finish dates on the CPM schedule shall match those dates provided from Contractor Quality Control Reports. The Contractor must document the Actual Start and Finish dates on the Daily Contractor Quality Control report by activity. Updating of the percent complete and the remaining duration of any activity shall be independent functions. Program features which calculate one of these parameters from the other shall be disabled.

E.4.22 Out-of-Sequence Progress

Activities that have posted progress without all preceding logic being satisfied (Out-of-Sequence Progress) will be allowed only on a case-by-case approval of the Contracting Officer. The Contractor shall propose logic corrections to eliminate all out of sequence progress or justify not changing the sequencing for approval prior to submitting an updated project schedule.

E.4.23 Negative Lags

Lag duration contained in the project schedule shall not have a negative value.

E.4.24 Project Monthly and Specific Milestone Dates

Milestone dates shall be shown on the diagram for start of project, each monthly milestone for the critical path activity in progress as of the data date, specific milestones such as: foundation complete, structure complete, roof complete, facility dried in, interim completion dates, and other specific contract milestones as required by the Contracting Officer.

E.4.25 Critical Path

The critical path shall be clearly shown on all diagrams (as approved).

E.4.26 Banding

Activities shall be grouped to assist in the understanding of the activity sequence. Typically, this flow will group activities by category of work, work area and/or responsibility

E.4.27 S-Curves---Cash Flow Curves

Earnings (cash flow) curves (as required for submissions) shall show scheduled ES/EF and LS/LF curves and actual progress plotted as of the data date. The cash flow curves are affected by the assigned cost and duration of the activities.

The LS/LF cash flow curve is expected approximate 40% earning (without stored material) @ 50% of the contract duration and 70% earning @ 70% of contract duration.

(FOR DESIGN-BUILD ----DESIGN TO 100% THEN CONSTRUCT) The LS/LF cash flow curve is expected approximate 30% earning (without stored material @ 50% of contract duration and 70% earning @ 70% of contract duration.

(FOR FAST TRACK DESIGN-BUILD) The LS/LF cash flow curve is expected approximate 38% earning (without stored material) @ 50% of contract duration and 70% earning @ 70% of contract duration.
*8
E.5 SCHEDULE REPORTS/SORTS (As Required By Contracting Officer For Submissions)

The format for each activity for the schedule reports listed below shall contain: Activity Numbers, Activity Description, Original Duration, Remaining Duration, Early Start Date, Early Finish Date, Late Start Date, Late Finish Date, Total Float~~.~~, Actual Start and Actual Finish Dates and shall ~~be~~ be printed for ~~those~~ all activities ~~in progress or completed~~unless otherwise specified.

E.5.1 Activity Report/sort

A list of all activities sorted according to activity number.

E.5.2 Logic Report/sort

A list of Preceding and Succeeding activities for every activity in ascending order by activity number. Preceding and succeeding activities shall include all information listed above in paragraph Schedule Reports. A blank line shall be left between each activity grouping.

E.5.3 Total Float Report/Sort

A list of all incomplete activities sorted in ascending order of total float. Activities which have the same amount of total float shall be listed in ascending order of Early Start Dates. Completed activities shall not be shown on this report.

E.5.4 Earnings Report/Sort

A calculation of the Contractor's Total Earnings on the project from the NTP until the most recent Monthly Progress Meeting. This report shall reflect the Earnings of specific activities based on the agreements made in the field and approved between the Contractor and Contracting Officer at the most recent Monthly Progress Meeting. Provided that the Contractor has provided a complete schedule update, this report shall serve as the basis of determining Contractor Payment. Activities shall be grouped by bid item and sorted by activity numbers. This report shall: sum all activities in a bid item and provide a bid item percent; and complete and sum all bid items to provide a total project percent complete. The printed report shall contain, for each activity: the Activity Number, Activity Description, original Budgeted Amount, Total Quantity, Quantity to Date, Percent Complete (based on cost), and Earnings to Date.

E.5.5 Milestone Report/Sort

The established monthly and special milestones shall be included in this report. The milestones must be established for each significant project features such as:
Clearing-grading-demolition, foundation, slab-on-grade, structure-frame, exterior walls-windows, roof-building dry-in, interior walls-mech/elect R/I, above ceiling mech/elect R/I, ceiling, interior wall finish--doors, painting-coverings, floor finish, installation of mech/elect and other equipment-fixtures-casework, plumbing, HVAC system, finish interior mech/elect, testing-commissioning mech/elect systems, onsite utilities, paving-landscaping, prefinal-final inspections—final cleanup and/or other features (as applicable for the project).

(For design-build contracts add milestones for each design submittal and design complete)

E.5.6 Late Start Sort
***8**
E.5.7 Summary Bid Item Sort

This report shall summarize the earnings for each bid item. For each bid item the budgeted amount, amount earned to date, percent scheduled, percent actual, early start, late start, early finish, late finish and float shall be shown.

E.5.8 Summary Building Sort

This report shall summarize the earnings for each building. For each building the budgeted amount, amount earned to date, percent scheduled, percent actual, early start, late start, early finish, late finish and float shall be shown.

E.6 Narrative Report

A Narrative Report shall be provided with the preliminary, initial, and each monthly update of the project schedule. This report shall include: a description of activities along the most critical paths, a description of current and anticipated problem areas or delaying factors and their impact, and an explanation of corrective actions taken or required to be taken. The

narrative report is expected to relay to the Government, the Contractor's thorough analysis of the schedule output and its plans to compensate for any problems, either current or potential, which are revealed through that analysis. If the Contractor believes that any Government action or inaction has or potentially will impact its progress, it will include the specific notice of the fact in this report. This information should include the activity number of the impacted work, nature and duration of the impact.

The narrative report shall address all modifications and weather activities that were input for the progress and their impact on the contract completion and total float.

E.6.1 Approved Changes Verification

Only project schedule changes that have been previously approved by the Contracting Officer shall be included in the schedule submission. The Narrative Report shall specifically reference, on an activity by activity basis, all changes made since the previous period and relate each change to documented, approved schedule changes. The Contractor shall not change the NAS schedule without specific written approval from the Contracting Officer. Unauthorized changes are not acceptable.

F. MONTHLY PROGRESS MEETINGS

There will be two progress meetings.

F.1 First - A progress update meeting will be held at the onsite between USACE and the authorized Contractor representatives, on the agreed cut-off date established at the preconstruction conference. During this meeting the Contractor shall indicate its requested percentage completed on each activity on which there was a revised percentage of completion. The Contracting Officer must approve actual progress percentages for each activity. The updated progress data will be evaluated at the second progress meeting.

F.2 Second - A progress evaluation meeting shall be held with the Contractor, after the updating of the current progress period work activities percentage is complete including modifications and adverse weather activities, to evaluate progress and the NAS schedule.

The monthly updated NAS schedule is submitted to the Contracting Officer, for approval, with the Contractor’s request for progress payment. The evaluation will include a review of actual durations compared to scheduled durations for critical and non-critical activities, progress on critical activities and near critical activities, trends, and current/potential problem areas, cash flow progress, and projected workflow of activities.

The Contractor’s narrative report shall be available for review at least 3 days prior to the second progress meeting.

The Contracting Officer shall approve all proposed revisions and adjustments to the NAS schedule. Update information must include the Actual Start Dates, Actual Finish Dates, Remaining Durations, and Cost-to-Date. Contractor must address all the activities on an activity-by-activity basis during the second progress meeting.

The monthly NAS schedule update must include an adverse weather activity for work activities impacted greated than 50% of the work shift or were impacted

by previous adverse weather (carry-over). The adverse weather activities must be added and applied to the NAS schedule, (all work activities within 10 days float or less when compared to the current critical path and current critical activities)--AFTER all of the modifications finalized within the month have been applied to the NAS schedule in the sequential order of finalization during the progress month.

The time extension for usually severe weather (in calendar days) must result from the agreement reached or (as directed) by the Contracting Officer) following the joint Contractor and Contracting Officer monthly weather evaluation held to review the CQC and QA daily reports, not later than 7 calendar days after the end of the progress month. The Contracting Officer will confirm the results of this evaluation to the Contractor in writing monthly.

The official contract completion date must be revised on the NAS schedule monthly (if applicable) based on the Contracting Officer's letter confirming the results of the monthly evaluation, to include the time extension in calendars of unusually severe weather (actual adverse weather impact less the specified anticipated adverse weather impact, for the specific month).

A contract modification (SF 30) for a time extension to the official contract completion date, due to unusually severe weather (if any), will be completed quarterly by the Contracting Officer based on the monthly evaluations.

F.2.1 Remaining Durations

The estimated Remaining Duration for each activity in-progress. Time-based progress calculations shall be based on Remaining Duration for each activity.

F.2.2 Logic Changes

All logic changes pertaining to NTP on change orders, change orders to be incorporated into the schedule, Contractor proposed changes in work sequence, corrections to schedule logic for out-of-sequence progress, lag duration, and other changes that have been made pursuant to contract provisions shall be specifically identified and discussed.

F.2.3 Other Changes

Other changes required due to delays in completion of any activity or group of activities include: 1) delays beyond the Contractor's control, such as strikes and unusual weather. 2) delays encountered due to submittals (material delivery), Government Activities, deliveries or work stoppages which make re-planning the work necessary. 3) Changes required to correct a schedule which does not represent the actual or planned prosecution and progress of the work.

F.3 Progress Meeting Attendance

The Contractor's Project Manager/Superintendent, Chief Quality Control, and Contractor's Scheduler, (as approved in paragraph B), shall attend the second monthly progress meeting. The onsite Government representatives shall be advised of the meetings location, time and date.

F.4 Update Submission Following Progress Meeting

A complete update of the entire NAS project progress schedule containing all approved revisions, and adjustments, based on the second monthly progress meeting, shall be submitted not later than 6 working days after the second monthly progress meeting, (if applicable).

G. REQUESTS FOR TIME EXTENSIONS

In the event the Contractor requests a time extension of the contract completion date, or any interim milestone date, the Contractor shall furnish the following for a determination as to whether or not the Contractor is entitled to an extension of time under the provisions of the contract: justification, project schedule data, and supporting evidence as the Contracting Officer may deem necessary. Submission of proof of delay shall be based on a subnet/fragnet of work activities, revised activity logic, duration, and costs (updated to the specific date that the delay occurred) is required for any time extension approvals. The project schedule shall clearly display that the Contractor has used, in full, all the float time available for the work involved with this request. Actual delays that are found to be caused by the Contractor's own actions, which result in the extension of the schedule, shall not be a cause for a time extension to the contract completion date.

G.1 Submission Requirements For Justification of Request for Time Extension

The Contractor shall submit a comprehensive time analysis and justification for each "Request for Proposal" for a change in the contract, based upon the most recent approved schedule update at the time of the RFP issued. Such a time analysis and justification shall be in accordance with the requirements of other appropriate contract clauses and shall include, as a minimum:

a. A subnet/fragnet of activities indicating all new change activities and the affect on existing schedule activities.

b. A brief explanation of the causes of the change.

c. An analysis of the overall impact the subnet/fragnet has when applied to the current-updated approved NAS schedule.

Activities impacted in each justification for change shall be identified by a unique activity code contained in the required data file.

H. MODIFICATIONS TO THE CONTRACT

H.1 Unpriced, unilateral and bilateral (without agreement on time) modifications

Upon receipt of the signed SF 30, for un-priced and unilateral modifications (or bilateral modifications with agreement on costs without an agreement on time, the Contractor shall submit proposed schedule revisions (in the form of a proposed subnet/fragnet) to the Contracting Officer for approval, within 14 days of the SF 30 being issued. The proposed (subnet/fragnet) revisions to the schedule will be approved by the Contracting Officer prior to application of those changes within the project schedule.

Should the Contractor fail or refuse to submit the provisions, the Contracting Officer may furnish the Contractor suggested (subnet/fragnet) revisions to the project schedule.

Upon receipt, the Contractor shall include these subnet/fragnet revisions in the project schedule.

If the Contractor has any objections to the revisions furnished by the Contracting Officer, the Contractor shall advise the Contracting Officer within 14 days of receipt of the revisions.

Regardless of the objections, the Contractor shall continue to update the schedule with the Contracting Officer's revisions until a mutual agreement on the revisions is reached.

If the Contractor fails to submit alternative revisions within 2 weeks of receipt of the Contracting officer's proposed revisions, the Contractor will be deem to have concurred with the Contracting Officer's proposed revisions. The proposed revisions will be the basis for an “equitable adjustment" for performance of the work.

H.2 Bilateral modifications shall be entered into the NAS schedule, utilizing the subnet/fragnet as agreed during negotiations, immediately after receipt of signed SF 30. Entries to the schedule must be approved by Contracting Officer.

H.3 All modifications subnets/fragnets shall be applied to the NAS schedule immediately in the sequence in which they were finalized (received signed SF 30). Weather time extensions must be included upon receipt of the results of the monthly weather evaluation.

I. CONTRACTOR FALLS BEHIND THE APPROVED NAS PROJECT SCHEDULE

If the Contractor falls behind its approved schedule,(behind the LS/LF cash flow curve or more than 15 work days of negative float) or performs the work in such a manner that the network diagram and mathematical analysis no longer indicate reasonable logic and duration for completion of the work by the current contract completion date, as determined by the Contracting Officer, the Contractor shall promptly provide a supplemental NAS recovery or completion schedule for completion by the current completion date, by reducing the remaining durations, revising logic, or adjusting resources onsite (in addition to the original approved NAS schedule) as approved by the Contracting Officer. The supplemental schedule shall be (resource loaded with crew size and productivity for each remaining activity, and indicating overtime, weekend work, double shifts needed to regain the schedule), in accordance with FAR 52.236-15, without additional cost to the Government. The supplement schedule shall not replace the original approved schedule as the official contract schedule. The original approved schedule shall be updated monthly (in addition to the supplemental schedule) and monitored by the Contractor and the Contracting Officer to determine the effect of the supplemental schedule progress has on the contract progress to regain its rate of progress for timely completion as specified.

The Contractor shall not artificially improve its progress by revising the schedule logic restraints or shortening future work activity durations. The Contractor may improve its progress by performing sequential work activities concurrently or by performing activities more quickly than planned, but such improvements shall be indicated on a supplement schedule and shall not be recorded on the official until they have actually been

achieved by the Contractor. The additional resources required to improve the progress must be evident on the work site.

Failure of the Contractor to perform work and maintain progress in accordance with the supplemental recovery or completion schedule, may result in an interim and final unsatisfactory performance rating and/or may result in corrective action by the contraction officer in accordance with far 52.236-15.

J. OWNERSHIP OF FLOAT

All float available in the schedule, at any time, shall not be considered for the exclusive use of either the Government or the Contractor.

*5

Pre-proposal Conference
16th MP Brigade Barracks Complex
L.I. 41631, FY-03
Fort Bragg, NC

1. The pre-proposal conference for the 16th MP Brigade Barracks Complex was held on 30 January 2003 at Fort Bragg in the conference room at the Corps of Engineers Area Office at Building 3-1933, Butner Road. Due to the rainy weather the planned formal site visit was postponed to a future date.

2. Enclosed is a copy of the attendee sign-in sheet (Encl # 1).

3. Mr. Diego Martinez opened the conference with general remarks, introductions and a general project overview. Following the overview there was a question and answer session. The proposers were requested to put all questions in the RFI system for the official response but that an attempt would be made to provide general clarifications if possible. Items/questions discussed are as follows:

- The site layout shown in the RFP is only one acceptable solution, proposers can provide alternate layout, but the MP Station has to stay in the location shown.

- Question was asked regarding the size of the parade field. Response was that if it were not indicated in the RFP, the minimum size required would be included by amendment.

- Question was asked about the future addition and utilities. Response was that each building would have to stand on its own, but the utilities would have to be sized to accommodate the future addition. Parking for the future addition does not need to be considered in this proposal.

- Question was asked if the turnaround shown on the site plan was a requirement. Response was that it was not a mandatory requirement of the RFP but was shown as a designer’s choice on this site layout.

- Question was asked if the existing overhead electrical power at the site could remain. Response was that all new electrical had to be underground.

- Question was asked if site utility data was available. Response was that any existing digital data available would be provided.

- Question was asked if there were any site access restrictions. Response was that the contractor would have full access and control of the site once the NTP was issued but that Reilly Road, Butner Road and the railroad would have to remain open.

- Question was asked on building demolition. Response was that the building demolition was indicated as an option in the bid

schedule because some of the existing buildings may be demolished prior to contract award.

- Question was asked on the bid options in the bid schedule conflicting with other areas of the RFP. Response was that the bid schedule would be revised by amendment.

- Question was asked on the requirement to have the contractor perform analysis on existing sewer system. Response was that additional guidance and clarification would be issued on this item on the next amendment.

- Question was asked on the requirement for new curb and gutter along existing roads. Response was that new curb and gutter would be required where new deceleration and turning lanes are required.

- Question was asked on what criteria should be used for Force Protection. Response was that guidance would be provided on which criteria would apply the “Interim Standards or UFC 4-010-01 DoD Minimum Antiterrorism Standards for Buildings”.

- Question was asked if Fire Chief had reviewed and approved site plans for access on side of Brigade and Battalion Headquarters on two sides as required by NFPA. Response was that the plans had been a reviewed and approved by the Fire Department.

- Question was asked a wetlands bank had been established. Response was that a wetlands bank is available and that there is a 2 for 1 ratio for buyback. Clarification will be provided in amendment.

- Question was asked on the vehicular/pedestrian walks. Response was that the RFP stipulates that the walks down the spine, which are shown minimum 10 feet wide, are to be considered a vehicle drive.

- Question was asked on the number of handicapped spaces and what buildings are to be handicapped accessible. Response was that only the Brigade Headquarters, Battalion Headquarters, MP Station and Common Area of Barracks are required to be handicapped accessible.

- Question was asked on access restrictions to the proposed site and Woodruff Substation. Response was that special clearance was not needed to visit the proposed site unless assess was desired in the closed buildings in which case advance notice should be sent to Alan Hand. Questions on the substation location should be made in the RFI system and the location will be verified.

- Question was asked if documents could be submitted in English or Metric. Response was that the proposal could be in English or Metric at the proposer’s choice. For the initial phase II submittal the documents could be submitted in both English and

Metric with a statement that the final proposal will be in all English or Metric.

- Question was asked if the IBC or UBC would govern in this project. Response was that clarification would be issued in amendment.

- Question was asked if a Life Safety Analysis had been done and is available and what codes govern. Response was to send in specific question and we would provide clarification, if a discrepancy is noted a clarification would be provided.

- Question was asked on the number and size of boot washes required and if they should be connected to a drainage system. Response was that the number of hose bibs should be noted in the RFP or it will be clarified. Storm drainage should be located near the boot washes near the COF's.

- Question was asked on the proposed schedule duration with a maximum of 900 days. Response was that we will review the requirement and clarify. If a shorter contract schedule is proposed by the offeror who is selected it will become a contract requirement.

- Question was asked if it was the intent to have a campus feeling. Response was that the intent is to provide a campus atmosphere. The proposers may look at the adjacent Holland Barracks to see how the different buildings relate.

- Question was asked on the statement in RFP Section 01010 pertaining to Fort Bragg Real Property Master Plan. Response was that if the document was not included in the Installation Design Guide it would be released to everyone.

- Question was asked if the requirement in Section 00110 to provide information on the project key personnel was intended to include the resumes of subcontractor personnel. Response was that it would be clarified that information is desired on key construction subcontractors not resumes of subcontractor personnel.

- Ms. Linda Elliott went over the evaluation factors of Proposal Submittals and the Bases of Award.

- Question was asked on how betterments would be evaluated. Response was that all betterments above the minimum requirements of the RFP should be identified. Offerors should include cost associated with each betterment.

- Question was asked on the number of copies and size of drawings sheets required by Section 00110. Response was that the sheet sizes and number of copies would be corrected in amendment and clarification would be provided on what is required to be on CD.

- It was discussed that another site visit could be scheduled during the 3rd week of February to allow a walk thru of the existing buildings scheduled for demolition.

4. The meeting adjourned at 1100.

Cleveland Harding
Project Manager

ROJECT: 16th MP Brigade Barracks	DATE: 30-Jan-03
ASE: Fort Bragg, NC	TIME: 0830 Hours
Y: FY-03	PLACE: Corps of Engineers Area Office Conference Room, Building 3-1933
INE ITEM: 41613	TYPE OF CONFERENCE: Preproposal Conference

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SECTION 01010

DESIGN AND CONSTRUCTION REQUIREMENTS – STATEMENT OF WORK

1. DESIGN OBJECTIVES
*4
1.1 Scope of Work. Design and construction shall comply with specifications, all appendices and all other requirements contained in this Request for Proposals (RFP). The design and technical criteria contained and cited in this RFP establish minimum standards for design and construction quality. The objective of this solicitation is to obtain a campus complex of buildings complete and adequate for assignment as unaccompanied enlisted personnel housing and support facilities. This contract shall consist of the design and construction of barracks, including common support spaces, for 343 soldiers, seven company operations facilities, one battalion headquarters building, one brigade headquarters building, one MP station, site work, and associated facilities on Government-owned land at Fort Bragg, NC. Demolition of existing site structures, capping of utilities, and related pavement removal, c~~C~~onstruction of the Military Police (MP) Station and support facilities, and extended warranties will be contract options.~~as shown on Layout Plan E, Plate C-15, Utility Plan, Plate W-05, and Sheets A-01 through A-03 of the architectural drawings for this facility, along with all engineering services during construction for the MP Station and its related support facilities, will comprise Bid Option No. 1 to this proposed contract. Option 2 will be extended warranties for all facilities except the MP Station. Option 3 will be extended warranties for the MP Station~~. ~~All other work will be included in the Base Bid.~~

1.1.1 Site Area. The site is described on the RFP drawings included as part of this solicitation and include approximately 32 acres.

1.1.2 Site Work. Site work includes all design and construction of site features described in the RFP, including but not limited to, site planning, clearing, grading, erosion control, site drainage, utility systems, pavements, pedestrian and vehicular circulation systems, a pedestrian bridge, a retaining wall, outdoor recreation facilities, landscaping, physical security measures, fencing, and site furnishings.

1.1.3 Omitted.

1.1.4 Demolition Considerations and Requirements. The project will require the demolition and removal of site structures. Those structures removed include pavement (parking, sidewalks, curb and gutter), a laundry, a warehouse, various miscellaneous structures, a trailer, slabs and fencing and all supporting utilities as well as clear and grub the site, except for areas where existing trees are to be retained. All existing utilities that cross the site and which support adjacent buildings must be rerouted under this contract and kept in service.

1.1.5 Environmental Considerations and Mitigation Requirements. The requirements for remediation of site contamination, wetlands mitigation, etc. can be found in other parts of this scope of work. Environmental test data, reports and drawings are included in Appendix E to this section.

1.2 Applicable Criteria. Applicable design and construction criteria references are listed in Appendix A to the Statement of Work. Criteria shall be taken from the most current references as of the date of issue of the RFP.

Referenced codes and standards are minimum acceptable criteria. The reference list in Appendix A is not all inclusive. It is the responsibility of the Designer or Designers of Record to ensure the design complies with all applicable criteria whether specifically identified in the list of references or not. Administrative, contractual, and procedural features of the contract shall be as described in other sections of the RFP.

1.3 Design Quality. The main objectives of this solicitation are to obtain a complex of unaccompanied enlisted personnel housing (UEPH) and related administrative buildings including support facilities and associated site development within funds available, and to maximize design quality. Design quality is achieved through the optimization of interior planning, integration of buildings with the site, sustainability, selection of building systems for low-cost maintenance and operation, and an overall balance of aesthetics and functionality.

1.4 Design Freedom. Requirements stated in this RFP are minimums. Innovative, creative, or cost-saving proposals, which meet or exceed these requirements are encouraged and will be considered more favorably. Designs may incorporate factory fabricated components or modules. Functional layout of MP Station is mandatory.

1.5 Energy and Resources Conserving Features. Public Law 102-486, Executive Order 12902, and Federal Regulations 10 CFR 435, require Federal buildings to be designed and constructed to reduce energy consumption in a life-cycle, cost-effective manner using renewable energy sources when economical. Products designed to conserve energy and resources by controlling the amounts of consumed energy or by operating at increased efficiencies should be considered. Minimum requirements for this project are listed in the Statement of Work.
*5
1.6 ~~Installation Real Property Master Plan. The installation real property master plan provides comprehensive documentation of the existing conditions of natural, man-made, and human resources. It also guides future land-use development. Design of this project shall incorporate the design guidance and criteria contained in the Ft. Bragg Real Property Master Plan, excerpts of which are contained in an attachment to the Statement of Work.~~Informational Drawings. Installation Master Plan drawings for utilities and communications along with as-built drawings for the existing Woodruff Street Substation have been included in this RFP for proposers' use in preparation of their proposals.

1.7 Installation Design Guide. Design of this project shall incorporate the design guidance and criteria contained in the Fort Bragg Installation Design Guide.

1.8 Accessibility Requirements. All areas and facilities required to be accessible to physically disabled persons shall conform to the Uniform Federal Accessibility Standards (UFAS) Federal Standard 795, and, to the extent greater accessibility is provided, the Americans With Disabilities Act Accessibility Guidelines (ADAAG).

1.8.1 The facilities shall be HC accessible as follows:

a. UEPH: Lobby, reception, visitor seating, public toilets at lobby, vending, pay phones at lobby and mail room shall be HC-accessible. All

other areas of the facility are for able-bodied military personnel use only and are not required to be HC-accessible.

b. Brigade Headquarters: Entire facility shall be HC-accessible except for the showers, which are for able-bodied military personnel use only.

c. Battalion Headquarters: Entire first floor of facility shall be HC-accessible. Entire second floor shall be designed to be HC-accessible with provision of future elevator. Showers, which are for able-bodied military personnel only, are not required to be HC-accessible.

d. Company Operations Facilities: Entire facility is for able-bodied military personnel only and is not required to be HC-accessible.

e. MP Station: Entire facility shall be HC-accessible.

1-8.2 Handicap accessible visitor and non-military employee parking spaces near UEPH and other buildings shall be as indicated on the drawings.

1-8.3 There shall be a minimum of one accessible pedestrian route linking handicap accessible parking areas with accessible building entrances.
*8
1.9 Force Protection and Anti-Terrorism Considerations. Project design and construction shall comply with the latest edition of the Department of Defense Antiterrorism Standards for Buildings, excerpts of which are contained in an attachment to the Statement of Work. Barracks, Headquarter buildings and any administration building shall meet minimum setback requirements for “BILLETING” and “PRIMARY GATHERING” BUILDINGS respectively. Company Operation Facility shall meet the minimum setback requirements for “INHABITED BUILDING”. Use bollards to keep vehicles out of any courtyards at the barracks~~ and to establish a setback~~. ~~behind~~ Behind the MP station at the termination of the existing access drive~~, as shown on the drawings~~ to Building 2-5935 provide an additional key card access controlled electric slide gate to achieve the required 82-foot standoff distance. Provide fire truck access into courtyard by the use of removable bollards as shown on the drawings. The provided site layout satisfies the minimum force protection setbacks. Revised layouts shall be adjusted to meet the minimum setbacks or any portion of a building that does not satisfy minimum setback requirements shall be hardened.

The setbacks shall be as follows:

Billeting and Primary gathering	
Building front to back of curb	82 feet (25.0 meters)
Building to trash containers	82 feet (25.0 meters)
Building to Building	50 feet (15.0 meters)
Inhabited	
Building front to back of curb	50 feet (15.0 meters)
Building to trash containers	50 feet (15.0 meters)
Building to Building	50 feet (15.0 meters)

1.10 Government-Furnished Government-Installed (GFGI) Equipment. All loose furniture, office equipment, computers and related hardware, video projectors, VCRs, TVs, vending machines, freestanding and countertop (not

built-in) appliances and fire extinguishers are Government furnished and installed unless noted otherwise. The Contractor shall coordinate on their requirements and provide utility connections and space for these items. When wall or ceiling-mounted equipment such as TVs, VCRs, monitors or projectors are required, the Contractor shall provide brackets with appropriate structural support for this equipment. All lockers, brackets, built-in appliances, projector screens, bulletin/marker boards, fire extinguisher cabinets and other items that are fastened to the building are part of construction and are Contractor furnished and installed (CFCI).

2. FUNCTIONAL AND AREA REQUIREMENTS

2.1 General Requirements.

2.1.1 Gross Building Area Definition. Gross building area is measured to the outside face of exterior enclosure walls. Gross area includes floor areas, penthouses, mezzanines, and other spaces as follows:

2.1.1.1 Areas Calculated as Half Space. Gross area includes one-half the area of exterior covered areas such as balconies, entries, loading platforms, breezeways, exterior corridors, and porches. Exterior covered areas are measured from the face of the enclosure wall to the edge of the covered area served. Stairs (enclosed or open) and elevator shafts count as half space for each floor they serve. In UEPH buildings only, interior public corridors will be calculated as half space (circulation spaces within the living unit will be calculated as full area). In all other facility types corridors will be calculated as full area.

2.1.1.2 Excluded Space. The following spaces are excluded from gross area calculations: Attic areas where average clear height does not exceed 2.10m [6 feet 11 inches]; crawl spaces; exterior uncovered loading platforms; open courtyards; normal roof overhangs and soffits for weather protection; uncovered ramps and steps; utility tunnels; raceways; mechanical equipment platforms and catwalks.

2.1.2 Gross Area Limitations. Maximum authorized gross building areas for each facility are included in subsequent paragraphs. Proposals that exceed authorized gross area limitations will be considered non-conforming.

2.1.3 Net Area Definition. Net area is measured to the inside face of the room or space walls.

2.1.4 Net Area Requirements. Net area requirements for programmed spaces are included in the Functional and Area Requirements appendices. If net area requirements are not specified, the space shall be sized to accommodate the required function, comply with code requirements, comply with overall gross area limitations and other requirements of the RFP. For example, area requirements for corridors, stairs, and mechanical rooms will typically be left to the discretion of the offeror.

2.1.5 Functionality. Rooms shall be sized and arranged for efficient use, circulation, and furniture placement.

2.1.6 Finish Requirements. Room finishes stated in the appendices following are preferred minimums that provide the required durability, water resistance, sound control, slip resistance, maintenance and appearance characteristics. Finish selections are not limited to those listed.

Substitutions must meet or exceed the minimum finishes listed in the RFP in all of these characteristics.

2.1.7 Furniture Requirements. The Contractor shall act as an agent of the Government in the design of the furniture/furnishings. Procurement and installation will be by the Government. See paragraph 5.5.12 Structural and Comprehensive Interior Design.

2.2 Organizational Structure. Enlisted soldiers will occupy the housing facilities designed and constructed under this solicitation. Each soldier is assigned to a company. Company operations facilities will accommodate the day-to-day functions of the company, including storage of the company's gear and arms, locker/shower facilities for use by soldiers after physical training, and spaces for administration and command of the company. Enlisted personnel residing in the UEPH facilities, enlisted personnel living in family housing areas, and non-enlisted personnel, will use the company operations facilities. A number of companies comprise a battalion. Battalion headquarters house the administrative and command functions of the battalion, and provide training and support areas for soldiers. A brigade is composed of a number of battalions. Brigade headquarters house the administrative and command functions of the brigade.

2.3 Functional and Area Requirements. Appendices F1 through F5 convey the functional and area requirements for the facilities. The furniture indicated is not a complete listing of all required furniture. Interior design after award includes meeting with Users to determine additional furniture requirements and providing design to accommodate them. Some of the equipment listed as GFGI. See paragraph 1.10.

2.3.1 UEPH Facilities Functional and Area Requirements. See Appendix F1 "UEPH Facilities Functional and Area Requirements".

2.3.2 Company Operations Facilities Functional and Area Requirements. See Appendix F2 "Company Operations Facilities Functional and Area Requirements".

2.3.3 Battalion Headquarters (HQ) Functional and Area Requirements. See Appendix F3 "Battalion Headquarters Functional and Area Requirements".

2.3.4 Brigade Headquarters Facility Functional and Area Requirements. See Appendix F-4 "Brigade Headquarters Functional and Area Requirements".

2.3.5 MP Station Functional and Area Requirements. See Appendix F5 "MP Station Functional and Area Requirements".

3. SITE PLANNING AND DESIGN

3.1 Scope of Work. The provided site layout is conceptual and may not depict details required for final design. The offeror's site layout, between Reilly Road and Armistead Street, shall provide symmetry around the theoretical project axis shown on the drawings (see Ft. Bragg IDG). The provided site layout has been coordinated with the user and the base installation manager. The layout represents a functional solution for this project. This project consists of constructing Unaccompanied Enlisted Personnel Housing (UEPH) Unit(s) for 343 soldiers, seven Company Operations Facilities (COF), one Battalion Headquarters building, one Brigade Headquarters building, one MP Station building, and support facilities. The retaining wall shown on the drawings is a feature for minimizing wetlands

impact, but it may not be the only solution. The site boundaries and project composition are shown on the drawings. Based on the graphic and narrative descriptions of site opportunities and constraints provided, the offeror shall verify that the site meets the program requirements.

3.2 Site Verification. Graphic and narrative descriptions of site opportunities and constraints have been provided. Existing topography plan, a 10% general site layout plan, and installation drawings are being provided. Each offeror shall verify that the site meets the program requirements. The offeror shall perform a detailed site analysis to expand site layout beyond 10% design. The analysis results shall be documented in a written and graphic summary of site opportunities and constraints for Unaccompanied Enlisted Personnel Housing (UEPH) Units, Company Operations Facilities (COF), Battalion and Brigade Headquarters Facilities, and MP Station and meeting Fort Bragg's installation design guide manual. Parking and vehicle access to all paved areas shall be documented to meet the design vehicles maneuvering requirements. If the site is found to be unsuitable by an offeror, the offeror shall provide an alternate layout solution for this site.
*4 *6 *7
3.3 Existing Conditions. The Government has provided the offerors with a topographic survey of this site. ~~The existing topographical information is accurate as of September 2001 for the base bid site and as of August 2002 for the MP Station option site.~~ The underground utilities shown are based upon the best information available at the time of the survey. Any discrepancies, which are found in the Government-furnished survey shall be brought to the attention of the Contracting Officer utilizing the RFI system.

After award the Contractor is responsible, at no additional cost to the Government, for obtaining any additional survey information required to complete the final design including tie in to existing conditions. The additional survey shall include all topographic data including trees, existing grades, and size, location and inverts of utilities. Any additional surveys performed by the Contractor shall be incorporated into the as-built drawings.~~Existing Conditions. The Government shall provide the offeror with a digital and hard copy of the topographic survey for this site. It is the offeror's responsibility to verify the Government-furnished survey and obtain all additional survey information that may be required for a completed design and construction project. Any discrepancies, which are found in the Government furnished survey, shall be brought to the immediate attention of the Contracting Officer for clarification.~~

3.3.1 Station Maps. Maps of the existing utility distribution systems including commercially owned utilities (i.e.: telephone, cable television, gas, etc.) are provided. The locations of existing utilities shown on the site survey and utility maps are approximate only. The offeror shall scan the construction site with electromagnetic or sonic equipment and mark the surface of the ground where existing underground utilities are discovered. Immediately contact the Contracting Officer if actual conditions vary from the topographic survey.

3.4 Excavation Permits. The Contractor shall obtain approved station excavation permits prior to digging. Request for excavation permits shall be in accordance with installation policies.

3.5 Site Development Plan. A conceptual site development plan is included in the RFP package. The offeror shall provide a site development plan that shows the spatial and functional arrangement of all Unaccompanied Enlisted

Personnel Housing (UEPH) Unit(s), Company Operations Facilities (COF), Battalion and Brigade Headquarters Buildings, and MP Station requirements. The plan should ensure an economical, compatible and functional land use development that utilizes the advantages of the site, fosters visual order, and provides a sense of community when constructing UEPH Units. The site development plan shows consideration for the site opportunities and constraints, program requirements, and specific site design criteria and guidance provided. The installation shall provide the contractor a copy of the recommendations of the Installation Real Property Master Plan and the Installation Design Guide. These recommendations should be addressed. The site development plan should show the layout as based upon the contractor's building floor plans. Maximum retention of the existing hardwood trees is encouraged.

3.5.1 Land Use. The plan for the area should reflect an optimum balance of floor area, open space, and pedestrian and vehicular circulation while maintaining symmetry around the theoretical project axis. The plan should show an efficient, organized and economical land use arrangement that is compatible and functional. This plan should show the relationship of the area to adjacent land uses.

3.5.2 Omitted.

3.5.3 Buffer Area. Provide appropriate buffer areas to separate and visually isolate the Unaccompanied Enlisted Personnel Housing (UEPH) Units from the Company Operations Facilities (COF), Battalion and Brigade Headquarters Facilities, and the MP Station. Greater emphasis should be used to foster a sense of community within the UEPH Complex, while separating the "work" areas from the "home" areas to the greatest extent possible.

3.5.4 Orientation - Unaccompanied Enlisted Personnel Housing (UEPH). Orient the Unaccompanied Enlisted Personnel Housing (UEPH) to the maximum extent possible within the constraints of the site available to facilitate pedestrian traffic within the complex. Orientation of the Unaccompanied Enlisted Personnel Housing (UEPH) shall be as shown on the selected site layout plan.

3.5.5 Orientation - Company Operations Facilities (COF). Orient the Company Operations Facilities (COF) to the maximum extent possible within the constraints of the site available to facilitate pedestrian traffic within the complex. Orientation shall minimize the impact of the wetlands to the maximum extent possible. The wetland shown on the site layout shall be protected at all times.

3.5.6 Orientation - Brigade Headquarters Facilities. Orient the Brigade Headquarters Facilities to the maximum extent possible within the constraints of the site available to facilitate pedestrian traffic within the complex. Orientation shall minimize the impact of the wetlands to the maximum extent possible. The wetland shown on the site layout shall be protected at all times.

3.5.7 Orientation - Battalion Headquarters Facilities. Orient the Battalion Headquarters Facilities to the maximum extent possible within the constraints of the site available to facilitate pedestrian traffic within the complex. Orientation shall minimize the impact of the wetlands to the maximum extent possible. The wetland shown on the site layout shall be protected at all times.

3.5.8 Orientation - MP Station. Orientation of the MP Station shall be as shown on the drawings.

3.6 Grading and Drainage. The grading should maintain existing topography while recognizing standard gradients. There should be a balance of the quantity of cut and fill soils which would create a smooth transition of graded areas into the existing natural site. The plan should reflect selective site clearing that preserves groups of trees. Grading should manage site runoff to maintain rate of flow and quantity to pre-construction levels, or reduce site runoff where possible. The principles of positive drainage should be applied to control the conditions that remove rainfall away from facilities and functions. Site designs should seek to minimize the disturbance of land, and utilize natural drainage paths where possible. Federal, State and local regulations regarding the design of stormwater management systems shall be considered the minimum design criteria. Finished floor elevations for buildings shall be 6 inches (150 mm) above the highest point of the adjacent outside finished grade. Drainage shall be diverted away from buildings at a slope of 5 percent for the first 10 feet (3 m) away from the building then a slope of at least 2 percent thereafter. Access road and connecting street grades shall not be less than 0.5 percent or exceed 5.0 percent in the longitudinal directions. Slopes in parking shall be a minimum of 1 percent in both longitudinal and transverse direction. Slopes in parking shall have a maximum of 5 percent in longitudinal directions and 2 percent in transverse direction. A topographic survey of the project site is provided and shall be used as part of the original proposal submittal. Any additional survey, testing or mapping required for the design or construction of the project shall be the responsibility of the Contractor. For land disturbing activities 5 acres and greater a NPDES Permit shall be obtained. In addition to the NPDES permit, all necessary permits, shall be obtained by the Contractor and complied with throughout all phases of construction. Any violation to such permits will result in the immediate shutdown of work until corrective measures have been taken at the Contractor's expense. Additionally, minimize the impact of construction activities on drainage and prevent loss of soils by water and wind erosion. Designs, which improve on existing water quality by incorporating sustainable design principles, are encouraged, consistent with budget constraints and activity requirements. *4 *6 *7

3.7 General Site Design Criteria. The following are to be used as guidance for site design. Minimum spacing between buildings shall be 50 feet. Boot washes shall be provided at convenient locations to entrances of the UEPH and the Company Operation Facilities. Incorporation of retaining walls may be required to meet the site criteria. Analyze the existing site conditions (i.e.; land use, community facilities, off-site workplaces, etc.) and incorporate a site design that results in an aesthetically pleasing and functional design. The site design shall address the following: orientation, site organization, spatial balance, character and scale, compatibility, life safety, circulation systems, view of the site, buffer zones, wind and noise control, land forms (i.e.; mounds, swales, ponds, etc.), lawns and shaded areas, vehicular access, a minimum of 912 parking spaces for staff, residents, handicapped, visitors, and eight~~four~~ motorcycles, service entrances, bus routes, connecting walks, utility corridors, fire protection access, site lighting, site furnishings, four trash dumpster pads for the UEPH and two recycling dumpster pads, six trash dumpster pads and two recycling dumpster pads for the COFs, two trash dumpster pads for the Brigade and Battalion Headquarters Facilities, two trash dumpster pads for the MP Station, suitable landscape screening for

outside mechanical units, electrical units, and dumpster pads, landscaping, and etc. Dumpster pads shall be oriented to facilitate access by sanitation vehicles. Each recycling dumpster pad shall be sized to accommodate a single dumpster. Additional general criteria are shown on the drawings. Bicycle racks, capable of holding six bikes per rack, shall be provided at each entrance to the UEPH. (Provide bicycle racks for a minimum of 18 bicycles.) One bicycle rack, capable of holding six bikes, shall be provided for each COF facility, the Brigade Headquarters Building, and the Battalion Headquarters Building. Bicycle design shall be per Ft. Bragg IDG. A traffic light shall be installed at the intersection of Reilly Road and Ricketts Street. Armistead Street shall be resurfaced between Butner Road and railroad tracks if Option 2 is awarded.
*4
3.7.1 Site Design Criteria For UEPH Facilities. In addition to the general site design criteria defined above, UEPH Facilities shall include: two NCAA dimensioned concrete ~~surface with protective color coating~~ basketball courts, including backboards and two USVBA dimensioned sand volley ball courts, including posts and nets. Mandatory fire truck access to the UEPH courtyard shall be provided beneath the UEPH as shown on the drawings. The design vehicle dimensions are 47’ long x 9’-5” wide x 11’-5” high with vehicle weight of 75,500 pounds.

3.7.2 Site Design Criteria for Company Operations Facilities. In addition to the general site design criteria defined above, Company Operations Facilities shall include two level, 45’ x 95’ each, sand PT pits. The PT pits shall be set up as a mini-obstacle course with minimum equipment requirements of sit-up benches, pull-up bars, horizontal ladder, parallel bars, and rope climb.
*4 *7
3.7.3 Site Design Criteria for Battalion and Brigade Headquarter Facilities. In addition to the general site design criteria defined above, Battalion and Brigade Headquarter Facilities shall include a grass parade/viewing ground (minimum 100 feet by 150 feet) and two 10-foot by 10-foot future monument pads. Provide an FMTV access drive to each supply room. Vehicles will access the supply rooms by backing down the access drive (vehicular sidewalks are an acceptable solution).
*6
3.7.4 Site Design Criteria for MP Station. The impound lot as shown on the drawings shall be designed as a controlled access area. A~~An 8-foot high~~ chain link fence with vertical slats and electric slide gates shall be constructed for controlling access to the impound area. The fabric height of the fence shall be a minimum of 8 feet. The fence type shall be FE-6. The electric slide gates shall use key card access controls.
*7
3.7.5 Sidewalks shall be concrete and have a minimum width of 6 feet (1.83 meters) and a minimum thickness of 4 inches (101.6 millimeters), except for the sidewalk through the center axis of the project site which shall be designed as a vehicular sidewalk. Vehicular sidewalks shall be concrete and have a minimum width of 10 feet and a minimum thickness of 7 inches. Contraction joints shall be spaced at the width of the sidewalk on centers and expansion joints shall be placed at 50 feet (15.34 meters) and at the intersection of walks and curbs. Sidewalks shall be extended to supply rooms, storage rooms, mechanical rooms and electrical rooms. A new sidewalk connecting the project site to the existing dining facility shall be provided and shall be free of abrupt elevation changes across the railroad tracks. ~~Sidewalk widths wider than 6 feet shall be per the Fort Bragg IDG.~~ Sidewalks along Butner and Reilly Roads shall be 8 feet wide and have a grass strip

between them and the street per the Fort Bragg IDG. These 8-foot wide sidewalks shall have curb cuts for bicycles or wheelchairs at all road intersections.
*4
3.7.6 Streets shall be provided with combination concrete curb and gutter. Combination concrete curb and gutter shall be 24 inches (610 mm) wide. Curbs shall be depressed at entrances to driveways with gradients providing positive drainage. Curb cuts shall be provided as necessary for pavement drainage. New curb and gutters should be provided along Capron and Jackson Streets within the project limits.

3.7.7 Contractor shall provide conveniently located trash collection dumpster pads for the project site. A minimum of two recycling collection dumpster pads will be provided for the UEPH and two recycling collection dumpster pads for the COFs. Dumpster pads shall be concrete with the following minimum dimensions: one dumpster pad – 15 ft. wide x 16 ft. long, two dumpster pad – 25 ft. wide x 16 ft. long, three dumpster pad – 39 ft. wide x 16 ft. long, and four dumpster pad – 149 ft. wide x 16 ft. long. Bollards shall be installed on each pad as dumpster stops during pickup operations. Approach drives to all dumpsters pads shall be reinforced concrete and have a minimum dimension of 15’ long and width equal to the width of the concrete dumpster pad. Dumpsters should be located not further than 150’ away from the building.

3.7.8 Street and traffic control signs and building name signs shall conform to requirements of the installation and shall match adjacent area signs. The Contracting Officer, if needed, will provide street names. See sign information in the IDG.

3.7.9 A dedicated right turn lane shall be constructed adjacent to the project site along Reilly Road, as shown on the drawings. The Contractor shall determine and install traffic signal upgrades required by the construction of the turn lane.

3.7.10 Right turn lanes shall be constructed on Butner Road as shown on the drawings.

3.8 Circulation and Parking. The vehicular and pedestrian circulation system shall promote safe, efficient movement of vehicles and pedestrians within the site area. Site design shall facilitate pedestrian traffic between facilities, and minimize the need for vehicular traffic within the complex. Vehicular traffic shall be routed around the outer perimeter of UEPH facility areas to the greatest extent possible. The vehicular and pedestrian circulation system should maintain the maximum separation of vehicles and pedestrians. Safe circulation systems have a clear hierarchy of movement, lead to a clear destination, and do not interrupt other functions. The following criteria shall be considered for designing streets and drives for vehicles and pedestrians:

3.8.1 Vehicular Circulation. Vehicular circulation layout is determined by applying the design vehicle templates to the site design. The passenger car class includes passenger cars and light delivery trucks, such as vans and pickups. The passenger car template is equivalent to the non-organizational - privately owned vehicle (POV). The truck class template includes single-unit trucks, recreation vehicles, buses, truck tractor-semi-trailer combinations, and trucks or truck tractors with semi-trailers in combination with full trailers. The American Association of State Highway and

Transportation Officials (AASHTO) provide templates showing the turning movements for design vehicles. Obtain templates and utilize them during the design of the facility. Provide the vehicle clearances that are required to meet traffic safety for emergency vehicles, service vehicles, and moving vans. Site entrances and site drive aisles shall include required traffic control signage. Maximize spacing between drives, incorporate right-angle turns, and limit the points of conflicts between traffic.
*7
3.8.2 A minimum of 912 parking spaces and ~~4~~ 8 motorcycle parking spaces shall be provided. Four of the motorcycle parking spaces shall be at the Barracks and four shall be near the COFs. The parking areas shall be designed to meet traffic flow requirements. All parking shall be 90 degrees off-street parking. UEPH, Brigade Headquarters, and Battalion Headquarter buildings parking shall be located no closer than 82 feet to any building to meet force protection requirements. Handicap parking spaces shall be as shown on the drawings. Parking lots and sidewalks subject to vehicle traffic shall be designed in accordance with TM 5-822-5, Pavement Design for Roads, Streets, Walks and Open Stage Areas and the Installation Design Guide.

3.8.3 New access drives into parking areas shall provide convenient and safe access and circulation (including collections, deliveries, and fire protection) within the facility areas.

3.8.4 All pavement and radii dimensions shall be shown from back of curb to back of curb. Minimum access drive width shall be 25 feet (7.62 meters) for all new work. Minimum turning radius for all new intersections shall be 30 feet (9.14 meters). The contractor shall consider the types of vehicles traversing and parking on these facilities. Vehicles shall include but not be limited to the following: passenger cars, fire trucks, semi-trailer trucks, emergency vehicles, garbage, delivery service, utility vehicles, and 2.5 ton FMTV’s. Provide traffic control signs and pavement markings. Parking stripes shall be white and handicap-parking spaces shall be blue.

3.8.5 Ramps and parking spaces for the handicapped shall be provided in accordance with the latest edition of the Uniform Federal Accessibility Standards (UFAS).

3.8.6 Concrete pavement shall be provided behind all COFs. Concrete pavement shall be a minimum of 110’ between back of curb and back of curb for vehicle access and maneuvering.
*4
3.8.7 Capron and Jackson Streets shall be resurfaced with 1-1/2 inch bituminous pavement within the project limits.

3.9 DEFINITIONS.

3.9.1 Entrance and Intersection Design. For site entrances and drive aisle intersections, provide "T" intersection offsets of at least 38.1 m (125 ft). The preferred angle of intersection is right-angle (90 degrees).

3.9.2 Drive Aisle Design. The selected design vehicle templates determine dimensions for drive aisles for parking lots. Separation, corner clearances, and sight distance are established when the design vehicle templates and speed limits are selected. Design pavements for the wheel load associated with the design vehicle. Concrete entrances shall be provided at intersections with installation roads.

3.9.3 Privately Owned Vehicle (POV) Parking. POV stalls without vehicle overhang shall be 9 feet x 18 feet. POV stalls with vehicle overhang shall be 9 feet x 16 feet. POV stalls adjacent to curb shall be 9.5 feet. The design vehicle template that is used to design this space shall be described.

3.9.4 Pedestrian Circulation. Pedestrian circulation should be safe and separate from vehicle circulation. Provide good sidewalk layout to connect all building entrances with parking and site facilities and existing walks. Pedestrian circulation should be based on pedestrian desired lines of walking between site facilities and existing walks. Desired lines should be weighted to predict the most traveled routes. These routes would require paving. Topography and vegetation can be used to reinforce a sense of movement. Design pedestrian concentration areas with adequate paved area.

3.9.5 Sidewalk Design. The network of walks throughout the complex shall be designed to facilitate pedestrian traffic among facilities, and minimize the need to use vehicles. Sidewalks shall be provided on both sides of the street. Walks shall be a minimum of 6 feet (1.8 meters) wide exclusive of curb width, and made non-reinforced concrete with a minimum thickness of 4 inches (100 mm). Where walks are adjacent to the curb, the curb width is not to be included as sidewalk. Ramps for handicapped individuals shall be provided at intersections by depressing street curbs and adjacent sidewalk. Provide vehicle sidewalk along the theoretical project axis, where possible.

3.9.6 Plaza Pavement. Plaza pavement should provide a visual separation from the concrete sidewalk. Stamped pavement, colored pavement, or pavers should be considered.

3.10 Omitted.

3.11 Landscape Design.
*4 *8
3.11.1 The landscape plan shall be designed by a Registered Landscape Architect in accordance with the Fort Bragg Installation Design Guide (IDG). The final landscape plan shall have all plants and site furnishings labeled. Provide a plant schedule with both common and botanical plant names, plant sizes and spacing of plants. Provide tree and shrub planting details, edging detail, and site furnishings details or cut sheets. Landscaping, grassing and irrigation specifications shall also be provided with the final design. See paragraph 3.11.4 for information to be included in the irrigation specification. The plant specifications shall include a 1 year warranty or a warranty until the beneficial occupancy date, whichever is longer, for the replacement for all plants. See 3.11.7.1 for the grassing warranty. The landscape specification shall use all of the pertinent plant standards in ANSI Z60.1. It shall also include maintenance (watering, weeding and plant replacement) of all plant materials. This maintenance shall continue until the beneficial occupancy date has occurred. The Contractor shall also provide a maintenance manual for the user with specific information on caring (watering, pruning (no pruning of Crepe Myrtles), fertilizing and weeding beds) for all of the new plantings. An irrigation manual is also required (see paragraph 3.11.4). ~~The plan shall also include a vine and shrub removal design for protected wetlands and wooded areas.~~

3.11.2 Planting design is to be compatible with the surrounding environment. Emphasis shall be given in preserving as much of the existing forest as possible. It is preferable to save groupings of trees with their

understory rather than individual trees. Preserve the trees in the wetlands areas. In that wetland the only trees to be removed are those in the way of utilities and/or walkways. Tree protection fencing shall be used around the forest and/or tree being saved at their drip line. Emphasis shall also be given to using trees and shrubs that are native, hardy and low maintenance. Group plants of similar water requirements together.

3.11.2.1 Provide a foundation planting for all buildings, which includes groundcovers, shrubs and small ornamental trees. Provide metal edging around beds in accordance with the IDG.

3.11.3 Provide extensive shade trees and sound buffers, and screen visible utilities and dumpsters. Use only plant materials for screening. Use large size plant material, 15-gallon containers, to screen dumpster and 7 to 15 gallons to screen utilities. Allow for adequate access clearance in shrub screen around chillers, transformers, and switches.

3.11.4 A fully automatic irrigation system shall be designed and installed as an integral part of the landscape design. A computer based controller shall be provided for the entire system. The water application rate shall be adequate to promote tree and grass growth. To conserve water, automatic drip irrigation shall be used for individual or clustered trees and shrubs. The parade ground, all sodded areas and all shrub beds shall be irrigated with an automatic system. Provide subsurface automatic drip irrigation for shrub and ground cover areas. All turf areas are to be on separate zones from planted areas. System design, installation and operation shall follow all manufacturers' recommendations of products used. One-year warranty on all labor and material from date of completion or from the beneficial occupancy date, whichever is greater shall be provided, plus honor of the extended warranty of the manufacturer. All sprinkler heads, electric valves and controllers shall carry a 2-year manufacturer's warranty. Only new materials shall be used. Provide superior quality materials equal to Toro or Rainbird. Provide sleeves for all pipes going under walkways and roads. The sleeve shall be 2 inches larger than the largest part of the pipe. Provide surge protection for the automatic irrigation system. Street trees and trees in outlying areas such as the parking lot not covered by automatic irrigation shall each be provided with a portable polyethylene drip irrigation bag that zips around the tree and holds 20 gallons of water. Provide copy of a maintenance manual on the automatic irrigation system for each building. Instructions on what to do to winterize the system shall be included. This manual shall contain the record drawings of the irrigation system. Provide 4 hours of instruction for PWBC maintenance personnel at beneficial occupancy date. Controls for the irrigation system shall be located in the appropriate electrical rooms.

3.11.4.1 Comply with the applicable requirements of the latest revision of the following codes and standards:

1. Uniform Plumbing code
2. National Electric Code
3. National Sanitation Foundation
4. Underwriters Laboratory
5. All pertinent state and local codes

3.11.4.2 The irrigation contractor shall be a firm engaged in the full time installation of this type of system with at least 5 years of successful experience.

3.11.5 Trees.

3.11.5.1 Deciduous large trees shall be a minimum of 2-1/2"-3" caliper in size. Smaller ornamental trees shall be 8'-10' in height. Large trees shall be added where there are none along all of the streets and throughout the site where the existing trees are removed. The street trees shall be placed every 30-35 feet. Select a variety of trees from the IDG plant list. Choose native trees over non-native. Do not use pine trees for street trees, but do add pine plantings for wildlife benefits (such as for the Red Cockaded Woodpecker habitat). Do not use Red Maples or Deodora Cedar.

3.11.5.2 Evergreen trees shall be 2"-2-1/2" caliper except for pines and small evergreens. The Longleaf Pine shall be 5-gallon. The small evergreen trees and the Loblolly Pines and shall be a minimum 8-10' in height. The pines shall be intermixed with 1/3 Loblolly and 2/3 Longleaf.

3.11.5.3 Tree Planting.

No tree staking shall be used. The one exception is tall pines. If they can't stand up on their own, then they shall be staked. No bare root trees shall be used. Only container and/or ball and burlap trees shall be used. ANSI Z60.1 American Standard for Nursery Stock shall be the guide for all plant sizes. The new tree planting hole shall be 3 times the width of the tree's root ball. Provide an extra spaded area 8 inches in depth and 12 inches wide on either side of the planting hole. A 4-inch high water saucer shall be placed around the root ball of each tree. All planting holes and spaded areas shall be mulched with a 3-inch depth of new pine straw. For all new trees which do not get automatic irrigation provide them with a drip irrigation bag which holds 20 or more gallons of water. For evergreen and multi stem trees use a low profile drip bag. These bags are green or tan polyethylene bags that zip up the side and have drip holes in their bottom. They are designed to slowly release water from holes in their bottom to the root ball of the newly planted tree. Accurate watering amounts and schedules shall be provided in the Contractor's specification. Backfill shall be the site's native topsoil. A superabsorbent wetting gel is to be added to the backfill at the manufacturer's recommended rate.

3.11.6 Shrubs shall be the following minimum size: for ground covers use 1 or 2 gallons, for small shrubs use a minimum size of 3-gallon container, and 7 gallons for the large shrubs. Fifteen-gallon shall be for the large specimen shrubs. Use these for screening the dumpsters. Shrub and ground cover beds shall be provided with a hard edging consisting of a minimum of 5"xl/8" steel or aluminum edging (painted black), brick set in concrete or a concrete curbing. Topsoil (see 3.11.8) shall be used for shrub and groundcover backfill and planting.

3.11.7 Grassing. Grass seeding or sodding shall be provided for all disturbed and bare areas, which are not paved or otherwise, landscaped. Centipede sodding shall be provided around all buildings (at least to nearest sidewalk) and shall be irrigated. No Bermuda sod or seed shall be used near (no closer than 10') shrub beds due its invasive nature and difficulty in eliminating it once it is established.

3.11.7.1 Grassing Specification.

A grassing and sodding specification shall be developed by the Contractor for

use in this project using the information in this RFP and the North Carolina Department of Transportation's Standard Specifications for Roads and Structures and the North Carolina Erosion Control Manual. Seed with State certified Common Bermuda seed all outlying areas including the parade ground. Do not seed the parking lot islands. Mulch them with 3 inches of pine straw or ground up hardwood and plant with large shade trees. In addition a minimum of 0.3 foot of topsoil shall be provided for all seeded and sodded areas. A natural, superabsorbent gel soil enhancer is to be added to the soil for all grassing. This is to aid in the absorption of water. No asphalt tackifiers shall be used. Sodding shall be with state Certified Tifblair Centipede sod for all areas adjacent to shrub beds and buildings. All Centipede areas shall be irrigated. Around all inlets sod 3 feet with State Certified Tifsport Bermuda or Tifblair Centipede sod (if the inlet is where Centipede is being used. Where slopes are 3:1 or steeper, provide sod in lieu of seeding or seeding covered with a standard straw erosion control mat. Also irrigate Bermuda sod. Until the beneficial occupancy date the sod and seeded areas shall be watered, maintained and where needed replaced (spots 4 inches and greater). The grass sod and seeding warranty shall be for a satisfactory stand of grass for 30 days after completion. If the beneficial occupancy date is beyond the 30 days, then the warranty shall continue until that date.

3.11.7.2 Seeding Rates.

For seeded areas the seeding rates shall be 65 pounds hulled Common Bermuda grass or 125 pounds of unhulled Common Bermuda grass. Use the hulled seed from March 1 - August 31 and the unhulled Bermuda from September l - February 28. For erosion control and as a nursery crop add to the Bermuda seed 120 pounds of Rye Grain Abruzzi from September 1 - February 28 and 25 pounds of German Millet from March 1 through September 30.

3.11.7.2.1 For seeded areas add 4,000 pounds of dolomitic lime and 1,000 pounds of 10-20-20 fertilizer just prior to planting and incorporate lime and fertilizer in the 3 to 6 top inches of the soil. Top dressing of the established grass shall occur with 50 pounds of nitrogen and 50 pounds of potash between April 15 and October 15.

3.11.7.2.2 For temporary seeding rates use 50 pounds of German Millet between March 1 - September 30 and 120 pounds of Abruzzi Rye grain from September 30 through March 1.

3.11.7.3 An acceptable stand of grass for sodding is a solid grass cover with no gaps. For seeding it is not less than 20 seedlings of permanent grass at least 2 inches long in each square foot with no gaps larger than 4 inches.

3.11.8 Topsoil.

Topsoil used in grassing and planting of shrubs, ground covers and trees shall be the saved topsoil from the site. It shall have a 1 percent minimum organic content and a pH of 4.5 to 6.0. It shall be free of subsoil, brush, weeds, stones, roots, stumps, or any other substance that might harm plant growth. If the stored site's topsoil is not sufficient to cover the landscaping needs, additional topsoil shall be provided by the Contractor from an approved off-site source. The approval shall be by the Contracting

Officer with assistance from the local Soil Conservation Service (USDA). When used in planting a superabsorbent gel is to be added to the soil to help with water absorption.

3.11.9 Tree Protection.

Existing trees, both individual and groups, to be saved shall be protected with wooden tree protection fences. These shall be installed before any earthwork occurs and shall be maintained and repaired when damaged. These shall remain in place until after all the landscape work is completed. The fences shall be placed no closer than the dripline of the trees. The fence shall be made out of 4x4 posts set no further than 8 feet apart and shall have a 2x2 top rail. The height shall be a minimum of 4 feet. No excavation, filling, trenching for utilities or storage of materials shall be allowed within these tree-protected areas. If there is bare earth under these existing trees, a 3 –inch layer of mulch shall be added to cover the area within the tree fence.

3.11.10 Site Furniture.

Use the site furniture recommended by the IDG. Use picnic tables and benches that are made in part with plastic recycled materials. Provide outdoor roofed picnic shelters to match the barrack's architecture in design, color, and materials. Provide a minimum of two picnic shelters. Locate them near the barracks. Each shelter shall have two picnic tables and one standard steel grill, and one trash container. The grill shall be equal to Iron Mt. Forge 205-X with a nontoxic black finish. The shelter shall be placed among a well-landscaped environment with many shade trees. Each barracks shall have sufficient bike racks for their users (coordinate with the user). See further details in the specification Site Furnishing.

3.11.11 Physical Fitness Areas. Provide two PT areas. Together they shall contain a total of the following pieces of equipment set at the correct distances from each other; 15 chin-up bars (each with space for 5 persons), 15 rope climbers (each with space for 4 persons), and 15 sit-up apparatus (each for 5 persons). They shall be set in a sand base of at least 18 inches with filter fabric, edged with a concrete curb, have a flat grade and be well drained (provide subdrains tying into the storm drainage system or day lighting). All equipment shall be rustproof, hot-dipped galvanized steel. All shall be set in concrete footings sufficient to hold post and five 5 users at one time. The Contractor shall provide complete PT equipment shop drawings for approval prior to beginning work.

3.11.11.1 Chin-up-bars 8 feet tall from the top of the sand, 25 feet wide, with a space of 5 feet between each post, six posts provided. Top of posts shall be rounded.

3.11.11.2 Rope climbers 20 feet from the top of the sand and 23 feet wide (plus or minus). Four ropes hung 20 feet in the air, 4 feet from the posts and 4 feet from each. Posts at the end can be single or a looped double post as used at other sites on post. Contractor shall provide the rope with a prelooped knot and attach the ropes to the beam.

3.11.11.3 Sit-up apparatus are made to accommodate five platforms. Each platform will be a vinyl clad perforated metal bench, dark brown color. Each

shall be 2 feet wide by 8 feet in length. Provide four crossbars of galvanized steel tubes every 1 foot starting 2 feet above the sand. These are for the platform height adjustment.

4. SITE ENGINEERING

4.1 Foundation and Geotechnical Design

4.1.1 Government Investigation. The Government has performed geotechnical explorations at the project site. The locations of and drilling logs of soil test borings are shown on the drawings included with this RFP. A report of the explorations and analysis is included in Appendix B. This “preliminary” report provides an overview of the soils and geologic conditions, and is furnished for informational and proposal purposes and not for final design; however, the recommendations provided in the report shall be considered to be minimum requirements that shall be incorporated into the final design and construction of the project.

4.1.2 Contractor Investigation. The offeror to whom this contract is awarded, shall employ the services of a consulting professional geotechnical engineer experienced in geotechnical engineering, who shall be responsible for determining site specific geotechnical conditions. The site-specific geotechnical conditions, together with recommendations specific to the geotechnical design and construction requirements for the proposed project, shall be addressed in a “final” geotechnical report prepared by the consulting geotechnical engineer. The geotechnical report shall include, but not be limited to, the following:

a. Description of the site as to topography, existing surface conditions, and any other features that might influence the design.

b. Description of the investigation program and the methods used. Information obtained from the explorations performed by the Government can be used, supplemented by the minimum numbers of additional explorations specified below, and any further investigations as deemed necessary by the consulting geotechnical engineer. Subsurface exploration may include soil test borings, cone penetrometer test (CPT) soundings, and test pits. The investigation, sampling, and identification of subsurface materials shall be in accordance with methods and procedures described in ASTM D 420. Soil investigation and sampling by hollow-stem auger borings shall be in accordance with AASHTO T 251. Drilling and sampling with the "Standard Penetration Test" (SPT) split-barrel sampler shall be in accordance with ASTM D 1586. The procedure shall be modified to provide for continuous standard penetration and sampling tests for the initial 12 feet of the boring. Beginning at a depth of 15 feet below grade, penetration and sampling tests every 5 feet and at each change in soil stratification or soil consistency are recommended. The location of the groundwater table, if encountered, shall be measured and recorded after 24 hours. If drilling techniques that prevent determination of the groundwater table are used, install at least one piezometer for every five explorations to measure the depth to the groundwater table. Classification of soils shall be in accordance with ASTM D 2487 or D 2488, as appropriate. Cone penetrometer test (CPT) soundings shall be in accordance with ASTM D 5778. Undisturbed soil sampling shall be in accordance with ASTM D 1587.

The following minimum numbers of explorations (soil test borings and/or CPT soundings) shall be performed by the Contractor.

Feature	**Minimum Number of Borings**
Military Police (MP) Station	**5**
Battalion Headquarters Building	**5**
Brigade Headquarters Building	**5**
Large Company Operations Facilities (COF)	**5**
Medium Company Operations Facilities (COF)	**5**
Small Company Operations Facilities (COF)	**4**
Barracks Buildings, per each building/wing	**6**
Roads	**1 per each 250 feet**
Parking Areas	**1 per each 5,000 square feet**

The depths of explorations shall be of sufficient depth to evaluate bearing capacity and settlement potential. However, beneath structures, explorations shall extend to a minimum depth of 25 feet below existing ground surface or below final design grade, whichever is lower. Beneath roads, hardstands, and/or parking areas explorations shall extend to a minimum depth of 5 feet below existing ground surface or below final design grade, whichever is lower.

The Contractor shall be responsible for all applicable clearances and permits and for the protection of all underground utilities from damage during field investigations. Utility clearances and digging permits are required prior to drilling on the installation. Procurement of the clearances and permits shall be coordinated through the Contracting Officer.

c. Discussion of the subsurface soil conditions and stratigraphy and groundwater conditions.

d. Location plan of explorations.

e. Logs of explorations. Indicate on logs complete information on who, when, and how made. Show soil description, standard penetration resistance, N, or other type resistance, topsoil, water level observations, surface elevation and datum, and any other information gathered during the exploration.

Exploration locations shall be surveyed. Surveyed elevations and coordinates shall be provided on each exploration log. Elevations shall be in accordance with NGVD 29 and horizontal coordinates shall be in accordance with NAD 83 (North Carolina State Plane Coordinates); accuracy to be plus or minus 3 feet horizontal and plus or minus 0.5 foot vertical.

Soil test boring logs shall show graphical representation of soil strata, location of each change by depth or elevation, location of each sample by depth or elevation, and number of blows for each 6 inches and amount of soil

recovered for each sample location. Logs shall also indicate type and size of casing, type of drilling fluid, and type and size of drill bit. If no casing is used, indicate size of borehole. Indicate when boring is terminated due to refusal.

Soil classifications for final logs shall be based on the field classifications, the results of tests, and further inspection of samples in the laboratory by geotechnical engineers.

Include a chart illustrating the soil classification criteria and the terminology and symbols used on the boring logs.

Locations of all explorations shall be shown on the grading and drainage plates of the submittal drawings. Logs of all explorations shall be included on plate(s) of the submittal drawings.
*5

f. Laboratory test data shall be included in detail. Laboratory testing shall be in accordance with the requirements set forth in EM 1110-2-1906, Laboratory Soils Testing, EM 1110-2-1909, Calibration of Laboratory Soils Testing Equipment, and/or applicable ASTM standards. All laboratory testing shall be performed by a commercial testing laboratory which has been validated by the Engineer Research and Development Center Materials Testing Center (MTC) under the Corps of Engineers laboratory inspection and validation program. The laboratory shall be listed on the list of Corps of Engineers Validated Laboratories~~found adequate and qualified by a Corps of Engineers Division Laboratory Inspection Team~~.

g. Notation of the location of strata containing organic materials, weak materials or other inconsistencies that might affect engineering conclusions.

h. Pavement design, or if not responsible for pavement design, pavement structural design data, including design California Bearing Ratio (CBR) and modulus of subgrade reaction.

i. Discussion of the facilities under design and recommendations regarding foundation support of the structures and slabs on grade, including soil bearing pressures, bearing elevations, foundation design recommendations and anticipated settlements, including total and differential.

j. Anticipation of, and management of, groundwater.

k. Discussion of site preparation and the effect of weather and construction equipment on soils during construction.

l. Areas requiring undercutting and removal of unsatisfactory soils.

m. Types of materials to be excavated and possible uses and/or disposition of the materials.

n. Fill and backfill placement procedures, including recommended moisture content range, and types of compaction equipment.

o. Results of pH tests and salinity tests and resistivity measurements, as appropriate, necessary to design corrosion control and grounding systems. The raw field data shall be included in the report.

p. Lateral earth pressures and pressure coefficients (active, passive, and at rest) and internal friction angles for design of walls below grade, including backfill, compaction and subdrainage, and their requirements.

q. Results of laboratory soils testing, to include classification and compaction tests, on representative samples of proposed borrow material (both on and/or off the installation). Testing shall be as specified in paragraph 4.1.8.1. If borrow material is to be obtained from sources off the installation, provide the name and location of the borrow source.

r. Provide calculations that support the recommendations for the foundation design. The calculations may be included in an appendix to the report. Calculations shall include loadings, capacities, safety factors, settlement analysis, bearing analysis, and references from which calculations are based. Any graphs and formulas shall be clearly indicated along with derivation of curve slopes and data derived from laboratory testing. Computer outputs shall also be included.

Three copies of the geotechnical report shall be submitted with the 60 percent submittal. If revisions are made to the 60 percent design submittal that require revisions to the geotechnical report, a revised report (three copies) shall be provided with the final design submittal. In addition, the pavement design and/or pavement structural design data shall also be submitted with the 100 percent Site/Utility Design Submittal.

4.1.3 Certification. The successful proposer shall be fully responsible for acceptable foundations, pavements and other geotechnical aspects for the proposed project. The proposer and his professional geotechnical engineering consultant shall certify in writing that the design of the project has been developed consistent with the site specific geotechnical conditions. The certification shall be stamped by the consulting professional geotechnical engineer and shall be submitted with the 100 percent design submittal.

4.1.4 Foundation Design.

4.1.4.1 General. Given the proposed site and the proposed structures, it is anticipated that shallow spread footings can be used for support of the proposed buildings.

4.1.4.2 Allowable Bearing Pressure. Allowable soil bearing pressure shall be determined by the consulting geotechnical engineer. An adequate level of protection against structural failure due to uniform and/or differential foundation settlement or general shear shall be provided.

4.1.4.3 Footing Dimensions. Column footings and load-bearing wall footings shall have minimum dimensions of 30 inches and 24 inches, respectively, and shall be located at a minimum depth of 24 inches below finish floor or finish grade, as appropriate. Non load-bearing wall footings shall have a minimum width of 18 inches and shall be located at a minimum depth of 18 inches below finish floor or finish grade, as appropriate.

4.1.4.4 Foundations Over Utility Lines. No foundation shall be constructed over existing or new water, sewer, steam, natural gas, chilled water, industrial waste and foundation drain lines. All foundations shall be stepped down to an elevation below the pipe invert elevation, or the utility line relocated.

4.1.4.5 Additional Requirements. Thickened slabs shall be required for walls and partitions which have a vertical load of 300 plf to 1100 plf. A separate isolated wall footing shall be used for walls having a vertical load in excess of 1100 plf.

4.1.4.6 Segmental Concrete Block Retaining Wall. The design of any segmental block retaining walls shall be in accordance with National Concrete Masonry Association (NCMA) SRW Design Manual for Segmental Retaining Walls, latest edition, or the Federal Highway Administration (FHWA) manual Mechanically Stabilized Earth Walls and Reinforced Soil Slopes: Design and Construction Guidelines. Only one method shall be followed for the complete design, including reinforcement design strength, layout, stability calculations, and seismic effects. The segmental retaining wall system shall be designed under the direction of, and be signed by, a professional engineer.

4.1.5 Site Classification for Seismic Design. The project site shall be classified as Site Class D for the purpose of determining maximum considered earthquake spectral response accelerations S_{ms} and S_{ml} in accordance with Corps of Engineers Technical Instruction “TI809-04, Seismic Design for Buildings.”

4.1.6 Slabs on Grade. All interior slabs on grade, including storage rooms, shall be underlain by a moisture vapor barrier consisting of lapped polyethylene sheeting having a minimum thickness of 6 mils and a minimum 4-inch thick capillary water barrier of open graded, washed pea gravel, or crushed stone. Concrete slabs shall be jointed around columns and along supported walls to minimize cracking due to possible differential movement.

4.1.7 Soil Compaction.

4.1.7.1 Soil compaction shall be achieved by equipment approved by the consulting geotechnical engineer. Soil materials shall be moistened or aerated as necessary to provide the moisture content that will readily facilitate obtaining the compaction specified with the compaction equipment used.

Each layer of structural fill and subgrades shall be compacted to the following minimum percent of the modified Proctor maximum density, determined in accordance with ASTM D 1557:

Beneath structures and building slabs, to 5 feet beyond structure limits, around footings and in trenches *5	90 percent
Beneath streets and paved areas, except top 12 inches in fill and top 8~~6~~ inches in native soil *5	90 percent
Beneath streets and paved areas, top 12 inches in fill and top 8~~6~~ inches in native soil	95 percent
Beneath shoulders	90 percent
Beneath sidewalks and grassed areas	85 percent
Base course under paved areas	100 percent

The requirements shall be verified or modifications recommended by the consulting professional geotechnical engineer in the report wherever engineering, soils, or climatic factors indicate the necessity. Any modification to the specified compaction requirements shall require the approval of the Contracting Officer.

4.1.7.2 The Contractor, with recommendations and input from his consulting geotechnical engineer, shall edit and submit the following UFGS Specifications:

02300A	Earthwork
02315A	Excavation, Filling and Backfilling for Buildings
02316A	Excavation, Filling and Backfilling for Utilities

Compaction control using one- and two-point compaction tests with a family of curves as described in the Appendix of the Corps "preliminary" geotechnical report shall be included in the specification sections.

4.1.8 Construction Quality Control Testing.

4.1.8.1 Prior to initiating any structural fill placement and/or compaction operations, representative samples of the soils which will be used as structural fill or subgrade, both suitable on-site soils and off-site soils (borrow, both on and/or off the installation), shall be obtained and tested to determine their classification and compaction characteristics. The samples shall be carefully selected to represent the full range of soil types to be used. The moisture content, maximum dry density, optimum moisture content, grain-size and plasticity characteristics shall be determined. These tests are required to determine if the fill and subgrade soils are acceptable and for compaction quality control of the subgrades and structural fill. A minimum of 14 compaction tests shall be performed on materials classified as satisfactory for use.

Tests for the above soil properties shall be in accordance with the following:

Moisture Content	ASTM D 2216
Maximum Dry Density and Optimum Moisture	ASTM D 1557
Grain-Size (Wash No. 200, w/o Hydrometer)	ASTM D 422 and ASTM D 1140
Plasticity	ASTM D 4318

4.1.8.2 A representative number of in-place field density tests shall be performed in the subgrade of compacted on-site soils and in the structural fill and backfill to confirm that the required degree of compaction has been obtained. In-place density tests shall be performed in accordance with the sand cone method prescribed in ASTM D 1556; the use of nuclear gauges for density testing will not be permitted.

In-place density tests shall be performed in the material and at the minimum frequency specified below:

Material Type	Location of Material	Minimum Test Frequency
Fill, embankment and backfill	Beneath structures to 5-foot building line	One test per lift per each increment, or

		fraction, of 5000 square feet
Fill, embankment and backfill	Beneath paved areas	One test per lift per each increment, or fraction, of 7500 square feet
Fill, embankment and backfill	All other areas	One test per lift per each increment, or fraction, of 10,000 square feet
Subgrade	Under building slabs	One test per each increment, or fraction, of 3500 square feet
*4 Subgrade	Under paved areas, excluding roads	One test per each increment, or fraction, of 5000 square feet
Subgrade	Roads	One test per each increment, or fraction, of 100 linear feet
Subgrade	Under footings	One test per every fifth column footing and for each increment, or fraction, of 100 linear feet of wall footings
Backfill	Utility trenches beneath roads and paved areas	One test per each increment, or fraction, of 150 linear feet per foot of depth of backfill
Backfill	Utility trenches beneath grassed areas	One test per each increment, or fraction, of 150 linear feet per 2 feet of depth of backfill
Fill, embankment and Backfill	Areas compacted by hand operated compaction equipment, other than utility trenches	One test per foot of depth per each increment, or fraction, of 250 square feet, or for each 100 linear feet of long narrow (less than 3 feet wide) fills 100 feet or more in length

4.1.8.3 Any area that does not meet the required compaction criteria shall be reworked, and retested. If the moisture content of the soil is within the recommended range, additional compaction may be all that is necessary to

increase the density. If the moisture content is not within the recommended range, then, the moisture content shall be adjusted to within the range, and the area recompacted.
*5
4.1.8.4 All laboratory and field density testing shall be performed by a commercial testing laboratory which has been validated by the Engineer Research and Development Center Materials Testing Center (MTC) under the Corps of Engineers laboratory inspection and validation program. The laboratory shall be listed on the list of Corps of Engineers Validated Laboratories~~found adequate and qualified by a Corps of Engineers Division Laboratory Inspection Team~~.

4.1.9 Soil Treatment.

4.1.9.1 The pesticide applicator's principal business shall be pest control and the pesticide applicator shall be State certified in the U.S. Environmental Protection Agency (EPA) pesticide applicator category which includes structural pest control, and certified in the State of the project's location.

4.1.9.2 Pesticides shall be delivered to the project site in sealed and labeled containers in good condition as supplied by the manufacturer or formulator. Pesticides shall be stored, handled, and used in accordance with manufacturer's labels. Labels shall bear evidence of registration under the Federal Insecticide, Fungicide, and Rodenticide Act (MX), as amended.

4.1.9.3 The Contractor shall formulate, treat, and dispose of termiticides and their containers in accordance with label directions. Pesticides and related materials shall be kept under lock and key when unattended. Proper protective clothing and equipment shall be worn and used during all phases of termiticide application.

4.1.9.4 The Contractor shall provide a 5-year written warranty against infestations or reinfestations by subterranean termites of the buildings constructed under this contract. Warranty shall include annual inspections of the buildings. If live subterranean termite infestation or subterranean termite damage is discovered during the warranty period, and the soil and building conditions have not been altered in the interim, the Contractor shall:

a. Retreat the soil and perform other treatment as may be necessary for elimination of subterranean termite infestation;

b. Repair damage caused by termite infestation; and

c. Reinspect the building approximately 180 days after the retreatment.

4.1.9.5 Termiticides shall be currently registered by the EPA.

4.1.9.6 At the time of application, the soil moisture content shall be sufficiently low to allow uniform distribution of the treatment solution throughout the soil. Applications shall not be made during or immediately following heavy rains or when conditions may cause runoff and create an environmental hazard.

4.1.9.7 The Contractor shall establish complete and unbroken vertical and/or horizontal (as necessary) soil poison barriers between the soil and

all portions of the intended structure that may allow termite access to wood and wood related products. Application shall not be made to areas intended for use as a plenum air space. Surface treatments shall not be made for areas to serve as crawl spaces. Termiticide shall be applied as a coarse spray and provide uniform distribution unto the soil surface. Treatment shall be applied prior to placement of the vapor barrier and at least 12 hours prior to concrete placement. Where treated soil or fill material is not to be covered with a vapor barrier or waterproof membrane; adequate precautions shall be taken to prevent its disturbance. Soil or fill material disturbed after treatment shall be retreated as specified above before placement of slabs or other covering structures. Treatment of the soil on the exterior sides of foundation walls, grade beams, and similar structures shall be coordinated with final grading and planting operations so as to avoid disturbance of the treated barriers. Manufacturer's warnings and precautions shall be observed in the handling and use of such materials. Care shall be taken to prevent these chemicals from entering water supply systems, potable water supplies, or aquifers; and that they do not endanger plants or animals. The Contracting Officer shall be notified at least 48 hours prior to beginning of treatment and formulating, mixing, and application shall be performed in the presence of the Contracting Officer's representative.

4.1.9.8 Rates and methods of application shall be in accordance with the manufacturer's instructions on the pesticide label. Maximum application or dosage rates shall be used. If the pesticide contains less than the amount of active ingredient specified on the label, work shall be repeated with pesticides conforming to this specification.

4.1.9.9 The Contractor shall dispose of residual pesticides and containers off Government property in accordance with label instructions and EPA criteria.

4.1.9.10 The Contractor shall edit and submit the following UFGS Specification:

02364A TERMITICIDE TREATMENT MEASURES FOR SUBTERRANEAN TERMITE CONTROL

4.1.10 Decay Treatment. The Contractor shall be responsible for determining and implementing the appropriate treatment for prevention of subsurface induced decay.

4.1.11 Radon Mitigation. The design and construction of foundation walls, slabs, and crawl spaces shall include provisions for the reduction of radon entry and facilitate its removal. Radon mitigation shall comply with the requirements of EPA 402-R-94-009.

4.1.12 Soil Resistivity Testing. The proposer to whom this contract is awarded shall be responsible for all soil resistivity testing required for cathodic protection design of underground utilities and for design of grounding systems.

4.1.13 Borrow. Borrow material (if needed) shall be selected to meet the requirements and conditions of the particular fill or embankment for which it is to be used. Borrow material shall be obtained from the borrow area on the installation as shown on the drawings. Necessary clearing, grubbing, and satisfactory drainage of borrow pits and the disposal of debris thereon shall be considered related operations to the borrow excavation. Borrow pits shall

be neatly trimmed and drained after the excavation is completed. Borrow materials shall be free of any contaminants.

4.2 Erosion and Sediment Control. The design shall include an Erosion Control Plan in accordance with the State of North Carolina Erosion Control Manual, latest revision. The Erosion Control Package shall be per state requirements. The Contractor shall provide an Erosion Control Package, approved by the NCDENR Land Quality Section prior to construction, which meets all state and local requirements. Any violation to such permits will result in the immediate shutdown of work until corrective measures have been taken at the Contractor's expense.
*4 *7 *8
4.3 Demolition. Existing facilities scheduled for demolition are shown on the site plan. Asbestos and other hazardous materials are present in many of these structures and must be removed. Survey reports for these buildings (26105 (6105), ~~25807~~ 26807 (5807), 25713 (5713), 25517 (5517), 25519 (5519) and 25420 (5420) can be found in Appendix E. The demolished materials shall become the property of the Contractor, unless otherwise indicated or specified. It is unknown whether the current sewer/water system contains asbestos- cement piping. Should such piping be encountered the Contactor shall handle all cutting, removals and disposal, as needed for connections or replacements, in accordance with North Carolina asbestos rules and regulations. Materials not owned by the Government and not used in construction may be disposed of on government property. The land clearing and inert debris (LCID) Landfill is permitted for disposal of yard waste (pine needles, limbs, trees, untreated wood, unpainted wood), inert debris (bricks, concrete, rubble, glass, concertina wire, and uncontaminated soil) and asbestos.

4.3.1 The demolition landfill is permitted for disposal of construction and renovation debris: buildings, asphalt, painted and treated wood, incidental scrap metals, shingles, and debris incidental to construction such as cement or joint compound bags, plastic pails or metal cans or drums, insulation, and wallboard.

4.3.2 White goods (appliances), tires, aluminum cans, and municipal solid waste (such as paper, plastic, cardboard, or household garbage) must be disposed of at the transfer station.
*7
4.3.3 Construction debris containing asbestos ~~will~~ may be disposed of in the Lamont landfill or may be disposed of in an off-post facility certified by the State of North Carolina.

4.3.4 Special arrangements must be made with the Environmental Branch of the DPWE Environmental & Natural Resources Division; building 3-1933, Butner Road; (910) 396-3372/3341 to dispose of liquids, hazardous waste, and tires.

4.3.5 Municipal Solid Waste (MSW) shall be disposed at the Fort Bragg transfer station. MSW shall be defined as any wastes other than those described above, to include garbage, vegetable waste and containers thereof resulting from the handling, preparation, cooking and consumption of foods, and excess quantities of paper, plastic, and cardboard.

4.4 Clearing and Grubbing. Clear and grub all trees and vegetation necessary for construction; but save as many trees as possible. If the site has trees, a tree removal plan will be required for the proposal and shall be refined for the final design. Trees that will be removed and ones that will

remain should be shown on the proposal drawings. For the final design a tree survey must be conducted to show all tree removal required for the project including removals for utilities and erosion control measures. A tree survey is not available with the RFP, thus only show areas of tree removal for concept proposal. See the IDG for more specific information on the tree removal plan. Trees designated for removal shall be marked 60 days prior to start of construction by the Contractor. The Contractor shall provide written notification to Contracting Officer after the trees have been marked. Fort Bragg timber harvesting group will accomplish tree removal. The Contractor shall allow 60 days in his RFP construction schedule for timber harvesting of the site from the time the written notification is given to the Contracting Officer. The Contractor at his expense shall remove remaining trees, stumps, limbs, and vegetation after timber harvesting. Items not harvested can be ground, stockpiled and used as organic material in the topsoil as a sustainability measure.

4.5 Wetlands. Jurisdictional non-tidal wetlands have been identified on the project site. Wetlands are shown on the wetlands survey. The Contractor shall minimize impacts to wetlands. The wetlands shown on the site layout plan to remain shall not be impacted by any phase of construction. Proposed site layout impacts 0.45 acre. The Contractor shall obtain all permits, meet all mitigation requirements, as required, and/or any additional State and Federal requirements for loss of wetlands. All costs associated with obtaining permits, mitigation, if required, and/or any additional state and federal requirements for loss of wetlands shall be borne by the Contractor. The Contractor must allow a minimum of 180 calendar days for the approval process in their RFP schedule.

4.6 Earthwork. The Contractor is responsible for obtaining additional subsurface soil information required for completion of the design.

4.7 Borrow Material. Obtain borrow material required for construction from sources on Government property. A permit is required to use the Fort Bragg borrow material pits. At Fort Bragg the borrow pit permits shall be processed with the Environmental Branch of the PWBC Environmental & Natural Resources Division; Building 3-1933, Butner Road; (910) 396-3372/3341. Permits are issued for the life of the specific contract only. Borrow materials may only be used on the project for which the permits are issued. The Contractor shall keep a copy of the completed permit with the vehicle throughout the contract borrow operation. Copies of the borrow permit forms will be provided at the Prework Conference.

4.8 Water Distribution System. The design of the water distribution system shall be in accordance with the North Carolina Division of Environmental Health Public Water Supply Section. The Division of Environmental Health requires approval of plans and specifications for the water supply system. Where the requirements of the agency having jurisdiction and the requirements defined herein disagree, the more stringent shall apply. The Contractor shall determine the domestic and the fire demands for the facilities and shall verify the design of all components of the domestic and fire protection supply systems. Design of a water distribution system requires both domestic and fire flow demands be considered concurrently.

4.8.1 Analysis of Existing System Capacity. The Contractor shall obtain all necessary static pressure, residual pressure, and flow characteristics of the existing distribution system by actual field tests. The contractor shall

provide design calculations that show the existing system is capable of handling the additional flows.

4.8.2 Connections to Water Mains and Building Service Lines. The water service line shall be of sufficient size to furnish water to the buildings in the quantities and at the pressure required by National Standard Plumbing Codes. The pipe size shall be determined by the maximum velocity with peak not to exceed 6 ft/s (1.8 m/s). The building shall be provided with a separate corporation stop and a separate interior service main cut-off valve readily accessible but not exposed in the public area. Service lines may connect at the exterior 5 feet (1.5 meter) line producing a single service line to the distribution system. TM 5-813-5 Water Supply, Water Distribution The contractor shall be responsible for the design of the sizes, locations, and means of connections to the existing system based on Facility requirements and system conditions. Establish the location for the connection based upon economics and site design parameters.

4.8.2.1 Connections to Water Mains. Design the connections to the station water system including the meter assemblies, the necessary backflow-preventing devices and temporary connections. Fire protection system shall be considered as that part of the distribution system supplying fire hydrants, or fire hydrant laterals. Service connections supply water from the main to the building. Mains shall be looped with no dead ends and be of adequate size to satisfy both domestic and fire flow requirements. Minimum main size is 200 mm [8 in]. Sufficient sectional control valves shall be provided so that no more than two fire hydrants will be out of service in the event of a single break in a water main. A copper tracer wire shall be placed directly above all non-metallic mains when plastic marking tape does not provide means of determining alignment of pipe by metal detecting equipment. The pipe, valves, and all other materials shall meet the requirements of the North Carolina Division of Environmental Health and TM 5-813-5 Water Distribution and Supply for a 1034 kPa 150 psi working pressure system. Provide sacrificial anodes for all valves and metal pipe.

4.8.2.2 Building Connections. Design and construction shall be in accordance with the International Building Code 2000 or latest edition.

4.8.3 Trenches. Water and gas mains may not be installed in the same trench. Water mains shall have a minimum earth cover of 750 mm 30 in. Adequate cover must be provided for freeze protection. Where frost penetrates to a depth greater than the minimum above, greater cover will be required. Sufficient cover must also be provided to protect the pipe against structural damage due to superimposed surface loads. Lines installed with less cover than the minimums stated shall be concrete encased with a minimum concrete thickness of 150 mm [6 in].

4.8.4 Fire Hydrants. Hydrants and valves shall conform to AWWA C502. Fire hydrants shall be compatible with those presently in use at the installation, with similar pump and hose connections. The maximum amount of flow that can be permitted shall be determined. Fire hydrant spacing shall be no greater that 150 m [500 ft] apart by paved road. In addition, a hydrant shall be provided so that all parts of the facilities can be reached by hose lines not over 90 m [300 ft] long. All distances shall be calculated along the closest route that the fire apparatus must travel (i.e.; along the curb or access lane). Each hydrant may account for a maximum of 95 liters per second [1500 gpm] of fire protection regardless of existing pressures or water line capacity. A fire hydrant shall be located within 15m [50 ft] from any fire

department connection provided. Hydrant laterals shall be 150 mm [6 in] minimum size, and shall not exceed 15 m [50 ft] in length, and shall have an underground shutoff valve. Valve box, at each lateral, shall be located within 3 m [10 ft] of the hydrant, and shall not be located where obstructed by parked vehicles, shrubbery, etc. Guard post barriers shall be provided where hydrant locations are subject to vehicle damage.

4.8.5 Shutoff Valve. Each building shall be provided with a separate service and main shutoff valve, readily accessible to maintenance and emergency personnel. Shutoff valves in paved area are prohibited.

4.8.6 Metering. Meters shall be equipped with electronic or radio frequency transmitters for remote monitoring. The method of remote monitoring must be coordinated with installation utility systems.

4.8.7 Materials. Materials for the water distribution system shall be in accordance with the Contractor shall only use products for the water system that are allowed in Section 02510 Water Distribution System. Contractor shall comply with all installation requirements for the material selected and used as well as Part 3 Execution of Section 02510 Water Distribution System specification. Bacteriological Disinfection shall be done as prescribed by AWWA C651.

4.8.8 Economic Analysis. Conduct an economic analysis to determine if cathodic protection and protective coatings should be provided for the following structures in soil resistivity conditions above 10,000 Ohm-cm: ferrous metallic potable water lines; concentric neutral cable; ferrous metallic piping passing through concrete shall not be in contact with the concrete.

4.8.9 Field Quality Control for Water Distribution. The Contracting Officer will conduct field inspections and witness field tests specified. The Contractor shall perform field tests and provide labor, equipment, and incidentals required for testing. Water needed for field tests will be furnished by the Government. Do not begin testing on any section of a pipeline where concrete thrust blocks have been provided until at least 5 days after placing of the concrete. Testing procedures and requirements shall comply with Part 3 Execution of Section 02510 Water Distribution System specification.

4.9 Sanitary Sewerage System. The design of the sanitary sewer distribution system shall be in accordance with the North Carolina Division of Water Quality The design shall conform to the Division Quality “Gravity Sewer Minimum Criteria” http://h2o.enr.state.nc.us/ndpu/ndpuapps.html#Sewer Permit for the sewer collection and rerouting plan and specifications is required by the Division of Water Quality. Layout for sewer shall follow paragraph 2-3 of Army Tm 5-814-1 Sanitary and Industrial Wastewater Collection Gravity Sewer and Appurtenances dated March 1985. Under no conditions will existing sewers be allowed to run under any proposed buildings. All existing sewer not being removed shall be kept active during the construction of this project. Where the requirements of the agency having jurisdiction and the requirements defined herein disagree, the more stringent shall apply. The contractor shall determine the sewerage contribution for the facilities and shall verify the design of all components of the sanitary sewer system.
*6

4.9.1 Analysis of Existing System Capacity. The Contractor shall provide design calculations that show the existing system is capable of handling the additional flows. The flow in the existing system will be measured by placing a flow meter in a downstream manhole for 1 week. Data collected will be used to obtain NC DENR Wastewater Permit. In the event that the analysis shows the existing sewer to be inadequate, the Contractor will notify the Contracting Officer immediately.

4.9.2 Calculate Sewage Contribution. Calculate the sewage contribution from the new facilities in accordance with the North Carolina Division of Water Quality, and TM 5-814-1 Sanitary and Industrial Wastewater Collection Gravity Sewer and Appurtenance.

4.9.3 Connections to Sewage Collection Mains and Building Service Lines. The Contractor shall be responsible for the design of the sizes, locations, and means of connections to the existing system based on Facility requirements and system conditions. Establish the location for the connection based upon economics and site design parameters. Connect to gravity mains with manholes.

4.9.3.1 Building Sewer and Laterals. Laterals and building connections shall be designed and constructed in accordance with the International Building Code [2000 or latest edition]. Minimum diameter for laterals shall be 150 mm [6 in] while maintaining a minimum velocity of 45 meters per minute [2.5 fps].

4.9.3.2 Main Collection Trunks. Pipe sizes and slopes shall be calculated using the Manning Formula. Manholes are required at all changes of direction and spaced not more than 122 m [300 ft] apart [or as required by installation]. Curved sewers are prohibited. Pipes shall be designed to flow full and maintain a minimum velocity of 45 meters per minute [2.5 fps].

4.9.4 Trenches. Sewer and water lines, mains or laterals, shall be placed in separate trenches. The separate trenches shall maintain a minimum lateral separation of 3m [10 ft].

4.9.5 Minimum Sewer and Water Distribution Pipe Separation Requirements. Parallel water and sewer pipe and crossings between water and sewer pipe shall be in accordance with the State of North Carolina DENR requirements.

4.9.6 Cover. Sewer lines shall be located at a depth greater than the frost penetration. Coordinate with building connection requirements. To prevent the pipe from being crushed by construction vehicles and the design vehicle, the minimum cover above the top of pipes shall be 750mm [30 in] unless pipe materials are used and/or unless the pipe is concrete encased with a minimum of 150 mm [6 in] thickness of concrete.

4.9.7 Sewage Pump Station and Force Main. Pump stations and force mains shall not be used on this project.

4.9.8 Field Quality Control for Sanitary Sewer Distribution System. The Contracting Officer will conduct field inspections and witness field test specified. The contractor shall perform field tests, and provide labor, equipment, and incidentals required for testing, except that water needed for field tests will be furnished by the Government. For force mains, do not begin testing on any section of a pipeline where concrete thrust blocks have been provided until at least 5 days after placing of the concrete. Testing

procedures and requirements shall comply with the 02531 Sanitary Sewers specification section.

4.10 Stormwater Management Systems. Post-construction discharge will not exceed pre-construction discharge. The detention pond location shown on the drawings shall not be changed. A combination of infiltration, retention and detention methods, including underground storage, should be considered. Drainage from roof drains shall be handled with downspouts connected to the storm drain system. Do not use splash blocks.

The storm drainage system shall be properly coordinated with surrounding properties to ensure that runoff does not cause damage to other properties. The calculation of runoff and the evaluation of existing storm sewer drainage systems shall be as described herein paragraph entitled “Storm Drainage Collection Systems and Grading”. All drainage lines shall remain in conduit to stable grade.

The Contractor shall perform a drainage analysis of the upstream drainage basin. Stormwater runoff from the upstream drainage basin discharges into the wetlands on this project site, which then flows under Butner Road. This information would be required for designing the stormwater system to satisfy pre- and post-construction discharge requirements.

The design of the storm drain system for the fire truck access drive shall ensure the access drive beneath the UEPH remains dry at all times.

4.10.1 Stormwater Retention/Detention System for Volume Control. For volume control, an on-site storm water retention/detention system may be required.

4.11 Storm Drainage Collection Systems And Grading.

4.11.1 Omitted.

4.11.2 Building Connections. Connection to building roof or area drain lines shall be designed and constructed in accordance with the International Building Code [2000 or latest edition].

4.11.3 Storm Sewer System. The design frequency for the collection systems and surface drainage shall be 10 years. The Contractor shall provide a storm drainage plan with the final Civil design submittal, verifying that the design will handle runoff as specified, and that the designer has analyzed for impact on outfall stream banks and drainage structures on and off the site to water shed basin. The storm drainage system will utilize as its final depositor the existing ditching system on site. All storm drainage pipes 12 inches or greater shall have their joints wrapped with filter fabric. The filter fabric shall extend 12 inches past the joint.

4.11.3.1 Storm drain systems shall be designed so that the hydraulic grade line for the computed design discharged is as near optimum depth as practicable and velocities are not less than 2.5 ft/s (0.75 m/s) when the drains are one-third or more full.

4.11.3.2 A 10-year 1 hour design storm shall be used to calculate the run-off. The time of concentration (Tc) for paved areas will be 10 minutes and for grassed areas will be 20 minutes. Tc for large wooded or grassed areas shall be based on length of overland flow. Runoff shall be based on the

Rational Method Formula (Q=CIA) where Q=runoff in cubic feet per second (cfs), C=coefficient of runoff (1.0 for pavement, 0.4 for turf), I=average rainfall intensity in inches per hour during time of concentration (Tc), and A=drainage area in acres. Runoff shall be controlled by a storm drainage system properly designed to eliminate erosion.

4.11.3.3 The minimum size of pipe shall be 15-inch (375 mm) inside diameter.

4.11.3.4 The minimum velocity of flow in conduits during a design storm shall be 2.5 ft/sec (0.762 m/s). Maximum flow shall not exceed 15 ft/sec (4.6 m/s) for concrete pipe.

4.11.4 Manholes. Manholes or junction boxes shall be provided at points of change in storm drainage pipe grades and/or sizes. Distance between points of entry shall not be more than 300 feet. Manholes shall not be constructed with plastic or corrugated metal. Frame and cover or grating shall be cast iron or malleable cast iron as specified in Commercial Item Description A-A-60005. Cover shall have marking to identify the structure as Storm Drainage. Step inserts shall be installed where the depth of the manhole exceeds 3'-6". The wall along the step inserts shall be vertical. Existing storm drainage structures may be used if heights are appropriate or modified for proposed grades and storm system flows. Storm drainage lines servicing adjacent existing occupied buildings must remain operable during construction.

4.11.5 Drainage of Grass Areas. Except at personnel and overhead doors, the difference in grade between the finish floor elevation and the surface of the ground immediately adjacent to the building shall be a minimum of 6 inches. Minimum slopes across grass surfaces shall be two percent. Storm drain pipe, sheet flow surfaces, and swales shall be designed to prevent standing water under normal conditions.

4.11.6 Drainage of Roads and Pavements. Provide a positive crown in all streets and roads. Minimum slopes across parking area and other paved areas shall be 1 percent.

4.11.6.1 Maximum flow in all gutters shall be restricted to the quantity which will cause flooding of 1/2 of the adjacent traffic lane at the design storm. When this flow is reached, it shall be intercepted by catch basins and removed to an underground drainage system. Sidewalk culverts are not permitted. The amount of runoff to any one inlet in roads and parking areas shall not exceed the capacity of that inlet.

4.11.6.2 Storm drain inlets shall be located so that no collection swales flow across a street or sidewalk to reach a storm drain other than where cross gutters are used. Side opening catch basins are preferable. Where grating must be used, they shall be of "Bicycle Proof" design. Catch basins shall not be constructed with plastic or corrugated metal.

4.11.6.3 Inlets and grating areas in the sag of vertical street curves that act as sumps shall be oversized 100 percent. Inlets within roadway shall be designed for maximum of 0.4 foot (120 mm) head. Storm water bypass flow shall be taken into the design of inlets on grade. Inlets in grass area shall be type A with a head not to exceed 0.5 foot (150 mm). Inlets shall not be constructed with plastic or corrugated metal.

4.11.7 Materials. Pipe for culverts and storm drains shall be of the following materials and conform to the specified standards:

Reinforced Concrete Pipe: ASTM C 76 or AASHTO M 170.

4.11.8 Field Quality Control for Storm Drainage System. The Contractor's quality control (CQC) representative is responsible for field inspections and testing procedures.

4.11.9 Storm Runoff Calculation. Storm runoff shall be calculated with consideration for the following:

a. Select design values to be used in the storm drainage design calculations, including: rainfall intensity, surface runoff, and runoff coefficients.

b. Selected storm drainage plan with respect to planned connections to the existing storm drainage system, when applicable.

c. Alternate schemes considered in arriving at selected storm drainage plan.

d. Principal means of collection and disposal of storm water in the new storm drainage system. Include calculations for runoff and estimated sizing of pipe and drainage structures.

e. Method proposed for handling roof runoff from gutter downspouts (roof drain collector system into an infiltration system).

f. Connections of building's mechanical drains to outside drainage system, where applicable, and cross referencing to the appropriate section and design discipline, when required.

g. Types of materials to be specified for storm drains, culverts and drainage and infiltration structures, allowing full range of options of suitable materials for each installation.

4.12 Pavement Design Criteria. Designs for streets, walks, roads, and parking areas shall include adequate space for trees. Include landscape islands at the ends of rows of parking.

4.12.1 Parking lots shall be bituminous pavement except in front of dumpsters where concrete shall be used. Concrete shall be used in the access drive and pavement serving Company Operation Facilities, Battalion Headquarters, and Brigade Headquarters where FMTV's (2-1/2 ton) trucks maneuver. A minimum turning radius of 35 feet shall be provided for the 2.5 ton FMTV's. Concrete pavement shall be provided behind all COFs. Concrete pavement shall be a minimum of 110' between back of curb and back of curb behind all COFs.

4.12.2 New pavement minimum thickness shall be as shown in the table below or as required by the PCASE program.

Traffic Usage	Bituminous Asphalt	Base Course
POV Traffic (Cars and Light Trucks)	1.5 inches (40 millimeter)	6 inches (150 millimeter)
POV Access Drive	2 inches	8 inches

(Service Trucks)	(50 millimeters)	(200 millimeters)
Heavy Duty (FMTV and semi-trailer)	3 inches (75 millimeters)	8 inches (200 millimeters)

Traffic Usage	Concrete Pavement
Company Operation Facility Loading Area Pavement and Access Drive	7 inches (180 millimeters)
Dumpster Pad Approach Drives	7 inches (180 millimeters)

Pavement design calculations will be based on the latest version of Pavement Transportation Computer Assisted Structural Engineering program available on the web at http://www.pcase.com/.

4.13 Permit Requirements. Operating permits and licenses shall be the responsibility of the Contractor, in accordance with Section 00700, “Contract Clauses”. Timely acquisition of all the necessary design and construction related permits shall be the responsibility of the Contractor. As some permit process times take 6 months or more, the Contractor, upon notice to proceed, shall immediately begin working on the permits so as not to delay completion of the project. The following permits have been identified, but may not be inclusive, as being required for this project: Erosion and Sediment Control, National Pollution Discharge Elimination Service, Wetland permits for mitigation, preservation and/or creation, Disposal Permit, Borrow Permit.

4.14 Gas Distribution System. An existing gas main exists along Butner Road. This line shall be tapped to serve this project. The connection to the existing gas distribution system shall be made south of Butner Road at a location where the base owns the line, as opposed to the portion of the system owned by the North Carolina Gas Company. If the Contractor chooses to connect to the system at a location where the gas company owns the system, the contractor shall pay all costs associated with the hot tap connection. The approximate location for connection is shown on the drawings and shall be made using a hot tap connection. To reduce line sizes, the line pressure shall be reduced in two stages. At the point of connection to the existing main, a pressure reducing valve shall be installed to reduce the pressure to 20 psig. The pressure shall be reduced again at each building. When connecting to an existing steel piping system, provision shall be made to ensure that the integrity of the cathodic protection is not compromised. Shutoff valves shall be provided on the exterior of each building. A gas regulator and an individual gas meter to monitor fuel use shall be provided for each building structure. Existing lines that are to be abandoned shall be either removed or physically disconnected from all gas sources and purged. Abandoning existing gas piping shall be done in accordance with ANSI B31.8, Gas Transmission and Distribution Piping Systems. Installation of gas piping will be in accordance with ANSI B31.8 and 49 CFR 192. An existing 8-inch gas line also exists along Jackson Street. The Contractor may opt to use this line for making the hot tap connection.

4.14.1 Drips. Unless high pressure natural gas is used, drips shall be installed at the low points, immediately following reduction from high

pressure to medium pressure (at supply points) and at occasional low points throughout the system to provide for blowing out the lines.

4.14.2 Valves. Sectionalizing valves shall be installed where service lines intersect the gas main as shown on the gas plan so that interruptions to service can be minimized. Each valve shall be installed in a valve box. Each valve box shall have an access cover flush with grade, suitable for vehicular traffic. Sectionalizing valves are in addition to the individual shutoff valves referred to in paragraph 4.14 above.

4.14.3 Mains and Service Lines. Lines shall not be placed under any buildings. Lines shall be placed with a minimum of 2 feet of earth cover. All underground gas piping installed under pavement areas shall be encased in a protective casing. All new underground gas lines shall be provided with both marking tape and tracer wire.

4.14.4 Cathodic Protection. Cathodic protection shall be provided for all metallic underground gas distribution piping. The Contractor shall submit his complete cathodic protection system design in his final design submittal. The design shall be in accordance with UFGS 13110A and 13112A.

4.14.5 Existing Mains. For existing gas mains serving existing buildings to remain, there shall be no interruption in service. Any damage to these lines shall be repaired.

4.15 Heating Hot Water and Chilled Water Distribution. In lieu of providing boilers and chillers dedicated to each building, the Contractor may centralize chillers and boilers in one building and pump low temperature water and chilled water underground to adjacent buildings. If this approach is taken, it shall limited to the portion of the project site east of Jackson Street. Prefabricated piping system shall be installed to supply and return heating hot and chilled water to and from the mechanical equipment rooms.

4.15.1 The successful Contractor shall be responsible for preparing final drawings that will provide information on the underground portion of the chilled water/heat distribution system as follows:

a. The routing of the system
b. Pipeline sizes
c. The profiled evaluations of pipelines along the route
d. The obstacles that must be avoided along the route
e. The valving arrangements in valve pits
f. Expansion loops, L- and Z- bends and anchors for pipeline expansion compensation.
g. Other pertinent information and details required to clearly show the requirements of the underground heat distribution system. The system manufacturer will be responsible for actual design and sizing of the expansion loops and anchors. The successful contractor shall design the valve pits in detail.

4.15.2 Drawings.

a. Develop overall low/high temperature water and chilled water distribution plan at reduced scale. This drawing need not be in detail, using single lines to represent distribution and to present an overall picture. Show which M-plate the new portions of distribution are shown on,

and show notes and legend on this sheet. This drawing shall be submitted with the 100 per cent submittal.

b. Develop distribution plans using the latest developed site plans. The successful contractor shall survey along the routing of the low/high temperature and chilled water distribution system mains and branch lines. Distribution plans shall be to scale and shall show the following:

1. Routing and pipe sizes

2. Underground utilities, existing and new (storm drains, sanitary sewers, water lines, gas lines, electrical and signal ducts and cables, etc.) at crossing points only of low/high temperature and chilled water distribution. Identify utilities and show sizes.

3. Show all street, sidewalks, pavements and curbs and gutters. Identify streets and roads. Do not show grade contours on plan drawings.

4. Identify mains, branch lines, service lines, valve pits, drain pits, vent boxes, and building entrances. Provide adequate notation pertinent to distribution systems.

5. Show ground line stationing of low/high temperature water distribution at 100-foot stations, beginning station 0+00 at the point of origin at the valve pit.

6. Show any additional information not covered above that is essential to the distribution system plan drawings.

c. Develop profiles of low temperature water and chilled water distribution mains, branch lines, and service lines from left to right from the point of origin using a horizontal and vertical scale that does not present a distorted appearance, preferably 1 inch = 20 feet horizontally and 1 inch = 5 feet from origin to points of termination. In the event branch lines extend both left and right from point of origin, run profiles stations left and right from this point to points of termination. Show the following information on the profiles:

1. Show and identify existing and new finished grades, streets, roads, curb and gutters, sidewalls, trees, shrubbery, fire hydrants, poles, etc., and any other objects, material, or equipment that fall in line with routing of distribution.

2. Locations and identification of underground utilities, existing and new. (Storm drains, sanitary sewers, water lines, gas lines, electric and signal ducts and cables, etc.)

3. Low/high temperature water and chilled water distribution pipes represented by two single lines and a centerline. Provide minimum earth cover of 3 feet over top of distribution. Avoid excessive depths of lines except where absolutely necessary to prevent interference with other utilities.

4. Show sizes of distribution lines and coordinates, station and designate profiles to coincide with plan drawings to provide an easy to follow arrangement.

5. Show and designate valve pits and building entrances.

6. Show any additional information not covered above, that is essential to conveyance of distribution system profiles.

d. Develop valve pit detail drawings showing the following:

1. Typical valve pit construction details showing structural steel, concrete thicknesses, grating, sump pump, air vent bottles, and drains, etc. Do not intermingle typical construction details with individual valve pit piping/valving details.

2. Plans and elevations of each individual valve pit showing piping, valving, venting, and line drainage arrangement. Provide adequate room in pits to allow installation and maintenance of equipment.

3. Provide air vents and drains at high and low points of high temperature water distribution to allow drainage of system.

4. Dimensions of valve pits (length, width, and depth). The depth shall be coordinated with the profiles.

5. Electrical service to pit sump pumps to be provided from underground electrical system or from the nearest building panel.

6. Show any additional information not covered above that will aid in clearly presenting the valve pits.

e. Provide valving so that portions of mains and branch lines may be sectionalized (maximum of every 600 feet) so that they may be shut off and drained. Valving shall be arranged to afford a minimum of interruption of services.

1. Low temperature water lines, mains and supply and return branch lines—globe valves

2. Chilled water lines, main lines and supply and return branch lines—globe valves

3. Drain lines—gate valves

f. Develop low temperature water (and chilled water) distribution building entrance details for buildings receiving distribution. Show the following information:

1. Typical low temperature water and chilled water piping termination and valving arrangement inside mechanical equipment rooms. Terminate each service with full size globe valve bypasses below line valves. Low temperature water piping to be terminated 3 inches above the floor slab.

2. Location plans and enlarged plans of each building. Location plans to show general location of service lines in relation to buildings; enlarged plan to show center line dimensions and sizes for installation of service.

g. Develop and show the following miscellaneous details and schedules.

1. Centerline pipe spacing detail and schedule for chilled water pipe lines.

2. Typical connection details—branch lines to mains and service lines to branch lines for valved stubouts for future extension.

3. Show any additional detail not covered above that will aid in clarifying distribution system installation.

4.15.3 Cathodic Protection. Cathodic protection is required for underground heating and chilled water distribution systems in metallic conduits in soil having a resistivity of 30,000 ohm-cm or less.

4.16 Omitted.
*6
4.17 Exterior Power And Communication Demolition. Demolition of exterior power and communication systems shall be in compliance with all applicable codes and standards listed in Appendix A, Unified Facility Guide Specifications (UFGS), and as required herein. UFGS USACE guide specifications shall be used in preparation of the design and shall be edited consistent with the criteria furnished. UFGS NAVFAC guide specifications may be used only if no UFGS USACE guide specification is available for the subject matter. Items not included in the guide specifications shall be added either as a new specification section or as part of a UFGS specification. UFGS specifications can be downloaded from the Internet at http://www.ccb.org/ufgs/ufgs.htm. The most current edition of the codes and standards shall be used for construction and life safety design. Where there is a conflict between the RFP, codes and standards, the most stringent requirements shall apply. Where there is a conflict within the RFP, the most stringent requirements shall apply.

4.17.1 All existing aerial and underground power and communication lines within the area bounded by Reilly Road, Butner Road, Armistead Street and the existing railroad track shall be abandoned, removed, re-used or replaced as indicated below.

4.17.1.1 Remove existing aerial power and communication lines terminating at buildings or equipment being demolished as part of this project.

4.17.1.2 Remove existing underground power and communication lines terminating at buildings or equipment being demolished as part of this project, except lines 18 inches or more below grade that do not interfere with construction may be abandoned in place.

4.17.1.3 Replace all other existing aerial power and communication lines with new underground lines.

4.17.1.4 Replace all other existing underground power and communication lines with new underground lines, except lines 18 inches or more below grade that do not interfere with construction may be re-used or abandoned in place as appropriate.
*5
4.17.2 All existing aerial and underground power and communication lines within 100 feet of the MP Station construction site located east of Armistead

Street shall be abandoned, removed, re-used or replaced as indicated below. (In the event the MP Station Bid Option ~~1 (MP Station)~~ is not awarded and the Woodruff Substation and Feeder Bid Option is awarded, only the lines interfering with the new Woodruff Street Substation feeder~~Circuit~~ and lines interfering with extension of the existing communication ductline across Armistead Street shall be abandoned, removed, re-used or replaced as indicated).

4.17.2.1 Remove existing aerial power and communication lines terminating at buildings or equipment being demolished as part of this project.

4.17.2.2 Remove existing underground power and communication lines terminating at buildings or equipment being demolished as part of this project, except lines 18 inches or more below grade that do not interfere with construction may be abandoned in place.

4.17.2.3 Replace all other existing aerial power and communication lines with new underground lines.

4.17.2.4 Replace all other existing underground power and communication lines with new underground lines, except lines 18 inches or more below grade that do not interfere with construction may be re-used or abandoned in place as appropriate.
*6
4.17.2.5 The existing communications manhole located on the southeast corner of Butner and Reilly Roads shall be raised to road level of the new lane. The manhole neck and cover shall be replaced and/or reinforced to accommodate vehicular traffic.

4.17.3 Removal of lines shall include removal of all conductors, cables, conduits, ductlines, poles, guys, manholes, switches, transformers, lights and all other associated equipment and hardware. Removal of lines shall extend to the last pole or piece of equipment not being removed. The last pole or piece of equipment shall be re-configured as necessary for dead-end function.

4.17.4 Demolition of existing electrical utility lines shall be coordinated and scheduled with the Contracting Officer's Representative. Demolition of the electrical utilities shall not commence until new utilities (or temporary utilities) are provided. Power and communication outages shall be kept to a minimum and all interruptions shall be coordinated with Fort Bragg Public Works Business Center (PWBC) and Information Technology Business Center (ITBC) and approved by the Contracting Officer's Representative.

4.17.5 Removal or relocation of electrical lines that are not government property shall be coordinated with the respective utility owner.

4.17.5 All salvageable materials as determined by the Contracting Officer's Representative shall be delivered to a location on the base as directed by the Contracting Officer's Representative. All other material shall be transported to the designated landfill and disposed of as directed by the Contracting Officer's Representative.
*6
4.18 Exterior Power Distribution. The design and construction of the power distribution systems shall be in compliance with all applicable codes and standards listed in Appendix A, Unified Facility Guide Specifications (UFGS), and as required herein. UFGS USACE guide specifications shall be used in

preparation of the design and shall be edited consistent with the criteria furnished. UFGS NAVFAC guide specifications may be used only if no UFGS USACE guide specification is available for the subject matter. Items not included in the guide specifications shall be added either as a new specification section or as part of a UFGS specification. UFGS specifications can be downloaded from the Internet at http://www.ccb.org/ufgs/ufgs.htm. The most current edition of the codes and standards shall be used for construction and life safety design. Where there is a conflict between the RFP, codes and standards, the most stringent requirements shall apply. Where there is a conflict within the RFP, the most stringent requirements shall apply.

4.18.1 Fort Bragg is served by a 12,470/7,200 volt, three phase, four wire, grounded wye distribution system. The design and construction of the power distribution system shall be in compliance with the rules and recommendations of ANSI C2 and NFPA 70 and shall be in accordance with the Carolina Power and Light (CP&L) distribution standards. The primary service, transformers, secondary services, and all related wiring and components shall be provided. *5

4.18.2 ~~The primary distribution system shall be configured as a loop system. One feed to the loop shall originate at existing circuit number 8. The other feed to the loop shall be a new circuit originating at the Woodruff Street Substation. (See plate C-01 for the approximate location of the Woodruff Street Substation relative to the main project site).~~ The new primary power site distribution system shall be underground. Routing of the site distribution cable shall be alongside Armistead Road, Butner Road and Reilly Street unless otherwise directed by the Fort Bragg PWBC. The site distribution cable shall be sized to match the ampacity of the feeder cable. The site distribution cable shall be 15kV aluminum EPR cable with 133% insulation level and full concentric neutral. The site distribution cable shall be factory installed cable-in-conduit or shall be 4-inch minimum concrete encased ductlines with no less than one spare duct in each ductline. Power tapped-off from the site distribution cable to serve transformers shall be routed in 4-inch minimum concrete encased ductlines with no less than one spare duct in each ductline. Aerial-to-underground transition poles shall be equipped with fused cut-outs and distribution class arresters.

4.18.2.1 ~~Existing circuit 8 is part of a double circuit aerial line running along the north side of Butner Road. Circuit 8 (over) consists of 3-336 MCM aluminum phase conductors and 1-336 MCM aluminum neutral conductor. Circuit 3 (under) consists of 3#2/0 phase conductors and 1 #2/0 neutral conductor. Existing poles may be used as dip poles if space permits; otherwise, new dip pole(s) shall be installed to tap circuit 8. Feeder taps shall extend underground below Butner Road (jack and bore) to a new pad mounted primary air switch at the project site.~~ In the event the Woodruff Street Substation and Feeder Bid Option is awarded, the primary distribution system shall be connected by pad mounted primary switches to two primary feeders. One feeder shall originate at existing feeder number 8. The other feeder shall be a new feeder originating at the Woodruff Street Substation. The new Woodruff Street Substation feeder shall be the normal feed while feeder number 8 shall be a reserved as a backup feed for use by Fort Bragg PWBC only. The primary switch connection to circuit 8 shall be in the OPEN position.

4.18.2.1.1 A new bay shall be added to the Woodruff Street Substation complete with grading, fencing, lighting, grounding grid, foundation, structural framing, buswork, cabling, switches, oil circuit breaker and

voltage regulators. An isolation switch shall be provided to allow maintenance of the bay equipment. The bay shall match existing bays. The electrical designer shall visit the Woodruff Street Substation prior to submitting a proposal to become familiar with the existing structure and subsequent design requirements. As-built drawings of the Woodruff Street Substation are included in the RFP. The approximate location of the Woodruff Street Substation relative to the main project site is indicted on plate C-01.

4.18.2.1.2 The new Woodruff Street Substation feeder shall consist of two parallel sets of 3#4/0 AWG 15kV aluminum EPR factory installed cable-in-conduit with 133% insulation level and full concentric neutral. The cable-in-conduit shall be direct buried except concrete protection shall be provided under all paved areas and other areas subject to vehicular traffic. Ductlines crossing wetlands and conduit attached to bridges shall also be protected in a manner approved by the Contracting Officer's Representative. The design and permitting of ductlines crossing railroad tracks shall be completed by the Contractor in coordination with the railroad company and the Fort Bragg PWBC. The routing of the new feeder from the Woodruff Street Substation to the project site shall be coordinated with the Fort Bragg PWBC.

4.18.2.2 ~~The new circuit shall extend from the existing Woodruff Street substation to a new pad mounted primary air switch at the project site. The circuit shall consist of two parallel sets of 3#4/0 AWG aluminum EPR factory installed cable-in-conduit with 133% insulation level and full concentric neutral. The cable-in-conduit shall be direct buried except concrete protection shall be provided under paved areas. Ductlines crossing wetlands and conduit attached to a bridge shall also be protected in a manner approved by the Contracting Officer's Representative. The design and permitting of ductlines crossing railroad tracks shall be completed by the Contractor in coordination with the railroad company and the Fort Bragg PWBC. The routing of the new ductline shall be coordinated with the Fort Bragg PWBC.~~ In the event the Woodruff Street Substation and Feeder Bid Option is not awarded, the primary distribution system shall be connected by a pad mounted primary switch to existing feeder number 8. A spare compartment shall be provided at the switch for future connection to a second primary feeder.

4.18.2.3 ~~A new bay shall be added to the Woodruff Street Substation complete with grading, fencing, lighting, grounding grid, foundation, structural framing, buswork, cabling, switches, oil circuit breaker and voltage regulators. An isolation switch shall be provided to allow maintenance of the bay equipment. The bay shall match existing bays. The electrical designer shall visit the Woodruff Street Substation prior to submitting a proposal to become familiar with the existing structure and subsequent design requirements.~~ Existing circuit 8 is part of a double circuit aerial line running along the north side of Butner Road. Circuit 8 (over) consists of 3-336 MCM aluminum phase conductors and 1-336 MCM aluminum neutral conductor. Circuit 3 (under) consists of 3#2/0 phase conductors and 1 #2/0 neutral conductor. Existing poles may be used as aerial-to-underground transition poles if space permits; otherwise, new transition pole(s) shall be installed to tap circuit 8. The circuit 8 feeder tap shall extend underground below Butner Road to a new pad mounted primary air switch at the northwest corner of the project site. Two 4-inch concrete-encased ductlines shall extend from the switch to the west side of Reilly Street, and a three-phase compartment of the air switch shall be reserved for future use.

4.18.3 ~~Distribution class arresters shall be provided at each aerial to underground tap.~~ All lines crossing below railroad tracks and existing roads (including Butner Road and Reilley Street) shall be run in coated rigid steel conduits driven under the pavement or railroad tracks. Damage to conduit coatings shall be prevented by providing ferrous pipe jackets or by predrilling.

4.18.4 Deleted~~The primary power distribution system shall be configured as an underground loop system such that each transformer and transformer branch can be fed from two directions. The removal of any one transformer shall not totally isolate any other transformers down line. The system shall have the capability of being connected to either the new Woodruff Street substation feeder or existing feeder 8. The new Woodruff Street substation feeder shall be the normal feed while feeder 8 shall be a reserved as a backup feeder for use by Fort Bragg PWBC only. The primary switch connection to circuit 8 shall be in the OPEN position. The primary 'loop' cable connecting feeder 8 and the new Woodruff Street substation feeder shall be two parallel sets of 3#4/0 AWG 15kV aluminum EPR factory installed cable-in-conduit (CIC) with 133% insulation level and full concentric neutral. Routing of the 'loop' cable shall be alongside Armistead Road, Butner Road and Reilly Street unless otherwise directed by the Fort Bragg PWBC. CIC lines shall be concrete protected under all paved areas and any other areas subject to vehicular traffic. Power tapped-off from the 'loop' power shall be routed in 4-inch minimum concrete encased ductlines with no fewer than one spare duct in each ductline. A pad mounted air switch with a minimum of one spare compartment for future use shall be connected to the 'loop' power and located alongside Reilly Road and no more than 600 feet south of Butner Road~~.

4.18.5 Power manholes shall not be used. Above ground pad-mounted load-break switches shall be used for cable terminations and circuit isolation capability. Cable termination cabinets may be used for cable terminations only. All cable junctions shall be at either pad-mounted cable termination cabinets or at pad-mounted switches. All tap-offs shall be at pad-mounted switches. Transformers may only be fed from a pad-mounted switch or another transformer. All above ground equipment shall be of the dead-front type. The pad-mounted transformers shall be loop feed types with switching capability to allow the transformer to be connected to either of the two feeders. Distribution class surge arresters shall be installed in all transformers. Distribution-class transformers used for facility power supply shall be located exterior to such facilities. Landscape screening shall be provided for the pad-mounted transformers, switches and cabinets. Transformers, switches and cabinets shall be factory painted brown 20059.

4.18.6 Prior to connection, the contractor shall ensure that all new primary conductors and equipment connections incorporate the same "phase rotation" as the existing system.

4.18.7 An insulated protective cap with drain wire shall be provided on all open (unused) primary bushings of pad mounted switches, sectionalizing terminals, and transformers.

4.18.8 All outside branch circuits and feeders shall be permanently marked to identify the circuit number and the location from which it receives power. Cable tags shall be provided on both ends of all primary cable identifying the equipment or building it serves. Transformers, switches and cabinets will also have a permanent one line drawing or other approved identification to

enable Fort Bragg personnel to easily determine the direction of feeds or loads served.

4.18.9 A watt-hour meter shall be provided for each building. Locate meters at the building transformer.

4.18.10 Overhead distribution shall be limited to providing aerial-to-underground dip poles as necessary. Dip poles shall include fused cutouts and lightning arresters. All new and replaced lines shall be underground.

4.18.11 Transformers shall be pad mounted loop feed type rated for 65-degree rise. The high voltage compartment shall contain incoming primary feeder, load break switch, fuse protection and surge protection. Transformers shall be R-temp filled (non-PCB) and rated 95 KV BIL. Transformers shall be equipped with a liquid level gauge, liquid temperature gauge, pressure-vacuum gauge, drain valve, pressure relief valve, tap changer, bolted tank cover, steel divider, 4-position sectionalizing load break switch, RTE bushing wells, ground pads, six hole spade secondary lugs, parking stands, filling plug, grounding lug, and lifting lugs. A kilowatt-hour digital demand meter package compatible with the Fort Bragg EMCS system shall be provided at each transformer.

4.18.12 Ductlines shall be located outside the drip lines of existing trees scheduled to remain. Ducts that cannot be routed around tree drip lines shall be tunneled through the drip line area as approved by the Contracting Officer's Representative.

4.18.13 All new underground electric lines shall be staked and all electrical distribution equipment locations shall be marked for approval by the Contracting Officer's Representative prior to line construction. Routing shall be coordinated with all new and existing utilities in the area.

4.18.14 Fault circuit indicators (FCI’s) shall be provided at each incoming phase of pad mounted primary switches, terminal cabinets and transformers. FCI’s shall be the test point reset type and shall be mounted to the test point of the separable insulated connectors (i.e., loadbreak elbows). FCI’s shall include an indicator window or LED, and shall reset to normal status automatically upon restoration of power. A tamperproof and scratch resistant remote indicator shall be mounted on the pad-mounted enclosure to indicate trip status. The location of the remote indicator for each type of pad-mounted enclosure shall be approved by the Contracting Officer prior to installation.

4.18.15 All outages shall be scheduled for an off peak time (nights, weekends or holiday) in coordination with the Fort Bragg Public Works Business Center (PWBC). Full preparation shall be done prior to the outage to minimize downtime. All work items requiring an outage on the same feeder shall be accomplished concurrently during a single outage.

4.18.16 All coordination with the Fort Bragg PWBC shall be done through the Contracting Officer's Representative.
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4.19 Exterior Lighting. The design and construction of the exterior lighting shall be in compliance with all applicable codes and standards listed in Appendix A, Unified Facility Guide Specifications (UFGS), and as required herein. Except as indicated herein, the design of the exterior lighting system and the selection of lighting levels and uniformities shall

be in accordance with the Illuminating Engineering Society (IES) Lighting Handbook and the Fort Bragg Installation Design Guide. UFGS USACE guide specifications shall be used in preparation of the design and shall be edited consistent with the criteria furnished. UFGS NAVFAC guide specifications may be used only if no UFGS USACE guide specification is available for the subject matter. Items not included in the guide specifications shall be added either as a new specification section or as part of a UFGS specification. UFGS specifications can be downloaded from the Internet at http://www.ccb.org/ufgs/ufgs.htm. The most current edition of the codes and standards shall be used for construction and life safety design. Where there is a conflict between the RFP, codes and standards, the most stringent requirements shall apply. Where there is a conflict within the RFP, the most stringent requirements shall apply.

4.19.1 Exterior lighting shall be provided for all new roadways, walkways, pedestrian bridges, parking areas, impound areas, COF hardstand areas, plazas, steps, flagpoles, canopies, volleyball courts, basketball courts, picnic shelters, boot wash areas and building entrances. Exterior lighting shall also be provided wherever existing lighting is being demolished but the area being lighted remains. All exterior lighting shall be photocell controlled via lighting contactors with H-O-A switches for on-at-dusk, off-at dawn operation. Lighting at volleyball courts and basketball courts shall be further controlled by local switches (one switch at each court). The location of controls shall be coordinated with the User after Contract award.

4.19.2 Pole mounted exterior lighting shall utilize full cutoff rectilinear fixtures with pulse start metal halide lamps and ballasts. Bollards shall utilize cutoff louvers with compact fluorescent lamps and electronic ballasts or pulse start metal halide lamps and ballasts.

4.19.3 Poles shall be straight and square. Pole heights shall be proportional to the surroundings but shall not exceed 30 feet. Pole designs shall comply with the recommendations of the American Association of State Highway and Transportation Officials (AASHTO) Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. The effective projected area (EPA) of fixtures shall be included in pole design. Poles shall be located to preclude light trespass in the barracks or MP Station. Poles located alongside roadways shall be provided with breakaway couplings. Poles located in other areas subject to vehicular traffic shall be mounted on concrete pedestals sized for the anticipated vehicle type. Poles located in turf or landscaped areas shall be mounted on concrete foundations 3 inches in height above the ground.

4.19.4 Fixtures dedicated to walkway lighting shall be either bollards or short pole mounted fixtures not exceeding 12 feet in height. The bollards shall be vandal resistant with a round shaft made from concrete or one-piece extruded aluminum (0.125 inch minimum wall thickness).

4.19.5 All exterior poles, fixtures and metal bollards shall be dark bronze anodized aluminum. All poles and bollard shafts shall include grounding provisions, and all shall be mounted on concrete foundations. Scratched, stained, chipped or dented poles or bollard shafts shall not be installed.

4.19.6 Light poles and circuiting in the vicinity of the railroad tracks shall be coordinated with the railroad company. Permitting of poles within the railroad easement and ductlines crossing railroad tracks shall be

completed by the Contractor in coordination with the railroad company and the Fort Bragg PWBC.

4.19.7 All coordination with the Fort Bragg PWBC shall be done through the Contracting Officer's Representative.

4.19.8 Sustainability. The exterior lighting design shall incorporate Sustainability Design, in accordance with ETL 1110-3-491. See section 13 of this document for more information on Sustainability design.
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4.20 Exterior Communication Distribution. The design and construction of the communication systems shall be in compliance with all applicable codes and standards listed in Appendix A, Unified Facility Guide Specifications (UFGS), and as required herein. UFGS USACE guide specifications shall be used in preparation of the design and shall be edited consistent with the criteria furnished. UFGS NAVFAC guide specifications may be used only if no UFGS USACE guide specification is available for the subject matter. Items not included in the guide specifications shall be added either as a new specification section or as part of a UFGS specification. UFGS specifications can be downloaded from the Internet at http://www.ccb.org/ufgs/ufgs.htm. The most current edition of the codes and standards shall be used for construction and life safety design. Where there is a conflict between the RFP, codes and standards, the most stringent requirements shall apply. Where there is a conflict within the RFP, the most stringent requirements shall apply.

4.20.1 A new 6-way 5-inch contractor furnished/installed telephone ductline shall cross Armistead Street from the existing manhole located east of Armistead Street and north of the MP Station (shown on plate C-16). A new 4-way 5-inch contractor furnished/installed telephone ductline shall extend across the project site to Reilly Road. New 2-way 4-inch contractor furnished/installed telephone ductlines shall extend from manholes in the 4-way 5-inch ductline to the main telephone board at each building. A new 2-way 4-inch contractor furnished/installed telephone ductline shall extend from a new site communications manhole to the west side of Reilly Road opposite the project site. Seal, cap tag and mark the conduit.
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4.20.2 An additional new 1-way 4-inch ~~telephone~~ ductline for the commercial telephone and an additional new 1-way 4-inch ductline for CATV services shall extend from the commercial telephone and CATV boards at each barracks building to an unpaved location outside the building 5-foot line. Other buildings with commercial telephone and/or CATV services shall likewise be provided ~~an~~ additional new 1-way 4-inch ~~telephone~~ ductlines. Neither the commercial telephone nor the CATV ductline shall use the same manholes provided for the government telephone service. All work pertaining to the commercial telephone service shall be coordinated with the commercial telephone service provider in the vicinity. Locations of conduit stub-outs for commercial telephone and/or CATV services shall be approved by the Contracting Officer’s Representative.
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4.20.3 ~~Communication ductlines shall be direct buried except those under paved areas and other areas subject to vehicular traffic shall be concrete encased. Ductlines crossing existing roads shall be jack and bored. Ductlines crossing wetlands and conduit attached to a bridge shall be protected in a manner approved by the Contracting Officer's Representative. All empty ducts shall include pull wire and shall be sealed, capped, tagged and marked.~~ Communication ductlines shall be direct buried except those under

paved areas and other areas subject to vehicular traffic shall be concrete encased. Ductlines crossing existing roads shall be run in coated rigid steel conduits driven under the pavement or railroad tracks. Damage to conduit coatings shall be prevented by providing ferrous pipe jackets or by predrilling. Ductlines crossing wetlands and conduit attached to a bridge shall be protected in a manner approved by the Contracting Officer's Representative. All empty ducts shall include pull wire and shall be sealed, capped, tagged and marked.

4.20.4 Communication ductlines and manholes shall be located outside the drip lines of existing trees scheduled to remain. Ducts that cannot be routed around tree drip lines shall be tunneled through the drip line area as approved by the Contracting Officer's Representative.

4.20.5 The telephone systems shall employ the use of manholes in the distribution. The manholes shall be 38Y-J4. The manholes shall require a sump, ground rod, straps and cable racks. Manholes located in traffic areas shall be designed for H2O wheel loading as defined by AASHTO HB-13. The exact elevation, placement and orientation of telephone manholes shall be coordinated with the Fort Bragg Information Technology Business Center (ITBC). The ducts shall be placed in the lowest terminators. No conduit crossovers in the telephone manholes shall be allowed.

4.20.6 CATV service in buildings with commercial telephone service shall be run with the commercial telephone service in a single 1-way 4-inch conduit (see paragraph 4-20.2). CATV service in buildings without commercial telephone service shall be run in a single 1-way 4-inch conduit extending from the CATV board to an unpaved location outside the building 5-foot line. All CATV work shall be coordinated with the CATV provider in the vicinity. Locations of conduit stub-outs for CATV services shall be approved by the Contracting Officer’s Representative.

4.20.7 The Contractor shall exercise care when working around existing cables in the existing manholes. Any cables damaged by the contractor shall be repaired or replaced by the contractor immediately and at no additional cost to the government. Existing manhole openings shall be enlarged or new openings shall be provided to accommodate the new 5-inch ducts.

4.20.8 All new telephone ductlines shall be staked and all manhole locations shall be marked for approval by the Contracting Officer's Representative prior to line construction. Routing shall be coordinated with all new and existing utilities in the area.

4.20.9 The exterior telephone distribution system shall be completed for inspection and acceptance by the Fort Bragg ITBC at least six (6) months prior to the project BOD (Beneficiary Occupancy Date). Completion shall include cleaning and pumping of all manholes.

4.20.10 All coordination with the Fort Bragg ITBC and PWBC shall be done through the Contracting Officer's Representative.

4.20.11 The design and permitting of ductlines crossing railroad tracks shall be completed by the Contractor in coordination with the railroad company and the Fort Bragg PWBC. The routing of the new ductline shall be coordinated with the Fort Bragg PWBC.

4.20.12 The communication systems shall comply with the requirements of Installation Information Infrastructure Architecture (I3A) Design and Implementation Guide.

4.21 Traffic Signal System. The design and construction of the traffic signal system shall be in accordance with the provisions of the most current editions of the Manual of Uniform Traffic Control Devices (MUTCD), the North Carolina Department of Transportation (NCDOT) supplement to the MUTCD, the NCDOT traffic signal specifications, all applicable codes and standards listed in Appendix A, referenced Unified Facility Guide Specifications (UFGS), and as required herein. Guide specifications are referenced in this RFP for their use in preparation of the design and shall be edited consistent with the criteria furnished. The most current edition of the codes and standards shall be used for construction and life safety design. Where there is a conflict between the RFP, codes and standards, the most stringent requirements shall apply. Where there is a conflict within the RFP, the most stringent requirements shall apply.

4.21.1 New traffic signals shall be provided at the intersection of Reilly road and Ricketts Street as indicated on Layout Plan C of the RFP. All underground utilities shall be verified and located prior to pole drilling and conduit trenching.

4.21.2 All power and signal lines shall be underground. All signals shall be mounted on galvanized steel mast arm. Mast poles shall be located a minimum of 6 feet from back of curb, with the exact location subject to approval by the Contracting Officer’s Representative. Mast pole and arm shall be designed to withstand minimum wind speeds as specified by North Carolina Department of Transportation. The Contractor shall submit a detailed shop drawing for the mast arm poles and foundation design to the Contracting Officer Representative for approval prior to fabrication.

4.21.2 The traffic signal controller and modem shall be the models recommended by Fort Bragg PWBC to fully interface with Fort Bragg traffic software. Loop detection shall be provided in all directions. Phase sequencing and timing shall be set to provide an orderly flow of traffic and shall be coordinated with existing upstream and downstream signals.

4.21.2 The traffic signal controller cabinet shall be designed to accommodate signal heads provided under this contract and also accommodate the addition of future signal heads. The physical dimensions of the controller cabinet shall be oversized to allow placement of a 20”x6”x23”(WxDxH) NEMA 3R electrical panel. The cabinet shall be equipped with two doors. The concrete foundation for the controller cabinet shall include 6x6 w2.9xw2.9 welded wire fabric for reinforcement. The color of the new controller cabinet shall be brown (Federal Specification no. 20059).

4.21.3 The traffic signal head section shall be 12” cast aluminum with glass lenses utilizing LED lights. Mast arm signal heads shall be located in accordance with the North Carolina supplement to the MUTCD. Spacing of signal heads on Mast arm shall be centered in the traffic lane. Signal heads shall be mounted to mast arm using Astro-bracket or approved equal mounting device. Installation of conduit and cable under existing roadways shall be installed by the jack and bore method only. All conduit entering junction boxes shall extend 2 inches minimum but not more than 3 inches maximum.

4.21.4 Traffic signal poles and circuiting in the vicinity of the railroad tracks shall be coordinated with the railroad company. Permitting of poles within the railroad easement and ductlines crossing railroad tracks shall be completed by the Contractor in coordination with the railroad company and the Fort Bragg PWBC.

4.21.5 All coordination with the Fort Bragg PWBC shall be done through the Contracting Officer's Representative.

4.21.6 The design of traffic signal system shall be performed by an engineer with no less than two years experience in traffic signal design and licensed as a Professional Engineer by the state of North Carolina. Evidence of experience shall be provided to the Contracting Officer's Representative upon request.

4.22 Cathodic Protection.

4.22.1 Department of Transportation guidance. All metallic natural gas piping be shall be coated and cathodically protected regardless of the soil resistivity as stated in 49 CFR, Part 192.

4.22.2 Corrosion Control. All metallic underground storage tanks storing petroleum or hazardous substance and all hazardous liquid pipelines shall be cathodically protected as stated in 40 CFR, Part 280; 49 CFR, Part 195; and AR 200-1.

4.22.3 Design Requirements. CP systems shall be designed to provide protective potential to meet the requirements of the National Association of Corrosion Engineers (NACE) Standard RP-0169, Control of External Corrosion on Underground or Submerged Metallic Piping Systems, or NACE Standard RP-0185, Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems, as appropriate.

4.22.4 Compatibility. New or supplemental CP systems shall be compatible with existing CP systems and other adjacent structures or components to facilitate repair and maintenance.

4.22.5 Tracer Wire. When plastic pipe is used to extend a steel gas distribution main, an insulated No. 8 AWG copper wire shall be exothermically welded to the existing steel main and run the length of the new plastic main. This wire may be used as a locator tracer wire and to maintain continuity to any future steel gas main extension.

4.22.6 Coatings. CP and protective coatings shall be provided for the following buried and submerged ferrous metallic structures regardless of soil or water resistivity.

4.22.6.1 Natural Gas And Propane Piping.

4.22.6.2 Liquid fuel piping.

4.22.6.3 Underground fuel storage tanks. CP and protective coatings shall be required for tanks not coated in accordance with UL1746.

4.22.6.4 Fire Protection Piping.

4.22.6.5 Ductile or cast iron piping. CP and protective coatings shall be required for pressurized piping under floor (slab on grade) in soil.

4.22.6.6 Conduit Piping Systems. CP and protective coatings shall be required for underground heat distribution and chilled water piping in ferrous metallic conduit.

4.22.6.7 Hazardous Storage Structures. CP and protective coatings shall be required for structures with hazardous products as identified by the installation.

4.22.7 Cast Iron Pipe. CP treatment shall be as follows:

4.22.7.1 Below 10,000 Ohm-cm: For soil resistivity below 10,000 Ohm-cm at pipeline installation depth, provide CP, bonded joints, and protective coatings.

4.22.7.2 Between 10,000 and 30,000 Ohm-cm: For soil resistivity between 10,000 and 30,000 Ohm-cm at pipeline installation depth, provide bonded joints only.

4.22.8 Copper Water Service Lines. Piping shall be dielectrically isolated from ferrous pipe. Dielectric isolation shall conform with NACE RP-0286.

4.22.9 Ductile Iron Piping Systems. Conduct an analysis (except for ductile iron piping under floor in soil) to determine if CP and/or bonded or unbonded coatings are required. Unbonded coatings are defined in ANSI/AWWA C105/A21.5.

4.22.10 Economic Analysis. Conduct an economic analysis to determine if CP and protective coatings should be provided for gravity sewer lines and the following structures in soil resistivity conditions above 10,000 Ohm-cm:

Potable water lines.
Concentric neutral cable.
Buried and submerged ferrous metallic structures not covered above.

4.22.11 Contact With Concrete. Ferrous metallic piping passing through concrete shall not be in contact with the concrete.

5. ARCHITECTURAL DESIGN

5.1 Design Goals. Overall architectural goals for the UEPH complex are to provide a functional, visually appealing campus of facilities that is a source of pride for residents, other facility users, and the installation.

5.1.1 Site Planning Objectives. Provide a pedestrian-oriented site. Locate buildings to create outdoor spaces. Group buildings in configurations that create a sense of community and enable residents to readily identify their homes. Comply with Installation Design Guide. The Installation Design Guide requires a Beaux-Arts site planning theme. Integrate sustainable design principles by retaining and using existing topography to advantage; preserve environmentally sensitive areas and reduce overall project impact on the site. Provide site furnishings.

5.1.2 Exterior Architectural Design Objectives. Design buildings to enhance the visual environment of the installation. Exterior materials, roof

forms, and detailing shall comply with the Installation Design Guide and shall be compatible with the adjacent Holland Barracks Complex. Exterior colors shall match the adjacent Holland Barracks Complex. This project is located in the Old Post District. Use durable, low-maintenance materials. Configure building massing and use exterior elements such as colonnades, porticos, entry porches, and material detailing to provide human scale. Building exteriors to match Holland Barracks are preferred.

5.1.3 Interior Architecture Design Objectives. Arrange spaces in an efficient, functional manner. Provide simple circulation schemes that allow easy wayfinding within buildings. Use durable materials and furnishings that can be easily maintained and replaced. Comply with Installation Design Guide. Maximize use of daylighting and operable windows. Use interior surfaces that are easy to clean and light in color; avoid trendy or bright color schemes. Design UEPH interiors with a residential ambience. To the extent possible, design interiors that residents can personalize (for example, arrange living units to allow more than one furniture placement scheme; provide telephone/data jacks on multiple walls to allow optional locations for the desk). Structure interior spaces to allow maximum flexibility for future modifications; companies and battalions often change size or mission, requiring reconfiguration of facilities.

5.1.4 Material and Product Selection Criteria. Materials shall meet the requirements of the RFP. The RFP includes a range of specificity: some material requirements are specific (no option); other material requirements allow a range of options. The RFP requirements establish a minimum quality level. Higher quality materials will be judged more favorably.

5.2 Applicable Codes and Standards. Except as specified otherwise in the RFP, design and construction of facilities shall comply with the latest editions (as of the date of the RFP) of the following. Major criteria references for building design are listed below; additional requirements are included throughout the RFP. Refer to Appendix A for a list of criteria references, and sources of availability. It is the responsibility of the Designer or Designers of Record to ensure the design complies with all applicable criteria whether specifically identified in this list of references or not.

5.2.1 National Fire Codes, published by the National Fire Protection Association (NFPA), including NFPA 101 Life Safety Code.

5.2.2 International Building Code (IBC).

5.2.3 Federal Std 795 Uniform Federal Accessibility Standards (UFAS), and Americans With Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG). If these criteria conflict, the most stringent requirement shall apply.

5.2.4 Department of Defense Antiterrorism Standards for Buildings.

5.2.5 The Fort Bragg Installation Design Guide (IDG).

5.2.6 Unified Facilities Criteria (UFC) 1-200-01 “Design: General Building Requirements”.

5.3 IBC Occupancy and Construction Type Classifications.

5.3.1 General. Occupancy classifications, construction types, allowable areas, maximum building heights, and fire separation requirements for mixed occupancy and for location on property shall comply with the requirements of the International Building Code. Requirements for egress and protection from hazards shall comply with NFPA 101. Additional DOD-specific requirements are contained in MIL Hdbk 1008C. See Unified Facilities Criteria UFC 1-200-01 “Design: General Building Requirements” dated 31 July 2002.

5.3.2 UEPH Buildings. Occupancy classification: Residential Group R-2.

5.3.3 Company Operations Facilities. Occupancy classification of administrative areas, and locker room facilities serving less than 50 occupants: Business Group B. Occupancy classification of supply areas: Storage Group S-1. Common Locker Rooms for 50 or more occupants: Assembly Group A-3.

5.3.4 Battalion Headquarters. Occupancy classification of administrative areas: Business Group B. Occupancy classification of classroom areas: Assembly Group A-3.

5.3.5 Brigade Headquarters. Occupancy classification: Business Group B.

5.3.6 Military Police Station. Mixed Occupancy: Business Group B, Assembly A-3, Institutional I-3.

5.4 Exterior Construction.

5.4.1 Acceptable Materials and Colors. Exterior elements of the facilities shall comply with the Installation Design Guide (IDG) unless required otherwise by applicable codes or this RFP.

5.4.2 Exterior Walls. Comply with IDG. The following are the only permitted exterior wall finishes: brick, split-face CMU, EIFS, precast concrete and cast stone. Preferred primary exterior wall finish is common face brick, color to match Holland Barracks. Jumbo brick is not permitted. Preferred accent materials are split-face CMU, EIFS, precast concrete and cast stone. Exterior insulation finish systems are not permitted less than 2400 mm [8’-0”] above the adjacent grade and are not permitted anywhere that they are subject to impact from building occupants. Exterior Insulation and Finish System (EIFS) shall be a system designed with provision to direct incidental moisture out of the system. Exposed wood is not permitted. A sample masonry panel as described in UFGS 04810/04200 is required. Louvers shall be storm-resistant profile and shall have enclosed drainable sill pan and bird screen. Joint sealants used at building exterior shall have a service life for the exposure condition of at least ten years, retaining elasticity and seal.

5.4.3 Roofs. All roofs shall be pitched no less than 6:12 and shall be asphalt shingle to match adjacent Holland Barracks complex. The only exceptions to this requirement are as follows: Low-slope membrane roofing is permitted only over the one-story portion at the MP Station. Low-slope roofing is not desired and shall be kept to a minimum. Interior roof drains are not permitted. Low-slope membrane roofing shall be sloped minimum one half inch per foot. Shingle roof slope may be reduced to minimum 4:12 slope at crickets. Shingle roof slope may be reduced to minimum 4:12 slope if the gable or rake edge of the roof abuts a wall and all sloping portions of that

wall are sloped 6:12. Roofing material and color shall comply with IDG. Roofing systems shall comply with UFC 1-200-01.

5.4.3.1 Roof Warranty. All roofing systems shall be warranted by the Contractor on a no penal sum basis for a period of five years against material and workmanship deficiencies, system deterioration caused by exposure to the elements and/or inadequate resistance to service design loads, water leaks and wind uplift damage. The roofing systems covered under this warranty shall include the entire roofing system including, but not limited to, fasteners, connectors, roof securement components and assemblies. In addition, the system shall consist of finishes, slip sheet, insulation, vapor retarder, all accessories, components and trim. This includes roof penetration items such as vents, curbs, gutters and downspouts, eaves, ridge, hip, valley, rake, gable, wall and other roof system flashings and any other components required to provide a weathertight roof system. All material and workmanship deficiencies, system deterioration caused by exposure to the elements and/or inadequate resistance to specified design loads, water leaks and wind uplift damage shall be repaired as approved by the Contracting Officer. See the Contractor’s required warranty at Appendix I for issue resolution of warrantable defects. This warranty shall warrant and cover the entire cost of repair or replacement, including material, labor and related markups. The Contractor shall supplement this warranty with written warranties from the installer and system manufacturer, which shall be submitted along with the Contractor’s warranty; however, the Contractor shall be ultimately responsible for this warranty. The Contractor’s written warranty shall be as outlined in WARRANTY FOR ROOF SYSTEM at Appendix I, and shall start upon final acceptance of each facility. It is required that the Contractor provide a separate bond in an amount equal to the installed total roofing system cost in favor of the owner (Government) covering the Contractor’s warranty responsibilities effective through the five year Contractor’s warranty period for the entire roof system as outlined above.

5.4.3.2 Asphalt Shingle Roofing. Provide minimum 240-pound shingles. Use NRCA Roofing and Waterproofing Manual recommendations and standard details. Provide self-adhering rubberized ice and water shield underlayment at all valleys and roof perimeter.

5.4.3.3 Low-Slope Membrane Roofing. Provide manufacturer’s standard warranty for the roofing system for not less than 10 years from acceptance of the work. Warranty shall state that manufacturer shall repair or replace defective materials if the roofing system leaks or allow the insulation beneath the membrane to become wet during the period of the warranty.

5.4.4 Trim and Flashing. Gutters and downspouts are required at all eaves. Materials and colors shall comply with IDG except color of trim, gutters and downspouts shall match that of Holland Barracks (an exception to IDG requirement for copper gutters and downspouts). All roof flashings and roof-mounted items including straps and fasteners shall match the roof color. All straps, fasteners and other metal for trim, gutters and downspouts shall match trim color. All gutters, downspouts, trim and flashing shall be prefinished metal; provide 20-year manufacturer’s finish warranty. Concealed gutters are not permitted. Metal thickness and size of gutter brackets and straps shall be per SMACNA Architectural Sheet Metal Manual recommendations. All downspouts that terminate at a lower roof shall have corrugated splashpans. All other downspouts shall terminate at a cast iron downspout boot connected to underground roof drain system. Top of downspout boot shall be at least 18 inches above finish grade.

5.4.5 Miscellaneous Exterior Elements. Provide picnic shelters and site furnishings per paragraph 3.11.10. Comply with IDG. Screen walls shall match building exterior wall. Composite wall (grout-filled cavity between wythes) is not permitted.

5.4.6 Signage. Comply with IDG.

5.4.7 Exterior Doors and Frames. All personnel (side-swing) doors shall be at least 36″ wide except where noted otherwise.

5.4.7.1 Main Entrance Doors. Doors opening to building corridors or lobbies shall be aluminum storefront doors and frames with Architectural Class I anodic finish or AAMA 2605 organic coating finish. Color shall comply with IDG. At least one main entry to each building shall have a pair of entry doors minimum 6′-0″ wide. Doors shall be minimum 45 mm [1-3/4″] thick. Fully glazed stile and rail doors shall be medium or wide stile. Provide aluminum storefront systems that comply with wind load requirements of applicable codes. Framing systems shall have thermal-break design.

5.4.7.2 Exterior Non-entrance Doors. Exterior doors and frames opening to spaces other than corridors or lobbies shall be hollow metal; comply with ANSI A250.8/SDI 100. Doors shall be Level 3, physical performance Level A, Model 2; insulated; top edge closed flush. Frames shall be Level 3, 14 gauge, with continuously welded corners and seamless face joints. Doors and frames shall be constructed of hot dipped zinc coated steel sheet, complying with ASTM A653, Commercial Steel, Type B, minimum A40 coating weight; factory primed. Anchors and accessories shall be zinc coated. Frames in masonry shall have bituminous back-coating, plaster guards, and shall be grouted solid. Fire-rated openings shall comply with NFPA 80, and the requirements of the labeling authority. Doors and frames shall be painted semigloss.

5.4.7.3 Exterior Door Finish Hardware. Comply with IDG. Use Fort Bragg guide specification 08702 BUILDERS HARDWARE (Fort Bragg Projects). This guide specification can be viewed at http://en.sas.usace.army.mil at Engineering Criteria, Specifications. After award meet with the User to determine their locking requirements and details of their access control requirements. Provide lockset functions and access control system that meets User requirements.

5.4.7.3.1 Hinges. ANSI/BHMA A156.1; template, full mortise, heavy duty, ball bearing, minimum size 4 ½″ x 4 ½ ″, non-ferrous base metal, non-removable pins.

5.4.7.3.2 Locksets on Living Unit Entry Doors. ANSI/BHMA A156.13; grade 1; mortise lockset with removable core; non-ferrous base metal. Knob trim.

5.4.7.3.3 Locksets on Exterior Hollow Metal Doors. ANSI/BHMA A156.2; series 4000, Grade 1, non-ferrous base metal, removable core.

5.4.7.3.4 Exit (Panic) Devices. ANSI/BHMA 156.3; heavy-duty touch-pad type, through-bolted mounting. Listed and labeled for panic protection based on UL 305. Concealed vertical rod type is not permitted. Rim type is preferred.

5.4.7.3.5 Closers. ANSI/BHMA A156.4; series C02000, Grade 1, hydraulic, factory-sized, adjustable to meet field conditions. Provide for all exterior

doors, all entry doors to living units, all doors opening to corridors and as required by codes. At exterior doors to lobbies, corridors, mechanical rooms, janitors closets, and COF supply areas provide overhead holders or closers with hold-open capability.

5.4.7.3.6 Auxiliary Hardware. ANSI/BHMA A156.16. Provide wall or floor stops for all exterior doors that do not have overhead holder/stops. Provide other hardware as necessary for a complete installation.

5.4.7.3.7 Thresholds. ANSI/BHMA A156.21; non-ferrous metal. Provide at all exterior doors.

5.4.7.3.8 Weatherstripping. ANSI/BHMA A156.22. Provide at all exterior doors.

5.4.7.3.9 Kick Plates. ANSI/BHMA A156.6; non-ferrous metal. Provide at all doors with closers.

5.4.8 Exterior Windows. Provide aluminum windows complying with American Architectural Manufacturers Association AAMA/NWWDA 101 / I.S. 2. Minimum performance class shall be Heavy Commercial (HC). Minimum wind load, design pressure, performance grade, and other performance characteristics shall be determined in accordance with the International Building Code (IBC) and Department of Defense Antiterrorism Standards for Buildings. Provide windows with insulating laminated glass and thermal break necessary to achieve a minimum Condensation Resistance Factor (CRF) of 45. Finish shall be Architectural Class I anodic coating or AAMA 2605 organic coating. All sleeping rooms shall have operable windows complying with egress requirements of applicable codes. Operable windows are preferred at administrative offices. Operable windows shall have locks and fiberglass or aluminum insect screens removable from the inside. Tilt-in feature for inside washing is preferred at operable windows above first floor level.

5.4.8.1 Exterior Glass and Glazing. Comply with force protection minimum standards: Single glazing and the inner pane of insulated glass assemblies in exterior windows and doors shall be minimum 6 mm (1/4-inch) annealed laminated glass in accordance with DOD Antiterrorism Standards for Buildings. Glass shall be tinted solar grey.

5.4.9 Thermal Insulation. Provide exterior wall, floor, and roof/ceiling assemblies with thermal transmittance (U-values) in accordance with paragraph 11.3 of Section 01010. Provide a complete thermal envelope. All water and sprinkler pipes must be inside the thermal envelope. Insulation shall not be installed directly on top of suspended acoustical panel ceilings.

5.5 Interior Construction.

5.5.1 Floors. Comply with requirements of applicable codes. Non-combustible construction is preferred, even where combustible materials are allowed by code. Floor finish materials shall be as specified in functional and area requirements listed in Chapter 2 of the Statement of Work.

5.5.1.1 Ceramic Tile. Comply with ANSI A 137.1 and the recommendations of Tile Council of America (TCA) Handbook For Ceramic Tile Installation. Provide marble threshold under doors where a ceramic tile floor meets a different floor finish.

5.5.1.2 Carpet. Carpet shall be tufted; multilevel or level loop; commercial 100% branded nylon continuous filament type 6 or 6/6 100% recyclable pile fiber; solution or yarn dyed; minimum 0.114 inch pile height; minimum two yarn ply; minimum 1/10 gauge; minimum 26 oz per square yard pile yarn weight, not including weight of backing. Carpet shall be multicolored with at least three colors, random and/or tweed pattern. Avoid extremely bright colors, extremely light colors and high contrast patterns.
*5 *6
5.5.2 Interior Walls and Partitions. Comply with requirements of applicable codes. Non-combustible construction is preferable, even where combustible materials are allowed by code. Wall finish materials shall be as specified in functional and area requirements listed in paragraph 2 of the Statement of Work. All painted walls shall have scrubbable eggshell finish except where indicated otherwise. Partitions indicated with STC ratings shall extend to underside of deck above~~, and all openings in these partitions shall have STC rating equal to that of partition~~. Door openings in partitions with STC 55 and higher shall have sound gasketing and retractable sound sweep.

5.5.2.1 Metal Support Systems. Non-load bearing metal studs and furring shall comply with ASTM C 645; stud gauge shall be as required by height and loading, but shall not be less than 25 gauge. Maximum stud spacing: 400 mm [16”] on center. Provide galvanized finish. Provide blocking at all items fastened to wall.

5.5.2.2 Gypsum Board. Comply with ASTM C 36. Minimum panel thickness: 16 mm [5/8”]. Provide Type X panels in fire-rated assemblies. Provide moisture resistant panels at locations subject to moisture. Provide abuse-resistant panel/finish system where indicated in functional and area requirements. Abuse-resistant system shall meet performance requirements of USG Category 1 Light Duty or USG Category 2 Moderate Duty as indicated. Joint treatment: ASTM C 475 or high-build spray primer surfacer. Screws ASTM C 646. Drywall installation: ASTM C 840. Finishing shall be in accordance with UFGS 09250 GYPSUM BOARD.

5.5.2.3 Ceramic Tile. Comply with ANSI A 137.1 and the recommendations of Tile Council of America (TCA) Handbook For Ceramic Tile Installation. Substrate for wall tile in wet areas shall be mortar setting bed or cement backer board (gypsum board is not acceptable). Provide marble threshold under doors where a ceramic tile floor meets a different floor finish.

5.5.3 Ceilings. Comply with requirements of applicable codes. Comply with IDG. Non-combustible construction is preferable, even where combustible materials are allowed by code. Ceiling finish materials shall be as specified in functional and area requirements listed in Chapter 2 of the Statement of Work. Ceilings and overhead mounted architectural features shall comply with Department of Defense Antiterrorism Standards for Buildings. Where painted underside of precast concrete floor planks is indicated as an acceptable ceiling finish, exposed conduit is permitted but must be painted to match ceiling and exposed ductwork is not permitted. Where exposed structure is permitted exposed insulation is not permitted.

5.5.4 Columns. Column-free interior spaces are preferred. Columns shall not interfere with the furnishing and functioning of the spaces. All exposed columns shall be covered with a finish commensurate with the room finishes.

5.5.5 Interior Doors and Frames. Provide hollow metal doors, or flush wood solid core doors at UEPH and administrative spaces. Provide hollow metal doors at COF supply spaces. All frames shall be hollow metal and painted semigloss.

5.5.5.1 Wood Doors. Provide flush wood solid core doors complying with National Wood Window and Door Association (NWWDA) I.S.-1A. Stile edges shall be non-finger jointed hardwood compatible with face veneer. All wood doors shall be reinforced with solid blocking at all hardware fastening locations. Provide American Woodwork Institute (AWI) Grade A hardwood face veneer for transparent finished doors; provide AWI Sound Grade hardwood face veneer for painted doors. Transparent finished doors are preferred. Painted doors shall be semigloss.

5.5.5.2 Hollow Metal Doors. Comply with ANSI A250.8/SDI 100. Doors shall be Level 2, physical performance Level B, Model 2; factory primed. Anchors and accessories shall be zinc coated. Frames in masonry shall have bituminous back-coating, plaster guards, and shall be grouted solid. Door paint shall be semigloss.

5.5.5.3 Hollow Metal Frames. Comply with ANSI A250.8/SDI 100. Frames shall be Level 2, 16 gauge, with continuously welded corners and seamless face joints; factory primed. Anchors and accessories shall be zinc coated. Frames in masonry shall have bituminous back-coating, plaster guards, and shall be grouted solid.

5.5.5.4 Fire-rated and Smoke Control Doors and Frames. Comply with International Building Code (IBC), NFPA 80, and requirements of labeling authority. Doors and frames shall bear labels from IBC approved testing laboratory. Comply with positive pressure testing requirements of IBC.

5.5.5.5 Interior Door Finish Hardware. Comply with IDG. Use Fort Bragg guide specification 08702 BUILDERS HARDWARE (Fort Bragg Projects). This guide specification can be viewed at http://en.sas.usace.army.mil at Engineering Criteria, Specifications. Use knob trim at barracks living units. After award meet with User to determine their locking requirements and details of their access control requirements. Provide lockset functions and access control system that meets User requirements.

5.5.5.5.1 Hinges. ANSI/BHMA A156.1; template, full mortise; heavy duty, ball bearing on doors with closers; standard duty anti-friction bearing on doors without closers. Minimum size 4 ½″ x 4 ½″.

5.5.5.5.2 Locksets on Living Unit Entry Doors. ANSI/BHMA A156.13; Grade 1; mortise lockset with removable core; non-ferrous base metal.

5.5.5.5.3 Locksets on Interior Doors. ANSI/BHMA A156.2; series 4000, Grade 1, non-ferrous base metal, removable core.

5.5.5.5.4 Exit (Panic) Devices. ANSI/BHMA 156.3; heavy-duty touch-pad type, through-bolted mounting. Listed and labeled for panic protection based on UL 305. Concealed vertical rod type is not permitted.

5.5.5.5.5 Closers. ANSI/BHMA A156.4; series C02000, Grade 1, hydraulic, factory-sized, adjustable to meet field conditions. Provide for all entry doors to living units, all doors opening to corridors and as required by codes.

5.5.5.5.6 Auxiliary Hardware. ANSI/BHMA A156.16. Provide wall or floor stops for all doors that do not have overhead holder/stops. Provide other hardware as necessary for a complete installation.

5.5.5.5.7 Kick Plates. ANSI/BHMA A156.6; non-ferrous metal. Provide at all doors with closers.

5.5.6 Limitations on Use, Classification, and Flame Spread and Smoke Developed Ratings of Interior Finishes. Refer to paragraph 12-6.2.

5.5.7 Casework and Trim. Running trim shall comply with AWI Section 300 Custom Grade.

5.5.7.1 Service Areas in Living Units and Coffee Areas in Admin Areas. Provide manufactured unitized kitchen; or provide architectural cabinets complying with AWI Quality Standards, Section 400, Custom Grade cabinets with high pressure decorative laminate finish, meeting NEMA LD3 standards. Horizontal laminate: nominal .050” thick; vertical laminate: nominal .028” thick. Door and drawer edges shall be heavy duty 3 mm extruded polyvinyl chloride with self-locking serrated tongue. Countertop shall be post-formed high pressure decorative laminate with waterfall front edge and integral coved backsplash, or solid surfacing material.

5.5.7.2 Bathroom Vanity in Living Units. Provide manufactured unitized kitchen, or provide architectural cabinets complying with AWI Quality Standards, Section 400, Custom Grade cabinets with high-pressure decorative laminate finish, meeting NEMA LD3 standards. Horizontal laminate: nominal .048” thick; vertical laminate nominal .028” thick. Door and drawer edges shall be heavy duty 3 mm extruded polyvinyl chloride with self-locking serrated tongue. Vanity countertop shall be post-formed high pressure decorative laminate with waterfall front edge and integral coved backsplash, or solid surfacing material, or cast-filled acrylic with integral lavatory bowl.

5.5.7.3 UEPH Building CQ Station Reception Desk. Provide architectural casework complying with AWI Quality Standards, Section 400, Custom Grade cabinets with high pressure decorative laminate finish meeting NEMA LD3 standards. Horizontal laminate: nominal .048” thick; vertical laminate: nominal .028” thick. Door and drawer edges shall be heavy duty 3 mm extruded polyvinyl chloride with self-locking serrated tongue. Work surfaces and counter shall be high pressure decorative laminate, or solid surfacing material.

5.5.7.4 Vanity at Public Toilets. Provide architectural casework complying with AWI Section 400, Custom Grade cabinets with high pressure decorative laminate finish meeting NEMA LD3 standards. Horizontal laminate: :nominal .050” thick; vertical laminate: nominal .028” thick. Provide enclosed wall-hung vanity cabinet with countertop, or wall-hung countertop with apron. Exposed piping at accessible lavatories shall be insulated in conformance with ADA/UFAS. Countertop shall be post-formed high pressure decorative laminate with waterfall front edge and integral coved backsplash, or solid surfacing material.

5.5.7.5 Other casework. Provide architectural casework complying with AWI Section 400, Custom Grade cabinets with high pressure decorative laminate finish meeting NEMA LD3 standards. Horizontal laminate: nominal .050” thick;

vertical laminate: nominal .028” thick. Door and drawer edges shall be heavy duty 3 mm extruded polyvinyl chloride with self-locking serrated tongue. Work urfaces and counter shall be high pressure decorative laminate, or solid surfacing material.

5.5.8 Window Treatments. Provide horizontal aluminum mini-blinds at all exterior windows, except windows and storefront in corridors and lobbies. Blinds shall have one-inch wide x .008-inch thick slats with anti-static, anti-microbial polyester baked enamel finish. Provide heavy duty 1” x 1-1/2” steel headrail, and tubular steel bottom rail finished to match slats.

5.5.9 Interior Signage. Comply with requirements of ADAAG and UFAS. Provide interior room identification signage for all interior doors. All signage shall be in accordance with the Bragg sign standards, dated 31 March 98. All signs are to be from one manufacturer and shall match in color and style. All room sign copy is to be Helvetica medium with a ratio of height and width to meet Ft. Bragg Sign Standards, except for sign sizes, copy, and the addition of raised, tactile letters and Grade 2 Braille to meet the Americans with Disabilities Act (ADA) requirements. sided tape will not be accepted. Signage message shall be coordinated with the Government/user before ordering or installation. Provide Emergency Egress sign plaques that indicate “YOU ARE HERE” and the path of egress. Egress signs shall be placed on the room sign of each entry door to the Barracks modules, in addition to the egress signs for all other facilities. These signs are to be fully coordinated with the Fort Bragg Fire Marshall at the 100% review Submittal design phase and before fabrication and installation. The Fire Marshall is to review the correct placement and quantity of these signs within the building and also review the proposed path of egress that will be graphically illustrated on the sign. Suggested placements for these signs are to be determined before installation.

5.5.10 Fire Extinguisher Cabinets. Designer shall determine required types and sizes of fire extinguishers and indicate this on Life Safety Plan. Provide recessed or semi-recessed prefinished fire extinguisher cabinets at occupied spaces and fire extinguisher brackets at unoccupied spaces to meet location, type and size requirements per NFPA and ADAAG as applicable. Fire extinguishers are GFGI. All fire extinguisher cabinets shall be lockable and shall have full glass hinged door.

5.5.11 Elevators. The offeror shall provide the services of an elevator inspector employed by an independent testing company to inspect the elevator, witness the final testing, and certify elevator. The inspector shall meet all qualification requirements of ASME QEI-1 and shall be certified in accordance with ASME QEI-1. The offeror shall provide an elevator certificate signed by the inspector for each elevator. The certificate shall be provided to the Contracting Officer within 30 days of completion of testing.

5.5.12 Structural And Comprehensive Interior Design.

5.5.12.1 General.

5.5.12.1.1 Structural Interior Design. Structural Interior Design (SID) provides samples of all interior and exterior finishes and signage. Items in the SID are purchased through the construction contract.

5.5.12.1.2 Comprehensive Interior Design. Comprehensive Interior Design (CID) is an expansion of the SID that also addresses furniture and accessories. Furniture and accessories are purchased separate from the construction contract. The design/builder shall provide both the SID and CID submittals with all required items as part of the design process. The purchase and installation of the CID items shall be by the Government by separate contract.

5.5.12.1.3 Format and Content. The format and content of SID and CID shall be in accordance with "Interior Design Presentation Format" dated February 1999, by U.S. Army Corps of Engineers, Savannah District (See Appendix D). CID will be formatted in a separate binder from the SID binder and shall include all the components as required under 5.5.12.7 All SID items will be in a separate binder volume from all other items in the CID.

5.5.12.1.4 Number of Copies. Six copies are required at each submittal unless indicated otherwise in the contract. Each copy is to have actual physical samples unless indicated otherwise in the contract.

5.5.12.2 Structural Interior Design (SID)

5.5.12.2.1 Use of SID. The SID is used during design to review color and finish selections, check for adequate space for furniture, coordinate with electrical as indicated in the generic furniture footprint and signage design. It is used by Government personnel during construction in review of Contractor submittals.

5.5.12.2.2 Special Requirements. The interior designer shall identify items in the SID or CID that require attachment to the building either by cutting or fitting. The designer must prepare specifications and drawings for this service to be performed.

5.5.12.2.3 Scope. The Contractor shall provide all requirements and services a stated in the Appendix B-1, 5.a, (1), (2), of the Interior Design Presentation Format. See Appendix D of this document for the Format.

5.5.12.3 Comprehensive Interior Design.

5.5.12.3.1 Use of CID: The CID is used during design to review proposed finishes and furniture layouts coded to the furniture illustrations, furniture items, fabrics, colors, and furniture costs. It is used by Government personnel who administer the construction contract.

5.5.12.3.2 Scope. The CID is to include accessories such as lamps, clocks, framed artwork, artificial plants, trash receptacles, draperies, bedspreads in addition to furniture, finishes and signage. Appendix C of the Interior Design Presentation Format has been deleted and all references in Appendix B shall be invalid. See 5.5.12.3.3 for furniture sources.

5.5.12.3.3 Sources of Furniture. The Government is required to purchase furnishings from mandatory sources. This includes GSA Schedules and UNICOR, see 5.5.12.3.5. Many commercial furniture companies have GSA contracts with pre-negotiated prices. Only when none of these sources can meet the project requirements can open market items be purchased. When selecting furnishings, always review GSA contract sources and UNICOR, then open market sources. When the interior designer determines CID items available on contract do not meet the functional requirements, or there is no current GSA resource, a

waiver to use open market sources is required. The designer shall write awaiver/justification letter with salient features of that item.

This letter shall be included on the CID binder attached to the applicable order form.

5.5.12.3.4 Quality of Products. The designer is to determine the project requirements and then select furnishings that meet these requirements. The products offered through UNICOR and GSA contracts represent a very wide range of quality and features. Being included in a GSA contract does not mean that a product meets any minimum quality standard. It is the responsibility of the designer to research products and determine their acceptability.

5.5.12.3.5 UNICOR Waiver. All furniture/furnishings shall be selected under the guidance of the National Defense Authorization Act – FY 2002, S1438, Title VIII, Subtitle B, Sec 811, Para 2410 which states UNICOR is no longer a mandatory source for furniture and a waiver is not required from UNICOR on items before selecting from GSA Schedules. However, UNICOR shall be considered as a vendor to determine if UNICOR offers the “best available” product in terms of quality, price, and timeliness. If an UNICOR product is not the “best value”, then GSA Schedules shall be used for selection of furniture/furnishings. Three GSA vendors shall be considered but only one selected for the prepared Order Form. A Best Value Determination Guideline Sheet shall be filled out for each vendor whose furniture has been specified and the sheet provided in the CID binder. (This is an addition to the requirements under 5-5.12.7) All furniture/furnishings shall be selected from GSA Schedules. The GSA web site is: www.fss.gsa.gov/furniture. The UNICOR web site is: www.unicor.gov. The UNICOR regional sales representative for the Savannah District is: Joe McCormick @ 803-802-0189.

5.5.12.3.6 Furniture Information Sources. The UNICOR catalog can be obtained by calling UNICOR regional representative for Savannah District at 803-082-0189, Joe McCormick. A listing of vendors with GSA contracts can be found on the GSA web site at: www.fss.gsa.gov’furniture.

5.5.12.3.7 Customer's Own Material (COM). COM's are not permitted, except when selecting fabrics for Army barracks projects designed under the Interior Design Manual for Single Soldier Housing and submitted to the COE Huntsville Division for procurement.

5.5.12.3.8 Personal Computers. Design of all workstations and office furniture, including executive offices, should assume the use of a personal computer and accommodate it with an articulating keyboard tray and corner work surface where feasible.

5.5.12.4 Furniture Related Interior Design.
*4
5.5.12.4.1 The Contractor shall act as an agent of the Government in the design~~, procurement, and installation~~ of the furniture/furnishings.

5.5.12.4.2 Furniture footprint plans shall be provided in the architectural drawings to indicate the adequacy of the size and shape of each piece of furniture as related to the space. The floor plan scale shall be 1:100 [1/8” =1’– 0”]. Standard furniture sizes should be used at this point to allow

maximum flexibility for the final design. Include legends on plans that identify item (item code) by description and dimension.

5.5.12.4.3 The furniture package shall provide all accessories to include lamps, clocks, framed artwork, artificial plants, and trash receptacles in addition to furniture.

5.5.12.4.4 Barracks/Common Lobby Furniture. Selection of the Barracks/Lobby furniture shall be done from the list of approved GSA vendors found on the Excel spreadsheet provided by the U.S. Army Engineer and Support Center, Huntsville, CEHNC-PC-CR. The Excel spreadsheet form can be downloaded from the Huntsville Center homepage, www.hnd.usace.army.mil. When entering Huntsville Center homepage, click through the following:

Organization
Directorate
Directorate of Program and Project Management
Equipment, Furniture, and Furnishings
UEPH Furnishings Program
Service and Ordering

Furniture selections shall meet the requirements as stated in Specifications and Standard Item Descriptions, Interior Design Manual for Single Soldier Housing. See 5.5.12.4.4 for Huntsville Center Homepage.

Budgets for barracks rooms and common areas furnishings shall not exceed $3,500 per soldier.
*7
5.5.12.4.5 Artwork shall be provided in the common areas/conference rooms/reception of the MP Station, Brigade Hdqrtrs, Battalion Headquarters and COF, and in the common Lobby of the Barracks Facility and Laundries). Minimums are:
*7

Conference rooms: Two (2) Landscapes
Barracks Lobby: Four (4) Landscapes
Barracks Laundries): Two (2) Lighthouse scenes
MP Station, Brigade Hdqrtrs, Battalion Hdqrtrs. Common areas/reception/corridors: Four (4) Landscapes
COF admin area/corridors: Four (4) Landscapes

Artwork shall be double matted with a neutral main mat and an accent mat to coordinate with the facility color scheme and the print. Artwork prints shall not be photographs.

5.5.12.4.6 Furniture/furnishings for all facilities shall be procured by the Federal procedures indicated in paragraph PROCUREMENT, and presented for review by procedures in paragraph REVIEW REQUIREMENTS/FURNITURE PACKAGE.

5.5.12.5 Quality.

5.5.12.5.1 Materials shall be fire retardant to the maximum extent possible. U.L. listings shall be met where applicable.

5.5.12.5.2 Furniture layout shall comply with NFPA 101

5.5.12.5.3 Warranties and service are important consideration when evaluating furniture sources. Warranties shall be in the range of 5-10 years

with the exception of fabric and task lights. Upholstery shall be warranted for min 1 year and task lights for min. 2 years.

5.5.12.5.4 All applicable industry standards and test requirements shall be met.

5.5.12.5.5 Specify one manufacturer for “series” or type of furniture and/or seating to the maximum extent possible. All wood case goods shall be of the same wood species and finish, and similar in appearance and construction. Furniture/furnishings shall be of a design, material, and workmanship to withstand heavy daily usage over an extended life with a minimum of maintenance and repair.

5.5.12.5.6 Wood furniture shall meet all the GSA requirements under Group 71, Part I, special item numbers, 512-1 Furniture Systems

Offices to receive wood furniture:
Company Operations Facility – Commander, Executive Office
Battalion HQ/Brigade HQ – Commanding Officer, Executive Officer, Command Sgt. Major, Chaplain, Chaplain's Asst.

Wood workstations shall be “U” shaped freestanding consisting of a min. overhead storage unit, desk/conferencing area, and a work surface for terminal/PC usage w/keyboard tray, pedestal storage, lateral file storage. Commander areas shall have an attached full door storage unit. Wood construction in office areas shall consist of solid wood edge banding and frame. Chassis shall have book-matched wood veneers of the same species on 5-ply construction. Work surfaces shall have solid wood edge banding and 5-ply construction min. 39 mm [1 ¾”] thick. Edges on tops shall be rounded. Provide locks on pedestals and files. Pedestals shall be a box, box, file configuration and extend the full length of the work surface. Drawer construction shall be five-sided with dovetail joints. Metal drawer pulls. File drawer on pedestal shall hold a min. 34.02 kg [75 pounds]. Lateral files shall hold a min. 45.36 kg [100 lbs]. Freestanding wood bookcases with a minimum of three shelves shall be provided. Stain color shall match on all wood components.

5.5.12.5.7 User-friendly features shall be specified such as radius edges. No sharp edges or exposed connections are acceptable. Clips, screws, etc. construction elements shall be concealed and not exposed.

5.5.12.5.8 Chairs and seating must meet or exceed all BIFMA/ANSI durability standards for office seating. Meet all GSA requirements for Item Number 711-18, Office; Fire retardant urethane foam shall be used to the maximum extent possible.

ANSI/BIFMA X5.1 1993 Office Furniture General Purpose Office Chairs
ANSI/BIFMA X5.4 1990 Office Furniture Lounge Seating
ANSI/BIFMA X5.7 1991 Upholstered Furniture Flammability Standards for Non-Residential, Non Live-In Occupancies.

Task seating shall have the minimum of the following features: integrally colored, textured back/seat shell; integral colored, textured, resilient urethane (over steel insert) arms with adjustable height (min. 3.5 total range), width (min. 2.5 total range), and pad rotation (right and left of center); textured integral color nylon or textured polypropylene covered steel five blade base; two inch dual, hooded casters (type for appropriate

surface); 360 degree swivel; knee tilt with tilt tension; back angle; 50-76 mm [2-3”] back height adjustment; forward tilt; forward and upright tilt lock; and pneumatic seat height adjustments. All task seating and side chairs shall be from the same manufacturer. Side chairs in areas receiving wood desk furniture shall be wood with upholstered seat.

5.5.12.5.9 Upholstery shall meet the following as minimums:
Battalion Hdqtrs., COF, Office: Wyzenbeek Abrasion Test: min.70,000 double rubs.
Barracks/Common Lobby: Wyzenbeek Abrasion Test: min. 100,000 double rubs.
AATCC Method 16A Light Fastness: 40 hours
State of California Bulletin #117: pass
ASTM E 84, class A: meet
UFAC class 1: meet.
Soil retardant treatment shall be inherent. Upholstery shall be heavy duty.

5.5.12.5.10 ADP/Modular Workstations: Meets all BIFMA/ANSI under GSA Item Numbers 711-1. Products shall comply with BIFMA X 5.5 1989 Office Furnishings – Desk Products, UL/286 Office Furnishings, and UL/723 Standard Test for Surface Burning Characteristics of Building Materials. Any overhead storage (min. one overhead) shall be able to accommodate task lighting. One work surface per ADP/Modular workstation shall be capable of accommodating an articulating keyboard tray. Work surface laminate top shall have edges that are post-formed, vinyl T-mold edge, or equal. Self-edge - 90-degree edge is not acceptable. Wire management and accessories shall be specified at all ADP/modular workstations (min. one grommet per work surface). Provide a minimum of one locking pedestal with box, box, file configuration.

5.5.12.5.11 Conference tables shall meet GSA requirements/specifications under Group 71, Part X, and Special Item Numbers 636-1, 636-2. Tables shall have a minimum seating capacity of 12 persons (chair width plus 125 mm [5”] = total chair width to establish table seating capacity) Table shall be rectangular in shape. Edges shall be a minimum 39 mm [1½ inches] solid wood bull nose or solid wood half round with a laminate top to match the wood stain or neutral laminate color to match the building color scheme. Bases may be wood panel or wood drum type in a style to match the top. All wood table parts and base stain shall match. Stain color shall match wood executive furniture. Provide Wire Management and accessories with a min of two grommets.

5.5.12.5.12 Training Tables/Misc. Tables shall meet GSA requirements/ specifications for Group 71 Part X, Item Number 636-2, 636-3. Tables shall be a freestanding. Work surfaces shall be rectangular with a flat, fused urethane edge around the perimeter of table with square corners. The table shall have a folding, metal tubular, L-base/ or cantilevered base (not T-base), and shall accommodate wire management. (Wire way) Table shall have folding modesty panel with wire management. Two grommets per table. Underside of tables or work surfaces shall be completely and smoothly finished. Leveling glides or leveling device shall be provided on base.

5.5.12.5.13 Files and Storage Cabinets shall meet GSA requirements/specifications for Group 71, Part I, Item Numbers 711-3. Files shall meet the following:
ANSI/BIFMA X 5.2 1989
Metal, lateral files/storage cabinets shall be constructed of a min. 22 gage steel with reinforced corners. Lateral files shall have four 300 mm [12”] roll out drawers with hanging rails and one 300 mm [12”] roll out shelf

w/lift up door and w/dividers. Drawer hardware shall have progressive telescoping suspension constructed of roll-formed steel with steel ball bearing and retainers. Drawers shall have a interlocking system allowing only one drawer open at a time. Filing/Storage units shall be a min. of 900 mm [36”] wide. Storage cabinets shall have two full height doors with min. four interior shelves. Files/Storage shall be lockable. Color of metal shall match the color of metal on the ADP workstations

5.5.12.5.14 Lectern or podium shall be floor-supported model with hidden locking casters, reading shelf, and minimum one additional shelf. Wood stain color shall match the wood furniture.

5.5.12.5.15 Task lighting shall not extend beyond the edges of the overhead storage unit. Fixtures shall be UL approved. Uses energy efficient ballasts and lamps. All diffusers, grilles or other coverings shall be easily removable to permit cleaning and relamping.

5.5.12.5.16 Wire management and accessories shall be specified at all desks, ADP/modular workstations, and training tables. Grommet kits or another suitable finish must be provided for all cable cutouts. Horizontal wire managers shall be supplied for mounting under all work surfaces or be integral in work surface. Wire managers shall be prefinished and shall secure, conceal and accommodate outlet cords as well as electrical and communication wiring.

5.5.12.5.17 Seating Unit in Laundry shall consist of a seat-table-seat unit with arms. The base shall be a beam type made of a minimum 14 gauge steel tubing and 76 mm [3 inches] in diameter. The finish shall be powder coated. Tabletop shall be high pressure laminate. The seats shall be made of flexible polyvinylchloride and shall be molded and seamless. The color shall be homogeneous throughout the entire thickness of the covering. The foam shall be a high resilient polyurethane. The cushion shall meet or exceed CA 133 flame test. The unit shall be equal to ModuForm, 3000 series, model 2101.

5.5.12.6 Color And Finishes.

5.5.12.6.1 Finish and color selection shall be appropriate to the interior design intent. The finishes shall be selected based on durability, maintenance, life cycle costs, code requirements, Ft. Bragg color standards/requirements, appearance and functional considerations.

5.5.12.6.2 Construction quality, materials, finishes and colors shall be compatible with other furniture as well as the building interiors.

5.5.12.6.3 Use variegated finishes and patterns to the maximum extent possible as solids show wear. Integral color and color through shall also be specified where applicable. Factory applied epoxy or powdercoat finishes are recommended for metal frames.

5.5.12.7 Review Requirements/Furniture Package.

5.5.12.7.1 Purpose. The furniture package binder provides all the information in an organized form for a rapid and accurate review of the building’s furniture components and the relationship to the architecture and it’s finishes. It assures that the objective of providing a facility that meets the user requirements and allows him to perform his job functions

within the facility are met. Three copies will be provided to with the proposal.

5.5.12.7.2 Format. Submit all information, furniture illustration sheets, furniture plans, procurement sheets, and cost estimate in a 216 x 280 mm [8 ½″ x 11″] three-ring binder. Provide five (5) copies of the submittals. Sample sheets are provided at the end of these requirements.

5.5.12.7.3 Furniture Illustration Sheet. Provide illustration of each furniture/furnishing item in the furniture package. The sheet shall include all of the following information:

- The job name, location, and date.
- A picture of line drawing of the product specified.
- The furniture/furnishings item number that keys the product to the Furniture Placement Plan.
- The options specified if any.
- Specification data on the finishes and fabric.
- Samples of the finishes and fabric.
- A comprehensive list giving all occurrences of the item, broken down by room. For example: 4 each Room 104 Commander

Furniture Illustration Sheets should be arranged alphabetically by item code: i.e., C1 for chair type one, T1 for table type one, etc.

5.5.12.7.4 Furniture Placement Plan is a plan of one room showing each furniture component in the room. Provide a Furniture Placement Plan for each room that contains furniture. Furniture Placement Plans shall be at 1:50 [1/4″ = 1′- 0″] or at 1:100 [1/8″= 1′- 0″] if the room is large. Each Furniture Placement Plan shall include:

- The job name, location, and date
- The footprint of the room
- The furniture/furnishings
- The room name and number
- A Furnishing Item Number for each item
- Quantity of each product specified for the Furniture Package.

Furniture Placement Plans shall be arranged in order of the room number.

5.5.12.7.5 Artwork Placement Plan shows the spatial relationship between the furniture and the artwork in a room. There will be an Artwork Placement Plan for each room, which contains artwork. Assign an item code to each piece of artwork. The Artwork Placement Plan will include the item code for artwork but will show the furniture without the item code. Each Artwork Placement Plan shall include:

- Job name, location, and date
- Room name and number
- Plan of the room locating the artwork
- Elevation of each wall containing artwork showing mounting height
- An item code for each artwork item, i.e. A1, A2
- Quantity of each product specified for the Furniture Package

5.5.12.7.6 Artwork Illustration Sheets provide one sheet for each piece of art in the Furniture Package. The Art Illustration Sheet shall include the following information:

- Job name, location, and date
- Title of the artwork and the artist's name
- A color picture of the artwork
- Item code which keys the artwork to the Artwork Placement Plan
- Name and number of the room where the artwork will be displayed
- Frame description/color and sample of the mat colors; main and accent
- Mounting height and installation instructions.
- Specify security mounting.

5.5.12.7.7 Order Data Sheets provide all information necessary to review/order the furnishings specified in the Furniture/Artwork Package. Only one item per data sheet. Sheets shall be alphabetical order of the item code. The Order Data Sheets shall include the following information:

- Furnishing item code
- Job name, location, and date
- FSC Group, Part, and Section
- GSA Contract Number, Special Item Number (SIN), and contract expiration date.
- Maximum Order Limitation
- Source and manufacturer's name, address, telephone number, and fax number.
- Product name
- Product model number
- Finish name and number
- Fabric name and number
- Dimensions
- Description
- Justification (i.e. this guest chair coordinated to match the task seating)
- Item location by room number
- Quantity per room
- Total quantity
- Unit price
- Total price

5.5.12.7.8 Itemized Furniture Cost Estimate lists all furniture/furnishings and indicate quantities, unit cost and totals. The cost should include all freight/shipping and installation costs.

5.5.13 Wire Mesh Partitions. Wire mesh partitions shall be constructed of metal fabric attached to structural steel framing members. Fabric shall be 10 gauge steel wires woven into 1-1/2 inch diamond mesh with wire secured through weaving channels. Framing members shall be channels 1-1/2 by 1/8 inch minimum size. Channel frames shall be mortised and tenoned at intersections. Provide cast iron floor shoes and caps with setscrew adjustment and securely fasten partitions to floor slab and structure above. Doors in wire mesh partitions shall be 3'-4" wide Dutch doors with shelf. Top leaf of Dutch door shall lock to bottom leaf. Hinges shall be fixed pin butts. Locks shall be bronze, cylinder, mortise type and shall have guard

plates. Door hardware shall meet egress requirements. Keying shall be coordinated with Section 08702 BUILDERS' HARDWARE. Ferrous metal portions of partitions and accessories shall be galvanized.

5.6 Physical Security Requirements.

5.6.1 Antiterrorism/Force Protection. Comply with the minimum construction standards of the Department of Defense Antiterrorism Standards for Buildings. UEPH buildings are classified as troop billeting structures; COFs are classified as inhabited buildings; Locker Room Facilities, Battalion HQs, MP Station and Brigade HQs are classified as primary gathering structures.

5.6.2 Arms Vaults. Comply with AR 190-11. Unless more stringent construction features are required by life safety or building codes, minimum construction requirements shall be as follows:

5.6.2.1 Floor. 152 mm [6″] slab on grade; reinforced with minimum 152 mm x 152 mm MW 25.8 x MW 25.8 [6 x 6, W2.4 x W2.4] welded wire fabric, on vapor barrier, on 152 mm [6″] deep porous fill.

5.6.2.2 Walls. 206 mm [8″] thick cast-in-place concrete reinforced with 15M [#5] bars at 152 mm [6″] on center, each way, each face or 206 mm [8″] thick concrete masonry units reinforced with 15M [#5] bars threaded through masonry unit cavities at 206 mm [8″] on center with all cells filled with mortar or concrete, and horizontal joint reinforcing at each course.

5.6.2.3 Ceiling. 206 mm [8″] thick cast-in-place concrete reinforced with 15M [#5] bars at 152 mm [6″] on center, each way, each face.

5.6.2.4 Door and Frame. Class 5 vault door and frame complying with Federal Specification AA-D-00600C. Locks shall be Underwriters Laboratory listed Group 1 or 1R combination lock. Provide metal ramp type threshold. Provide wire mesh, Dutch door style daygate with shelf for issuing arms and ammo. Daygate shall have lock operated from outside by key, and from inside by handle. Comply with egress requirements of applicable codes.

5.6.2.5 Penetrations. Penetrations shall be minimized. All openings or penetrations in Vault floor, walls or ceiling greater than .062 m^2 [96 square inches] shall be protected with welded steel rod-and-bar grid weighing 39.6 kg/m2 [8.1 lb./sf], consisting of 25.4 mm x 4.8 mm [1″ x 3/16″] vertical bearing bars at 25 mm [1″] on center, and 8 mm [5/16″] diameter horizontal rods at 50 mm [2″] on center; or equivalent protection.

5.6.3 Arms Rack Anchor Rings. Provide 10 mm [3/8″] diameter stainless steel bar bent into U-shape (25 mm inside radius) with 2″ long 90-degree returns at ends of horizontal legs. Overall length shall be 127 mm [5″]; embed 76 mm [3″] of horizontal legs (open end) in concrete 51 mm [2″] of U-shaped end will protrude from wall to provide anchorage for GFGI arms racks. Orient the projecting U-shape vertically, so that centerline of the U is 4'-0″ above the floor slab. Provide anchor rings at 3'-0″ on center along all walls inside the Arms Vault.

5.6.4 Secured Documents Vaults. Provide five-sided (walls and ceiling) modular vault attached to building floor system. Vault shall conform to Class M (15-minute working time) requirements of UL 608 Standards for Modular Vault Panels. Vault shall be interfaced with building HVAC, fire protection, and electrical systems. Provide Class 5 vault door and frame complying with

Federal Specification AA-D-00600C. Lock shall be Style K, key change combination lock. Provide metal ramp type threshold. Provide wire mesh daygate with lock operated from outside by key, and from inside by handle. Comply with egress requirements of applicable codes.

5.6.4.1 Penetrations. Penetrations shall be minimized. All openings or penetrations in vault floor, walls or ceiling greater than .062 m^2 [96 square inches] shall be protected with welded steel rod-and-bar grid weighing 39.6 kg/m2 [8.1 lb./sf], consisting of 25.4 mm x 4.8 mm [1″ x 3/16″] vertical bearing bars at 25 mm [1″] on center, and 8 mm [5/16″] diameter horizontal rods at 50 mm [2″] on center; or equivalent protection.

5.6.5 Floor Anchors for GFGI Security Safes. Provide 10 mm [3/8″] diameter stainless steel bar bent into U-shape (25 mm inside radius) with 2″ long 90-degree returns at ends of vertical legs. Overall height shall be 127 mm [5″]; embed 76 mm [3″] of vertical legs (open end) in concrete floor slab; 51 mm [2″] of U-shaped end will protrude above slab to provide anchorage for GFGI security safe.

6. STRUCTURAL DESIGN

6.1 General. The structural criteria cover a broad spectrum and it is intended to include industry wide standards and norm. Greater leeway will be provided to new ideas and concepts about the structural design as long as the loading criteria established in the documents are met and life cycle cost justified. Refer to item 1-2 and 1-4 “Applicable Criteria” and “Design Freedom”. The structural calculations shall be checked as well as the construction drawings shall be sealed and signed by a Professional Engineer registered in State of North Carolina.

6.2 Scope Of Structural Work. The structural work is included in item 1.1 “Scope of Work”.

6.3 Design Criteria.

6.3.1 Dead loads shall be in accordance with the requirements of TI 809-01 and ASCE 7-98, “Minimum Design Loads for Buildings and Other Structures”. Use as a minimum the actual weights of the material.

6.3.2 Live loads shall be in accordance with the requirements of TI 809-01 and ASCE 7-98, “Minimum Design Loads for Buildings and Other Structures”. Use as a minimum, Roof LL=20 PSF.

6.3.3 Wind loads shall be in accordance with the requirements of TI 809-01 and ASCE 7-98, “Minimum Design Loads for Buildings and Other Structures”. Use as a minimum the following:
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Use wind velocity = 100 mph
Exposure = C.
Category – ~~IV~~All buildings except MP Station - II.
MP Station - IV.

6.3.4 Load combinations shall be in accordance with the requirements of TI 809-01 and ASCE 7-98, “Minimum Design Loads for Buildings and Other Structures”.

6.3.5 Seismic load shall be in accordance with the guidance given in TI 809-04, Seismic Design For Buildings”. Use at the minimum the following:

Ss = 0.29
S1 = 0.13

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6.3.6 For force protection parameters, the design shall conform to~~ the DOD Interim Department of Defense Antiterrorism/Force Protection Construction Standards~~UFC 4-010-01 DOD Minimum Antiterrorism Standards for Buildings dated 31 Jul 02. Refer to item 1-9 “Force Protection”. When set back distances are provided with minimum level of credible threats, than hardening of the structures is not required. However, for more than 2-story structures, the structural system must be investigated for progressive failure. Use the DOD Progressive Collapse Design Guidance, dated 04 April 02, for this purpose. Redundancy in carrying the floor loads via column to the footings must be established.

6.3.7 The sustainable design concepts as stated in ETL 1110-3-491 will be adopted in the design and construction of this project. Refer For sustainable design, minimum points achieved should be 50.

6.4 Selection Of Structural System. The structural system selected shall conform to applicable criteria, industry standards and the commonly accepted methods of practice. Consider logical alternative and framing methods when selecting an appropriate structural system. The following elements shall be evaluated and addressed:

a. Total Life Cycle cost effectiveness of the system.

b. Ease of maintenance of all the components of the framing and mechanical equipment.

c. Time required to erect the structural framing and its effect on the over all completion of the project.

d. Sustainable Design.

6.5 Design Submissions.

6.5.1 60% Design Submission:

a. Narrative

(1) Provide the assumptions and references for the proposed structural design.

(2) Provide also the magnitude of design loads that are to be used for the proposed structural frame.

(3) Provide approximate size of the primarily framing system based on rudimentary design assumptions e.g. span to depth ratio.

(4) Discuss Life Cycle cost, speed of construction and merits & demerits of the frame.

(5) Discuss how the erection of the framing shall affect other trades and provide approximate time required to complete the erection of the frame.

(6) Discuss floor-to-floor height including available space between the ceiling and the bottom of floor structural framing. Provide approximate size of the ducts that would be used in the attic space and how much clearance shall be provided for the future maintenance problems.

(7) Discuss how redundancy is established to prevent progressive failure from the preliminary layout of the structural framing in 3-story barracks buildings.

(8) Discuss if any points that are targeted to be obtained in Sustainable Design spectrum in regards to structural members. Provide merits and demerits of adopting the measures to achieve points in the sustainable design.

(9) Provide titles of specification that would be used for all the structural components including for footings, wall sections, framing members, roof members, etc.

b. Drawings. There are no separate structural drawing per se are required at this stage. However, typical exterior wall section from foundation to the roof level can be shown with the architectural drawings. Other details like size and the spacing of the structural framing can be shown in conjunction with architectural details.

6.5.2 Final Design Submission:

a. Design. The final design calculations should have index and should be presented in well-formatted order. The design calculations should be initiated and checked. The assumptions and the criteria must be provided in the front end of the design analysis. The design calculations must be well laid out that the reviewer can follow the design.

b. Drawings. There would be 60% and 90% (Final) submission required. The final drawings shall follow the sequence and the contents as given in Savannah District Design Quality Manual. The first drawing shall be General Structural Notes. It shall provide a list of design loading criteria, a list of strengths of engineering materials used, design soil values and any other data that would be pertinent to remodeling and/or future additions. Other drawings, at the minimum shall be, Foundation Plan, Roof Framing, and Typical Details.

6.6 Foundations. Foundations shall be reinforced concrete continuous spread footings, isolated spread footings, grade beams, piles, drilled piers or other as required by geo-technical investigation. Ground floor slab systems shall be slab-on-grade or supported by piles as recommended by geo-technical investigation. Bottom of foundations shall be located a minimum of 2 feet below grade.

6.7 Serviceability.

6.7.1 Vertical deflection ratios of suspended horizontal framing members for dead plus live loads shall not be less than:

a. 240 at roofs.

b. 600 at masonry lintels.

6.7.2 Horizontal deflections caused by seismic or wind loads shall not exceed the limits set forth in the Savannah District “Design Manual for Military Construction”.

6.8 Concrete Design.

6.8.1 Concrete Materials.

a. Cement: ASTM C 150, Type I-II Portland cement
b. Fly Ash: ASTM C 618, Class “F”
c. Ground Granulated Blast-Furnace Slag: ASTM C 989, Grade 120
d. Fine Aggregate: ASTM C 33
e. Coarse Aggregate: ASTM C 33
f. Air-Entraining Admixture: ASTM C 260
g. Accelerating, retarding and water-reducing admixtures: ASTM C 494
h. Flowing Concrete Admixture: ASTM C 1017, Type 1 or 2
i. Calcium Chloride shall not be permitted

6.8.2 Slabs.

6.8.2.1 Slabs-on-grade shall be a minimum thickness of 4 inches and reinforced with Fiber Reinforcing. “Mud slabs” in crawl spaces do not have to be reinforced and shall be 2 inches thick.

6.8.2.2 Slabs shall be placed in lane fashion. Area of sections bounded by crack control joints shall not exceed 600 square feet, and distance between crack control joints shall not exceed 25 feet.

6.8.2.3 Vapor Barrier. Provide vapor barrier under all interior floor slabs. Polyethylene sheet not less than 6 mils thick. Provide 4-inch capillary water barrier under the vapor barrier when directed by soils report.

6.8.2.4 Crack control joints shall be as shown in the Savannah District “Design Manual for Military Construction”, Chapter A-2, Exhibit A-2-15. Reinforcement when required will be interrupted (2 inches clear each side) at sawed or pre-placed crack control joints. Bars shall be mid-depth, and starting 2 inches from edge of slab. The ends of crack control and corners of isolation joints will meet at a common point so far as practical. Floor slab isolation joint shall be 3/16-inch felt. Re-entrant corners shall be reinforced with a minimum of one #4 diagonal bar.

6.8.2.5 Horizontal runs of conduits and pipes shall not be embedded in slabs supported by ground. Vertical penetrations shall conform to ACI 318. Aluminum conduit and pipes shall not be embedded in any concrete.

6.8.2.6 Expansion Joints. Stop reinforcing at joint and provide smooth slip dowels across joint. Provide a bond breaker isolation joint where all concrete slabs abut a vertical surface (foundation walls).

6.8.2.7 Where thickened slabs are employed under column bases or partitions, crack control joints shall be offset from the thickened areas.

6.9 Masonry Design.

6.9.1 Concrete masonry units shall have prism test strength of 1300psi.

6.9.2 Concrete Masonry Materials.

a. Hollow Concrete Masonry Units: ASTM C90, Grade N, Type I
b. Mortar for Masonry: ASTM C 270, Type S
c. Grout for Masonry: ASTM C 476
d. Horizontal Joint Reinforcement: 9-gage deformed wire, ladder-type

6.9.3 Provide solid brick where cores in cored brick might be exposed.

6.9.4 Joints shall be 3/8 inch, tooled concave.

6.9.5 Brick veneer ties shall be corrugated galvanized steel spaced 16-inches on center both vertically and horizontally.

6.9.6 Brickwork shall comply with latest edition of the Brick Institute of American Technical Notes No.28, Brick Veneer, New Construction.

6.9.7 Horizontal reinforcement for concrete masonry units shall be provided continuously at floor and roof levels and the tops of walls. Horizontal reinforcement shall also be provided above and below all wall openings as shown in FEMA 302.

6.9.8 Nonstructural masonry walls and partitions shall be reinforced in accordance with TI 809-04 and FEMA 302.

6.9.9 Masonry walls shall have vertical control joints as follows:

a. Exterior and Interior Walls: 24 feet maximum
b. At changes in wall height or thickness
c. Near wall intersections
d. At points of stress concentration
e. At control joints in foundation walls and in floors that support masonry walls
f. At other locations where cracks are likely to occur

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6.9.10 Steel shapes used for lintels and shelf angles shall conform to ASTM A 36/A 36M. These steel members shall be hot-dip galvanized in accordance with ASTM A 123/A 123M.

6.10 Structural Steel Design.

6.10.1 Detailing of structural steel framing, including connections, shall be complete. All weld types, bolting layouts, bolt sizes, connection plates and member sizes and locations and stiffener plate sizes and locations shall be shown.

6.10.2 All members, elements and connections that are a part of the main vertical and/or lateral force resisting system must be completely detailed.

6.10.3 All connections other than standard AISC pre-designed shear connections shall be designed by the engineer of record and detailed on the drawings.

6.10.4 If braced frames are used for all or part of the main lateral force resisting system, the stability of structural system shall not depend on any single member or connection. Redundancy shall be provided either by using

multiple bays of tension only x-bracing or by using bracing members that are capable of both tension and compression if bracing is placed in a single bay.

6.11 Steel Joist Design.

6.11.1 Joists shall be anchored to steel supports by field welding. Provide erection bolts as recommended by SJI. Provide embedded steel bearing plates in concrete and masonry work. Where top chords are extended provide required section modulus of extensions on the drawings.

6.11.2 Provide special joist seats for sloped roof as required. Modifications or adjustments to joist seats made to accommodate supplier’s fabrication process shall be coordinated with affected trades.

6.11.3 Provide bridging and cross bridging at bottom chords of joist per SJI recommendations.

6.11.4 Design joists for additional gravity loads and uplift loads as required by analysis.

6.11.5 Provide additional web members at concentrated loads indicated, which do not occur at a panel point. Joists shall not support vertical loads greater than 50 pounds on the bottom chord between panel points without reinforcing. Do not support loads from bridging.

6.12 Steel Decking Design.

6.12.1 Form deck shall be galvanized. Metal form material shall be minimum 28 gage.

6.12.2 Steel roof deck material shall be galvanized and be 22 gage minimum. A structural steel roof deck shall be provided under all nonstructural metal roofs. If SSMR will be attached directly to steel roof deck then minimum thickness shall be 16 gage.

6.12.3 Galvanized steel roof deck in areas without ceilings which are exposed to view and are scheduled to be finish painted should be specified to receive a factory primer coat on the underneath side of deck.

6.13 Cold Formed Steel Design.

6.13.1 Cold Formed Steel Materials.

a. Galvanized Structural Framing Members 16 gage and heavier…ASTM A 653, Grade D, 50 ksi.

b. Galvanized Structural Framing Members 18 gage and lighter….ASTM A 653, Grade B, 36 ksi.

6.13.2 Trusses fabricated from cold-formed steel members shall be designed and the drawings stamped by an engineer registered in the State of North Carolina.

6.13.3 Cold-formed steel members, their components, and connection material shall have G60 galvanized coating.

6.13.4 Top chords of cold-formed roof members shall be 16 gage, minimum, where standing seam roof clips are connected with screws.

6.14 Wood.

6.14.1 Retardant treatment, when required. Recommendations regarding the use of fire retardant treatment are provided in USDA Wood Handbook and National Protection Handbook. Pressure impregnation is the preferred treatment method.

6.14.2 Termite control measures shall be used in areas prone to termite infestation. Soil shall be treated with commonly accepted termite control products prior to construction.

6.14.3 Use of oriented strand board (OSB) for floor sheathing is not permitted. Only APA structural rated plywood shall be used for floors.

6.15 Other Materials. There are no restrictions on proposing other materials to be used in the structural systems of this project if their strengths and durability can be substantiated by ASTM or other approved laboratory tests, and they satisfy the requirements of the design codes and criteria specified in this document.

6.15.1 All design, manufacture, fabrication, and assembly of other construction materials to be used in structural framing systems shall conform to the applicable design standards and meet specific industry standards as required for each subject material.

7. THERMAL INSULATION

7.1 Characteristics. Thermal insulation shall have a flame-spread rating of 25 or less and a smoke-development rating of 50 or less, exclusive of the vapor barrier, when tested in accordance with ASTM E84. A vapor barrier shall be provided on the warm-in-winter side of exterior wall and ceiling insulation, except in humid areas as defined below. Polyurethane is allowed as an insulation material for slabs and outside concrete or unit masonry walls. It is prohibited as an injected insulation material in walls or floor cavities or within the building envelope.

7.2 Infiltration. To limit air infiltration (especially in humid areas), buildings will be sealed with an air infiltration barrier, installed in accordance with the manufacturer's recommendations. The building envelope shall be caulked, gasketed, weatherstripped or otherwise sealed: around window and door frames, between wall cavities and frames, between walls and ceiling and roof, between walls and floors, at access doors and panels, at utility penetrations through walls, floors, and roofs, and at any other exterior envelope joint which may be a source of air leakage. These steps shall constitute tight building construction.

8. PLUMBING

8.1 Design Standards and Codes. Plumbing system shall be designed and installed in accordance with the latest edition of the International Plumbing Code (IPC), except that the plumbing system for the barracks building will be subject to the hot water supply requirements of ETL 1110-3-489.

8.2 General. In no building shall the domestic water service main be combined with the fire protection water main. Each system shall have its dedicated service line. All piping shall be labeled, color coded, titled, and indicate direction of flow. Shutoff/isolation valves, water hammer arrestors, shower control valves, and all other control components and equipment requiring adjustment and/or maintenance shall be readily accessible through the use of lay-in ceilings and/or appropriately sized access doors. A reduced-pressure type backflow preventer assembly shall be provided for the cold water service main, and located within the mechanical room for each building. Provision shall be made for thermal expansion of hot water downstream of the backflow preventer. The tank relief valve shall not be used as a means of controlling this expansion. A pressure-reducing valve assembly (with valved bypass) shall be provided in the cold water main entering each building. Routing of water piping below floor slabs shall be minimized, and limited to the building entrance penetration. Water connections to HVAC system shall be isolated from the domestic water system by a reduced-pressure backflow preventor assembly. Domestic hot and cold water systems shall be insulated. Sanitary drain waste and vent systems shall extend from 5 feet outside the building to all fixtures and equipment requiring service. The exit location of the building sanitary sewer main shall be coordinated with existing site conditions shown on utility drawings. The system shall be provided with traps, vents, cleanouts, and all other components as required by code. Appropriate means shall be provided within the plumbing system design to insure that all fixture trap water seals susceptible to loss of water seal by evaporation are replenished. Plastic piping material—pressure, drain, waste, and vent--shall not be used in buildings exceeding three stories. System shall be tested in accordance with code requirements. Floor drains shall be provided in all toilet locations and mechanical equipment rooms, except individual toilet rooms in the sleeping modules for the barracks buildings.

8.3 Plumbing Materials, Equipment and Fixture Requirements.

8.3.1 Material for Domestic Water Lines. Materials for various services shall be in accordance with Table II – Pipe and Fitting Materials for Pressure Piping Systems of UFGS 15400A, Plumbing General Purpose, except where modified by this RFP. Pipe schedules shall be selected based on service requirement.

8.3.2 Material for Waste Lines. Materials for various services shall be in accordance with Table I – Pipe and Fitting Materials for Drainage, Waste, and Vent Piping System of UFGS 15400A, Plumbing General Purpose, except where modified by this RFP. Pipe schedules shall be selected based on service requirement. Pipe fitting shall be compatible with the applicable pipe. Each fixture and piece of equipment requiring connections to the drainage system shall be equipped with a trap, and all fixtures shall be vented. Surface or wall cleanouts shall be provided for each drainage main. Cleanouts shall be provided at each change in direction of sanitary sewer lines, at the intervals specified in the Plumbing Code, and at the building service entrance. All cleanouts shall be permanently accessible. Ground cleanouts shall be installed in a 12-inch by 12-inch, 4-inch thick concrete pad, flush with grade. Pipes passing through the slab shall pass through a pipe sleeve and be installed in accordance with UFGS 15400A, Plumbing General Purpose.

8.3.3 Plumbing Fixtures. Fixtures shall comply with UFGS 15400A, and shall be provided complete with fittings, and trim. See the architectural plans included with this RFP for fixture locations. In no case shall the quantity of water coolers provided be less than the quantity required by TM 5-810-5 (referred to in TM as drinking fountains). All shutoff valves shall be metal construction. Plastic valves are not acceptable. All fixtures, fittings, and trim in a project shall be from the same manufacturer and shall have the same finish. Hot and cold water supply lines to fixtures shall be provided and sized in accordance with the International Plumbing Code. A cold water supply line and floor drain shall be provided for each ice machine in the Vending areas of the barracks buildings.
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8.3.4 Water Heaters. Domestic hot water heaters shall be natural gas type, with a heating capacity and auxiliary storage adequate for the building occupancy. A pressure/temperature relief valve, vacuum breaker on the water supply line, drain and a 6-inch concrete pad shall be provided for the water heater and/or storage tank. Domestic hot water shall be generated and stored at 140 °F, and shall be delivered to plumbing fixtures at a maximum temperature of 110°F. Water heater flue stack shall terminate vertically above roof. For the barracks building, the water heaters shall be sized in accordance with ETL 1110-3-489. Proposers shall ~~permit~~ submit plumbing design calculations for hot water heater sizing and for building demand determinations.

8.4 Pumps. Recirculating pumps shall be inline type and shall be provided whenever hot water piping extends further than 50 feet from a tank. Recirculation system piping shall extend and terminate within 5 feet of the farthest plumbing fixture.

8.5 Wall hydrants. Freezeproof exterior wall hydrants shall be provided around the perimeter of each facility. Perimeter separation distances between wall hydrants shall not exceed 200 feet, and a minimum of four (4) wall hydrants, one on each side of the building, shall be provided for each building. Additionally, each boot wash area required for the barracks buildings and the COF buildings (see Appendices F1 and F2 for the barracks buildings and the COF buildings, respectively, for locations and quantity of boot wash areas) shall be provided with one frostproof hydrant.

8.6 Routing and Design. All piping shall be concealed, properly supported with allowances for expansion and contraction. Interior water distribution piping shall not be buried under concrete floors. All piping systems shall be drainable. Interior hot and cold water piping systems shall be insulated. Water piping systems (including sprinkler piping) shall not be routed or located where subjected to freezing, and shall be located within the insulated building envelope. Heat tracing (to prevent freezing) of interior piping systems will not be allowed. Individual shutoff or stop valves shall be provided on water supply lines to all plumbing fixtures. In all buildings except the barracks buildings, sectionalizing shutoff valves shall be provided for each toilet room to allow isolation shutoff for maintenance purposes while continuing service to the remainder of the building. For the barracks building, at a minimum, sectionalizing valves shall be provided for each vertical stack of toilet rooms. Consolidate fixture vents through one common vent whenever possible. Floor drains shall be provided in all toilet rooms, mechanical rooms, mechanical closets serving the barracks sleeping modules, and for equipment requiring drainage. All floor drain traps shall be automatically primed by single trap primers or where appropriate distribution unit type trap primers.

8.7 Special Provisions for Battalion Headquarters. For the Battalion Headquarters Building, provide an elevator shaft for a future elevator. The elevator shaft shall terminate with a pit and sump for a future sump pump. From inside the pit, a 2″ drain line shall be routed and tied into a nearby storm drain. The drain line shall be capped inside the pit.

9. INTERIOR ELECTRICAL SYSTEMS
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9.1.1 The design and construction of the electrical systems shall be in compliance with all applicable codes and standards listed in Appendix A, Unified Facility Guide Specifications (UFGS), and as required herein. UFGS USACE guide specifications shall be used in preparation of the design and shall be edited consistent with the criteria furnished. UFGS NAVFAC guide specifications may be used only if no UFGS USACE guide specification is available for the subject matter. Items not included in the guide specifications shall be added either as a new specification section or as part of a UFGS specification. UFGS specifications can be downloaded from the Internet at http://www.ccb.org/ufgs/ufgs.htm. The most current edition of the codes and standards shall be used for construction and life safety design. Where there is a conflict between the RFP, codes and standards, the most stringent requirements shall apply. Where there is a conflict within the RFP, the most stringent requirements shall apply.

9.1.2 See paragraphs 4.17 for Exterior Power And Communication Demolition, 4.18 for Exterior Power Distribution, 4.19 Exterior Lighting, 4.20 for Exterior Communication Distribution, and 4.21 for Traffic Signal Systems.

9.1.3 Reference appendices F1 through F5 for additional electrical requirements. Electrical and communication service and controls shall be provided for all electrical and communication devices listed therein, including spaces listed for future equipment, Government-furnished Contractor-installed (GFCI) equipment and government-furnished government-installed (GFGI) equipment.

9.1.4 For purposes of the electrical design, the typical room module of the barracks building shall be classified as a dwelling unit. All codes and criteria applicable to a dwelling unit shall therefore be applicable to the typical room module.

9.1.5 Provisions shall be included in the electrical design for a future two-burner electric cooktop and a combination microwave/range hood in the service area of each typical room module of the barracks building. Assume a cooktop load of 3400 watts at 240 volts and a combination microwave/range hood load of 275 watts (plus microwave load) at 120 volts. Although the branch circuit to the combination microwave/range hood shall include the load of the microwave, the module demand load shall include only one microwave. (The countertop microwave shall be removed once the combination microwave/range hood is installed). Conduit and boxes shall be provided at the location of the cooktop and range hood for future connection. Coordinate installation of power connections with the cabinetmaker so the boxes and conduits are not visible to the occupants.

9.1.6 Power, communication and lighting layouts shall be coordinated with all other disciplines and the interior design furniture layout.

9.2 Interior Lighting.

9.2.1 Lighting shall be provided in all rooms in all buildings. Average maintained horizontal illumination levels at 30 inches above the finished floor shall be provided as indicated herein. Where not so indicated, horizontal illumination levels shall comply with TI 800-01 Design Criteria. Where not included in TI 800-01, horizontal illumination levels shall comply with the Illuminating Engineering Society (IES) Lighting Handbook. Vertical illumination levels for all rooms shall be in accordance with the IES Lighting Handbook. The IES handbook shall also be consulted for additional lighting requirements (uniformity, etc). Energy conservation methods shall be in accordance with ASHRAE 90.1. Interior lighting calculations for all rooms shall be based on the point-by-point method and shall include the average maintained illumination, the maximum:minimum ratio, the average:minimum ratio, and the standard deviation.

9.2.2 General ambient illumination shall provide a generally glare-free, high quality lighting environment. Light fixtures in the typical room module of the barracks building shall have a residential appearance but shall be of sturdy construction. All rooms with workstations shall be classified as offices for determining the appropriate illumination levels. Linear-type fluorescent lighting installations in general offices, conference rooms, workrooms, file rooms and similar spaces shall achieve Visual Comfort Probabilities (VCP) of 70 or higher. Fluorescent lamps for general-purpose lighting will be 3500 degrees Kelvin with a minimum CRI of 78.

9.2.3 Compact fluorescent downlight fixtures shall be used in command and executive suites in the Brigade Headquarters Building and the MP Station, and in areas where special attention must be given to aesthetics.

9.2.4 Occupancy sensors shall be used in storage rooms and restrooms. Occupancy sensors series-connected to a wall-mounted toggle switch shall be used in administrative areas with two or more occupants. Occupancy sensors may also be used in other areas to conserve energy.

9.2.5 Fluorescent fixtures shall be equipped with linear T8 or compact fluorescent lamps and electronic ballasts. All fluorescent lamps shall have low mercury content certified to pass the U.S. Environmental Protection Agency (EPA) Toxic Characteristics Leaching Procedures (TCLP) test for non-hazardous waste.

9.2.6 Light switches shall be mounted 48 inches above the finished floor unless otherwise indicated. Switches shall be located on the strike side of the door 6 inches from the door opening, unless otherwise functionally required. Switches and faceplates shall match the color of other electrical devices within the same room.

9.2.7 Undercabinet lighting shall be provided in the service area of the typical room module of the barracks building.

9.2.8 Fluorescent fixtures in classrooms, conference rooms and the Sullivan Room shall be equipped with dimming ballasts with a range of 5%-100% light output.

9.2.9 No incandescent fixtures or high-pressure sodium fixtures shall be used on the project.

9.2.10 Emergency Egress Lighting.

9.2.10.1 Illuminated exit signs and emergency lights shall be provided for all emergency exits and passageways as required by the NFPA Life Safety Code. All electrical, telecommunications and mechanical rooms shall also be provided with emergency lighting. Emergency lighting shall be provided by fluorescent fixtures equipped with emergency battery ballasts or connected to the emergency generator distribution system. Exit fixtures shall be LED (red) with built-in battery backup capability or connected to the emergency generator distribution system. Exit fixture housing and faces shall be aluminum.

9.2.10.2 Upon loss of power to emergency lights, the emergency lamp shall light regardless of the light switch position.

9.2.11 Fixtures provided in large administrative areas shall be specifically designed for video display terminal (VDT) applications and shall satisfy the requirements of IES RP-1:OFFICE LIGHTING.

9.2.12 Security lighting shall be provided at service entrances and at utility room exterior entrances (e.g. mechanical, electrical and communication rooms). Exterior wall mounted security light fixtures shall be fully shrouded to minimize glare. Fixture shall use compact fluorescent lamps whenever possible; where compact fluorescent lamps are inadequate, fixtures shall be equipped with metal halide lamps.

9.2.13 Architectural wall mounted light fixtures shall be provided at main entrances and other high visibility areas. The fixtures shall be selected for aesthetics and compatibility with the building architecture. Fixture selection shall be coordinated with the building architect.

9.2.14 Accent lighting shall be provided for reception desks and specialty items such as display cases and significant wall displays. Additional accent lighting shall be provided in coordination with the interior design package.

9.2.15 Unswitched lighting for 24 hour illumination shall be provided at the immediate entrance to all secure storage areas and vaults. The unswitched fixtures shall be equipped with an emergency battery ballast.

9.2.16 Fixtures in the detention areas of the MP Station shall be specifically designed for confinement facilities.

9.2.17 Average maintained horizontal illumination levels within the following areas shall be as specified:

Typical Sleeping Module:	
Living/Sleeping Area:	15 Footcandles
Service Area:	IES Criteria; Residences, Kitchen
Bathroom:	IES Criteria; Residences, Grooming
Clothes Closet:	15 Footcandles
Barracks Corridors:	15 Footcandles
Other Corridors:	20 Footcandles
Lobbies:	20 Footcandles
Classrooms:	IES Criteria; Educational Facilities, Classrooms, General
Laundries:	IES Criteria; Residences, Laundry
Janitor Closets:	10 Footcandles
Mechanical and Electrical Rooms:	30 Footcandles

Communication Rooms:	50 Footcandles
Arms Vaults:	30 Footcandles
Equipment Storage:	30 Footcandles
Stairs:	10 Footcandles
Restrooms and Showers:	20 Footcandles
Elevator Pits:	5 Footcandles

9.3 Interior Distribution System.

9.3.1 Voltages will be of the highest order consistent with the load served. The neutral conductor of all distribution systems operating at phase-to-phase voltages of 600 volts or less will be solidly grounded. A green insulated grounding conductor will be provided with all branch and feeder wiring.

9.3.2 Transformers, switchboards, feeders and panelboards shall be sized for 25% spare capacity. The allocation for spare capacity shall be in addition to known future loads such as the electric cooktops and range hoods in the barracks service areas and the elevators in the Battalion Headquarters Buildings. Switchboards and panelboards shall include no fewer than 10% spare breakers and 20% spare poles.

9.3.3 Each building shall be served by a single main service entrance. (See NEC Article 100 for the definition of a building).

9.3.4 Electrical disconnects shall be installed adjacent to equipment and accessible to equipment operators for the following equipment: motors and equipment as required by the NEC and OSHA requirements.

9.3.5 Switchboards, motor control centers and panelboards shall only be located in electrical rooms. Loadcenters may be located in the typical room module of the barracks building where all loads within the module are served by the loadcenter.

9.3.6 Series rated breakers/panelboards/loadcenters shall not be used.

9.3.7 The effect of nonlinear loads such as computers and other electronic devices shall be considered and accommodated as necessary. These loads generate harmonics, which can overload conventionally sized conductors or equipment and thereby cause safety hazards and premature failures. Circuits serving such devices shall be equipped with a separate neutral conductor not shared with other circuits.

9.3.8 Power shall be provided for all electrical equipment including equipment identified within the RFP as government furnished/contractor installed or government furnished/ government installed.

9.3.9 Dedicated circuits shall be provided for receptacles intended for copier and facsimile machines, laser printers, coffee makers and microwave ovens. Locations of these devices shall be coordinated with the user and the interior designer.

9.3.10 Wall mounted electrical, communication or signal outlet boxes shall not be installed back-to-back. A minimum 6-inch offset shall be provided between boxes.

9.3.11 Conduit shall be provided for future cabling between the electric room, communication room and the elevator equipment room in the Battalion Headquarters Buildings. The non-wired conduit and box installation for the Battalion Headquarters Buildings shall match the fully-wired conduit and box installation for the elevator provided in the MP Station as part of this contract.

9.3.12 Surface mounted raceway shall not be allowed except in areas where explicitly indicated otherwise.

9.3.13 Emergency power shall be provided at the MP Station and the Brigade Headquarters Emergency Operations Center (EOC). Each building shall be provided a separate emergency generator and automatic transfer switch. Specific rooms requiring emergency power are indicated in Appendices F4 and F5. All mechanical and electrical equipment and devices serving rooms identified for emergency power shall be connected to the emergency power system. The emergency generators shall be sized for 120% of the emergency demand load.

9.4 Receptacles.

9.4.1 All rooms shall be provided with a minimum of one general-purpose duplex receptacle. Mechanical, electrical and communication rooms shall be provided with one or more general purpose duplex receptacles on each wall. All rooms (except toilets) with one or more occupants shall be provided with one or more general purpose duplex receptacles on each wall. (See appendices F1 through F5 for the number of occupants in each room). All occupied rooms with walls that exceed 10 feet horizontally shall be provided with an additional general-purpose duplex receptacle for each additional 10 feet of wall or fraction thereof. Receptacles on walls with more than one receptacle shall be spaced no more than 10 feet apart.

9.4.2 Receptacles for computer workstations shall be quadraplex receptacles or dual duplex receptacles (with a single faceplate) and may be substituted for one of the required general-purpose duplex receptacles. No more than four workstations shall be connected to a single circuit. A workstation shall be assumed for each occupant in administrative areas (except where more than one workstation or PC per occupant is indicated in appendices F1 through F5).

9.4.3 Toilet, shower and locker areas with mirrors above sinks shall be provided with a minimum of one duplex receptacle at a mirror. Such areas restricted to men shall be provided with a duplex receptacle at every other mirror. Such areas restricted to women and not equipped with hair dryers shall be provided with a duplex receptacle at every other mirror. These receptacles are in addition to the required general-purpose receptacles.

9.4.4 Receptacles shall be provided in corridors for cleaning equipment. The receptacles shall be spaced in such a manner as to permit full coverage by the equipment with a 25-foot extension cord. Floor receptacles shall not be used.

9.4.5 Receptacles shall be provided above countertops and in or below built-in cabinetry as required in appendices F1 through F5.

9.4.6 Receptacles shall be provided for all cord-and-plug electrical equipment identified within the RFP as contractor furnished/contractor installed, government furnished/contractor installed or government furnished/

government installed. The receptacle NEMA configurations shall match the equipment plug. These receptacles are in addition to the required general-purpose receptacles.

9.4.7 Weatherproof receptacles shall be inconspicuously located outside the entrances to all buildings. Additional weatherproof receptacles shall be provided such that each exterior wall has at least on receptacle and no adjacent receptacles are spaced more than 100 feet apart.

9.4.8 A weatherproof while-in-use receptacle shall be provided at each picnic shelter.

9.4.9 A receptacle shall be provided above the lay-in ceiling for each overhead projector system.

9.4.10 A receptacle shall be provided alongside each data outlet and each cable TV outlet. Outlets placed in a 2-gang shared box shall be separated by a metal partition.
*6
9.4.11 No fewer than one receptacle shall be provided on each wall in communication rooms and closets, secure communication rooms and the secured documents vault for Government furnished/installed equipment. Receptacles within a communication room/closet, secure communication rooms and the secured documents vault shall be connected to a dedicated branch circuit. These receptacles are in addition to the required general-purpose receptacles.

9.4.12 Ground Fault Circuit Interrupter (GFI) Outlets.

9.4.12.1 Receptacles in the following locations shall be GFI receptacles: outdoors, wet locations, toilets, locker rooms, picnic shelters and other locations required by OSHA and the National Electric Code.

9.4.12.2 GFI receptacles shall be wired such that the loss of power to one receptacle shall not affect downstream receptacles.

9.4.13 Receptacles shall be mounted 20 inches above the finished floor unless otherwise indicated. The mounting height of receptacles serving specific equipment such as refrigerators, clothes washers and dryers, electric water coolers and bracket-mounted televisions shall be selected to neatly serve the equipment.

9.4.14 Receptacles and faceplates shall match the color of other electrical devices within the same room.

9.4.15 Surface mounted receptacles shall not be allowed except in areas where explicitly indicated otherwise.

9.4.16 Surface metal raceway may be used on shelving and cabinetry intended for recharging battery packs.

9.5 Telecommunication Systems.

9.5.1 Barracks Telecommunications.
*6
9.5.1.1 A completely operational category 6 telecommunications system including, but not limited to, all necessary raceway, cabling, terminations,

jacks, patch panels, free-standing equipment racks and faceplates shall be provided. The telecommunications system shall be in compliance with ANSI/TIA/EIA-568-B, ANSI/TIA/EIA-569-A and ANSI/TIA/EIA-607.

9.5.1.2 A telephone outlet with a single jack shall be provided in each sleeping/living room of the typical room module.

9.5.1.3 A minimum of two duplex voice/data telephone outlets shall be provided in each office. Where the number of occupants in an office area exceeds two, a duplex outlet shall be provided for each occupant. Where the number of workstations exceeds the number of occupants, a duplex outlet shall be provided for each workstation. Additional outlets shall be provided to serve telecommunications equipment included in appendices F1 through F5.

9.5.1.4 A wall telephone outlet with a single jack shall be provided in each mechanical room, electrical room and communications room.
*6
9.5.1.5 A 4-pair cable shall extend from the telephone backboard to each jack (hence two 4-pair cables serve each duplex outlet). Each cable shall terminate at an RJ-45 jack at the outlet. All incoming wires shall terminate at the back of a patch panel on 110-style punchdowns ~~and a 110 type block termination panels~~ at the communication closet/room. Termination panels shall be clustered into three groups: one for commercial service; a second for pay phone service; and a third for government service. Cables from sleeping/living rooms shall terminate at 110 type termination panels reserved for commercial service. Cables from pay phone outlets shall terminate at 110 type termination panels reserved for pay phone service. All other cables shall terminate at 110 type termination panels reserved for government service. Government service termination panels shall be further divided into panels dedicated to voice service and panels dedicated to data service. Riser cable and conduit shall be provided between floors.

9.5.1.6 Conduit from telephone outlets to commercial and pay service termination panels shall be 3/4-inch (minimum) electrical metallic tubing (EMT), whereas conduit from telephone outlets to government service termination panels shall be 1-inch (minimum) EMT. Pull boxes shall be placed in conduit runs where a continuous conduit length exceeds 100 feet, or where there are more than two 90-degree bends. Pull boxes shall be placed in straight, aligned runs of conduit and not be used in lieu of bends. Pull boxes shall be accessible. Solid bottom cable trays shall be used to provide a centralized cable distribution system in all buildings where space permits and trays can be readily accessible. Trays shall be no higher than 6 inches above finished ceilings. Trays shall be sized for one square-inch of cross-sectional area per outlet location to be served, with a maximum fill ration shall of 60%. The EMT conduit shall be physically strapped to the cable tray and an anti-chaffing grommet attached. Coordinate cable tray with other trades to ensure adequate working space is available for tray access.

9.5.1.7 Conduit to duplex voice/data telephone outlets shall be provided with a pull cord for future installation of fiber optic cable (FOC).

9.5.1.8 Telephone outlets shall be mounted 20 inches above the finished floor unless otherwise indicated. Wall outlets shall be mounted 54 inches AFF. Outlets and faceplates shall match the color of other electrical devices within the same room.

9.5.1.9 Telephone backboards shall be 3/4-inch AC grade plywood and shall completely cover the walls from floor to ceiling. Backboards shall be finished with two coats of light gray fire retardant paint. Each backboard shall include a copper ground bar tied to the signal ground.

9.5.1.10 All work pertaining to the commercial telephone service shall be coordinated with the commercial telephone service provider in the vicinity.

9.5.1.11 Installation of telecommunication cable shall be done by a certified telephone technician with a minimum of two years experience in the installation, termination, splicing, maintenance, repair and testing of copper and fiber optic cable.

9.5.1.12 The communication systems shall comply with the requirements of Installation Information Infrastructure Architecture (I3A) Design and Implementation Guide.

9.5.2 Brigade Headquarters, Battalion Headquarters, COF and MP Station Telecommunications.

9.5.2.1 An empty box and raceway telecommunications system shall be provided. The system shall be in compliance with ANSI/TIA/EIA-568-B, ANSI/TIA/EIA-569-A and ANSI/TIA/EIA-607. Outlet boxes shall be 4x4 inch boxes with a 2x4 inch plaster ring.

9.5.2.2 A minimum of two duplex voice/data telephone outlet boxes shall be provided in each office. Where the number of occupants in an office area exceeds two, an outlet box shall be provided for each occupant. Where the number of workstations and/or personal computers (pc) exceeds the number of occupants, an outlet box shall be provided for each workstation and each personal computer. A minimum of one duplex voice/data telephone outlet box shall be provided on each wall in conference rooms. Additional outlet boxes shall be provided to serve telecommunications equipment (e.g., facsimile machines, SIPRNET connections, NIPRNET connections, servers and printers) included in appendices F1 through F5.

9.5.2.3 An outlet box for a wall telephone shall be provided in each mechanical room, electrical room and communications room.

9.5.2.4 Conduit from pay phone outlet boxes shall terminate at a marked area of the telephone backboard. The size of the area shall be based on the number of pay phone outlets. The remainder of the backboard shall be reserved for the remaining conduit.

9.5.2.5 Conduit from telephone outlet boxes shall be 1-inch (minimum) electrical metallic tubing (EMT). Pull boxes shall be placed in conduit runs where a continuous conduit length exceeds 100 feet, or where there are more than two 90-degree bends. Pull boxes shall be placed in straight, aligned runs of conduit and not be used in lieu of bends. Pull boxes shall be accessible. Solid bottom cable trays shall be used to provide a centralized cable distribution system in all buildings where space permits and trays can be readily accessible. Trays shall be no higher than 6 inches above finished ceilings. Trays shall be sized for one square-inch of cross-sectional area per outlet location to be served, with a maximum fill ration shall of 60%. The EMT conduit shall be physically strapped to the cable tray and an anti-chaffing grommet attached. Coordinate cable tray with other trades to ensure adequate working space is available for tray access.

9.5.2.6 All empty conduit shall be provided with a pull cord for future installation of copper cable and fiber optic cable (FOC).

9.5.2.7 Telephone outlets shall be mounted 20 inches above the finished floor unless otherwise indicated. Wall outlets shall be mounted 54 inches AFF. Outlets and faceplates shall match the color of other electrical devices within the same room.

9.5.2.8 Telephone backboards shall be 3/4-inch AC grade plywood and shall completely cover the walls from floor to ceiling. Backboards shall be finished with two coats of light gray fire retardant paint. Each backboard shall include a copper ground bar tied to the signal ground.

9.5.2.9 Conduit shall be provided for future cabling between the electric room, communication room and the elevator equipment room in the Battalion Headquarters Buildings. The non-wired conduit and box installation for the Battalion Headquarters Buildings shall match the conduit and box installation for the elevator provided in the MP Station as part of this contract.

9.5.2.10 The communication systems shall comply with the requirements of Installation Information Infrastructure Architecture (I3A) Design and Implementation Guide.

9.5.3 Secret Internet Protocol Router Network (SIPRNET).
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9.5.3.1 The SIPRNET shall be provided where indicated in appendices F1 through F5 and shall be separate from the telecommunications system described in paragraph 9.5.2. Each building with SIPRNET capability shall include a Secure Communications Room. In the case of the Brigade Headquarters, the Secured Documents Vault shall serve as the Secure Communications Room. Government-furnished government-installed (GFGI) SIPRNET encryption and switching equipment shall be housed in the Secure Communications Room.

9.5.3.2 An empty box and raceway system shall be provided. The system infrastructure shall be in compliance with ANSI/TIA/EIA-568-B, ANSI/TIA/EIA-569-A and ANSI/TIA/EIA-607. Outlet boxes shall be 4x4 inch boxes with a 2x4 inch plaster ring.
*5 *6
9.5.3.3 SIPRNET outlet boxes shall be metal lock boxes (with inside seams and lock) sized to accommodate a modular communication outlet. Conduit from SIPRNET outlet boxes to the Secure Communications Room shall be 1-inch (minimum) galvanized steel rigid metal conduit (RMC). Horizontal runs shall be exposed in unfinished areas and concealed but readily accessible for inspection in finished areas (e.g., above acoustic ceiling tiles). Conduit from each outlet box shall neatly terminate along a single wall in the Secure Communications Room~~at the location of the secure servers~~. ~~(The designer shall consult with Mr. Reuben Vasquez of the Public Safety Business Center (PSBC) to determine the locations of secure servers). A 2-inch (minimum) galvanized steel RMC shall be provided between the SIPRNET server location and the building communications room. A copper ground bar tied to the TTB signal ground shall be provided at the secure servers, and t~~Two 2-inch conduits shall extend from the S~~s~~ecure Communications Room ~~servers~~ to the main communications room. Pull boxes shall be placed in conduit runs where a continuous conduit length exceeds 100 feet, or where there are more than two 90-degree bends. Pull boxes shall be placed in straight, aligned runs of

conduit and not be used in lieu of bends. Pull boxes shall be accessible. Cable trays shall NOT be used with the SIPRNET.

9.5.3.4 All empty conduits shall be provided with a pull cord.

9.5.3.5 SIPRNET outlets shall be mounted 20 inches above the finished floor unless otherwise indicated. Blank faceplates shall match the color of other electrical devices within the same room.
*6
9.5.3.6 All design work pertaining to the SIPRNET system shall be coordinated with the Information Technology Business Center (ITBC) and the Public Safety Business Center (PSBC)~~Provost Marshal's office~~.

9.5.3.7 The SIPRNET infrastructure shall comply with the requirements of Installation Information Infrastructure Architecture (I3A) Design and Implementation Guide.
*6
9.5.3.8 One wall of each Secure Communications Room shall be provided with a 3/4 inch AC grade plywood backboard. The backboard shall be finished with two coats of light gray fire retardant paint and shall completely cover the wall from floor to ceiling. Each backboard shall include a copper ground bar tied to the TTB signal ground.

9.6 Cable TV Systems.

9.6.1 A completely operational cable TV system including, but not limited to, all necessary cabling, raceway, terminations, connectors and faceplates shall be provided. The cable for the CATV shall be RG-6 and the connector at the outlet shall be a type F coax connector. Cables shall extend from the connector to the CATV backboard uninterrupted. Adequate slack to reach the floor level shall be left in each cable at the backboard. Cables shall have end connectors and shall be coiled neatly above the backboard. Each cable shall be permanently marked with the outlet location to which it is connected. All CATV head-end equipment and incoming service equipment shall be furnished and installed by the local Cable TV Company.

9.6.2 Conduit from cable TV outlets in barracks buildings shall be 3/4-inch (minimum) electrical metallic tubing (EMT), whereas conduit from cable TV outlets in all other buildings shall be 1-inch (minimum) EMT. Pull boxes shall be placed in conduit runs where a continuous conduit length exceeds 100 feet, or where there are more than two 90-degree bends. Pull boxes shall be placed in straight, aligned runs of conduit and not be used in lieu of bends. Pull boxes shall be accessible. Solid bottom cable trays shall be used to provide a centralized cable distribution system in all buildings where space permits and trays can be readily accessible. Trays shall be no higher than 6 inches above finished ceilings. Trays shall be sized for one square-inch of cross-sectional area per outlet location to be served, with a maximum fill ration shall of 60%. The EMT conduit shall be physically strapped to the cable tray and an anti-chaffing grommet attached. Coordinate cable tray with other trades to ensure adequate working space is available for tray access. Telephone and cable TV trays may be combined.

9.6.3 Cable TV outlets shall be mounted 20 inches above the finished floor unless otherwise indicated. The mounting height of cable TV outlets serving bracket-mounted televisions shall be selected to neatly serve the equipment.

9.6.4 Outlets and faceplates shall match the color of other electrical devices within the same room.

9.6.5 Cable TV backboards shall be 3/4-inch AC grade plywood and shall completely cover the walls from floor to ceiling. Backboards shall be finished with two coats of light gray fire retardant paint. Each backboard shall include a copper ground bar. Cable TV backboards in rooms with telephone backboards shall be located on opposite walls.

9.6.6 For additional criteria, See Installation Information Infrastructure Architecture (I3A) Design and Implementation Guide.

9.7 Miscellaneous Communication Systems.

9.7.1 Overhead projector systems shall be provided with the conduit, wiring, boxes, connectors and associated equipment necessary for connection of a laptop computer within the room to operate with the projector. This laptop computer connection capability shall be provided for government furnished/contractor installed and government furnished/government installed overhead projector systems as well as contractor furnished/contractor installed overhead projector systems. Outlet locations shall be coordinated with the User after contract award.
*5
9.7.2 Raceway systems shall be provided to support government furnished/ government installed antennas mounted outside the Brigade Headquarters Building (4), the Battalion Headquarters Building (2), and the MP Station (2). Provide blocking as required and Contractor-furnished, Contractor-installed brackets for support of antennae. Provide 3/4″ empty conduit from the antenna locations to the duty officer location in each respective headquarters building, and terminate the conduit in a 2-gang outlet box at the duty officer location. Provide 3/4″ empty conduit from the antenna locations to the location designated by the User in the MP Station, and terminate the conduit in a 2-gang outlet box at the designated location. All empty conduits shall be provided with a pull cord. The antenna quantities shall be verified and the locations and mounting requirements shall be determined during the building design.

9.7.3 A complete intercom system shall be provided where indicated in appendices F1 through F5.

9.7.4 A wired ceiling-mounted speaker system shall be provided in the Aerobics Room for connection a stereo system. The location of the input connections to the speaker system shall be coordinated with the user during design.

9.7.5 Power and signal cabling shall be provided to serve the access control locks and remote controlled locks indicated in appendices F1 through F5.

9.8 Fire Detection and Alarm System.

9.8.1 All buildings shall be provided with an addressable four-wire, two-loop fire detection and alarm system consisting of control panels, pull stations, horns, strobes, smoke detectors, heat detectors, sprinkler water flow switches, valve tamper switches and air pressure supervisory switches. Addressable control and monitor modules shall be provided for devices not inherently addressable (e.g. tamper and flow switches). The system shall be

fully compatible with the Fort Bragg Honeywell central system at the fire station. The system shall comply with the Americans with Disabilities Act (ADA) in all areas including areas not requiring handicap access.

9.8.2 Manual pull stations shall be provided at all exits including exterior doorways from mechanical, electrical and communication rooms.

9.8.3 Horns shall be provided throughout the facility as necessary to assure the alarm sound levels are no less than 15 dB above normal ambient sound levels at any location. Normal ambient sound levels shall consider the masking sound of motors and running water (e.g., showers). Strobe lights shall be provided in accordance with the ADA, and shall also be provided in electrical and communication rooms. Combination horn/strobes shall be provided in mechanical rooms. Strobe lights shall be synchronized.

9.8.4 Smoke detectors shall be provided in each Living/Sleeping room of the Typical Sleeping Module and elsewhere as required by criteria. Smoke detectors in sleeping rooms shall be connected to the main fire alarm control panel (FACP) for supervision only; smoke detectors in sleeping rooms shall not activate the general alarm.

9.8.5 Heat detectors shall be provided in the Service Area of the Typical Sleeping Module and elsewhere as required by criteria. Heat detectors in Service Areas shall be connected to the main fire alarm control panel (FACP) for supervision and alarm.

9.8.6 Tamper switches shall be provided on all fire alarm system control valves and the Post Indicator Valve (PIV).

9.8.7 Conduits shall be marked with a red stripe every 10 feet. All junction and pull boxes shall be painted red.

9.8.8 A cabinet mounted MOV-based surge protection device shall be provided in addition to surge protection integral to the FACP. Device shall be UL 1449 listed and shall satisfy the requirements of IEEE C62.41.

9.9 Lightning Protection. A lightning protection system shall be provided for all buildings. Complete protection via air terminals and a ground counterpoise loop shall be provided. The system shall have the appropriate U.L. master label installed on the building. Down and roof conductors shall be concealed within the buildings. Lightning protection system shall be in accordance NFPA 780.

9.10 Transient Voltage Surge Protection (TVSP). Transient voltage surge protection shall be provided for all buildings. Surge suppressors shall parallel the operating devices in providing a path to ground for an electrical surge and limiting the magnitude of transient voltage surges on the system. Units shall be mounted adjacent to the main distribution panel in accordance with the manufacturer’s recommendation. Unit shall be hard-wired into the electrical distribution system utilizing a circuit breaker connection. Units shall be tested in accordance with IEEE C62.45 using an IEEE C62.41 Category B waveform. Units shall be UL 1449 listed and labeled. Modes of protection shall be normal mode (L-N, L-L) and common mode (L-G, N-G). The unit shall include self-diagnostic and self-testing capabilities, a re-settable transient event counter, and a local audible alarm with mute capability.

9.11 Seismic Protection. Seismic design shall be in accordance with Army Technical Manual, TI 809-04, Seismic Design for Buildings, dated December 1998 and Specification Section 16070A Seismic Protection For Electrical Equipment.

9.12 Intrusion Detection System (IDS) and Alarm System.

9.12.1 A power and signal conduit and box system for an Intrusion Detection System shall be provided in Arms Vaults, Secure Document Storage Rooms and elsewhere as required by appendices F1 through F5. All empty conduits shall be provided with a pull cord.

9.12.2 The exact security needs and equipment locations shall be coordinated with the Fort Bragg Provost Marshal's office.

9.12.3 Each room with an IDS system shall be provided with a 20x8x4 inch junction box mounted at the ceiling level. Two 3/4-inch conduits shall be provided between a power panelboard and the junction box. One conduit shall contain a dedicated branch circuit to serve lighting and receptacle loads in the room. The other conduit shall be empty. Four 3/4-inch empty conduits shall be provided between the telephone backboard and the junction box.

9.12.4 The 20x8x4 inch box shall contain two smaller junction boxes: one for a lighting and receptacle branch circuit, another for the (future) IDS branch circuit. A two-piece steel surface metal raceway (Wiremold 3000 or equal) shall originate at the box and shall extend around the perimeter of the room. Receptacles shall be provided in the surface raceway. A 1/2-inch conduit shall be provided between the 20x8x4 inch box and a smaller junction box mounted at ceiling level at the door for (future) tamper switch.

9.12.5 An 18x14x2 inch empty alarm cabinet enclosure shall be provided. A two-piece steel surface metal raceway (Wiremold 3000 or equal) shall be provided between the alarm cabinet enclosure and the 20x8x4 inch box.

9.12.6 All IDS conduit shall be galvanized rigid steel.

9.13 Closed Circuit Television (CCTV) System. A power and signal conduit and box system for video camera surveillance shall be provided at the MP Station vehicle impoundment lot and at all areas indicated in appendices F1 through F5. All empty conduits shall be provided with a pull cord.

9.13.1 Terminate 1-inch galvanized rigid steel conduit from each outlet at the CCTV board.

9.13.2 The exact CCTV needs and equipment locations shall be coordinated with the Fort Bragg Provost Marshal's office.

9.14 Sustainability. The electrical design shall incorporate Sustainability Design, in accordance with ETL 1110-3-491. See section 13 of this document for more information on Sustainability design.

9.15 Location of Documents referenced in Paragraph 9.

9.15.1 Technical Instructions (TI)
http://www.hnd.usace.army.mil/techinfo/instruct.htm

9.15.2 UFGS Specifications

http://www.ccb.org/ufgs/ufgs.htm

9.15.3 Installation Information Infrastructure Architecture (I3A) Design and Implementation Guide
http://arch-odisc4.army.mil/I3A/i3a.htm

9.15.4 Army Regulations (AR)
http://www.usapa.army.mil/index.html

9.15.5 Military Handbooks (MIL HDBK)
http://www.hnd.usace.army.mil/techinfo/milhbk.htm

9.15.6 Engineer Technical Letters (ETL)
http://www.usace.army.mil/inet/usace-docs/eng-tech-ltrs/etl-all.html

10. UNIT DESIGN - HEATING, VENTILATING, AND AIR CONDITIONING

10.1 General. The design and construction of the mechanical systems shall be in compliance with Section 6.2 of ASHRAE 90.1, design criteria listed below, as required herein, and the referenced Unified Facility Guide Specifications (UFGS). The most current edition of the codes, standards, and references shall be used for project design. Where there is a conflict between the RFP and the codes and standards the most stringent shall apply. When codes and standards are in conflict, the most stringent shall apply. Catalog cuts for major equipment will include manufacturer’s published data stating that such equipment meets the applicable standard. Catalog cuts for major equipment shall be for the actual equipment proposed to be installed. Proposed equipment shall meet the salient features of the applicable Unified Guide Specifications (UFGS). Deviations and installation of equipment other than proposed are only allowed subject to Contracting Officer approval.

10.2 Applicable Criteria. The most current editions of the publications listed below constitute an addendum to this RFP wherever referenced or applicable.

Savannah District Design Manual for Military Construction

Department of the Army Technical Manuals (TM)

TM 5-785	Engineering Weather Data
TM 5-805-4	Noise and Vibration Control for Mechanical Equipment
TM 5-810-1	Mechanical Design, Heating, Ventilating, and Air Conditioning
TM 5-810-5	Plumbing
TM 5-815-1	Air Pollution Control Systems for Boilers and Incinerators
TM 5-848-1	Gas Distribution
TI 800-01	Design Criteria
TI 800-03	Technical Requirements for Design-Build

TI 810-10 Mechanical Design—HVAC

International Plumbing Code

American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE), Inc. Standards (Latest Edition).

HVAC Applications Manual

HVAC Systems and Equipment Manual

Fundamentals Manual

Refrigeration Manual

ASHRAE Standard 62, Ventilation for Acceptable Indoor Air Quality

ASHRAE Guideline 1, The HVAC Commissioning Process

ASHRAE 90.1, Energy Standard of Buildings Except Low-Rise Residential Buildings.

Sheet Metal and Air Conditioning Contractors' National Association (SMACNA), Inc. (Latest Edition).

HVAC Air Duct Leakage Test Manual

HVAC Duct Construction Standards-Metal and Flexible

National Fire Protection Association (NFPA) Standards.

Department of Defense Antiterrorism Constructions Standards for Buildings

Engineering Technical Letters (ETLs)

ETL 1110-3-491 Sustainable Design for Military Facilities

ETL 1110-3-483 Clothes Dryer Exhaust Venting

ETL 1110-3-489 Domestic Water Heaters for Barracks

UNIFIED FACILITIES GUIDE SPECIFICATIONS (UFGS)

Prefabricated Underground Heating/Cooling Distribution System	UFGS 02555A
Gas Distribution System	UFGS 02556A
Valve Manholes and Piping and Equipment in Manholes	UFGS 02570A
*6 Fuel Storage Systems	UFGS 13202A
Seismic Protection for Miscellaneous Equipment	UFGS 13080
Cathodic Protection System (Sacrificial Anode)	UFGS 13110A
Cathodic Protection System (Impressed Current)	UFGS 13112A
Seismic Protection for Mechanical Equipment	UFGS 15070A
Thermal Insulation for Mechanical Systems	UFGS 15080A
Gas Piping Systems	UFGS 15190A
General Purpose Plumbing	UFGS 15400A
Forced Hot Water Heating Systems	UFGS 15556A

Water and Steam Heating; Oil, Gas, or Both	UFGS 15569A
Liquid Chillers	UFGS 15620A
Air Supply, Distribution, Ventilation, and Exhaust	UFGS 15895A
Direct Digital Control for HVAC	UFGS 15951A
HVAC Testing and Balancing	UFGS 15990A
Commissioning of HVAC Systems	UFGS 15995A
*6 Diesel-Generator Set Stationary 100-2500 KW	UFGS 16263A

10.3 HVAC Design Conditions

10.3.1 Outdoor Conditions

Location: Ft. Bragg, NC

Heating Degree Days (basis 65 °F):	3105
Cooling Degree Days (basis 65°F):	1760
Heating Design Conditions:	21°F
Cooling Design Conditions:	92°F DB/76°F WB
Air Cooled Condensing Design Conditions:	95°F DB

10.3.2 General Indoor Design Conditions (unless otherwise indicated)

Heating (comfort applications):	68 ° F DB
Heating (freeze protection, mech. rooms):	45° F DB
Cooling (Comfort Applications):	78 ° F DB/50% RH

Electrical Rooms:

10.3.3 Specific Indoor Requirements

Mechanical Rooms: Ventilation shall be in accordance with TI 810-10, paragraph 4-7.

Electrical Rooms: 78° F DB/50% RH (cooling); 68° F DB (heating)

Communications Rooms: Separate system, minimum air flow rate, 200 cfm. Maintain a constant indoor temperature of 72° F DB/50% (plus or minus 5 degrees F) summer and winter. Provide a positive pressure in the space. Use 1775 Btuh for the internal heat dissipation.

All Unit Storage, Equipment Maintenance, General Storage, Communications Storage, TA-50 Storage, NBC Storage, Locker, and Vault Areas in the COF buildings shall heated and cooled the same as for comfort applications. Air from the vaults shall not be returned to the HVAC system but shall exhausted to the outside.

The minimum air leaving temperature for air handlers during the heating mode shall be 90 degrees F.

Ventilation in air conditioned spaces: per ASHRAE 62.

10.4 Proposal Submittal Requirements.

10.4.1 As a minimum, the proposal submittal will form the basis of the future Preliminary and Final Design Analyses, as required for the Preliminary (60 Percent) Design Submittal and Final (100 Percent) Design Submittal of the successful contractor, and will contain the following:

a. Heating, Ventilating, and Air Conditioning.

(1) Criteria listings - manuals, pamphlets, technical books, etc.

(2) Design conditions used in calculations - inside and outside temperatures, personnel load, equipment heat release (if any), outside air or ventilation requirements, U-factors, and other special conditions.

(3) Block loads for heating and cooling shall be calculated using ASHRAE-based computer-generated load calculations. Where passive solar applications prove feasible and cost effective, the Designer shall employ a load calculation method that can incorporate all applicable passive solar factors. For all calculations (cooling load, heating load, pipe sizing, duct sizing, etc.), the design analysis shall contain layout sketches that show how the building or system was segmented for computer input.

(4) Brief description of various items of equipment. Indicate operating temperatures and capacities.

(5) Description of piping systems including type of pipe, insulation requirements, and whether concealed or exposed.

(6) Enlarged mechanical room plan showing required clearances for maintenance and pull spaces for coils. Service of one piece of equipment shall not require disturbance of adjacent equipment.

(7) A section view (transverse) of the barracks building showing adequate clearance for all pipe and ducts above the ceiling.

(8) List of specifications proposed to be used.

(9) Catalog cuts of major pieces of equipment proposed. The successful proposer shall not deviate from proposed equipment unless approved by the Contracting Officer.

b. Plumbing.

(1) Criteria listing - manuals, codes, etc.

(2) Plumbing calculations as necessary to determine number of fixture units, cold and hot water capacity requirements, and equipment or capacities of miscellaneous and special systems.

(3) Fixture determination listing quantity and type of fixtures for both men's and women's toilets, and other fixtures such as drinking water fountains, service sinks, etc. Indicate male and female building population, if available.

(4) Description of domestic water heating and storage equipment, including capacity, type (gas, electric, boiler, water), materials, and insulation.

(5) Piping types and location (concealed or exposed), together with material proposed and insulation requirements.

(6) Brief description of miscellaneous systems such as roof drainage, natural gas (pressure, quantity, and equipment to be served), and other special systems.

10.5 HVAC Systems.

10.5.1 Barracks Buildings. An individual fan coil unit shall be provided for each sleeping room. Fan coil units shall be provided with factory valving internal to the fan coil unit. Each room shall be supplied ventilation air to meet toilet room exhaust rate of 35 cfm/person. This air shall be supplied by a separate, central outside air unit. The air will first be introduced into the sleeping module as occupant ventilation, and secondarily shall be exhausted through the toilet rooms. The exhaust from the individual toilet rooms shall be accomplished by a central exhaust system. Additional makeup air shall also be provided for a future range to be installed in the service area of the sleeping modules. This air shall be preconditioned and the quantity shall comply with ASHRAE 62 as it applies to residential ranges. All outside air shall be preconditioned before being introduced into the modules. A 7-inch diameter metal exhaust duct shall be provided in each kitchen to serve a future externally vented range hood. The exhaust ducts for the future hoods shall be individually routed to the outside wall and terminated with a louver. The duct shall be blanked off in the kitchen area. For the community building incorporated in the barracks, a separate mechanical room has been provided for a single zone air handler to be dedicated to this area. The boilers and chillers for the barracks building will be sized for the addition of the future wing shown on the architectural floor plans provided in this RFP.

10.5.2 Other Buildings. The air side equipment will be limited to single zone, or multizone air handlers. VAV systems shall not be considered. Heating and cooling will be provided by air cooled chillers and packaged, gas-fired boilers. System shall be zoned according to the occupancy pattern of the building. For the Battalion Headquarters and COF buildings, unit integrity shall be maintained; that is, separate air side systems shall be provided for each unit, though common boilers and chillers may be used.

10.5.3 Plant Side Equipment. This RFP assumes self-contained heating and cooling equipment for each building. Proposers may choose to centralize plant equipment and serve the individual buildings via underground distribution (see paragraph 4.15 above), provided this is justified by a life cycle cost analysis which shall accompany the proposal.
*6
10.5.4 Emergency Back-Up Power Equipment. The emergency power generator shall be provided with a main storage fuel tank and a day fuel tank. The main fuel storage tank shall be sized to provide fuel to the generator so that the critical areas (see Appendices F4 and F5) receive 48 hours of uninterrupted back-up power. The main fuel tank and the interconnecting piping from the main fuel tank to the day fuel tank shall both be double-walled and equipped with leak detection devices.

10.6 Mechanical Equipment. The equipment requirements described below are the minimum. All materials and equipment provided shall be standard catalogued products of manufacturers regularly engaged in the production of such materials and equipment shall be of the manufacturers' latest standard design. Equipment shall comply with the requirements of Underwriter's Laboratories, Inc. (UL), Air Conditioning Refrigeration Institute (ARI), American Society for Testing and Materials (ASTM), National Electric Manufacturer's Association (NEMA), American National Standards Institute

(ANSI), National Fire Protection Association (NFPA), or other national trade associations as applicable. All pieces of floor mounted mechanical equipment shall be installed on a 6-inch thick concrete equipment pad. Provide pad 6 inch larger than equipment footprint on all sides. Install dowel pins into floor slab prior to pouring equipment pad. All suspended equipment shall be properly supported according to the manufacturer's instructions. Provide trapeze hangers for larger pieces of equipment. Provide adequate clearance around all pieces of equipment for periodic maintenance, inspection and cleaning. Service of one piece shall not require disturbance of adjacent equipment. Each piece of motorized equipment shall be provided with vibration isolators. Nominal deflection and natural frequency of isolation equipment shall be selected based upon equipment size and structural attachment details. All strainers and air separators are to be equipped with blowdown valves and piped to a floor drain.

10.6.1 Accessibility. For the barracks buildings, the fan coil units serving the sleeping rooms shall be vertical, floor mounted. Horizontal, ceiling-mounted units are not acceptable. No HVAC equipment shall be placed within the sleeping rooms, but the filter shall be accessible to the occupant for replacement. All air handlers used in this project shall be housed in mechanical rooms. No air handlers shall be installed in attic spaces or on roofs.

10.7 Air Handling Units. Air handling units shall be factory packaged, section modular type design, constructed of 2-inch thick pre-insulated double wall panels. A minimum 15-inch access section with door shall be provided upstream, between, and downstream of each coil. Maximum coil face velocities shall be limited to 500 feet per minute. Mixing boxes shall be factory or field fabricated and configured with dampers to promote mixing of return air and outdoor air streams. Angled filter section may be included as part of the mixing box. Cooling coil section shall be provided with a galvanized steel drain pan which will collect coil condensate from all coils. Equip drain pan opening with a liquid trap and clean out plug. Supply fan section shall be equipped with non-overloading centrifugal fan mounted on a steel base frame. Fan base shall be isolated from air handling unit base rails by the use of housed spring isolators. Fans shall be V-belt driven by belt drives sized for 150% of design power requirement. Provide adjustable sheaves for fans up to 20 Hp. All air handling units shall be provided with a pre-filter (30-35% efficiency) and a final filter (80% efficiency).

10.7.1 Special Zoning Requirements. For the MP Station and the Brigade Headquarters buildings, certain rooms require backup power (see Appendices F4 and F5 for these rooms). The air handlers serving these buildings shall be zoned so that the critical areas (rooms requiring backup power) are served by dedicated air side units.

10.8 Ventilation Requirements. Ventilation for building occupants shall be provided in accordance with ASHRAE Standard 62. The outside air intake shall be located away from exhaust air. All outside air intakes shall be located at least 10 feet above grade. Exhaust systems shall be provided for all toilet rooms, bathrooms, janitor's closets, storage rooms, and other spaces as required. Penetrations through the roof for ventilation and exhaust systems shall be minimized. An emergency shutoff switch shall be provided in the HVAC control system that can immediately shut down any unit that introduces outside air into the building. The switch (switches) must be located to be easily accessible by building occupants. The successful contractor shall coordinate the switch location with the User.

10.9 Air Distribution. Ductwork shall be constructed of sheet metal to SMACNA HVAC Duct Construction Standards, 1985 edition. Flexible ductwork runouts to terminal devices shall be limited to 10 feet in length, and shall be pre-insulated. Fiberglass duct shall not be used. Each duct branch, supply and return, shall be fitted with a manual balancing damper. All ductwork shall be located above slab, supported from roof structures. Ceiling return air plenums shall not be used. Low pressure distribution ductwork shall be installed to SMACNA pressure class 2" wg, seal class C, and leakage class 24 as a minimum. Test ductwork in accordance with SMACNA 10. Access must be provided to all devices or areas that may require periodic inspection, including but not limited to balancing devices, motor operated dampers, flow measuring stations, smoke/fire dampers, etc. Air supply outlets shall be front fixed directional fins with volume dampers operable from the face of the register. Duct manual volume dampers shall be installed on all duct takeoffs as far as possible from the register or diffuser. Registers or diffusers will not be used as dampers. It is preferable that supply outlets be located in ceilings. All supply, return, and outside air ductwork shall be insulated, and shall include vapor barrier. Exposed heating only or exposed return air ductwork shall not be insulated.

10.10 System Maintainability. Ensure that filters, controls, control valves, and coils are easily accessible for servicing and cleaning. Isolation valves shall be provided for each terminal unit, zone, branch, long runs, etc. as necessary for proper isolation and maintenance. Coils shall be fully removable without requiring demolition of any building components. Piping configuration at all coils shall include unions to facilitate easy coil removal. For the barracks buildings, no piping and duct mains shall be run over the sleeping modules. All mains shall be limited to the ceiling space above the corridors. To the maximum extent possible, the individual mechanical closets shall be used in lieu of chases for vertical runs. The only duct work and piping allowed over the sleeping modules shall be individual branch lines and ducts serving a respective sleeping area. If horizontal mains are run above the ceiling of the upper floor, these pipes shall be made accessible for maintenance via catwalks, platforms, etc. All volume dampers and fire dampers shall be made accessible. In mechanical rooms, removal of one piece of equipment shall not require removal of another major piece of equipment.

10.11 HVAC Commissioning. The Mechanical system commissioning shall be in accordance with UFGS Specification Section 15995A COMMISSIONING OF HVAC SYSTEMS. Commissioning requirements shall be clearly detailed on the design drawings and shall be clearly stated in the construction specifications to ensure the HVAC systems are properly installed, balanced and calibrated prior to building occupancy. Commissioning procedures shall be in accordance with ASHRAE Standards. Appropriate commissioning procedures for any mechanical systems utilized in this project to meet sustainability requirements and that are not currently addressed in section 15995A shall be added to said spec section.

10.12 Testing, Adjusting, and Balancing (TAB) of HVAC Systems. All HVAC systems shall be tested, adjusted, and balanced in accordance with the requirements of AABC or NEBB Procedural Standards. UFGS Specification Section 15990A TESTING, ADJUSTING, AND BALANCING OF HVAC SYSTEMS forms the basis for HVAC system TAB. The TAB firm shall be either a member of AABC or certified by NEBB, and certified in all mechanical system categories applicable to this project. The TAB Standard shall be used for all aspects of TAB.

10.13 Design Calculations. Design calculations for determining capacities of all equipment, mechanical systems and components shall be performed by the Contractor, and shall be supported with a complete design analysis. Capacity of all mechanical system components shall be coordinated with the electrical designer. The Design Analysis shall contain all explanatory material giving the design rationale for any decisions that would not be obvious to an engineer reviewing final drawings and specifications. ASHRAE-based computer generated loads shall be provided and must be submitted with complete input and output data summaries. The design shall reflect heating and cooling capacities based on the design conditions indicated herein. The space (airflow) pressure relationships shall be maintained. The overall building pressurization shall be positive to minimize effects of infiltration.

10.14 Sound Attenuation. Systems shall be designed to meet the following noise criteria:

Area NC Level

General open offices 40

Lobbies and common areas 40

Conference rooms 30

Sleeping areas 35

Acoustical treatments such as duct lining and sound attenuators shall be used to achieve these levels. Any spaces not specifically listed above shall be coordinated with the user. Vibration transmission from equipment shall be minimized with the use of vibration isolation equipment as required.

10.15 Mechanical Rooms. As a minimum, the mechanical equipment room shall reflect the minimum clearance as specified by the equipment manufacturer in all five directions (all four sides and top). Equipment tube bundle and coil pull spaces shall be shown on mechanical room layouts. Mechanical room shall be adequate to allow the layout of equipment such that the removal or replacement of one major piece of equipment shall not require removal of adjacent equipment. Mechanical rooms shall be heated and ventilated. The space shall be maintained at 45°F in winter and a maximum of 10°F above outside design ambient in summer. The mechanical room shall be separate from the electrical utility room and be accessible from an exterior door (ground floor).

10.16 Miscellaneous Fans. Exhaust fans shall be cabinet type, inline, or wall mounted. Roof mounted fans are not acceptable. Fans shall be V-belt driven by belt drives sized for 150% of design power requirement. Provide adjustable sheaves for fans up to 20 Hp. Small fans not available with V-belt drive may be directly driven. Motor selection shall permit non-overloading operation at all conditions. All fans shall be provided with vibration isolators to decouple the motor assembly from the fan housing. Suspend fans with vibration isolators from building structure.

10.17 Chiller Equipment. The chilled water system shall include exterior and interior mounted equipment. Chiller components exterior to the building shall be protected from freezing through the use of a glycol solution with heat tape as a secondary backup. Manufacturer's standard packaged controls shall be provided to handle all aspects of compressor staging and safeguarding. Chillers controls shall allow safe equipment operation down to 0 degrees F. Upon low ambient conditions that cause chiller shut down, the

chiller shall restart automatically when safe ambient conditions exist. Pumps shall be base mounted and selected for non-overloading operation at all conditions.

10.18 Controls. Control system shall be Direct Digital Control (DDC). Pneumatic actuators for automatic valves, dampers and similar will be allowed. Provide all devices required, including air compressors, refrigerated dryers, current transducers, transformers, thermostats, sensors, controllers, actuators, control valves, dampers, transmitters, flow meters, etc., to provide a complete and operable system. All thermostats for systems that provide both heating and cooling shall have a deadband of 2.8 degrees C [5 degrees F]. All equipment and systems shall be automatically controlled and monitored by the control system. Fort Bragg utilizes a LonMark Building Automation system based on LonWorks technology. Stand-alone equipment, such as chillers supplied with packaged controls, shall be installed with all necessary additional communications support equipment to insure interoperability with the Fort Bragg system.

10.18.1 Controls System Specifications. The controls requirements are segmented into two areas: building systems controls and central monitoring interface. Building system controls shall be designed in accordance with UFGS specification Section 15951, Direct Digital Control for HVAC. This section shall address the requirements for control devices such as sensors, actuators, control valves, dampers, transmitters, flow meters, etc. In addition to the UFCS guide specification requirements, all control devices shall be LonWorks compatible. All control devices shall be labeled with laminated plastic tags using unique identifiers, which are cross referenced to the control drawings. The central monitoring interface shall be based on the LonMark Building Automation specifications. A list of these specifications is included below. The specifications are available electronically at the following website: http://www.lonmark.org/products/guides.htm.

15020	Basic Mechanical System Control Interoperability Requirements
15933	Air Terminal Devices
15950	LonMark™ HVAC Controls
16020	Basic Electrical System Control Interoperability Requirements
16103	Electrical Monitoring and Control Devices
17010	Basic System Integration Requirements
17015	Summary of Work
17020	Codes, Reference Standards, Abbreviations, and Definitions
17030	Submittals
17055	Operating and Maintenance Manuals
17060	Instruction of Operating Personnel
17070	Basic LON® Materials and Methods
17100	LonWorks® Network Management
17130	Testing and BAS Commissioning

10.18.2 Control Drawings. The control drawings shall use the Corps of Engineers standard control drawings. These drawings are located at the following website: www.sas.usace.army.mil/eng/hvac/

10.18.3 Control system instructions shall be provided for each system. The instructions shall consist of half-size laminated drawings and shall include the control system schematic, equipment schedule, ladder diagram, sequence of operation, panel arrangement drawings, wiring diagram, and valve and damper schedules.

10.19 Guide Specifications. The specifications for this project shall be prepared using UFGS Guide Specifications. See SECTION 01012, paragraph 10. for additional information. The successful contractor shall provide a job-specific specification for piping identification.

10.20 Utility Metering: Gas, Potable Water. Potable water and gas shall be metered. Meters shall all have pulse outputs, data collection/communication capability. All meters shall be monitored by the DDC system. Meters shall determine consumption, and not rate-of-consumption.

10.21 Extended Warranties. All proposals shall reflect the cost of providing an extended warranty for all chillers over 10 tons, pumps over 5 hp, and boilers over 500 MBh. The warranty shall cover a period of 5 years beyond the parent warranty. The warranty shall begin on the date of installation, as opposed to the ship date. During the parent warranty and the extended warranty period, any covered equipment that fails shall be repaired at no cost—parts or labor--to the Government, provided the equipment has been properly operated and maintained. The cost for this extended warranty shall be a separate, identifiable cost in the Contractors’ proposal. Each proposal shall clearly identify the proposed approach for satisfying the requirements of this paragraph. The successful contractor shall provide a bonafide warranty for the covered equipment prior to installation of said equipment. For each piece of equipment to which this paragraph on extended warranties apply, the successful Contractor shall provide in hard copy, along with the final 1354s, a completed form similar to the Real Property Facility Equipment form found in Appendix L to this document.

10.22 Sustainability. The HVAC design shall incorporate Sustainability Design, in accordance with ETL 1110-3-491. The successful Contractor shall strive for a gold rating. Every proposer’s submittal shall address the points in the SPIRIT (Sustainability Project Rating Tool) document that will be pursued. The proposal shall address the approach that will be taken for satisfying the requirements of the SPIRIT document for a particular Sustainability feature. See section 13 of this document for more information on Sustainability design requirements.

11. ENERGY CONSERVATION

Public Law 100-615 and Federal Regulations 10 CFR 435 Subpart B, require Federal buildings to be designed and constructed to reduce energy consumption in a life-cycle, cost-effective manner using renewable energy sources when economical. In addition, energy efficiency ratings for equipment shall be in the upper 25 percent of that available as long as these efficiencies are life cycle cost effective. The Department of Energy (DOE) and Federal Energy Management Program recommendations from the Buying Energy Efficient Products Guide and the Environmental Protection Agency Star products program meet these requirements. The DOE recommendations are available at www.eren.doe.gov/femp/procurement. Submittals from the successful bidder shall be in compliance with above and address energy conservation features such as economizer cycles, water side economizer, variable frequency drives, heat recovery, etc where feasible.

11.1 Energy calculations.

11.1.1 Energy Conservation Reports. For conservation methods with an investment cost exceeding 1.00 percent of the PA, a report shall be submitted with supporting economic analyses. The report shall list the conservation features to be included in the project. The report shall include the

a. Title of conservation method.
b. Investment cost.
c. Net energy savings.
d. Net LCC savings (only for items exceeding 1.00 percent).
e. Simple payback (only for items exceeding 1.00 percent).
f. SIR (only for items exceeding 1.00 percent of PA).
g. Evaluation method. See paragraph 11-2.
h. All pertinent backup data.
i. Complete input and output of all programs.

11.1.2 Energy Budget Calculations. A minimum requirement of the sustainable project certification is to perform an Energy Analysis to determine a design energy usage (DEU) budget. The DEU shall be calculated and compared to the maximum energy use budget value (EUB) for facility type and operating schedule below for weather region 8 per table 11-1 of chapter 11, T1 800-01. The calculation should be based on the theoretical hours of operation shown below and should NOT include process/misc loads. The EUB figure is not used to predict actual energy usage but to determine the relative energy consciousness of energy alternative models. Proposers that exceed the EUB shall not be considered non-responsive.
*4

Bldg	Type	EUB (Btu/sf/yr)	Operating Schedule
Small COF	A1	35,000	10 hrs/day 5 days/week
Large COF	A1	35,000	10 hrs/day 5 days/week
Barracks	Q1	45,000	16 hrs/day 7 days/week
Battalion HQs	A1	35,000	10 hrs/day 5 days/week
Brigade HQs	A1	35,000	10 hrs/day 5 days/week
MP Station	*	*	*
Medium COF	A1	35,000	10 hrs/day 5 days/week

* The Energy Use Budget (EUB) maximum value shall be a composite of facility types A2 (35,000 btu/sf/yr @ 10 hrs/day and 5 days/week) and F (45,000 btu/sf/yr @ 24 hrs/day and 7 days/week). The composite figure shall be as follows:

EUB = (EUBa2 *(AREAa2/AREA total)) + (EUBf *(AREAf/AREA total))

EUB = (35000 x (7070/35026)) + (45000 x (27956/35026)) = 37,000

a. The DEU shall include air conditioning, heating, ventilating, lighting, and domestic hot water usage for the facility. The DEU budget shall not include process loads. Process energy load is the energy consumed in support of all functions other than comfort and amenities for building occupants (refrigerators, stoves, computers, instruments, etc.)

b. The operational hours for the calculation shall be per the above schedule. Use 0700-1700 as the 10-hour period and use 0000-0800 and 1600-2400 as the 16-hour period for energy budget calculations. The DEU budget shall be

based on availability of energy systems during 10- and 16-hour periods. For the remaining 14- and 8-hour periods lights, people, heating, air conditioning, and ventilating will be scheduled as OFF.

c. The area used in the DEU budget estimation is the gross floor area which is defined as the sum of all floor areas, measured from the outside of the exterior walls.

d. Calculation of the DEU shall be performed by computerized methods. Detailed, room-by-room calculations shall be performed with the energy simulation calculated for 8,760 hours per year. Some acceptable programs are Trane TRACE700, Carrier Hourly Analysis, BLAST, EnergyPlus and DOE-2.

e. Conversion Factors. Energy use or savings shall be calculated using the following factors. These conversion factors are given by 10 CFR Part 436. Equipment efficiencies and system losses must be accounted for in calculations. For energy media not listed here, use current standard engineering data or other approved reference data.

ENERGY MEDIUM CONVERSION FACTORS
Natural Gas 38.4 million joules/liter
Electricity 3.6 million joules/kWh

f. Provide the complete input (room, systems, room assignment, plants, plant assignment, custom members, custom schedules) and output of the program. See appendix K for examples of what is required.

11.2 Life Cycle Cost Analysis (LCCA). Should the offeror elect to centralize the chillers and boilers in one location versus individual boilers and chillers at each building, a LCCA is required to be submitted with the proposal. Submit all backup data related to LCCA (cost estimates, replacement costs, etc.). Lump sum cost estimates is not acceptable. Clearly document sources of information and any assumptions made. Also submit complete input and output for economic program computer and the Energy analysis program used. Acceptable energy analysis programs are Trane TRACE 700, Carrier HAP, BLAST and DOE-2. The economic program shall be the Life Cycle Cost In Design (LCCID) program, the Building Life Cycle Cost (BLCC) program or one approved by HQUSACE, CEMP-E to be the equivalent thereof. The LCCID program is available from Building Systems Laboratories at 217-333-3977. The BLCC program is available from the FEMP web site at www.eren.doe.gov.femp.

Utility Rates. The following rates shall be used in the development of any Life Cycle Cost Analysis:

Electricity	$0.0632/kwh
Natural gas	$0.57/therm

11.3 U-Values. Utilize the U-values presented below as a starting point. These values may be modified if a life cycle cost analysis indicates that a more cost effective value should be used. The life cycle cost analysis shall be based on the Department of Energy (DOE) Federal Energy Management Program (FEMP) criteria according to the provision of the latest version of Code of Federal Regulations, 10 CFR 436A. For guidance on the methodology, refer to National Institute of Standards and Technology Handbook 135, Life Cycle Costing Manual for the Federal Energy Management Program.

Nominal U-Values Btu/square foot – °F for Exposed Floors, Ceilings, and Walls

HDD	Opaque Walls	Gross Walls	Ceiling/Roof	Floor
3105	0.12	0.217	0.066	0.074

The U-Values above are taken from T1 800-1, table 11-4A in weather region 8. Coordinate actual U-values with the architectural design of the facility.

11.4 Passive Solar Applications. Passive solar architectural applications shall routinely be considered as a part of all project designs. Unique applications such as attached sun spaces, earth sheltering, mass trombe walls, solar chimneys, solar dehumidifiers, and other innovations may be considered if economically feasible.

11.5 Active Solar Applications. Active solar systems shall be evaluated per UFC 3-440-01, Design, Active Solar Preheat Systems. This shall be a two-step process. Use the solar water preheating screening tool, SolarPayback to determine if active solar preheating warrants a more detailed analysis. If the results are favorable the second step would be a more detailed analysis utilizing the LCCID program.

12. FIRE PROTECTION

12.1 Design Standards And Codes. The fire protection design for all facilities shall be in accordance with MIL-HDBK-1008C and the current versions of the International Building Code and the National Fire Protection Association (NFPA) standards and codes.

12.1.1 Qualifications of Fire Protection Engineer. The design of the fire protection features shall be by a qualified fire protection engineer meeting one of the following conditions: a.) An engineer with a Bachelor of Science or Masters of Science Degree in fire protection engineering from an accredited university engineering program, plus a minimum of 5 years' work experience in fire protection engineering. b.) A registered professional engineer who has passed the National Council of Examiners for Engineering and Surveys (NCEE) fire protection engineering written examination. c.) A registered P.E. in a related engineering discipline with a minimum of 5 years' experience dedicated to fire protection engineering. The name and credentials (education, registration, experience) of the fire protection engineer shall be submitted with the initial contract documents and approved by the District fire protection engineer prior to proceeding with fire protection design.

12.1.2 Fire Protection and Life Safety Analysis. The fire protection engineer shall perform a fire protection and life safety design analysis of the proposed facility design. The analysis shall be submitted with the preliminary design submittal. The analysis shall include type of construction; height and area limitations; classification of occupancy; building separation or exposure protection; specific compliance with NFPA codes and the IBC; requirements for fire-rated walls, doors, fire dampers, etc.; analysis of automatic suppression systems and protected areas; water supplies; smoke control systems; fire alarm system, including connection to the base-wide system; fire detection system; standpipe systems; fire extinguishers; interior finish ratings; and other pertinent fire protection data. The submittal shall include a life safety floor plan showing occupant loading, occupancy classifications and construction type, egress travel distances, exit capacities, sprinklered areas, fire extinguisher locations, ratings of fire-resistive assemblies, and other data necessary to exhibit compliance with life safety code requirements.

12.2 Fire Flow Data. Refer to Civil Design for design requirements.

12.3 Sprinkler System.

12.3.1 Automatic sprinkler protection shall be provided for all buildings in this project. The facilities shall be fully protected with automatic wet pipe sprinkler systems. Dry pipe systems shall be provided if freeze protection is required. All floors and all areas of the facilities shall be protected. The sprinkler system designs shall be in accordance with MIL-HDBK-1008C, NFPA 13, NFPA 13R, NFPA 96, NFPA 230, and UFGS Specification Sections 13930, Wet Pipe Sprinkler System, and 13935 Dry Pipe Sprinkler System. The sprinkler hazard classifications shall be in accordance with MIL-HDBK-1008C, NFPA 13, NFPA 13R, and NFPA 230. Design densities, design areas and exterior hose streams shall be in accordance with MIL-HDBK-1008C. The sprinkler systems shall be designed and all piping sized with computer generated hydraulic calculations. The exterior hose stream demand shall be included in the hydraulic calculations. A complete sprinkler system design, including sprinklers, branch lines, floor mains and risers, shall be shown on the drawings.

Barracks buildings four stories or less may be protected by wet pipe sprinkler systems designed and installed in accordance with the provisions of NFPA 13R, except that in buildings which use the sprinkler system to increase allowable floor area based on particular construction type per IBC, the wet pipe sprinkler systems shall be designed and installed in accordance with the provisions of NFPA 13. If sprinkler systems are designed in accordance with NFPA 13R the hose stream demand shall be 946 lpm and the number of design sprinklers shall be four.

12.3.2 Sprinklers. Sprinklers located in finished areas shall be recessed pendant type.

12.3.3 Sprinkler Service Main and Riser. The sprinkler service main shall be provided with an exterior post indicator valve with tamper switch reporting to the fire alarm control panel (FACP). The sprinkler entry riser shall include a double check backflow preventer, a fire department connection, and a wall hydrant for testing of backflow preventer. The sprinkler system shall include an indicating control valve, an alarm check valve, a water motor alarm and a flow switch reporting to the FACP. All control valves shall be OS&Y type and shall be provided with tamper switches connected to the FACP.

12.3.4 Backflow Preventer. A double check backflow preventer shall be provided on the fire water main serving each building. This shall be located within the building. An exterior wall hydrant with OS&Y valve shall be provided to allow testing of backflow preventer at design flow as required by NFPA 13.

12.3.5 Fire Department Connection. A fire department connection shall be provided for each building with sprinkler protection. These shall be located on the street side of the building, to be directly accessible to the fire department.

12.3.6 Exterior Hose Stream. Exterior hose stream demand shall be in accordance with MIL-HDBK-1008C. This shall be 946 lpm for light hazard and

1892 lpm for ordinary hazard. Exterior hose stream demand shall be included in the sprinkler system hydraulic calculations.

12.4 Fire Pump. If a fire pump is required provide a fire pump design and installation in accordance with NFPA 20 and Specification Sections 13920.

12.5 Standpipe And Hose System. Class I hose standpipes shall be provided in the stair towers of buildings four stories or more in height per MIL-HDBK-1008C. Standpipe design shall be in accordance with NFPA 14. Manual-dry standpipes are acceptable.
*5
12.6 Deleted~~Cooking Range Fire Protection. Ranges located in common use areas shall be protected in accordance with NFPA 96. This shall include the range, range hood, grease removal devices, exhaust system, fire suppression system, and fuel/power cut-off~~.

12.7 System Components And Hardware. Materials for the sprinkler system, fire pump system, and hose standpipe system shall be in accordance with UFGS Specification Sections 13930, 13935, and 13920 and with NFPA 13 and NFPA 230. Sprinkler system piping shall be black steel and shall be minimum Schedule 40 for sizes 50mm and less and minimum Schedule 10 for sizes greater than 50mm.

12.8 Protection Of Piping Against Earthquake Damage. Sprinkler and fire pump piping systems shall be protected against damage from earthquakes. Seismic protection shall include flexible and rigid couplings, sway bracing, seismic separation assemblies where piping crosses building seismic separation joints, and other features as required by NFPA 13 for protection of piping against damage from earthquakes.

12.9 Fire Hydrants. Refer to Civil Design for design requirements.

12.10 Building Construction. Comply with requirements of International Building Code and NFPA 101Life Safety Code.

12.10.1 Fire Extinguishers and Cabinets. Refer to Architectural Design for design requirements.

12.10.2 Interior Wall and Ceiling Finishes. Wall and ceiling finishes and movable partitions shall conform to the requirements of the IBC and NFPA 101, except as follows:

12.10.2.1 Interior finish for exits, exit passageways, sleeping rooms shall be Class A only.

12.10.2.2 Flame spread (FS) and smoke development (SD) shall be tested in accordance with ASTM E84. Tests shall not exceed FS rating of 25 and SD rating of 50 for Class A materials; FS rating of 75 and SD rating of 100 for Class B materials; and FS rating of 200 and SD rating of 200 for Class C materials. Class C materials shall only be permitted in fully sprinklered buildings.

12.10.2.3 Cellular plastics shall not be used as interior wall and ceiling materials.

12.10.2.4 Carpeting and other textile wall coverings shall only be applied as an interior finish if the material passes the acceptance criteria of the

Uniform Building Code (UBC) Standard 8-2, Test Method for Textile Wall Coverings, conducted by a nationally recognized testing laboratory.

12.11 Fire Alarm. Refer to Electrical Design for design requirements.

12.12 Specifications. Unified Guide Specifications (UFGS) shall be used for this project. The contractor shall edit the appropriate UFGS Sections. These shall be submitted for review with the preliminary and final design submittals. Marked up versions of the specifications shall be provided in the preliminary design submittal to allow reviewers to identify changes made. These specifications shall be followed for the design and installation of the sprinkler systems. The Contractor shall submit material data, hydraulic calculations, and shop drawings as required by Specification Section 13930 to the Contracting Officer for review and approval.

12.13 Catalog Cuts. Manufacturers Catalog Cuts for major pieces of equipment shall be provided with each submittal and shall represent actual equipment to be installed. Deviations from equipment or installation as indicated in the proposal or design submittals shall not be allowed or accepted unless approved by the Contracting Officer.

12.14 Site Investigation. The contractor shall perform any site investigations required to gather any information necessary for completing fire protection system design for the project.

13. SUSTAINABLE DESIGN

13.1 Sustainable Design Goals. The goals for improving the sustainability of facilities include: (a) use resources efficiently and minimize raw material resource consumption, including energy, water, land and materials, both during the construction process and throughout the life of the facility, (b) maximize resource reuse, while maintaining financial stewardship, (c) move away from fossil fuels towards renewable energy sources, (d) create a healthy and productive work environment for all who use the facility, (e) build facilities of long-term value, and (f) protect and, where appropriate, restore the natural environment. The goal for this project is to achieve a “gold” SPiRiT rating for each facility type.

13.2 Project Requirements. Sustainable design techniques shall be considered as they relate to site and building design, construction, operation, and deconstruction. Techniques which conserve energy, improve livability, and can be justified by life cycle cost analysis as cost effective are encouraged.

13.2.1 Sustainable design is a proposal evaluation factor. The level of incorporation of sustainable design principles will be measured through use of the Army developed Sustainable Project Rating Tool (SPiRiT), available from the following website: www.cecer.army.mil/sustdesign . A copy is also included in Appendix C to this section.

13.2.2 Mandatory Requirements. The SPiRiT Summary tables at Appendix H indicate what SPiRiT items are contract requirements for this project in the “Mandatory Points” column. This column also indicates the status of SPiRiT points that fall outside the scope of design and construction, such as features of the project site location.

13.2.3 Prohibited Solutions. The following will not be accepted as proposed features to earn SPiRiT points:
Any feature that conflicts with other requirements of this RFP is not permitted.
Skylights are not permitted.

14. ENGLISH OR METRIC DESIGN. The Contractor's design shall be developed using either the hard metric system of units or English units of measure. The site survey included with this RFP was done using English units. Some building drawings were completed using the metric system. The Contractor shall coordinate the changes required to convert from one system to the other. Specifications requiring metric measurements may contain requirements for equipment (e.g. printers, HVAC systems) described in inch-pound (I-P) units in which case no metric substitution will be allowed. Specifications requiring metric measurements shall include references to related non-metric industry and/or Government standards. Discrepancies, such as mismatches or product unavailability, arising from use of both metric and non-metric measurements and discrepancies between the measurements in the specifications and the measurements in the drawings shall be resolved by the Contractor. Submittals for Government approval or for information only shall cover the SI or I-P products actually being furnished for the project. The Contractor shall submit the required drawings and calculations in the same units used in the contract documents describing the product or requirement unless otherwise instructed or approved. The Contractor shall use ASTM E 380 and ASTM E 621 as the basis for establishing metric measurements required to be used in submittals, if the design is done in metric. See SECTION 01415, METRIC MEASUREMENTS.

15. HAZARDOUS BUILDING MATERIALS, DEMOLITION AND RECYCLED MATERIALS, AND ENVIRONMENTAL CONTAMINATION

15.1 Hazardous Building Materials.
*7
The Contractor shall use the information on hazardous building materials to prepare his proposal (See Appendix E). All hazardous building materials, whether identified in this RFP or discovered during demolition shall be removed prior to demolition. With asbestos debris the exception, n~~N~~o other hazardous building materials shall be disposed of on Fort Bragg unless specifically requested by the installation. Contractor shall assume all hazardous materials are to be disposed of off-post. Only construction and demolition debris and inert debris may be placed in the Lamont landfill. The information provided is designed to give the Contractor an idea of the types and general quantities found in the existing buildings. As the buildings were in use at the time of the survey, no destructive testing (i.e removal of walls to follow pipe chases) was conducted. Quantities were estimated. The contractor shall view the provided information and the buildings to be demolished and determine the quantities and appropriate abatement costs.

15.1.1 The Contractor shall prepare Asbestos Abatement Specification USGS 13280. In particular the specification shall have a requirement for the abatement contractor to prepare an Asbestos Abatement Plan detailing aspects discussed in the 13280. This plan must be submitted to the Savannah District Safety Office for review and acceptance. It must meets the functional requirements of USGS 13280.

15.1.1.2 As part of the project files the Contractor shall insure that copies of all asbestos abatement related certifications are submitted to the

Contracting Officer. These certifications include, but are not limited to: All North Carolina Licenses for Asbestos Abatement Designer, Supervisor, and Workers; medical clearance (dusty trade cards), laboratory certifications in accreditation and performance testing (PAT) and all notices and responses to states for permits.

15.1.1.3 As part of the project files the Contractor shall insure that copies are submitted of all safety and health related certifications or documentation as required by the Occupational Health and Safety Administration, such as Hazard Communication training, Hearing Conservation training, Fall Protection, Lockout/Tagout, Confined Space Entry, Heat Stress, and training or certification for any other hazards that may be encountered during abatement.

15.1.2 The state of North Carolina has stated that no lead-based paint (LBP) testing or abatement needs to be performed on building debris that is going into a C&D landfill. In accordance with EPA Region IV guidance, USACE has taken composite samples and found that the leachate from the targeted buildings does not exceed the Toxicity Characteristic Leaching Procedure (TCLP) and may be placed in a C&D landfill. Results of this testing can be found in the Environmental Appendix.

15.1.3 Miscellaneous hazardous building components have been identified and quantities estimated. This information is included in the Environmental Appendix E. The information provided is designed to give the Contractor an idea of the types and general quantities found in the existing buildings. As the buildings were in use at the time of the survey, no destructive testing was conducted. Quantities were estimated and no physical/analytical tests were performed. The contractor shall view the provided information and the buildings to be demolished and determine the quantities and appropriate removal and disposal costs.
*7
15.2 Demolition And Recycled Materials. The Contractor is responsible for all demolition, including tank removal and utilities. All hazardous demolition debris, with the exception of asbestos and asbestos contaminated debris, is to be disposed of off-post. Non-hazardous debris and properly contained asbestos debris may be disposed of in Fort Bragg's Lamont landfill. To reduce the amount of demolition debris the Contractor is encouraged to recycle or re-use demolition materials where feasible. The Contractor is encouraged to look at recycle/reuse issues to assist him in increasing the project’s SpiRiT rating (See Paragraph 13 above). Please note that no material with paint on it can be rubblized for use in stream stabilization or backfill unless it has been certified as lead-free. Rubble with paint on it can be used as an ingredient for concrete and similar products.

15.2.1 The Contractor is encouraged to visit North Carolina’s web page on recycling/reuse, Division of Pollution Prevention and Environmental Assistance (DPPEA) of the Department of Environmental and Natural Resources (DENR); Directory of Markets for Recyclable Materials www.p2pays.Org/DMRM/start.aspx.

15.2.2 The Contractor shall prepare a specification that addresses deconstruction, construction and demolition waste management. The plan shall detail that waste management plans are to be prepared. Plans shall identify waste reduction goals either by weight or by volume (see http://www.ciwmb.ca.gov’agendas/mtgdocs), provide for documents to show

evidence of recycling and reuse of recovered materials, detail where construction and demolition (C&D) waste management requirements could detrimentally impact the schedule, provide for separate itemization of costs related to C&D Waste Management, provide a materials based hierarchy of reduce, reuse and recycle and detail how the plan will prevent environmental pollution and damage. Safety and health issues shall also be addressed. A close out report detailing the planned and actualization of the above topics shall be prepared (FYI) and submitted. One copy for Ft Bragg sustainable design office attn. Christine Hull, one for the Project records and one copy for USACE Savannah attn. EN-GH, K. Campbell-Miles.

15.3 Environmental Contamination.
*4 *6
15.3.1 This site has been in use since the 1940's. Underground ~~and aboveground~~ storage tanks (USTs~~ & ASTs~~) have been and still are present onsite. For the USTs that have been removed, the closure reports are available from the installation environmental coordinator, Ed Shwacke. One former tank site does have groundwater contamination. Groundwater is approximately 35 feet below ground surface and the contamination should have no impact on construction activities. Tanks shall be removed in accordance with North Carolina Department of Natural Resources requirements. Should excessive quantities of contaminated soil be encountered in the UST removal process, the Contractor shall immediately notify the Contracting Officer to determine estimated quantities of materials, disposal options, and method of compensation. A UFGS specification, UFGS 02115A, UNDERGROUND STORAGE TANK REMOVAL, shall be developed and used.
*4
15.3.2 Removal of USTs~~/ASTs~~ requires that a site safety and health plan (SSHP) be developed and accepted by the USACE, Savannah District Safety Office. The Contractor shall prepare the SSHP in accordance with Engineering Regulation 385-1-92, SAFETY AND OCCUPATIONAL HEALTH REQUIREMENTS FOR HAZARDOUS, TOXIC AND RADIOACTIVE WASTE (HTRW) ACTIVITIES, in particular its Appendix C, Safety and Health Elements for HTRW Documents. The Contractor shall develop and use UFGS specification, UFGS 01351a, SAFETY, HEALTH AND EMERGENCY RESPONSE (HTRW/UST), to meet this requirement. The ER can be obtained from USACE Huntsville Division's TECHINFO site. (http://www.hnd.usace.army.mil/techinfo/gspec.htm)
*4
15.3.3 The Contractor is responsible for removing/ recycling any materials in the remaining USTs~~, ASTs~~ and their piping systems. The installation may wish to salvage the AST system used for waste oil collection. Contact Ft Bragg's Ed Shwacke and/or Real Property Section for confirmation.

15.3.4 One temporary monitoring well is in place and must be protected from damage. If it is damaged or must be removed, the Contractor shall replace it. The Contractor is responsible for closing the well in accordance with North Carolina well closure regulations. The Contractor shall coordinate with Ft Bragg Environmental (Ed Shwacke) to determine procedures and the location of the new well.

15.3.5 At one time six large PCB transformers were located on a concrete slab outside of the old laundry building. The transformers were removed and replaced with three non-PCB transformers. These are to be removed by the Contractor. Soil investigations to determine if PCB contamination exists under the concrete slab were conducted. Results showed that although PCBs are present, they are below the North Carolina and federal regulatory limits and soil may be treated as any other normal soil. Sampling results can be

viewed in Appendix E of the RFP. The concrete slab was not tested due to the difficulty in assessing contamination of the whole slab based upon random samples. The slab is still to be considered PCB contaminated and must be removed and disposed of as a PCB contaminated article. The Contractor may need to take samples of the concrete to comply with disposal requirements. *4

15.3.6 Health and safety procedures for the removal of the transformer slab shall be included as a separate task in the SSHP developed for the UST~~/AST~~ removals. Only one SSHP shall be developed for the whole project. Any additional or unexpected contamination shall be added to the accepted SSHP as an addendum. SSHPs and addendums shall be reviewed and signed by a certified industrial hygienist (CIH) or a certified Safety Professional (CSP). They shall be reviewed and accepted by USACE Savannah District Safety Office.

16. RFP DESIGN AND TECHNICAL CRITERIA

16.1 All design and construction document drawings and specifications shall be prepared to comply with the RFP. The RFP describes the design work that shall not be changed, and shall be included in the construction documents. All remaining design work shall be performed by the Contractor based on the design criteria as required by the RFP. No deviations from the criteria will be allowed unless prior approval is obtained from the Contracting Officer's Representative. All questions or problems encountered by the Contractor in following criteria shall be promptly submitted with recommendations to the Contracting Officer's Representative for approval.

16.2 Conflicts In RFP Criteria. If the various elements of the RFP are in conflict, the following priority shall be used to establish precedence, unless specifically noted otherwise:

1. RFP-Specifications
2. Drawings
3. Installation Design Guide

APPENDIX A
REFERENCES

REFERENCES

GOVERNMENT PUBLICATIONS

CODE OF FEDERAL REGULATIONS
Government Printing Office
Washington, DC 20402

49 CFR 192	Transportation of Natural and other Gas by Pipeline: Minimum Federal Safety Standards
40 CFR 280	Owners and Operators of Underground Storage Tanks
49 CFR 195	Transportation of Hazardous Liquids by Pipeline
10 CFR 430	Energy Conservation Program for Consumer Products

Department of the Navy

Standardization Documents Order Desk
700 Robbins Avenue, Bldg. 4D
Philadelphia, PA 19111-5094

MIL-HDBK-1008	Fire Protection for Facilities Engineering, Design, and Construction

U.S. Government Printing Office

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402

U.S. Government Printing Office (GPO) Style Manual

NON-GOVERNMENT PUBLICATIONS

AIR MOVEMENT AND CONTROL ASSOCIATION
30 W. University Drive
Arlington Heights, IL 60004-1893

AMCA 210	Laboratory Methods of Testing Fans for Rating

AIR CONDITIONING AND REFRIGERATION INSTITUTE
4301 North Fairfax Drive
Arlington, VA 22203

ARI 310/380	Packaged Terminal Air-Conditioners and Heat Pumps
ARI 440	Room Fan-Coil and Unit Ventilator
ARI 445	Room Air-Induction Units
ARI 880	Air Terminals

AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION (AAMA)
1827 Walden Office Square, Suite 104
Schaumburg, IL 60173-4268

AAMA 101	Voluntary Specifications for Aluminum, Vinyl and Wood Windows and Glass Doors
AAMA 605	Voluntary Specification Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels
AAMA 607.1	Voluntary Guide Specifications and Inspection Methods for Clear Anodic Finishes for Architectural Aluminum
AAMA 1503	Voluntary Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors, and Glazed Wall Sections

AMERICAN BEARING MANUFACTURERS ASSOCIATION
1200 19th Street, NW
Washington, DC 20036-4303

AFBMA Std 9	Load Ratings and Fatigue Life for Ball Bearings
AFBMA Std 11	Load Ratings and Fatigue Life for Roller Bearings

AMERICAN BOILER MANUFACTURERS ASSOCIATION (ABMA)
950 N. Glebe Rd, Suite 160
Arlington, VA 22203-1824

ABMA ISEI	Industry Standards and Engineering Information

ACI INTERNATIONAL (ACI)
P.O. Box 9094 Farmington Hills, MI 48333-9094
Ph: 248-848-3800
Fax: 248-848-3801
Internet: http://www.aci-int.org

ACI 318-95	Building Code Requirements for Reinforced Concrete
ACI 302	Guide for Concrete Floors and Slab Construction
ACI-ASCE 530	Building Code for Masonry
ACI-ASCE 530.1	Masonry Specifications

AMERICAN NATIONAL STANDARDS INSTITUTE
11 West 42 Street
New York, NY 10036

ANSI Z21.10.1	Z21.10.1a; Z21.10.1b; Z21.10.1c) Gas Water Heaters Vol. I, Storage Water Heaters with Input Ratings of 75,000 Btu Per Hour or Less
ANSI Z124.	American National Standard for Plastic Lavatories.
ANSI Z124.6	Plastic Sinks
ANSI Z21.45	Flexible Connectors of Other Than All-Metal Construction for Gas Appliances
ANSI C2	National Electrical Safety Code

ANSI 70 National Electrical Code

ANSI/TIA/EIA-569-A Commercial Building Standard for Telecommunications Pathways and Spaces

AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE)
1801 Alexander Bell Drive
Reston, VA 20190-4400
Ph: 800-548-2723
Fax: 703-295-6333
Internet: www.pubs.asce.org
e-mail: marketing@asce.org

ASCE 7 Minimum Design Loads for Buildings and Other Structures

AMERICAN SOCIETY FOR TESTING AND MATERIALS
100 Bar Harbor Drive
West Conshohocken, PA 19428-2959

ASTM E 84 Surface Burning Characteristics of Building Materials

ASTM D 2846/D 2846M Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Hot- and Cold-Water Distribution Systems

ASTM D 2513 Thermoplastic Gas Pressure Pipe, Tubing, and Fittings

ASTM D 2683 Socket-Type Polyethylene Fittings for Outside Diameter-Controlled Polyethylene Pipe and Tubing

ASTM A 53 Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless

ASTM A 106 Seamless Carbon Steel Pipe for High-Temperature Service

ASTM B 88 Seamless Copper Water Tube

ASTM D 5686 "Fiberglass" (Glass-Fiber-Reinforced Thermosetting-Resin) Pipe and Pipe Fittings, Adhesive Bonded Joint Type Epoxy Resin, for Condensate Return Lines

ASTM D 2241 Poly(Vinyl Chloride) (PVC) Pressure-Rated-Pipe (SDR Series)

ASTM D 1784 Rigid Poly(Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds

ASTM D 1248 Polyethylene Plastics Molding and Extrusion Materials

ASTM C 591 Unfaced Preformed Rigid Cellular Polyisocyanurate Thermal Insulation

ASTM C 518 Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus

ASTM A 134 Pipe, Steel, Electric-Fusion (Arc)-Welded (Sizes NPS 16 and Over)

ASTM A 135 Electric-Resistance-Welded Steel Pipe

ASTM A 139	Electric-Fusion (Arc)-Welded Steel Pipe (NPS 4 and over)
ASTM A 36/A 36M	Carbon Structural Steel
ASTM D 2310	Machine-Made "Fiberglass" (Glass-Fiber-Reinforced Thermosetting-Resin) Pipe
ASTM D 2996	Filament-Wound "Fiberglass" (Glass-Fiber-Reinforced Thermosetting Resin) Pipe
ASTM C 136	Sieve Analysis of Fine and Coarse Aggregates
ASTM D 422	Particle-Size Analysis of Soils
ASTM D 1556	Density of Soil in Place by the Sand-Cone Method
ASTM D 1557	Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3 (2,700 kN-m/m3))
ASTM D 2216	Laboratory Determination of Water (Moisture) Content of Soil, and Rock
ASTM D 2487	Classification of Soils for Engineering Purposes
ASTM D 2661	Acrylonitrile-Butadiene-Styrene (ABS) Plastic Drain, Waste, and Vent Pipe and Fittings
ASTM D 2665	Poly(Vinyl Chloride) (PVC) Plastic Drains, Waste, and Vent Pipe and Fittings
ASTM D 2666	Polybutylene (PB) Plastic Tubing
ASTM D 4318	Liquid Limit, Plastic Limit, and Plasticity Index of Soils
ASTM E 119	Standard Test Methods and Fire Tests of Building Construction and Materials
ASTM E 779	Standard Test Method for Determining Air Leakage Rate by Fan Pressurization

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS
1791 Tully Circle. NE
Atlanta, GA 30329-2305

Standard 62	Ventilation for Acceptable Indoor Air Quality
Standard 15	Safety Code for Mechanical Refrigeration
ASHRAE 90.1	Energy Efficient Design of New Buildings Except Low-Rise Residential Buildings
ASHRAE Hdbk-IP	Handbook, Fundamentals I-P Edition

AMERICAN SOCIETY OF MECHANICAL ENGINEERS INTERNATIONAL
Three Park Place
New York, NY 10016-5990

ASME B31.8	Gas Transmission and Distribution Piping Systems

ASME B16.11 Forged Fittings, Socket-Welding and Threaded

ASME B31.1 Power Piping

ASME BPVC SEC VII Boiler and Pressure Vessel Code: Section VII Recommended Guidelines for the Care of Power Boilers

ASME Pipe Flanges and Flanged Fittings NPS 1/2 Through NPS 24

ARCHITECTURAL WOODWORK INSTITUTE
1952 Isaac Newton Square W.
Reston, VA 20190

AWI Quality Standards 7th Edition, Version 1.2

ASSOCIATED AIR BALANCE COUNCIL
1518 K Street NW, Suite 708
Washington, DC 20005

AABC MN-1 National Standards for Testing and Balancing Heating, Ventilating, and Air Conditioning Systems

COUNCIL OF AMERICAN BUILDING OFFICIALS
5203 Leesburg Pike, Suite 708
Falls Church, VA 22041

CABO A117.1 Accessible and Usable Buildings and Facilities

ELECTRONIC INDUSTRIES ASSOCIATION (EIA)
2500 Wilson Blvd
Arlington, VA 22201-3834

EIA/TIA 568-B Commercial Building Telecommunications Cabling Standards

EIA/TIA 569-A Commercial Building Standard for Telecommunications Pathways and Spaces

ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA
120 Wall Street, 17th Floor
New York, NY 10005-4001

IESNA RP-8 Roadway Lighting

IES LHBK Lighting Handbook, Reference and Application

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS INC. (IEEE)
445 Hoes Lane, P.O. Box 1331
Piscataway, NJ 08855-1331

Standard for Use of the International System of Units (SI):
the Modern Metric System
International Approval Services (IAS)
8501 E. Pleasant Valley Rd
Cleveland, OH 44131

IAS Directory IAS Directory of AGA & CGA Certified Appliances and Accessories

INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS

20001 Walnut Drive South
Walnut, CA 91789-2825

IAPMO Z124.1 Plastic Bathtub Units

IAPMO Z124.3 Plastic Lavatories

IAPMO Z124.5 Plastic Toilet (Water Closets) Seats

IAPMO Z124.9 Plastic Urinal Fixtures

INTERNATIONAL CODE COUNCIL, INC
5203 Leesburg Pike, Suite 708
Falls Church, VA 22041-3401

ICC International Building Code

INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS
5360 Workman Mill Road
Whittier, CA 90601-2298

ICBO Uniform Building Code

NATIONAL ASSOCIATION OF CORROSION ENGINEERS INTERNATIONAL
1440 South Creek Drive
Houston, TX 77084-4906

NACE RP0169 Control of External Corrosion on Underground or Submerged Metallic Piping Systems

NACE RP0185 Extruded, Polyolefin Resin Coating Systems with Soft Adhesives for Underground or Submerged Pipe

NATIONAL ASSOCIATION OF PLUMBING - HEATING – COOLING CONTRACTORS
180 S. Washington Street
Falls Church, VA 22046

NAPHCC Plumbing Code National Standard Plumbing Code

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
1300 N 17th Street, Suite 1847
Rosslyn, VA 22209

NEMA C12.1 Code for Electricity Metering

NEMA LD 3 High Pressure Decorative Laminates

NEMA PB 1 Panelboards

NATIONAL ENVIRONMENTAL BALANCING BUREAU
8575 Grovemont Circle
Gaithersburg, MD 20877-4121

NEBB Procedural Stds Procedural Standards for Testing Adjusting Balancing of Environmental Systems

NATIONAL FIRE PROTECTION ASSOCIATION
One Batterymarch Park

Quincy, MA 02269-9101

NFPA 10 Standard for Portable Fire Extinguishers

NFPA 30 Flammable and Combustible Liquids Code

NFPA 31 Installation of Oil Burning Equipment

NFPA 54 National Fuel Gas Code

NFPA 58 Liquefied Petroleum Gas Code

NFPA 70 National Electrical Code (NEC)

NFPA 80 Standard for Fire Doors and Fire Windows

NFPA 90A Installation of Air Conditioning and Ventilating Systems

NFPA 101 Life Safety Code

NFPA 1581 Standard on Fire Department Infection Control Program

NFPA 1710 Organization and Development of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments

PLUMBING AND DRAINAGE INSTITUTE
45 Bristol Drive, Suite 101
South Easton, MA 02375

PDI G 101 Testing and Rating Procedure for Grease Interceptors with Appendix of Sizing and Installation Data

PDI WH201 Water Hammer Arrestors

PDI WH 201 Water Hammer Arresters

SHEET METAL AND AIR CONDITIONING CONTRACTOR'S NATIONAL ASSOCIATION
PO Box 221230
Chantilly, VA 20153-1230

SMACNA HVAC Duct Const Stds HVAC Duct Construction Standards - Metal and Flexible

SMACNA Arch. Manual Architectural Sheet Metal Manual

STEEL DOOR INSTITUTE (SDI)
30200 Detroit Road
Cleveland, OH 44145-1967

ANSI A250.8/SDI 100 Standard Steel Doors and Frames

AMERICANS WITH DISABILITIES ACT (ADA)

Accessibility Guidelines for Buildings and Facilities

Available from US Architectural and Transportation Barriers Compliance Board, 1111 18th Street, N.W., Suite 501, Washington, DC 20036-3894, (202) 653-7834 v/TDD or (202) 653-7863 FAX

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)
444 N. Capital St., NW, Suite 249
Washington, DC 20001
Ph: 800-231-3475
Fax: 800-525-5562
Internet: www.aashto.org

ARMY TECHNICAL INSTRUCTIONS (TI)

Internet: http://www.hnd.usace.army.mil/techinfo/

TI 800-01	Design Criteria
TI 804-01	Area Planning, Site Planning and Design
TI 804-11	POV Site Circulation and Parking
TI 809-01	Load Assumptions for Buildings
TI 809-02	Structural Design Criteria for Buildings
TI 809-04	Seismic Design for Buildings
TI 809-04	Seismic Design For Buildings
TI 809-07	Design of Cold-Formed Load Bearing Steel Systems
TI 809-30	Metal Building Systems
TI 810-10	Mechanical Design Heating, Ventilating, and Air Conditioning
TI 810-11	Heating, Ventilating and Air Conditioning (HVAC) Control System
TI 814-01	Water Supply
TI 814-03	Water Distribution
TI 814-10	Wastewater Collection
TI 822-20	Surface Drainage Quad-Service Antiterrorism/Force Protection Construction Standard

ARMY/AIR FORCE TECHNICAL MANUAL ™
Internet: http://www.hnd.usace.army.mil/techinfo/engpubs.htm

TM 5-803-5	Installation Design
TM 5-803-13	Landscape Design and Planting Criteria
TM 5-803-13	Site Planning and Design
TM 5-822-2	General Provisions and Geometric Design for Roads, Streets, Walks and Open Storage Areas

TM 5-822-5	Pavement Design for Roads, Streets, Walks and Open Storage Areas
TM 5-822-7	Standard Practice for Concrete Pavements
TM 5-822-8	Bituminous Pavements – Standard Practice
TM 5-809-12	Concrete Floor Slabs on Grade Subjected to Heavy Loads
TM 5-813-4	Water Supply, Water Storage
TM 5-822-5	Pavement Design for Roads, Streets, Walks, and Open Storage Areas
TM 5-822-7	Standard Practice for Concrete Pavements
TM 5-822-8	Bituminous Pavements Standard Practice
TM 5-822-13	Pavement Design for Roads, Streets, and Open Storage Areas, Elastic Layered Method
TM 5-811-7	Electrical Design, Cathodic Protection

ARMY/COE MILITARY HANDBOOKS
Internet: http://www.hnd.usace.army.mil/techinfo/engpubs.htm

MIL-HDBK-1190	Facility Planning and Design Guide
MIL-HDBK-1008C	Fire Protection for Facilities Engineering, Design, and Construction
ARMY REG 190-11	Physical Security of Arms, Ammunition and Explosives

ENGINEER TECHNICAL LETTER (ETL), MANUAL (EM) AND REGULATIONS (ER)

EM 1110-2-3102	General Principals of Pumping Station Design and Layout
ETL 91-6	Cathodic Protection
ETL 1110-3-466	Selection and Design of Oil/Water Separators at Army Facilities
ETL 1110-3-474	Cathodic Protection
ETL 1110-3-491	Sustainable Design for Military Facilities
ETL 1110-9-10	Cathodic Protection System Using Ceramic Anodes
ER 1110-3-110	Information Systems Design in Support of Military Construction

AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC)

Timber Construction Manual

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

American Institute of Steel Construction (AISC), Manual of Steel Construction

AMERICAN WATER WORKS ASSOCIATION (AWWA)

AWWA C500 Gate Valves for Water and Sewerage Systems (DOD adopted)

AWWA C502 Dry-Barrel Fire Hydrants

AMERICAN WELDING SOCIETY (AWS)

ENVIRONMENTAL PROTECTION AGENCY (EPA)

EPA 340/1-90-018 Asbestos/NESHAP Regulated Asbestos Containing Materials Guidance

EPA 340/1-90-019 Asbestos/NESHAP Adequately Wet Guidance

EPA 560/5-85-024 Guidance for Controlling Asbestos Containing Materials in Buildings

FACTORY MUTUAL SYSTEM (FM) STANDARDS

FEDERAL STANDARD SPECIFICATIONS (FS)

FED-STD 595 (Rev B) Colors

FS WW-P-541 Plumbing Fixtures

FS WW-P-541/5 Plumbing Fixtures (Sinks, Kitchens, Service, Laundry Trays - Detail Specification)

INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS

ILLUMINATING ENGINEERING SOCIETY (IES)

LIGHTING HANDBOOK REFERENCE AND APPLICATION, 9TH EDITION

INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE)

IEEE STD 144 IEEE Recommended Practice for Grounding of Industrial and Commercial Power Systems

INTERNATIONAL PLUMBING CODE

NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS (NAAMM)

NAAMM-01 Metal Finishes Manual for Architectural and Metal Products

NATIONAL ASSOCIATION OF CORROSION ENGINEERS (NACE)

NACE RP0169 Control of External Corrosion and Underground or Submerged Metallic

NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA)

Specifications for the Design and Construction of Load Bearing Concrete Masonry

Building Code Requirements for Concrete Masonry (ACI-ASCE 530 Building Code for Masonry; ACI-ASCE 530.1 Masonry Specifications)

NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA)

NATIONAL ELECTRICAL SAFETY CODE (NESC)

NATIONAL FIRE PROTECTION ASSOCIATION CODES AND STANDARDS (NFPA)

National Fire Codes (NFC)

NATIONAL FOREST PRODUCTS ASSOCIATION (NFPA)

NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION

OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA)

29 CFR	Occupational Safety and Health Standards Part 1910
10 CFR 435B	Energy Conservation Performance Standards
29 CFR 1926	Safety and Health Regulations for Construction
40 CFR 61	National Emission Standards for Hazardous Air Pollutants
40 CFR 260	Hazardous Waste Management System General
40 CFR 261	Identification and Listing of Hazardous Waste

SAVANNAH DISTRICT DESIGN MANUAL

Design Manual for Military Construction

SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA)

STEEL DECK INSTITUTE (SDI)

STEEL DECK INSTITUTE DIAPHRAGM DESIGN MANUAL (Latest Edition)

STEEL JOIST INSTITUTE
*4
Standard Specification for Load Table for Open Web Joists (latest edition)

STANDARD PLUMBING CODE (SBCC)
*4
~~Standard Specification for Load Table for Open Web Joists (latest edition)~~

UNIFORM BUILDING CODE (UBC) OF THE INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS

UNDERWRITERS LABORATORIES STANDARDS (UL)

UNIFORM FEDERAL ACCESSIBILITY STANDARD (UFAS)

UNIFORM MECHANICAL CODE (UMC)

STATE REGULATIONS

Manual for Erosion and Sediment Control in South Carolina (latest-edition)

BUILDERS HARDWARE MANUFACTURERS ASSOCIATION (BHMA)

BHMA A156.1	Butts and Hinges
BHMA A156.10	Power Operated Pedestrian Doors
BHMA A156.11	Cabinet Locks
BHMA A156.12	Interconnected Locks/Latches
BHMA A156.13	Mortise Locks & Latches
BHMA A156.14	Sliding and Folding Door Hardware
BHMA A156.15	Life Safety Closer/Holder Release Devices
BHMA A156.16	Auxiliary Hardware
BHMA A156.17	Self Closing Hinges & Pivots
BHMA A156.18	Materials and Finishes
BHMA A156.19	Power Assist and Low Energy Power Operated Doors
BHMA A156.2	Bored and Preassembled Locks and Latches
BHMA A156.20	Strap and Tee Hinges and Hasps
BHMA A156.21	Thresholds
BHMA A156.22	Door Gasketing Systems
BHMA A156.23	Electromagnetic Locks
BHMA A156.24	Delayed Egress Locks
BHMA A156.3	Exit Devices
BHMA A156.4	Door Controls - Closers
BHMA A156.5	Auxiliary Locks & Associated Products
BHMA A156.6	Architectural Door Trim
BHMA A156.7	Template Hinge Dimensions
BHMA A156.8	Door Controls - Overhead Stops and Holders
BHMA A156.9	Cabinet Hardware
BHMA Closer Directory	Directory of Certified Door Closers
BHMA Exit Devices Directory	Directory of Certified Exit Devices
BHMA L & R Directory	Directory of Certified Locks & Latches
BHMA Directory	Directory of Electromagnetic & Delayed Egress Locks

Fort Bragg Installation Design Guide

http://www.bragg.army.mil/pwbc-cmd/idg/idgtitle.htm

APPENDIX B

SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING REPORT (PRELIMINARY)

16th Military Police Brigade Barracks Complex
L.I. 41631, FY-03
Fort Bragg, North Carolina

By
Soils Section
Geotechnical & HTRW Branch
U.S. Army Engineer District, Savannah

7 January 2003

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APPENDIX

One-Point and Two-Point Compaction Methods

SUBSURFACE EXPLORATION AND
GEOTECHNICAL ENGINEERING REPORT
(PRELIMINARY)

16th Military Police Brigade Barracks Complex
L.I. 41631, FY-03
Fort Bragg, North Carolina

7 January 2003

1. PURPOSE. The Government has conducted a preliminary geotechnical investigation for the proposed project. This report provides an overview of the site conditions, including subsurface soil and groundwater conditions, and preliminary recommendations pertaining to the geotechnical design and construction of the project.

2. QUALIFICATION OF REPORT. The field explorations performed for this report were made to determine the general subsurface soil and groundwater conditions and were not intended to serve as an assessment of site environmental conditions. No effort was made to define, delineate, or designate any areas of environmental concern or of contamination. Any recommendations regarding drainage and earthwork construction are made on the basis that such work can be performed in accordance with applicable laws pertaining to environmental contamination. Environmental concerns such as the removal of asbestos, underground storage tanks, etc. are addressed elsewhere in the RFP.

3. PROJECT DESCRIPTION. The proposed project consists of the design, site preparation and construction of facilities for the 16th MP Brigade Barracks Complex. In addition to the new structures, the project requires extensive earthwork for a level parade field, wetlands protection/improvement, new access roads, parking areas, sidewalks (including a foot-bridge), and volleyball and basketball courts. Support facilities include water, sanitary sewer, electrical, telephone, fire and security alarm systems, storm sewer and landscaping. The project requires the demolition of several existing wooden and CMU, WWII era buildings, steel sheds and some old concrete building slabs and footings. The project will provide for a safe and efficient work environment for the 16th MP Brigade. The proposed structures are as follows:

1) Barracks, maximum 4-story	130,200 square feet, total
2) Brigade Headquarters, 1-story	10,463 square feet
3) Battalion Headquarters, max. 2-story	15,866 square feet, total
4) Company Ops Facilities, max. 2-story	72,495 square feet, total
Four large	
Two medium	
Two small	
5) Military Police Station, 2-story	34,972 square feet

Drawings and specifications for the design and construction of the 16th MP Barracks Complex project are included in the RFP. The plans and specifications are provided to convey to the proposers the

functional intent and requirements and the quality requirements of the Fort Bragg project facilities and are to be used as a basis for design.

Since the project will be constructed under a design/build contract, detailed structural information for the proposed facilities is unavailable.

4. EXPLORATION PROCEDURES.

a. Site Reconnaissance. Prior to the field exploration, the site and surrounding areas were visually inspected by a geotechnical engineer. The observations were used in planning the exploration, in determining areas of special interest, and in relating site conditions to known geologic conditions in the area.

b. Field Exploration.

(1) Subsurface conditions at the project site were explored by 26 soil test borings drilled at the approximate locations shown on the Boring Location Plan included in the drawings with this RFP. Depths of the borings for the proposed project ranged from five to twenty five feet below the existing ground surface.

(2) Boring locations were established in the field by an engineer by measuring distances and estimating right angles from existing buildings, roads, sidewalks, and other features. The ground surface elevation at each boring location was determined by interpolation from the site topography survey. Since the measurements were not precise, the locations shown on the Boring Location Plans and the elevations on the boring logs should be considered approximate.

(3) Froehling & Robertson, Inc. (F&R), under contract to the Savannah District, drilled the borings utilizing the Standard Penetration Test (SPT). The borings were drilled with an ATV-mounted CME 550 drill rig; a 2¼ inch I.D. hollow-stem auger was used to advance the boreholes. Split-barrel sampling with Standard Penetration Tests (SPT) were performed at intervals shown on the boring logs. Standard Penetration Tests were in substantial accordance with ASTM D 1586. In the standard penetration test (SPT), a soil sample is obtained with a standard 1½ inch I.D. by 2 inch O.D. split-barrel sampler. The sampler is first seated 6 inches and then driven an additional 12 inches with blows from a 140 pound hammer falling a distance of 30 inches. The number of blows required to drive the sampler the final 12 inches is recorded and is termed the "standard penetration resistance", or the "N-value". Penetration resistance, when properly evaluated, is an index of the soil's strength, density, and foundation support capability.

(4) Representative portions of the soil samples taken in the field were sealed in airtight containers and transported to the driller's laboratory were they were examined by an engineer to confirm the driller's field classification. Classification of the soil samples were performed in general accordance with ASTM D 2488 (Visual-Manual Procedure for Description of Soils). The soil classifications include the use of the Unified Soil Classification System described in ASTM D 2487 (Classification of Soils for Engineering Purposes). Since the soil descriptions and classifications are based on visual examination, they should be considered approximate, except where the samples were subjected to laboratory testing, as described below.

(5) Soil boring logs graphically depicting soil descriptions, standard penetration resistances, and observed groundwater levels are shown on the drawings with this RFP.

c. Laboratory Soils Testing. Ten of the soil samples were selected and tested for grain-size distribution, moisture content and Atterberg Limits, where applicable. The purpose of the laboratory testing was to aid in our evaluation of the subsurface soils and in confirming the field classifications. The laboratory tests were performed in substantial accordance with applicable ASTM standards. Results of the laboratory testing are shown on the drawings included with this RFP.

5. SITE AND SUBSURFACE CONDITIONS.

a. Site Description. The proposed MP Barracks Complex will be located south of Butner Road, bounded on the west by Rielly Street, on the south by Ricketts Street and extends about 300 feet to the east of Armistead Street. There is an active, though rarely used, railroad track located along the south end of the project site. The site is roughly 2300 feet east to west and 900 feet north to south. The terrain slopes from both the east and west down to roughly the middle of the site where a drainage creek flows to the north. The far west end of the site has the highest elevation, at about 289 feet above mean sea level (msl), generally sloping to the east for 1200 feet and draining into the creek. The elevation of the creek is roughly 246 feet with the bank on the west side ranging from four to fifteen feet high. On the east side of the creek the bank ranges from four to eight feet high. To the east of the creek, the terrain starts out relatively level, containing two minor wetland areas and is heavily forested for about 150 feet before rising to the level of Armistead Street. The elevation of Armistead Street on the south end is 281 feet dropping to 271 feet by the time it meets Butner Road on the north. The site for the MP Station is just east of Armistead Street. The MP Station site peaks at about 281 feet and gently slopes downward in all directions. Presently, most of the MP site is occupied by asphalt pavement (parking) with some grass. It also contains the slabs and footings from the remnants of three small buildings. The are several old, wooden, CMU and steel structures as well as roads and parking lots west of the drainage creek that are to be demolished and removed. The work includes removal of a large wooden/concrete laundry processing facility, two metal storage buildings, a newer steel maintenance shop, one large and one small wooden administration (office) buildings, an old CMU armory building and Capron Street, and the clearing of areas now occupied by mature oak and pine trees.

b. Area and Site Geology. Fort Bragg is situated in the Sand Hills area of the Coastal Plain physiographic province of North Carolina. The Coastal Plain extends westward from the Atlantic Ocean to the Fall Line, a distance of about 130 miles. The Fall Line is the boundary between the Coastal Plain and the Piedmont physiographic provinces.

Geologic units in the Fort Bragg area, ranging from oldest to youngest, include the Carolina Slate Belt rocks, which comprise the basement rock, the Cape Fear Formation, and the Middendorf Formation. The Cape Fear and Middendorf Formations overlie the basement rock and are part of the generally southeastward-dipping and thickening wedge of sediments that constitute the Atlantic Coastal Plain deposits.

The Carolina Slate Belt is composed of metavolcanic, metasedimentary, and igneous rock of Precambrian to Cambrian age and is described as gray-green chlorite schist.

The Cape Fear Formation consists of pale- to medium-gray clays and sandy clays with some sand units; the lower part contains beds of greenish-gray clays, some of which have red mottling. This formation is more clayey, and individual quartz-sand beds are generally thinner and finer-grained than in the Middendorf Formation.

The Middendorf Formation is exposed at land surface throughout the Fort Bragg area except along the Little River and some of its tributaries. The formation is composed of tan, cross-bedded, medium- and fine-grained, micaceous quartz sand and clayey sand interbedded with clay or sandy clay lenses or layers. Layers of hematite-cemented sandstone occur locally throughout the Middendorf Formation as do thin layers of hard kaolin and kaolin-cemented sandstone. Below the water table, these units are generally friable or plastic. In places, the Middendorf Formation is a mottled orange, gray, and tan color with streaks and laminae of red and purple hematite and manganese oxide stains.

c. Subsurface Conditions

(1) Fill material consisting of silty and clayey sand , occasionally mixed with a trace of gravel and/or coal and fragmented bricks was encountered in seven of the borings. Fill depths ranged from a few inches to five feet below the ground surface. Natural soil was encountered below the fill and in all of the remaining borings. The natural soils encountered from the surface to about seven feet varied from loose to medium dense, silty sand and sand, or less frequently, a stiff clayey sand or clay. Several of the borings east of Armistead Street had up to seven-foot layers of stiff to very stiff clayey sand near the surface. Boring B-34 indicates that fat clay (CH) is present at elevations that may be encountered in the construction of roads and parking areas. Over the entire site, below about eight feet in depth, the material was predominantly a high plasticity, stiff to hard clayey sand or clay. Occasionally a loose to medium dense silty sand was encountered at the lower depths.

(2) The above subsurface description is of a generalized nature to highlight the major subsurface stratification features and material characteristics. The boring logs together with the laboratory test data shown on the drawings should be reviewed for specific information at individual boring locations. The stratifications shown on the boring logs represent the conditions only at the actual boring locations. Variations may occur and should be expected between boring locations. The stratifications represent the approximate boundary between the subsurface materials; the actual transition may be gradual.

d. Groundwater Conditions.

(1) Water levels were generally measured at completion of the borings and again at 24 hours after completion of the boring. Several borings received piezometers in which groundwater levels were taken. Groundwater was encountered from four to twelve feet below the ground surface in several of the borings. Many of the borings caved-in prior to a groundwater observation; therefore, long term stabilized water levels were not obtained.

(2) Groundwater depths or elevations shown on the boring logs represent groundwater encountered on the dates shown. Absence of groundwater data for certain borings implies that no data is available, but does not necessarily mean that groundwater will not be encountered at the locations of those borings. Groundwater levels will fluctuate with seasonal and climatic variations, variations in subsurface soil conditions, and construction operations. Therefore, groundwater conditions in the

future, and at other locations on the site, may differ from the conditions encountered at the boring locations, on the dates the borings were performed.

6. ENGINEERING EVALUATIONS AND RECOMMENDATIONS.

a. General. The following conclusions and recommendations are based on the information available on the proposed structures, observations made at the project site, interpretation of the data obtained from the soil test borings, and our experience with soils and subsurface conditions similar to those encountered at the site. Since the test borings represent a very small statistical sampling of the subsurface conditions, it is possible that subsurface conditions substantially different from those indicated by the test borings could be encountered during the construction. In such instances, adjustments to the design and construction of the proposed structures might be necessary, depending on the actual conditions.

b. General Site Preparation.

(1) The demolition and removal of a number of buildings, utilities, pavements, fences and possibly contaminated soil will be required to prepare the site for construction. Following demolition and removal, the construction area should be grubbed and stripped of all vegetation, topsoil, organics, remnants of foundations and other deleterious materials. Clean topsoil can be stockpiled and reused later in landscaped areas. It is recommended that the zone of stripping extend a minimum of ten feet beyond the outer edges of the structures and pavement. Any existing utilities in construction areas should be located and rerouted, as necessary.

(2) Relatively loose fill material was encountered in several of the borings. Existing fill soils can be highly variable in composition and compaction. Usually fill soils that were not controlled during placement are erratic with respect to slab/pavement support. Some of the near surface soils may need to be undercut in order to achieve sufficient subgrade stability for compaction operations and/or direct support of slab/pavement structures. The fill material consisted of primarily silty and clayey sands; these soils can generally be densified to some depth under the compaction of a vibratory roller. After stripping or excavation, we recommend that all proposed fill areas or areas at design grade beneath proposed buildings and road/parking areas containing sands be densified using a vibratory roller weighing at least 10 tons. We recommend that at least 8 passes be made over the areas, with half the passes perpendicular to the other half. After the densification of near surface sands, the exposed subgrade of all areas beneath buildings and road/parking areas should be proofrolled in the presence of the geotechnical engineer or his representative to evaluate subgrade stability. Proofrolling with a fully loaded tri-axle dump truck, 20-ton roller, or similar equipment in a perpendicular overlapping pattern is recommended. Proofrolling not only helps to reveal the presence of any unstable or otherwise unsuitable surface materials, but will densify the exposed subgrade for new fill placement and structure/pavement support. If unsuitable conditions are encountered at the subgrade level, recommendations for dealing with the conditions should be provided by the geotechnical engineer. Generally, any areas which are observed to rut, pump or deflect excessively during the proofrolling process and cannot be densified by continued rolling are undercut to firm bearing soils and replaced with structural fill. In general, soils encountered in the borings should be suitable for reuse as structural fill following discing and air drying to achieve the proper moisture

level. Proofrolling should be performed only after a suitable period of dry weather to avoid degrading an otherwise acceptable subgrade.

c. Foundation Design and Construction.

(1) Given the proposed site and the proposed types of structures, it is our opinion that shallow spread foundations can be used for support of the proposed buildings.

(2) Footings should be supported on approved natural or existing fill soils or on properly compacted structural fill. Column footings and load-bearing wall footings should have minimum dimensions of 30 inches and 24 inches, respectively, and should be located at a minimum depth of two feet below finish floor or finish grade, as appropriate. Non load-bearing wall footings should have a minimum width of 18 inches and should be located at a depth of 18 inches below finish floor or finish grade, as appropriate.

(3) Foundation excavations should be concreted as soon as practical following excavation. Exposure to the environment could weaken the soils at the footing bearing level should the foundation excavations remain open for an extended period of time. Bottoms of foundation excavations should be inspected immediately prior to placement of reinforcing steel and concrete to verify that adequate bearing soils are present and that all debris, mud, and loose, frozen or water softened soils are removed. If the bearing surface soils have been softened by surface water intrusion or by exposure, the softened soils must be removed to firm bearing, and replaced with additional concrete during the concreting, or replaced to design subgrade with No. 57 or No. 67 stone, compacted to a non-yielding condition. To minimize exposure, the final excavation (4 to 6 inches) to design subgrade could be delayed until just prior to placement of reinforcing steel and concreting. Foundation excavations must be maintained in a drained/dewatered condition throughout the foundation construction process.

d. Site Classification for Seismic Design. The project site should be classified as Site Class D for the purpose of determining maximum considered earth spectral response accelerations S_{MS} and S_{MI} in accordance with "NEHRP" Recommended Provisions for Seismic Regulations for New Buildings and Other Structures," 1997 Edition.

e. Concrete Slabs-On-Grade.

(1) Based upon our past experience and the subsurface conditions encountered at the site, concrete floor slabs can be supported on densified in situ soils or on fill soils placed and compacted in accordance with the recommendations presented in this report regarding structural fill. We recommend that all concrete slabs-on-grade in inhabitable areas, including storage areas, be underlain by a minimum of four inches of open graded, washed pea gravel, or stone, often termed "capillary water barrier," to prevent the capillary rise of groundwater. Nos. 57, 67, 78, or 89 stone could be used. We also recommend that a moisture vapor barrier consisting of lapped polyethylene sheeting having a minimum thickness of 6 mil be provided beneath the building floor slabs to reduce the potential for slab dampness from soil moisture. Concrete slabs should be jointed around columns and along supported walls to minimize cracking due to possible differential movement.

(2) Construction activities and exposure to the environment often cause deterioration of the prepared slab-on-grade subgrade. Therefore, we recommend that the slab subgrade soil be inspected and evaluated immediately prior to floor slab construction. The evaluation might include a combination of visual observations, hand rod probing and field density tests to verify that the subgrade has been properly prepared. If unstable soil is revealed, the affected soil should be removed to firm bearing, and replaced to design subgrade with suitable structural fill soil placed and compacted as recommended, or replaced with additional capillary water barrier material.

(3) Fat clay (CH and high plasticity CL) should not be permitted in the upper 18 inches of structural fills beneath building slabs. Additionally, if fat clay is encountered in the subgrades for slabs on grade, the material should be undercut a minimum of 12 inches and replaced with a sand-clay or clay-sand soil having a liquid limit less than 50 and a plastic index less than 30.

f. Pavement Design. The fat clays should not be permitted in the upper 18 inches of structural fills beneath pavements. Additionally, if fat clays are encountered in the subgrades for pavements, the material should be undercut a minimum of 15 inches and replaced with a sand-clay or clay-sand soil having a liquid limit less than 50 and a plastic index less than 30.

g. Groundwater Considerations. Water should not be allowed to collect near the foundation or on floor slab areas of the building either during or after construction. Undercut or excavated areas should be sloped toward one corner to facilitate removal of any collected rainwater, groundwater, or surface runoff. Positive site drainage should be provided to reduce infiltration of surface water around the perimeter of the building and beneath the floor slabs.

h. Structural Fill. In order to achieve high density structural fill, the following evaluations and recommendations are offered:

(1) Based on the soil test borings, excavated on-site soils (excluding any organics and debris) can be used as structural fill. Some moisture content adjustment will probably be necessary to achieve proper compaction. Due to the high plasticity of some of the clays (CL and CH), increase and decrease of the moisture content in these soils may require considerable effort. Furthermore, excavation of these in situ soils produces chunks and clods. Considerable manipulation and working with disc harrows might be required to produce uniform moisture content and fill material of uniform texture free of chunks and clods. We recommend that these soils be used only in the lower portions of the fills.

(2) We recommend that the contractor have appropriate disc harrows on site during earthwork for both drying and wetting the soils.

(3) Materials selected for use as structural fill should be free from roots and other organic matter, trash, debris, and frozen soil, and stones larger than 3 inches in any dimension. The following soils represented by their Unified Soil Classification System (ASTM D 2487) group symbols will be suitable for use as structural fill: GC, GM, SP, SW, SC, SM, ML, MH, CL and CH (on-site). The following soil types are considered unsuitable: Pt, OH, OL, GP, GW, and CH (borrow).

(4) Suitable fill soils should be placed in lifts of maximum 8 inches loose measurement. The soil should be compacted by mechanical means such as steel drum, sheepsfoot, tamping, or rubber-tired

rollers. Compaction of clays is best accomplished with a sheepsfoot or tamping roller. Periodically rolling with heavily loaded, rubber-tired equipment may be desirable to seal the surface of the compacted fill, thus reducing the potential for absorption of surface water from rain. This sealing operation is particularly important at the end of the workday and at the end of the week. Within confined areas or foundation excavations, we recommend the use of manually operated, internal combustion activated compactors ("wacker packers" or sled tamps). The compactors should have sufficient weight and striking power to produce the same degree of compaction that is obtained on the other portions of the fill by the rolling equipment as specified. Where hand operated equipment is used, the soils should be placed in lifts of maximum 4 inches loose measurement.

(5) We recommend the structural fill and subgrades be compacted to the following minimum percents of the modified Proctor maximum dry density (ASTM D 1557):

Beneath structures and building slabs, to 5 feet beyond building and structure line, around footings and in trenches	90 percent
Beneath paved areas, except top 12 inches	90 percent
Beneath paved areas, top 12 inches	95 percent
Beneath sidewalks and grassed areas	85 percent

i. Construction Quality Control Testing.

(1) Prior to initiating any structural fill placement and/or compaction operations, we recommend that representative samples of the soils which will be used as structural fill or subgrade, both suitable on-site soils and off-site soils (borrow), be obtained and tested to determine their classification and compaction characteristics. The samples should be carefully selected to represent the full range of soil types to be used. The moisture content, maximum dry density, optimum moisture content, grain-size and plasticity characteristics should be determined. These tests are required to determine if the fill and subgrade soils are acceptable and for compaction quality control of the subgrades and structural fill. Tests for the above soil properties should be in accordance with the following:

Moisture Content	ASTM D 2216
Maximum Dry Density and Optimum Moisture	ASTM D 1557
Grain-Size (Wash No. 200, less hydrometer)	ASTM D 422 and D 1140
Plasticity	ASTM D 4318

(2) A representative number of in-place field density tests should be performed in the subgrade of compacted on-site soils and in the structural fill and backfill to confirm that the required degree of compaction has been obtained. In-place density tests should be performed in accordance with the sand cone method prescribed in ASTM D 1556; the use of nuclear gauges for density testing should not be permitted. We recommend that at least one density test be performed for each 5000 square feet, or portion thereof, of compacted existing on-site soils, subgrades, and in **each** lift of compacted structural fill

beneath structures; one for each 7500 square feet beneath paved areas. At least one density test should be performed for each 100 linear feet in the bearing level soils of continuous footings. Density tests should be performed at 100-foot intervals in the subgrade of roads. In addition, a density test should be performed for each 150 linear feet of backfill placed per foot of depth in trenches for utilities systems. Where other areas are compacted separately by manually operated compactors, a minimum of one density test should be performed for every 250 square feet, or portion thereof, of fill placed per foot of depth.

(3) Compaction control of soils requires the comparison of fill water content and dry density values obtained in the field density tests with optimum water content and maximum dry density. The performance of a laboratory compaction test on material from each field density test would provide the most accurate relation of the in-place material to optimum water content and maximum density, but it is not feasible to do this as the testing could not keep pace with fill construction. We recommend that compaction control of the earthwork construction be performed using a "family" of compaction curves and the one-point or two-point compaction methods. Excerpts from construction specifications, which describe the approach and its use, are included the Appendix.

(4) Any area that does not meet the required compaction criteria should be reworked, and retested. If the moisture content of the soil is within the recommended range, additional compaction may be all that is necessary to increase the density. If the moisture content is not within the recommended range, then, the moisture content should be adjusted to within the range, and the area recompacted.

(5) All laboratory and field density testing should be performed by an approved commercial testing laboratory qualified in this type of work.

APPENDIX

One-Point and Two-Point Compaction Methods

Compaction Control

For fine grained (clayey and silty) soils and for sands with appreciable fines such that normal shaped compaction curves are obtained, results of all compaction tests shall be plotted on a common plot as a family of curves. For each field density test performed, a one-point compaction test, with additional points as needed, shall be performed on the same material on which the field density test was conducted. The one-point compaction test shall be performed on the dry side of the optimum moisture content. For comparison of field density data to the proper laboratory compaction test results, the procedures for the one-point and/or two-point compaction control methods as described in paragraph Compaction Procedure, shall be used. Compaction curves plotted on the family of curves shall be of such a scale that the optimum moisture content can be interpreted to the nearest 0.1 percent and the maximum dry density can be interpreted to the nearest 0.1 pcf(or 2 kg/m^3). When a one-point test plots outside the range of the family of curves, an additional five-point compaction test shall be performed.

Compaction Procedure

General

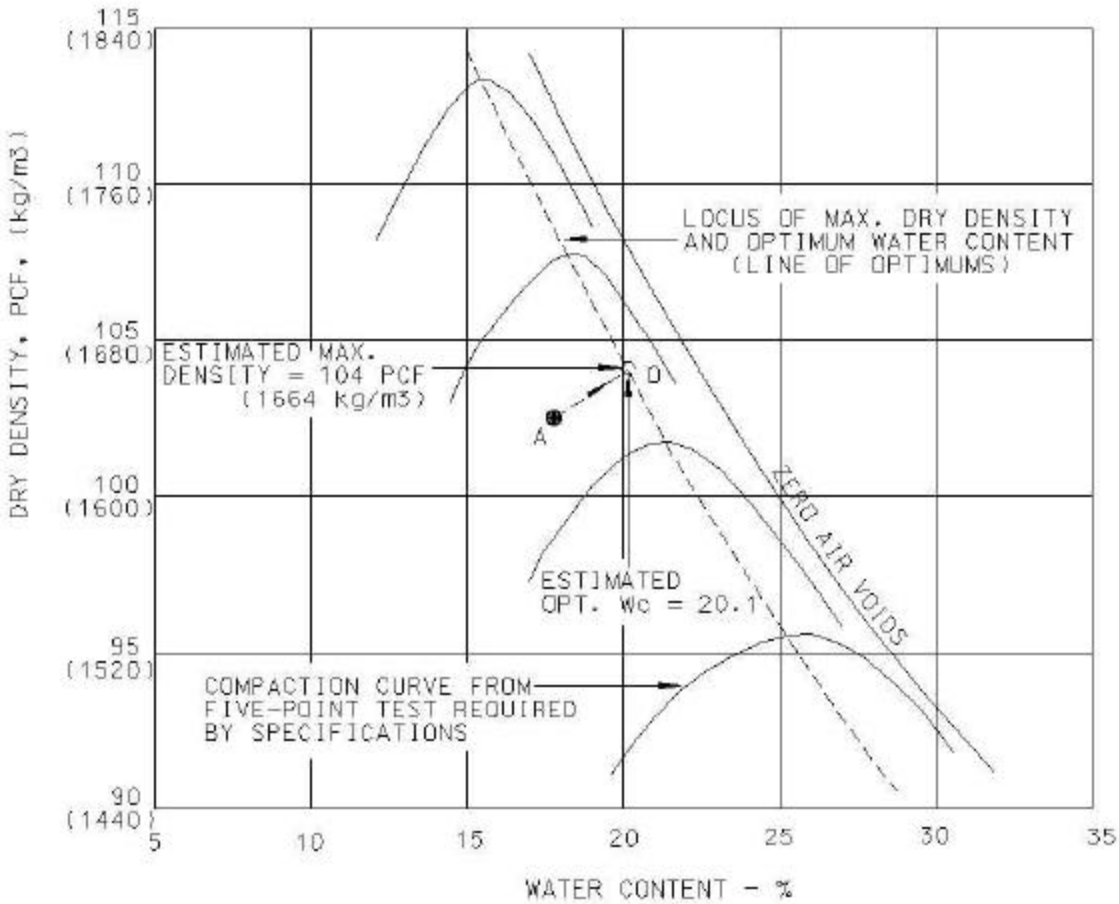
The following paragraphs describe methods of relating field density data to desired or specified values. Compaction control of soils requires comparison of fill water content and/or dry density values obtained in field density tests with optimum water content and/or maximum dry density. At a minimum, control shall be in accordance with the One-Point Compaction Method. Where conditions require, the Two-Point Compaction Method shall be used.

One-Point Compaction Method

The material from the field density test is allowed to dry to a water content on the dry side of estimated optimum, and then compacted using the same equipment and procedures used in the five-point compaction test. Thorough mixing is required to obtain uniform drying; otherwise, results obtained may be erroneous. The water content and dry density of the compacted sample are determined and then used to estimate its optimum water content and maximum dry density as illustrated in Figure 1 at the end of this section. In Figure 1, the line of optimums is well defined and the compaction curves are approximately parallel to each other, consequently, the one-point compaction method could be used with a relatively high degree of confidence. However, in Figure 2 at the end of this section, the curves are not parallel to each other and in several instances will cross if extended on the dry side. Consequently, the correct curve cannot be determined from the one-point method; therefore, the two-point compaction method should be used. The one-point method should be used only when the data define a relatively good line of optimums.

Two-Point Compaction Method

In the two-point test, one sample of material from the location of the field density test is compacted at the fill water content if thought to be at or on the dry side of optimum water content (otherwise, reduced by drying to this condition) using the same equipment and procedures used in the five-point compaction test. A second sample of material is allowed to dry back about 2 to 3 percentage points dry of the water content of the first sample and then compacted in the same manner. At least one point shall fall within 3 percent of the line of optimums. After compaction, the water contents and dry densities for the two samples are determined. The results are used to identify the appropriate compaction curve for the material being tested as shown in Figure 2 at the end of this section. The data shown in Figure 2 warrant the use of the two-point compaction test because the five-point compaction curves are not parallel. Using point A only, as in the one-point test method, would result in appreciable error as the shape of the curve would not be defined. The estimated compaction curve can be more accurately defined by two compaction points.



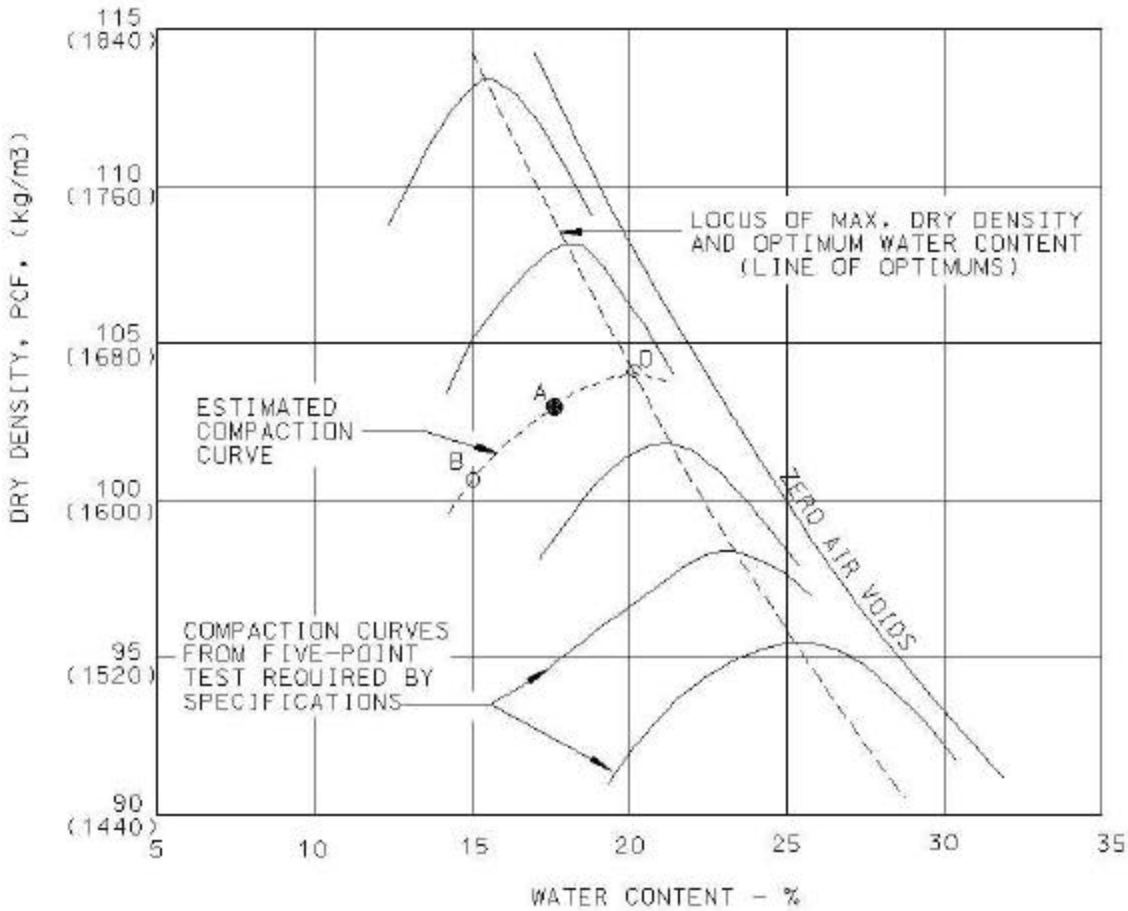
PROCEDURE:

1. Point A is the result of a one-point compaction test on material from field density test. This point must be on the dry side of optimum water content.

2. Point O is the estimated optimum water content and maximum density of the fill material based on a projection of point A approximately parallel to the adjacent compaction curves.

3. Point A must plot within 3 percent of the line of optimums.

Figure 1. Illustration of one-point compaction method.



PROCEDURE:

1. Points A and B are results of a two-point compaction test on material from field density test. Points A and B must be on the dry side of optimum water content.

2. The estimated compaction curve based on Points A and B establishes Point O on the locus, which is the estimated maximum dry density and optimum water content of the fill material.

3. One point must plot within 3 percent of the line of optimums.

Figure 2. Illustration of two-point compaction method.

APPENDIX C

SUSTAINABLE PROJECT RATING TOOL (SPiRiT)

Sustainable Project Rating Tool (SPiRiT)

Version 1.4

U. S. Army Corps of Engineers
U. S. Army Assistant Chief of Staff for Installation Management

April 2001

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1) This Sustainable Project Rating Tool (SPiRiT) is derived from The U. S. Green Building Council LEED 2.0 (Leadership in Energy and Environmental Design) Green Building Rating System TM.

2) The SPiRiT numbering scheme parallels, but does not match LEED 2.0. LEED does not number major sections, which it calls 'Credit Categories,' ex. 'Sustainable Sites,' rather it numbers criteria or 'credits' within each major section. SPiRiT credit numbers match those of LEED where there is a 1:1 comparison. Where additional credits have been added they fall at the end of major sections.

3) The SPiRiT Credits all follow the format: Intent, Requirement and Technologies/Strategies.

Intent: A statement of the primary goal for the credit;
Requirement: Quantifiable conditions necessary to achieve stated intent;
Technologies/Strategies : Suggested technologies, strategies and referenced guidance on the means to achieve identified requirements.

4) Projects are evaluated for each SPiRiT credit which are either 'Prerequisites' or result in a point score:
Prerequisites: These credits are a statement of minimum requirements and must be met. No further points will be awarded unless the minimum is achieved. These credits are recognizable by an 'R' in the number scheme, ex. 1.R1, and a 'Reqd.' in the score column.
Point Score: These credits are evaluated and result in a point score. Where the potential score is greater than 1, no partial points are granted.

5) SPiRiT Sustainable Project Certification Levels:

SPiRiT Bronze	25 to 34 Points
SPiRiT Silver	35 to 49 Points
SPiRiT Gold	50 to 74 Points
SPiRiT Platinum	75 to 100 Points

6) SPiRiT credits have been developed to address facility life cycle phases including programming, design, construction, and commissioning. Additional rating tools will be developed to address installation/base master planning and facilities operations and maintenance, rehabilitation, recycling, and disposal.

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9) Army/USACE employees are members of the USGBC with membership privileges accessible via the USGBC web site, http://www.usgbc.org/. For information on membership and access to available LEED resources to support use of SPiRiT and sustainable design in your projects, contact Richard Schneider at (217) 373-6752 or richard.l.schneider@erdc.usace.army.mil (Annette Stumpf at (217) 352-6511 ext. 7542 or annette.l.stumpf@erdc.usace.army.mil alternate).

10) For the latest information on SPiRiT and for access to guidance, tools and resources supporting sustainable design initiatives, visit the CERL 'Sustainable Design and Development Resource' website, http://www.cecer.army.mil/SustDesign. There you may also join the CERL Sustainable Design ListServ to be directly notified of information pertinent to sustainable design.

Sustainable Sites

Reqd.

1.R1 Erosion, Sedimentation, and Water Quality Control (1)

Intent: Control erosion and pollutants to reduce negative impacts on water and air quality.

Requirement: ❑ Design a site sediment and erosion control plan and a pollution prevention plan that conforms to best management practices in the EPA's Storm Water Management for Construction Activities, EPA Document No. EPA-833-R-92-001, Chapter 3, OR local Erosion and Sedimentation Control standards and codes, whichever is more stringent. The plan shall meet the following objectives:

- Prevent loss of soil during construction by storm water runoff and/or wind erosion, including protecting topsoil by stockpiling for reuse.
- Prevent sedimentation of storm sewer or receiving streams and/or air pollution with dust and particulate matter.
- Prevent hazardous material discharge into storm water systems.
- Prevent petroleum oils and lubricants (POL) discharge into storm water systems.

Technologies /Strategies: The EPA standard lists numerous measures such as silt fencing, sediment traps, oil grit separators, construction phasing, stabilization of steep slopes, maintaining vegetated ground cover and providing ground cover that will meet this prerequisite.

1.C1 Site Selection (1)

Intent: Avoid development of inappropriate sites and reduce the environmental impact from the location of a building on a site. Select site based on functional adjacencies/relationships and land use compatibility.

Requirement: ❑ Do not develop buildings on portions of sites that meet any one of the following criteria: **1**

- Prime training or maneuver land.
- Land whose elevation is lower than 5 ft. above the 100-year flood elevation as defined by FEMA.
- Land that provides habitat for any species on the Federal or State threatened or endangered list.
- Within 100 feet of any wetland as defined by 40 CFR, Parts 230-233 and Part 22, OR as defined by local or state rule or law, whichever is more stringent.

❑ Select site based on functional adjacencies/relationships and land use compatibility. **1**

- Select sites close to existing roads and utilities or use an existing structure to minimize the need for new infrastructure.
- Select site in area of high density.
- Site facilities based on the strength of their relationships to other facilities/land-uses to limit travel distances. The stronger the relationship/functional interaction, the closer the distance between two facilities.
- Select for distance to installation/base transit systems and access to pedestrian ways and bike paths.
- Select for development previously used or developed suitable and available sites.

Technologies /Strategies: Screen potential building sites for these criteria and/or ensure that these criteria are addressed by the designer Screen potential building sites for these criteria and/or ensure that these criteria are addressed by the designer during the conceptual design phase. Utilize landscape architects, ecologists, environmental engineers, civil engineers, and similar professionals for the screening process. New wetlands constructed as part of stormwater mitigation or other site restoration efforts are not affected by the restrictions of this prerequisite.

(1) Adapted material not reviewed or endorsed by U. S. Green Building Council.

Sustainable Sites (Continued)

1.C2 Installation/Base Redevelopment (1)
Intent: Channel development to installation/base cantonment areas with existing infrastructure, protecting greenfields and preserving habitat and natural resources.

Requirement: ❑ Increase localized density to conform to existing or desired density goals by utilizing sites that are located within existing cantonment areas of high development density. **1**

❑ Select sites close to existing roads and utilities or use an existing structure to minimize the need for new infrastructure. **1**

Technologies /Strategies: During the site selection process give preference to previously developed sites with installation/base cantonment redevelopment potential such as facility reduction program cleared sites.

1.C3 Brownfield Redevelopment (1)

Intent: Rehabilitate damaged sites where development is complicated by real or perceived environmental contamination, reducing pressure on undeveloped land.

Requirement: ❑ Develop on a site classified as a brownfield and provide remediation as required by EPA's Brownfield

Redevelopment program requirements OR Develop a brownfield site (a site that has been contaminated by previous uses). **1**

Technologies /Strategies:

Screen potential damaged sites for these criteria prior to selection for rehabilitation.

Utilize EPA OSWER Directive 9610.17 and ASTM Standard Practice E1739 for site remediation where required.

1.C4 Alternative Transportation (1)
Intent: Reduce pollution and land development impacts from automobile use.

Requirement: ❑ Locate building within ½ mile of installation/base transit systems. **1**

❑ Provide suitable means for securing bicycles, with convenient changing/shower facilities for use by cyclists, for 5% or more of building occupants. **1**

❑ Locate building within 2 miles of alternative-fuel refueling station(s). **1**

❑ Size parking capacity not to exceed minimum installation/base cantonment requirements AND provide preferred parking for carpools or van pools capable of serving 5% of the building occupants, OR, add no new parking for rehabilitation projects AND provide preferred parking for carpools or van pools capable of serving
5% of the building occupants. **1**

Technologies /Strategies: Select sites near public installation/base transit served by safe, convenient pedestrian pathways.

(1) Adapted material not reviewed or endorsed by U. S. Green Building Council.

1.C5 Reduced Site Disturbance (1)
Intent: Conserve existing natural areas and restore damaged areas to provide habitat and promote biodiversity.

Requirement: ❑ On greenfield sites, limit site disturbance including earthwork and clearing of vegetation to 40 feet beyond the building perimeter, 5 feet beyond primary roadway curbs, walkways, and main utility branch trenches, and 25 feet beyond pervious paving areas that require additional staging areas in order to limit compaction in the paved area; OR, on previously developed sites, restore a minimum of 50% of the remaining open area by planting native or adapted vegetation. **1**

❑ Reduce the development footprint (including building, access roads and parking) to exceed the installation/base's/base's master plan local zoning's open space requirement for the site by 25% or in accordance with installation/base policy on open space set asides, whichever is greater. **1**

Technologies /Strategies: Note requirements on plans and in specifications. Establish contractual penalties for destruction of trees and site Note requirements on plans and in specifications. Establish contractual penalties for destruction of trees and site areas noted for protection. Reduce footprints by tightening program needs and stacking floor plans. Establish clearly marked construction and disturbance boundaries. Delineate laydown, recycling, and disposal areas. Use areas to be paved as staging areas. Work with local horticultural extension services, or native plant societies, or installation/base agronomy staff to select indigenous plant species for site restoration and landscaping.

1.C6 Stormwater Management (1)

Intent: Limit disruption of natural water flows by minimizing storm water runoff, increasing on-site infiltration and reducing contaminants.

Requirement: Implement a stormwater management plan that results in:

❑ No net increase in the rate or quantity of stormwater runoff from undeveloped to developed conditions; OR, if existing imperviousness is greater than 50%, implement a stormwater management plan that results in a 25% decrease in the rate and quantity of stormwater runoff. **1**

❑ Treatment systems designed to remove 80% of the average annual post development total suspended solids (TSS), and 40% of the average annual post development total phosphorous (TP), by implementing Best Management Practices (BMPs) outlined in EPA's Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters (EPA -840-B-92-002 1/93). **1**

Technologies /Strategies: Significantly reduce impervious surfaces, maximize on-site stormwater infiltration, and retain pervious and Significantly reduce impervious surfaces, maximize on-site stormwater infiltration, and retain pervious and vegetated areas. Capture rainwater from impervious areas of the building for groundwater recharge or reuse within building. Use green/vegetated roofs. Utilize biologically-based and innovative stormwater management features for pollutant load reduction such as constructed wetlands, stormwater filtering systems, bioswales, bio-retention basins, and vegetated filter strips. Use open vegetated swales to reduce drainage velocity and erosion, reduce system maintenance, increase vegetative variety and support wildlife habitat where space permits.

1.C7 Landscape and Exterior Design to Reduce Heat Islands (2)

Intent: Reduce heat islands (thermal gradient differences between developed and undeveloped areas) to minimize impact on microclimate and human and wildlife habitat.

Requirement: ❑ Provide shade (within 5 years) on at least 30% of non-roof impervious surface on the site, including parking lots, walkways, plazas, etc., OR, use light-colored/ high-albedo materials (reflectance of at least 0.3) for 30% of the site's non-roof impervious surfaces, OR place a minimum of 50% of parking space under-ground OR use open-grid pavement system (net impervious area of LESS than 50%) for a minimum of 50% of the parking lot area. **1**

❑ Use ENERGY STAR Roof compliant, high-reflectance AND low emissivity roofing (initial reflectance of at least .65 and three-year-aged reflectance of at least .5 when tested in accordance with ASTM E408) for a minimum of 75% of the roof surface; OR, install a "green" (vegetated) roof for at least 50% of the roof area. **1**

Technologies /Strategies: Employ design strategies, materials, and landscaping designs that reduce heat absorption of exterior materials. Note albedo/reflectance requirements in the drawings and specifications. Provide shade (calculated on June 21, noon solar time) using native or climate tolerant trees and large shrubs, vegetated trellises, or other exterior structures supporting vegetation. Substitute vegetated surfaces for hard surfaces. Explore elimination of blacktop and the use of new coatings and integral colorants for asphalt to achieve light colored surfaces.

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1.C8 Light Pollution Reduction (1)

Intent: Eliminate light trespass from the building site, improve night sky access, and reduce development impact on nocturnal environments.

Requirement: ❑ Do not exceed Illuminating Engineering Society of North America (IESNA) footcandle level requirements as stated in the Recommended Practice Manual: Lighting for Exterior Environments, AND design interior and exterior lighting such that zero direct-beam illumination leaves the building site. **1**

Technologies /Strategies:
Consult IESNA Recommended Practice Manual: Lighting for Exterior Environments for Commission Internationle de l'Eclairage (CIE) zone and pre and post curfew hour descriptions and associated ambient lighting level requirements. Ambient lighting for pre-curfew hours for CIE zones range between .01 footcandles for areas with dark landscapes such as parks, rural, and residential areas, and 1.5 footcandles for areas with high ambient brightness such as installation/base areas with high levels of nighttime activity. Design site lighting and select lighting styles and technologies to have a minimal impact off-site and minimal contribution to sky glow. Minimize lighting of architectural and landscape features. Exterior lighting should be consistent with security lighting requirements.

1.C9 Optimize Site Features

Intent: Optimize utilization of the site's existing natural features and placement of man-made features on the site.

Requirement: ❑ Perform both of the following: **1**

- Maximize the use of free site energy.
- Plan facility, parking and roadways to "fit" existing site contours and limit cut and fill.

Technologies /Strategies:
Evaluate site resources to ascertain how each can enhance the proposed project and visa versa. Work to maximum advantage of the site's solar and wind attributes. Use landscaping to optimize solar and wind conditions and to contribute to energy efficiency; Locate and orient the facility on the site to optimize solar and wind conditions.

1.C10 Facility Impact

Intent: Minimize negative impacts on the site and on neighboring properties and structures; avoid or mitigate excessive noise, shading on green spaces, additional traffic, obscuring significant views, etc.
Requirement: ❑ Cluster facilities to reduce impact, access distance to utilities and sufficient occupant density to support mass transit. **1**

❑ Collaborate with installation/base and community planners to identify and mitigate potential impacts of the project beyond site boundaries, and transportation planners to insure efficient public transport. **1**

Technologies /Strategies: Involve local/regional planners and community members in installation/base master planning processes. Recognize the context and the impact of a project beyond site boundaries, and integrate it with the larger installation/base/community context/land use.

1.C11 Site Ecology

Intent: Identify and mitigate all existing site problems including contamination of soil, water, and air, as well as any negative impacts caused by noise, eyesores, or lack of vegetation, enhancing or creating new site habitat.

Requirement: ❑ Develop site environmental management and mitigation plan. **1**
Technologies /Strategies:
Understand site and surrounding ecosystem interdependence and interconnectivity. Plan landscaping scheme to incorporate biodiversity. Preserve/enhance existing trees, hydrological features, ecosystems, habitats, and cultural resources. Increase the existence of healthy habitat for native species. Reintroduce native plants and trees where they have been destroyed by previous development.
(1) Adapted material not reviewed or endorsed by U. S. Green Building Council.

2.C1 Water Efficient Landscaping (2)
Intent: Limit or eliminate the use of potable water for landscape irrigation.

Requirement: ❑ Use high efficiency irrigation technology, OR, use captured rain or recycled site water to reduce potable water consumption for irrigation by 50% over conventional means. **1**

❑ Use only captured rain or recycled site water for an additional 50% reduction (100% total reduction) of potable water for site irrigation needs, OR, do not install permanent landscape irrigation systems. **1**

Technologies /Strategies:
Develop a landscaping water use baseline according to the methodology outlined in the LEED Reference Guide. Specify water-efficient, native or adapted, climate tolerant plantings. High efficiency irrigation technologies include micro irrigation, moisture sensors, or weather data based controllers. Feed irrigation systems with captured rainwater, gray water, or on-site treated wastewater.

2.C2 Innovative Wastewater Technologies (2)
Intent: Reduce generation of wastewater and potable water demand, while increasing local aquifer recharge.

Requirement: ❑ Reduce the use of municipally provided potable water for building sewage conveyance by a minimum of 50%, OR, treat 100% of wastewater on site to tertiary standards. **1**

Technologies /Strategies:
Develop a wastewater baseline according to the methodology outlined in the LEED Reference Guide. Implement decentralized on-site wastewater treatment and reuse systems. Decrease the use of potable water for sewage conveyance by utilizing gray and/or black water systems. Non-potable reuse opportunities include, toilet flushing, landscape irrigation, etc. Provide advanced wastewater treatment after use by employing innovative, ecological, on-site technologies including constructed wetlands, a mechanical recirculating sand filter, or aerobic treatment systems.

2.C3 Water Use Reduction (1)
Intent: Maximize water efficiency within buildings to reduce the burden on municipal water supply and wastewater systems.

Requirement: ❑ Employ strategies that in aggregate use 20% less water than the water use baseline calculated for the building (not including irrigation) after meeting Energy Policy Act (EPACT) of 1992 fixture performance requirements. **1**
❑ Exceed the potable water use reduction by an additional 10% (30% total efficiency increase). **1**

Technologies /Strategies:
Develop a water use baseline including all water consuming fixtures, equipment, and seasonal conditions according to methodology guidance outlined in the LEED Reference Guide. Specify water conserving plumbing fixtures that exceed Energy Policy Act (EPACT) of 1992 fixture requirements in combination with ultra high efficiency or dry fixture and control technologies. Specify high water efficiency equipment (dishwashers, laundry, cooling towers, etc.). Use alternatives to potable water for sewage transport water. Use recycled or storm water for HVAC/process make up water. Install cooling tower systems designed to minimize water consumption from drift, evaporation and blowdown.

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3.0 Energy and Atmosphere Score 28

3.R1 Fundamental Building Systems Commissioning (1) **Reqd.**

Intent: Verify and ensure that fundamental building elements and systems are designed, installed and calibrated to operate as intended.

Requirement: ❑ Implement all of the following fundamental best practice commissioning procedures.

- Engage a commissioning authority.
- Develop design intent and basis of design documentation.
- Include commissioning requirements in the construction documents.
- Develop and utilize a commissioning plan.
- Verify installation, functional performance, training and documentation.
- Complete a commissioning report.

Technologies /Strategies:

Introduce standards and strategies into the design process early, and then carry through selected measures by clearly stating target requirements in the construction documents. Tie contractor final payments to documented system performance. Perform additional commissioning in accordance with the DOE Building Commissioning Guide, Version 2.2. Refer to the LEED Reference Guide for detailed descriptions of required elements and references to additional commissioning guides. Specify pre-occupancy baseline IAQ testing at time of commissioning. Test for indoor air concentrations of CO, CO2, total VOCs and particulates. Test to assure that adequate ventilation rates have been achieved prior to initial occupancy.

3.R2 Minimum Energy Performance (1) **Reqd.**

Intent: Establish the minimum level of energy efficiency for the base building and systems.

Requirement: ❑ Design to meet building energy efficiency and performance as required by TI 800-01 (Design Criteria).

Technologies /Strategies:

Use building modeling and analysis techniques to establish and document compliance. ASHRAE/IESNA 90.1-1999 provides guidance for establishing building base case development and analysis. Refer to the LEED Reference Guide for a wide variety of energy efficiency strategy resources.

Use a professionally recognized and proven computer program or programs that integrate architectural features with air-conditioning, heating, lighting, and other energy producing or consuming systems. These programs will be capable of simulating the features, systems, and thermal loads used in the design. Using established weather data files, the program will perform 8760 hourly calculations. BLAST, DOE-2 or EnergyPlus are acceptable programs for these purposes.

3.R3 CFC Reduction in HVAC&R Equipment (2) **Reqd.**

Intent: Reduce ozone depletion.

Requirement: ❑ Zero use of CFC-based refrigerants in new base building HVAC&R systems. When reusing existing base building HVAC equipment, complete a comprehensive CFC phaseout conversion.

Technologies /Strategies:

Specify only non-CFC-based refrigerants in all base building HVAC&R systems.

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3.C1 Optimize Energy Performance (1)
Intent: Achieve increasing levels of energy performance above the prerequisite standard to reduce environmental impacts associated with excessive energy use.

Requirement: ❑ Reduce design energy usage (DEU) compared to the energy use budget (EUB) in joules per square meter per year for regulated energy components as described in the requirements of Chapter 11 of the TI 800-01 (Design Criteria), as demonstrated by a whole building simulation.

- 1 Point will be awarded for every reduction in design energy use of 2.5% for both new and existing facilities for a maximum score of 20 points.

20

Regulated energy components include HVAC systems, building envelope, service hot water systems, lighting and other regulated systems as defined by ASHRAE.

Technologies
/Strategies:
Develop and use building modeling and analysis techniques to establish a base case that meets the minimum prerequisite standard. ASHRAE/IESNA 90.1-1999 provides guidance for establishing building base case development and analysis. Perform interactive energy use analysis for selected design elements that affect energy performance and document compliance.
Unit of measure for performance shall be annual energy usage in joules per square meter. Life-Cycle energy costs shall be determined using rates for purchased energy, such as electricity, gas, oil, propane, steam, and chilled water and approved by the adopting authority. Refer to the LEED Reference Guide or Whole Building Design Guide for a wide variety of energy efficiency resources and strategies including conservation measures, electromechanical energy efficiency technologies (for example ground-source heat pumps), passive heating and cooling strategies, solar hot water, and daylighting.
Life-Cycle costing will be done in accordance with 10 CFR 436.
Consider installation of an Energy Management and Control System (EMCS), which is compatible with exiting installation systems to optimize performance. Use sensors to control loads based on occupancy, schedule and/or the availability of natural resources use (day light or natural ventilation).

3.C2 Renewable Energy (1)
Intent: Encourage and recognize increasing levels of self-supply through renewable technologies to reduce environmental impacts associated with fossil fuel energy use.
Requirement: ❑ Supply a net fraction of the building's total energy use through the use of on-site renewable energy systems.

% of Total Annual Energy Usage in Renewables	
5%	**1**
10%	**2**
15%	**3**
20%	**4**

Technologies
/Strategies:
Employ the use of on-site non-polluting-source renewable technologies contributing to the total energy requirements of the project. Consider and use high temperature solar and/or geothermal, photovoltaics, wind, biomass (other than unsustainably harvested wood), and bio-gas. Passive solar, solar hot water heating, ground-source heat pumps, and daylighting do not qualify for points under this credit. Credit for these strategies is given in Energy & Atmosphere Credit 1: Optimizing Energy Performance.
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3.0 Energy and Atmosphere (Continued)

3.C3 Additional Commissioning (2)
Intent: Verify and ensure that the entire building is designed, constructed, and calibrated to operate as intended.
Requirement: ❑ In addition to the Fundamental Building Commissioning prerequisite, implement the following additional commissioning tasks:

1

1. Conduct a focused review of the design prior to the construction documents phase.
2. Conduct a focused review of the construction documents when close to completion.
3. Conduct a selective review of contractor submittals of commissioned equipment.
4. Develop a system and energy management manual.
5. Have a contract in place for a near-warranty end or post occupancy review.

Items 1, 2, and 3 must be performed by someone other than the designer.

Technologies
/Strategies:
Introduce standards and strategies into the design process early, and then carry through selected measures by clearly stating target requirements in the construction documents. Tie contractor final payments to documented system performance. Refer to the LEED Reference Guide for detailed descriptions of required elements and references to additional guidelines.

3.C4 << Deleted >> (1)

3.C5 Measurement and Verification (1)
Intent: Provide for the ongoing accountability and optimization of building energy and water consumption performance over time.
Requirement: ❑ Comply with the installed equipment requirements for continuous metering as stated in selected Measurement and Verification Methods - Option B: Retrofit Isolation of the US DOE's International Performance Measurement and Verification Protocol (IPMVP) for the following:

1

- Lighting systems and controls.
- Constant and variable motor loads.
- Variable frequency drive (VFD) operation.
- Chiller efficiency at variable loads (kW/ton).
- Cooling load.
- Air and water economizer and heat recovery cycles.
- Air distribution static pressures and ventilation air volumes.
- Boiler efficiencies.
- Building specific process energy efficiency systems and equipment.
- Indoor water risers and outdoor irrigation systems.

Technologies
/Strategies:
Design and specify equipment to be installed in base building systems to allow for comparison, management, and optimization of actual vs. estimated energy and water performance. Employ building automation systems to perform M&V functions where applicable. Tie contractor final payments to documented M&V system performance and include in the commissioning report. Provide for ongoing M&V system maintenance and operating plan in building operations and maintenance manuals. Consider installation/base of an Energy Management and Control System (EMCS), which is compatible with exiting installation/base systems to optimize performance.

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3.0 Energy and Atmosphere (Continued)

3.C6 Green Power (1)
Intent: Encourage the development and use of grid-source, renewable energy technologies on a net zero pollution basis.
Requirement: ❑ Engage in a two year contract to purchase the amount of power equal to projected building consumption generated from renewable sources that meet the Center for Resource Solutions (CRS) Green-E requirements.

1

Technologies
/Strategies:
Purchase power from a provider that guarantees a fraction of its delivered electric power is from net nonpolluting renewable technologies. Begin by contacting local utility companies. If the project is in an open market state, investigate Green Power and Power Marketers licensed to provide power in that state. Grid power that qualifies for this credit originates from solar, wind, geothermal, biomass, or low-impact hydro sources. Low-impact hydro shall comply with the Low Impact Hydropower Certification Program.

3.C7 Distributed Generation
Intent: Encourage the development and use of distributed generation technologies, which are less polluting than grid-source energy.
Requirement: ❑ Reduce total energy usage and emissions by considering source energy implications and local cogeneration and direct energy conversion. Generate at least 50% of the building's projected annual consumption by on-site distributed generation sources.

1

Technologies
/Strategies:
Investigate the use of integrated generation and delivery systems, such as co-generation, fuel cells, micro-turbines and off-peak thermal storage.

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4.R1 Storage & Collection of Recyclables (1) **Reqd.**

Intent: Facilitate the reduction of waste generated by building occupants that is hauled to and disposed of in landfills.
Requirement: ❑ Provide an easily accessible area that serves the entire building that is dedicated to the separation, collection and storage of materials for recycling including (at a minimum) paper, glass, plastics, and metals.

Technologies
/Strategies:
Establish a waste management plan which meets requirements of the installation/base environmental and/or solid waste management plans in cooperation with users to encourage recycling. Reserve space for recycling functions early in the building occupancy programming process and show areas dedicated to collection of recycled materials on space utilization plans. Broader recycling support space considerations should allow for collection and storage of the required elements and newspaper, organic waste (food and soiled paper), and dry waste. When collection bins are used, bin(s) should be able to accommodate a 75% diversion rate and be easily accessible to custodial staff and recycling collection workers. Consider bin designs that allow for easy cleaning to avoid health issues.

4.C1 Building Reuse (1)
Intent: Extend the life cycle of existing building stock, conserve resources, retain cultural resources, reduce waste, and reduce environmental impacts of new buildings as they relate to materials manufacturing and transport.
Requirement: Reuse large portions of existing structures during renovation or redevelopment projects.
❑ Maintain at least 75% of existing building structure and shell (exterior skin and framing excluding window assemblies). **1**

❑ Maintain an additional 25% (100% total) of existing building structure and shell (exterior skin and framing excluding window assemblies). **1**
❑ Maintain 100% of existing building structure and shell AND 50% non-shell (walls, floor coverings, and ceiling systems). **1**

Technologies
/Strategies:
Evaluate retention of existing structure. Consider facade preservation, particularly in installation/base areas. During programming and space planning, consider adjusting needs and occupant use patterns to fit within existing building structure and interior partition configurations. Identify and effectively address energy, structural, and indoor environmental (lead & asbestos) issues in building reuse planning and deconstruction documents. Percentage of reused non-shell building portions will be calculated as the total area (s.f.) of reused walls, floor covering, and ceiling systems, divided by the existing total area (s.f.) of walls, floor covering, and ceiling systems.

4.C2 Construction Waste Management (1)
Intent: Divert construction, demolition, and land clearing debris from landfill disposal. Redirect recyclable material back to the manufacturing process.
Requirement: Develop and implement a waste management plan, quantifying material diversion by weight:
❑ Recycle and/or salvage at least 50% (by weight) of construction, demolition, and land clearing waste. **1**
❑ Recycle and/or salvage an additional 25% (75% total by weight) of the construction, demolition, and land clearing debris. **1**

Technologies
/Strategies:
Develop and specify a waste management plan which meets requirements of the installation/base environmental and/or solid waste management plans that identifies licensed haulers and processors of recyclables; identifies markets for salvaged materials; employs deconstruction, salvage, and recycling strategies and processes, includes waste auditing; and documents the cost for recycling, salvaging, and reusing materials. Source reduction on the job site should be an integral part of the plan.
The plan should address recycling of corrugated cardboard, metals, concrete brick, asphalt, land clearing debris (if applicable), beverage containers, clean dimensional wood, plastic, glass, gypsum board, and carpet; evaluate the cost-effectiveness of recycling rigid insulation, engineered wood products and other materials; hazardous materials storage and management; and participation in manufacturers' “take-back” programs to the maximum extent possible. Refer to the LEED Reference Guide for guidelines and references that provide waste management plan development and implementation support including model bid specifications.

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4.C3 Resource Reuse (2)

Intent: Extend the life cycle of targeted building materials, reducing environmental impacts related to materials manufacturing and transport.

Requirement: ❑ Specify salvaged or refurbished materials for 5% of building materials. **1**

❑ Specify salvaged or refurbished materials for 10% of building materials. **1**

Technologies /Strategies:

Commonly salvaged building materials include wood flooring/ paneling/cabinets, doors and frames, mantels, iron work and decorative lighting fixtures, brick, masonry and heavy timbers. See the LEED Reference Guide for calculation tools and guidelines. Determine percentages in terms of dollar value using the following steps:

1. Calculate total dollars* (see exclusions) of the salvaged or refurbished material.
2. Calculate total dollars (see exclusions) of all building materials.
3. Divide Step 1 by Step 2 to determine the percentage.

Exclusions: In total dollar calculations, exclude; labor costs; all mechanical and electrical material and labor costs; and project overhead and fees. *If the cost of the salvaged or refurbished material is below market value, use replacement cost to estimate the material value, otherwise use actual cost to the project.

4.C4 Recycled Content (1)

Intent: Increase demand for building products that have incorporated recycled content material, reducing the impacts resulting from extraction of new material.

Requirement: ❑ Specify a minimum of 25% of building materials that contain in aggregate a minimum weighted average of 20% post-consumer recycled content material, OR, a minimum weighted average of 40% post-industrial recycled content material.

1

❑ Specify an additional 25% (50% total) of building materials that contain in aggregate, a minimum weighted average of 20% post consumer recycled content material, OR, a minimum weighted average of 40% post-industrial recycled content material.

1

Technologies /Strategies:

Specify building materials containing recycled content for a fraction of total building materials. Select products and materials with supporting information from the AIA Resource Guide or the EPA Environmentally Preferable Purchasing (EPP) Program. Common building materials and products with recycled content include; wall, partition, and ceiling materials and systems; insulation; tiles and carpets; cement, concrete, and reinforcing metals; structural and framing steel. For products/materials not listed, selection should be made on the basis of EPP criterion and/or:

- Toxicity;
- Embodied energy;
- Production use of water, energy and ozone depleting substances (ODSs);
- Production limits on toxic emissions and effluents;
- Minimal, reusable or recycled/recyclable packaging;
- Impact on indoor environmental quality (IEQ);
- Installation that limits generation of waste;
- Materials that limit waste generation over their life;
- EPA guideline compliance; and
- Harvested on a sustainable yield basis.

See the LEED Reference Guide for a summary of the EPA guidelines and calculation methodology guidelines. Determine percentages in terms of dollar value using the following steps:

1. Calculate total dollars (see exclusions) of the material that contain recycled content.
2. Calculate total dollars (see exclusions) of all building materials.
3. Divide Step 1 by Step 2 to determine the percentage.

Exclusions: Labor costs; all mechanical and electrical material and labor costs; project overhead and fees)

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4.0 Materials and Resources (Continued)

4.C5 Local/Regional Materials (2)

Intent: Increase demand for building products that are manufactured locally, reducing the environmental impacts resulting from transportation, and supporting the local economy.
Requirement: ❑ Specify a minimum of 20% of building materials that are manufactured regionally within a radius of 500 miles. **1**
❑ Of these regionally manufactured materials, specify a minimum of 50% that are extracted, harvested, or recovered within 500 miles. **1**

Technologies /Strategies:
Specify and install regionally extracted, harvested, and manufactured building materials. Contact the state and local waste management boards for information about regional building materials. See the LEED Reference Guide for calculation methodology guidelines. Determine percentages in terms of dollar value using the following steps:
1. Calculate total dollars (see exclusions) of material that is locally or regionally manufactured.
2. Calculate total dollars (see exclusions) of all building materials.
3. Divide Step 1 by Step 2 to determine the percentage.
Exclusions: Labor costs; all mechanical and electrical material and labor costs; project overhead and fees.

4.C6 Rapidly Renewable Materials (2)

Intent: Reduce the use and depletion of finite raw and long cycle renewable materials by replacing them with rapidly renewable materials.
Requirement: ❑ Specify rapidly renewable building materials for 5% of total building materials. **1**

Technologies /Strategies:
Rapidly renewable resources are those materials that substantially replenish them-selves faster than traditional extraction demand (e.g. planted and harvested in less than a 10 year cycle) and do not result in significant biodiversity loss, increase erosion, air quality impacts, and that are sustainably managed. See the LEED Reference Guide for calculation methodology guidelines. Determine percentages in terms of dollar value using the following steps:
1. Calculate total dollars (see exclusions) of materials that are considered to be rapidly renewable.
2. Calculate total dollars (see exclusions) of all building materials.
3. Divide Step 1 by Step 2 to determine the percentage.
Exclusions: Labor costs; all mechanical and electrical material and labor costs; project overhead and fees.

4.C7 Certified Wood (2)

Intent: Encourage environmentally responsible forest management.
Requirement: ❑ Use a minimum of 50% of wood-based materials certified in accordance with the Forest Stewardship Council guidelines for wood building components including but not limited to framing, flooring, finishes, furnishings, and non-rented temporary construction applications such as bracing, concrete form work and pedestrian barriers. **1**

Technologies /Strategies:
Refer to the Forest Stewardship Council guidelines for wood building components that qualify for compliance to the requirements and incorporate into material selection for the project.

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5.0 Indoor Environmental Quality (IEQ) Score 17

5.R1 Minimum IAQ Performance (1) Reqd.

Intent: Establish minimum IAQ performance to prevent the development of indoor air quality problems in buildings, maintaining the health and well being of the occupants.
Requirement: ❑ Meet the minimum requirements of voluntary consensus standard ASHRAE 62-1999, Ventilation for Acceptable Indoor Air Quality and approved Addenda.

Technologies
/Strategies:
Include proactive design details that will eliminate some of the common causes of indoor air quality problems in buildings. Introduce standards into the design process early. Incorporate references to targets in plans and specifications. Ensure ventilation system outdoor air capacity can meet standards in all modes of operation. Locate building outdoor air intakes (including operable windows) away from potential pollutants/contaminant sources such as sporulating plants (allergens), loading areas, building exhaust fans, cooling towers, sanitary vents, dumpsters, vehicular exhaust, and other sources. Include operational testing in the building commissioning report. Design cooling coil drain pans to ensure complete draining. Include measures to control and mitigate radon buildup in areas where it is prevalent. Limit humidity to a range that minimizes mold growth and promotes respiratory health.

5.R2 Environmental Tobacco Smoke (ETS) Control (2) Reqd.

Intent: Prevent exposure of building occupants and systems to Environmental Tobacco Smoke (ETS).
Requirement: ❑ Zero exposure of nonsmokers to ETS by prohibition of smoking in the building, OR, by providing a designated smoking room designed to effectively contain, capture and remove ETS from the building. At a minimum, the smoking room shall be directly exhausted to the outdoors with no recirculation of ETS-containing air to the non-smoking area of the building, enclosed with impermeable structural deck-to-deck partitions and operated at a negative pressure compared with the surrounding spaces of at least 7 Pa (0.03 inches of water gauge). Performance of smoking rooms shall be verified using tracer gas testing methods as described in ASHRAE Standard 129-1997. Acceptable exposure in non-smoking areas is defined as less than 1% of the tracer gas concentration in the smoking room detectable in the adjoining non-smoking areas. Smoking room testing as described in the ASHRAE Standard 129-1997 is required in the contract documents and critical smoking facility systems testing results must be included in the building commissioning plan and report or as a separate document.

Technologies
/Strategies:
Prohibit smoking in the building and/or provide designated smoking areas outside the building in locations where ETS cannot reenter the building or ventilation system and away from high building occupant or pedestrian traffic.

5.C1 IAQ Monitoring (1)

Intent: Provide capacity for indoor air quality (IAQ) monitoring to sustain long term occupant health and comfort.
Requirement: ❑ Install a permanent carbon dioxide (CO_2) monitoring system that provides feedback on space ventilation performance in a form that affords operational adjustments, AND specify initial operational set point parameters that maintain indoor carbon dioxide levels no higher than outdoor levels by more than 530 parts per million at any time.

1

Technologies
/Strategies:
Install an independent system or make CO_2 monitoring a function of the building automation system. Situate monitoring locations in areas of the building with high occupant densities and at the ends of the longest runs of the distribution ductwork. Specify that system operation manuals require calibration of all of the sensors per manufacturer recommendations but not less than one year. Include sensor and system operational testing and initial set point adjustment in the commissioning plan and report. Also consider periodic monitoring of carbon monoxide (CO), total volatile organic compounds (TVOCs), and particulates (including PM10).

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5.C2 Increase Ventilation Effectiveness (2)

Intent: Provide for the effective delivery and mixing of fresh air to building occupants to support their health, safety, and comfort.

Requirement: ❑ For mechanically ventilated buildings, design ventilation systems that result in an air change effectiveness (E) greater than or equal to 0.9 as determined by ASHRAE 129-1997. For naturally ventilated spaces demonstrate a distribution and laminar flow pattern that involves not less than 90% of the room or zone area in the direction of air flow for at least 95% of hours of occupancy. **1**

Technologies /Strategies:
Employ architectural and HVAC design strategies to increase ventilation effectiveness and prevent short-circuiting of airflow delivery. Techniques available include use of displacement ventilation, low velocity, and laminar flow ventilation (under floor or near floor delivery) and natural ventilation. Operable windows with an architectural strategy for natural ventilation, cross ventilation, or stack effect can be appropriate options with study of inlet areas and locations. See the LEED Reference Guide for compliance methodology guidelines.

5.C3 Construction IAQ Management Plan (2)

Intent: Prevent indoor air quality problems resulting from the construction/renovation process, to sustain long term installer and occupant health and comfort.
Requirement: Develop and implement an Indoor Air Quality (IAQ) Management Plan for the construction and pre-occupancy phases of the building as follows:
❑ During construction meet or exceed the minimum requirements of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guideline for Occupied Buildings under Construction, 1995, AND protect stored on-site or installed absorptive materials from moisture damage, AND replace all filtration media immediately prior to occupancy (Filtration media shall have a Minimum Efficiency Reporting Value (MERV) of 13 as determined by ASHRAE 52.2-1999). **1**

❑ Conduct a minimum two-week building flushout with new filtration media at 100% outside air after construction ends and prior to occupancy, OR, conduct a baseline indoor air quality testing procedure consistent with current EPA protocol for Environmental Requirements, Baseline IAQ and Materials, for the Research Triangle Park Campus, Section 01445. **1**
Technologies /Strategies:
Specify containment control strategies including protecting the HVAC system, controlling pollutant sources, interrupting pathways for contamination, enforcing proper housekeeping and coordinating schedules to minimize disruption. Specify the construction sequencing to install absorptive materials after the prescribed dry or cure time of wet finishes to minimize adverse impacts on indoor air quality. Materials directly exposed to moisture through precipitation, plumbing leaks, or condensation from the HVAC system are susceptible to microbial contamination. Absorptive materials to protect and sequence installation include; insulation, carpeting, ceiling tiles, and gypsum products. Appoint an IEQ Manager with owner's authority to inspect IEQ problems and require mitigation as necessary.

5.C4 Low-Emitting Materials (2)

Intent: Reduce the quantity of indoor air contaminants that are odorous or potentially irritating to provide installer and occupant health and comfort.
Requirement: Meet or exceed VOC limits for adhesives, sealants, paints, composite wood products, and carpet systems as follows:
❑ Adhesives must meet or exceed the VOC limits of South Coast Air Quality Management District Rule #1168 by, AND all sealants used as a filler must meet or exceed Bay Area Air Resources Board Reg. 8, Rule 51. **1**
❑ Paints and coatings must meet or exceed the VOC and chemical component limits of Green Seal requirements. **1**
❑ Carpet systems must meet or exceed the Carpet and Rug Institute Green Label Indoor Air Quality Test Program. **1**
❑ Composite wood or agrifiber products must contain no added urea-formaldehyde resins. **1**
Technologies /Strategies:
Evaluate and preferentially specify materials that are low emitting, non-irritating, nontoxic and chemically inert. Request and evaluate emissions test data from manufacturers for comparative products. Ensure that VOC limits are clearly stated in specifications, in General Conditions, or in each section where adhesives, sealants, coatings, carpets, and composite woods are addressed.

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5.C5 Indoor Chemical and Pollutant Source Control (1)

Intent: Avoid exposure of building occupants to potentially hazardous chemicals that adversely impact air quality.

Requirement: ❑ Design to minimize cross-contamination of regularly occupied areas by chemical pollutants: **1**
▪ Employ permanent entryway systems (grills, grates, etc.) to capture dirt, particulates, etc. from entering the building at all high volume entryways, AND provide areas with structural deck to deck partitions with separate outside exhausting, no air recirculation and negative pressure where chemical use occurs (including housekeeping areas and copying/print rooms), AND provide drains plumbed for appropriate disposal of liquid waste in spaces where water and chemical concentrate mixing occurs.

Technologies
/Strategies:
Design to physically isolate activities associated with chemical contaminants from other locations in the building, providing dedicated systems to contain and remove chemical pollutants from source emitters at source locations. Applicable measures include eliminating or isolating high hazard areas; designing all housekeeping chemical storage and mixing areas (central storage facilities and janitors closets) to allow for secure product storage; designing copy/fax/printer/printing rooms with structural deck to deck partitions and dedicated exhaust ventilation systems; and including permanent architectural entryway system(s) to catch and hold particles to keep them from entering and contaminating the building interior.

Consider utilization of EPA registered anti-microbial treatments in carpet, textile or vinyl wall coverings, ceiling tiles or paints where microbial contamination is a concern. Utilize "breathable" wall finishes where circumstances require, to reduce moisture build-up and prevent microbial contamination. Minimize selection of fibrous materials, e.g. insulation, carpet and padding and flexible fabrics, whose exposed surfaces when exposed to the air stream or occupied space can contribute significant emissions and absorb and re-emit other contaminants over time.

5.C6 Controllability of Systems (2)
Intent: Provide a high level of individual occupant control of thermal, ventilation, and lighting systems to support optimum health, productivity, and comfort conditions.
Requirement: ❑ Provide a minimum of one operable window and one lighting control zone per 200 s.f. for all occupied areas within 15 feet of the perimeter wall.
1

❑ Provide controls for each individual for airflow, temperature, and lighting for 50% of the non perimeter, regularly occupied areas.
1

Technologies
/Strategies:
Provide individual or integrated controls systems that control lighting, airflow, and temperature in individual rooms and/or work areas. Consider combinations of ambient and task lighting control and operable windows for perimeter and VAV systems for non perimeter with a 1:1: 2 terminal box to controller to occupant ratio.

5.C7 Thermal Comfort (2)
Intent: Provide for a thermally comfortable environment that supports the productive and healthy performance of the building occupants.
Requirement: ❑ Comply with ASHRAE Standard 55-1992, Addenda 1995 for thermal comfort standards including humidity control within established ranges per climate zone.
1

❑ Install a permanent temperature and humidity monitoring system configured to provide operators control over thermal comfort performance and effectiveness of humidification and/or dehumidification systems in the building.
1

Technologies
/Strategies:
Integrated envelope and HVAC system design strategies that achieve thermal comfort conditions based on mean radiant temperature, local air velocity, relative humidity, and air temperature. Install and maintain a temperature and humidity monitoring system for key areas of the building (i.e., at the perimeter, and spaces provided with humidity control). This function can be satisfied by the building automation system. Specify in system operation manuals that all sensors require quarterly calibration. Include criteria verification and system operation in commissioning plan and report.

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(1) Adapted material not reviewed or endorsed by U. S. Green Building Council.

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5.0 Indoor Environmental Quality (IEQ) (Continued)

5.C8 Daylight and Views (2)

Intent: Provide a connection between indoor spaces and the outdoor environment through the introduction of sunlight and views into the occupied areas of the building.

Requirement: ❑ Achieve a minimum Daylight Factor of 2% (excluding all direct sunlight penetration) in 75% of all space occupied for critical visual tasks, not including copy rooms, storage areas, mechanical, laundry, and other low occupancy support areas. Exceptions include those spaces where tasks would be hindered by the use of daylight or where accomplishing the specific tasks within a space would be enhanced by the direct penetration of sunlight.

1

❑ Direct line of sight to vision glazing from 90% of all regularly occupied spaces, not including copy rooms, storage areas, mechanical, laundry, and other low occupancy support areas.

1

Technologies
/Strategies:
Implement design strategies to provide access to daylight and views to the outdoors in a glare-free way using exterior sun shading, interior light shelves, and /or window treatments. Orient buildings to maximize daylighting options. Consider shallow or narrow building footprints. Employ courtyards, atriums, clerestory windows, skylights, and light shelves to achieve daylight penetration (from other than direct effect or direct rays from the sun) deep into regularly occupied areas of the building.

5.C9 Acoustic Environment /Noise Control

Intent: Provide appropriate acoustic conditions for user privacy and comfort.
Requirement: ❑ Minimize environmental noise through appropriate use of insulation, sound-absorbing materials and noise source isolation.

1

Technologies
/Strategies:
Evaluate each occupied environment and determine the appropriate layout, materials and furnishings design.

5.C10 Facility In-Use IAQ Management Plan

Intent: Insure the effective management of facility air quality during its life.

Requirement: ❑ Perform all of the following: **1**

- Develop an air quality action plan to include scheduled HVAC system cleaning.
- Develop an air quality action plan to include education of occupants and facility managers on indoor pollutants and their roles in preventing them.
- Develop an air quality action plan to include permanent monitoring of supply and return air, and ambient air at the fresh air intake, for carbon monoxide (CO), carbon dioxide (CO 2), total volatile organic compounds (TVOCs), and particulates (including PM10).

Technologies
/Strategies:
Provide action plan for periodic system maintenance, monitoring, occupant/manager training.

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6.C1 Holistic Delivery of Facility

Intent: Encourage a facility delivery process that actively engages all stakeholders in the design process to deliver a facility that meets all functional requirements while effectively optimizing tradeoffs among sustainability, first costs, life cycle costs and mission requirements.

Requirement:

- ❑ Choose team leaders that are experienced in holistic delivery of facilities. **1**

- ❑ Train the entire team in the holistic delivery process. The team must include all stakeholders in the facility delivery, including the users, the contracting staff, the construction representatives, project manager, and design/engineering team members. **1**

- ❑ Identify project goals and metrics. **1**

- ❑ Plan and execute charrettes with team members at critical phases of the facility delivery. **1**

- ❑ Identify and resolve tradeoffs among sustainability, first costs, life cycle costs and mission requirements through charrettes and other collaborative processes. **2**

- ❑ Document required results for each phase of project deliverables that achieve the project goals and are measurable throughout the facility life span. **1**

Technologies /Strategies:

Develop performance specifications or choose competitive range of products that meet environmental criteria.

Use automated modeling and analysis tools to assess site and facility design alternatives.

Conduct life-cycle cost analysis (LCCA) in the design process according to the Federal Facilities Council Technical Report, Sustainable Federal Facilities: A Guide To Integrating Value Engineering, Life Cycle Costing, and Sustainable Development, FFC # 142, 2000.

Conduct a full ecological assessment to include soil quality, water resources and flows, vegetation and trees, wildlife habitats and corridors, wetlands, and ecologically sensitive areas to identify the least sensitive site areas for development. Evaluate space utilization/functions to reduce overall space requirements, considering networking, flextime, flexi-place, dual-use, and other strategies to reduce space requirements/optimize facility size.

7.C1 Operation and Maintenance

Intent: Encourage the development of a facility delivery process that enhances efficient operation and maintenance of the facility.

Requirement: ❑ Develop a facility operations and maintenance program to include: **2**

- Commissioning instructions for all facility systems.
- Comprehensive facility operations and maintenance instructions for system operation, performance verification procedures and results, an equipment inventory, warrantee information, and recommended maintenance schedule. The instructions should include a comprehensive, preventive maintenance program to keep all facility systems functioning as designed.
- A periodic training program for occupants, facilities managers, and maintenance staff in all facility operations and maintenance activities.
- Instructions on sustainable cleaning and pest control practices.
- Develop a comprehensive site/facility recycling/waste management plan.

❑ Provide surfaces, furnishings, and equipment that are appropriately durable, according to life cycle cost analysis.

1

Technologies
/Strategies:
Maintain facility elements, systems and subsystems on a routine maintenance schedule to ensure integrity and longevity.

Perform scheduled cleaning and maintenance activities with nontoxic environmentally preferable cleaning products and procedures. Keep air ducts clean and free of microorganisms through a structured program of preventive maintenance. Clean lighting systems following a regular maintenance schedule to ensure optimum light output and energy efficiency.

Use pesticides and herbicides sparingly and only when necessary with preference to natural methods and materials over poisons and toxic agents.

Use automated monitors and controls for energy, water, waste, temperature, moisture, and ventilation monitors and controls. Turn off the lights, computers, computer monitors, and equipment when not in use. Enable power-down features on office equipment.

7.C2 Soldier and Workforce Productivity and Retention

Intent: Provide a high-quality, functional, healthy and safe work environment to promote soldier and workforce productivity and retention.

Requirement:

❑ Provide a high quality indoor environment to enhance user/occupant quality of life (QOL). **1**

❑ Provide a highly functional work environment to promote user/occupant work productivity. **1**

❑ Provide a healthy and safe work environment to sustain QOL and productivity. **1**

Technologies
/Strategies:
Use a registered/certified interior designer to provide stimulating interior environments with pleasant colors, surface treatments, room proportions and ceiling heights, external views, natural lighting, and quality detailing for interior furnishings, equipment, materials and finishes. Use IES standards to provide light to occupied space with variations in level, comfortable contrasts, natural color rendition, natural/man-made, and adequate controls to optimize light aesthetic qualities. Provide occupant control of individual work areas configuration, and lighting, thermal and ventilation systems.

Collaborate with end users to identify functional and technical requirements and to perform adjacency studies.

Configure occupied space to address the specific workers/occupants functions and activities that will be carried out there. Meet TI 800-01 Design Guide requirements. Design and configure occupied space, and select furniture and equipment using human ergonomics. Identify existing user amenities, such as dining, recreation, socialization, shopping and child care facilities. Identify what amenities should be incorporated into the project or provided in the future, nearby facility. Provide ventilation air in sufficient volume free from natural and man made contaminants.

8.C1 Functional Life of Facility and Supporting Systems

Intent: Assess the functional life of a facility and its supporting systems to optimize the infrastructure investment.

Requirement:
❑ Identify how long the designed function is likely to occupy the current facility. **1**

❑ Identify how long the envelope, structure, HVAC, plumbing, communications, electrical, and other systems are likely to last before requiring replacement or upgrade. Consider economic, functional and physical obsolescence.

1

Technologies
/Strategies:
Assess the typical or likely lifespan of the function(s) to be accommodated to forecast eventual adaptation to a different use(s). Assess the life spans of the various building systems/components to forecast their revision/replacement during the facility lifespan and design in a manner that facilitates revision/replacement.

Consider the life span of the weapon systems, doctrines, or other programs supported by the facility.

Use life cycle data and other sources to identify the life span of the embodied systems.

8.C2 Adaptation, Renewal and Future Uses

Intent: Encourage facility design that is responsive to change over time to maximize accommodation of future uses without creating waste and insuring maximum useful life of products.

Requirement:
❑ Identify possible future uses for the facility; consider alternatives that expand the list of possible future uses. AND Design the building to accommodate as wide a range of future uses, as practical. AND Design the installation of building systems to accommodate foreseeable change with a minimum amount of disruption, cost, and additional materials.

1

❑ Build the smallest facility necessary to meet current mission functional requirements, using the most efficient shape and form, while taking into consideration expansion capabilities and potential future mission requirements. AND Design the facility for recycling of materials and systems.

1

Technologies
/Strategies:
Create durable, long-lasting and adaptable facility shell and structural system. Create an adaptable, flexible facility design using open planning, service corridors, interstitial space, access floors, demountable walls/partitions, modular furniture and other adaptable space configuration/utilization strategies.

Select materials that are recyclable, avoiding composite materials, such as reinforced plastics and carpet fibers and backing. Consider selecting materials and labeling construction materials with identification information to facilitate recycling. Use pre-cut/pre-fabricated materials and use standard lengths and sizes (dimensional modularity) in design. Design facility systems and subsystems for reconfiguration and/or disassembly/recycling using reversible/reusable connectors.

Facility Point Summary

1.0	Sustainable Sites (S)	Score	0	Max 20
1.R1	❑ Erosion, Sedimentation and Water Quality Control			[Required]
1.C1	❑ Site Selection			2
1.C2	❑ Installation/Base Redevelopment			2
1.C3	❑ Brownfield Redevelopment			1
1.C4	❑ Alternative Transportation			4
1.C5	❑ Reduced Site Disturbance			2
1.C6	❑ Stormwater Management			2
1.C7	❑ Landscape and Exterior Design to Reduce Heat Islands			2
1.C8	❑ Light Pollution Reduction			1
1.C9	❑ Optimize Site Features			1
1.C10	❑ Facility Impact			2
1.C11	❑ Site Ecology			1

2.0	Water Efficiency (W)	Score	0	Max 5
2.C1	❑ Water Efficient Landscaping			**2**
2.C2	❑ Innovative Wastewater Technologies			**1**
2.C3	❑ Water Use Reduction			**2**

3.0	Energy and Atmosphere (E)	Score	0	Max 28
3.R1	❑ Fundamental Building Systems Commissioning			[Required]
3.R2	❑ Minimum Energy Performance			[Required]
3.R3	❑ CFC Reduction in HVAC&R Equipment			[Required]
3.C1	❑ Optimize Energy Performance			20
3.C2	❑ Renewable Energy			4
3.C3	❑ Additional Commissioning			1
3.C4	❑ <<Deleted>>			
3.C5	❑ Measurement and Verification			1
3.C6	❑ Green Power			1
3.C7	❑ Distributed Generation			1

4.0	Material and Resources (M)	Score	0	Max 13
4.R1	❑ Storage & Collection of Recyclables			[Required]
4.C1	❑ Building Reuse			3
4.C2	❑ Construction Waste Management			3
4.C3	❑ Resource Reuse			3
4.C4	❑ Recycled Content			3
4.C5	❑ Local/Regional Materials			3
4.C6	❑ Rapidly Renewable Materials			1
4.C7	❑ Certified Wood			1

5.0	Indoor Environmental Quality (IEQ) [Q]	Score	0	Max 17
5.R1	❑ Minimum IAQ Performance			[Required]
5.R2	❑ Environmental Tobacco Smoke (ETS) Control			[Required]
5.C1	❑ IAQ Monitoring 1			1
5.C2	❑ Increase Ventilation Effectiveness 1			1
5.C3	❑ Construction IAQ Management Plan 2			2
5.C4	❑ Low-Emitting Materials 4			4
5.C5	❑ Indoor Chemical and Pollutant Source Control 1			1
5.C6	❑ Controllability of Systems 2			2
5.C7	❑ Thermal Comfort 2			2
5.C8	❑ Daylight and Views 2			2
5.C9	❑ Acoustic Environment /Noise Control 1			1
5.C10	❑ Facility In-Use IAQ Management Plan 1			1

Facility Point Summary (Continued)

6.0	Facility Delivery Process (P)	Score	0	Max 7
6.C1	❑ Holistic Delivery of Facility			7

7.0	Current Mission	Score	0	Max 6
7.C1	❑ Operation and Maintenance			3
7.C2	❑ Soldier and Workforce Productivity and Retention			3

8.0	Future Missions	Score	0	Max 4
8.C1	❑ Functional Life of Facility and Supporting Systems			2
8.C2	❑ Adaptation, Renewal and Future Uses			2

	Total Score	0	Max 100

SpiRiT Sustainable Project Certification Levels		
SPiRiT Bronze		25 to 34 Points
SPiRiT Silver		35to 49 Points
SPiRiT Gold		50 to 74 Points
SPiRiT Platinum		75 to 100 Points

Please forward any comments that you may have on this Sustainable Project Rating Tool, preferably by Email, to:

Mr. Harry Goradia
U. S. Army Corps of Engineers
ATTN: CEMP-ET
7701 Telegraph Road
Alexandria, VA 22315-3862
Phone 703-428-6460
FAX 703-428-7903
Email harry.goradia@hq02.usace.army.mil
SPiRiT Para.

APPENDIX D

INTERIOR DESIGN PRESENTATION FORMAT

US Army Corps
of Engineers
Savannah District

Interior Design Presentation Format

February 1999

U.S. ARMY ENGINEER DISTRICT, SAVANNAH
CORPS OF ENGINEERS
100 WEST OGLETHORPE AVENUE
SAVANNAH, GEORGIA 31401-3640

THE SAVANNAH DISTRICT'S MANUAL
FOR INTERIOR DESIGN PRESENTATION

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THE SAVANNAH DISTRICT'S MANUAL
FOR INTERIOR DESIGN PRESENTATION FORMAT

A. This format is required in accordance with THE SAVANNAH DISTRICT DESIGN MANUAL section 10.8.9. and is developed in accordance with Air Force and Army interior design requirements for SID/CID submittals.

B. SID/CID PACKAGES RUN CONCURRENT WITH THE ARCHITECTURAL SUBMITTALS.

C. "Checklists for Reviews" and "Lessons Learned" are to be used to ensure all required information is included in the Contract Documents, the SID/CID presentation binders and to achieve customer satisfaction.

D. The General Contractor will not be receiving the 8 ½" X 11" SID/CID binders. Verify that all graphic illustrations such as carpet borders, ceramic tile patterns, accent color placement, millwork details and prewired furniture finished and details are on the contract drawings.

E. DO NOT REFERENCE THE SID/CID BINDERS IN THE CONTRACT DOCUMENTS.

F. THIS INFORMATION IS NOT OPTIONAL WHEN PRESENTING A SID/CID SUBMITTAL FOR REVIEW and FINAL DESIGN.

G. The Interior Design Point of Contact for the Savannah District is:

U.S. Army Corps of Engineers
ATTN: EN-DA/Peggy Roberson
100 W. Oglethorpe Avenue
Savannah, GA 31402-0889
COMM (912) 652-5544 FAX (912) 652-5891

GOVERNMENT CONTRACTING TERMS

ARMY	AIR FORCE	DEFINITION
MCA	**MILCON**	**MILITARY CONSTRUCTION** funds appropriated by Congress for new construction-fixed price contracts.
OMA	**O & M**	**OPERATION AND MAINTENANCE** funds provided to each installation by the Major Command and used for the day to day operations of the installation. These funds may be used for the renovation of existing buildings or for the purchase of furniture. Funds not spent to award a contract disappear at the end of the FY and cannot be recovered.
FY	**FY**	**FISCAL YEAR:** (A) October 1 through September 30 per the calendar. (B) If the project title begins with "FY-...." This identifies the year Congress will fund the Construction Contract Award.
PD	**PD**	**PROJECT DEFINITION:** A conceptual design of the proposed project (floorplans, elevations, cost estimate).
DD FORM 1391	**DD FORM 1391**	A programming document initiated by the installation; passed through the Major Command on to Congress for funding. The **1391** outlines basic needs for a proposed facility and an estimated cost to reach those needs.
JOC	**SABER**	**JOB ORDER CONTRACT** <u>**OR**</u> **SIMPLIFIED ACQUISITION OF BASE ENGINEERING REQUIREMENTS:** The installation's method to contract for repair work. Unit prices are agreed upon with a Contractor then individual job orders are negotiated for specific scopes of repair work.

GOVERNMENT CONTRACTING TERMS

ARMY	AIR FORCE	DEFINITION
CBD	**CBD**	**COMMERCE AND BUSINESS DAILY:** The federal government's "want ads". Advanced notice of contracting actions & requests for A-E Services.
IFB	**IFB**	**INVITATION FOR BID:** Standard contract procedures with clearly defined requirements, specifications and terms that are not negotiated. Any proposal prepared in response to an IFB must strictly adhered to the terms. Award is based on the lowest bid meeting the requirements and specifications.
RFP **RFQ**	**RFP** **RFQ**	A **REQUEST FOR PROPOSAL** is flexible in contrast to an IFB. It usually defines a problem and allows those who respond to the RFP to suggest a solution. A **REQUEST FOR QUOTES** is an informal request for price for standard item.
DESIGN BUILD	**DESIGN BUILD**	Using the RFP format, performance requirements are outlined; the Construction Contractor and A-E subcontractor are responsibility for the design of specifics to meet performance requirements.
APPENDIX A	**APPENDIX A**	The contractual scope of work for A-E contracts which outlines basic requirements including specific deliverables and the schedule of design submittals.
SF 254 & 255	**SF 254 & 255**	**STANDARD FORMS** to provide resume information to the government regarding the qualifications of A-E's responding to a CBD announcement.

GOVERNMENT SID/CID TERMS

ARMY	AIR FORCE	DEFINITION
SID	**SID**	**STRUCTURAL INTERIOR DESIGN:** Building related finishes; funded with MCA or MILCON dollars; Building Materials and finishes are purchased and installed by the General Contractor; a submittal with samples of proposed building materials being used on a particular project.
CID	**CID**	**COMPREHENSIVE INTERIOR DESIGN:** Furniture related; funded with OMA or O & M dollars: a submittal with furniture illustrations, fabric & finish samples, footprint plans, and furniture ordering information. Purchased by the installation and not by the General Contractor.
PREWIRED WORKSTATIONS	**PREWIRED WORKSTATIONS**	**PREWIRED WORKSTATION** is the term used to identify systems furniture purchased with MCA or MILCON funds. The designers will coordinate the footprint plans with the buildings systems and provide the plans and specifications in the contact documents. The General Contractor will purchase and install this furniture.
SYSTEMS FURNITURE	**SYSTEMS FURNITURE**	**SYSTEMS FURNITURE** is the term used to identify systems furniture purchased with OMA or O & M dollars. The designer will coordinate the footprint plans with the building systems and provide the plans in the contract documents for "information only." Procurement information will appear in the CID and will be purchased by the installation.

GOVERNMENT CID TERMS

ARMY	AIR FORCE	DEFINITION
FAR	**FAR**	**FEDERAL ACQUISITION REGULATIONS:** The laws outlining how the government buys products and services. Title 18 of the U.S.Code allows for direct purchase from UNICOR without competitive bids. (FAR) 8.6 identifies UNICOR as a mandatory procurement source to all federal agencies for products that meet the requirements of the ordering office.
FSS	**FSS**	**FEDERAL SUPPLY SCHEDULES** provides indefinite quantity contracts for commercial items at established prices for direct ordering use by government agencies. Address: Furniture Commodity Center (3FN-CO); Crystal Mall 4, RM 403, Washington DC 20406 (703) 305-5056.
UNICOR	**UNICOR**	**UNICOR** is the trade name for the Federal Prison Industries Inc (FPI) a wholly owned government corporation est. in 1934. UNICOR provides a variety of products and services to the Federal Government.
GSA FSC/FSG	**GSA FSC/FSG**	**GENERAL SERVICES ADMINISTRATION FEDERAL SUPPLY CLASSES FEDERAL SUPPLY GROUPS** are government contracts with private manufacturers that are fixed price, fixed MOL and fixed dates of expirations. GSA CENTRALIZED MAILING LIST SERVICE (7CAFL); PO BOX 6477 FT. WORTH, TX 76115 (817) 334-5215

TYPICAL GOVERNMENT TERMS

ARMY	AIR FORCE	DEFINITION
MOL	**MOL**	**MAXIMUM ORDER of LIMITATION:** GSA FSC/FSC contracts have a ceiling contract dollar amount that can be purchased from a vendor.
OPEN MARKET	**OPEN MARKET**	**OPEN MARKET** is the term indicating products that are not on a GSA contract.
ENVIRONMENTAL PRODUCTS GUIDE	**ENVIRONMENTAL PRODUCTS GUIDE**	GSA CATALOG SUPPLY ITEMS GSA CENTRALIZED MAILING LIST SERVICE (7CAFL); PO BOX 6477 FT. WORTH, TX 76115 (817) 334-5215
FSN 595B	**FSN 595B**	**FEDERAL STANDARD NUMBER 595B** A collection of standard colors used by the various departments or agencies. Colors have been classified in three categories: 1 is full gloss, 2 is semigloss and 3 is flat.
FSN 595B FAN DECK	**FSN 595B FAN DECK**	Standard colors are available in a booklet for under $10.00. Order number NSN 7690-01-162-2210 GSA Specification Unit (3F-BP-W) Seventh and D Sts SW Washington DC 20407

INTERIOR DESIGN PRESENTATION FORMAT

GENERAL NOTES

1. DEFINITIONS:

1.1 STRUCTURAL INTERIOR DESIGN (SID): Structural Interior Design is the term referring to the building related finishes. A SID shall involve the selection and sampling of all applied finishes necessary to complete the buildings' interior and exterior architectural features. If required, the SID shall also include all prewired workstation drawings and specifications. All SID information shall be presented in a 3-ring Binder, 8 1/2" x 11" format. The products sampled in the SID are to be purchased by the General Contractor and are MCA or MILCON funded.

1.2 COMPREHENSIVE INTERIOR DESIGN (CID): Comprehensive Interior Design is the term referring to the furniture related finishes. A CID shall involve the selection and sampling of all the furnishings components necessary to complete the interior environment. The CID shall generally include all free standing furnishings, accessories, Furniture Cost Estimate and generic Order Forms. The products illustrated in the CID are purchased by the installation and are OMA or O&M funded.

1.3 When a "CID Package" is required in the DD Form 1391 and/or the Appendix A, the A/E shall provide to the Government both the SID/ CID illustrated information in the required 8 1/2" x 11" format.

2. TECHNICAL NOTES:

2.1 SPECIAL REQUIREMENTS: The Interior Designer shall identify items in the SID or CID that require attachment to the building either by cutting or fitting. The Designer must prepare specifications and drawings for this service to be performed.

2.2 DISCLAIMER: Guide Specification 09915 Exterior/Interior Finish Schedule indicates all product trade names and colors used for the project. The nonproprietary declaimer indicated within this Guide Specification may also be located on the Finish Schedule of the Contact Drawings.

2.3 FEDERAL STANDARD 595b COLORS (FSN 595b): The use of the Federal Standard Colors is required when indicating exterior colors used on roofs and trim. The use of Federal Standard Colors is not required when indicating interior colors. EXCEPTION: Hurlburt Field, FL requires both exterior and interior paint colors to be indicated with the FSN 595b code.

2.4 CID FURNITURE RESOURCE: Every effort should be made to use UNICOR, GSA Stock or Federal Supply Schedule items. However, when the Interior

Designer determines CID items available on FSS/GSA contract or from UNICOR do not meet the functional requirements, or there is no current FSS/GSA/ UNICOR resource for a furniture requirement, a waiver to use an Open Market source is required. The Designer shall write a waiver/justification letter (Paragraph 15).

This letter shall be included in the CID Binder; attached to the required Order Form. The Government will process the waiver.

3. SIGNAGE:
Signage is critical to "pathway finding" and is to met the requirements indicated in the American With Disabilities Act unless directed by the client to do otherwise.

Indicate on separate signage drawings the typical plaque sizes, types locations, and the message for all signage. Submit a sample of the signage color in the SID.

4. SID/CID SUBMITTAL REQUIREMENTS

4.1 The Interior Designer shall be involved in all phases of the design in order to ensure customer satisfaction.

4.2 REVIEWS: During each phase of the project all SID/CID Binders shall be reviewed by the Government with written and annotated comments being issued back to the A/E. These annotated comments are to be incorporated into the next SID/CID Binder update. Written responses from the Interior Designer are to be included in the front inside pocket of the first volume of the SID Binder.

4.3 FORMAT: Submit all SID/CID information and samples on 8 1/2"x 11" color boards with a maximum spread of 25 1/2" for foldouts.

Each binder shall be labeled on the outside spine and front cover with the Phase %, SID or CID, Project title, Location, Date, and A/E firm. Indicate the volume number (example: Vol 1 of 3).

Each sheet shall be labeled with the Date, Project Tile, Location, A/E firm.

4.3.1 The color boards shall support and anchor all samples. Anchor large or heavy samples with mechanical fasteners or with velcro. Rubber cement or glue will not be acceptable.

4.3.2 Assemble the 8 1/2" x 11" pages and color boards in a 3-ring binder.

4.3.3 Material and finish samples must indicate true pattern, color and texture. Carpet samples must be large enough to indicate a complete pattern or design.

4.3.4 Photographs or colored photocopies of SID materials or CID fabrics will be disapproved.

Color photocopies of artwork are accepted.

4.4 REVISIONS: The Interior Designer shall revise the binders after each review to satisfy review comments. Printed information on existing pages can be updated with "white-out" for cost effective reasons. If the binders are not returned to the A/E for in-house update, the A/E may provide updated inserts to the Government.

4.5 RENDERINGS: Verify that renderings are a contract requirement. All renderings shall be provided by a professional illustrator.

4.6 BLACK AND WHITE SKETCHES: Verify that B&W Sketches are a contract requirement. If they are required, emphasize space relationships, furnishings, patterns and texture. One major area is to be illustrated and possibly used as a basis for the interior color rendering for the final design.

4.7 SEQUENCE: Organize the SID/CID Binder presentation according to the following sequence:

SEQUENCE OF SID SUBMITTAL

1. TITLE PAGE

2. TABLE OF CONTENTS

3. NARRATIVE OF INTERIOR DESIGN OBJECTIVES

4. EXTERIOR ELEVATION

5. EXTERIOR BUILDING MATERIAL LEGEND

6. EXTERIOR BUILDING MATERIAL COLOR BOARD

7. INTERIOR COLOR PLACEMENT PLAN
   (half size drawing or 8 1/2" X 11")

8. INTERIOR COLOR BOARDS (according color placement plan)

9. INTERIOR SIGNAGE COLOR BOARDS

10. PREWIRED WORKSTATION COLOR BOARDS

11. INTERIOR FLOOR PLANS

12. ROOM FINISH SCHEDULES

13. SIGNAGE PLANS

14. PREWIRED WORKSTATION COMPOSITE FLOOR PLANS

15. PREWIRED WORKSTATION PANEL PLANS

16. PREWIRED WORKSTATION ELECTRICAL/VOICE/DATA PLANS

17. PREWIRED WORKSTATION ELEVATION AND INVENTORY DRAWINGS

SEQUENCE OF CID SUBMITTAL

18. TITLE PAGE

19. TABLE OF CONTENTS

20. NARRATIVE OF INTERIOR DESIGN OBJECTIVES

21. PHOTO OF INTERIOR COLOR RENDERING (only if required by contract)

22. BLACK AND WHITE SKETCH PERSPECTIVE(only if required by contract)

23. COMPOSITE FURNITURE PLANS WITH CONVENTIONAL AND SYSTEMS FURNITURE (full size sheet 1/8" scale. Note: provide all systems furniture plans in the contact drawings and indicate "for information only." This is only if the user is buying and installing the systems furniture. Drawing requirements are the same as indicated in items 11-15 of the SID Sequence.

24. MANUFACTURE'S SUMMARY LISTS

25. FURNITURE LOCATION CODE INDEX

26. CONVENTIONAL FURNITURE PLACEMENT PLANS (1/4" scale)

27. CONVENTIONAL FURNITURE ILLUSTRATION SHEETS

28. ARTWORK ILLUSTRATION SHEETS AND PLACEMENT PLAN

29. ITEMIZED FURNITURE COST ESTIMATE

30. INTERIOR FURNISHING ORDER FORMS

31. LETTER OF JUSTIFICATION FOR WAIVER

5. SID/CID SUBMITTAL MATRIX SUMMARY

INTERIOR DESIGN SUBMITTALS RUN CONCURRENT WITH ARCHITECTURAL SUBMITTALS.

		DESIGN PHASE			
ITEM	DESCRIPTION	35%	65%	95%	100% RTA
1.	TITLE PAGE	X	X	X	X
2.	TABLE OF CONTENTS (SID)	X	X	X	X
3.	NARRATIVE (SID)	X	X	X	X
4.	EXTERIOR ELEVATION	X	X	X	X
5.	EXTERIOR MATERIAL LEGEND	X	X	X	X
6.	EXTERIOR COLOR BOARDS	X	X	X	X
7.	INTERIOR COLOR PLACEMENT PLAN	X	X	X	X
8.	INTERIOR COLOR BOARDS	X	X	X	X
9.	SIGNAGE COLOR BOARD	X	X	X	X
10.	WORKSTATION COLOR BOARDS	X	X	X	X
11.	INTERIOR FLOOR PLANS	X	X	X	X
12.	ROOM FINISH SCHEDULE	X	X	X	X
13.	SIGNAGE PLANS			x	X
14.	PREWIRED WORKSTATIONS COMPOSITE FLOOR PLANS	X	X	X	X
15.	PREWIRED WORKSTATION PANEL PLANS	X	X	X	X
16.	PREWIRED WORKSTATION ELECTRICAL/VOICE/DATA PLANS	X	X	X	X
17.	WORKSTATION ELEVATIONS AND INVENTORY DRAWINGS			X	X
18.	TITLE PAGE (CID)	X	X	X	X
19.	TABLE OF CONTENTS	X	X	X	X
20.	NARRATIVE	X	X	X	X
21.	PHOTO OF PROPOSED RENDERING TECHNIQUE (APPROVAL NEEDED)	X			
21a.	FINAL INTERIOR RENDERING			X	X

5. con't CID SUBMITTAL MATRIX SUMMARY

INTERIOR DESIGN SUBMITTALS RUN CONCURRENT WITH ARCHITECTURAL SUBMITTALS.

		DESIGN PHASE			
ITEM	DESCRIPTION	35%	65%	95%	100% RTA
22.	BLACK AND WHITE SKETCHES (ONE SHALL BE APPROVED FOR THE INTERIOR RENDERING).		X	X	X
23.	COMPOSITE AND SYSTEMS FURNITURE PLANS	X	X	X	X
24.	MANUFACTURER'S SUMMARY LIST			X	X
25.	FURNITURE LOCATION CODE (ONE MAJOR AREA)	X			
25A.	FURNITURE LOCATION CODES(ALL AREAS)		X	X	X
26.	FURNITURE PLACEMENT PLANS (ONE MAJOR AREA)	X			
26A.	FURNITURE PLACEMENT PLANS (ALL AREAS)		X	X	X
27.	FURNITURE ILLUSTRATION SHEETS (ONE MAJOR AREA)	X			
27A	FURNITURE ILLUSTRATION SHEETS (ALL AREAS)		X	X	X
28.	ARTWORK ILLUSTRATION SHEETS (PUBLIC AREAS ONLY, ARTWORK NOT REQUIRED IN PRIVATE OFFICES).			X	X
29.	ITEMIZED COST ESTIMATE		X	X	X
30.	FURNITURE ORDER FORMS (ONE MAJOR AREA)	X			
30A.	FURNITURE ORDER FORMS (ALL AREAS)			X	X
31.	LETTERS OF JUSTIFICATION.		X	X	X

6. TYPICAL CID FURNISHINGS AND COST GUIDELINES

6.1 CID FURNISHINGS

ADP tables/printer stands
Acoustical Partial Height Partitions 6' of less in height - freestanding
Artwork
Beds/wall units/ night stands/ chests/ refrigerators
Bedspreads/bedding
Bookcases
Bulletin board/ projection screens(If NOT attached to structure.)
Carts
Chairs - all kinds, including stools
Desks - freestanding
Drafting tables
Draperies
Files - all kinds
Library furniture - book stacks/card files/ study carrels
Modular desk units
Podium/ lecture stands
Systems furniture workstations (If not in SID)
Planters/art/waste & ash receptacles
Storage - all kinds
Tables - all kinds
Upholstered lounge seating (sofas, etc.)
Wardrobes

6.2 FURNISHINGS COST GUIDELINES

The figures are based on an Air Force FY 88 Costs Guide and an inflation factor of 5% per year should be included for subsequent years. These guidelines are for actual items (furniture, window treatments, accessories, etc.) and they do not include other associated cost such as contractor's overhead, profit and shipping.

Overseas Consideration: If local items are used prices may vary from country to country and may vary depending on the current exchange rates.

FACILITY TYPE	$/SQUARE FEET
Administration Space (Conventional Furn)	$ 7.00- $15.00
Administration Space (Systems Furn)	$33.00- *
Airmen Club (Not incl kitchen equip)	$14.00
Alert Facilities	$12.00
Auditorium	$35.00
Base Ops DV Lounge	$18.00

FACILITY TYPE	$/SQUARE FEET
Billeting Office	$15.00
Chief Suite (Billeting)	$17.00
Child Development Center	$13.00
Classroom	$20.00
Clinic/Dental Clinic (not incl equip)	$35.00
Conference Room	$18.00
Dining Facility (incl kitchen equip)	$35.00-$45.00
Dining Facility (not inclu kitchen equip)	$15.00
DV Suite (Billeting)	$24.00
Flight Training Center	$30.00
Family Housing Office	$14.00
Golf Clubhouse	$12.00
Intelligence Training Center	$30.00
Medical Training Center	$30.00
Package Store	$28.00
NC Officer Mess (Not incl Kitchen equip)	$17.00
Officer Open Mess (Not incl Kitchen equip)	$17.00
Recreation Center	$11.00
Transient Living Facility	$15.00
Unenlisted Personnel Housing	$16.00*
Visiting Airman Quarters	$13.00
Visiting Officers Quarters	$16.00*
Yacht Clubhouse	$12.00
Youth Center	$12.00

FACILITY TYPE	$/SQUARE FEET
*UNIT BUDGET GUIDES	
Admin Space (Systems Furn)	1994 price ($4,000/per workstation incl instal(ergo chair $350.00)
1988 Price	
Billeting Office/Lobby	$14,000-$16,000 refinish existing. $35.0000-50,000 for new
Distinguished Visitor Suite	$15,000 per one bedroom suite $20,000 per two bedroom suite $37,000 per 2/3 bedroom apartment
Transient Living Facility One Bedroom, Living/Dining 525 sq feet (new construction)	$15,000 per standard unit
Dorms	
Unaccompanied Enlisted Personnel Housing	$2,500-$3,500 Per person
UOPH	$ 7,000 per single unit
VAQ	$ 6,000 per double occupancy.
VOQ	$ 5,000 per single occupancy $ 8,000 per single Suite. $11,000 per double Suite.

PARAGRAPHS 7-15 EXPLAIN THE FORMAT REQUIRED FOR THE FOLLOWING:

7. PREWIRED AND SYSTEMS FURNITURE WORKSTATIONS
8. MANUFACTURE'S SUMMARY LIST
9. FURNITURE LOCATION CODES
10. FURNITURE ILLUSTRATION SHEETS
11. FURNITURE PLACEMENT PLANS
12. ARTWORK
13. FURNITURE COST SUMMARY
14. ORDER FORMS
15. LETTER OF WAIVER JUSTIFICATION

7. PREWIRED AND SYSTEMS FURNITURE

7.1 General

Prewired and or systems furniture workstations shall be designed with generic components and work surfaces that are typically sold by various manufacturers of systems furniture. Indicate on the contract drawings one manufacture's name and finishes as a bases for design. This will provide a general of range colors for competitive bid purposes.

Indicate in the Guide Specifications 12640 Prewired Workstations, the fabric width, fiber content, and construction method. DO NOT INDICATE A VENDOR IN THE SPECIFICATIONS. INDICATE A VENDOR ONLY ON THE DRAWINGS.

7.2. COMPOSITE FLOOR PLAN

A Composite floor plan shall show the all panels, components and free-standing furniture in relationship to the building and the building systems such as light switches and mechanical devices.

7.3. PANEL PLAN

The panel plan shall indicate a panel symbol legend, all panel placements, critical dimensions of aisles widths and critical dimensions in relation to the building's structure and the building's electrical/mechanical system devices and the panels. Each panel shall be noted as follows:

N (non-power) Width (in feet) Height (in inches)
or
P (power)

Example: a non-powered panel 2 feet wide and 68 inches high will be noted on the plan N 2 68

7.4 ELECTRICAL, VOICE AND DATA PLAN

The Electrical, voice and data plans shall indicate all panel placements, a symbol legend, and all receptacles used in each workstations. This plan shall also indicate the height and location of the building's light switches and building's mechanical control devices like thermostats. Provide a general note that on the "PREWIRED WORKSTATION plans" are to be coordinated with the Communication and Mechanical Engineering Plans.

7.5 ELEVATION AND INVENTORY PLAN

The Elevation and inventory drawings shall illustrate each typical workstation in elevation form with a related inventory list of all panels and components used to build the typical. The inventory list shall be generic in description.

7.6 FINISHES

It is suggested when selecting finishes for prewired workstations that only two (2) fabric colors be used: one color for all panels and one color for tackboards. A third color can be used as a means of "wayfinding" for large open office projects.

7.7 COST

The average cost of a prewired workstation is $4000.00. Do not exceed this average cost figure or the project will be rejected. Verify line item 10 in the 1391 for a line item total cost of the prewired workstations appropriated for the project.

7.8 WORKSTATION LOCATION CODE

Each and every workstation will be identified on each plan with a single alpha identification code to indicate the "Typical". For example all like reception stations are "A" and like offices are "B". Every workstation shall have a "room number" that is separate and apart from the fixed room numbering system. This is to provide consistent workstation identification throughout all drawings. An example would be "A-100" "B-101" "B-102" "B-103".

7.9 PREWIRED WORKSTATION PACKAGE ITEMS

1. Panels

1.1 Acoustical/nonacoustical
1.2 Powered/nonpowered
1.3 Connecting hardware

2. Components

2.1 Work surfaces
2.2 Drawers
2.3 Shelves(with doors/ without doors)
2.4 Files (lateral, panel hung/ bins)
2.5 Task Lights/special purpose
2.6 Counter tops
2.7 Drafting surface

3. Accessories

3.1 Tackboards
3.2 Locks
3.3 Shelf dividers
3.4 Reader Stand
3.5 Paper flow devices
3.6 Marker boards

3.7 Computer turntable
3.8 Printer stand
3.9 Coat rack
3.10 Wire guides

4. Signage

4.1 Organization signs
4.2 Workstation name signs

8. MANUFACTURER'S SUMMARY LIST

Provide a summary of all the manufactures' used in the CID package. Manufactures name, address, phone, fax and Point of Contact is to be included.

9. FURNISHINGS LOCATION CODE

This CODE is assigned by the interior designer to each conventional furnishing item indicated in the CID. Use of this code is important for quick reference between Order Forms, Furniture Illustrations, and Placement Plans.

The first letter of the code is a GENERAL CATEGORY
EXAMPLE:
A - Accessories
B - Book storage
C - Chairs

The second number of the code is a SPECIFIC CATEGORY

1 - Plant (7' height in brass container)
2 - Clocks, Peter Pepper, #0000 Color Blue
3 - Wastebaskets, FSS, Color Black
4 - Chalkboard: Egan Visual, Oak

OVERALL EXAMPLE: C1, C2 and C3

C - CHAIRS

1 - Guest chair, Knoll, #1234, Color: #12 Red
2 - Ergo Chair, Knoll Bulldog, 1233, Color: #34 Blue
3 - Stacking Chair, Fixtures, Bola, 1234, Color #12 Multi

10. FURNITURE ILLUSTRATION SHEET

A Furniture Illustration Sheet is a pictorial example with finish samples o a single product specified for the CID. Only one product is illustrated per page.

The Furniture Illustration Sheet shall have the following information:

1. A Picture or line drawings of the product specified.

2. A Location Code to Key the specified product to the Footprint Plan and the Furniture Placement Plan.

3. A Sample of the product's finishes.

4. Recap quantity of illustrated item listed by room number
   (e.g. 4 ea. Room 104 Commander
   3 ea. Room 103 Receptionist)

5. Job name, Job Location, Date.

11. FURNITURE PLACEMENT PLAN

A Furniture Placement Plan consist of one room broken out from the Composite Furniture Plan which identifies each furniture component placed in that room. All rooms shown on the Composite Furniture Plan shall be illustrated in the Furniture Placement Plan section. The Furniture Placement Plans shall be drawn at a 1/4" scale. Large rooms/areas shall be drawn at 1/8" scale.

Each Furniture Placement Plan shall contain the following:

1. 1/4" Scale Drawing showing room and furniture.

2. Location Code and quantity of each item specified per room.

3. Name and Number of Room

4. Job Name , Job Location, Date.

The Composite Furniture Plan shall be a full size contract drawing with location codes. Half sizes will not be acceptable for review.

12. ARTWORK ILLUSTRATIONS SHEETS AND PLANS

The Artwork Illustrations Sheets shall have a pictorial example of the artwork with mat colors. Color photos copies are accepted.

Full size drawings of the Artwork Plan are to show plan placement of artwork and an elevation for all the artwork showing placement height and installation instructions.

Each Artwork sheet shall have the following:

1. A Picture of the proposed artwork.

2. Location Code

4. Room Name and Number that artwork will be displayed in.

5. Job name, Job Number, Date.

6. Mounting height and installation instructions.

13. ITEMIZED FURNITURE COST ESTIMATE

The itemized furniture cost estimate sheets list all furnishings, indicate quantities, unit costs and grand totals. The Cost Estimate is organized according to UNICOR and GSA Source/Schedules. The Cost estimate will also include a general 10% contingency and 7% installation. Because some items will include freight in the price, note that freight charges are not included.

14. FURNITURE ORDER FORM

The Furniture Order Forms indicate all information necessary to order products specified in the CID. Only one product shall be listed per page.

Organize and separate the Order Forms according to the Sources and GSA Schedules to coordinate with the Itemized Furniture Cost Estimate. Do not organize forms according to the Locations codes.

15. LETTER FOR WAIVER/JUSTIFICATION

FOR CID ITEMS THAT REQUIRE A JUSTIFICATION, SUCH AS OPEN MARKET ITEMS FOLLOW THE FORMAT EXAMPLE AND ATTACH IT TO THE APPROPRIATE ORDER FORM. See Appendix "C" for UNICOR Waiver information.

JUSTIFICATION FOR ACOUSTICAL PANELS
December 15, 1994

1. REQUESTING ACTIVITY: U.S. Army Corps of Engineers
EN-DA/Peggy Roberson
100 W. Oglethorpe Avenue
Savannah, GA 31402-0889

2. POINT OF CONTACT: Peggy Roberson
(912) 652-5144

3. REQUIREMENTS: To provide acoustical and visual control through a cost effective and timely means. The panels will separate and define workstations for 7 individuals representing 5 engineering disciplines. These individuals are located in 1,470 sq. ft. of open area.

4. PROPOSED SOLUTION: To purchase portable, acoustical panels 62 inches high and various widths from XYZ manufacture. This manufacturer delivers and installs within 30 days from the date they received the order. See the attached order form for stock number, dimensions, colors and manufacturers.

5. UNICOR WAIVER: Market research indicates that the Federal Prison Industry does not supply this type of portable panel.

6. TRIANGLE/INTANGIBLE BENEFITS: The tangible benefits to be gained from this purchase will be an enhancement of employee morale and productivity due to the reduction of sound and visual disturbances currently found in this open space.

7. IMPACT IS REQUEST IS NOT APPROVED: Employee morale will drop, which could impact performance.

8. ESTIMATED DATE ITEMS ARE REQUIRED: ASAP but no later than 30 days.

16. HEALTH AND SAFETY CRITERIA

16.1 PROVIDE PROTECTION AGAINST PERSONAL INJURY AND DEATH FROM:

16.1.1 FALLS

* ASTM D-2047-Test for Slip Resistance of Hard Surfaces

16.1.2 CHEMICAL EMISSIONS
16.1.3 ELECTRONIC EMISSIONS
16.1.4 MICROBIAL CONDITIONS

NOTE: 16.1.2, 16.1.3, and 16.1.4 are not defined by code at the present. OSHA has a proposed regulation in relation to indoor air quality standards. It is currently in the review phase. It is not in

16.1.5 FIRE (Interior Finishes and Furnishings)

* ASTM-E-84-Steiner Tunnel Test.

* NFAP-701-Standard method of Fire Test for Flame Resistant Textiles and Films.

* NFPA-705-Field flame Test for Textiles and Films

* FF 1-70-Standard for the Surface Flammability of Carpet and Rugs (Methenamine Pill Test)

* NFPA 80-Fire Test of Door and Windows

* NFPA 253-Flooring Radiant Panel Test

* NFPA 258-Research Test method for Determining Smoke Generation of Solid Materials.

* NFPA 259-Potential Heat of Building Materials

* NFPA 260 Methods of Tests and Classification System for Cigarette Ignition Resistance of Components

* NFPA 261- Method of Test for Determining Resistance of Mock-up Upholstered Furniture Material Assemblies to Ignition by Smoldering Cigarettes.

* NFPA 264- A Standard Test Method of Test for Heat Release Rates for Upholstered Furniture Components or Composites and Mattresses Using an Oxygen Consumption Calometer.

* NFPA 267- Standard on Mattress, subjected to Open Flame Ignition, Using a Large-Scale Oxygen Consumption Calorimeter.

* UL-1056- Fire Test of Upholstered Furniture

* TB 133- Flammability Test Procedure For Seating Furniture for Use in Public Occupancies. State of California Bureau Home Furnishings.

* TB 117- (Section A though E) Test Procedures for Testing the Flame Retardance of Resilient Filling Materials used in Upholstered Furniture.

16.2 PROVIDE FURNISHINGS AND EQUIPMENT WITH ANTHROPOMORPHIC FIT AND STABILITY

* ANSI/BIFMA X5.6-86 Standard for office Furnishings.

16.3 PROVIDE GLARE-FREE ILLUMINATION OF WORK SURFACES
* ANSI E-97

16.4 PROVIDE ACCEPTABLE REFLECTANCE LEVELS

* ASTM E-97-IES

16.5 PROVIDE FOR USE AND MAKE ACCESSIBLE TO PHYSICALLY DISABLED

* American Disabilities Act: ASTM 117.1
* Uniform Federal Accessibility Standards

16.6 PROVIDE SAFE AND SWIFT EGRESS FROM INTERIOR SPACES

* NFPA 101 Fire Safety Code-94
* National Building Code, BOCA
* Standard Building Code
* Uniform Building Code, ICBO

16.7 PROVIDE ACOUSTIC CONTROL
* Airborne sound: ASTM C 423, PBS C.1
* Speech Privacy: SPP, Speech Privacy Potential
* Impact sound transmission: ASTM C 423-66, PBS C-2

17 CHECKLIST FOR SID REVIEWS

17.1 GENERAL

The Checklists are used to ensure that SID/CID binders and all contact drawings and specifications are complete and will meet customer approval.

17.2 CHECKLISTS FOR SID BINDERS

The correct organization of the SID Binder is important to ensure a rapid and accurate evaluation of the submittal and to ensure all the information provided in the binders appears in the contract documents. The SID binder shall include the information in the order indicated in paragraphs 4 and paragraph 5 Submittal Matrix Summary 1-17.
17.2.1 CHECKLIST FOR SID NARRATIVE

Review the statement of DESIGN OBJECTIVES. Design Objectives are to indicate the proposed building materials, color scheme and the philosophy for the selection each. When applicable the design narrative shall discuss Energy Efficiency, Safety, Maintenance, Durability, Image and Occupant Morale.

17.2 CHECKLIST FOR EXTERIOR COLOR LEGEND AND COLOR BOARDS

Exterior Colors are often dictated by the Installation's Design Guidance. In these instances, the Federal Standard 595b paint colors may be referenced for factory finished items. See examples below.

Metal Roof Federal Standard 595b 0000

17.2.2 REVIEW QUESTIONS

1. Are all exterior materials labeled and properly identified?

2. Do all exterior materials and finishes meet standard Installation Design Guidance requirements?

3. Are there any miscellaneous exterior materials and finishes that need to be listed and sampled in the SID Binder OR indicated in Guide Specifications OR contract drawings?

4. Are all the exterior materials sampled in SID Binder and indicated on Finish Schedule?

5. Are all exterior materials indicated on Finish Schedule sampled in SID Binder?

17.3 CHECKLIST FOR SID INTERIOR COLOR SCHEME AND COLOR BOARDS: Review the architectural finish samples for an orderly arrangement on 8 1/2" x 11" color boards according to like rooms/areas receiving like finishes. Each color board will be noted as a COLOR SCHEME. Each Color Board shall consist of a material sample board and a material legend board.

17.3.1 Each Color Scheme shall be properly identified:
[The following information should be on the lower portion of each sheet]

a. Project title
b. Location
c. Date
d. A/E Firm

17.3.2 Each material legend shall have written identification of materials in the order as follows:

1. Alpha Code
2. Material
3. Manufacturer
4. Color name
5. Color Number

The material legend identification shall be consistent with the material legend found in the Exterior and Interior Finish Guide Specification or in the contract drawings. Without exception all rooms and areas shall be identified and their finishes shown.

* The general contractor will not be receiving the SID binders therefore all finishes and their placement must be on the contract drawings or in the Guide Specifications.

17.4 CHECKLIST FOR INTERIOR COLOR SCHEME

17.4.1 SID REVIEW QUESTIONS

COLOR SCHEME

1. What basic color scheme is used?
   a. Monochromatic
   b. Analogous plus complement accent
   c. Complementary
   d. Split Complementary
   e. Triadic

2. Is there a basic neutral color for all walls?

3. Does the color scheme create a sense of order?

4. Are accent colors appropriate in hue value and intensity to create interest? Do they overpower the space?

5. Are Accent Colors clearly indicated on the contract drawings?

6. Are the colors placed to create a "visual balance" throughout the building?

7. Do the Accent colors assist with "pathway finding"?

GENERAL FINISHES

1. Do finishes offer variety in appearance?(soft, hard, smooth, rough, dull, gloss, matte)

2. Do selected finishes enhance the architectural lines of the building?

3. Are materials, finishes,and colors appropriate for the surfaces they will be covering?

4. Are walls painted [Gloss] [Semi-Gloss] [eggshell]? (Flat Latex wall paint is not durable for interior walls.)

5. Do the interior finishes reflect and reinforce the appropriate image for the facility?

6. Is the flooring selected for all areas appropriate in color pattern, texture and scale?

7. Does color and pattern in Carpet/Carpet Tile relate to scale and size of room?

8. Will Carpet/ Carpet Tile color and pattern hide soil and wear path?
9. Are window treatments compatible with architectural detailing?

10. Will window treatment and its installation cause unnecessary wear or abrasion?

11. Are finishes selected creative in use and placement?

12 Will there be acoustical problems because of the materials selected? (A balance of Reflective and Absorptive surfaces is necessary)

13. Will all colors, materials, and finishes retain their appearance long-term?

14. Are all interior finishes labeled and properly identified?

15. Do all interior finishes meet standard codes requirements?

16. Are there any miscellaneous interior finishes and materials that need to be listed, sampled and specified?

17. Are all interior materials sampled in SID Binder listed on the Finish Schedule?

18. Are all materials listed on the Finish Schedule sampled in the SID Binder?

19. Are there any treatments such as bordered carpets, or multi-color ceramic tile borders that need to be illustrated in plans but are not?

20. Are all SID finishes specified according to the quality to ensure quality and performance?

PREWIRED WORKSTATIONS

1. Do the prewired workstations and specifications coordinate to fully cover all the information required for bidding, and installation of the product?

2. Have all the required contract drawings as indicated in paragraph 5 of the Submittal Summary Matrix been provided?

17.4.2 CHECKLIST FOR SAFETY:

Do all finishes selected shall meet code requirements and are appropriate in color, texture, and pattern to insure the well being of the inhabitants?

17.4.3 FACILITY SIGNAGE REVIEW QUESTIONS

1. Is the signage listed on a separate plan and indicated correctly in the specifications?

2. What type face is specified? Does it meet approved standards?

3. Is Symbol Signage used in lieu of Printed identification for restrooms?

4. Are Signs flexible so that names and rooms can be changed easily?

5. Are Signage colors and samples in the SID?

For additional reference on signage refer to Sign Standards relative to the Department of Defense.

18.5. CHECKLIST FOR CID BINDER LAYOUT

The CID Binder is the most detailed of all binders submitted because of the numerous components specified ,priced, and illustrated. The correct organization of the CID Binder is important to insure a rapid and accurate review of the building's furniture components and their relationship to the architecture and it's finishes. The CID Binder shall include the information in the order indicated in paragraph 5 Submittal Matrix Summary items 18-31.

18.5.1 CHECKLIST FOR CID NARRATIVE: Review the statement of DESIGN OBJECTIVES explaining the CID interior design philosophy of the facility. Design Objectives and the proposed method of accomplishing the objectives shall cover, when applicable, the furnishings and their relationship to the building and it's inhabitants, energy, efficiency, safety, health, maintenance, image, personal performance of occupants and functional flexibility.

18.5.2 CID REVIEW QUESTIONS

1. Does the layout of the CID Binder follow the TABLE OF CONTENTS format indicated in paragraph 4.7 and 5?

2. Are all pages properly identified?

3. Are all samples labeled and identified?

4. Are there any miscellaneous components shown on the Footprint Plan that are not shown in the CID Binder?

5. Are there any miscellaneous components shown in the CID Binder that are not reflected on the FURNITURE PLACEMENT PLANS?

CHAIRS

1. Is the chair appropriate for the task?

2. Is the style of the chair in keeping with the overall theme of the building and other components selected?

3. Is the chair scaled correctly for the space it occupies?

4. Are chair costs appropriate for the project?(ERGO $300-350)

5. Is the finish of the chair interesting and in harmony with the elements surrounding it?

6. Are all chairs listed on the composite Footprint Plan, Furniture Placement Plans, Illustration Sheets, Location Code and Order Forms?

DESK

1. Is the desk appropriate for the task?

2. Is the style of the desk in keeping with the overall theme of the building and other components selected?

3. Is the desk too large for the space it occupies?

4. Are the desk costs appropriate for the project?

5. Is the finish of the desk interesting and in harmony with the elements surrounding it?

6. Are all desks listed on the composite Footprint Plan, Furniture Placement Plan, Location Code and Cost Estimate, Furniture Illustration Sheet,and Order Form?

COST ESTIMATES and ORDER FORMS

1. Are cost estimates correct?

2. Are Order Forms completed and accurate?

18.5.3 CHECKLIST FOR SAFETY

1. In the placement of furniture, is emergency egress considered?

2. In the placement of furniture, is consideration given to the requirements for the handicapped. (Reference: Uniform Federal Accessibility Standards and ADA).

19. LESSONS LEARNED

Lessons Learned are for information only and to eliminate lost effort in the development of SID/CID submittals. Lessons learned are from both Air Force and Army projects.

Experience has taught that generally neutral interior environments with color accents used appropriately in SID finishes and all CID finishes provide the best "look" for a government facility. The common sense approach to all projects is the most cost effective way to achieve customer satisfaction.

Interior Design Solutions are important to the treatment and housing of a personnel. If leaders expect excellence in people, the environment in which they are housed should not be created on a whim or by individuals not technically educated and experienced in creating such environments.

Although interior environments cannot motivate people to excel they can provide a background that creates a functional opportunity for them to excel.

The Mobile District considers a quality interior design environment to be one that meets the followings ten (10) objectives:

1. COMPLETE COORDINATION BETWEEN CONTACT DRAWINGS AND SPECIFICATIONS. THE LACK THEREOF IS A POTENTIAL SOURCE OF LIABILITY.

2. The use of durable, easily maintained finishes that support "good housekeeping".

3. Appropriate use of accents colors that are easy to "live with" and cost effectively removed when updating the "look".

4. Spaces that are planned to support life safety.

5. Spaces that meet the functional needs of the user. Maximize flexibility for future change in both SID and CID plans.

6. Furnishing selected that support personal performance and personal health.

7. Appropriate use of All the design elements (Landscape, Architecture and Interior Design)to support "path wayfinding" "up to" and within the facility.

8. Accurate documentation of all the contract documents(SID) and procurement documents (CID).

9. Finishes and furniture selected that meet government procurement regulations.

10. Customer satisfaction.

19.1 EXTERIOR FINISHES

1. Exterior SID: The Exterior building finish materials, colors and signage shall be in accordance with the Master Plan/Installation Design Guide of the installation on which the project is being constructed.

2. Verify with each installation what their current standard exterior finishes are.

3. Use the Federal Standard Number 595B to indicate the range of exterior finish colors.

19.2 INTERIOR DESIGN PHILOSOPHY

1. Interiors building finishes, furnishings and colors schemes are to be appropriate and support the function of the facility.

2. Interior design objectives are to create an environment that enhances public image, employee morale, provide building finishes that are durable, easy to clean, cost effective to maintain and support life safety.

3. Appropriate accent colors are easy to "live with" and can be easy and cost effectively removed when updating the "look" is the objective.

4. Accurate documentation of finishes and furnishings in both the SID and the CID.

5. Talk to the customer. Let them know what you are planning before you submit the color boards. Do more in-process design and review communication with the customer before formal submittals.

19.3 INTERIOR FINISHES

1. Non-slip surfaces at entryway.

2. Semi-gloss for trim only

3. Egg-shell finish for walls if possible.

19.4 INTERIOR COLORS

1. Generally the exterior color scheme should transition and continue into the interior color scheme.

1. A neutral warm or cool color palette with accent colors used in furnishings has generally been the most successful for most interior projects.

2. Colors in a mid-tone range used for door trim and matching base is generally approved.

3. Light colored carpets shows soil easily and will be disapproved.

4. Painted doors, trim and walls to blend (do not use extreme contrast colors for doors and walls).

5. Because the general contractor can substitute colors, textures and patterns during the construction process "permanent interior building finishes" are most successful if they are neutral colors.
The most typical finishes substituted during construction are
* Plastic laminates, vinyl wall coverings, ceramic tile, toilet partitions, wood stains.

19. 5 ACCENT COLORS

1. Ceramic tile accent borders on floors and walls in restrooms (one or two colors on a neutral field.)

2. Multi-colored graphic pattern carpet with solid or fleck colors used as accent borders.

3. Accent vinyl wall covering colors used a visual "pathway finding" guide through a facility.

4. Colorful fabrics with small pattern designs used on guest chairs.

19.6 WALL COVERING

1. Use Type II for all areas. Type III only in heavy use corridors. The additional satin resistant coatings used for health care environments.

2. The architect is to design walls with a correct vapor barrier. Wall covering can be used on both exterior and interior perimeter walls.

3. Must meet NFPA Class A Flame Spread rating.

4. Use chair rail when walls are subject to frequent furniture movement and scarring. ig. conference rooms and waiting areas.

5. Fabric wall covering can only be used in a sprinkled buildings according to NFPA.

19.7 CARPET

1. Primary interior finish and should be the bases for the overall color scheme.

2. Graphic Patterns with random pattern is the best. Avoid large geometric or rigid patterns. They look askew if adjacent to a wall that is not plumb,

3. Avoid bright or light colors which soil easily.

4. Carpet tile is recommended when power and communications are installed in floor raceways.

5. Carpet tile is best for corridors: use patterned fields and solid-colored borders for "pathway finding".

19.8 SIGNAGE

1. Use the Installations' Design Guidance or the appropriate design guide for the Department of Defence agency.

2. Coordinate the signage color with the interiors color scheme.

3. Specify a flexible sign that allows for easy personnel name change or room name change.

4. Signage changes. It is helpful when ordering additional signage that signage specified be on a GSA schedule.

5. Bulletin Boards and fire exit plans are to be included in facility signage package.

19.9 UPHOLSTERY

1. Tweeds and small scaled patterns retain their appearance longer.

2. Avoid solid colors because they show dirt, lint and fade faster that patterns and tweeds.

3. Vinyls are used for wet areas such as labs.

4. Avoid vinyls fabrics in administrative areas or for general use seating.

5. Leather seating is used for only high ranking officers and directors.

6. Use Nylon and Nylon blends seating fabrics that are easy to maintain.

19.10 FURNITURE

1. Black and wood veneer horizontal surfaces are discouraged in general public use areas. A plastic laminate table surface in public areas retains it's appearance longer.

2. Mid-tone range colors for work surfaces are recommended because it will not add to eye fatigue. Light oaks, beige, and grays work best.

3. Black finishes are discouraged for case goods because it is a housekeeping problem.

4. Oak is an acceptable color range for woods and laminated wood surfaces and frames. Darker woods are traditionally accepted for those of higher rank.

5. Use commercial grade, performance tested GSA contracts

6. Laminate tops are recommended for all work surfaces other that executive suite areas (wood veneer may be used).

7. Systems furniture plans require Air Force HQ Interior Design Review and approval.

8. Acoustical panels over 65" in height may restrict light and air distribution. 62-64" high panels are generally the best.

9. Fabric finishes on flipper doors will not be approved.

19.11 ARTWORK

1. Only use in public areas; not in private personnel offices.

2. Use to assist occupants in "pathway finding"

3. Hang artwork at 5'-6" with security type devices.

4. Choose mats and frames which complement other accessories and interior color scheme.

5. Art should be large enough to fill the space.

19.12 PLANTS AND ACCESSORIES

1. Plants help soften the space

2. Do not specify live plants. This type of specification requires a maintenance contract.

3. Use quality artificial plants such as with real trucks, bark etc.

4. Specify sturdy containers. Limit the use of wicker baskets.

19.13 Window Treatments

1. Use doubled return hems and doubled bottom hems.

2. Draperies are not encouraged in areas other that executive suites and living areas.

3. Mini blinds that match the window frame are recommended for admin space.

4. Vertical blinds are accepted and can have a fabric inserts. Do not

specify any fabric vertical blinds without using a PVC insert vain.

5. Specify blackout lining in sleeping areas

6. Fabric valances maybe used over mini blinds.

7. Use decorative rods or top treatments to give draperies a finished appearance.

8. Draperies are to be 2.5 fullness.

9. Ripple fold over pinched pleats recommended.

10. Draperies are to have minimum 4 inch returns and 2 inch overlaps with a 4 inch heading. Weighted at the corners and all seams.

19.14 BEDSPREADS

1. Use a fitted style bedspread.

2. Pattern is recommended.

3. Minimum 5 oz 100% polyester fill

4. Fabric must have dimensional stability with less than 2% shrinkage after washing at 160 F degrees.

19.15 THE DISTINGUISHING CHARACTERISTICS OF SUCCESSFUL INTERIORS

The Mobile District holds firmly to the position that a successful interior design solution consistently incorporates typical finishes, colors and features to obtain quality interior design solutions. The following guidelines shall be the basis from which all projects will be reviewed and judged for their success.

When planning for the interior environment emphases of one from each of the following groups will hopefully achieve good design:

1. Architectural Emphasis or Component Emphasis
2. Color System in Contrast or Color System in Continuity
3. Directional Reinforcement or Directional Change
4. Value Contrast or Value similarity
5. Surface/Texture Emphasis or Surface/Pattern Emphasis
6. Contemporary/Traditional Emphasis or Eclectic Emphasis

Interior SID: Permanent interior building finishes are to be neutral in color. "Permanent finishes" are considered:

1. Plastic Laminates
2. Vinyl Composition Tile
3. Ceramic Tile or other hard tiles
4. Wood doors (stained wood finish)

5. Metal Doors and Metal Trim
6. Toilet Partitions
7. The majority of walls and ceilings.

The appropriate placement of accent hues and patterns for a government project are considered to be:

1. Accent borders on floors and walls in restrooms.
2. Multi-colored graphic patterned carpet used throughout the facility.
3. Accent colors on vertical surfaces used as visual assistant in "path wayfinding".
4. Artwork
5. Upholstery fabric

Although cost constraints can limit complex design details throughout the facility, there are areas where cost effective use of accents hues and identifying architectural features should be considered and used to create an image. The following areas are ranked according to importance:

1. Lobby Areas
2. Main Conference rooms
3. Command Areas
4. Employee Break rooms and Toilet Rooms
5. General Office Areas

Successful "Path wayfinding" is achieved when users and visitors easily find their way "up to" a building and throughout it's interiors. The District's position is that "path wayfinding" can successfully be obtained by incorporating reason and experience offered by a multi-disciplined team of the Landscape Architect, the Architect and the Interior Designer.

20. SID/CID ILLUSTRATIONS

30% STRUCTURAL INTERIOR DESIGN

FY-95 UEPH DORMS

EGLIN AIR FORCE BASE

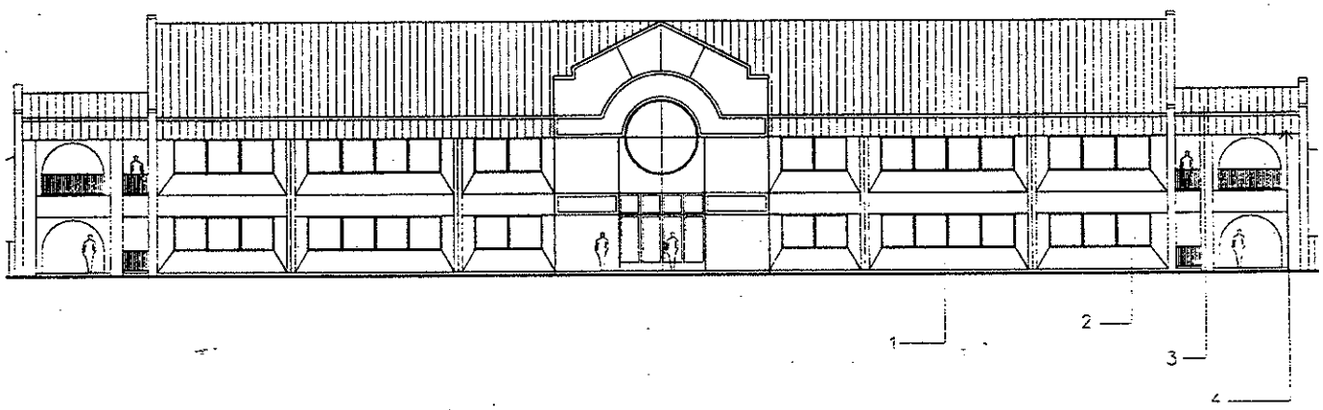
FLORIDA

U.S. ARMY CORPS OF ENGINEERS

MOBILE DISTRICT

MOBILE, ALABAMA

APRIL 1994



1. SMOOTH FACE BLOCK, LT. TAN
2. GLAZING, PPG, SOLARBRONZE TINT
3. METAL ROOF, FEDERAL STANDARD 595B 00000C
4. METAL GUTTER, FEDERAL STANDARD 595B 00000

FRM
DATE

EXTERIOR ELEVATIONS

PROJECT NAME
LOCATION

SAMPLE

1

SAMPLE

2

SAMPLE

3

SAMPLE

4

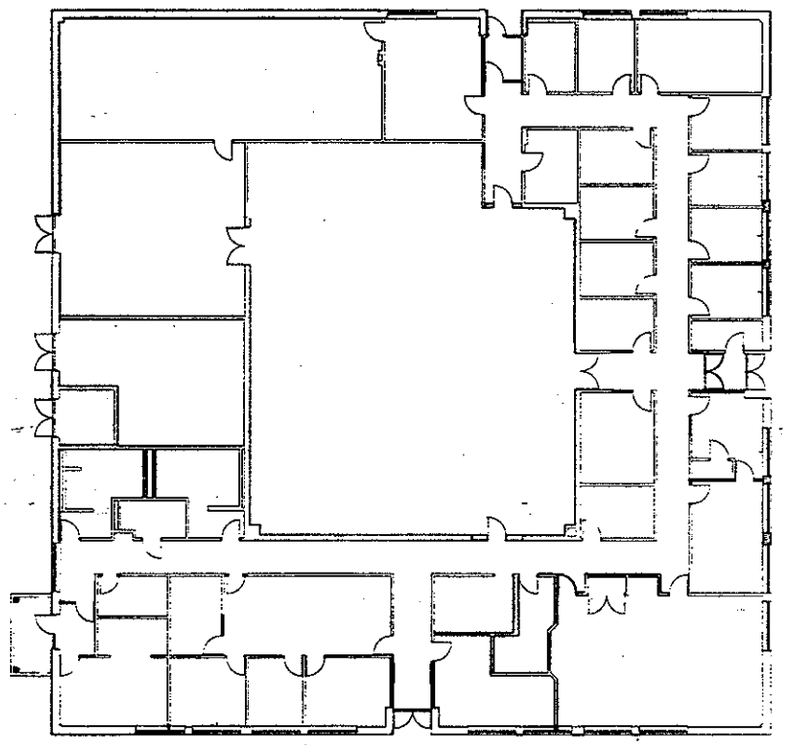
FRM

DATE

EXTERIOR MATERIAL SAMPLES

PROJECT NAME

LOCATION



COLOR SCHEME "A"- GENERAL OFFICE AREAS

COLOR SCHEME "B" TOILET ROOMS

COLOR SCHEME "C" MISCELLANEOUS AREAS

FIRM

DATE

INTERIOR COLOR PLACEMENT

PROJECT NAME

LOCATION

INTERIOR
COLOR BOARDS

FRM

DATE

PROJECT NAME

LOCATION

SAMPLE

FIELD

CT-1

ACCENT

CT-2

SAMPLE

GROUT-1

SAMPLE

CT-3

FLOOR TILE

SAMPLE

P-2

CEILING

SAMPLE

TP-1

PL-1

FIRM

DATE

COLOR SCHEME "C"

PROJECT NAME

LOCATION

CT-1: CERAMIC TILE, AMERICAN OLEAN, 153 ALMOND. 4" X 4"

CT-2: CERAMIC TILE, AMERICAN OLEN, 2" X 2" TEAL

CT-3: CERAMIC TILE, AMERICAN OLEN, 2" X 2" A 20 BEACH TAN

GROUT-1: AMERICAN OLEAN, BROWN

P-2: EPOXY PAINT, WHITE (FOR CEILINGS)

PL-1: PLASTIC LAMINATE, WILSONART, ALMOND, 513 COUNTER TOPS

TP-1: PLASTIC LAMINATE, WILSONART, ALMOND 513 TOILET PARTITIONS

FIRM

DATE

COLOR SCHEME "C"

PROJECT NAME

LOCATION

SAMPLE

APCO WHITE (PLAQUE HOLDER)

SAMPLE

LETTERING

APCO BLACK

SAMPLE

APCO CLEAR (INSERT)

FIRM

DATE

SIGNAGE

PROJECT NAME

LOCATION

XYZ SYSTEMS MFG.

SAMPLE

PANELS FABRIC
466 TAN

SAMPLE

TACKBOARD
033 TEAL

SAMPLE

FLIPPER DOOR AND TRIM
PUTTY

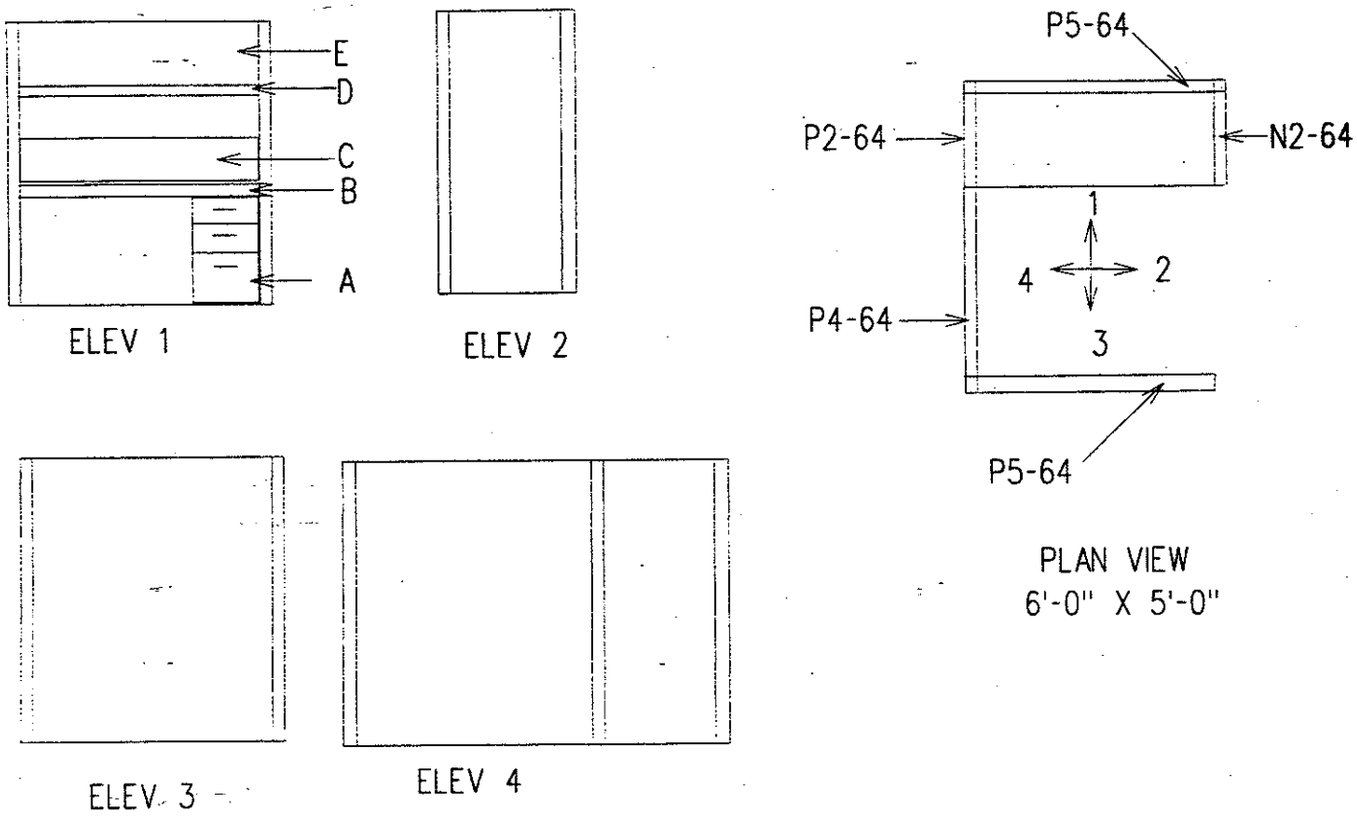
COMPONENTS

WORKSURFACES

FIRM
DATE

PREWIRED WORKSTATION COLOR BOARD

PROJECT NAME
LOCATION



QTY.	CODE	DESCRIPTION
2	P5-64	2' W X 64"H POWERED ACOUSTICAL PANEL
1	N2-64	2'W X 64"H NON-POWERED ACOUSTICAL PANEL
1	A	3", 3", 12" DRAWER PEDESTAL
1	B	23"D X 60" W HANGING WORK SURFACE

10 EACH TYPICAL" A"

FIRM

DATE

PREWIRED WORKSTATION

TYPICAL "A"

LOCATION

INSERT CONTRACT DRAWINGS OF:

FLOOR PLANS

FINISH SCHEDULE

SIGNAGE PLAN

PREWIRED WORKSTATIONS DRAWINGS

FIRM

DATE

PROJECT NAME

LOCATION

100%
COMPREHENSIVE INTERIOR DESIGN

FY-95
UEPH DORMS

EGLIN AIR FORCE BASE
FLORIDA

U.S. ARMY CORPS OF ENGINEERS
MOBILE DISTRICT
MOBILE, ALABAMA
APRIL 1994

MANUFACTURER ABC
109 MAIN STREET
ANYWHERE, USA 00000
POINT OF CONTACT:
1-800-000-0000

MANUFACTURER XYZ
109 MAIN STREET
ANYWHERE, USA 00000
POINT OF CONTACT:
1-800-000-0000

MANUFACTURER XXX
109 MAIN STREET
ANYWHERE, USA 00000
POINT OF CONTACT:
1-800-000-0000

INSERT COMPOSITE FURNITURE PLANS

FIRM

DATE

PROJECT NAME

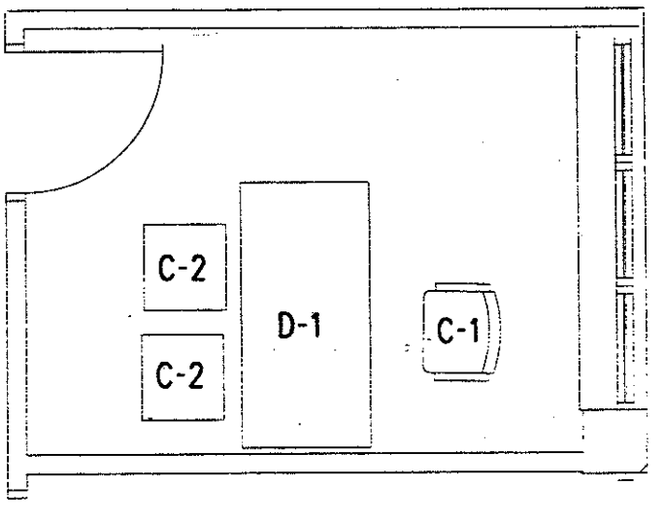
LOCATION

A- ACCESSORIES

B- BOOKCASES

C- CHAIRS

D- DESKS



ROOM:123

QTY.	LOCATION CODE	DESCRIPTION
1 EA.	C-1	KNOLL BULL DOG , BLACK FRAME, COLOR: TEAL
2 EA.	C-2	KRUGER, "VERSA" BLACK FRAME, TEAL
1 EA.	D-1:	XYZ , WOOD: WALNUT

FIRM

DATE

FURNITURE PLACEMENT PLAN

PROJECT NAME

LOCATION

FURNITURE ILLUSTRATION

C-2

SINGLE LINE DRAWING
OR
CUT SHEET

FABRIC:
002 BLUE

SAMPLE

FRAME
BLACK

SAMPLE

ROOM	QTY	TOTALS
123	2	8
124	2	
125	2	
126	2	

FIRM
DATE

FURNITURE ILLUSTRATION SHEET

PROJECT NAME
LOCATION

ARTWORK ILLUSTRATION

A-1

A-1

MAT
002 BLUE

SAMPLE

FRAME
BLACK

SAMPLE

MOUNTING INSTRUCTIONS:

PLACE CENTER OF WALL WITH TOP OF FRAME 64"
ABOVE THE FINISHED FLOOR

ROOM	QTY	TOTALS
123	1	1

FIRM
DATE

ART ILLUSTRATION SHEET

PROJECT NAME
LOCATION

FIRM
DATE

COST ESTIMATE

PROJECT NAME
LOCATION

SOURCE: FSC GROUP 71, PART X CONFERENCE TABLES

CODE	MFG.	ITEM	QT.	UNIT PRICE	TOTAL
T-1	KRUGER	TABLE	04	$ 350.00	1,400.00
T-2	KRUGER	TABLE	01	$ 350.00	350.00
T-3	KRUGER	TABLE	04	$ 350.00	1,400.00
				TOTAL:	$5,4350.00
T-5	VECTA	TABLE	04	$1,000.00	$4,000.00
T-6	VECTA	TABLE	04	$1,000.00	$4,000.00
				TOTAL:	$8,000.00

TOTAL OF ALL CID SOURCES:
10% CONTINGENCY:
7% INSTALLATION:
MISCELLANEOUS FEES:

GRAND TOTAL:

FURNITURE ORDER FORM SAMPLE
PROJECT TITLE

1. LOCATION CODE:
2 DIRECTORATE:
4. DEPARTMENT
5. ACTIVITY:
6. FSC GROUP: 71 PART III SECTION: L CLASS 7110 SIN 499-1 CONTRACT EXPIRATION DATE: MOL:
7. SOURCE: Manufacturer's name etc....
8. PRODUCT NAME:
9. PRODUCT STOCK NUMBER:
10. PRODUCT FABRIC NAME AND COLOR NUMBER:
11. PRODUCT FINISH NAME AND COLOR NUMBER:
12. DIMENSIONS: WEIGHT:
13. DESCRIPTION:(Include construction information; fabric content, finish application)
14. JUSTIFICATION: These guest chairs are coordinated to match the tasks seating at each workstation. The size of the guest chair was critical because of the limited space where they were to be placed. If this company is not selected coordinate the newly proposed finishes with Location Codes: C3, C4 and C5.
15. ROOM LOCATION QUANTITY PER ROOM
16. TOTAL QUANTITY:
17. UNIT PRICE:
18. TOTAL PRICE:
19. FREIGHT CHARGES: FOB DESTINATION (Note if freight charges are included in the price of the CID item.)
20. Additional remarks or justification.

21. APPENDICES

A. ADA REQUIREMENTS

B. COMMANDER'S POLICY

C. UNICOR WAIVER

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
WASHINGTON, D.C. 20314-1000

REPLY TO
ATTENTION OF:

CEMP-EA/CECW-EP

25 JAN 1994

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Access for People with Disabilities

1. Reference Secretary of Defense memorandum dated 20 October 1993, subject as above (enclosure 1).

2. In accordance with the referenced memorandum, the Department of Defense (DoD) has implemented a new policy concerning accessibility standards. In the past, USACE was required to meet the requirements of the **Uniform Federal Accessibility Standards (UFAS)** and not the **Americans with Disabilities Act Accessibility Guidelines (ADAAG)**. The new policy requires that, in addition to meeting UFAS requirements as required by 42 U.S.C. 4151-4157 and consistent with 29 U.S.C. 794, the requirements of the ADAAG that provide equal or greater accessibility then the requirements of the UFAS must also be met in those facilities subject to UFAS. The facilities excluded under UFAS (such as unaccompanied personnel housing) are still excluded under this new policy, even though the ADAAG has no such exclusions. The implementation of this new policy is considered to have *routine application* as defined by ER 1110-345-100.

3. Copies of UFAS and ADAAG criteria are available from the Architectural and Transportation Barriers Compliance Board, telephone (202) 272-5434. Copies of the Title II Technical Assistance Manual which explains differences between the two standards are available from the Department of Justice, (202) 514-0301.

4. The Directorate of Military Programs POC is Mr. D. S. Gim, CEMP-EA, (202) 272-0440, and the Directorate of Civil Works POC is Mr. Douglas J. Kamien, CECW-EP, (202) 272-8894.

FOR THE DIRECTORS OF MILITARY PROGRAMS AND CIVIL WORKS:

Encl

RICHARD C. ARMSTRONG, P.E.
Chief, Engineering Division
Directorate of Military Programs

PAUL D. BARBER, P.E.
Chief, Engineering Division
Directorate of Civil Works

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
WASHINGTON, D.C. 20314-1000

REPLY TO
ATTENTION OF:

CEMP-EA

31 MAR 1993

COMMANDER'S POLICY MEMORANDUM #7

SUBJECT: Comprehensive Interior Designs

1. The Vice Chief of Staff, Army has placed priority on providing quality living conditions for our soldiers wherever stationed. While this initial thrust to improve the quality of interior environments is directed at barracks facilities, my overall concern is that we ensure quality interior living, working, and training conditions for all of our customers.

2. In order for the Army and our other customers to recruit and retain dedicated career professionals, excellent environments are needed to provide a high quality of life. Our customers and our own personnel spend a majority of their time in interior environments. Excellence in building interiors and furnishings is critical in meeting our customer's and our own functional and operations requirements. Excellent comprehensive interior design must be given high priority in the planning, programming, design, and implementation of our construction projects.

ARTHUR E. WILLIAMS
Lieutenant General, USA
Commanding

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
Washington, DC 20314-1000

CEMP-EA

Regulation
No. 1110-345-122

15 April 1994

Engineering and Design
INTERIOR DESIGN

1. **Purpose.** This regulation establishes policy, requirements, and responsibilities to be followed in the planning, design, approval, and procurement of interior designs for military construction projects and improvement programs.

2. **Applicability.** This regulation applies to HQUSACE/OCE elements, major subordinate commands (MSC), district commands and technical centers, laboratories, and field operating activities (FOA) having military construction (MILCON) responsibilities.

3. **References.** References and additional information resources are listed at Appendix A.

4. **Projects Requiring Interior Design.** Interior design is required on all new building construction and renovation projects regardless of funding source. Interior design guidance for most facility types is provided by Design Guide (DG) 1110-3-122. Interior design guidance for medical facilities is furnished by Architectural and Engineering Instructions, Medical Design Standards. Interior design for family housing will be in accordance with Architectural and Engineering Instructions, Army Family Housing.

5. **Interior Design Services.** Two types of interior design services are offered.

a. **Building-Related Interior Design.** Building-related interior design service will be provided for all facilities. This service requires the accommodation of needed furniture and equipment within the building, and the design or selection of items normally provided as part of the building construction project in accordance with AR 415-15. These services will be provided as an integral part of the project design and shall include:

(1) Basic space planning for anticipated furniture and equipment requirements in conjunction with the functional layout of the building design and such requirements as life safety, privacy, lighting, ventilation, and accessibility.

(2) Design, selection, and coordination of surface materials and colors that are applied to or compose walls, floors, ceilings, trims, doors, windows, window treatments, built-in furniture and installed building equipment, lighting, signage and other items which are permanently attached to, or are integral to the building. Appendix B further defines interior design elements that are building-related and furniture-related.

b. **Furniture-Related Interior Design.** Furniture-related interior design should be provided for all facilities where the arrangement of furniture and furnishings is important to building functionality. Furniture-related interior design services relate to the accommodation and selection of items that will be provided or procured by the Government. This service will be provided when requested by the using activity and will normally include:

(1) Selection, and color coordination of furniture and equipment drawn from existing inventory, procured from Government supply sources (see Appendix C), or procured by competitive bid. These items normally include such things as ergonomic chairs, freestanding and mobile furniture, draperies, lamps, rugs, plant materials, planters, and free standing or wall hung art.

(2) Detailed space design, placement planning, and procurement documentation for the selected furniture, furnishings, and equipment.

This regulation supersedes ER 1110-345-122, 31 October 1989.

(3) Coordination of furniture-related items with the building design.

6. General Requirements.

a. **Building-Related Interior Design.** General requirements for building-related interior design are as follows:

(1) Preparation of the basic space layout plans for furniture and equipment, in coordination with the functional layout of the building design.

(2) Specification of the material and color applications for interior component surfaces, and preparation of color and finish schedules.

(3) Design and specification of permanent features such as signage, graphics, casework, and built-in equipment; and the preparation of appropriate schedules.

(4) Coordination of finishes, interior components, lighting, acoustical treatment, electrical, information systems, and mechanical elements.

(5) Preparation of display books or boards showing layout diagrams, special details, and material and color samples, for the purpose of obtaining approval of the design scheme and for facilitating the execution of the design intent through the construction contract or other procurement.

(6) Description of interior design intentions for enhancement of energy efficiency, safety, health, functional flexibility, maintenance, increased personnel performance, and projecting the proper image.

b. **Furniture-Related Interior Design.** General requirements for furniture-related interior design are:

(1) Coordination with all the tasks identified in paragraph 6a above, so that the furniture-related and building-related design schemes reflect a single, coordinated design theme.

(2) Selection and description of furniture and equipment from available Government sources of supply (see Appendix C). Selection will be based on factors indicated in DG 1110-3-122. When Government source items do not meet requirements, purchase specifications to include materials testing and/or rating requirements to meet minimum Federal standards, and any other data necessary for procurement on the open market will be provided.

(3) Preparation of detailed furniture arrangement and placement plans, and coordination with electrical, information systems, and mechanical elements.

(4) Preparation of procurement documents with source data, item identification, color and finish schedules, and cost estimates. Documents will reflect current source data for procurement.

(5) Preparation of display books or boards showing layout diagrams, selected furniture and equipment, material and color samples. Perspectives or sketches may also be necessary to obtaining approval of the design scheme.

(6) Technical consultation during procurement, delivery, and placement, to assure receipt of specified and selected items, and completion and coordination of the overall design scheme.

7. Design Requirements. Preparation of project interior designs will coincide with the project design process described in AR 415-15. An interior design analysis will be prepared as part of the project design analysis required by ER 1110-345-700. Interior design drawings will likewise be prepared as part of the project drawings required by ER 1110-345-710.

a. **Concept Design.** During the concept design phase, those responsible for interior design will meet with representatives of the using activity and the building design team to determine the design concept. The design concept should meet the users functional, physical, and aesthetic needs as defined below.

(1) Functional. Achieve space planning layout which considers all furniture and equipment required to support the users operation. Related design issues include accessibility, privacy, safety, and health.

(2) Physical. Assure that environmental support systems such as electrical, lighting, mechanical,

information systems, and structure meet the users physical requirements.

(3) Aesthetic. Meet the users needs for aesthetic expression. Aesthetic needs are the physical interpretations of the users sociological and psychological needs. Design issues related to these needs include the use of light, color, and texture.

b. **Final Design.** Upon approval of the concept design, those responsible for design will develop the design concept in sufficient detail to assure successful execution. Building-related interior design is the detailed design and specification of building-related elements in the contract documents. Furniture-related interior design includes the detailed design and preparation of procurement documents.

8. **Responsibilities.**

a. **Planning Phase.**

(1) The using activity and installation will:

(a) Provide design and design review funds for furniture-related design, as indicated in paragraphs 10 and 11 of this regulation.

(b) Provide funds for procurement of furniture and equipment, and indicate these funds on DD Form 1391, as required by AR 415-15.

(c) Identify unique functional requirements related to the interior design of the facility.

(d) Identify existing furniture and equipment to be reused in addition to new furniture and equipment required.

(2) USACE MSC and district commands responsible for design will assist, on a reimbursable basis, in determining preliminary design requirements, indicated in paragraphs 8a(l)(c) and (d) above, during development of the planning and programming documents.

b. **Design Phase.**

(1) The designated representative of the using activity, having final approval authority for the project will review and approve interior design in a manner that is compatible with the provisions of AR 415-15.

(2) USACE MSC and district commands will:

(a) Accomplish interior design services within the scope and methods described herein, and as stated in the programming documents and design directives.

(b) Assure that interior design services are coordinated with the architectural design and reflect the requirements of the using activity.

(c) Verify and validate the technical adequacy and professional quality of the interior design.

c. **Construction and Procurement Phases.**

(1) The using activity and installation have the following responsibilities regarding interior design:

(a) Procurement of furniture and equipment for delivery to coincide as closely as possible with beneficial occupancy of the building.

(b) Tracking of procurement to assure timely receipt of required furniture and equipment.

(c) Warehousing of furniture and equipment until it is required for placement in the building.

(d) Delivery, assembly, and placement of furniture and furnishings at the project site.

(e) Verification that furniture and equipment received meet specifications requirements.

(f) Establishment of a move in date for the user. This date should be coordinated with the USACE MSC or district command to assure adequate time to furnish the facility after it is released for beneficial occupancy.

(2) USACE MSC and district commands have the following responsibilities:

(a) Assure that appropriate information is provided to the using activity to fully describe the interior design intentions, and the maintenance and operational aspects of the building.

(b) Establish beneficial occupancy date so that procurement of furniture and equipment by the using activity or by USACE may be scheduled for a timely delivery.

(3) When USACE provides furniture-related interior design services, the using activity or installation may request the following execution services from USACE on a reimbursable basis:

(a) Technical consultation during procurement, delivery and placement of furniture and equipment.

(b) Assistance in evaluating deviations from specified furniture and equipment to avoid installation of inferior or inappropriate furniture and equipment.

(c) Services in support of the using activities responsibilities indicated in paragraphs 8c(l)(a), (b), and (e) above including supervision of assembly and placement.

9. Methods of Accomplishment. Design and design review shall be accomplished by, or in consultation with professional interior designers and architects. Qualification of designers will be based on completion of a recognized program of academic training in interior design and demonstrated interior design experience. When furniture-related services are provided, those services should be accomplished by the same designer providing the building-related services if possible. Methods for accomplishment of interior design may include in-house capability, Architect Engineer (A-E) contract, separate interior design service contract, or indefinite delivery contract for interior design services.

10. Funding. Project design funds will be used for building-related interior design services. Funds for furniture-related interior design services, including design reviews, will be provided separately by the using activity, except as indicated in paragraph 11 of this regulation.

11. Exception. Because the furniture-related interior design is critical to the operational effectiveness of living, administrative, and operational facilities, USACE encourages the use of furniture-related interior design services. USACE will provide furniture-related interior design services as an integral part of the building design without additional cost to the using activity for Category Codes 610, 310 & 171 and for DA Standard Design Packages with comprehensive interior designs. The using activity, however, must commit funds for the procurement of the furniture on the DD Form 1391 and request this additional service.

FOR THE COMMANDER:

WILLIAM D. BROWN
Colonel, Corps of Engineers
Chief of Staff

3 Appendices
APP A - References
APP B - Definitions
APP C - Government Sources of Supply

APPENDIX A

REFERENCES

1. Federal Acquisition Regulations (FAR).

a. Part 8, Required Sources of Supplies and Services.

b. Part 10, Specifications, Standards, and Other Purchase Descriptions.

2. Department of the Army.

a. AR 415-15, Military Construction, Army (MCA) Program Development.

b. AR 415-17, Cost Estimating for Military Programming.

3. U.S. Army Corps Of Engineers.

a. ER 1110-345-700, Engineering and Design, Design Analyses.

b. ER 1110-345-710, Engineering and Design, Drawings.

c. DG 1110-3-122, Design Guide for Interiors.

d. Architectural and Engineering Instructions (AEI), Design Criteria issued by HQUSACE (CEMP-EA). Additional copies are available from HQUSACE (CEMP-EA), 20 Massachusetts Ave., N.W., Washington, DC 20314-1000.

e. Architectural and Engineering Instructions (AEI), Medical Design Standards, issued by HQUSACE (CEMP-EM). Additional copies are available from HQUSACE (CEMP-EM), 20 Massachusetts Ave., N.W., Washington, DC 20314-1000.

APPENDIX B

DEFINITIONS

1. Building-related Interior Design. Design in support of installed building equipment and personal property fixed are an integral part of building-related interior design.

a. Installed Building Equipment. Construction elements of building-related interior design are defined as installed building equipment by Appendix H, Equipment Installation, of AR 415-15. They consist of items that are affixed or built into the facility and become an integral part of the facility. Installed building equipment is MILCON funded and is provided as part of the construction contract. Examples of installed building equipment associated with building-related interior design are listed in paragraph H-1 of AR 415-15.

b. Personal Property Fixed. Personal property fixed is defined by AR 415-15, Appendix H as capital equipment and other equipment of a movable nature that has been fixed in place or attached to real property, but may be severed or removed from buildings without destroying the usefulness of the facilities. Personal property fixed is normally funded as Other Procurement, Army (OPA), however, the utility support for this equipment is MILCON funded. Equipment installation may be funded by either fund source, and installation responsibilities must be defined in the contract documents.

c. Pre-wired Work Stations. Pre-wired work stations are a special area within personal property fixed.

(1) Physical Definition. The physical characteristics of a pre-wired work station should include posts, panels, partitions, wiring for electrical and information systems, task lighting, and partition hung components to support individual or group work efforts. Both panel to panel and post and panel systems are acceptable. Additional system components are ambient lighting and partition supported files. Pre-wired work stations do not include movable furniture and furnishings such as chairs, stand alone file cabinets, coat hooks, file trays, or similar accoutrements.

(2) Functional Definition. A pre-wired work station should, at a minimum, provide for the following functions:

(a) An acoustically treated enclosure defining the limits of an individual or a shared use work station.

(b) Adequate work surfaces to accommodate the individual's equipment, writing surface, and work layout surface.

(c) Storage space for individual files and supplies.

(d) Task lighting and electrical and information systems outlets to support the individual's equipment.

(3) Planning and Design. When pre-wired work stations are planned as an integral part of new construction or MILCON funded renovation they may be MILCON funded. To obtain MILCON funded pre-wired work stations, they must be justified and itemized on programming documents. Indicate number of work stations, unit cost and total cost as a line item under primary facility. Pre-wired work stations must also be itemized in Government estimates, and contractor pricing.

(4) Construction. MILCON funded pre-wired work stations will be provided by the construction contractor based on project drawings and specifications. When the contractor provides pre-wired work stations, the provisions of the FAR that apply to construction are applicable.

2. Furniture-related Interior Design. Elements associated with furniture-related interior design are defined as personal property moveable by Appendix H of AR 415-15. Elements associated with furniture-

related interior design consist of capital equipment and other equipment of a movable nature. Personal property is generally mission specific and can be separated from the building without destroying its use for another function. Personal property should be financed from Operations and Maintenance, Army (OMA) or Other Procurement, Army (OPA) funds, depending on the investment threshold.

a. Physical Definition. Items associated with furniture-related interior design include, but are not limited to, the following items:

(1) Furniture. Including Desks, Tables, Chairs, Sofas, Ergonomic Seating, Free Standing and Mobile Storage, Free Standing Acoustical Screens, and Modular and Automated Data Processing (ADP) Furniture.

(2) Furnishings. Including Art Work, Curtains, Draperies, and Rugs.

(3) Mission Equipment. Including Computers, ADP, Medical and Dental, Organs and Pianos, Simulators and Training Aids, Printing,
Photographic, and Shop Equipment.

b. Planning and Design. Users should provide OMA or OPA funding for furniture, furnishings, equipment and for the associated installation costs. When furniture-related interior design is requested as part of a MILCON project, furniture and furnishings should be itemized on DD Form 1391 and Government estimates. DD Form 1391 should indicate furniture requirements in Section 13, and furniture cost itemized in Section 2G.

c. Procurement. Procurement of furniture and furnishings is considered Government procurement, and the provisions of FAR Parts 8 and 10 apply. See Appendix C for Government Sources of Supply. When systems furniture is provided as part of an OMA funded renovation project or a reconfiguration, it is to be procured as furniture.

PROCUREMENT PROCEDURES FOR FURNITURE

A. THE MISSION-COMPREHENSIVE INTERIOR DESIGN PACKAGE

B. PRIORITIES FOR USE OF GOVERNMENT SUPPLY SOURCES IN ACCORDANCE WITH FEDERAL ACQUISITION REGULATION 8.001.

- AGENCY INVENTORIES
- EXCESS FROM OTHER AGENCIES
- FEDERAL PRISON INDUSTRIES
- COMMITTEE FOR PURCHASE FROM THE BLIND AND OTHER SEVERELY HANDICAPPED
- GSA STOCK PROGRAMS (DEFENSE LOGISTICS AGENCY, DEPARTMENT OF VETERANS AFFAIRS, MILITARY INVENTORY CONTROL POINTS.
- MANDATORY FEDERAL SUPPLY SCHEDULES
- OPTIONAL USE OF FEDERAL SUPPLY SCHEDULES
- COMMERCIAL SOURCES

C. PROCURING FROM THE FEDERAL PRISON INDUSTRIES, REQUESTS FOR WAIVER.

D. GSA STOCK PROGRAMS

E. PROCUREMENT FROM FEDERAL SUPPLY SCHEDULES

- COMPETITION REQUIREMENTS
- MAXIMUM ORDER LIMITATIONS

F. PROCUREMENT FROM OPEN MARKET SOURCES

- UNDER $25,000, REQUEST FOR QUOTATIONS
- OVER $25,000, INVITATION FOR BID (IFB'S)

G. SPECIFICATIONS

H. COMMUNICATION

APPENDIX C

GOVERNMENT SOURCES OF SUPPLY

1. Priority of Sources. FAR, Part 8.001, indicates the order of preference for acquisition of supplies and services for the Federal Government.

2. Federal Prison Industries (FPI). FPI is a mandatory source of supply and should be considered in accordance with the requirements of FAR, Part 8.6. A furniture catalog and other product information are available from UNICOR, Federal Prisons Industries, Inc., 320 Ist Street, N.W., Washington, DC 20534.

3. General Services Administration (GSA). The use of Federal Supply Schedules is optional for Department of Defense agencies. GSA schedules do provide a wide selection of furniture and furnishing products. GSA Federal Supply Service source information is available through the Centralized Mailing Lists Services (CMLS), P.O. Box 6477, Fort Worth, TX 76115.

WAIVER REQUEST PROCEDURE

In accordance with Title 18, U.S.C., Sec. 4124(a) and Federal Acquisition Regulations subpart 8.6, Federal Prison Industries, Inc. (UNICOR) has a mandatory preference for supplies listed in its "Schedule of Products." When an ordering office wishes to purchase supplies listed in the "Schedule" from sources other than UNICOR, it will submit a request for waiver to the Customer Service Manager, Federal Prison Industries, Inc. (UNICOR). The request will be directed as follows:

Federal Prison Industries, Inc.
320 First St., N. W. (ACACIA)
Washington, DC 20534
Attn: Customer Service Manager

Telephone: 1-800-827-3168
Facsimile: 202-628-1597

Federal Prison Industries, Inc. (UNICOR) will consider requests for waivers based on documented disparities in price, inability to meet reasonable delivery dates, and disqualifying variations in function and "match." Requests will be considered in connection with the standards set out in its Waiver Policy. UNICOR has attempted to set out with the greatest degree of objectivity the standards that it applies in making decisions on waivers. While there must inevitably be some discretion exercised in these decisions, UNICOR will always give careful consideration to a customer's request. It is guided in all its decisions by its commitment to "Total Customer Satisfaction."

A. Requests shall contain the following information:

1. As complete a description as possible of the required items: e.g., National Stock Number, descriptive literature such as cuts, illustrations, drawings, and brochures that explain the characteristics and/or the construction. When applicable, e.g., items built to a military or Federal specification, a complete technical data package should be submitted.
2. Quantity required, price of preferred item and required delivery date.
3. In situations where the waiver request is based on functional differences, a comparison of the functional differences between the requested item and the "schedule" item should be provided identifying as a minimum:

   (a) inadequacies of the "schedule" item to perform the required functions; and
   (b) economic, or other advantages of the item requested.
4. Estimated annual usage or future need for similar items or a statement that the requirement is nonrecurring and no future need is anticipated. Indicate if this or similar items have previously been purchased from UNICOR.

B. UNICOR delivery schedules are consistent with delivery schedules for comparable items appearing on General Services Administration Federal Supply Schedules (FSS). Where schedules for comparable items do not exist, deliveries are consistent with good commercial practices. In the event that delivery times shorter than normally available from the FSS or commercial sources are required, certification, in writing from the contracting officer must be provided stating the reason for the shorter delivery requirement.

C. All factors are considered when a determination is made. This includes customer needs, current factory loading and future requirements. Each request is evaluated on its own merits. UNICOR policy does not permit blanket waivers but evaluates each request on a case-by-case basis considering, primarily, the needs of the customer.

D. Appeals to waiver denials can be made by forwarding reasons for the appeal to the Customer Service Manager by letter. Please note in your transmission that this is an appeal and reference the original waiver identification number. Appeals should be transmitted no later than 30 days after receipt of the original decision.

E. Every attempt will be made to respond to waiver requests and appeals within five (5) working days of receipt.

F. Ordering offices should not initiate action to acquire similar items from sources other than UNICOR until a request for waiver is approved.

To check the status of your request or to inquire about prices, delivery, order status or other concerns please call the UNICOR Customer Service Hotline:

1-800-827-3168

8.403 Types of Federal Supply Schedules.

8.403-1 Single-award schedules.

Single-award schedules cover contracts made with one supplier at a stated price for delivery to a geographic area as defined in the schedule. Most schedules contain all information necessary for placing orders. Some schedules specify that contractor catalogs must be used for additional ordering information to aid in the selection of fabrics, colors, and similar variables.

8.403-2 Multiple-award schedules.

Multiple-award schedules cover contracts made with more than one supplier for comparable supplies and services. Contracts are awarded to suppliers of the same generic types of items at varying prices for delivery within the same geographic area. Contractor catalogs and pricelists must be used with the schedules to prepare delivery orders. The catalogs and pricelists contain information such as item descriptions, prices and discounts, order limitations, and delivery.

8.403-3 New Item Introductory Schedule.

The New Item Introductory Schedule (NIIS) provides the means to introduce new or improved products into the Federal Supply System. The schedule lists brand names of products available from various suppliers. With the exception of GSA, the only mandatory user of this schedule, Federal agencies and agencies authorized by law or agreement may use the NIIS on an optional basis. Ordering offices must use contractor catalogs and pricelists with the schedule to prepare delivery orders.

8.403-4 International Federal Supply Schedule.

(a) The International Federal Supply Schedule (IFSS) provides sources of supply (supplies and services) at reasonable prices to U.S. Government activities located overseas. The use of the schedule is mandatory only on GSA.

(b) The schedule is divided into two sections. Section A includes those items which were awarded under sealed bid procedures, while Section B covers items that were awarded under negotiated procedures.

(c) Ordering offices need to review the information in the schedule and any applicable contractor's catalogs/price lists to ensure the proper placement of orders. Orders are placed directly with the contractors.

(d) Ordering offices shall forward copies of any orders (at the time the orders are issued) to the contracting office designated in the IFSS.

8.404 Using schedules.

(a) The planning, solicitation, and award phases of Federal Supply Schedules comply with FAR requirements. Consequently, contracting officers need not seek further competition, synopsize the solicitation or award, determine fair and reasonable pricing, or consider small business-small purchase set-aside procedures when placing an order under a Federal Supply Schedule.

(b) Before soliciting commercial sources, executive agencies shall determine if the required supplies or services, or similar supplies or services fulfilling the same purpose, are available from schedules (see FPMR 101-26.4). If so, the ordering office shall proceed in accordance with the procedure of 8.404-1 or 8.404-2, as appropriate.

(c) In the case of mandatory schedules, ordering offices shall not (1) solicit bids, proposals, quotations, or otherwise test the market solely for the purpose of seeking alternative sources to Federal Supply Schedules; or (2) request formal or informal quotations from Federal Supply Schedule contractors for the purpose of price comparisons.

8.404-1 Mandatory use. See Deviation per AL-91-7

Schedules identify executive agencies required to use them as mandatory sources of supply. The single-award schedule shall be used as a primary source and the multiple-award schedule as a secondary source. The following are exceptions to the mandatory-use requirement:

(a) *Urgent requirements.* When an ordering office requires supplies or services with a shorter delivery time than specified in the schedules, and time permits, the ordering office shall request the contractor by letter, telegram, mailgram, or telephone conversation (confirmed in writing) to state the best delivery time that can be met under the circumstances and subject to all other terms and conditions of the schedule contract. The contractor shall be instructed to reply to the inquiry within not more than 3 workdays after receipt, by the same or a faster communications medium than the one by which the inquiry was received. If the contractor offers accelerated delivery acceptable to the ordering office, orders shall obligate the contractor to make the shorter delivery under all other terms and conditions of the contract. When the contractor fails to reply, or the best delivery time does not meet the ordering office's requirements, use of the schedule is not mandatory.

(b) *Small requirements.* Dollar or quantity minimums are established for most schedules, below which ordering offices are not obligated to order and contractors are not obligated to accept orders. Ordering offices may submit orders below established minimums, subject to the contractor's acceptance. Once an order is accepted, the contractor is obligated to perform according to all the terms and conditions of the contract. Some schedules require the contractor to accept orders below the dollar or quantity minimum, but authorize the contractor to include a service charge up to a certain dollar amount. In these cases, the

8.405 Ordering office responsibilities.

Ordering offices shall place orders directly with contractors and shall perform contract administration on individual orders. Ordering offices should deal directly with contractors concerning contract performance (see 41 CFR 101-26.403-1).

8.405-1 Ordering from multiple-award schedules.

When ordering from multiple award schedules, ordering offices shall use the procedures set forth below. When these procedures are followed, orders placed against schedules will result in the lowest overall cost alternative to meet the needs of the Government.

(a) Orders should be placed with the schedule contractor offering the lowest delivered price available. The ordering office shall review the schedule price lists that are reasonably available at the ordering office. Where the ordering office has available fewer than three price lists from current schedule contractors that offer the required items, the ordering activity shall obtain additional price lists from schedule contractors listed in the GSA schedule for the required items. The ordering office shall fully justify in the contract file orders for a line item exceeding the price reasonableness verification threshold at 13.106 placed at other than the lowest price identified in its review. Justification for ordering a higher priced item may be based on such considerations as—

(1) Delivery time in terms of actual need that cannot be met by a contractor offering a lower price;

(2) Specific or unusual requirements such as differences in performance characteristics;

(3) Compatibility with existing equipment or systems;

(4) Trade-in considerations that favor a higher priced item and produce the lowest net cost; and

(5) Special features of one item not provided by comparable items that are required in effective program performance.

(b) When two or more items at the same delivered price will meet an ordering office's needs, the ordering office shall give preference to the items of small business and/or labor surplus area concerns by following the order of priority in 14.407-6 for equal low bids.

(c) When a schedule lists both foreign and domestic items that will meet the ordering office's needs, the ordering office shall apply the procedures of Part 25, Foreign Acquisition.

(d) If an item available from a multiple-award schedule is ordered from the schedule contractor at a price lower than the schedule price, the ordering office shall notify the schedule contracting office within 10 days.

8.405-2 Order placement.

Ordering offices may use Optional Form 347, or an agency-prescribed form, to order items from schedules and shall place orders directly with the contractor within the limitations specified in each schedule. Orders shall include, at a minimum, the following information in addition to any information required by the schedule:

(a) Complete shipping and billing addresses.

(b) Contract number and date.

(c) Agency order number.

(d) F.o.b. delivery point; i.e., origin or destination.

(e) Discount terms.

(f) Delivery time.

(g) Special item number or national stock number.

(h) Brief, complete description of each item (when ordering by model number, features and options such as color, finish, and electrical characteristics, if available, must be specified).

(i) Quantity and any variation in quantity.

(j) Number of units.

(k) Unit price.

(l) Total price of order.

(m) Points of inspection and acceptance.

(n) Other pertinent data; e.g., delivery instructions or receiving hours and size-of-truck limitation.

(o) Marking requirements.

(p) Level of preservation, packaging, and packing.

8.405-3 Inspection and acceptance.

(a) Consignees shall inspect supplies at destination except when—

(1) The schedule provides for the schedule contracting agency to perform source inspection (in this case, the schedule will indicate that mandatory source inspection is required); or

(2) A schedule item is covered by a product description, and the ordering office determines that the schedule contracting agency's inspection assistance is needed (inspection assistance may be based on the ordering volume, the complexity of items, or the past performance of the supplier).

(b) When the schedule contracting agency performs the inspection, as specified in the schedule, the ordering office will provide two copies of the order specifying source inspection to the schedule contracting agency. The schedule contracting agency will notify the ordering office of acceptance or rejection of the supplies.

(c) Material inspected at source by the schedule contracting agency, and determined to conform with the product description of the schedule, shall not be reinspected for the same purpose. The consignee shall limit inspection to quantity and condition on receipt.

(d) Unless otherwise provided in the schedule, acceptance shall be conclusive except as regards latent defects, fraud, or such gross mistakes as amount to fraud.

8.405-4 Delinquent performance.

When the contractor fails to perform on the order, the